

City of Meriden Fire Pension Fund

*Actuarial Valuation and Review
as of July 1, 2004*

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April 26, 2005

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

Dear Mr. Minitier:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2004. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal years ending June 30, 2006 and June 30, 2007 and analyzes the preceding year's experience.

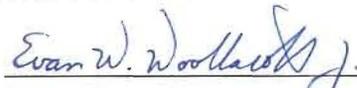
The census information on which our calculations were based was prepared by the City and the financial information was provided by the City. That assistance is gratefully acknowledged. The actuarial calculations were completed by the people listed below.

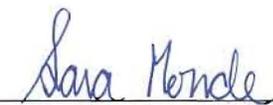
This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably 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., EA, MAAA
Associate Actuary


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Vice President & Actuary

SECTION 1: Valuation Summary for the City of Meriden Fire Pension Fund

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, 2004. 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, 2004, provided by the City;
- The assets of the Plan as of June 30, 2004, 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 (ARC) for the years ending June 30, 2006 and June 30, 2007 is \$2,574,201 and \$2,605,081, respectively. See page 24 for the development of these amounts. The ARC for the fiscal year ending June 30, 2005 was developed with the prior valuation and remains \$1,906,328.
- It is common for pension boards to worry that their asset smoothing method is not working. Due to the general decrease in assets, almost all defined benefit pension plans are experiencing severe increases in their recommended pension contribution. Even though Meriden's Valuation Contribution (VC) increased approximately \$700,000 this year, the VC is significantly higher if the market value of assets is used. In fact, the VC for this valuation is \$3,131,337 if the market value of assets is used (i.e., no asset smoothing).
- The valuation contribution increased by approximately \$704,000 this year. This increase was primarily due to poor asset performance. Chart 14 explains the increase in the valuation contribution and is on page 12.

SECTION 1: Valuation Summary for the City of Meriden Fire Pension Fund

- The actuarial valuation report as of July 1, 2004 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 \$391,474 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.
- The salary increase assumption has been changed this year. A table comparing the current assumption and the prior assumption is below:

<u>New Assumption</u>		<u>Prior Assumption</u>	
2005	3.00%	2005	4.25%
2006	3.00%	2006 and later	5.25%
2007	4.25%		
2008 and later	5.25%		

- As indicated in Section 2, Subsection B of this report, the total unrecognized investment loss as of June 30, 2004 is \$6,503,622. 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.
- Also of note was the decrease in the plan’s funded percentage from approximately 79% to 68% over the two-year period. As mentioned previously, this decrease was primarily attributable to asset performance.
- In reviewing the actuarial assumptions, the expense assumption may need to be increased next year. In addition, the City may want to update the mortality assumption. Currently, the 1983 Group Annuity Mortality (GAM) is being used and the 1994 GAM is recommended.
- In the City’s June 30, 2004 CFR, we noticed that the Net Pension Obligation (NPO) on page 54 of the Notes to Financial Statements is not correct. The NPO should be \$13,091,904 as indicated on page 28 of this report. Please let your auditors know to make this correction in their report.

SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

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 four valuations can be seen in this chart.

CHART 1
Participant Population: 1999 – 2004

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
2004	92	--	98	1.07

SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 92 active participants with an average age of 44.5, average years of service of 18.5 years and average payroll of \$55,814. The 98 active participants in the prior valuation had an average age of 43.6, average service of 17.5 years and average payroll of \$52,523.

