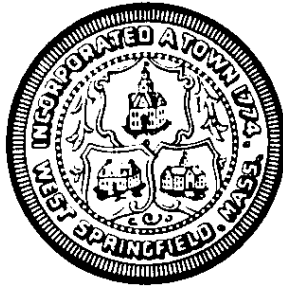

West Springfield Retirement System



Actuarial Valuation January 1, 2002

STONE CONSULTING, INC.

31 Marlyn Road
Medfield, MA 02052
(508) 359-9600 (Telephone)
(508) 359-0190 (Facsimile)

October 27, 2002

Mr. Raymond Spear, Chair
Chairman
West Springfield Retirement Board
26 Central Street
West Springfield, MA 01089

Dear Mr. Spear:

Stone Consulting, Inc. has performed a January 1, 2002 actuarial valuation of the West Springfield Retirement System. This valuation and report was prepared using generally accepted actuarial principles and practices. To the best of our knowledge, this report is complete and accurate, and the assumptions used represent our best estimate of anticipated experience of the system.

As part of performing the valuation, Stone Consulting, Inc. was furnished member data by the West Springfield Retirement System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

The funding objective of the plan is to maintain a stable contribution amount for the upcoming fiscal year that is consistent with prior funding policies. We anticipate over time that the contribution level will decrease as a percentage of payroll. The contribution rate is determined by adding the normal cost plus an amortization of the unfunded actuarial accrued liability. The normal cost is expected to remain at a level percentage of payroll. The number of years of the amortization and/or the rate of increase of the amortization is adjusted to maintain the scheduled contribution level for the upcoming fiscal year. The length of the funding schedule contained in this actuarial valuation report is twenty-five years (fully funded by 2028) and the amortization increase is 3.94% per year. The amortization increase is not to exceed 4.5% annually. The length of the amortization is until fiscal 2028 or before. These limits are contained in Chapter 32 of the Massachusetts General Laws.

The system's funding objective is currently being realized. The funding objective of the plan is to maintain a system-wide contribution level for current fiscal years consistent with the funding schedule contained in this valuation. To achieve this funding policy, the schedule length and/or the amortization is adjusted. The contribution amount for fiscal 2004 is within 1.0% of the anticipated contribution amount from the prior funding schedule.

We recommend that the West Springfield Retirement Board conduct actuarial valuations at least every two years. This satisfies the guidelines promulgated by PERAC and GASB.

We are pleased to present the results of this valuation. If the Retirement Board has any questions on the content of this report, we would be glad to respond.

Respectfully submitted,

STONE CONSULTING, INC.

Actuaries for the Plan

Lawrence B. Stone
Member, American Academy of Actuaries

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WEST SPRINGFIELD RETIREMENT SYSTEM

SECTION I

MANAGEMENT SUMMARY

INTRODUCTION

This report presents the results of the actuarial valuation of the West Springfield Retirement System. The valuation was performed at the request of the Retirement Board as of January 1, 2002 for the purpose of determining the contribution requirement for Fiscal Year 2004.

The valuation was based on member data as of January 1, 2002 supplied by the Retirement Board. Asset information as of January 1, 2002 was provided in financial statements prepared by the Retirement Board. The provisions reflected in the valuation are based on Chapter 32 of the General Laws of the Commonwealth of Massachusetts and related statutes.

The recommended contribution amount for Fiscal Year 2004 is \$3,721,527. The expected contribution amount prior to the new valuation results, for Fiscal Year 2004, is \$3,758,605. The funding schedule is an twenty-five year funding schedule with a 3.94% increasing amortization. The Fiscal Year 2004 contribution is \$37,000 less than the planned 2003 contribution. This was due to a change in the timing of the contributions from contributing mid-year to quarterly contributions. Otherwise, the contribution would have been \$3,760,631. There was a significant actuarial asset loss of \$2.5 million over the two year period since the previous valuation. The poor investment performance versus the assumption of an expected investment return of 8% per year resulted in an increase to the amortization increase from a level amortization to an increase of 3.94% per year.

	January 1, 2000 Valuation	January 1, 2002 Valuation
Contribution Fiscal 2004	\$3,758,605	\$3,721,527
Funding Schedule Length	25 years	25 years
Amortization Increase	Level	3.94%
Funding Ratio	56%	56%

Assumption changes lowered Net Normal Cost by \$300,000 and increased the Actuarial Accrued Liability by \$1.5 million. The non-economic assumption changes included mortality tables, incidence of disability and rates of withdrawal. These assumption changes are consistent with the results of the recent PERAC experience study. In addition, the salary increase assumption was decreased from 5.5% to 5.25% to reflect expected future experience.

The funding level of the West Springfield Retirement System is 56% compared to the 56% at the time of the prior valuation of January 1, 2000. This is mainly due to the significant asset loss.

In the report are exhibits in which the demographic information, actuarial results, and actuarial

WEST SPRINGFIELD RETIREMENT SYSTEM

assumptions, cost methods and techniques are given in greater detail.

