City of Meriden Fire Pension Fund

Actuarial Valuation and Review
as of July 1, 2002

SEGAL

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January 29, 2004

Mr. John F. Miniter
City of Meriden Fire Pension Fund
142 East Main Street
Meriden, CT 06450

Dear Mr. Miniter:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2002. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal years ending June 30, 2004 and June 30, 2005 and analyzes the preceding year's experience.

The census information on which our calculations were based was prepared by the City and the financial information was provided by the City. That assistance is gratefully acknowledged. The actuarial calculations were completed by the people listed below.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

THE SEGAL COMPANY

By: Evan W. Woollacott Jr. — Thomas P. Dawidowicz — Derek A Moulton

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SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

Purpose

This report has been prepared by The Segal Company to present a valuation of the City of Meriden Fire Pension Fund as of July 1, 2002. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Pension Plan, as administered by the Board;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of July 1, 2002, provided by the City;
- The assets of the Plan as of June 30, 2002, provided by the City;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- The annual required contribution for the years ending June 30, 2004 and June 30, 2005 is $1,872,975 and $1,906,328, respectively. See page 24 for the development of these amounts.
- The valuation contribution increased by approximately $226,000 this year. This increase was due to poor asset performance. However, plan design changes were able to offset the majority of the increase due to asset performance. Chart 14 explains the increase in the valuation contribution and is on page 12.
- Recent plan changes resulting from the latest collective bargaining agreement are reflected in this valuation. The plan changes are detailed in Section 4, page 34. The plan changes decreased the valuation contribution by $421,707.
- The Plan's asset valuation method requires that the actuarial value of assets be no more than 120% or no less than 80% of the market value of assets. Since the preliminary calculation of the actuarial value exceeds 120% of market value of assets, the actuarial value of assets has been set equal to 120% of the market value of assets for this valuation. Typically, when this happens, the actuarial asset smoothing method is less effective at smoothing, and the actuarial cost results may be more volatile.

- We changed several assumptions this year. In total, the changes reduced the recommended contribution by approximately $55,000. A table comparing the actuarial assumptions that were revised is below:

	New Assumption		Prior Assumption	
Salary increase	2003	3.25%	2003	4.50%
	2004	3.25%	2004 and later	5.50%
	2005	4.25%		
	2006 and later	5.25%		
COLA increase*	3.75% per year for current retirees, 3% per year for retirements after 7/1/2002		4.5% per year	
Retirement age*	52 or completion of 30 years, if later, but not after age 65		52 or completion of 28 years, if later, but not after age 65	
Interest rate	8.00%		8.25%	
Administration expenses	$20,000 per year		$10,000 per year	
Pay adjustment*	7.3%		25%	

*All three of these assumption changes were directly due to the plan design changes.

- The actuarial valuation report as of July 1, 2002 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the Plan, while increases will decrease the actuarial cost of the Plan. For example, a 10% change in the current year's actuarial value of assets would produce a $426,914 change in the recommended contribution level. Because the actuarial value of assets involves a smoothing method, a 10% change in market value would not be fully reflected immediately in the actuarial value of assets. Rather, that effect would be spread over a period of years. We have shown the full impact immediately so as to indicate the sensitivity of costs to market fluctuations.

- As indicated in Section 2, Subsection B of this report, the total unrecognized investment loss as of June 30, 2001 is $8,079,881. This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment gains derived from future experience. This implies that earning the assumed rate of investment return of 8.00% per year (net of expenses) on a **market value** basis will result in investment losses on the actuarial value of assets in the next few years. Therefore, if the actual market return is equal to the assumed 8.00% rate and all other actuarial assumptions are met, the contribution requirements would still increase in each of the next few years.

- All future firefighters that are hired by the City will be covered under the City pension plan, not this plan.

Summary of Key Valuation Results

	2002	2000
Contributions for plan year beginning July 1:		
Valuation	$1,841,059	$1,615,023
Funding elements for plan year beginning July 1:		
Normal cost, including administrative expenses	$977,180	$875,415
Market value of assets	40,399,406	53,698,226
Actuarial value of assets	48,479,287	49,656,109
Actuarial accrued liability	61,095,615	59,676,621
Unfunded/(overfunded) actuarial accrued liability	12,616,328	10,020,512
GASB 25/27 for plan year beginning July 1:		
Annual required contributions	$1,682,036	$1,494,200
Actual contributions	1,675,200	955,772
Percentage contributed	99.59%	63.97%
Funded ratio	79.35%	83.21%
Covered payroll	$5,147,294	$4,463,535
Demographic data for plan year beginning July 1:		
Number of retired participants and beneficiaries	96	95
Number of vested former participants	- -	- -
Number of active participants	98	96
Total payroll	$5,147,294	$4,463,535
Average payroll	52,523	46,495

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, vested terminated participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the participant population has changed over the past three valuations can be seen in this chart.

CHART 1

Participant Population: 1999 – 2002

Year Ended June 30	Active Participants	Vested Terminated Participants	Retired Participants and Beneficiaries	Ratio of Non-Actives to Actives
1999	97	- -	94	0.97
2000	96	- -	95	0.99
2002	98	- -	96	0.98

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 98 active participants with an average age of 43.6, average years of service of 17.5 years and average payroll of $52,523. The 96 active participants in the prior valuation had an average age of 43.4, average service of 17.4 years and average payroll of $46,495.

Inactive Participants

In this year's valuation, there were no participants with a vested right to a deferred or immediate vested benefit.