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, 2004

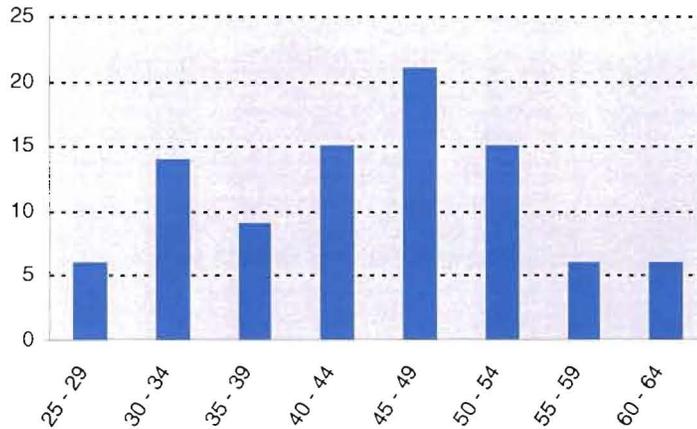
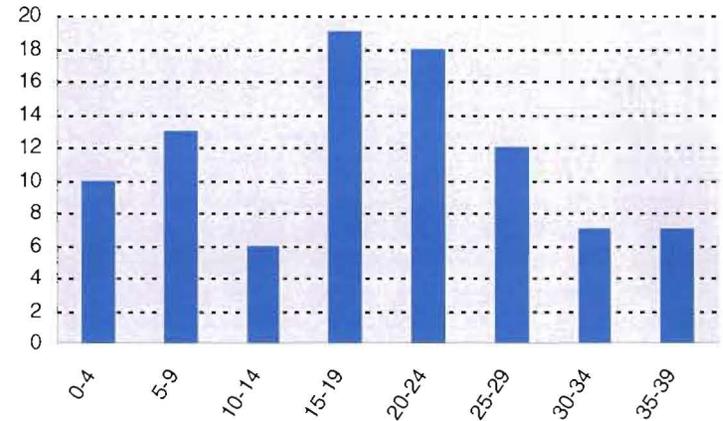


CHART 3
Distribution of Active Participants by Years of Service as of June 30, 2004



SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

Retired Participants and Beneficiaries

As of June 30, 2004, 74 retired participants and 24 beneficiaries were receiving total monthly benefits of \$256,606. For comparison, in the previous valuation, there were 75 retired participants and 21 beneficiaries receiving monthly benefits of \$237,371. Of the 74 current retired participants, 35 are disabled retirees.

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, 2004

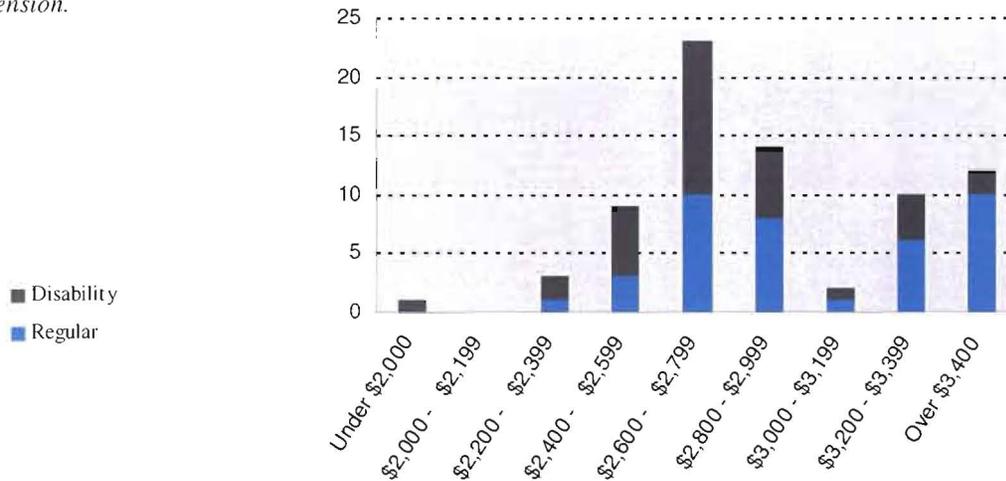
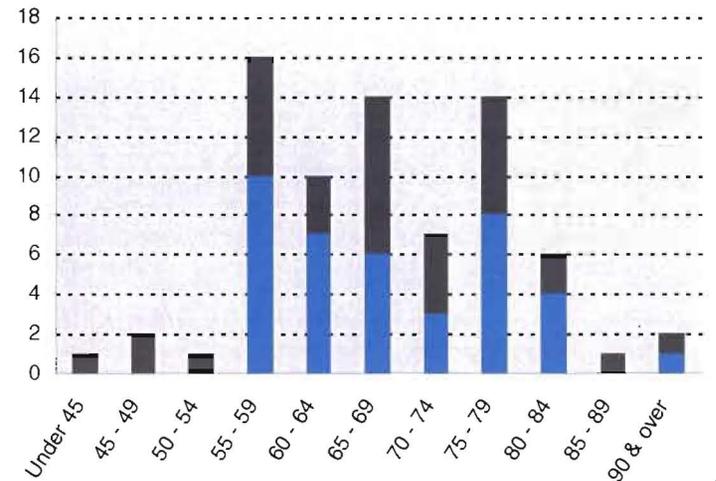


