EAST LYME PENSION COMMITTEE
SPECIAL MEETING of June 10, 2021
MINUTES

PRESENT: K. Seery, A. Johnson, J. Wohler, P. Goulekas, J. LaFond, B. Hogan

ABSENT: M. Nickerson, M. Stevens and D. Connolly

ALSO PRESENT BY TELEPHONE: Mr. David Woodmansee, USI Consulting

Deputy First Selectman Seery called the meeting to order at 3:06 pm.

Mr. Woodmansee of USI Consulting reviewed The Defined Benefit Actuarial Experience Study prepared for the Town of East Lyme Pension Plan (see attached).

In particular, he reviewed the items the study focused on. He began by discussing economic assumptions in particular the history of the investment return by plan year on page 8. He also reviewed the salary scale assumption information on pages 9 and 10 of the report. Mr. Woodmansee then reviewed non-economic assumptions relative to when individuals retire early versus late retirement ages. Finally, he reviewed the recommendations on page 18 of the report. Once he was finished with his report the chair excused him from the meeting. The committee discussed the report and recommendations.

MOTION: by: J. Wohler, second by: J LaFond to recommend accepting the Assumptions as presented by the report. PASSED

The Committee then discussed the Portfolio Investment Management Services. The Committee determined that we should make it a policy to go out to bid for these services at least every ten years. We have been with the incumbent for that time period. The Committee requested the Finance Director provide a timeline for the RFP process, a draft RFP and a list of firms to consider at the next meeting.

Under any other business to come before the Committee Mr. Goulekas reviewed a proposal to improve Pension Asset-Liability Management to the Committee (see attached).

MOTION: by: J. Wohler, second by: P. Goulekas to adjourn meeting at 4:25 pm

Respectfully submitted,
For the Committee:

Anna M. Johnson
Director of Finance

FILED
June 11 2021 AT 8:00 AM/PM
EAST LYME TOWN CLERK

USI CONSULTING GROUP

A DEFINED BENEFIT ACTUARIAL EXPERIENCE STUDY

For:

TOWN OF EAST LYME PENSION PLAN

For the Period:
January 1, 2012 to December 31, 2020

Prepared by:
USI Consulting Group

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Below is a brief background on the experience study process and a description of the assumptions we have focused on for this study. For each assumption, we have commented on recent trends that affect the current results and included recommendations for changes, as appropriate, to help stabilize costs and support funding goals and policies of the Plan.

Overview

The purpose of this report is to present the results of an experience study of the individual assumptions utilized to value the liabilities of the Town of East Lyme Pension Plan. Each current assumption is compared to actual experience over the past five years and consideration is given to future expectations, especially for the economic assumptions. The difference between an economic assumption and a non-economic assumption is discussed below.

The ultimate cost of a pension plan is determined by the level of benefits provided, the group of participants who will receive the benefits, and the experience of the plan. The annual valuation process represents a structure and discipline whereby the costs of the pension plan are projected using assumptions intended to predict those costs. Annual contributions are then calculated to fund the expected cost and accounting liabilities are determined to further reflect the anticipated ultimate cost of the plan on the plan sponsor's financial statements.

The "experience" of the plan refers to results that affect the plan's ultimate cost. For example, large investment earnings may reduce the contributions otherwise required to fund the plan. Participants who terminate before vesting in a benefit or die soon after retirement tend to decrease plan costs. On the other hand, large salary increases and mortality improvements tend to increase plan costs.

In general, assumptions should not be changed frequently or due to extreme experience in a given year because they are intended to reflect long-term expectations. However, assumptions should be reviewed periodically to be sure each component is still appropriate, taking into consideration plan and plan sponsor changes. Judgment must be used to determine whether past experience is credible and indicative of future trends or if the experience is simply an aberration.

Assumptions

The main assumptions discussed in this report are:

- Economic Assumptions
  - Rates of Investment Return (Discount Rates)
  - Rates of Increase in Compensation
- Non-Economic Assumptions
  - Mortality Rates and Longevity Improvements
  - Rates of Retirement
  - Rates of Disablement
  - Rates of Termination (other than Retirement, Disability, or Mortality)

EXECUTIVE SUMMARY
(continued)

Economic Assumptions

An economic assumption is one closely related to the movement in financial markets and the current economy as a whole. Economic assumptions include investment return (discount rate), compensation increases, inflation.

