CITY OF SPRINGFIELD POLICE PENSION FUND

ACTUARIAL VALUATION AS OF FEBRUARY 28, 2014

GOLDSTEIN & ASSOCIATES

Actuaries and Consultants

October 21, 2014

29 SOUTH LaSALLE STREET **SUITE 735** CHICAGO, ILLINOIS 60603 PHONE (312) 726-5877 FAX (312) 726-4323

Mr. Dallas Whitford Office of Management and Budget City of Springfield Room 210 - Municipal Building Springfield, Illinois 62701

Re: Actuarial Valuation of the Springfield Police Pension Fund

Dear Mr. Whitford:

I am pleased to submit our actuarial report based on an actuarial valuation of the Springfield Police Pension Fund as of February 28, 2014.

The report consists of 10 Sections and 2 Appendices as follows:

		<u>Page No.</u>
Section A	- Purpose and Summary	1
Section B	- Data Used For Valuation	1
Section C	- Fund Provisions	3
Section D	- Actuarial Assumptions and Cost Method	4
Section E	- Actuarial Liability	5
Section F	- Reconciliation of Change in Unfunded Liability	6
Section G	- Normal Cost	7
Section H	- Annual Actuarial Requirements for Year	
	Beginning March 1, 2015	8
Section I	- Annual Required Contribution for GASB Statement No. 25	12
Section J	- Certification	13
Appendix 1	- Summary of Principal Provisions	14
	- Glossary of Terms	16

I would be pleased to discuss any aspects of this report with you and other interested persons.

Respectfully submitted,

Sandor Goldstein, F.S.A. Consulting Actuary

A. PURPOSE AND SUMMARY

We have carried out an actuarial valuation of the Springfield Police Pension Fund as of February 28, 2014. The purpose of the valuation was to determine the financial position and the annual actuarial requirements of the pension fund. This report is intended to present the results of the valuation. The results of the valuation are summarized below:

2. 3.	Total Actuarial Liability Actuarial Value of Assets Unfunded Actuarial Liability Funded Ratio	\$	240,294,647 133,356,284 106,938,363 55.5%
5.	Total Normal Cost For Year	ø	5 400 800
6.	Beginning March 1, 2015 Total Normal Cost as a Percent of Payroll	\$	5,492,890 29.35%
7.	Annual Actuarial Requirements For Year		
	Beginning March 1, 2015	\$	9,050,592
	Annual Required Contribution For GASB Statement No. 25 For Year Beginning March 1, 2015 Employee's Share of Annual Required Contribution	\$	12,317,734
У.	Employer's Share of Annual Required Contribution For GASB Statement No. 25	\$	10,043,257

B. DATA USED FOR THE VALUATION

<u>Participation Data.</u> The participant data required to carry out the valuation was supplied by the pension fund. The participant data for the pension fund as of February 28, 2014, on which the valuation is based, is summarized in Exhibit 1. It can be seen that there were 247 active members, 15 inactive members and 228 members receiving benefits. The total active payroll as of February 28, 2014 was \$18,716,719.

Summary of Participant Data

1.	Number of Members (a) Active Members	
	(i) Vested	187
	(ii) Non-vested	60
	(b) Inactive Members	15
	(c) Members Receiving	
	(i) Retirement Pensions	185
	(ii) Survivor Pensions	34
	(iii) Disability Pensions	<u>9</u>
	(d) Total	<u>490</u>
2.	Annual Salaries (a) Total Salary (b) Average Salary	\$ 18,716,719 75,776
	(b) Triologo Sulary	75,770
3.	Total Accumulated Contributions of Active Members	\$ 17,934,959
4.	Annual Benefit Payments Currently Being Made	
. •	 (a) Retirement Pensions (b) Survivor Pensions (c) Disability Pensions 	\$ 10,047,138 797,122 306,451

Assets. In November of 1994, the Governmental Accounting Standards Board (GASB) issued GASB Statement No. 25, which establishes standards of financial reporting for governmental pension plans. Under GASB Statement No. 25, the actuarial value of assets to be used for determining a plan's funded status and annual required contribution needs to be market related.

However, GASB has indicated that current market values should not be used if those values would result in unnecessary fluctuation in the funded status and the annual required contribution. Thus, in determining the actuarial value of assets, smoothing changes in the market value of assets over a period of three to five years is considered appropriate.