CHART 5

Distribution of Retired Participants by Type and by Age as of June 30, 2004



SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

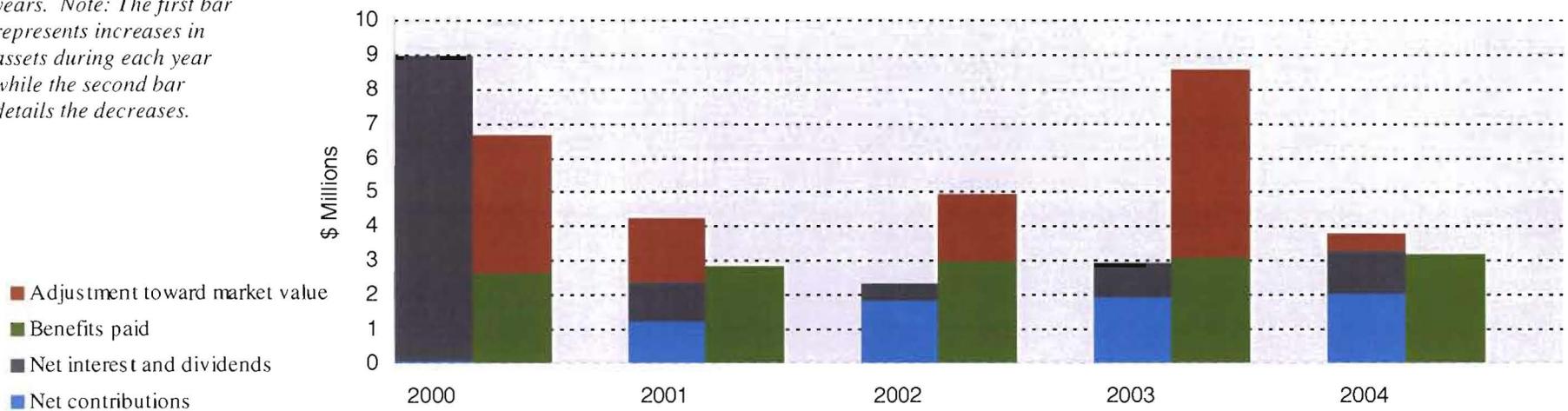
B. FINANCIAL INFORMATION

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 five 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 – 2004



SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

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.

In the development of the actuarial value of assets for the year ended June 30, 2003, the 120% cap was used. That is, the actuarial value of assets was reduced to be 120% of market value. Not using the 120% cap produces an actuarial value that is 135% of market 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, 2004	June 30, 2003
1. Actuarial value of assets at beginning of year	\$42,821,634	\$48,479,287
2. Total contributions	2,026,404	1,984,661
3. Total benefit payments and expenses	(3,204,453)	(3,137,734)
4. Average asset value: $(1) + 0.5 \times [(2) - (3)]$	42,232,610	47,902,750
5a. Expected investment income: $.08 \times (4)$	3,378,609	3,832,220
5b. Expected end of year assets: $(1) + (2) - (3) + (5a)$	45,022,194	51,158,434
6. Market value of assets at end of year	36,892,666	35,684,695
7. Smoothing adjustment: $20\% \times [(6) - (5b)]$	(1,625,906)	(3,094,748)
8. Actuarial value of assets at end of year: $(5b) + (7)$, but not less than 80% of (6), nor more than 120% of (6)	43,396,288	42,821,634
9. Actuarial value as a percentage of market value: $(8)/(6)$	117.6%	120.0%