Rates of Investment Return (Discount Rates)

- Current capital market returns have yielded historically low results over the past decade, putting increasing pressure on most retirement plan sponsors and actuaries to decrease the assumed rate of Investment return. For governmental plans, this pressure also directly impacts the discount rate utilized to value the liabilities of the plan as the rate of investment return is typically used as the discount rate, too.
- Current Assumption: 7.00% rate of return, net of expenses.
- Recommendation: Create an Investment Policy Statement and consider lowering the rate to 6.75%, net of expenses.

Rates of Increase in Compensation

- The compensation increase assumption remained at 4.50%. More recent experience now shows compensation increases vary from year to year, some below 4.50% and some above. An ongoing review of compensation increases should continue to assure such assumption mirrors plan experience.
- Current Assumption: Compensation is projected to increase at a rate of 4.50% per annum.
- Recommendation:
    - Police and Fire - we recommend changing the Salary Scale assumption for the Police and Fire employees to 4.75% prior to age 55 and 2.5% on and after age 55
    - For all others - we recommend changing the Salary Scale assumption for the Town employees to 5% prior to age 50 and 3% on and after age 50.

EXECUTIVE SUMMARY
(continued)

Non-Economic Assumptions

Non-economic assumptions are those tied to the make-up and behavior of the plan population. Non-economic assumptions include rates of decrement from the plan for a variety of reasons including death, retirement, disability, and termination.

Mortality Rates

- In 2011, actuarial standards (for all pension actuaries) recommended the use of mortality tables that contain projections for future improvements in longevity. In 2014, the Society of Actuaries published a new set of mortality tables that include generational mortality projections. In 2019, the Society of Actuaries published a new set of mortality tables representative for public pension plans.
- Current Assumption: SOA PUBS.H-2010 – headcount-weighted Safety Employees Table for Police and Fire Participants. All other participants, SOA PUBG.H-2010 – headcount-weighted General Employees Table. MP-2019 Improvement Scale for all.
- Recommendation: Maintain the current mortality assumption.

Retirement Rates

- The Normal Retirement Age is the later of Age 65 or 10 Years of Service for non Police and Fire participants and the later of age 50 and 25 Years of Service for employees who are part of the Police and Fire groups.. However, plan participants may retire with a reduced benefit beginning at age 55 and 10 years of service.
- Current Assumption: 100% at Normal Retirement Date.

1. Recommendation: Update the assumptions to the following
    a. Police and Fire - to3% at Ages 55-59, 5% at Ages 60-65, 10% at Ages 66-69, and 100% at Age 70
    b. All others - to 4% at Ages 55-61, 14% at Ages 62-64, 20% at Ages 65-70, 10% at Ages 71-72, and 100% at Age 73.

Disability Rates

- The disability benefit shall equal the Participant's Accrued Benefit if the participant is at least age 50 with 10 years of service.
- Current Assumption: Disability Rate table displayed later in this report.
- Recommendation: Maintain the current table.

Termination Rates

- Recent experience indicates turnover was greater than expected.
- Current Assumption: Hartford Life Turnover – Table 1
- Recommendation: Keep the current assumptions but add a 5-year Select Period of 10% per year

EXECUTIVE SUMMARY
(continued)

Certification of Report

This report has been prepared in accordance with generally accepted actuarial standards and procedures and conforms to the Guidelines for Professional Conduct of the American Academy of Actuaries. It is based on the employee and financial data submitted to USI Consulting Group by the plan sponsor. There exists no relationship with the Plan or the Plan Sponsor that would impair the objectivity of my work.

I, David B. Woodmansee Jr., EA, FCA, am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

USI CONSULTING GROUP

David B. Woodmansee Jr., EA, FCA, MAAA
Vice President and Actuary

PURPOSE OF ACTUARIAL VALUATIONS & EXPERIENCE STUDY

A retirement pension program is a traditional method of rewarding employees for long periods of service and dedication to an employer; one such program is a defined benefit plan. A defined benefit plan is a program under which an employee receives a set monthly payment amount upon retirement, guaranteed for the life of the participant or the joint lives of the participant and his/her spouse or beneficiary. Under a 'traditional' defined benefit plan, the monthly benefit amount is determined by a formula that is based upon the participant's final average earnings and years of service with the employer. Newer defined benefit plans may include cash balance features where a portion of the guaranteed payment is derived based on the accumulation of a hypothetical account balance. The Town of East Lyme Pension Plan is a traditional defined benefit plan.