These graphs show a distribution of active participants by age and by years of service.

CHART 2

Distribution of Active Participants by Age as of June 30, 2002

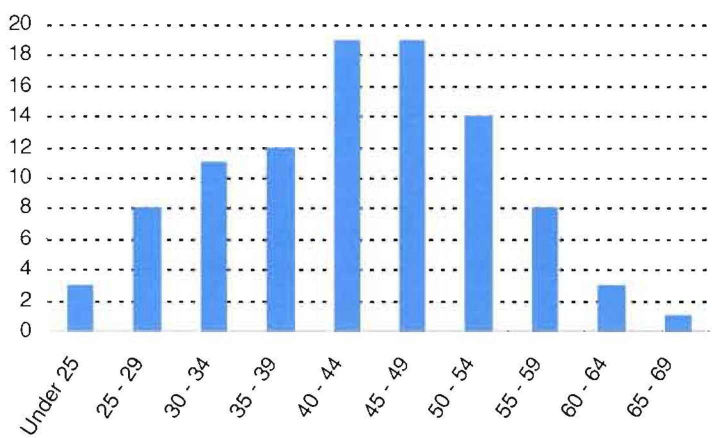
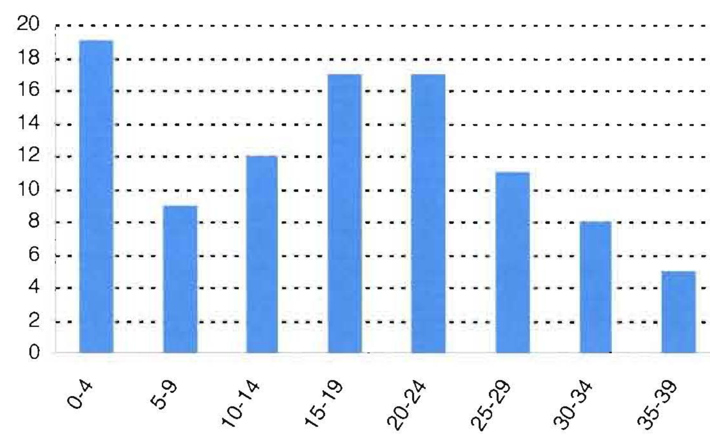


CHART 3

Distribution of Active Participants by Years of Service as of June 30, 2002



Retired Participants and Beneficiaries
As of June 30, 2002, 75 retired participants and 21 beneficiaries were receiving total monthly benefits of $237,371. For comparison, in the previous valuation, there were 74 retired participants and 21 beneficiaries receiving monthly benefits of $215,493.

These graphs show a distribution of the current retired participants based on their monthly amount and age, by type of pension.

CHART 4

Distribution of Retired Participants by Type and by Monthly Amount as of June 30, 2002

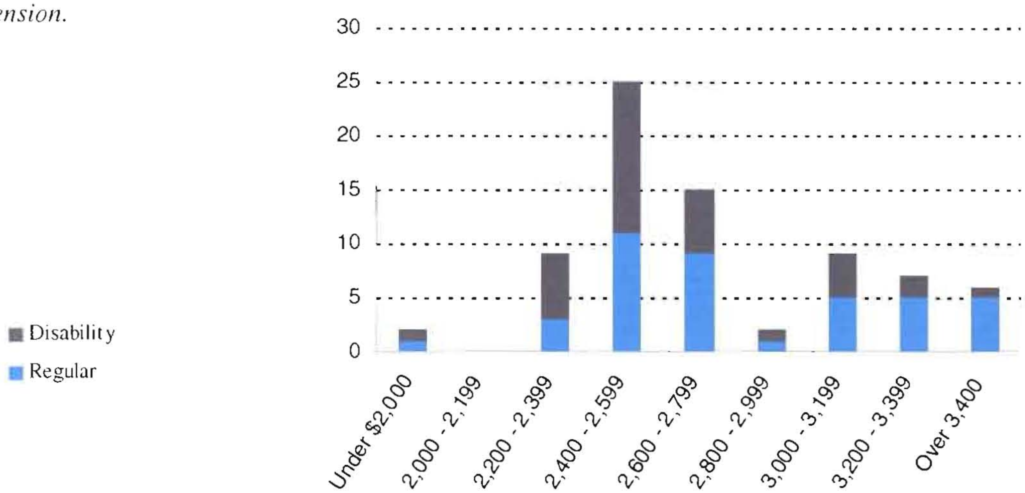
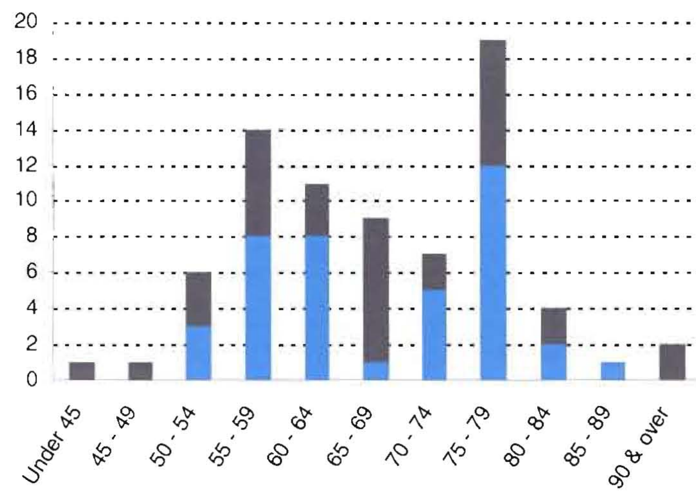