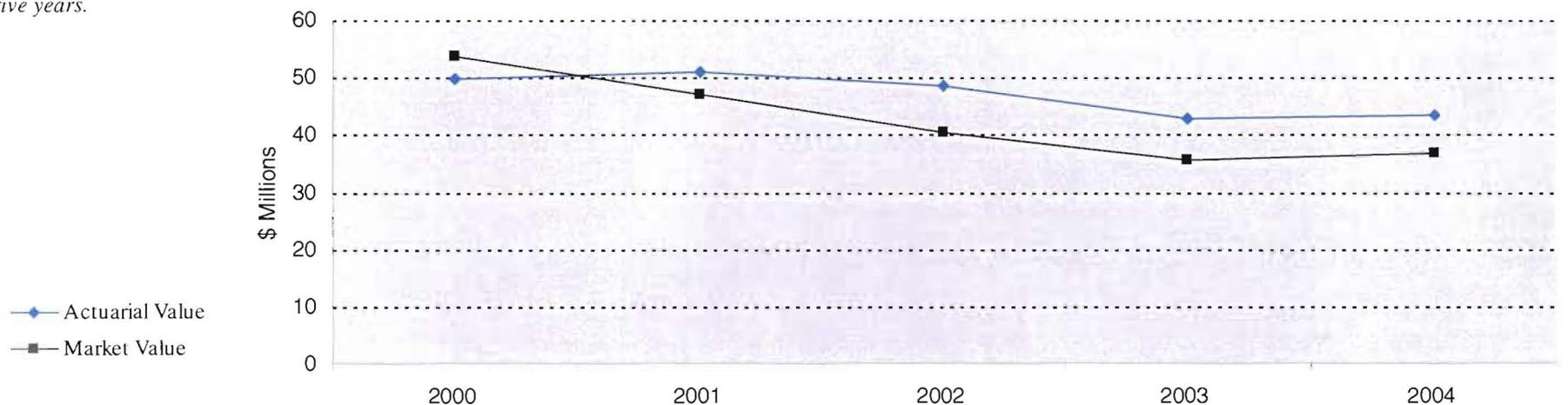
SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

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 five years.

CHART 8

Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2000 – 2004



SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

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 (\$8,322,820), (\$9,962,706) from investments and \$1,639,886 from all other sources. The net experience variation from individual sources other than investments was 2.6% 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, 2004

1. Net gain/(loss) from investments*	-\$9,962,706
2. Net gain/(loss) from administrative expenses	-48,693
3. Net gain/(loss) from other experience**	<u>1,688,579</u>
4. Net experience gain/(loss): (1) + (2) + (3)	-\$8,322,820

* Details in Chart 10

** Details in Chart 12

SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

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 is 8.00%. The rate of return on an actuarial basis for the 2004 plan year was 4.15% and (9.40%) for the 2003 year. In comparison, the market value return for the last two years was 6.80% and (8.94%), 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, 2004 with regard to its investments.

It may be wise to review the 8% return assumption as the Plan's market value did not meet that goal in either year.

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

**CHART 10
Actuarial Value Investment Experience**

	Year Ended	
	June 30, 2004	June 30, 2003
1. Actual return	\$1,752,703	-\$4,504,580
2. Average value of assets	42,232,610	47,902,750
3. Actual rate of return: (1) ÷ (2)	4.15%	-9.40%
4. Assumed rate of return	8.00%	8.00%
5. Expected return: (2) x (4)	\$3,378,609	\$3,832,220
6. Actuarial gain/(loss): (1) - (5)	<u>-\$1,625,906</u>	<u>-\$8,336,800</u>

SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

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.

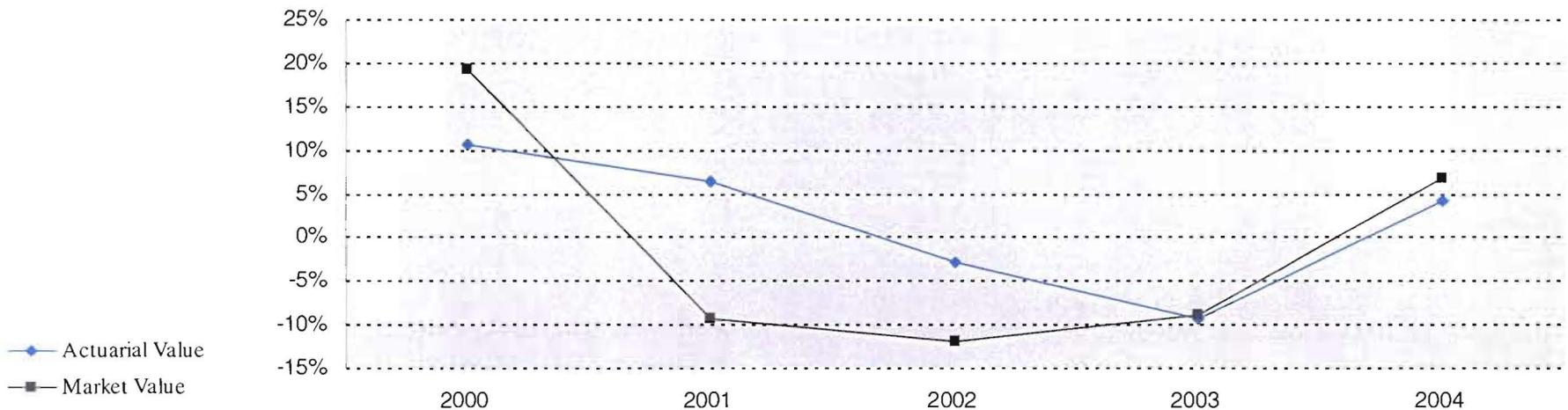
Administrative Expenses

Administrative expenses for the years ended June 30, 2004 and 2003 totaled \$88,490 compared to the assumption of \$40,000. This resulted in a loss of \$48,693 for the two years, including an adjustment for interest.