SECTION II

DEMOGRAPHIC INFORMATION

Members *

- *Actives*

a. Number	577	(3.8%)
b. Annual Compensation	\$16,889,285	(12.7%)
c. Average Annual Compensation	\$29,271	(8.6%)
d. Average Attained Age	46	(2.0%)
e. Average Past Service	10.6	(5.0%)

- *Retired, Disabled and Beneficiaries*

a. Number	359	(-1.4%)
b. Total Annual Retirement Allowance excluding COLA	\$3,978,903	(9.6%)

- *Inactives*

a. Number	92	(8.2%)
-----------	----	--------

*In parentheses is the percentage increase/decrease from the January 1, 2000 valuation.

The payroll growth (12.7%) over the past two years was somewhat greater than the January 1, 2000 salary increase assumption of 5.50% per year. Average annual compensation increased during the two year period by 8.6%. These numbers as well as the Town's expected future experience indicated that the current salary increase assumption of 5.25% is reasonable.

WEST SPRINGFIELD RETIREMENT SYSTEM

VALUATION METHODOLOGY

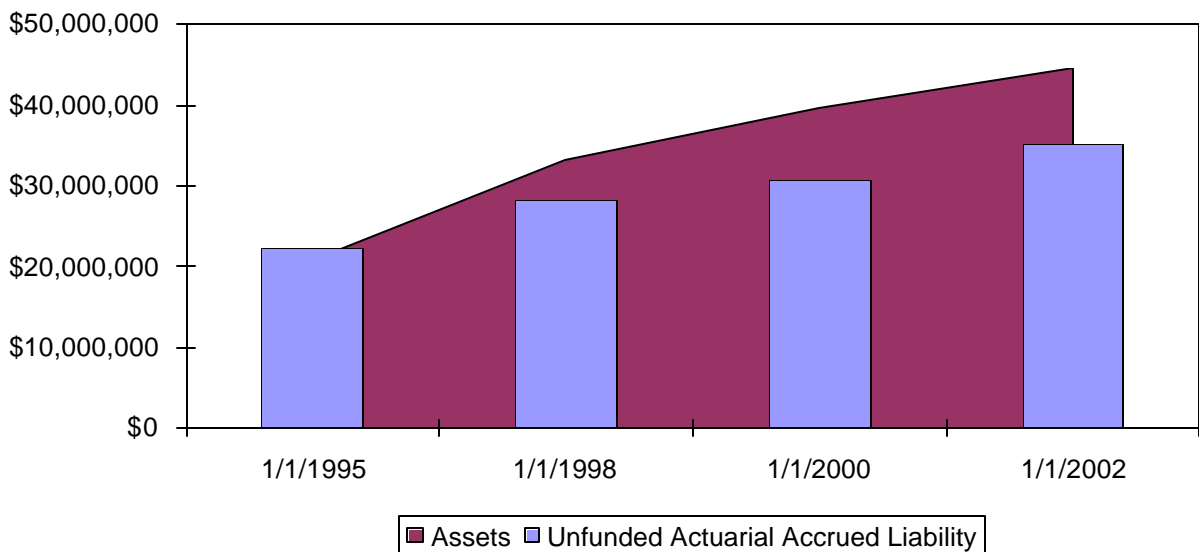
Stone Consulting, Inc. used the Entry Age Normal actuarial funding method in this actuarial valuation. The use of the Entry Age Normal actuarial funding method is consistent with the requirements of Chapter 32 of the Massachusetts General Laws.

ACTUARIAL ACCRUED LIABILITY AND FUNDED STATUS

Active Actuarial Accrued Liability	\$	42,713,023
Retiree, Inactive, Survivor and Beneficiary Actuarial Accrued Liability		<u>37,147,790</u>
Total Actuarial Accrued Liability (AAL)	\$	79,860,813
Actuarial Value of Assets (AVA)	\$	<u>44,610,319</u>
Unfunded Actuarial Accrued Liability	\$	35,250,494
Funded Ratio (AVA / AAL)		56%

Actuarial Accrued Liability (AAL) is the “price” of benefits attributable to benefits earned in past years. The total AAL is \$79,860,813. This along with an actuarial value of assets of \$44,610,319 produces a funded status of 56%. This compares to a funded status of 56% for the 2000 valuation.

The following chart is a history of the unfunded actuarial accrued liability and the valuation assets over the course of the past four actuarial valuations.



WEST SPRINGFIELD RETIREMENT SYSTEM

NORMAL COST

Gross Normal Cost	\$	2,437,928
Employees Contribution		<u>1,352,068</u>
Net Normal Cost	\$	1,085,860
Adjusted to Beginning of Fiscal Year 2004	\$	86,624
Administrative Expense		<u>139,254</u>
Adjusted Net Normal Cost With Admin. Expense	\$	1,311,738

The gross normal cost (GNC) is the “price” of benefits accruing in the current year. The GNC is \$2,437,928. The GNC is offset by estimated employee contributions of \$1,352,068, resulting in a net normal cost (NNC) of \$1,085,860. The Retirement Board estimated an administrative expense budget for Fiscal Year 2004 of \$139,254. The net normal cost is adjusted to the beginning of the fiscal year and the administrative expense of \$139,254 is added. The result is the net employer normal cost.