As discussed above, a defined benefit plan is essentially a promise to current employees that the plan sponsor will pay them a benefit in the future. This "promise" creates a liability to the plan sponsor that is required to be disclosed on the plan sponsor's financial statements. In order to offset this liability and further ensure that the "promise" will be met, plan sponsors often choose to "pre-fund" the liability. .

For the enrolled actuary to determine the present value of the plan benefits, assumptions, including those described in this report, must be used to measure the liabilities. Assumptions are necessary to help predict plan participant behavior as well as economic activity. Since there are many factors that may affect plan experience, the validity of the assumptions used to predict the obligations should be reviewed periodically. More frequent review may be necessary if significant changes are anticipated. An experience study is used to analyze specific employment, retirement, health, and economic trends or phenomenon in the industry. It is an extremely beneficial tool to justify maintaining or changing the current set of assumptions used to value plan liabilities.

ROLE OF ACTUARIAL ASSUMPTIONS

The benefits of having an enrolled actuary perform an experience study extend beyond justification for making recommendations when setting assumptions. It is the responsibility of the enrolled actuary to ensure that the entire group of actuarial assumptions and methods used to determine the costs and liabilities yields the clearest picture of the plan's funding levels in order to be able to determine whether the plan sponsor's contribution policy will sufficiently fund the promised benefits.

In addition to the big picture results, the enrolled actuary must ensure each significant assumption reflects the best estimate of that particular future event. This rule applies to both demographic projections for changes in the participant workforce and economic assumptions used to measure salary increases and investment returns. Therefore, it is not reasonable to combine the effect of two (or more) specific assumptions that individually do not represent the best estimate of the plan's future experience.

In the end, the goal is to best match-up current assumptions as they relate to the actual experience of the Plan in order to predict future long-term experience as accurately as possible. The ultimate cost of the plan is not dependent on the assumptions; it is dependent on the benefit payments paid to participants. While the valuation assumptions do not determine the ultimate cost of the plan, they do impact the need for and determination of employer contributions. If a set of assumptions produces higher contributions in earlier years, contributions during later years may be lower. Similarly, underestimated contributions in earlier years tend to result in increased contributions in the future. By regularly monitoring the set of chosen assumptions through an experience study, a plan sponsor is helping to ensure the success of the assumptions operating in the aggregate to minimize surprise in plan liabilities and costs.

The recommended valuation assumptions, cost method, and funding policy set by the plan sponsor should work in tandem to produce annual contribution patterns that are expected to be a level percentage of covered payroll from year to year. While recommended changes in assumptions generally do not bridge the full gap between current assumptions and measured experience, the changes should move in the direction of the actual experience – reducing, though not necessarily eliminating, the gap.

The remaining sections of this report highlight our general observations, and recommended changes, relative to the following eight main assumptions that are currently used in the valuation process:

1. Rates of Investment Return (Discount Rates)
2. Rates of Increase in Compensation
3. Mortality Rates and Longevity Improvements
4. Rates of Retirement
5. Rates of Disablement
6. Rates of Termination (other than Retirement, Disability, or Mortality)