This chart illustrates how this leveling effect has actually worked over the years 2000 - 2004.

CHART 11

Market and Actuarial Rates of Return for Years Ended June 30, 2000 - 2004



SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

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, 2004 amounted to \$1,688,579 which is 2.6% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the City of Meriden Fire Pension Fund for the two-year period ending June 30, 2004 is shown in the chart below.

The chart shows elements of the experience gain/(loss) for the most recent years.

CHART 12

Experience Due to Changes in Demographics for Two-Year Period Ended June 30, 2004

1. Retirement	-192,630
2. Mortality and COLA for retirees	798,668
3. Salary increase for continuing actives	388,638
4. Miscellaneous, including non-retired cost of living adjustment	<u>693,903</u>
5. Total	<u>\$1,688,579</u>

SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

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 actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 49.56% of payroll.

The recommended contribution is based on a 30-year amortization of the unfunded actuarial accrued liability. As of July 1, 2004, there are 25 years remaining on this schedule.

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

CHART 13
Valuation Contribution

	Year Beginning July 1			
	2004		2002	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	\$909,783	17.72%	\$957,180	18.60%
2. Administrative expenses	20,000	0.39%	20,000	0.39%
3. Expected employee contributions	<u>-278,362</u>	<u>-5.42%</u>	<u>-275,208</u>	<u>-5.35%</u>
4. Employer normal cost: (1) + (2) + (3)	\$651,421	12.69%	\$701,972	13.64%
5. Actuarial accrued liability	64,094,542		61,095,615	
6. Actuarial value of assets	<u>43,396,288</u>		<u>48,479,287</u>	
7. Unfunded/(overfunded) actuarial accrued liability: (5) - (6)	\$20,698,254		\$12,616,328	
8. Payment on unfunded/(overfunded) actuarial accrued liability	1,795,358	34.96%	1,068,277	20.75%
9. Total recommended contribution: (4) + (8), adjusted for timing*	<u>\$2,544,651</u>	<u>49.56%</u>	<u>\$1,841,059</u>	<u>35.77%</u>
10. Projected payroll	\$5,134,902		\$5,147,294	

**Recommended contributions are assumed to be paid at the middle of every year.*

SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

The contribution rates as of July 1, 2004 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 14

Reconciliation of Valuation Contribution from July 1, 2002 to July 1, 2004

Valuation Contribution as of July 1, 2002	\$1,841,059
Effect of plan amendment(s)	-14,700
Effect of change in other actuarial assumptions	-133,779
Effect of contributions (more)/less than recommended contribution	19,247
Effect of investment (gain)/loss	898,728
Effect of other actuarial experience gains and losses	-147,933
Effect of net other changes, including expected increase	<u>82,029</u>
Total change	<u>\$703,592</u>
Valuation Contribution as of July 1, 2004	\$2,544,651

SECTION 2: Valuation Results for the City of Meriden Fire Pension Fund

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 15 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.

Although GASB requires that the actuarial value of assets be used to determine the funded ratio, Chart 16 shows the funded ratio calculated using both the actuarial value of assets and the market value of assets.

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 15
Required Versus Actual Contributions