FUNDING SCHEDULE

Net Employer Normal Cost for Fiscal 2004	\$	1,311,738
Amortization		<u>2,304,755</u>
Total Appropriation required for Fiscal 2004	\$	3,616,493

The funding schedule is composed of the normal cost, and the amortization of the actuarial accrued unfunded liability adjusted by the administrative expense assumption and rolled up to the beginning of the fiscal year.

The contribution amount for Fiscal 2004 is \$3,721,527. The funding schedule is presented on page 9. The schedule’s length is twenty-five years. The system is scheduled to be fully funded in fiscal 2028, the same year as the prior funding schedule. In developing the funding schedule, we used a fresh start approach in which the unfunded actuarial accrued liability is reamortized instead of maintaining the existing amortization amount and separately amortizing the actuarial gain or loss. The use of a fresh-start approach results in a funding schedule in which the changes in contribution amounts from year to year are more consistent. The amortization increased from 0% (or what is known as Level Amortization) to a rate of increase of 3.94%. By increasing the amortization increase rate, the contribution amount for fiscal 2004 remains at an amount similar to the prior funding schedule. However, the rate of increase in future contributions has been significantly increased.

If a similar asset loss is observed in the January 1, 2004 valuation, the fiscal 2006 contribution amount will increase significantly.

WEST SPRINGFIELD RETIREMENT SYSTEM

Timing of Contributions

Employer contributions are assumed to be made in four equal amounts in the beginning of each fiscal quarter. In the prior valuation, contribution were assumed to be made mid-fiscal year.

WEST SPRINGFIELD RETIREMENT SYSTEM

SECTION II (Continued)

ASSUMPTIONS AND METHODOLOGY SUMMARY

The principal actuarial assumptions used in this valuation are the same as the assumptions used in the previous valuation, except where noted, and are summarized in the following table:

<u>Assumption</u>	<u>January 1, 2002 Valuation</u>
Interest Rate	8.00%
Salary Increase	5.25% (past valuation was 5.5%)
COLA	3% of \$12,000
COLA Frequency	Granted every year
Mortality	RP2000 table (prior valuation used GAM94). For members retired under an Accidental Disability (job-related), 40% of deaths are assumed to be from the same cause as the disability. Disabled mortality RP2000 table, ages set forward 5 years.
Overall Disability	<u>Groups 1 and 2</u> 30% ordinary disability 70% accidental disability <u>Group 4</u> 10% ordinary disability 90% accidental disability
Retirement Rates	<u>Groups 1 and 2</u> Ages 55 – 65 <u>Group 4</u> Ages 50 – 65
Administrative Expense	\$139,254 budget estimated for FY 2004 provided by West Springfield Retirement Board.

WEST SPRINGFIELD RETIREMENT SYSTEM

SECTION II (Continued)

MEMBERSHIP DATA

The data was supplied by the West Springfield Retirement Board. The data was checked under broad parameters of reasonableness. With the assistance of the staff of the West Springfield Retirement Board, we were able to develop a database sufficient for valuation purposes.

ASSETS

a.	Cash	\$	1,753,757.33
b.	Fixed Income		17,208,382.00
c.	Equities		<u>23,827,437.23</u>
d.	Subtotal	\$	42,789,576.56
e.	Interest Due and Accrued	\$	186,802.71
f.	Accounts Receivable		1,699,282.53
g.	Accounts Payable		<u>(65,343.12)</u>
h.	Subtotal	\$	1,820,742.12
i.	Market Value of Assets [(d) + (h)]	\$	44,610,318.68

We were furnished with the System's annual report by the Board. The market value of assets as of December 31, 2001 (adjusted for interest due and accrued, payables and receivables) is \$44,610,318.68. Assets were invested 4% in cash and cash equivalents, 40% in fixed investments, 56% in equities.

**WEST SPRINGFIELD RETIREMENT SYSTEM
FUNDING SCHEDULE
FRESH START**

Fiscal Year	Normal Cost	Unfunded Liability	Funding Amortization of UAL	Schedule Contribution	Adjusted for Quarterly Payments
2004	1,311,738	37,738,463	2,304,755	3,616,493	3,721,527
2005	1,380,604	38,268,404	2,395,409	3,776,014	3,885,679
2006	1,453,086	38,742,835	2,489,635	3,942,721	4,057,228
2007	1,529,373	39,153,456	2,587,573	4,116,946	4,236,513
2008	1,609,665	39,491,154	2,689,370	4,299,035	4,423,891
2009	1,694,172	39,745,927	2,791,279	4,485,452	4,615,722
2010	1,783,117	39,911,020	2,901,256	4,684,372	4,820,419
2011	1,876,730	39,970,545	3,015,565	4,892,295	5,034,381
2012	1,975,258	39,911,378	3,134,378	5,109,637	5,258,035
2013	2,078,960	39,719,160	3,257,873	5,336,832	5,491,829
2014	2,188,105	39,378,190	3,386,233	5,574,338	5,736,232
2015	2,302,980	38,871,314	3,519,651	5,822,631	5,991,736
2016	2,423,887	38,179,796	3,658,325	6,082,212	6,258,856
2017	2,551,141	37,283,189	3,802,463	6,353,604	6,538,130
2018	2,685,076	36,159,184	3,952,280	6,637,356	6,830,123
2019	2,826,042	34,783,457	4,108,000	6,934,042	7,135,426
2020	2,974,410	33,129,494	4,269,855	7,244,264	7,454,658
2021	3,130,566	31,168,410	4,438,087	7,568,653	7,788,468
2022	3,294,921	28,868,749	4,612,948	7,907,869	8,137,535
2023	3,467,904	26,196,265	4,794,698	8,262,602	8,502,571
2024	3,649,969	23,113,692	4,983,609	8,633,578	8,884,321
2025	3,841,592	19,580,490	5,179,963	9,021,556	9,283,567
2026	4,043,276	15,552,569	5,384,054	9,427,330	9,701,126
2027	4,255,548	10,981,996	5,596,186	9,851,734	10,137,855
2028	4,478,964	5,816,675	5,816,675	10,295,640	10,594,654
2029	4,714,110	-	-	4,714,110	4,851,021