CHART 5

Distribution of Retired Participants by Type and by Age as of June 30, 2002



B. FINANCIAL INFORMATION

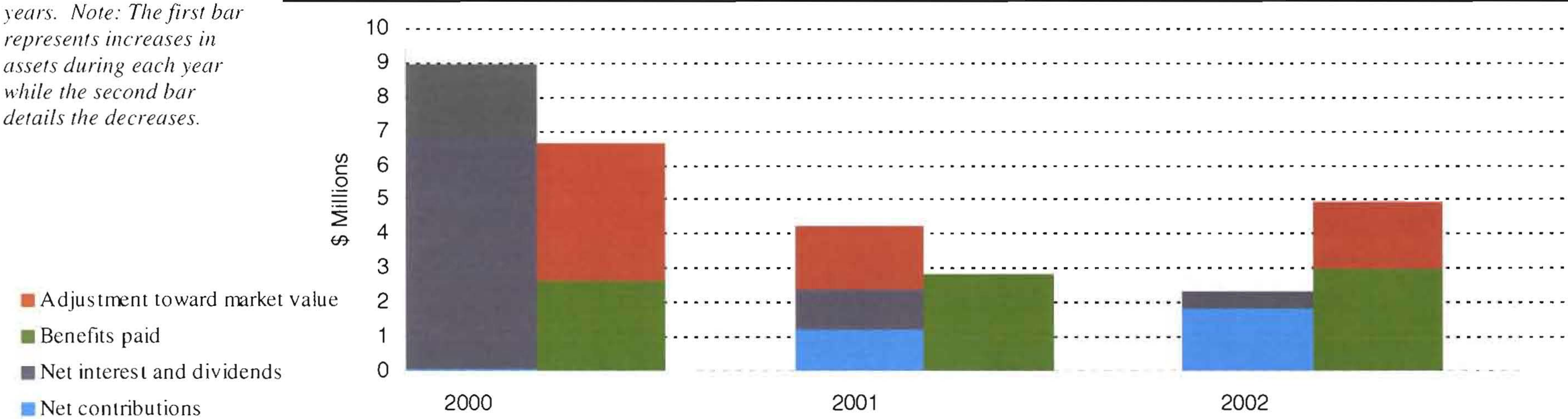
Retirement plan funding anticipates that, over the long term, both net contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

The chart depicts the components of changes in the actuarial value of assets over the last three years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2000 – 2002



It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7

Determination of Actuarial Value of Assets

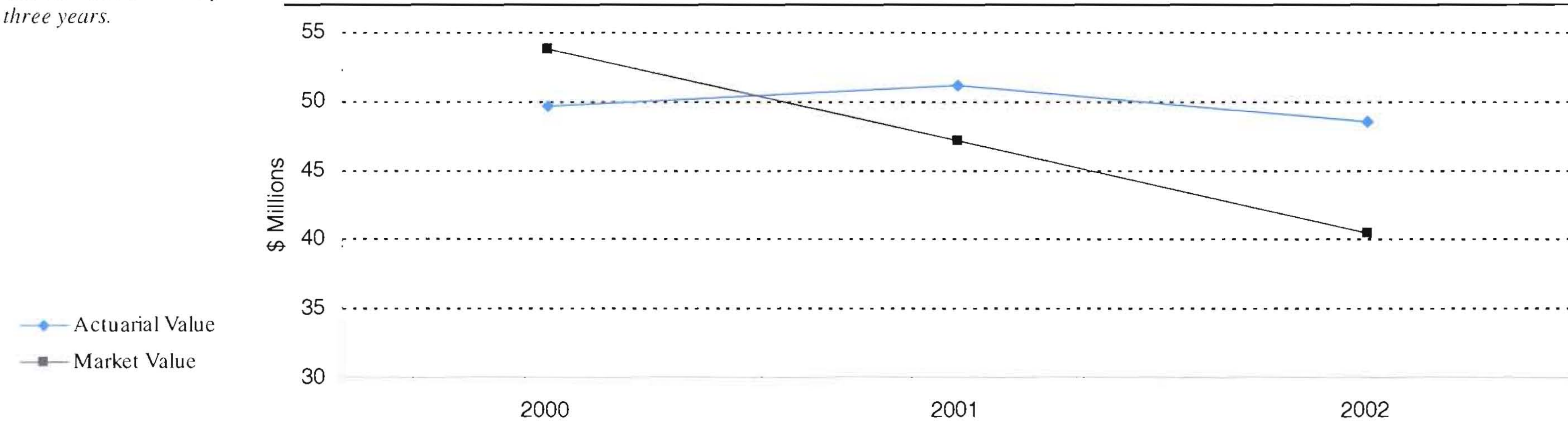
	Year Ended June 30, 2002	Year Ended June 30, 2001
1. Actuarial value of assets at beginning of year	$51,081,452	$49,656,109
2. Total contributions	1,891,457	1,199,767
3. Total benefit payments and expenses	3,012,269	2,816,847
4. Average asset value: (1) + 0.5 x [(2) – (3)]	50,521,046	48,847,569
5a. Expected investment income: .0825 x (4)	4,167,986	4,029,924
5b. Expected end of year assets: (1) + (2) – (3) + (5a)	54,128,626	52,068,953
6a. Actual investment income	-5,611,225	-4,949,703
6b. Market value of assets at end of year	40,399,406	47,131,443
7. Adjustment toward market value: 20% x [(6b) – (5b)]	-2,745,844	-987,501
8. Actuarial value of assets at end of year: (5b) + (7), but not less than 80% of (6b), nor more than 120% of (6b)	$48,479,287	$51,081,452
9. Actuarial value as a percentage of market value: (8) / (6b)	120.00%	108.38%

Both the actuarial value and market value of assets are representations of the City of Meriden Fire Pension Fund's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the City of Meriden Fire Pension Fund's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the market value over the past three years.