The asset values for the valuation were based on the asset information contained in the financial statements of the pension fund as of February 28, 2014. The actuarial value of assets was determined by smoothing unexpected gains or losses from investment return over a five-year period. The resulting actuarial value of assets is \$133,356,284. The development of this value is outlined in Exhibit 2.

Actuarial Value of Assets

A. Development of Investment Gain/(Loss) for the Year Ended February 28, 2014

2. 3. 4. 5.	Actuarial Value of Assets as of February 28, 2013 Contributions and Miscellaneous Income Disbursements Expected Investment Income Actual Investment Income (Loss) Investment Gain/(Loss) (5 – 4)	\$ 122,443,001 10,370,762 10,996,803 9,160,173 15,000,046 5,839,873
<u>B.</u>	Development of Actuarial Value of Assets as of February 28, 2014	
	Expected Value of Assets (1 +2 – 3 + 4) Investment Gain/(Loss) for Fiscal Year 2010	\$ 130,977,133
0.	Recognized in Current Year	1,511,033
9.	Investment Gain/(Loss) for Fiscal Year 2011	, ,
4.0	Recognized in Current Year	629,619
10.	Investment Gain/(Loss) for Fiscal Year 2012 Recognized in Current Year	(976,737)
11.	Investment Gain/(Loss) for Fiscal Year 2013	,
	Recognized in Current Year	47,261
12.	Investment Gain/(Loss) for Fiscal Year 2014	

C. **FUND PROVISIONS**

Recognized in Current Year (20% of 6)

13. Actuarial Value of Assets (7 + 8 + 9 + 10 + 11 + 12)

Our valuation was based on the provisions of the fund in effect as of February 28, 2014 as provided in Article 3 of the Illinois Pension Code. A summary of the principal provisions of the fund is provided in Appendix 1.

1,167,975

133,356,284

D. ACTUARIAL ASSUMPTIONS AND COST METHOD

The actuarial assumptions used for the February 28, 2014 actuarial valuation are the same as those used for the February 28, 2013 actuarial valuation. The actuarial assumptions used for the February 28, 2014 actuarial valuation are summarized below:

Mortality Rates. The RP-2000 Mortality Table with Blue Collar Adjustment for Males and Females, projected to 2014, was used for active employees and pensioners. The RP-2000 Disabled Mortality Table, projected to 2014, was used for disabled police officers.

<u>Termination Rates.</u> Termination rates are used to estimate the probability that an employee will terminate employment at a given age. The following is a sample of the termination rates that were used:

Rate of
<u>Termination</u>
07.50
.0750
.0500
.0300
.0200
.0200
.0350

<u>Disability Rates.</u> Disability rates are used to estimate the probability that an employee will become disabled at a given age. The following is a sample of the disability rates that were used:

Age	Rate of Disability
25	.0005
30	.0022
35	.0026
40	.0040
45	.0065
50	.0095
55	.0130
60	.0165
65 and over	.0200

<u>Retirement Rates.</u> Retirement rates are used to estimate the probability that an employee will retire at each age at which a retirement benefit is available. The following is a sample of the retirement rates that were used for the valuation:

	Rate of
<u>Age</u>	Retirement
50	.2000
55	.2500
60	.3300
65	.5000
70	1.0000

<u>Salary Progression.</u> 5.0% per year, compounded annually. This can be considered to consist of a 4.0% inflation assumption and 1.0% merit increase assumption.

<u>Investment Return Rate.</u> 7.5% per year, compounded annually.

Marital Status. 80% of participants were assumed to be married.

Spouse's Age. The age of the spouse was assumed to be 3 years younger than the age of the employee.

<u>Actuarial Value of Assets.</u> The actuarial value of assets was determined by smoothing unexpected gains or losses from investment return over a five-year period.

Actuarial Cost Method. Based on the requirements of Public Act 96-1495, the actuarial cost method used for the February 28, 2014 actuarial valuation is the projected unit actuarial cost method. This is the same cost method that was used for the February 28, 2013 actuarial valuation.

E. ACTUARIAL LIABILITY

The actuarial liability as determined under the valuation for the various classes of members is summarized in Exhibit 3. The total actuarial liability is then compared with the actuarial value of assets in order to arrive at the unfunded actuarial liability. (The actuarial terms used in this report are defined in Appendix 2.)

As of February 28, 2014 the total actuarial liability is \$240,294,647, the actuarial value of assets is \$133,356,284, and the unfunded actuarial liability is \$106,938,363. The ratio of the actuarial value of assets to the actuarial liability, or funded ratio, is 55.5%.