Amortization of Unfunded Liability as of July 1, 2003

Year	Type	Original Amort. Amount	Percentage Increasing	Original # of Years	Current Amort. Amount	Years Remaining
1994	ERI - HA	3,898	0.00%	15	3,898	5
2004	Fresh Start	2,300,857	3.94%	25	2,300,857	25

Notes on Amortization of Unfunded Liability

Year is the year the amortization base was established.

Type is the reason for the creation of the base. Examples are Gain/(Loss) or Fresh Start.

Original Amortization Amount is the annual amortization amount when the base was established.

Percentage Increasing is the percentage that the Original Amortization Amount increases per year.

Original # of Years is the number of years over which the base is being amortized.

Current Amortization Amount is the amortization payment amount for this year.

Years Remaining is the number of years left to amortize the base.

WEST SPRINGFIELD RETIREMENT SYSTEM

SECTION II (Continued)

SUMMARY OF JANUARY 1, 2002 VALUATION

	<u>January 1, 2002</u> <u>Valuation</u>
Funding	
• Contribution for Fiscal 2004	\$3,721,527
• Contribution for Fiscal 2004 based on current schedule	\$3,758,605
Members *	
• <i>Actives</i>	
a. Number	577 (3.8%)
b. Annual Compensation	\$16,889,285 (12.7%)
c. Average Annual Compensation	\$29,271 (8.6%)
d. Average Attained Age	46 (2.0%)
e. Average Past Service	10.6 (5.0%)
• <i>Retired, Disabled and Beneficiaries</i>	
a. Number	359 (-1.4%)
b. Total Annual Retirement Allowance excluding state-reimbursed COLA	\$3,978,903 (9.6%)
• <i>Inactives</i>	
a. Number	92 (8.2%)
Normal Cost	
a. Total Normal Cost as of January 1, 2002	\$2,437,928
b. Less Expected Members' Contributions	<u>1,352,068</u>
c. Normal Cost to be funded by the Municipality	\$1,085,860
d. Adjustment to July 1, 2003	86,624
e. Administrative Expense Assumption	<u>139,254</u>
f. Normal Cost Adjusted to July 1, 2003	\$1,311,738

*In parentheses is the percentage increase/decrease from the January 1, 2000 valuation.

WEST SPRINGFIELD RETIREMENT SYSTEM

SUMMARY OF JANUARY 1, 2002 VALUATION (Continued)

	<u>January 1, 2002</u> <u>Valuation</u>
Actuarial Accrued Liability as of January 1, 2002	
a. Active Members	\$42,713,023
b. Inactive Members	451,204
c. Retired Members and Beneficiaries	<u>36,696,586</u>
d. Total	\$79,860,813
 Unfunded Actuarial Accrued Liability	
a. Actuarial Accrued Liability as of January 1, 2002	\$79,860,813
b. Less Actuarial Value of Assets as of January 1, 2002	<u>44,610,319</u>
c. Unfunded Actuarial Accrued Liability as of Jan. 1, 2002	\$35,250,494
d. Adjustment to July 1, 2003	<u>2,487,969</u>
e. Unfunded Actuarial Accrued Liability as of July 1, 2003	\$37,738,463

WEST SPRINGFIELD RETIREMENT SYSTEM

SECTION II (CONTINUED)

DISCLOSURE INFORMATION UNDER GASB STATEMENT 25

Schedules of Funding Progress

(Dollars In Thousands)

Actuarial Valuation Date	Actuarial Value of Assets A	Actuarial Accrued Liability B	Unfunded AAL (UAAL) B-A	Funded Ratio A/B	Covered Payroll C	UAAL as a % of Covered Payroll (B-A)/C
1/1/2002	\$44,610	\$79,861	\$35,251	56%	\$16,889	209%
1/1/2000	\$39,653	\$70,383	\$30,730	56%	\$14,986	205%
1/1/1998	\$33,304	\$61,688	\$28,384	54%	\$13,309	213%
1/1/1995	\$20,814	\$43,245	\$22,431	48%	\$10,790	208%

Notes to Schedules

Additional information as of the latest actuarial valuation follows:

Valuation date	1/1/2002
Actuarial cost method	Entry Age Normal
Amortization method	Approximate level percent of payroll Closed
Remaining amortization period	25 years
Asset valuation method	Market value adjusted by payables and receivables
Actuarial assumptions:	
Investment Rate of Return	8.00% per year
Projected Salary Increases	5.25% per year

