REPORT ON THE RESULTS OF AN INVESTIGATION OF THE MORTALITY, INVESTMENT, SERVICE AND COMPENSATION EXPERIENCE OF THE VERMONT STATE EMPLOYEES' RETIREMENT SYSTEM

Covering the period July 1, 2001, through June 30, 2006

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September 13, 2007

Board of Trustees
Vermont State Employees' Retirement System
Montpelier, Vermont 05609

Dear Board Members:

Section 471, subsection (j), of Title 3, Chapter 16, Vermont Statutes Annotated, provides in part that at least once in each five-year period, the actuary is to make an investigation into the mortality, service, and compensation experience of the members and beneficiaries of the System. In accordance with this provision, an investigation has been made for the period covering July 1,2001, through June 30, 2006, and the results are described in this report, along with our recommendations for certain modifications in the present assumptions. We have also included a brief section discussing the financial impact of the recommended changes.

The Table of Contents, which immediately follows, outlines the information contained in this report.

Respectfully submitted,

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VERMONT STATE EMPLOYEES' RETIREMENT SYSTEM

REPORT ON THE RESULTS OF AN INVESTIGATION
OF THE ACTUARIAL EXPERIENCE OF THE SYSTEM, 2001 - 2006.

I. INTRODUCTION

1. In order to accumulate funds to pay retirement benefits on a reasonable and relatively stable basis, the actuary prepares annual valuations of the System's assets and liabilities to measure the funded status and to ensure that the funding pace is adequate to meet the System's obligations.

2. The primary purpose of funding is to equitably allocate costs between generations of taxpayers and provide security to members, who view the funds set aside as assurance that their benefits will be paid.

3. While the ultimate cost of the System is not determinable until all benefits are paid and expenses provided for, each actuarial valuation attempts to estimate these costs based on assumptions of future events, which should be selected to predict, as accurately as possible, future experience.

4. Overly conservative or aggressive assumptions will result in actuarial gains or losses each year. When translated into contributions, this will result in decreasing or increasing contribution rates, which do not promote intergenerational equity.

5. To the extent that assumptions prove accurate, contribution rates will be stable.

6. The major actuarial assumptions are:

   (a) Active service demographic assumptions,

   (b) Compensation increase assumptions,

   (c) Post-retirement mortality rates,

   (d) Interest rate, and

   (e) Cost-of-living adjustment rates.

7. Before presenting our analysis of VSERS experience and discussion of the proposed assumptions, it is important to outline considerations that should govern the selection of actuarial assumptions. The recommendations made by the American Academy of Actuaries may be summarized as follows:

   (i) The actuarial assumptions selected should reflect the actuary's best judgment of future events. They should take into account actual experience to the extent possible, but they should also reflect long-term future trends and not give undue weight to recent past experience.

   (ii) The actuary should consider the impact of inflation in selecting the actuarial assumptions to be used.

   (iii) The actuary should give consideration to the reasonableness of each actuarial assumption independently, as well as to the combined impact of all the assumptions.

   (iv) The actuary should give careful attention to changes in plan design that may significantly alter expected future experience. For example, a liberalization of

early retirement benefits may make a revision to the retirement assumption advisable.

(v) In choosing assumptions, the actuary should take into account general or specific information available from other sources, including the plan sponsor, plan administrator, investment managers, accountants, economists, etc.

8. The purpose of this report is to provide the information necessary to decide on the appropriate assumptions to be used in future valuations. It should be noted that these decisions cannot be made "in a vacuum," but must reflect the present and expected situation within the State and the System.

The balance of this report deals in detail with the various assumptions. In each area we have made recommendations as to what we believe are appropriate assumptions. These recommendations reflect our "best estimate" of the likely VSERS experience based on:

(a) the recent past experience;

(b) the general economic views prevailing at this time; and

(c) anticipated trends.

II. ACTIVE SERVICE DEMOGRAPHIC ASSUMPTIONS

A. General Comments

9. Following, we review the assumptions made in regard to:

(a) Termination

(b) Disability

(c) Death before retirement

(d) Retirement.

10. Our review of active service demographic assumptions is based on the actuarial valuation data for Groups A, D and F combined and separately for Group C.

11. The basis for analysis of the System's experience is a comparison of the actual number of separations from service under each contingency with those anticipated by assumptions currently in use.

12. The "expected" values are calculated by applying the various rates or probabilities to the individuals exposed to each respective event. For example, active members not yet eligible for early retirement would be exposed to the probabilities of withdrawal, death and disability. A member eligible for early retirement would be exposed to disability, death and early retirement. A member eligible for normal retirement would be exposed to disability, death and normal retirement.

13. The numerical summaries of the System's experience from July 1, 2001, through June 30, 2006, are presented in Appendix I. The tables show the ratios of the actual experience of the System as compared to that anticipated by the present actuarial assumptions. The results are shown separately by assumption and, where appropriate, by sex.

14. The ratios of actual to expected experience indicate the extent of deviation from the assumptions. A ratio of 1.0 would mean the experience has been exactly as anticipated.

15. As an aid to the Trustees in analyzing these results, we have also prepared a series of graphs, which present the statistical data summarized in Appendix I in visual form. Our comments will refer to the graphs, which immediately follow each of the following subsections.

B. Termination

16. The graphs that follow present the withdrawal and vesting experience separately for male and female employees. Presently, the assumed probabilities of withdrawal in active service are the same for male and female members.

17. Reviewing the withdrawal and vesting experience for Groups A, D and F, it can be seen that, overall, there are fewer members leaving before service retirement than expected for both males and females. This pattern is true across all ages up to 55, beyond which terminations exceed those projected under the current assumption.

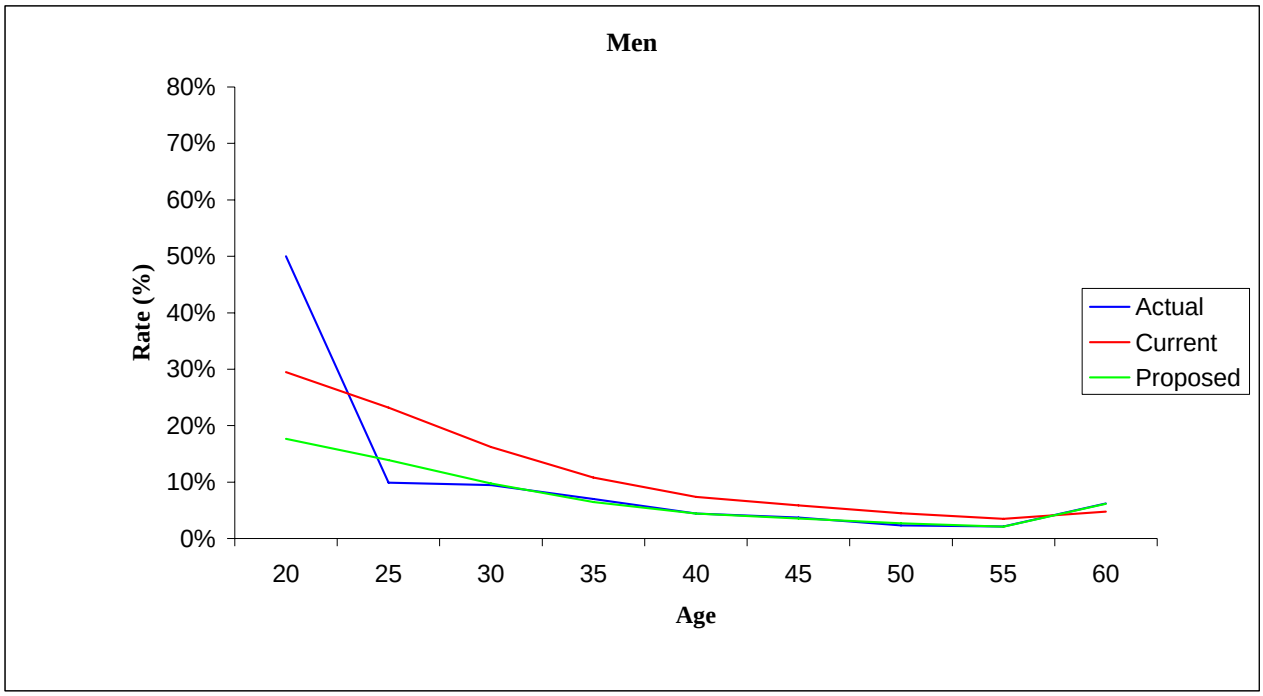
18. Since the numbers withdrawing prior to meeting eligibility for retirement are below those expected in Groups A, D and F, we recommend that the assumed rates of withdrawal for these groups be decreased for those who are under 55 years of age and increased for participants who are 55 and older.