CHART 8

Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2000 – 2002



C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total gain/(loss) is ($6,581,431), ($6,636,840) from investments and $55,409 from all other sources. The net experience variation from individual sources other than investments was 0.1% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience over the past two years.

CHART 9

Actuarial Experience for Two-Year Period Ended June 30, 2002

1.	Net gain/(loss) from investments*	-$6,636,840
2.	Net gain/(loss) from administrative expenses	-41,002
3.	Net gain/(loss) from other experience	96,411
4.	Net experience gain/(loss): (1) + (2) + (3)	-$6,581,431

* *Details in Chart 10*

Investment Rate of Return
A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the City of Meriden Fire Pension Fund's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets was 8.25%. The actuarially smoothed rate of return on an actuarial basis for the 2002 plan year was (2.93%) and 6.23% for the 2001 year. In comparison, the market value return for the last two years was (9.36%) and (12.05%), respectively.

Since the actual return for the year was less than the assumed return, the City of Meriden Fire Pension Fund experienced an actuarial loss during the two-year period ending June 30, 2002 with regard to its investments.

After discussion with the City, we have lowered the expected return assumption to 8.00% effective July 1, 2002.

This chart shows the gain/(loss) due to investment experience.

CHART 10

Actuarial Value Investment Experience

	Year Ended June 30, 2002	Year Ended June 30, 2001
1. Actual return	-$1,481,353	$3,042,423
2. Average value of assets	50,521,046	48,847,569
3. Actual rate of return: (1) ÷ (2)	-2.93%	6.23%
4. Assumed rate of return	8.25%	8.25%
5. Expected return: (2) x (4)	$4,167,986	$4,029,924
6. Actuarial gain/(loss): (1) – (5)	-$5,649,339	-$987,501

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

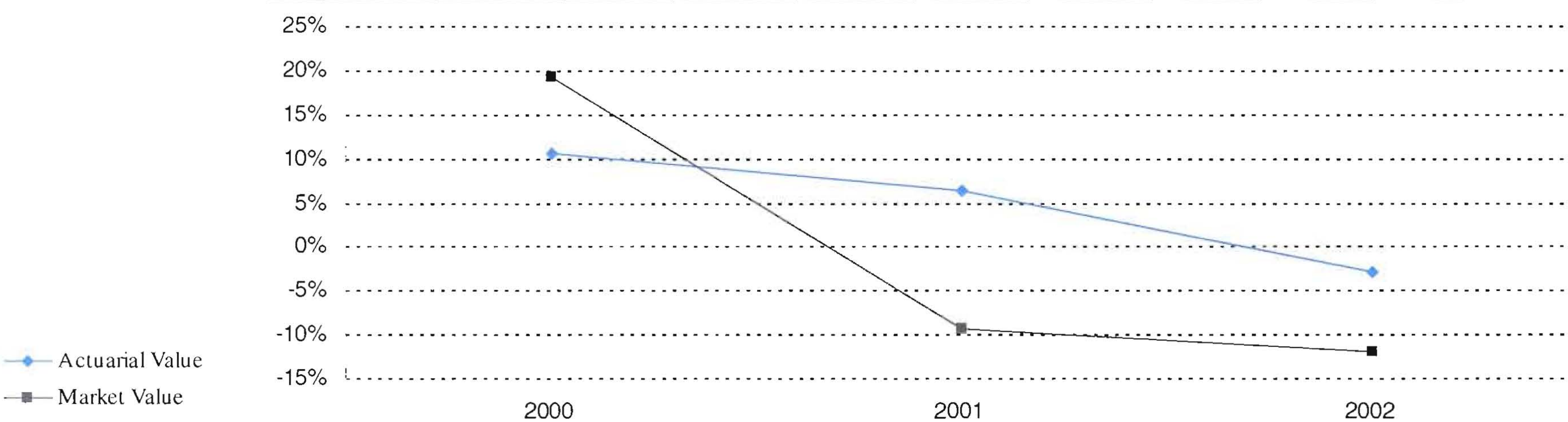
Administrative Expenses

Administrative expenses for the years ended June 30, 2002 and 2001 totaled $60,464 compared to the assumption of $20,000. This resulted in a loss of $41,002 for the year. To adjust the expense assumption, we have changed the assumption from $10,000 per year to $20,000 per year.

This chart illustrates how this leveling effect has actually worked over the years 2000 - 2002 .

CHART 11

Market and Actuarial Rates of Return for Years Ended June 30, 2000 - 2002



Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the two-year period ending June 30, 2002 amounted to $96,411 which is 0.2% of the actuarial accrued liability.

Because actual plan liabilities were extremely close to expected plan liabilities, liability gain/loss by source is not displayed.

D. VALUATION CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded/(overfunded) actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 35.77% of payroll.