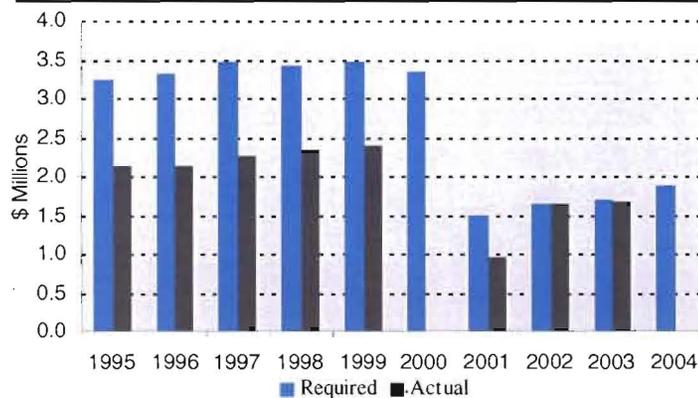
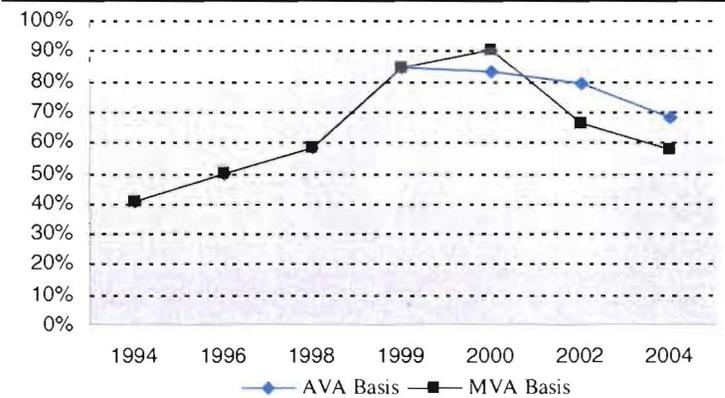


CHART 16
Funded Ratio



SECTION 3: Supplemental Information for the City of Meriden Fire Pension Fund

EXHIBIT A

Table of Plan Coverage

Category	Year Ended June 30		Change From Prior Year
	2004	2002	
Active participants in valuation:			
Number	92	98	-6.1%
Average age	44.5	43.6	N/A
Average service	18.5	17.5	N/A
Total payroll	\$5,134,902	\$5,147,294	-0.2%
Average payroll	55,814	52,523	6.3%
Employee contributions	3,358,453	2,776,876	20.9%
Total active vested participants	26	24	8.3%
Retired participants:			
Number in pay status	39	40	-2.5%
Average age	67.9	67.9	N/A
Average monthly benefit	\$3,154	\$2,906	8.5%
Disabled participants:			
Number in pay status	35	35	0.0%
Average age	67.1	66.5	N/A
Average monthly benefit	\$2,836	\$2,682	5.7%
Number in suspended status	0	0	N/A
Beneficiaries in pay status	24	21	14.3%

SECTION 3: Supplemental Information for the City of Meriden Fire Pension Fund

EXHIBIT B

Participants in Active Service as of June 30, 2004
By Age, Years of Service, and Average Payroll

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
25 - 29	6	4	2	--	--	--	--	--	--	--
30 - 34	14	6	6	2	--	--	--	--	--	--
35 - 39	9	--	3	3	3	--	--	--	--	--
40 - 44	15	--	2	1	6	6	--	--	--	--
45 - 49	21	--	--	--	8	9	4	--	--	--
50 - 54	15	--	--	--	2	2	8	3	--	--
55 - 59	6	--	--	--	--	1	--	3	2	--
60 - 64	6	--	--	--	--	--	--	1	5	--
65 - 69	--	--	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
Total	92	10	13	6	19	18	12	7	7	--
	\$55,814	\$50,946	\$52,982	\$54,302	\$54,981	\$56,601	\$57,917	\$57,498	\$64,274	--

SECTION 3: Supplemental Information for the City of Meriden Fire Pension Fund

EXHIBIT C

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of July 1, 2002	98	0	35	40	21	194
New participants	2	N/A	N/A	N/A	N/A	2
Terminations – with vested rights	0	0	0	0	0	0
Terminations – without vested rights	0	N/A	N/A	N/A	N/A	0
Retirements	-5	0	N/A	5	N/A	0
New disabilities	-1	0	1	N/A	N/A	0
Died with beneficiary	-1	0	0	-5	6	0
Died without beneficiary	0	0	-1	-1	-3	-5
Lump sum payoffs	<u>-1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>-1</u>
Number as of July 1, 2004	92	0	35	39	24	190