WEST SPRINGFIELD RETIREMENT SYSTEM

PERAC INFORMATION DISCLOSURE

The most recent actuarial valuation of the System was prepared by Stone Consulting, Inc. as of January 1, 2002

The normal cost for employees on that date was:	1,352,068	8.0% of payroll
The normal cost for the employer was:	\$1,085,860	6.4% of payroll
The actuarial liability for active members was:	\$42,713,023	
The actuarial liability for retired members was:	\$37,147,790	
(Includes inactive)		
Total actuarial accrued liability:	\$79,860,813	
System assets as of that date:	<u>44,610,319</u>	
Unfunded actuarial accrued liability:	\$35,250,494	
The ratio of system's assets to total actuarial liability was:	56%	
As of that date the total covered employee payroll was	\$16,889,285	

The principal actuarial assumptions used in the valuation are as follows:

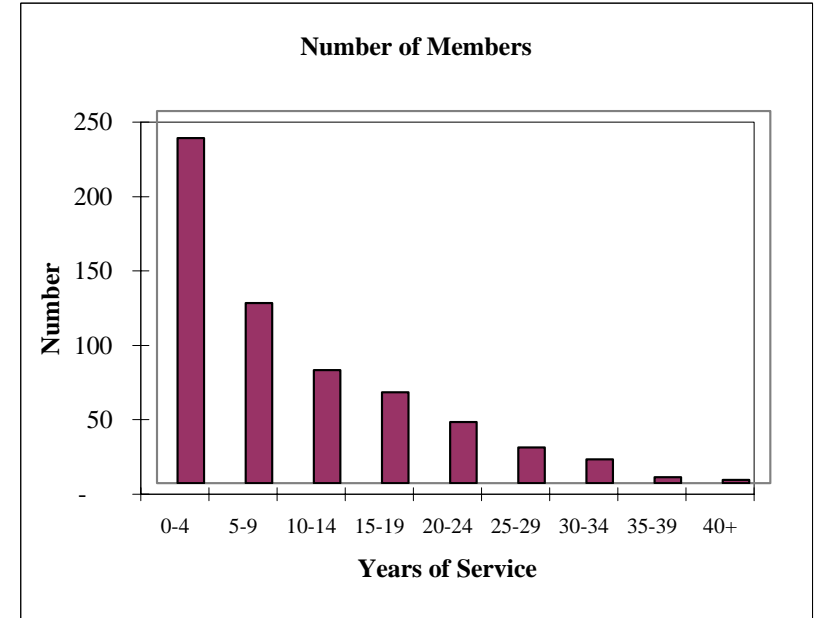
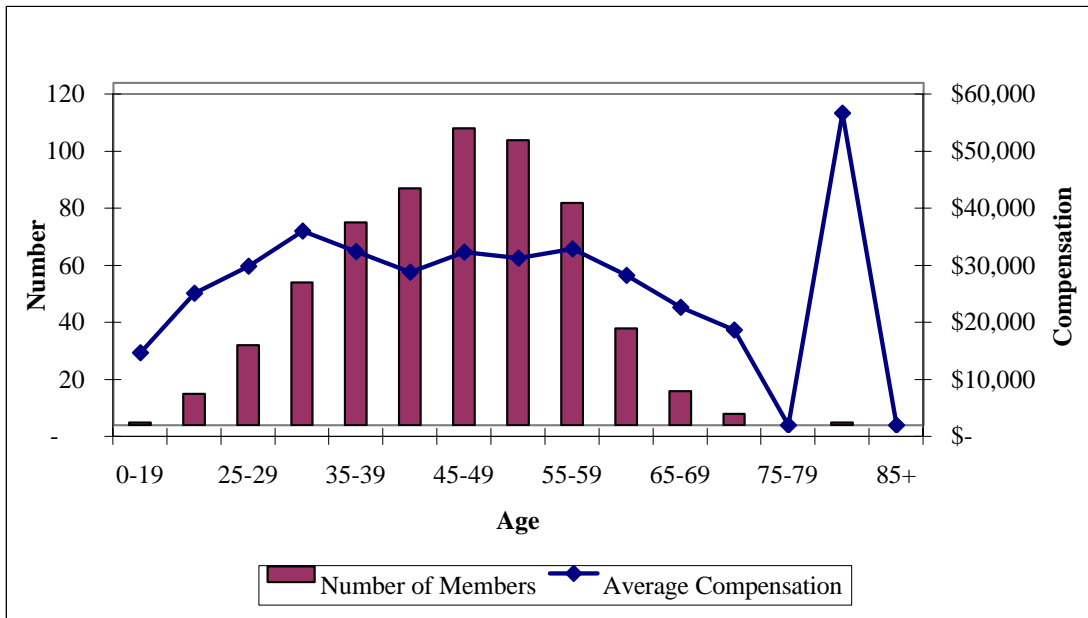
Investment Return:	8.00% per annum
Rate of Salary Increase:	5.25% per annum

SCHEDULE OF FUNDING PROGRESS (Dollars in \$000's)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
1/1/2002	\$44,610	\$79,861	\$35,251	56%	\$16,889	209%
1/1/2000	\$39,653	\$70,383	\$30,730	56%	\$14,986	205%
1/1/1998	\$33,304	\$61,688	\$28,384	54%	\$13,309	213%
1/1/1995	\$20,814	\$43,245	\$22,431	48%	\$10,790	208%