Actuarial Liability as of February 28, 2014

1. Actuarial Liability For Members Receiving Benefits

	(a) Retirement Pensions(b) Survivor Pensions(c) Disability Pensions(d) Total	\$ 145,129,370 6,491,203 4,192,501 \$ 155,813,074
2.	Actuarial Liability For Inactive Members	1,694,557
3.	Actuarial Liability For Active Members	<u>82,787,016</u>
4.	Total Actuarial Liability	<u>\$ 240,294,647</u>
5.	Actuarial Value of Assets	133,356,284
6.	Unfunded Actuarial Liability	<u>\$ 106,938,363</u>
7.	Funded Ratio	55.5%

F. RECONCILIATION OF CHANGE IN UNFUNDED LIABILTY

The net actuarial experience during the period March 1, 2013 to February 28, 2014 resulted in an increase in the fund's unfunded liability of \$2,501,620. This increase in unfunded liability is a result of several kinds of gains and losses, which have an impact on the unfunded liability. The financial effect of the most significant gains and losses is illustrated in Exhibit 4.

The contribution required to keep the unfunded liability from increasing was \$11,210,806, whereas the actual employer contribution was \$8,519,086, resulting in an increase in the unfunded liability of \$2,691,720.

The net rate of investment return earned by the fund during the year, based on the actuarial value of assets, was approximately 9.5%, in comparison to the assumed rate of 7.5%. This resulted in a decrease in the unfunded liability of \$2,379,151. Salaries increased at an average rate of approximately 3.6% in comparison to the assumed rate of 5.0%. Salary increases lower than assumed resulted in a decrease in the unfunded liability of \$1,182,947.

The various other aspects of the fund's experience resulted in an increase in the unfunded liability of \$3,371,998. The aggregate financial experience of the fund resulted in an increase in the unfunded liability of \$2,501,620.

Exhibit 4

Reconciliation of Change in Unfunded Liability Over the Period March 1, 2013 to February 28, 2014

1.	Unfunded Liability as of March 1, 2013	\$	104,436,743
2.	Increase in Unfunded Liability Due to Employer Contribution Less Than Normal Cost Plus Interest on the Unfunded Liability		2,691,720
3.	(Decrease) in Unfunded Liability Due to Investment Return Higher Than Assumed		(2,379,151)
4.	(Decrease) in Unfunded Liability Due to Salary Increases Lower Than Assumed		(1,182,947)
5.	Increase in Unfunded Liability Due to Other Sources		3,371,998
6.	Net Increase in Unfunded Liability for the Year $(2+3+4+5)$	<u>\$</u>	2,501,620
7.	Unfunded Liability as of February 28, 2014 (1 + 6)	<u>\$</u>	106,938,363

G. NORMAL COST

The normal cost for the year beginning March 1, 2014 is developed in Exhibit 5. For the year beginning March 1, 2014, the total normal cost is estimated to be \$5,492,890, which can be expressed as 29.35% of payroll.

Exhibit 5

Normal Cost For Year Beginning March 1, 2014

		Dollar Amount	Percent of Payroll
1.	Basic Retirement Pension	\$ 3,507,595	18.74%
2.	Annual Increases in Pension	691,006	3.69
3.	Survivor's Pension	497,898	2.66
4.	Disability Pension	571,422	3.06
5.	Refunds	39,283	.21
6.	Administrative Expenses	<u> 185,686</u>	99
7.	Total Normal Cost	<u>\$ 5,367,874</u>	<u>29.35%</u>

Note. The above figures are based on a total active payroll of \$18,716,719 as of February 28, 2014.

H. <u>ANNUAL ACTUARIAL REQUIREMENTS FOR YEAR BEGINNING MARCH 1,</u> 2015

According to Section 5/3-125 of the Illinois Pension Code, the city council shall annually levy a tax which, when added to employee contributions, will produce an amount sufficient to meet the annual actuarial requirements of the pension fund.

Senate Bill 3538, which was signed into law as Public Act 96-1495 and became effective on January 1, 2011, made significant changes in the determination of the annual actuarial requirements of the pension fund. Under Public Act 96-1495, the annual requirements of the pension fund are to be determined as a level percent of payroll sufficient to bring the total assets of the pension fund up to 90% of the total actuarial liabilities determined under the projected unit credit actuarial cost method by the year 2040.