REVIEW OF ECONOMIC ASSUMPTIONS

Investment Return

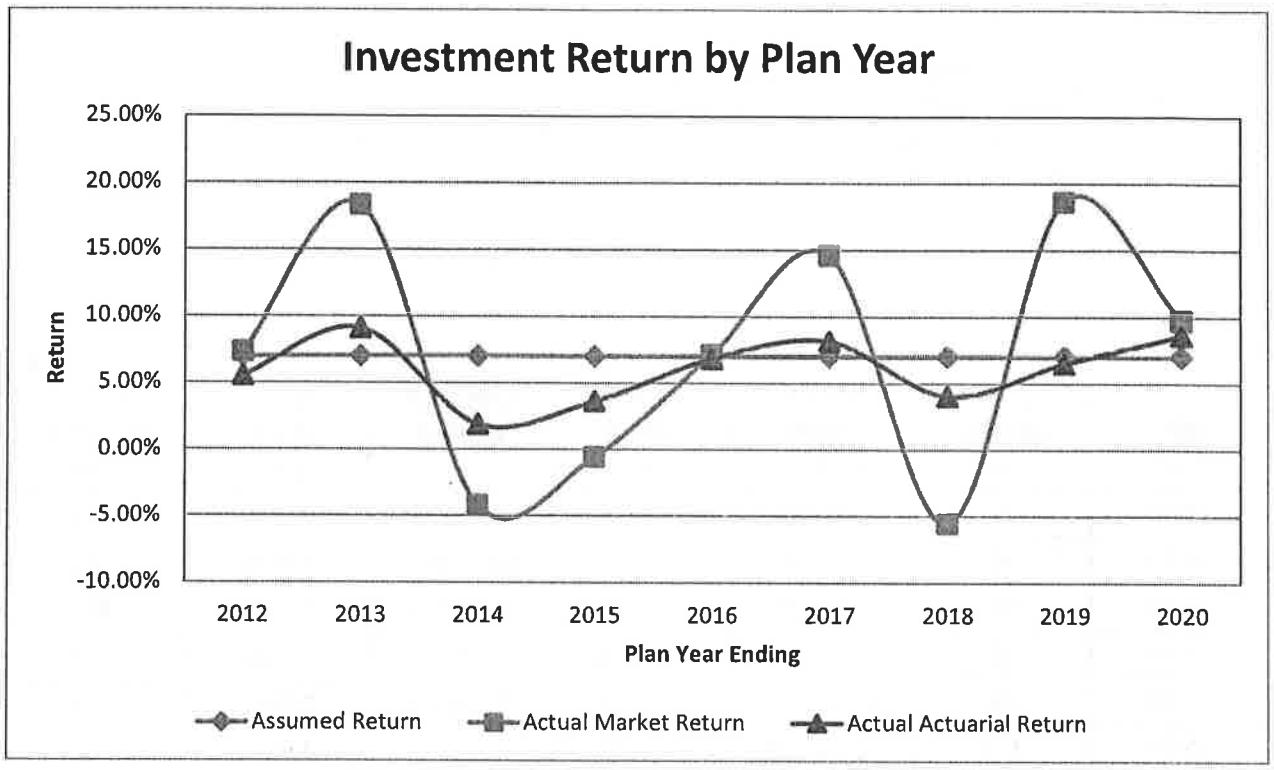
Of all the assumptions reviewed in this study, the investment return assumption often has the greatest impact on actuarial results and yet the plan sponsor has minimal influence over the assumption. This assumption reflects experience that is not a function of plan-specific characteristics other than the plan's specific investment policy. In other words, two plans with the same asset allocations would have very similar expected investment returns. This assumption is even more significant for a governmental plan as the investment return assumption is generally the same rate utilized as the discount rate to determine plan liabilities.

As stated above, the assumed expectation for the long-term rate of return for any portfolio is strongly influenced by the investment policy for the total pension fund and how historical returns within each asset class react to changes in the market. Actual returns will continue to vary over time, especially when economic conditions change dramatically, as proven by recent market cycles. Therefore, it is necessary to analyze expectations by economists and investment consultants for each asset class and diversify the investments between multiple funds within each allocation to better hedge against market surprises.

We understand that the future economic outlook appears to be different than the past. Equities have reached all-time highs and interest rates are at 30-year lows. As a result, it is essential to discuss the plan's discount rate and asset allocation with the investment advisor. In the charts on the next couple of pages, we have performed a robust analysis of several scenarios that we believe will aid this conversation.

The following charts present the results of our study, estimated returns based on the investment policy, and various benchmark returns that help support the recommendation of the investment return assumption (on the next couple of pages):

REVIEW OF ECONOMIC ASSUMPTIONS – INVESTMENT RETURN
(continued)



Plan Year Ending 12/31	2012	2013	2014	2015	2016	2017	2018	2019	2020
Assumed Return	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Actual Market Return	7.32%	18.33%	-4.20%	-0.55%	7.14%	14.59%	-5.53%	18.65%	9.71%
Actual Actuarial Return	5.54%	9.10%	1.89%	3.62%	6.83%	8.14%	4.04%	6.47%	8.58%

REVIEW OF ECONOMIC ASSUMPTIONS

(continued)

Increase in Compensation

The assumed increase in future compensation may be linked with the investment return assumption. Interest rates and compensation both tend to rise and fall as overall inflation rises and falls. However, the compensation increase assumption tends to be more plan-specific and is dependent on the plan sponsor's general approach to compensation. The assumed increase in compensation impacts the liability of the plan by contributing to the expected increase in a participant's benefit from the valuation date through retirement.