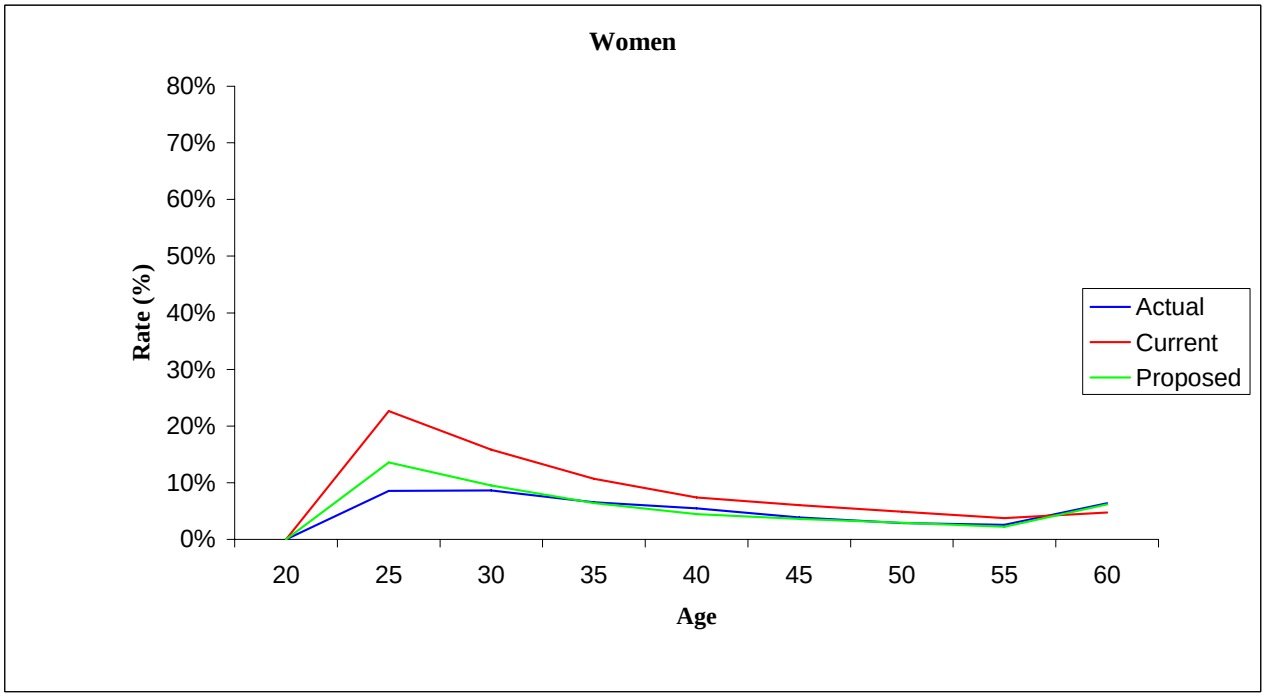
19. We recommend a 20% increase in the withdrawal assumption used for Group C. The experience of the last five years indicates that there have been more terminations among Group C members than were expected under the present assumption. The limited exposure of this group makes it difficult to justify a more extensive change in the assumption on the basis of the present evidence. Nonetheless, this is the second experience study to show that actual terminations exceed those assumed under the table applied to Group C, and with the continued growth of this group over the past ten years it is prudent to make some upward adjustment in the assumed rates of turnover applied to this group.

20. We recommend the continued use of the same withdrawal assumption for males and females. The following graphs show the current ultimate rate, the actual ultimate rate and (where applicable) the proposed new ultimate rate separately for males and females. The proposed rates are set forth in detail in Appendix II.

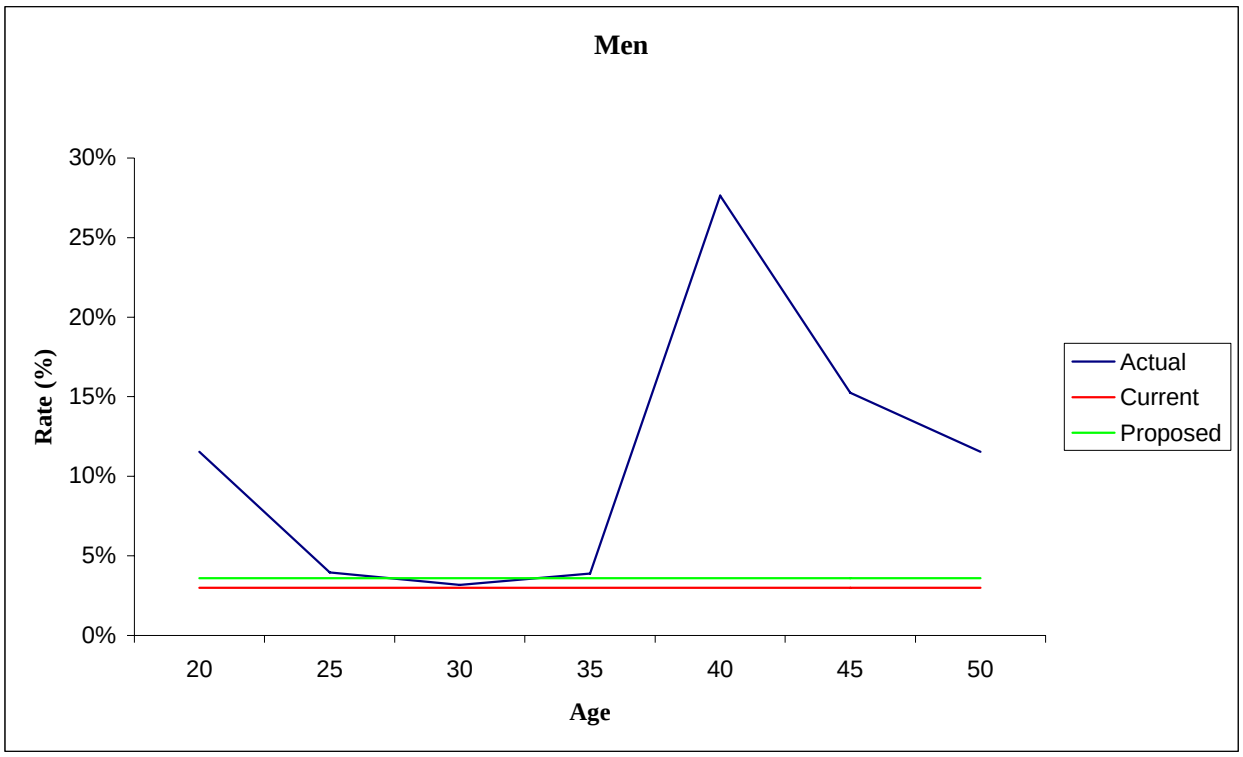
21. In addition to varying by age, assumed rates of withdrawal are also adjusted for length of service. At present, we do not see a need to alter the service-based adjustments.

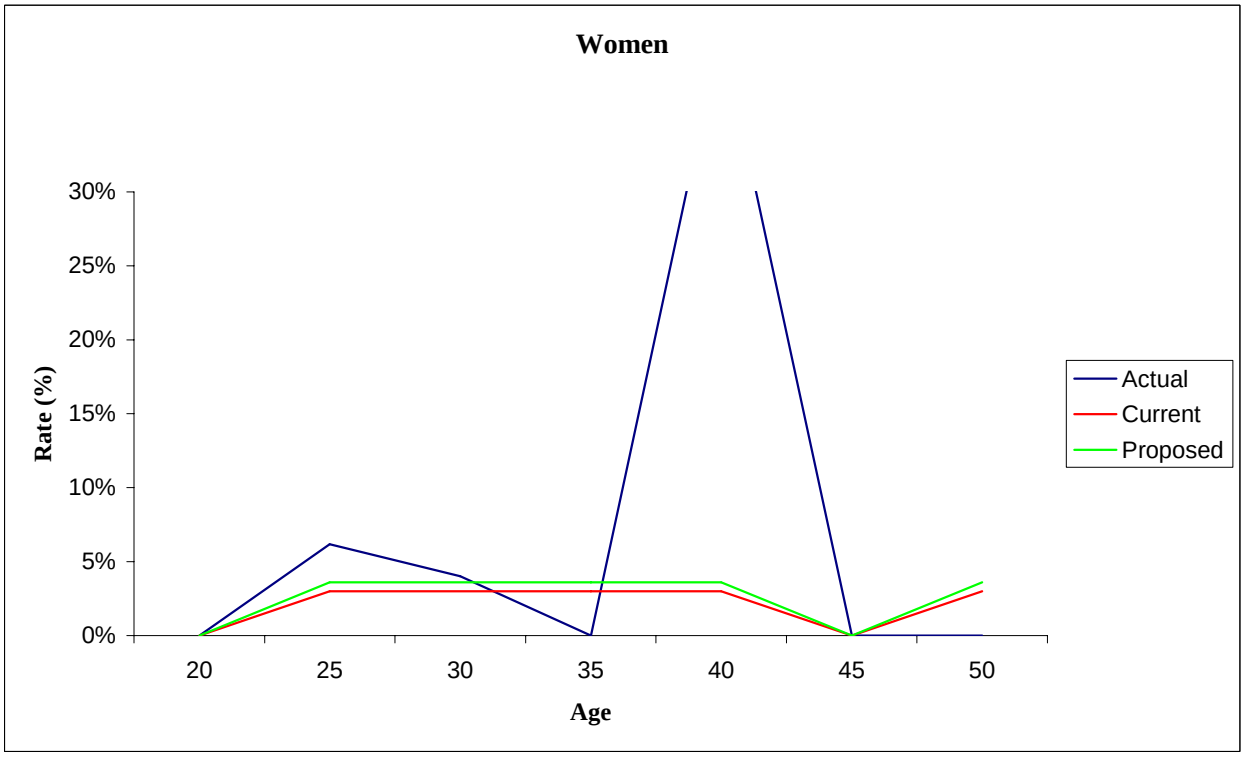
Vermont State Employees' Retirement System
Groups A, D and F
Active Service Experience - Terminations
July 1, 2001 through June 30, 2006