It is our understanding that the results of the current valuation will be used to determine the amount of tax to be levied by the City for contribution to the pension fund in the year beginning March 1, 2015. Based on the February 28, 2014 actuarial valuation and the funding provisions of Public Act 96-1495, we have therefore performed funding projections through 2040 in order to determine the required employer contribution for fiscal year 2016 which begins March 1, 2015. We have also estimated the required employer contributions for fiscal years 2017 through 2021. These required employer contributions are as follows:

Fiscal Year	Projected Payroll	Required Employer Contribution as a Percent of Payroll	Required Employer Contribution as a Dollar Amount			
		•	,			
2016	\$ 19,318,641	46.85%	\$ 9,050,592			
2017	19,880,293	46.85	9,313,720			
2018	20,408,894	46.85	9,561,365			
2019	20,907,665	46.85	9,795,034			
2020	21,424,607	46.85	10,037,216			
2021	21,951,880	46.85	10,284,238			

Method of Calculation

The employer contribution requirements shown above have been determined using the actuarial assumptions, membership data and benefit provisions that were used for the regular actuarial valuation. However, in order to determine the contribution requirements, certain calculations needed to be made that are not normally required in a regular actuarial valuation. Benefit payout requirements, normal costs, and payroll were estimated over the 26-year period from 2015 through 2040 by projecting the membership of the system over the 26-year period, taking into account the impact of new entrants to the fund over the 26-year period.

In order to make the required projections, assumptions needed to be made regarding the age and salary distribution of new entrants as well as the size of the active membership of the fund. The assumptions regarding the profile of new entrants to the fund was based on the recent experience of the fund with regard to new entrants. The size of the active membership of the fund was assumed to remain constant over the 26-year projection period.

The year by year results of our funding projections are shown in Exhibit 6 below:

Springfield Police Pension Fund

Funding Projections to End of 2040 - 7.50% Interest Rate Based on Reduced Benefits for Employees Hired after January 1, 2011 and Changes in the Funding Provisions Provided Under Public Act 96-1495

	Funded <u>Ratio</u>	55.5%	96.9%	67.9%	59.3%	89.09	61.5%	62.4%	63.3%	64.1%	64.9%	65.8%	%9.99	67.5%	68.4%
	Unfunded <u>Liability</u>	\$106,938,363	108,172,112	110,125,750	111,014,770	111,753,943	113,472,493	115,062,333	116,460,691	117,583,979	118,440,796	118,989,943	119,218,897	119,067,210	118,438,333
	Assets	\$133,356,284	142,704,177	151,475,558	161,543,090	171,871,586	181,271,142	190,846,627	200,478,343	210,026,020	219,454,273	228,760,144	237,983,756	247,111,576	256,020,332
	Actuarial <u>Liability</u>	\$240,294,647	\$250,876,289	\$261,601,308	\$272,557,860	\$283,625,529	\$294,743,635	\$305,908,960	\$316,939,034	\$327,609,999	\$337,895,069	\$347,750,087	\$357,202,653	\$366,178,786	\$374,458,665
Employers' Contribution	as Percent of Payroll		48.67%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%
	Employers' Contribution		\$9,108,968	9,050,592	9,313,720	9,561,365	9,795,034	10,037,216	10,284,238	10,518,866	10,726,921	10,944,395	11,169,444	11,419,593	11,682,352
	Total <u>Payout</u>		\$12,431,690	13,057,938	13,702,471	14,432,235	15,229,977	16,030,936	16,965,001	18,022,165	19,073,629	20,129,227	21,144,734	22,196,057	23,372,652
	Annual <u>Payroll</u>		\$18,716,719	19,318,641	19,880,293	20,408,894	20,907,665	21,424,607	21,951,880	22,452,697	22,896,794	23,360,996	23,841,366	24,375,314	24,936,176
	Fiscal <u>Year</u>	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027

Exhibit 6

Springfield Police Pension Fund

Funding Projections to End of 2040 - 7.50% Interest Rate Based on Reduced Benefits for Employees Hired after January 1, 2011 and Changes in the Funding Provisions Provided Under Public Act 96-1495