TOWN						
Ages	Total in Group	Prior Year Salaries	Actual Salaries	Expected Salaries	Actual Increase	Ratio: Actual over Expected
< 20	0	0	0	0	0.00%	0.000
20-24	5	186,796	223,529	195,202	19.67%	1.145
25-29	36	1,573,106	1,677,811	1,643,896	6.66%	1.021
30-34	54	2,556,506	2,706,182	2,671,549	5.85%	1.013
35-39	65	3,029,068	3,232,280	3,165,377	6.71%	1.021
40-44	99	4,669,728	4,915,584	4,879,866	5.26%	1.007
45-49	191	9,293,103	9,751,110	9,711,293	4.93%	1.004
50-54	261	12,650,634	13,144,088	13,219,913	3.90%	0.994
55-59	255	12,622,195	13,043,476	13,190,194	3.34%	0.989
60-64	178	9,120,306	9,396,259	9,530,720	3.03%	0.986
65-69	79	3,872,240	3,987,061	4,046,491	2.97%	0.985
70-74	37	1,888,743	1,933,763	1,973,736	2.38%	0.980
75+	33	1,742,089	1,765,271	1,820,483	1.33%	0.970
Total	**1,293**	**63,204,515**	**65,776,415**	**66,048,719**	**4.07%**	**0.996**

We recommend changing the Salary Scale assumption for the Town employees to 5% prior to age 50 and 3% on and after age 50.

REVIEW OF ECONOMIC ASSUMPTIONS
(continued)

POLICE AND FIRE						
Ages	Total in Group	Prior Year Salaries	Actual Salaries	Expected Salaries	Actual Increase	Ratio: Actual over Expected
< 20	0	0	0	0	0.00%	0.000
20-24	4	237,192	302,860	247,866	27.69%	1.222
25-29	13	904,940	1,110,267	945,663	22.69%	1.174
30-34	17	1,454,582	1,538,803	1,520,038	5.79%	1.012
35-39	15	1,364,103	1,418,506	1,425,488	3.99%	0.995
40-44	29	2,469,644	2,557,359	2,580,777	3.55%	0.991
45-49	37	3,234,591	3,431,775	3,380,148	6.10%	1.015
50-54	46	3,985,002	4,189,969	4,164,327	5.14%	1.006
55-59	38	3,245,710	3,301,241	3,391,767	1.71%	0.973
60-64	15	1,306,844	1,348,047	1,365,651	3.15%	0.987
65-69	5	467,296	478,469	488,325	2.39%	0.980
70+	0	1,888,743	1,933,763	1,973,736	2.38%	0
Total	**219**	**18,669,904**	**19,677,298**	**19,510,049**	**5.40%**	**1.009**

We recommend changing the Salary Scale assumption for the Police and Fire employees to 4.75% prior to age 55 and 2.5% on and after age 55.

REVIEW OF NON-ECONOMIC ASSUMPTIONS

Mortality

Rates of mortality are the first set of non-economic assumptions that are used to determine the liability of a pension plan. These rates are first used to determine if a participant will survive to commence a benefit and then are used to project the number of years that a participant will live and receive payment of the benefit. In general, defined benefit plans will use a table of annual rates of mortality that vary by age and gender. Some plans will also use separate mortality tables for pre-retirement and post-retirement purposes because a retired person is usually assumed to be more likely to die than a working person.

The mortality table assumption determines the expected number of deaths that a group will incur in any year. The actual number of deaths is compared to the expected. If the actual number of deaths is greater, then liability is less than expected and a mortality gain has occurred. If fewer deaths occur, then liability is greater than expected and a loss has occurred.

The mortality table currently in use is the SOA PUBS.H-2010 – headcount-weighted Safety Employees Table for Police and Fire Participants. All other participants, SOA PUBG.H-2010 – headcount-weighted General Employees Table. MP-2019 Improvement Scale is used for all participants. These mortality table are modern tables that contains projections for future improvements in mortality. In 2019, the Society of Actuaries published a new set of mortality tables that include generational mortality projections. Generational mortality is different from static mortality in that it assumes different "birth groups" or "cohorts" (such as "baby boomers") experience mortality improvement differently from other cohorts. In general, generational mortality improvement assumes more longevity than static mortality improvement. However, the studies that formed the basis for this set of tables excluded experience of governmental employees and therefore these new tables are generally considered inappropriate for governmental plans.