Vermont State Employees' Retirement System
Group C
Active Service Experience - Terminations
July 1, 2001 through June 30, 2006





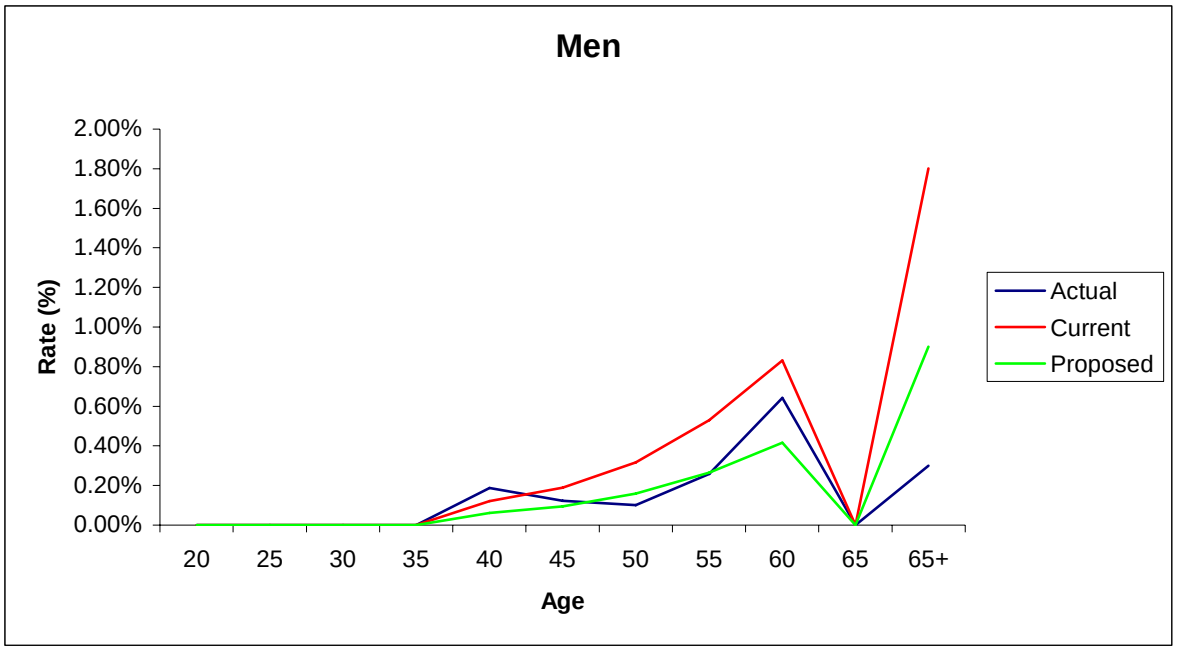
C. Disability and Death

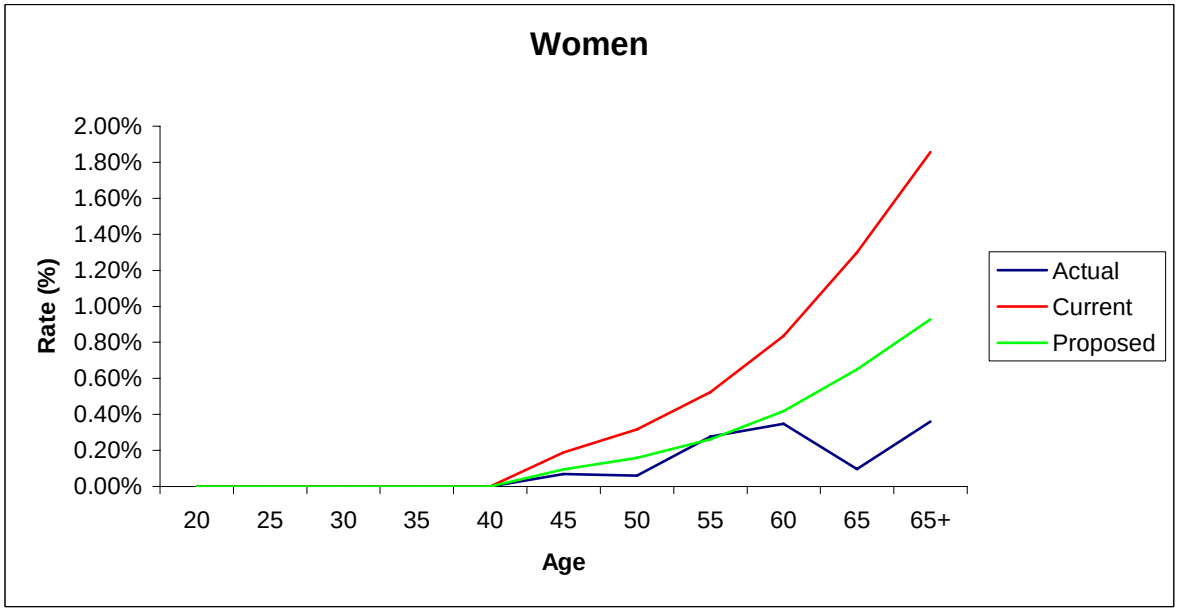
22. The graphs that follow show the incidence of disability among employees and the incidence of active service mortality. The financial impact on the funding of the System of this experience is relatively minor. It should be noted that the low incidence of actual disabilities makes this experience susceptible to rather large fluctuations from year to year.

23. At the same time, the expected rates of disability for males and females appear to be overstated for Groups A, D and F, as was the case in the prior experience study. We recommend that the assumed rates of disability for these groups be reduced to one-half of their present levels. The variability noted in the last paragraph is especially problematic when dealing with a small group, which leads us to conclude that no change should be recommended at this time for the assumed rates of disability applied to Group C.

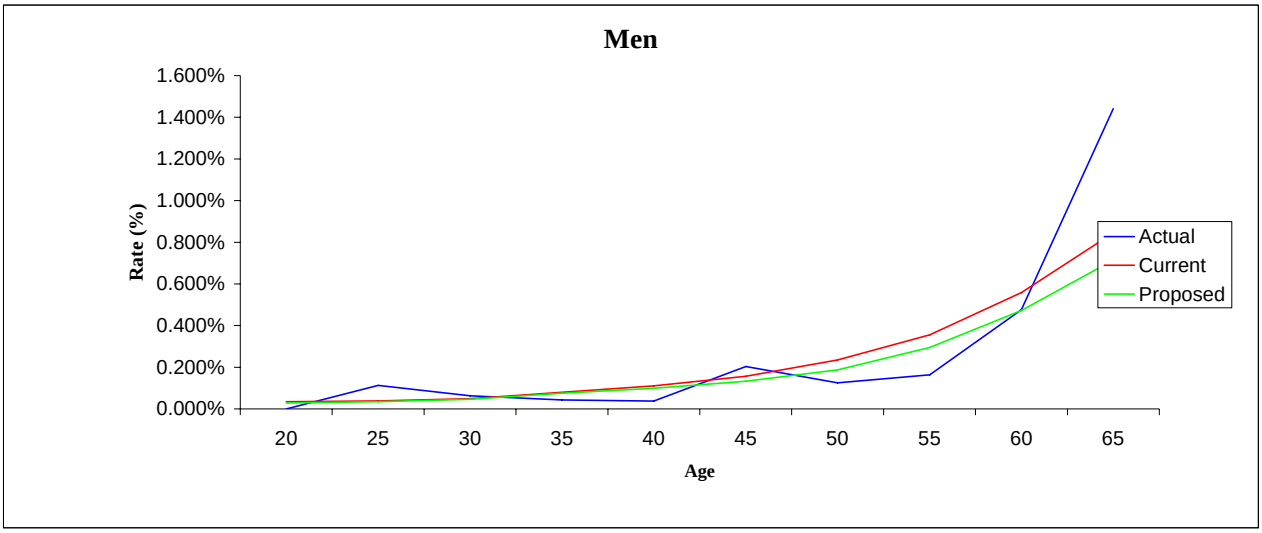
24. Since the overall active service mortality for both males and females is below that expected on the basis of the current tables, it is advisable to lower the assumed death rates applied to active employees. We recommend that the Board adopt the RP-2000 Mortality Tables for Male and Female Employees projected to 2011 – the final year of the interval to be reviewed in the next experience study - by Scale AA for this purpose. Adoption of this assumption would represent a modernization of the current active mortality tables, which are the unadjusted RP-2000 Mortality Tables for Male and Female Employees. The proposed rates are set forth in Appendix II.