The valuation contribution is based on a 30-year amortization of the unfunded/(overfunded) actuarial accrued liability. As of July 1, 2002, there are 27 years remaining on this schedule

The chart compares this valuation's valuation contribution with the prior valuation.

CHART 12

Valuation Contribution

	Year Beginning July 1			
	2002		2000	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	$957,180	18.60%	$865,415	19.39%
2. Administrative expenses	20,000	0.39%	10,000	0.22%
3. Expected employee contributions	-275,208	-5.35%	-178,363	-4.00%
4. Employer normal cost: (1) + (2) + (3)	$701,972	13.64%	$697,052	15.62%
5. Actuarial accrued liability	61,095,615		59,676,621	
6. Actuarial value of assets	48,479,287		49,656,109	
7. Unfunded/(overfunded) actuarial accrued liability: (5) - (6)	$12,616,328		$10,020,512	
8. Payment on unfunded/(overfunded) actuarial accrued liability	1,068,277	20.75%	848,887	19.02%
9. Total valuation contribution: (4) + (8), adjusted for timing*	$1,841,059	35.77%	$1,615,023	36.18%
10. Projected payroll	$5,147,294		$4,463,535	

**Valuation contributions are assumed to be paid at the middle of the year. The adjustment factor for this year is 1.04. The adjustment factor for the prior valuation was 1.04469.*

The contribution rates as of July 1, 2002 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Valuation Contribution
The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.

CHART 13

Reconciliation of Valuation Contribution from July 1, 2000 to July 1, 2002

Valuation Contribution as of July 1, 2000	$1,615,023
Effect of plan amendment(s)	-421,707
Effect of change in administrative expense assumption	10,400
Effect of change in other actuarial assumptions	-65,048
Effect of expected increase	67,013
Effect of investment (gain)/loss	598,845
Effect of net other changes	36,533
Total change	$226,036
Valuation Contribution as of July 1, 2002	$1,841,059

E. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with the GASB funding requirements. Chart 14 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

These graphs show key GASB factors.

CHART 14

Required Versus Actual Contributions

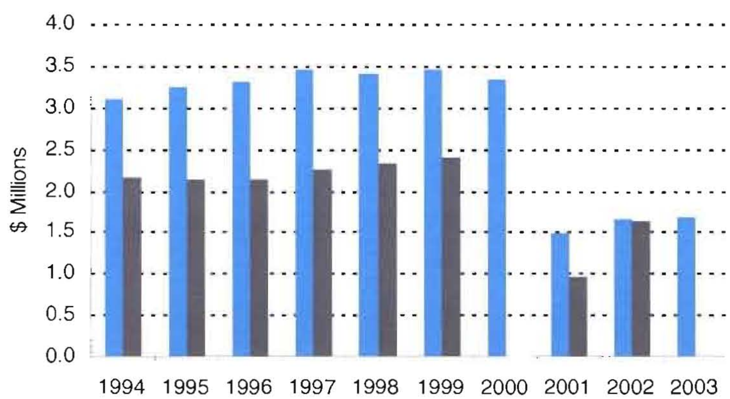


CHART 15

Funded Ratio

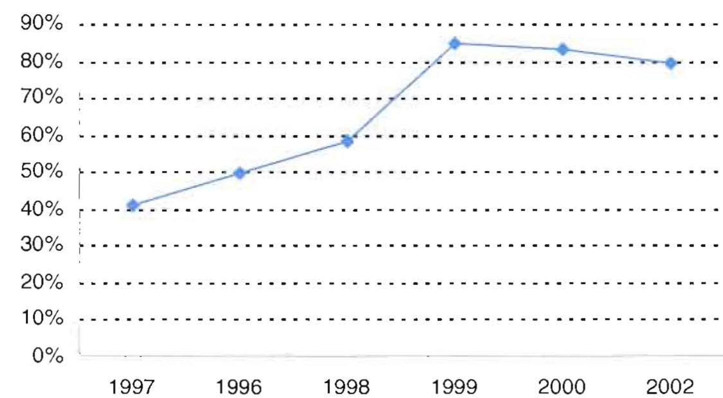


EXHIBIT A
Table of Plan Coverage

Category	Year Ended June 30 2002	Year Ended June 30 2000	Change From Prior Year
Active participants in valuation:			
Number	98	96	2.1%
Average age	43.6	43.4	N/A
Average service	17.5	17.4	N/A
Total payroll	$5,147,294	$4,463,535	15.3%
Average payroll	52,523	46,495	13.0%
Account balances	2,776,876	2,697,496	2.9%
Total active vested participants	24	23	4.3%
Vested terminated participants	0	0	N/A
Beneficiaries with rights to a deferred benefit	0	0	N/A
Retired participants:			
Number in pay status	75	74	1.4%
Average age	67.2	66.3	N/A
Average monthly benefit	$2,802	$2,577	8.7%
Beneficiaries in pay status	21	21	0.0%
Inactive non-vested participants	0	0	N/A

EXHIBIT B

Participants in Active Service as of June 30, 2002
By Age, Years of Service, and Average Payroll