West Springfield Retirement System Distribution of Plan Members as of January 1, 2002 Active Members

AGE	0-4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40 + Years	Total	Total Compensation	Average Compensation
0-19	1	-	-	-	-	-	-	-	-	1	\$ 12,691	\$ 12,691
20-24	11	-	-	-	-	-	-	-	-	11	254,809	23,164
25-29	26	2	-	-	-	-	-	-	-	28	779,820	27,851
30-34	32	16	1	1	-	-	-	-	-	50	1,703,225	34,065
35-39	33	15	16	7	-	-	-	-	-	71	2,162,313	30,455
40-44	36	18	15	13	1	-	-	-	-	83	2,222,991	26,783
45-49	38	24	12	11	15	4	-	-	-	104	3,154,227	30,329
50-54	25	29	11	12	12	10	1	-	-	100	2,928,439	29,284
55-59	19	9	10	11	8	7	11	3	-	78	2,409,491	30,891
60-64	7	5	8	4	4	2	3	1	-	34	892,203	26,241
65-69	3	1	2	2	1	1	1	-	1	12	247,757	20,646
70-74	1	2	1	-	-	-	-	-	-	4	66,585	16,646
75-79	-	-	-	-	-	-	-	-	-	-	-	-
80-84	-	-	-	-	-	-	-	-	1	1	54,735	54,735
85+	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	232	121	76	61	41	24	16	4	2	577	\$ 16,889,285	\$ 29,271

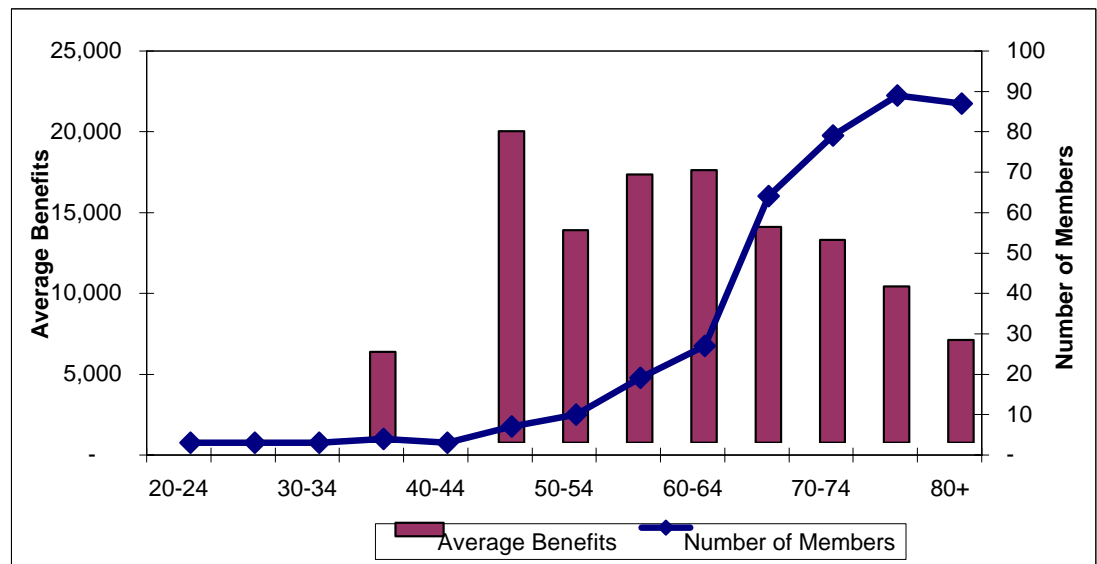


West Springfield Retirement System
Distribution of Plan Members as of January 1, 2002
Retired Members

Age	<u>Disabled Member</u>		
	Number	Average Benefit	Total Benefit
20-24	-	-	-
25-29	-	-	-
30-34	-	-	-
35-39	-	-	-
40-44	-	-	-
45-49	4	19,261	77,046
50-54	5	17,165	85,825
55-59	10	17,563	175,626
60-64	5	21,257	106,283
65-69	7	18,673	130,712
70-74	6	17,726	106,354
75-79	5	14,132	70,660
80+	2	11,887	23,774
TOTAL	44	\$ 17,643	\$ 776,280

Age	<u>Retired Members and Beneficiaries</u>		
	Number	Average Benefit	Total Benefit
20-24	-	-	-
25-29	-	-	-
30-34	-	-	-
35-39	1	5,610	5,610
40-44	-	-	-
45-49	-	-	-
50-54	2	3,111	6,222
55-59	6	14,974	89,841
60-64	19	15,721	298,692
65-69	54	12,647	682,962
70-74	70	12,096	846,742
75-79	81	9,397	761,155
80+	82	6,237	511,399
TOTAL	315	\$ 10,167	\$ 3,202,623

Age	<u>Total</u>		
	Number	Average Benefit	Total Benefit
20-24	-	-	-
25-29	-	-	-
30-34	-	-	-
35-39	1	5,610	5,610
40-44	-	-	-
45-49	4	19,261	77,046
50-54	7	13,150	92,048
55-59	16	16,592	265,467
60-64	24	16,874	404,975
65-69	61	13,339	813,673
70-74	76	12,541	953,096
75-79	86	9,672	831,815
80+	84	6,371	535,173
TOTAL	359	\$ 11,083	\$ 3,978,903



WEST SPRINGFIELD RETIREMENT SYSTEM

ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Methods

1. Actuarial Cost Method
The Entry Age Normal Actuarial Cost Method has been used in this valuation. Under this method, the normal cost is the amount calculated as the level percentage of compensation necessary to fully fund the prospective benefits from each member's entry age to retirement age.