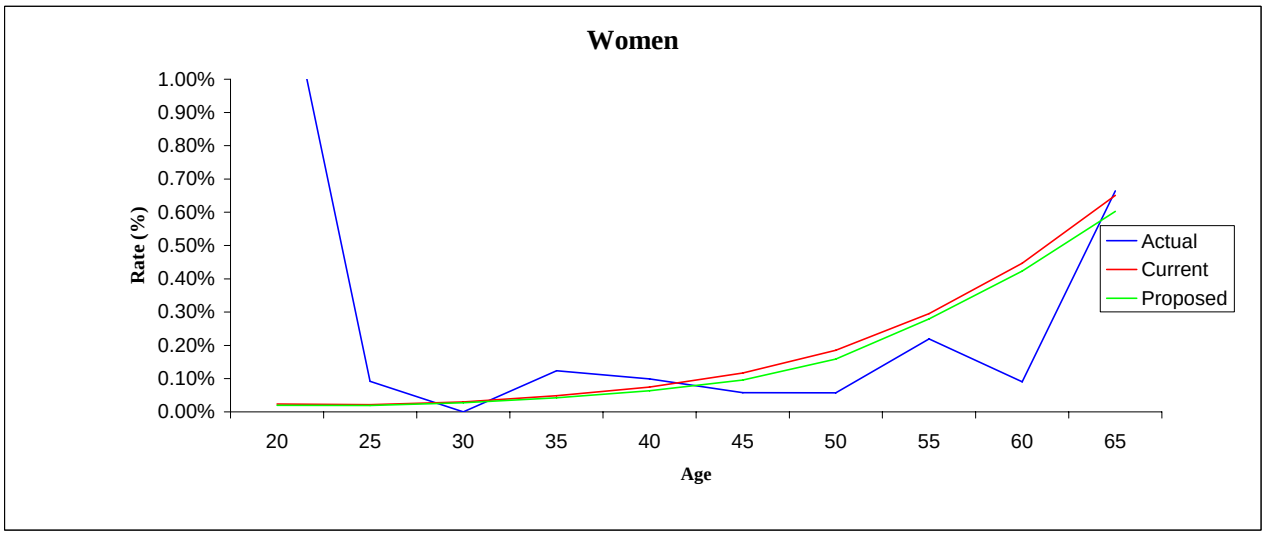
Vermont State Employees' Retirement System
Groups A, D and F
Active Service Experience - Disability Retirements
July 1, 2001 through June 30, 2006





Vermont State Employees' Retirement System
Groups A, D and F
Active Service Experience - Deaths
July 1, 2001 through June 30, 2006