SECTION 3: Supplemental Information for the City of Meriden Fire Pension Fund

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended June 30, 2004	Year Ended June 30, 2003
Contribution income:		
Employer contributions	\$1,675,200	\$1,675,200
Employee contributions	351,204	309,461
Less administrative expenses	<u>-27,756</u>	<u>-60,734</u>
Net contribution income	\$1,998,648	\$1,923,927
Other income	0	0
Investment income:		
Interest, dividends and other income	\$1,428,201	\$1,158,565
Adjustment toward market value	502,217	-5,484,594
Less investment fees	<u>-177,715</u>	<u>-178,551</u>
Net investment income	<u>1,752,703</u>	<u>-4,504,580</u>
Total income available for benefits	\$3,751,351	-\$2,580,653
Less benefit payments:	\$3,176,697	\$3,077,000
Change in actuarial asset method	\$0	\$0
Change in reserve for future benefits	\$574,654	-\$5,657,653

SECTION 3: Supplemental Information for the City of Meriden Fire Pension Fund

EXHIBIT E

Table of Financial Information

	Year Ended June 30, 2004	Year Ended June 30, 2003
Cash equivalents	\$2,497,825	\$5,691,778
Accounts receivable:	0	0
Investments:		
Total investments at market value	<u>\$34,395,499</u>	<u>\$30,005,377</u>
Total assets	\$36,893,324	\$35,697,155
Less accounts payable:	\$658	\$12,460
Net assets at market value	<u>\$36,892,666</u>	<u>\$35,684,695</u>
Net assets at actuarial value	<u>\$43,396,288</u>	<u>\$42,821,634</u>

SECTION 3: Supplemental Information for the City of Meriden Fire Pension Fund

EXHIBIT F

Development of the Fund Through June 30, 2004

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
2003	1,675,200	309,461	0	-4,504,580	60,734	3,077,000	42,821,634
2004	1,675,200	351,204	0	1,752,703	27,756	3,176,697	43,396,288

* Net of investment fees

SECTION 3: Supplemental Information for the City of Meriden Fire Pension Fund

EXHIBIT G

Development of Unfunded/(Overfunded) Actuarial Accrued Liability

	Year Ended	
	June 30, 2004	June 30, 2003
1. Unfunded/(overfunded) actuarial accrued liability at beginning of year	\$12,618,131	\$12,616,328
2. Normal cost at beginning of year	1,008,938	977,180
3. Total contributions	-2,026,404	-1,984,661
4. Interest		
(a) For whole year on (1) + (2)	\$1,090,166	\$1,087,481
(b) For half year on (3)	<u>-79,707</u>	<u>-78,197</u>
(c) Total interest	1,010,459	1,009,284
5. Expected unfunded/(overfunded) actuarial accrued liability	\$12,611,124	\$12,618,131
6. Changes due to:		
(a) (Gain)/loss	\$8,322,820	--
(b) Assumptions	-170,839	--
(c) Funding method	--	--
(d) Plan provisions	<u>-64,851</u>	--
(e) Total changes	8,087,130	--
7. Unfunded/(overfunded) actuarial accrued liability at end of year	<u>\$20,698,254</u>	<u>\$12,618,131</u>

SECTION 3: Supplemental Information for the City of Meriden Fire Pension Fund

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.

SECTION 3: Supplemental Information for the City of Meriden Fire Pension Fund

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.

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

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 24 beneficiaries in pay status)		98
2. Participants inactive during year ended June 30, 2004 with vested rights		0
3. Participants active during the year ended June 30, 2004		92
Fully vested	26	
Not vested	66	
4. participants as of June 30, 2004		0

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

1. Normal cost, including administrative expenses		\$929,783
2. Actuarial accrued liability		64,094,542
Retired participants and beneficiaries	\$37,165,558	
Inactive participants with vested rights	0	
Active participants	26,928,984	
3. Actuarial value of assets (\$36,892,666 at market value as reported by McGladrey & Pullen, LLP)		43,396,288
4. Unfunded actuarial accrued liability		\$20,698,254

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

The determination of the recommended contribution is as follows:

1. Total normal cost	\$909,783
2. Administrative expenses	20,000
3. Expected employee contributions	<u>-278,362</u>
4. Employer normal cost: (1) + (2) + (3)	\$651,421
5. Payment on unfunded/(overfunded) actuarial accrued liability	1,795,358
6. Total valuation contribution: (4) + (5), adjusted for timing	<u>\$2,544,651</u>
7. Projected City normal cost as of July 1, 2005: [(1) + (3)] x 1.045 + (2)	679,835
8. Recommended contributions for fiscal year ending June 30, 2006: (5) + (7), adjusted for interest	\$2,574,201
9. Projected City normal cost as of July 1, 2005: [(1) + (3)] x 1.045 x 1.045 + (2)	709,528
10. Recommended contributions for fiscal year ending June 30, 2007: (5) + (9), adjusted for interest	\$2,605,081