•	Funded <u>Ratio</u>	%8:69	70.3%	71.3%	72.4%	73.7%	75.0%	76.5%	78.2%	80.1%	82.1%	84.5%	87.1%	%0.06
	Unfunded Liability	117,331,208	115,668,470	113,439,245	110,580,751	106,989,353	102,608,693	97,366,780	91,187,141	83,980,468	75,637,561	66,081,177	55,193,906	42,854,812
	Assets	264,783,993	273,430,325	282,064,564	290,762,409	299,512,065	308,429,970	317,565,599	327,098,972	337,173,644	347,873,270	359,436,212	371,970,817	385,693,372
	Actuarial Liability	\$382,115,201	\$389,098,795	\$395,503,809	\$401,343,160	\$406,501,418	\$411,038,663	\$414,932,379	\$418,286,113	\$421,154,112	\$423,510,831	\$425,517,389	\$427,164,723	\$428,548,184
Employers' Contribution	as Percent of Pavroli	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%	46.85%
	Employers' Contribution	11,940,156	12,231,323	12,538,361	12,891,425	13,280,789	13,685,421	14,120,570	14,588,835	15,098,287	15,647,291	16,220,764	16,836,045	17,483,559
	Total Pavout	24,453,608	25,535,384	26,523,248	27,490,092	28,513,645	29,443,412	30,370,842	31,176,369	31,917,727	32,661,016	33,245,671	33,835,418	34,321,327
	Annual	25,486,464	26,107,964	26,763,343	27,516,964	28,348,068	29,211,762	30,140,594	31,140,114	32,227,547	33,399,405	34,623,494	35,936,821	37,318,950
	Fiscal Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

I. ANNUAL REQUIRED CONTRIBUTION FOR GASB STATEMENT NO. 25

GASB Statement No. 25 requires the disclosure of the annual required contribution (ARC), calculated in accordance with certain parameters. Based on the results of the February 28, 2014 actuarial valuation, we have therefore calculated the annual required contribution for the fiscal year beginning March 1, 2015. In accordance with the parameters prescribed in GASB Statement No. 25, in calculating the annual required contribution, we have used smoothed market value for the actuarial value of assets, and have amortized the unfunded liability over 25 years from March 1, 2015 as a level percent of payroll. As can be seen from Exhibit 7 below, the annual required contribution for the fiscal year beginning March 1, 2015 has been determined to be \$12,311,758. Employee contributions for the year are estimated to be \$1,914,477. Therefore, the employer's share of the annual required contribution is determined to be \$10,397,281.

Exhibit 7

Annual Required Contribution for Year Beginning March 1, 2015

		Dollar Amount	Percent of Payroll
1.	Total Normal Cost	\$ 5,669,539	29.35%
2.	Annual Amount Required to Amortize		
	Unfunded Liability Over 25 Years		
	Subsequent to March 1, 2015		
	as a Level Percent of Payroll	6,648,195	<u>34.41</u>
3.	Annual Required Contribution for		
	Year Beginning March 1, 2015 (1 + 2)	\$12,317,734	63.76%
4.	Employee Contributions for Year	<u>1,914,477</u>	<u>9.91</u>
5.	Employer's Share of Annual Required		
	Contribution $(3-4)$	<u>\$10,403,257</u>	<u>53.85%</u>

Note. The above figures have been based on a projected payroll of \$19,318,641.

J. <u>CERTIFICATION</u>

This actuarial report has been prepared in accordance with generally accepted actuarial principles and practices and to the best of our knowledge, fairly represents the financial condition of the Springfield Police Pension Fund as of February 28, 2014.

Respectfully submitted,

Sandor Goldstein, F.S.A Consulting Actuary

Appendix 1

Summary of Principal Provisions

Pension Benefits

A police officer age 50 or over who has at least 20 years of creditable service and is no longer in service as a police officer is entitled to a pension of 1/2 of the salary attached to the rank held on the last day of service. The pension is increased by 2.5% of such salary for each additional year over 20 years of service through 30 years of service.

Separation Benefits

A police officer who is separated from service having at least 8 years but less than 20 years of creditable service is entitled upon attainment of age 60 to a pension of 2.5% of the salary attached to the rank held on the last day of service by the officer for each year of creditable service.

Annual Increases In Pension

The monthly pension of a police officer who retires after January 1, 1977, shall, upon either the first of the month following the first anniversary of the date of retirement, if 55 years of age or over at retirement date, or upon the first day of the month following attainment of age 55 if it occurs after the first anniversary of retirement, be increased by 1/12 of 3% of the originally granted monthly pension for each full month that has elapsed since the pension began, and by 3% of the current amount of pension in each January thereafter.