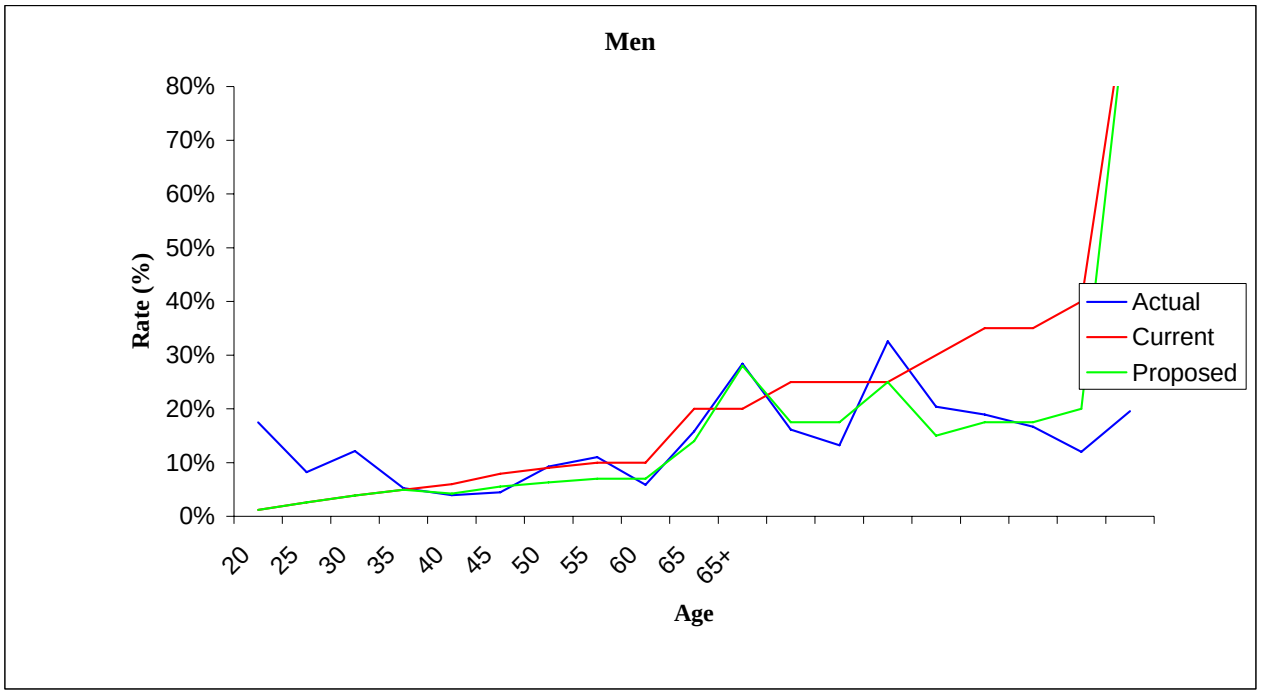


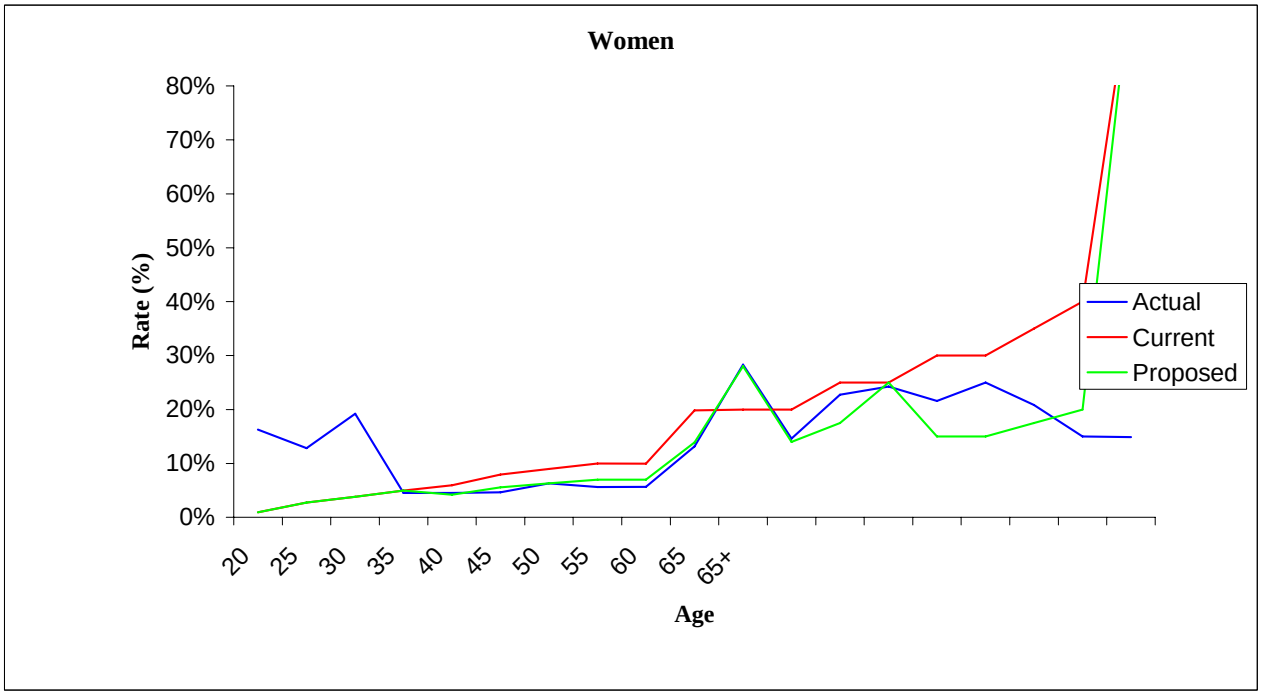
D. Service Retirement

25. Overall, there were fewer retirements than expected in 2001 – 2006 among active members of Groups A, D and F. As members of Groups A and D are already assumed to retire at the earliest possible date, the only question regarding the suitability of the retirement assumptions in use for these three groups concerns the present table of retirement probabilities applied to Group F. An examination of retirements among active Group F members over the past five years indicates that probabilities of retirement are actually understated relative to experience at certain ages, particularly age 62. We recommend that expected rates of retirement be raised at these ages and lowered at the rest, with members in active service at age 70 and beyond assumed to retire immediately.

26. Presently, active members of Group C are assumed to retire when first eligible to do so but not prior to age 55 for males and age 53 for females. Examination of the relation of actual to expected retirements at various ages in this study leads us to recommend that members of this group be assumed to retire when first eligible to do so.

Vermont State Employees' Retirement System
Groups A, D and F
Active Service Experience - Service Retirements
July 1, 2001 through June 30, 2006





III. POST-RETIREMENT MORTALITY RATES

26. A review of the statistics with regard to post-retirement mortality for all retired members, which are summarized in Tables 7, 8 and 9 of Appendix I, shows that actual mortality is at or above that expected, except for disabled retirees. The variance from expectations observed with this group might be attributable to its small size. However, we recommend that the mortality assumption applied to disabled retirees be changed to that presently applied to service retirees and beneficiaries, the RP-2000 Combined Mortality Tables for Employees and Healthy Annuitants.

IV. MEMBERS IN INACTIVE STATUS

27. In the past, liabilities for members in inactive status have been maintained at 150% of their accumulated contributions with interest. An examination of the liability ultimately created by participants who ultimately move from inactive status to some other status leads us to recommend that the percentage of contributions with interest used to estimate the liability for these participants be raised from 150% to 250%.

V. ECONOMIC ASSUMPTIONS

28. Economic assumptions include rates of compensation increase, investment income and post-retirement adjustment in benefits on account of inflation. These assumptions have been analyzed by their components; i.e., the inflation level reflected in each assumption and the merit-promotion component of the compensation increase rates or the real rate of investment income component of the total return rate.

A. Inflation/Cost-of-Living (COL)

29. Since inflation impacts each of the economic assumptions, a symmetric relationship among the economic assumptions should be maintained. For example, the cost-of-living increase assumption should be included as the inflation component of the compensation increase and investment return assumptions.

30. With regard to the inflation assumption, the U.S. Consumer Price Index indicates that the inflation rate has been as follows since January 1, 2002 (annual average):

Calendar Year	Increase*
2002	1.6%
2003	2.3%
2004	2.7%
2005	3.4%
2006	3.2%

* Based on CPI-U

These increases are equivalent to an annual rate of about 2.6%.

31. Other economic data presently available (e.g., yields on inflation-indexed bonds) suggest that the financial markets presently anticipate a long-term average rate of inflation of 2.5% to 3.0%. Current economic assumptions used in the valuation of the system are based on an inflation rate of approximately 3% per year. We recommend that this assumption be retained.

32. In setting the anticipated annual cost-of-living increase assumption, statutory limitations must be taken into account. The annual adjustment applied to the benefits of eligible participants in the various groups is based on the increase in the CPI-U, but may not exceed 5%.

33. Currently, we assume that the annual adjustments to benefits of eligible retired members of Groups A, C and D are 3.0%, and the assumed annual adjustment for eligible retired members of Group F is 1.50%. We recommend retention of these assumptions.

B. Merit-Promotion Salary Increases

34. Currently a single compensation scale is used for both male and female members. The overall pattern of compensation increases appears to be generally consistent between males and females. The average annual pay increase produced by the current scale is as follows:

Age at Entry	**Average Annual Increase to Age 62**
25	6.3%
35	5.9%
45	5.4%
55	4.9%

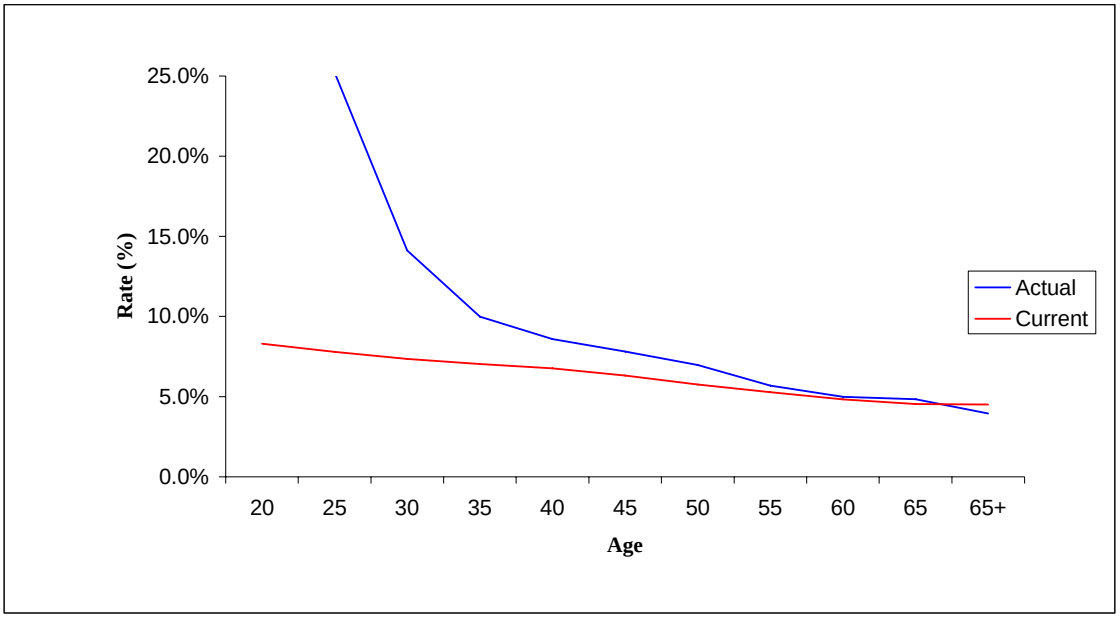
Assuming an inflation component of 3.0%, the average annual merit-promotion component of the current assumption is about 1.9% - 3.3%.

35. The graphs that follow on page 18 depict the levels of total compensation increase during the five-year period. These results include both merit-promotion increases and inflationary increases. Experience shows that total pay has increased by slightly more than the assumed average annual increases. The statistics are summarized in Tables 5 and 6 of Appendix I.

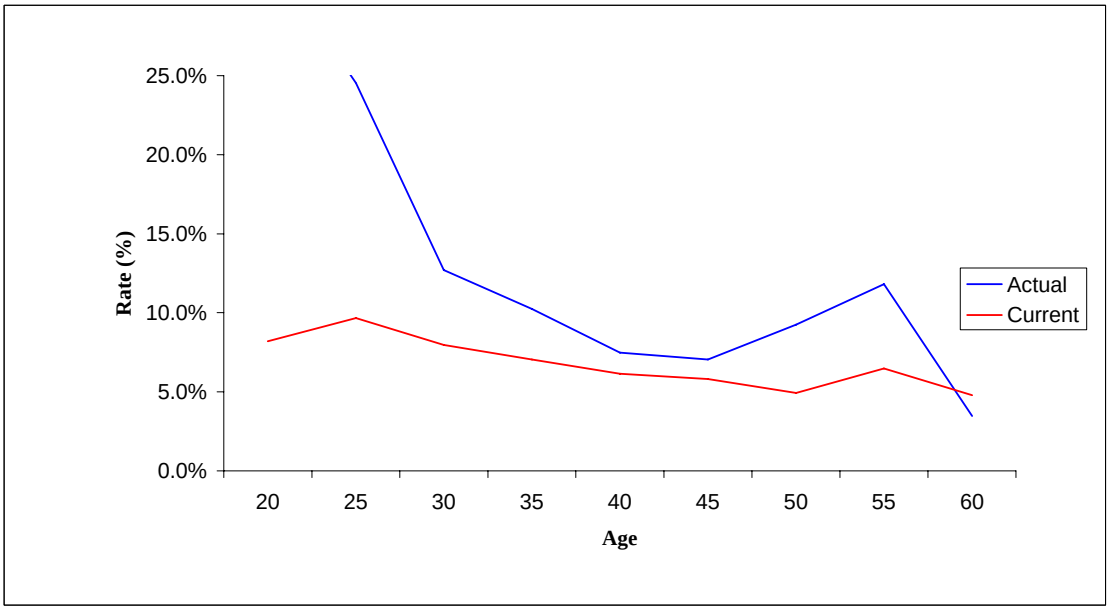
36. In three of the past five years, salary increases have been such as to raise the normal cost percentage of the system, although it did so modestly in most of those years. In general, the outlook is for lower future rates of compensation increase.