The actuarial accrued liability represents the theoretical accumulation of all prior years' normal costs for the plan members as if the program had always been in effect. The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over plan assets.
2. Asset Valuation Method
Market value of assets (adjusted by payables and receivables).
3. Fiscal Year Adjustment
The actuarial results are adjusted by the valuation interest rate and salary scale to the beginning of Fiscal Year 2004. The unfunded actuarial accrued liability is rolled forward with normal cost and further adjusted by anticipated contributions and interest.

Actuarial Assumptions

1. Investment Return
8.00% per year net of investment expenses.
2. Salary Increases
5.25% per year.
(5.5% in prior valuation)

WEST SPRINGFIELD RETIREMENT SYSTEM

ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

3. Withdrawal Prior to Retirement The rates shown at the following sample ages illustrate the withdrawal assumption.

<i>Age</i>	Rate of Withdrawal	
	<i>Group 1 and 2</i>	<i>Group 4</i>
20	37.51%	3.15%
25	28.23	2.85
30	17.35	2.48
35	10.06	1.88
40	7.21	0.84
45	5.68	0.06
50	4.58	0.00

4. Disability Prior to Retirement The rates shown at the following sample ages illustrate the assumption regarding the incidence of disability:

<i>Age</i>	Rate of Disability	
	<i>Group 1 and 2</i>	<i>Group 4</i>
25	.04%	.12%
30	.06	.18
35	.08	.26
40	.12	.38
45	.18	.58
50	.31	.98
55	.50	.60
60	.61	1.97
65	.64	2.06

Disability is assumed to be 30% ordinary and 70% accidental for Group 1 and 2 and 10% ordinary and 90% accidental for Group 4.

WEST SPRINGFIELD RETIREMENT SYSTEM

ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

5. Rates of Retirement

The rates shown at the following ages illustrate the assumption regarding the incidence of retirement, once the member has achieved 10 years of service:

	Rates of Retirement	
<i>Age</i>	<i>Group 1 and 2</i>	<i>Group 4</i>
50	N/A	2.0%
51	N/A	2.0
52	N/A	2.0
53	N/A	2.0
54	N/A	2.0
55	10.0%	5.0
56	3.0	5.0
57	3.0	5.0
58	3.0	5.0
59	5.0	5.0
60	5.0	10.0
61	5.0	10.0
62	10.0	20.0
63	10.0	20.0
64	10.0	20.0
65	100.0	100.0

6. Mortality

The RP-2000 mortality table for healthy annuitants. distinct). Prior valuation used the 1994 Group Annuity Mortality Table.

7. Disabled Life Mortality

The RP-2000 mortality table for healthy annuitants (sex-distinct) set-forward by 5 years (previously 1994 Group Annuity Mortality Table). Death is assumed to be due to the same cause as the disability, 40% of the time.

8. Regular Interest Rate Credited to Annuity Savings Account

4% per year.

WEST SPRINGFIELD RETIREMENT SYSTEM

ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

- | | |
|------------------------------|---|
| 9. Family Composition | Members assumed married with 2 dependent children – one male and one female both age 15; age difference between member and spouse assumed to be 3 years (the male being the older). |
| 10. Cost-of-Living Increases | A 3% COLA on the first \$12,000 of a member's retirement allowance is assumed to be granted every year. |
| 11. Administrative Expenses | Estimated budgeted amount of \$139,254 for the Fiscal Year excluding investment management fees and custodial fee is added to the Normal Cost. |
| 12. Step Increases | Step increases are assumed to be part of the salary increase assumption. |
| 13. Credited Service | Service between date of hire and date of membership is assumed to be purchased by all members. |
| 14. Contribution Timing | Contributions are assumed to be made quarterly in four equal payments on July 1, October 1, January 1 and April 1. In the prior valuation, contributions were made January 1. |
| 16. Valuation Date | January 1, 2002. |

WEST SPRINGFIELD RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL PROVISIONS

1. Participant Participation is mandatory for all full-time employees whose employment commences before age 65. There are three classes of members in the retirement system:

Group 1: general employees

Group 2: employees in specified hazardous occupations (e.g., electricians)

Group 4: police and firefighters

2. Member Contributions Member contributions vary depending upon date hired as follows:

Date of Hire	Member Contribution Rate
Prior to 1975	5% of Pay
1975 - 1983	7% of Pay
1984 - June 30, 1996	8% of Pay
After June 30, 1996	9% of Pay

Members hired after 1978 contribute an additional 2% of pay over \$30,000.