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40 & over**
Under 25	3	3	- -	- -	- -	- -	- -	- -	- -	- -
	$48,481	$48,481	- -	- -	- -	- -	- -	- -	- -	- -
25 - $29	8	8	- -	- -	- -	- -	- -	- -	- -	- -
	43,496	43,496	- -	- -	- -	- -	- -	- -	- -	- -
30 - 34	11	6	5	- -	- -	- -	- -	- -	- -	- -
	49,805	48,617	$51,230	- -	- -	- -	- -	- -	- -	- -
35 - 39	12	1	4	7	- -	- -	- -	- -	- -	- -
	51,520	- -	50,249	$52,428	- -	- -	- -	- -	- -	- -
40 - 44	19	1	- -	4	9	5	- -	- -	- -	- -
	53,132	- -	- -	51,476	$54,234	$53,050	- -	- -	- -	- -
45 - 49	19	- -	- -	1	8	7	3	- -	- -	- -
	54,954	- -	- -	- -	54,781	56,095	$54,322	- -	- -	- -
50 - 54	14	- -	- -	- -	- -	5	7	1	1	- -
	53,735	- -	- -	- -	- -	51,230	54,539	- -	- -	- -
55 - 59	8	- -	- -	- -	- -	- -	1	5	2	- -
	58,108	- -	- -	- -	- -	- -	- -	55,810	66,019	- -
60 - 64	3	- -	- -	- -	- -	- -	- -	2	1	- -
	55,998	- -	- -	- -	- -	- -	- -	57,109	- -	- -
65 - 69	1	- -	- -	- -	- -	- -	- -	- -	1	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	98	19	9	12	17	17	11	8	5	- -
	$52,523	$46,611	$50,794	$51,929	$54,491	$53,768	$54,410	$56,733	$57,720	- -

EXHIBIT C

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Retired Participants	Beneficiaries	Total
Number as of July 1, 2000	96	0	74	21	191
New participants	7	N/A	N/A	N/A	7
Terminations – with vested rights	0	0	0	0	0
Terminations – without vested rights	0	N/A	N/A	N/A	0
Retirements	-4	0	4	N/A	0
New disabilities	-1	0	1	N/A	0
Died with beneficiary	0	0	-2	2	0
Died without beneficiary	0	0	-2	-2	-4
Number as of July 1, 2002	98	0	75	21	194

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended June 30, 2002		Year Ended June 30, 2001	
Contribution income:				
Employer contributions	$1,632,000		$955,772	
Employee contributions	259,457		243,995	
Less administrative expenses	-60,464		0	
Net contribution income		$1,830,993		$1,199,767
Other income		0		0
Investment income:				
Interest, dividends and other income	$1,214,728		$1,514,061	
Adjustment toward market value	-1,950,553		1,888,193	
Less investment fees	-745,528		-359,831	
Net investment income		-1,481,353		3,042,423
Total income available for benefits		$349,640		$4,242,190
Less benefit payments:		$2,951,805		$2,816,847
Change in actuarial asset method		$0		$0
Change in reserve for future benefits		-$2,602,165		$1,425,343

EXHIBIT E
Table of Financial Information

	Year Ended June 30, 2002		Year Ended June 30, 2001	
Cash equivalents		$4,834,385		$9,564,969
Accounts receivable:		20,649		0
Investments:				
Corporate debt	$4,041,876		$2,476,678	
Common and preferred equities	23,310,225		29,785,225	
U.S. government obligations	8,192,271		5,304,571	
Total investments at market value		35,544,372		37,566,474
Total assets		$40,399,406		$47,131,443
Less accounts payable:		$0		$0
Net assets at market value		$40,399,406		$47,131,443
Net assets at actuarial value		$48,479,287		$51,081,452

EXHIBIT F

Development of the Fund Through June 30, 2002

Year Ended June 30	Employer Contributions	Employee Contributions	Other Contributions	Net Investment Return*	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2000	$0	$243,530	$0	$4,813,886	$171,096	$2,590,586	$49,656,109
2001	955,772	243,995	0	3,042,423	0	2,816,847	51,081,452
2002	1,632,000	259,457	0	-1,481,353	60,464	2,951,805	48,479,287

** Net of investment fees*

EXHIBIT G

Development of Unfunded/(Overfunded) Actuarial Accrued Liability

	Year Ended			
	June 30, 2002		June 30, 2001	
1. Unfunded/(overfunded) actuarial accrued liability at beginning of year		$10,546,554		$10,020,512
2. Normal cost at beginning of year		875,415		875,415
3. Total contributions		-1,891,457		-1,199,767
4. Interest				
(a) For whole year on (1) + (2)	$942,312		$898,914	
(b) For half year on (3)	-76,990		-48,520	
(c) Total interest		865,322		850,394
5. Expected unfunded/(overfunded) actuarial accrued liability		$10,395,834		$10,546,554
6. Changes due to:				
(a) (Gain)/loss	$6,581,431		- -	
(b) Assumptions	-1,069,703		- -	
(c) Funding method	- -		- -	
(d) Plan provisions	-3,291,234		- -	
(e) Total changes		2,220,494		- -
7. Unfunded/(overfunded) actuarial accrued liability at end of year		$12,616,328		$10,546,554

EXHIBIT H
Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost: The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Pensioners: The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded Actuarial Accrued Liability: The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the Unfunded Actuarial Accrued Liability: Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment Return: The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1.	Retired participants as of the valuation date (including 21 beneficiaries in pay status)		96
2.	Participants inactive during year ended June 30, 2002 with vested rights		0
3.	Participants active during the year ended June 30, 2002		98
	Fully vested	24	
	Not vested	74	
4.	Inactive non-vested participants as of June 30, 2002		0

The actuarial factors as of the valuation date are as follows:

1.	Normal cost, including administrative expenses		$977,180
2.	Actuarial accrued liability		61,095,615
	Retired participants and beneficiaries	$34,779,225	
	Inactive participants with vested rights	0	
	Active participants	26,316,390	
	Inactive non-vested participants	0	
3.	Actuarial value of assets ($40,399,406 at market value)		48,479,287
4.	Unfunded actuarial accrued liability		$12,616,328

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

The determination of the recommended contribution is as follows:

1.	Total normal cost	$957,180
2.	Administrative expenses	20,000
3.	Expected employee contributions	-275,208
4.	Employer normal cost: (1) + (2) + (3)	$701,972
5.	Payment on unfunded/(overfunded) actuarial accrued liability	1,068,277
6.	Total recommended contribution: (4) + (5), adjusted for timing	$1,841,059
7.	Projected City normal cost as of July 1, 2003: [(1) + (3)] x 1.045 + (2)	732,661
8.	**Recommended contribution for fiscal year ending June 30, 2004: (5) + (7), adjusted for interest**	**$1,872,975**
9.	Projected City normal cost as of July 1, 2004: [(1) + (3)] x 1.045 x 1.045 + (2)	764,730
10.	**Recommended contribution for fiscal year ending June 30, 2005: (5) + (9), adjusted for interest**	**$1,906,328**

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
1994	$3,101,600	$2,152,111	69.4%
1995	3,241,200	2,140,800	66.0%
1996	3,308,600	2,140,800	64.7%
1997	3,457,500	2,244,200	64.9%
1998	3,405,500	2,323,600	68.2%
1999	3,450,800	2,391,167	69.3%
2000	3,334,200	0	0.0%
2001	1,494,200	955,772	64.0%
2002	1,647,793	1,632,000	99.0%
2003	1,682,036	1,675,200	99.6%
2004	1,872,975	--	--
2005	1,906,328	--	--

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll* [(b) - (a) / (c)]
07/01/1994	17,700,700	43,481,200	25,780,500	40.71%	4,080,000	631.88%
07/01/1995	N/A	N/A	N/A	N/A	N/A	N/A
07/01/1996	25,622,500	51,562,800	25,940,300	49.69%	4,251,800	610.10%
07/01/1997	N/A	N/A	N/A	N/A	N/A	N/A
07/01/1998	32,626,200	56,236,600	23,610,400	58.02%	4,462,500	529.08%
07/01/1999	47,360,400	56,017,200	8,656,800	84.55%	4,600,200	188.18%
07/01/2000	49,656,109	59,676,621	10,020,512	83.21%	4,463,535	224.50%
07/01/2001	N/A	N/A	N/A	N/A	N/A	N/A
07/01/2002	48,479,287	61,095,615	12,616,328	79.35%	5,147,294	245.11%

* *Not less than zero*

EXHIBIT IV

Supplementary Information Required by the GASB

Valuation date	July 1, 2002	
Actuarial cost method	Entry Age Normal Cost Method	
Amortization method	Level Dollar, closed	
Remaining amortization period	27 years remaining as of July 1, 2002	
Asset valuation method	5-year smoothing of investment returns greater/(less) than expected	
Actuarial assumptions:		
Investment rate of return	8.00%	
Projected salary increases	2003	3.25%
	2004	3.25%
	2005	4.25%
	2006 and after	5.25%
Plan membership:		
Retired participants and beneficiaries receiving benefits	96	
Terminated participants entitled to, but not yet receiving benefits	0	
Active participants	98	
Total	194	

EXHIBIT V

Development of the Net Pension Obligation and the Annual Pension Cost Pursuant to GASB 27

Plan Year Ended June 30	Employer Annual Required Contribution (a)	Employer Amount Contributed (b)	Interest on NPO (h)* 8.00% (c)	ARC Adjustment (h) / (e) (d)	Amortization Factor (e)	Pension Cost (a) + (c) – (d) (f)	Change in NPO (f) – (b) (g)	NPO Balance NPO + (g) (h)
1994	$3,101,600	$2,152,111	$256,857	$270,404	11.8738	$3,088,053	$935,942	$4,146,659
1995	3,241,200	2,140,800	331,733	353,097	11.7437	3,219,836	1,079,036	5,225,694
1996	3,308,600	2,140,800	418,056	450,368	11.6032	3,276,288	1,135,488	6,361,182
1997	3,457,500	2,244,200	508,895	555,493	11.4514	3,410,902	1,166,702	7,527,884
1998	3,405,500	2,323,600	602,231	666,920	11.2875	3,340,811	1,017,211	8,545,095
1999	3,450,800	2,391,167	683,608	802,425	11.1105	3,331,983	940,816	9,485,911
2000	3,334,200	0	758,873	906,366	10.9194	3,186,707	3,186,707	12,672,618
2001	1,494,200	955,772	1,045,491	1,112,094	11.9046	1,427,597	471,825	13,144,443
2002	1,647,793	1,632,000	1,084,417	1,163,307	11.8043	1,568,903	-63,097	13,081,346
2003	1,682,036	1,675,200	1,079,211	1,168,478	11.6956	1,592,769	-82,431	12,998,915

EXHIBIT VI
Actuarial Assumptions and Actuarial Cost Method

Mortality rates: 1983 Group Annuity Mortality Table with margins

Termination rates before retirement:

	Rate (%)					
	Mortality		Disability		Withdrawal	
Age	Male	Female	Male	Female	Male	Female
20	0.03	0.01	0.06	0.06	0.00	0.00
25	0.03	0.02	0.09	0.09	0.00	0.00
30	0.05	0.03	0.11	0.11	0.00	0.00
35	0.06	0.04	0.15	0.15	0.00	0.00
40	0.09	0.05	0.22	0.22	0.00	0.00
45	0.16	0.08	0.36	0.36	0.00	0.00
50	0.29	0.12	0.61	0.61	0.00	0.00
55	0.46	0.19	1.01	1.01	0.00	0.00
60	0.69	0.32	1.63	1.63	0.00	0.00

25% of deaths prior to retirement and 100% of the disabilities with less than 10 years of service are assumed service connected.