37. Although the experience of the past five years could be taken to justify an increase in assumed rates of compensation increase, we recommend that the current assumption not be changed. As in past experience studies, we believe that some of the excess of observed rates of salary increase over those assumed is due to imperfect annualization of partial years' pay reported for new entrants, and that a salary-related experience losses could be reduced through a review of the process used for annualization.

Groups A, D and F
Active Service Experience - Salary Increases
July 1, 2001 through June 30, 2006



Group C
Active Service Experience - Salary Increases
July 1, 2001 through June 30, 2006



C. Interest Rate

38. The total rates of return earned by the VSERS assets are shown below. The third column indicates the annual inflation levels based on the Consumer Price Index each year. The last column represents the theoretical real rate of return.

Year Ending June 30	Rate of Return Based on Actuarial Asset Value	Cost of Living Increase	Theoretical Real Rate of Return
2002	6.1%	1.6%	4.4%
2003	5.6	2.3	3.2
2004	7.4	2.7	4.6
2005	7.8	3.4	4.3
2006	8.3	3.2	4.9
2002-2006	7.0%	2.6%	4.3%

The theoretical real rate of return has been about 4.3% annually during the past five years. Based on an expected inflation component of 3.0% this could point toward an investment return assumption as low as 7.4%.

38. Although the above experience suggests that the current investment return of 8.0% might be decreased, we advise against doing, as the time period covered by this experience study incorporates some years of returns that were unusually low by historic standards. The anticipated long-term rate of return on plan assets, rather than the rate actually observed over a relatively small number of years, should be the rate targeted by the Board in selecting an assumed rate of return for use in the valuation.

39. It should also be noted in this connection that the rates of return shown above are net of investment expenses incurred by the System. As it happens, the System is reimbursed (albeit with a lag) by the State for all of its expenses, including investment expenses. As a percentage of the actuarial value of assets, the investment expenses of the fund have amounted to between 0.25% and 0.50% over the past few years. This easily justifies the retention of the current 8.0% assumed rate of investment return and could even justify a slightly higher assumed rate of return (e.g., 8.25%). As recorded in Appendix V, the investment consultant engaged by the Board to oversee the System's assets supports a change in the assumed investment rate from 8.0% to 8.25%.

V. COST ANALYSIS AND CONCLUSION

40. To assist the Board in selecting and approving the final package of valuation assumptions to be used prospectively from June 30, 2007, we have prepared a valuation of the System as of June 30, 2006, to reflect the potential impact of the revised assumptions.

42. Based on the assumptions recommended in this report, the total contribution calculated as of June 30, 2006 would have increased from $24,028,961 to $24,669,877. These results are summarized in Appendix IV.

43. This report discusses actuarial assumptions only. Methods such as the five-year average asset valuation procedure and the amortization period used for the unfunded accrued

liability also affect the costs of VSERS. These methods are not reviewed because they are not amenable to five-year experience analysis. We should note, however, that this experience study has not revealed any reasons to change any of the methods currently employed.

APPENDIX I

TABLES SHOWING ACTUAL AND EXPECTED EXPERIENCE

TABLE 1

COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS FROM ACTIVE SERVICE

TERMINATIONS

Central Age of Group	Men			Women		
	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected
25	24	54.61	0.439	18	47.52	0.379
30	84	144.26	0.582	94	172.99	0.543
35	110	169.84	0.648	124	201.42	0.616
40	102	170.37	0.599	133	179.38	0.741
45	99	155.68	0.636	117	183.28	0.638
50	69	132.08	0.522	99	168.76	0.587
53 and 54	95	154.01	0.617	125	184.00	0.679
55 and over	58	44.32	1.309	72	53.75	1.340
Total	641	1025.17	0.625	782	1,191.10	0.657
Grand Total Including Group C	695	1,059.01	0.656	790	1,195.27	0.661

TABLE 2

COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS FROM ACTIVE SERVICE

DISABILITY RETIREMENTS

Central Age of Group	Men			Women		
	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected
25	0	0.00	0.000	0	0.00	0.000
30	0	2.22	0.000	0	2.54	0.000
35	4	2.59	1.544	0	2.71	0.000
40	3	4.64	0.647	2	5.47	0.366
45	3	9.41	0.319	2	10.52	0.190
50	28	43.03	0.651	19	40.59	0.468
55	0	15.55	0.000	1	13.57	0.074
60+	1	6.00	0.167	1	5.16	0.194
Total	39	83.44	0.467	25	80.56	0.310
Grand Total Including Group C	41	84.98	0.482	27	81.06	0.333

TABLE 3

COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS FROM ACTIVE SERVICE

DEATHS

Central Age of Group	Men			Women		
	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected
25	1	0.42	2.381	4	0.29	13.793
30	1	0.77	1.299	0	0.57	0.000
35	1	1.84	0.543	3	1.18	2.542
40	1	2.93	0.341	3	2.26	1.327
45	6	4.64	1.293	2	4.04	0.495
50	6	11.28	0.532	3	9.67	0.310
55	5	10.87	0.460	6	8.09	0.742
60	6	7.03	0.853	1	4.94	0.202
65 and over	5	2.93	1.706	2	1.96	1.020
Total	32	42.71	0.749	24	33.00	0.727
Grand Total Including Group C	33	44.59	0.740	24	33.09	0.725

TABLE 4

COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS FROM ACTIVE SERVICE

SERVICE RETIREMENTS

Central Age of Group	Men			Women		
	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected
50	26	1.46	17.808	26	1.23	21.138
53	10	3.14	3.185	11	2.33	4.721
54	17	5.40	3.148	14	2.76	5.072
55	35	33.30	1.051	25	27.40	0.912
56	23	35.34	0.651	22	28.80	0.764
57	23	40.96	0.562	20	34.40	0.581
58	41	39.96	1.026	25	35.64	0.701
59	41	37.20	1.102	18	32.00	0.563
60	18	30.60	0.588	15	26.40	0.568
61	44	55.80	0.789	32	48.20	0.664
62	73	51.40	1.420	66	46.60	1.416
63	26	40.25	0.646	20	27.40	0.730
64	14	26.50	0.528	23	25.25	0.911
65	29	22.25	1.303	17	17.50	0.971
66	11	16.20	0.679	11	15.30	0.719
67	7	12.95	0.541	10	12.00	0.833
68	6	12.60	0.476	5	8.40	0.595
69	3	10.00	0.300	3	8.00	0.375
70 and over	17	87.00	0.195	11	74.00	0.149
Total	464	562.31	0.825	374	473.61	0.790
Grand Total Including Group C	501	567.31	0.883	377	474.61	0.794

TABLE 5

COMPARISON OF ACTUAL AND EXPECTED
ANNUAL SALARIES OF MEMBERS

GROUPS A, D and F

Central Age of Group	Men			Women		
	Annual Salaries			Annual Salaries		
	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected
Under 25	20,121,542	16,820,154	1.196	20,418,073	17,389,999	1.174
25 - 29	42,407,223	40,190,005	1.055	44,963,444	42,003,892	1.070
30 - 34	70,875,223	68,916,650	1.028	67,994,841	66,227,646	1.027
35 - 39	94,016,644	92,713,948	1.014	92,352,629	90,515,365	1.020
40 - 44	116,386,552	115,348,145	1.009	115,709,186	113,516,191	1.019
45 - 49	148,302,437	147,337,099	1.007	145,102,167	142,742,449	1.017
50 - 54	169,558,729	169,740,285	0.999	132,563,715	131,209,230	1.010
55 - 59	102,668,635	102,756,920	0.999	74,347,867	73,974,314	1.005
60 - 64	26,890,947	26,697,751	1.007	18,009,499	18,068,057	0.997
65 +	7,336,336	7,387,939	0.993	4,393,523	4,404,172	0.998
Total	798,564,268	787,908,896	1.014	715,854,944	700,051,315	1.023

