H.F. 3041
(Murphy, M.)

S.F. 2715
(Betzold)

Executive Summary of Commission Staff Materials

Affected Pension Plan(s):	Statewide and Major Local Retirement Plans
Relevant Provisions of Law:	Minnesota Statutes, Chapters 11A and 356
General Nature of Proposal:	Annual financial reporting and actuarial reporting changes
Date of Summary:	March 3, 2008

Specific Proposed Changes

Amends the Minnesota Post Retirement Investment Fund post-retirement adjustment mechanism, the public pension plan financial reporting requirement law, and the public pension plan actuarial reporting law by eliminating some steps in the post-retirement adjustment calculation process, by replacing an annual financial report distribution requirement with an availability requirement, by eliminating the pre-1986 annual financial reporting requirement specificity, renames "current assets" as the "actuarial value of assets," makes numerous interest, salary increase and payroll growth actuarial assumption changes, shifts salary increase and payroll growth assumptions from statutory specification to a non-statutory establishment process, sets deadline requirements for Commission action on actuarial assumption change proposals, adds an amortization contribution calculation requirement for Minnesota Post Retirement Investment Fund deficits, and extends the amortization target date for the Judges Retirement Plan, the Correctional State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-Correctional), and the Public Employees Police and Fire Retirement Plan (PERA-P&F) to 2038 from 2020.

Policy Issues Raised by the Proposed Legislation

1. Appropriateness of proposed Minnesota Post Retirement Investment Fund post-retirement adjustment liability calculation changes (Section 1).
2. Appropriateness of language clarifications and corrections (Sections 2 and 3).
3. Appropriateness of eliminating annual financial report/synopsis distribution requirement (Section 4).
4. Appropriateness of the elimination of various asset values.
5. Appropriateness of the retention of the current actuarial value of assets definition (Section 7).
6. Appropriateness of an explicit change to 8.5 percent post-retirement interest rate assumption for the statewide retirement plans (Section 9).
7. Appropriateness of the elimination of asset value and unfunded actuarial accrued liability reporting requirements.
8. Delay in and inadequate documentation for resolving issues related to economic actuarial assumptions (Section 9).
9. Inadequacies in Spring 2006 experience studies and January 2007 actuarial assumption conference call (Section 9).
10. Appropriateness of proposed salary scale assumption changes (Section 9).
11. Appropriateness of proposed payroll increase assumption changes.
12. Appropriateness of the increased optimism represented for the salary assumption changes in light of recent criticisms of the current optimistic interest rate actuarial assumption.
13. Appropriateness of having retirement plan boards set economic actuarial assumptions.

14. Appropriateness of placing time deadlines on Commission consideration of actuarial assumption change recommendations.

15. Appropriateness of additional annual actuarial reporting requirement for amortizing the Minnesota Post Retirement Investment Fund deficit/unclear amortization target date.

16. Appropriateness of extending amortization dates of various retirement plans when there has been no major assumption change or benefit increase.