Since the Plan does not have a significant retiree base and mortality experience analysis generally requires a much larger population (i.e. 1,000 or more deaths) for a statistically significant or credible measurement, we cannot evaluate the sufficiency of the mortality assumption. Based on the information over the nine-year period available to us, there were 0 deaths in the active population of both groups, 2 deaths in the deferred vested population of the town groups, 0 deaths in the deferred vested population for the police and fire groups, 6 deaths in the retiree and beneficiary population for the town group, and 1 death in the retiree and beneficiary population in the police and fire group. For the town groups, we were expecting 2.48 deaths in the active population, 0.46 deaths in the deferred population and 10.57 deaths in the retiree and beneficiary population during the same time period. For the police and fire groups, we were expecting 0.29 deaths in the active population, 0.05 deaths in the deferred population and 0.86 deaths in the retiree and beneficiary population during the same time period.

With limited plan experience, the best available information for mortality tables is from the Society of Actuaries (SOA). No changes in mortality table assumption is recommended at this time.

REVIEW OF NON-ECONOMIC ASSUMPTIONS
(continued)

the SOA PUBS.H-2010 – headcount-weighted Safety Employees Table for Police and Fire Participants. All other participants, SOA PUBG.H-2010 – headcount-weighted General Employees Table. MP-2019 Improvement Scale is used for all participants. The current pre-retirement and post retirement rates that were used for the January 1, 2020 actuarial valuation at sample ages for the town groups are as follows:

	Current Rates for Pre-Retirement (Base Rates)		Current Rates for Post-Retirement (Base Rates)	
Age	Male	Female	Male	Female
25	0.035%	0.013%	N/A	N/A
30	0.045%	0.019%	N/A	N/A
35	0.059%	0.028%	N/A	N/A
40	0.081%	0.043%	N/A	N/A
45	0.118%	0.065%	N/A	N/A
50	0.177%	0.097%	N/A	N/A
55	0.262%	0.141%	0.634%	0.400%
60	0.376%	0.210%	0.808%	0.465%
65	0.543%	0.327%	1.125%	0.682%
70	N/A	N/A	1.822%	1.161%
75	N/A	N/A	3.102%	2.009%
80	N/A	N/A	5.391%	3.549%

The current pre-retirement and post retirement rates that were used for the January 1, 2020 actuarial valuation at sample ages for the police and fire groups are as follows

	Current Rates for Pre-Retirement (Base Rates)		Current Rates for Post-Retirement (Base Rates)	
Age	Male	Female	Male	Female
25	0.043%	0.020%	N/A	N/A
30	0.048%	0.028%	N/A	N/A
35	0.054%	0.039%	N/A	N/A
40	0.067%	0.054%	N/A	N/A
45	0.092%	0.075%	N/A	N/A
50	0.133%	0.103%	0.275%	0.186%
55	0.195%	0.143%	0.375%	0.311%
60	0.300%	0.198%	0.625%	0.519%
65	0.480%	0.273%	1.031%	0.868%
70	N/A	N/A	1.736%	1.451%
75	N/A	N/A	3.149%	2.425%
80	N/A	N/A	5.703%	4.054%

REVIEW OF NON-ECONOMIC ASSUMPTIONS
(continued)

Retirement

Plan participants can retire early with a reduced benefit after having met specific age and service requirements or wait until Normal Retirement to commence benefits. There is a trade-off between continuing to receive compensation as an active employee, which will also lead to increased pension benefits due to additional service and accruals or electing to retire and immediately receive a pension benefit. Increased pensions, due to larger salaries that are typically earned during the latter part of an employee's career, may be incentive to continue to work.

The Plan experience for the town groups is shown in the table below. The current assumption of 100% at Normal Retirement Date or current age if later. Under this assumption, we expected 507 retirements, whereas there were actually 55 retirements.