TABLE 6

COMPARISON OF ACTUAL AND EXPECTED
ANNUAL SALARIES OF MEMBERS

GROUP C

Central Age of Group	Men			Women		
	Annual Salaries			Annual Salaries		
	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected
Under 25	5,086,747	4,487,046	1.134	380,087	323,950	1.173
25 - 29	12,219,830	11,753,657	1.040	1,085,054	992,887	1.093
30 - 34	23,140,131	22,481,544	1.029	2,410,167	2,327,526	1.036
35 - 39	20,544,159	20,321,057	1.011	1,473,803	1,423,013	1.036
40 - 44	20,893,716	20,635,502	1.013	729,070	735,169	0.992
45 - 49	11,320,368	10,886,287	1.040	434,432	403,757	1.076
50 - 54	566,609	541,052	1.047	135,227	127,221	1.063
55 - 59	90,282	91,416	0.988	-	-	0.000
60 - 64	-	-	0.000	-	-	0.000
65+	-	-	0.000	-	-	0.000
Total	93,861,842	91,197,561	1.029	6,647,840	6,333,523	1.050

TABLE 7

SUMMARY OF MORTALITY EXPERIENCE
OF PENSIONERS

SERVICE RETIREES

Central Age of Group	Men			Women			Total		
	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected
< 48	0	0.00	0.000	0	0.00	0.000	0	0.00	0.000
50	0	0.91	0.000	0	0.21	0.000	0	1.12	0.000
55	3	4.21	0.712	4	1.49	2.676	7	5.71	1.226
60	10	10.80	0.926	4	5.23	0.764	14	16.03	0.873
65	23	25.69	0.895	10	14.11	0.709	33	39.80	0.829
70	29	38.58	0.752	16	23.88	0.670	45	62.46	0.720
75	51	51.20	0.996	31	29.25	1.060	82	80.45	1.019
80	73	59.81	1.221	46	44.04	1.044	119	103.85	1.146
85	75	71.99	1.042	48	51.16	0.938	123	123.14	0.999
90	39	37.42	1.042	54	42.25	1.278	93	79.67	1.167
92 +	13	10.10	1.287	20	19.14	1.045	33	29.23	1.129
Total	316	310.72	1.017	233	230.75	1.010	549	541.48	1.014

TABLE 8

SUMMARY OF MORTALITY EXPERIENCE OF PENSIONERS

DISABILITY RETIREES

Central Age of Group	Men			Women			Total		
	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected
< 48	1	1.47	0.681	2	0.33	5.981	3	1.80	1.665
50	3	4.43	0.677	0	1.27	0.000	3	5.71	0.525
55	4	5.27	0.759	0	1.85	0.000	4	7.11	0.562
60	6	7.20	0.833	3	2.89	1.040	9	10.09	0.892
65	6	6.84	0.877	3	2.72	1.105	9	9.56	0.942
70	6	5.42	1.107	1	2.33	0.429	7	7.75	0.904
75	5	7.57	0.660	3	1.80	1.667	8	9.37	0.854
80	5	6.21	0.805	3	3.24	0.927	8	9.44	0.847
85	1	2.83	0.353	1	2.56	0.390	2	5.39	0.371
90	2	1.28	1.558	1	1.67	0.598	3	2.96	1.015
92 +	0	0.00	0.000	0	0.17	0.000	0	0.17	0.000
Total	39	48.53	0.804	17	20.82	0.816	56	69.35	0.807

TABLE 9

SUMMARY OF MORTALITY EXPERIENCE OF PENSIONERS

DEPENDENTS OF DECEASED MEMBERS

Central Age of Group	Men			Women			Total		
	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected	Actual	Expected	Ratio of Actual To Expected
< 48	2	0.00	0.000	0	0.00	0.000	2	0.00	0.000
50	0	0.04	0.000	0	0.11	0.000	0	0.16	0.000
55	2	0.08	25.575	2	0.27	7.424	4	0.35	11.507
60	2	0.21	9.569	0	1.04	0.000	2	1.25	1.598
65	2	0.34	5.816	2	1.71	1.171	4	2.05	1.949
70	1	0.47	2.139	5	3.94	1.268	6	4.41	1.360
75	2	2.30	0.871	11	6.78	1.621	13	9.08	1.432
80	0	1.34	0.000	14	13.05	1.073	14	14.38	0.973
85	1	4.21	0.238	8	16.50	0.485	9	20.71	0.434
90	7	8.47	0.827	18	12.90	1.396	25	21.36	1.170
92 +	7	16.29	0.430	11	5.70	1.929	18	21.99	0.818
Total	26	33.74	0.771	71	62.01	1.145	97	95.75	1.013

APPENDIX II

RECOMMENDED ACTIVE SERVICE TABLES

APPENDIX II

GROUPS A, D AND F

ACTIVE SERVICE TABLE

MALE EMPLOYEES

RECOMMENDED ASSUMED RATES OF:			RECOMMENDED ASSUMED RATES OF:		
AGE	Termination	Death	AGE	Termination	Death
19	0.041	0.00027	46	0.017	0.00138
20	0.041	0.00028	47	0.016	0.00147
21	0.039	0.00029	48	0.015	0.00156
22	0.037	0.00030	49	0.015	0.00165
23	0.035	0.00032	50	0.014	0.00175
24	0.033	0.00033	51	0.014	0.00185
25	0.031	0.00034	52	0.013	0.00196
26	0.030	0.00035	53	0.013	0.00210
27	0.029	0.00036	54	0.012	0.00225
28	0.028	0.00037	55	0.025	0.00245
29	0.026	0.00039	56	0.025	0.00271
30	0.025	0.00042	57	0.025	0.00300
31	0.024	0.00047	58	0.025	0.00335
32	0.023	0.00053	59	0.025	0.00370
33	0.023	0.00060	60	0.025	0.00408
34	0.022	0.00066	61	0.025	0.00456
35	0.021	0.00073	62	0.025	0.00501
36	0.021	0.00080	63	0.025	0.00554
37	0.021	0.00086	64	0.025	0.00602
38	0.020	0.00090	65	0.025	0.00649
39	0.020	0.00095	66	0.025	0.00701
40	0.019	0.00099	67	0.025	0.00745
41	0.019	0.00103	68	0.025	0.00777
42	0.019	0.00109	69	0.025	0.00814
43	0.018	0.00115	70	0.024	0.00840
44	0.018	0.00122			
45	0.017	0.00131			

APPENDIX II

GROUPS A, D AND F

ACTIVE SERVICE TABLE

FEMALE EMPLOYEES

RECOMMENDED ASSUMED RATES OF:			RECOMMENDED ASSUMED RATES OF:		
AGE	Termination	Death	AGE	Termination	Death
19	0.041	0.00016	46	0.017	0.00101
20	0.041	0.00016	47	0.016	0.00109
21	0.039	0.00016	48	0.015	0.00117
22	0.037	0.00016	49	0.015	0.00127
23	0.035	0.00016	50	0.014	0.00139
24	0.033	0.00017	51	0.014	0.00152
25	0.031	0.00018	52	0.013	0.00168
26	0.030	0.00019	53	0.013	0.00187
27	0.029	0.00020	54	0.012	0.00208
28	0.028	0.00021	55	0.025	0.00231
29	0.026	0.00022	56	0.025	0.00258
30	0.025	0.00024	57	0.025	0.00285
31	0.024	0.00028	58	0.025	0.00311
32	0.023	0.00032	59	0.025	0.00341
33	0.023	0.00036	60	0.025	0.00372
34	0.022	0.00039	61	0.025	0.00406
35	0.021	0.00042	62	0.025	0.00441
36	0.021	0.00045	63	0.025	0.00477
37	0.021	0.00048	64	0.025	0.00514
38	0.020	0.00051	65	0.025	0.00551
39	0.020	0.00055	66	0.025	0.00587
40	0.019	0.00060	67	0.025	0.00623
41	0.019	0.00066	68	0.025	0.00657
42	0.019	0.00072	69	0.025	0.00690
43	0.018	0.00079	70	0.024	0.00720
44	0.018	0.00087			
45	0.017	0.00094			