3. Pay
- a. Pay Gross regular compensation excluding bonuses, overtime, severance pay, unused sick pay, and other similar compensation.
- b. Average Pay The average of pay during the 3 consecutive years that produce the highest average or, if greater, during the last three years (whether or not consecutive) preceding retirement.
4. Credited Service Period during which an employee contributes to the retirement system plus certain periods of military service and “purchased” service.

WEST SPRINGFIELD RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL PROVISIONS (Continued)

5. Service Retirement

- a. Eligibility Completion of 20 years of credited service or age 55 (if hired prior to 1978 or a member of Group 4); otherwise, attainment of age 55 and completion of 10 years of credited service.

- b. Retirement Allowance Determined as the product of the member's benefit percentage, average pay and credited service, where the benefit percentage is shown below (maximum allowance of 80% of average pay):

Benefit Percentage	Group 1	Group 2	Group 4
2.5%	65+	60+	55+
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	N/A	49
1.8	58	N/A	48
1.7	57	N/A	47
1.6	56	N/A	46
1.5	55	N/A	45

In addition, veterans receive an additional \$15 per year for each year of credited service up to 20 years

6. Deferred Vested Retirement

- a. Eligibility Completion of 10 years of credited service (for elected and appointed members, 6 years in the event of involuntary termination).

WEST SPRINGFIELD RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL PROVISIONS (Continued)

- b. Retirement Allowance Determined in the same manner as 5b. with the benefit payable at age 55, unless deferred until later at the member's option.
- Member contributions with interest may be withdrawn after separation from service. If contributions are withdrawn, eligibility for retirement benefits is forfeited. Members hired before 1984 receive full interest on contributions that are withdrawn; otherwise, one half the credited interest is provided for members who withdraw after 5 but before 10 years of credited service and no interest is provided for withdrawals before 5 years of credited service.
7. Ordinary Disability Retirement
- a. Eligibility Non-job related disability after completion of 10 years of credited service.
- b. Retirement Allowance Determined in the same manner as 5b. with the benefit payable immediately. Veterans receive 50% of pay (during final year) plus an annuity based on accumulated member contributions with interest.
8. Accidental Disability Retirement
- a. Eligibility Disabled as a result of an accident in the performance of duties. No age or service requirement.
- b. Retirement Allowance 72% of pay plus an annuity based on accumulated member contributions with interest. Also, a dependent's allowance per year for each child. Total allowance not to exceed 100% of pay (75% for members hired after 1987).
9. Non-Occupational Death
- a. Eligibility Dies while in active service, but not due to occupational injury. 2 years of service.

WEST SPRINGFIELD RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL PROVISIONS (Continued)

- b. Retirement Allowance Benefit as if Option C had been elected (see below).
Minimum monthly benefits provided as follows: spouse -
\$250, first child - \$120, each additional child - \$90.
10. Occupational Death
- a. Eligibility Dies as a result of an occupational injury.
- b. Benefit Amount Same as 8b.
11. Cost-of-Living Increases An increase of up to 3% applied to the first \$12,000 of
annual benefit. Funded by the Municipality from Fiscal
Year 1999. Percentage increase is voted on each year by
the Retirement Board. Cost-of-living increases granted
during Fiscal Year 1982 through Fiscal 1998 are
reimbursed by the Commonwealth.
12. Optional Forms of Payment
- a. Option A Allowance payable monthly for the life of the member.
- b. Option B Allowance payable monthly for the life of the member with
a guarantee of remaining member contributions with
interest.
- c. Option C Allowance payable monthly for the life of the member with
66-2/3% continuing to the member's beneficiary upon the
member's death. If the beneficiary predeceases the
member, the allowance amount "pops up" to the non-
reduced amount.

WEST SPRINGFIELD RETIREMENT SYSTEM

SECTION II (Continued)

GLOSSARY OF TERMS

1. Present Value of Benefits Represents the dollar value today of all benefits expected to be earned by current members if all actuarial assumptions are exactly realized.
2. Actuarial Cost Method The procedure that is used to allocate the present value of benefits between the liability that is attributable to past service (Actuarial Accrued Liability) and that attributable to future service.
3. Actuarial Assumptions Estimates are made as to the occurrence of certain events that determine the level of benefits to be paid and how long they will be provided. The more important actuarial assumptions include the investment return on assets, salary increases and the rates of turnover, disability, retirement and mortality.
4. Actuarial Accrued Liability The portion of the Present Value of Benefits that is attributable to past service.
5. Normal Cost The portion of the Present Value of Benefits that is attributable to benefits to be earned in the coming year.
6. Actuarial Assets Market value of assets of the funds, adjusted by payables and receivables, set aside through employer and member contributions to provide for benefits.
7. Unfunded Actuarial Accrued Liability That portion of the Actuarial Accrued Liability not covered by System Assets.
8. PERAC Public Employee Retirement Administration Commission, a division of the State government which has regulatory authority over the administration of the retirement system.
9. PRIT Pension Reserves Investment Trust Fund is the state controlled and administered fund for the investment of assets for members of the retirement system.

WEST SPRINGFIELD RETIREMENT SYSTEM

GLOSSARY OF TERMS (Continued)

10. GASB Government Accounting Standards Board (issues guidance for disclosure of retirement system liabilities).