17. Appropriate amortization target date for MSRS-Correctional, the Judges Retirement Plan, and PERA-P&F.

18. Appropriateness of the continued use of amortization on a level percentage of covered pay basis.

19. Appropriateness of addressing the current lack of specific new amortization period for experience gains and losses.

20. Appropriateness of retaining the current funding surplus credit reverse amortization provision.

Potential Amendments

H3041-1A	reinstates the subtraction of "ineligible reserves" from the MPRIF benefit reserve calculation.
H3041-2A	reinstates the inclusion of net mortality gains and losses into the MPRIF benefit reserve calculation.
H3041-3A	essentially combines the effect of Amendment 1A and Amendment 2A.
H3041-4A	reinstates the use of the actual MPRIF Consumer Price Index adjustment reserve amount rather than a presumed 2.5 percent adjustment.
H3041-5A	retains the current annual financial report distribution requirement.
H3041-6A	requires either distribution of the annual financial report or, alternatively, availability through posting on the retirement plan's Internet site with the provision of the identical document to each employing unit on compact disc or comparable medium.
H3041-7A	retains the longstanding asset category reporting and the cost and market value disclosures.
H3041-8A	shifts to an unadjusted market value for retirement plan assets.
H3041-9A	would retain all of the current financial reporting additional disclosure items.
H3041-10A	would retain the asset class value comparison in annual financial reporting.
H3041-11A	would retain the alternative unfunded liability disclosure in annual financial reporting.
H3041-12A	would retain the additional benefit obligation disclosure in annual financial reporting.
H3041-13A	would add a requirement that the retirement plan administration certify that the annual financial report was prepared in conformity with Minnesota Statutes, Section 356.20, a requirement not currently in statute that would likely increase compliance with the annual financial reporting requirements and would clarify the responsible party if there are omitted disclosures.
H3041-14A	adds the recommended salary increase assumption changes for the Judges Retirement Plan, PERA-P&F, and PERA-Correctional that was omitted from the proposed legislation and also eliminates the salary increase and payroll increase actuarial assumptions for the Elective State Officers Retirement Plan.
H3041-15A	eliminates the proposed delegation of authority in setting salary increase assumptions and expanding retirement plan discretion in the process.
H3041-16A	would eliminate the proposed deadline for Commission consideration of actuarial assumption changes.

H3041-17A provides that the time period on Commission consideration of actuarial assumption changes does not begin to run until all actuarial assumption change recommendations have been transmitted to the Commission and those recommendations either have been formulated by the consulting actuary retained under Minnesota Statutes, Section 356.214 or have been reviewed by that consulting actuary and that actuary's written advice about the recommendation has been received by the Commission.

H3041-18A provides that all actuarial assumption change documents must be transmitted by certified mail or with a signed acknowledgement of receipt by a Commission employee for personally delivered documents has been obtained.

H3041-19A requires that all actuarial assumption change proposals for Commission consideration be submitted for publication in the State Register within 15 days after their transmittal to the Commission.

H3041-20A sets the amortization target date for the MPRIF deficit at the same date as is applicable under Minnesota Statutes, Section 356.215, Subdivision 11, Paragraphs (b) through (i).

H3041-21A sets the amortization target date for the MPRIF deficit at a consistently applied 2038 amortization target date.

H3041-22A sets the amortization target date for the MPRIF deficit at the average remaining expected lifetime of each retirement plan's service retiree group.

H3041-23A would eliminate the proposed extension of the amortization full funding target date for MSRS-Correctional, the Judges Retirement Plan, and PERA-P&F.

H3041-24A adds the three retirement plans covered by the proposed amortization date extension as a clear exception to Minnesota Statutes, Section 356.215, Subdivision 11, Paragraph (b).

H3041-25A makes the same clear explicit exception to the current 2020 amortization date provision for TRA.

H3041-26A resets the assumption target dates for MSRS-Correctional, the Judges Retirement Plan, and PERA-P&F based on the remaining average active member working lifetime rounded up to the nearest full year.

H3041-27A makes the remaining average active member lifespan amortization date change for all plans other than MERF unless the current amortization date is a later date.

H3041-28A resets the generally applicable amortization target date from 2020 to 2027, the average remaining working lifetime of the three largest statewide retirement plans, rounded up to the next full year.

H3041-29A reverts back to the pre-1984 practice of amortizing unfunded actuarial accrued liabilities on a level dollar basis rather than a level percentage of increasing covered payroll basis and resets the general amortization period to 2038.

H3041-30A creates a proportional amortization period extension procedure akin to that applicable to benefit increases and assumption changes.

H3041-31A lengthens the reverse amortization period for a funding surplus credit from a rolling 30-year period to a rolling 50-year period.

H3041-32A restricts the credit calculation to retirement plans that have assets at least 30 percent greater than actual accrued liabilities.