Percent married: 75%

Age of spouse: Males are assumed to be three years older than their spouses

Net investment return: 8.00% (previously, 8.25%)

Retirement age: 52 or completion of 30 years of service, but not later than 65 (previously, 52 with 28 years of service, but not later than 65)

Salary increases:

Year	Rate (%)
2003	3.25%
2004	3.25%
2005	4.25%
2006 and after	5.25%

Pay adjustment: Active liabilities are increased 7.3% to reflect holiday and longevity pay, clothing allowance and insurance which are included in the determination of benefits. (previously, active liabilities were increased 25%)

Cost of living increase after retirement: 3% per year for future retirees and 3.75% for current retirees (previously, 4.5% per year for all participants)

Administrative expenses: $20,000 per year (previously, $10,000 per year)

Actuarial value of assets: Sum of actuarial value at beginning of year, contributions, and expected investment earnings based on the actuarial interest assumption less benefit payments plus 20% of market value at end of year in excess of that sum, plus additional adjustment toward market value as necessary so that final actuarial value is within 20% of market value.

Actuarial cost method: Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant would have commenced participation if the plan had always been in existence. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service, with Normal Cost determined as if the current benefit accrual rate had always been in effect.

Changes in assumptions: Based on past experience and future expectations, the following actuarial assumptions were changed:

- The interest rate was changed to 8.00%. Previously, the rate was 8.25%.

- The administrative expense assumption was increased to $20,000 per year. Previously, it was $10,000 per year.
- The assumed retirement age was changed to 52 with 30 years of service, but not later than age 65. Previously, the assumption was 52 with 28 years of service, but not later than 65. This assumption was changed due a change in the normal retirement age.
- The cost of living increase after retirement has been changed to 3% per year, for all new retirements, and 3.75% per year for current retirees. Previously, the assumption was 4.5% per year. This assumption was changed due to a change in plan provisions.
- The salary increase assumption has been changed. A table comparing the current assumption and the prior assumption is below:

New Assumption		Prior Assumption	
2003	3.25%	2003	4.50%
2004	3.25%	2004 and later	5.50%
2005	4.25%		
2006 and later	5.25%		

- The pay adjustment was changed from 25% to 7.3%.

EXHIBIT VII
Summary of Plan Provisions

This exhibit summarizes the major provisions of the City of Meriden Fire included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Normal Retirement:

Age requirement	None
Service requirement	25 years
Amount	2.2% times years of service (maximum 30 years) times base rate of pay at retirement plus 50% of emoluments (longevity pay, holiday pay, clothing allowance, life insurance, health insurance minus cost share). Previously, the benefit was 50% of the prevailing pay for the rank held at retirement, including holiday and longevity pay, and insurance.

Disability:

Service connected

Age requirement	None
Service requirement	None
Amount	An annuity of 50% of prevailing pay for the rank held at termination, including holiday and longevity pay and insurance.

Non-service connected

Age requirement	None
Service requirement	10 years if hired after July 1, 1971; otherwise none
Amount	An annuity of 50% of prevailing pay for the rank held at termination, including holiday and longevity pay and insurance.

Spouse's pre-retirement death benefit:	
Lump sum benefit	
Age requirement	None
Service requirement	None
Amount	Refund of employee contributions
Service connected spouse's benefit	
Age requirement	None
Service requirement	None
Amount	An annuity of 50% of prevailing pay including holiday and longevity pay and insurance for the rank held at death, payable to spouse until employee would have accumulated 25 years of service. At that time, the benefit is reduced to 50% of the pension the employee would have been entitled to had they retired the day before their death. Benefit is payable until death or remarriage.
Non-service connected spouse's benefit	
Requirement	Eligible for service retirement
Amount	An annuity of 50% of the pension the employee would have received if they had retired the day before their death, payable until death or remarriage.
Post-retirement death benefits:	
Lump-sum benefit	100% of contributions made on behalf of the employee, less total benefits paid to the pensioner.
Spouse's benefit	An annuity of 50% of the pension the retired employee was receiving at the time of death payable until death or remarriage.
Cost of living adjustment:	Firefighters who retire after March 1, 2003 with a minimum of 25 years of service shall receive a COLA of 3% per year to begin one year after retirement. Previously, the COLA was linked to the percentage increase in the negotiated wages.
Employee contribution rate:	7.5% of salary (previously, 5% of salary). 6.5% goes to pension and 1% goes to health.

Changes in plan provisions:

The following plan provisions were changed and are reflected in this valuation:

- The normal retirement benefit was changed to 2.2% times years of service times base rate of pay at retirement plus 50% of emoluments (longevity pay, holiday pay, clothing allowance, life insurance, health insurance minus cost share). Previously, the normal retirement benefit was 50% of prevailing pay for the rank held at retirement, plus 50% of emoluments.
- The employee contribution rate for pension was increased from 5% of pay to 6.5% of pay.