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
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	1,675,200	89.4%
2005	1,906,328	--	--
2006	2,574,201	--	--
2007	2,605,081	--	--

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

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%
07/01/2003	N/A	N/A	N/A	N/A	N/A	N/A
07/01/2004	43,396,288	64,094,542	20,698,254	67.71%	5,134,902	403.09%

* Not less than zero

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

EXHIBIT IV

Supplementary Information Required by the GASB

Valuation date	July 1, 2004
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level dollar, closed
Remaining amortization period	25 years remaining as of July 1, 2004
Asset valuation method	5-year smoothing of investment returns greater/(less) than expected

Actuarial assumptions:

Investment rate of return	8.00%
Projected salary increases	2005 3.00%
	2006 3.00%
	2007 4.25%
	2008 5.25%

Plan membership:

Retired participants and beneficiaries receiving benefits	98
Terminated participants entitled to, but not yet receiving benefits	0
Active participants	<u>92</u>
Total	190

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

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)
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	11.3953	1,427,597	471,825	13,144,443
2002	1,647,793	1,632,000	1,084,417	1,163,307	11.2992	1,568,903	-63,097	13,081,346
2003	1,682,036	1,675,200	1,079,211	1,168,478	11.1952	1,592,769	-82,431	12,998,915
2004	1,872,975	1,675,200	1,039,913	1,144,699	11.3558	1,768,189	92,989	13,091,904

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

EXHIBIT VI

Actuarial Assumptions and Actuarial Cost Method

Mortality rates: 1983 Group Annuity Mortality Table with margins

Termination rates before retirement:

Age	Rate (%)					
	Mortality		Disability		Withdrawal	
	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%

Retirement age: 52 or completion of 30 years of service, but not later than 65

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

Salary increases:

Year	Rate (%)
2005	3.00%
2006	3.00%
2007	4.25%
2008 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.

**Cost of living increase
after retirement:**

3% per year for future retirees and 3.75% for current retirees

Administrative expenses:

\$20,000 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.

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

Changes in assumptions:

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

- The salary increase assumption has been changed. A table comparing the current assumption and the prior assumption is below:

<u>New Assumption</u>		<u>Prior Assumption</u>	
2005	3.00%	2005	4.25%
2006	3.00%	2006 and later	5.25%
2007	4.25%		
2008 and later	5.25%		

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

EXHIBIT VII

Summary of Plan Provisions

This exhibit summarizes the major provisions of the City of Meriden Fire Pension Fund included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions. This plan covers all full-time firefighters hired, elected or appointed prior to March 21, 2003.

Plan Year: July 1 through June 30

Normal Retirement:

<i>Age requirement</i>	None
<i>Service requirement</i>	25 years
<i>Amount</i>	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 (as long as language remains in collective bargaining agreement)).

Disability:

Service connected

<i>Age requirement</i>	None
<i>Service requirement</i>	None
<i>Amount</i>	An annuity of no less than 50% of prevailing pay for the rank held at termination.

Non-service connected

<i>Age requirement</i>	None
<i>Service requirement</i>	10 years if hired after July 1, 1971; otherwise none
<i>Amount</i>	An annuity of 50% of prevailing pay for the rank held at termination.

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

Spouse's pre-retirement death benefit:

Lump sum benefit

<i>Age requirement</i>	None
<i>Service requirement</i>	None
<i>Amount</i>	Refund of employee contributions

Service connected spouse's benefit

<i>Age requirement</i>	None
<i>Service requirement</i>	None
<i>Amount</i>	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

<i>Requirement</i>	Eligible for service retirement
<i>Amount</i>	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:

<i>Lump-sum benefit</i>	100% of contributions made on behalf of the employee, less total benefits paid to the pensioner (if not eligible for spouse's benefit).
<i>Spouse's benefit</i>	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 April 1, 2003 with a minimum of 25 years of service shall receive a COLA of 3% per year to begin one year after retirement.

Employee contribution rate:

7.5% of rate of pay pretax plus emoluments. 6.5% goes to pension and 1% goes to health.

SECTION 4: Reporting Information for the City of Meriden Fire Pension Fund

Changes in plan provisions:

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

- The disability benefit is 50% of prevailing pay for the rank held at termination. Previously, it was 50% of prevailing pay for the rank held at termination, including holiday and longevity pay and insurance.