Age	Total in Group	Actual Retirements	Expected Retirements
55	30	1	30
56	30	0	30
57	37	4	37
58	35	1	35
59	34	0	34
60	36	1	36
61	35	2	35
62	35	5	35
63	34	5	34
64	29	4	29
65	24	6	24
66	22	7	22
67	15	4	15
68	13	2	13
69	13	1	13
70	14	2	14
71	12	1	12
72	8	1	8
73	9	3	9
74	6	1	6
75+	36	4	36
Total	507	55	507

We recommend updating the retirement assumption to reflect retirements at a rate of 4% at Ages 55-61, 14% at Ages 62-64, 20% at Ages 65-70, 10% at Ages 71-72, and 100% at Age 73.

The Plan experience for the police and fire groups is shown in the table below. The current assumption of 100% at Normal Retirement Date or current age if later. Under this assumption, we expected 78 retirements, whereas there were actually 8 retirements.

Age	Total in Group	Actual Retirements	Expected Retirements
50	0	0	0
51	1	0	1
52	1	0	1
53	1	0	1
54	3	0	3
55	10	0	10
56	10	0	10
57	6	0	6
58	7	1	7
59	6	0	6
60	6	0	6
61	8	3	8
62	4	1	4
63	2	0	2
64	2	0	2
65	3	0	3
66	3	1	3
67	2	0	2
68	2	1	2
69	1	1	1
70+	0	0	0
Total	78	8	78

The experience above indicates that no participants are retiring at Age 50 with 25 years of Service. Given this, we recommend updating the retirement assumption to reflect retirements at a rate of 3% at Ages 55-59, 5% at Ages 60-65, 10% at Ages 66-69, and 100% at Age 70.

REVIEW OF NON-ECONOMIC ASSUMPTIONS

(continued)

Disablement

For this analysis, we reviewed the disability rates for the plan participants over the past nine plan years. During the nine-year period, there were 0 separations from employment due to disability. The expected number to separate employment as a result of disability was 9.50 for the town groups and 1.07 for the police and fire groups.

Our analysis suggests that the disability assumption is close to the actual experience. We do not recommend any changes to the disability assumption at this time.

Table: *Pre-Retirement Disability Rates*

Age	Male	Female
25	0.062%	0.087%
30	0.062%	0.087%
35	0.090%	0.158%
40	0.137%	0.276%
45	0.241%	0.418%
50	0.443%	0.597%
55	0.758%	0.744%
60	1.361%	1.247%

Termination

If a plan participant has already met the eligibility (age and service) requirements for Normal Retirement or Early Retirement upon termination of employment, an individual can immediately elect to receive payment of the retirement benefit under the Plan. However, if an employee terminates employment before satisfying these requirements, the person will have to defer benefit payments until they are eligible to commence under the terms of the Plan. As previously discussed in this report, the assumed timing of benefit commencement impacts the valuation of the Plan's liabilities. Therefore, it is necessary to make certain assumptions as to the likelihood of a participant terminating employment prior to meeting such requirements.

Individuals who are eligible for early retirement (age 55 with 10 years of Service) are not assumed to terminate employment. A retirement eligible individual is assumed to eventually retire instead, even if assumed retirement is not necessarily assumed to occur immediately.

REVIEW OF NON-ECONOMIC ASSUMPTIONS – TERMINATION
(continued)

We have evaluated the withdrawal experience of all active participants. The chart below displays the expected and actual withdrawal rates for the town group over the past nine years in five-year age groups.

Age	Total in Group	Actual Terms	Expected Terms
Less than 30	39	8	3.66
30 – 34	51	4	3.44
35 – 39	79	8	4.02
40 – 44	87	3	2.84
45 – 49	181	8	2.13
50 – 54	267	11	0.00
55 – 59	102	4	0.00
60 – 64	61	3	0.00
65 and Older	0	0	0.00
TOTAL	***867***	***49***	***16.08***

The chart below displays the expected and actual withdrawal rates for the Police and Fire group over the past nine years in five-year age groups.

Age	Total in Group	Actual Terms	Expected Terms
Less than 30	16	2	1.56
30 – 34	19	2	1.49
35 – 39	18	2	0.92
40 – 44	25	0	0.57
45 – 49	38	2	0.31
50 – 54	32	1	0.00
55 – 59	36	1	0.00
60 – 64	7	0	0.00
65 and Older	0	0	0.00
TOTAL	***155***	***10***	***4.84***

Based on recent experience, there are less terminations from employment than expected from the town groups. This creates a loss to the Plan as participants are expected to terminate with lower service and a lower final average earnings than a participant continuing employment. However there are more terminations than expected from the police and fire groups.