APPENDIX II

GROUP C

ACTIVE SERVICE TABLE

MALE EMPLOYEES

RECOMMENDED RATES OF:		RECOMMENDED RATES OF:	
AGE	Death	AGE	Death
19	0.00027	46	0.00138
20	0.00028	47	0.00147
21	0.00029	48	0.00156
22	0.00030	49	0.00165
23	0.00032	50	0.00175
24	0.00033	51	0.00185
25	0.00034	52	0.00196
26	0.00035	53	0.00210
27	0.00036	54	0.00225
28	0.00037	55	0.00245
29	0.00039	56	0.00271
30	0.00042	57	0.00300
31	0.00047	58	0.00335
32	0.00053	59	0.00370
33	0.00060	60	0.00408
34	0.00066	61	0.00456
35	0.00073	62	0.00501
36	0.00080	63	0.00554
37	0.00086	64	0.00602
38	0.00090	65	0.00649
39	0.00095	66	0.00701
40	0.00099	67	0.00745
41	0.00103	68	0.00777
42	0.00109	69	0.00814
43	0.00115	70	0.00840
44	0.00122		
45	0.00131		

APPENDIX II

GROUP C

ACTIVE SERVICE TABLE

FEMALE EMPLOYEES

RECOMMENDED ASSUMED RATES OF:		RECOMMENDED ASSUMED RATES OF:	
AGE	Death	AGE	Death
19	0.00016	46	0.00101
20	0.00016	47	0.00109
21	0.00016	48	0.00117
22	0.00016	49	0.00127
23	0.00016	50	0.00139
24	0.00017	51	0.00152
25	0.00018	52	0.00168
26	0.00019	53	0.00187
27	0.00020	54	0.00208
28	0.00021	55	0.00231
29	0.00022	56	0.00258
30	0.00024	57	0.00285
31	0.00028	58	0.00311
32	0.00032	59	0.00341
33	0.00036	60	0.00372
34	0.00039	61	0.00406
35	0.00042	62	0.00441
36	0.00045	63	0.00477
37	0.00048	64	0.00514
38	0.00051	65	0.00551
39	0.00055	66	0.00587
40	0.00060	67	0.00623
41	0.00066	68	0.00657
42	0.00072	69	0.00690
43	0.00079	70	0.00720
44	0.00087		
45	0.00094		

APPENDIX III

RECOMMENDED POST-RETIREMENT MORTALITY TABLES

APPENDIX III

POST RETIREMENT MORTALITY TABLES
SERVICE PENSIONERS, DISABILITY PENSIONERS AND BENEFICIARIES

AGE	MALES	FEMALES	AGE	MALES	FEMALES
19	0.00033	0.00019	70	0.02221	0.01674
20	0.00035	0.00019	71	0.02457	0.01858
21	0.00036	0.00019	72	0.02728	0.02067
22	0.00037	0.00019	73	0.03039	0.02297
23	0.00037	0.00020	74	0.03390	0.02546
24	0.00038	0.00020	75	0.03783	0.02811
25	0.00038	0.00021	76	0.04217	0.03097
26	0.00038	0.00021	77	0.04691	0.03411
27	0.00038	0.00022	78	0.05212	0.03760
28	0.00039	0.00024	79	0.05793	0.04151
29	0.00041	0.00025	80	0.06437	0.04588
30	0.00044	0.00026	81	0.07204	0.05078
31	0.00050	0.00031	82	0.08049	0.05629
32	0.00056	0.00035	83	0.08972	0.06251
33	0.00063	0.00039	84	0.09978	0.06952
34	0.00070	0.00044	85	0.11076	0.07745
35	0.00077	0.00048	86	0.12280	0.08638
36	0.00084	0.00051	87	0.13604	0.09634
37	0.00090	0.00055	88	0.15059	0.10730
38	0.00096	0.00060	89	0.16642	0.11915
39	0.00102	0.00065	90	0.18341	0.13168
40	0.00108	0.00071	91	0.19977	0.14460
41	0.00114	0.00077	92	0.21661	0.15762
42	0.00122	0.00085	93	0.23366	0.17043
43	0.00130	0.00094	94	0.25069	0.18280
44	0.00140	0.00103	95	0.26749	0.19451
45	0.00151	0.00112	96	0.28391	0.20538
46	0.00162	0.00122	97	0.29985	0.21524
47	0.00173	0.00133	98	0.31530	0.22395
48	0.00186	0.00143	99	0.33021	0.23139
49	0.00200	0.00155	100	0.34456	0.23747
50	0.00535	0.00234	101	0.35863	0.24483
51	0.00553	0.00246	102	0.37169	0.25450
52	0.00564	0.00265	103	0.38304	0.26644
53	0.00572	0.00290	104	0.39200	0.27906
54	0.00580	0.00319	105	0.39789	0.29312
55	0.00591	0.00353	106	0.40000	0.30781
56	0.00612	0.00393	107	0.40000	0.32273
57	0.00644	0.00439	108	0.40000	0.33744
58	0.00690	0.00492	109	0.40000	0.35154
59	0.00749	0.00553	110	0.40000	0.36462
60	0.00820	0.00620	111	0.40000	0.37625
61	0.00900	0.00692	112	0.40000	0.38602
62	0.00992	0.00769	113	0.40000	0.39351
63	0.01095	0.00851	114	0.40000	0.39831
64	0.01212	0.00940	115	0.40000	0.40000
65	0.01342	0.01036	116	0.40000	0.40000
66	0.01487	0.01141	117	0.40000	0.40000
67	0.01646	0.01254	118	0.40000	0.40000
68	0.01820	0.01377	119	0.40000	0.40000
69	0.02011	0.01515	120	1.00000	1.00000

APPENDIX IV

COMPARATIVE VALUATION BALANCE SHEET

APPENDIX IV

RESULTS FOR THE ACTUARIAL VALUATION
PREPARED AS OF JUNE 30, 2006, ON
CURRENT AND RECOMMENDED ASSUMPTIONS

Item	Current Asumptions	Recommended Assumptions
1. Liabilities:		
Active and Inactive Members	$ 659,275,815	$ 649,272,892
Retired Members	$ 573,091,143	$ 568,944,706
Total	$ 1,232,366,958	$ 1,218,217,598
2. Assets	$ 1,223,322,954	$ 1,223,322,954
3. Unfunded Accrued Liability	$ 9,044,004	$ (5,105,356)
4. Normal Contribution	$ 23,118,777	$ 24,669,877
5. Accrued Liability Contribution	$ 910,184	$ -
6. Total Contribution = (4) + (5)	$ 24,028,961	$ 24,669,877

APPENDIX V

REPORT OF INVESTMENT CONSULTANT

"Advancing Your Investments"
NEW ENGLAND PENSION CONSULTANTS

To: Vermont State Employees' Retirement System

From: Christopher Levell, ASA, CFA

Date: September 12, 2007

Subject: Interest Rate Assumption

In NEPC's capacity as the investment consultants for the Vermont Pension Investment Committee (VPIC), we were asked for our comments on the recent experience study by Buck Consultants for the State Employees' Retirement System. In particular, we were asked for our thoughts on the future return assumed for the System assets. In our July 24, 2007 meeting with the Search Sub-Committee, we developed the following expected return, here shown to the nearest basis point, of 8.27%.

	Employees' Target Allocation
GAA	**10.0%**
GAA (Mellon and Pimco)	10.0%
Equity	**51.0%**
Domestic Large Cap	23.5%
Domestic Small Cap	12.0%
International	11.5%
Int'l Emerging Markets	4.0%
Fixed Income	**30.0%**
Core Fixed Income	20.5%
High Yield Bonds	5.0%
Global Bonds	4.5%
Other	**9.0%**
Private Equity	3.0%
Real Estate	6.0%
Cash- Short Term Fixed	0.0%
Expected Return	**8.27%**
Expected Risk	**9.93%**

This expected return is based on the target asset allocation and our expectations for market returns, volatility and correlations of asset classes. Importantly, these market assumptions do not include an estimate of manager outperformance, or alpha, above the market return. We strongly believe in the ability of managers to beat benchmarks, and the investment managers currently in the program have

demonstrated the ability to add value. Thus, our assumption can be considered a conservative estimate, one either based on index returns across the portfolio, or one assuming that each active manager produces only enough alpha to meet their fees. While VPIC has adopted changes to the target allocation since the July 24 meeting, these changes involve the re-characterization of some asset classes without resulting in a change of the overall allocation.

Based upon these details, we are very comfortable with the suggestion that the assumed rate of return for the System should be increased from 8.00 to 8.25%. One additional discussion has noted that expenses, including investment management fees, have historically been reimbursed to the system. Because our expected return exceeds 8.25%, and that this is a conservative estimate by not including expected alpha, we feel that 8.25% is an appropriate assumption even if investment management fees are no longer reimbursed.