The monthly pension of a police officer who is receiving a disability pension shall be increased in January of the year following the year the officer attains age 60 by 3% of the originally granted monthly pension for each year that pension payments have been made. In each January thereafter, the officer shall receive an additional increase of 3% of the original monthly pension.

Disability Pension

If a police officer, as a result of an act of duty, is found to be disabled for service in the police department, the officer shall be granted a disability pension of the greater of 65% of the salary attached to the rank held by the officer at the date of suspension of duty or the retirement pension to which the police officer would be entitled. If the disability is the result of any cause other than an act of duty, the disability pension is 50% of salary.

Pension To Survivors

(a) Upon the death of a police officer in receipt of a pension, the surviving spouse of the police officer is entitled to the pension that the police officer was receiving as of the time of death.

- (b) Upon the death of a police officer while in service, having at least 20 years of creditable service, the surviving spouse shall be entitled to the pension earned by the police officer as of the date of death.
- (c) Upon the death of a police officer while in service, having at least 10 but less than 20 years of service, the surviving spouse shall be entitled to a pension of 1/2 of the salary attached to the rank held by the officer for one year immediately prior to the date of death. If death occurs as a result of the performance of duty, the 10-year requirement shall not apply.

Contributions By Police Officers

Police officers are required to contribute 9.91% of their salary to the pension fund as a condition of participation in the pension fund.

Persons Who First Become Participants On or After January 1, 2011

The following changes to the above provisions apply to persons who first become participants on or after January 1, 2011:

- 1. The highest salary for annuity purposes is equal to the average monthly salary obtained by dividing the participant's total salary during the 96 consecutive months of service within the last 120 months of service in which the total compensation was the highest by the number of months in that period.
- 2. For 2011, the final average salary is limited to the Social Security wage base of \$106,800. Limitations for future years shall automatically be increased by the lesser of 3% or one-half of percentage change in the Consumer Price Index-U during the preceding month calendar year.
- 3. A participant is eligible to retire with unreduced benefits after attainment of age 55 with at least 10 years of service credit. However, a participant may elect to retire at age 50 with at least 10 years of service credit and receive a retirement annuity reduced by one-half of 1% for each month that his or her age is under 55.
- 4. The initial survivor's annuity is equal to 66 2/3% of the participant's earned retirement annuity at the date of death, subject to automatic annual increases of the lesser of 3% or one-half of the increase in the Consumer Price Index-U during the preceding calendar year, based on the originally granted survivor's annuity.
- 5. Automatic annual increases in the retirement annuity then being paid are equal to the lesser of 3% or one-half the annual change in the Consumer Price Index for all Urban Consumers, whichever is less, based on the originally granted retirement annuity.

Appendix 2

Glossary of Terms used in Report

- 1. <u>Actuarial Present Value</u>. The value of an amount or series of amounts payable at various times, determined as of a given date by the application of a particular set of actuarial assumptions.
- 2. <u>Actuarial Cost Method or Funding Method.</u> A procedure for determining the actuarial present value of pension plan benefits and for determining an actuarially equivalent allocation of such value to time periods. Usually in the form of a normal cost and an actuarial accrued liability.
- 3. <u>Normal Cost.</u> That portion of the actuarial present value of pension plan benefits which is allocated to a valuation year by the actuarial cost method.
- 4. <u>Actuarial Accrued Liability or Accrued Liability</u>. That portion, as determined by a particular actuarial cost method, of the actuarial present value of pension benefits which is not provided for by future normal costs.
- 5. <u>Actuarial Value of Assets.</u> The value assigned by the actuary to the assets of the pension plan for purposes of an actuarial valuation.
- 6. <u>Unfunded Actuarial Liability.</u> The excess of the actuarial liability over the actuarial value of assets.
- 7. Projected Unit Credit Actuarial Cost Method. A cost method under which the projected benefits of each individual included in an actuarial valuation are allocated by a consistent formula to valuation years. The actuarial present value of benefit 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 liability.
- 8. Actuarial Assumptions. Assumptions as to future events affecting pension costs.
- 9. <u>Actuarial Valuation.</u> The determination, as of a valuation date, of the normal cost, actuarial liability, actuarial value of assets, and related actuarial present values for the pension plan.
- 10. <u>Accrued Benefit or Accumulated Plan Benefits.</u> The amount of an individual's benefit as of a specific date determined in accordance with the terms of a pension plan and based on compensation and service to that date.
- 11. <u>Vested Benefits</u>. Benefits that are not contingent on an employee's future service.