REVIEW OF NON-ECONOMIC ASSUMPTIONS – TERMINATION
(continued)

We recommend keeping the existing Turnover assumption, but adding a Select period for the Years of Service 0-5 of 10% per year. Below are termination rates at sample ages under the current and recommended assumptions:

Age	Current Termination Rate	Recommended Termination Rate
25	10.00%	10.00%
30	7.50%	7.50%
35	5.00%	5.00%
40	3.00%	3.00%
45	1.50%	1.50%
50	0.00%	0.00%
55	0.00%	0.00%
60	0.00%	0.00%

CONCLUSION

The results of this study suggest that future plan experience may be better estimated if the following changes are made:

2. Investment Return – Keep the current assumption of 7.00%, but seriously consider reducing to 6.75% based on future investment returns as well as drafting an investment policy statement.
3. Annual Compensation Increases –
    a. Police and Fire - we recommend changing the Salary Scale assumption for the Police and Fire employees to 4.75% prior to age 55 and 2.5% on and after age 55

    b. For all others - we recommend changing the Salary Scale assumption for the Town employees to 5% prior to age 50 and 3% on and after age 50.
4. Rates of Mortality – Maintain the current mortality assumption (the current SOA PUB tables).
5. Rates of Retirement – Update the assumptions to the following
    a. Police and Fire - to3% at Ages 55-59, 5% at Ages 60-65, 10% at Ages 66-69, and 100% at Age 70
    b. All others - to 4% at Ages 55-61, 14% at Ages 62-64, 20% at Ages 65-70, 10% at Ages 71-72, and 100% at Age 73.
6. Rates of Disablement – Maintain the current assumption.
7. Rates of Termination – Keeping the existing base assumption but adding a 5-year Select period of 10% per year.

These recommendations should be reviewed and discussed with consideration given to any potential programs, plan changes, or other outside influences that could impact future plan experience. Sometimes plan sponsors will tend toward more conservative assumptions to determine plan funding needs to help ensure that the plan will be well-funded, even in the face of adverse deviation from expectations. Special adjustments may be reflected in the funding valuation to account for this methodology, if desired.

After reviewing and discussing the results of this study as well as the recommendations, the plan sponsor should work with the enrolled actuary to determine and approve the assumptions to be utilized for upcoming funding and accounting valuations. These assumptions should continue to be monitored on an annual basis as part of the valuation experience gain/loss process. A complete experience study, such as this report, should be considered once sufficient time has passed, perhaps every five years unless some other event or external force would indicate a more frequent study is needed.

To: Mark Nickerson, Anna Johnson

From: Paul Goulekas, Jim Lafond

Re: Proposal to Improve Pension Asset-Liability Management

Issue: The East Lyme Pension is maturing, meaning that employee and town pension contributions are not sufficient to fund pension payments to retirees. When the pension plan started, liability duration was long and assets were invested to match. The duration of liabilities are getting shorter every year as the employee population ages and retirements increase. Currently, known pension outflows approaching $1 million per year consume all employee and town pension contributions plus about one-half of the projected 7% annual portfolio return. The pension investment strategy should be better geared to manage asset duration accordingly.

Background: The East Lyme Pension investment strategy, thus far, has relied on a "barbell asset duration strategy" whereby most of the assets are invested in long duration funds and a portion of the portfolio is in fully liquid assets (i.e., money market fund). Most large pension funds that invest in individual securities employ a "laddered" portfolio to immunize the portfolio asset risk such that asset maturities match liability durations. Currently, portfolio outflows are requiring invested assets to be sold each year. The Investco Money Market fund had a balance of $3,734,054 as of 4/21/21. We consider part of this cash as a "tactical" balance to fund known near term cash outflows and the remainder of the cash for "strategic" investment purposes.

Recommendation: We recommend that 12 months of known cash outflows (~$1 million) be invested in the money market fund as is current practice. For the second and third forward years of known cash outflows (~$2 million), the pension should

invest in very short duration funds, such as the Lord Abbett Short Duration (LDLFX) fund which averages a 2% to 3% return. An Asset-Liability fund allocation such as this should improve returns while still reducing the risk of a down year in market values while meeting the cash requirements of the pension plan. Any cash held above these amounts (~$3 million) should be considered an allocation for strategic investment purposes.

We would like to add this proposal to the June 10, 2021 meeting for the Pension Committee to consider.