H3041-33A would eliminate the reverse amortization credit provision entirely.

State of Minnesota \ LEGISLATIVE COMMISSION ON PENSIONS AND RETIREMENT

TO: Members of the Legislative Commission on Pensions and Retirement

FROM: Lawrence A. Martin, Executive Director

RE: H.F. 3041 (Murphy, by request); S.F. 2715 (Betzold): TRA-Sponsored Actuarial and Financial Reporting Revisions

DATE: March 3, 2008

Summary of H.F. 3041 (Murphy, by request); S.F. 2715 (Betzold)

H.F. 3041 (Murphy, by request); S.F. 2715 (Betzold), legislation proposed by the Teachers Retirement Association (TRA), amends Minnesota Statutes, Sections 11A.18, Subdivision 9; 356.20, Subdivisions 1, 2, 3, 4, and 4a; and 356.215, Subdivisions 1, 2, 8, 11, and 18, the statewide retirement plans post-retirement adjustment mechanism, the generally applicable retirement plan annual financial reporting requirement, and the generally applicable retirement plan actuarial reporting requirement, by making the following changes:

1. MPRIF Changes. A Minnesota Post Retirement Investment Fund (MPRIF) post-retirement adjustment limit related to the differential between pre-retirement and post-retirement interest rate assumptions is dropped solely in favor of a 2.5 percent limit added in 1997 and the manner for calculating the MPRIF actuarial liability to determine any deficit or surplus is changed to include "noneligible" benefit reserves and to omit mortality gain or loss adjustments. (Section 1)
2. Language Clarification and Corrections. The term "chief administrative official" is replaced by "chief administrative officer" and the term "public pension fund" is replaced by "public pension plan." Cross citations are corrected and language style and usage improvements are made. (Sections 2 and 3)
3. Annual Financial Report Changes. Volunteer firefighter relief associations are included in the requirement by an explicit reference rather than a statutory cross-reference. Financial reports or synopses are required only to be made available to rather than the current distribution to retirement plan members. The content requirements of an annual financial report are modified to include the actuarial value of plan assets and to eliminate current specific asset value disclosure items and specific actuarial liability disclosure items. (Sections 3, 4, and 5)
4. Renames Current Assets as Actuarial Value of Assets for Actuarial Reporting. The name for the adjusted asset value used for actuarial purposes is changed from "current assets" to "actuarial value of assets" and the obsolete portions of the definition are eliminated. (Section 7)
5. Changes in Interest, Salary Increase, and Payroll Increase Actuarial Assumptions. The post-retirement interest rate assumptions for the statewide retirement plans are increased from six percent to 8.5 percent, the select portion of the salary increase assumption for the Minnesota State Retirement System (MSRS) and the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General) is reduced from ten years to five years for its period of application and increased from 0.3 percent to 0.6 percent for the additional percentage, the ultimate salary increase rate is reduced by one-half of one percent at each age for MSRS-General, the MSRS Correctional State Employees Retirement Plan (MSRS-Correctional), PERA-General, the Public Employees Police and Fire Retirement Plan (PERA-P&F), and the Teachers Retirement Association (TRA), and the payroll growth assumption is reduced by one-half percent for MSRS-General, MSRS-Correctional, and TRA and by 1.5 percent for PERA-General. (Section 9)
6. Shifts Salary Increase and Payroll Growth Assumptions from Statutory to Non-Statutory Assumptions. After 2010, the current statutory salary increase and payroll increase assumptions would shift to the same status as the current demographic assumptions, to be set by the retirement plan governing bodies with Commission approval, and, if the Commission failed to act on a retirement plan assumption change request within six months of submission, for all non-statutory actuarial assumptions, the assumption would take effect without explicit Commission approval. (Sections 9 and 11)
7. Addition of a Second Amortization Contribution Reporting Requirement. Actuarial valuations would be required to include a calculation of the contribution needed to amortize the plan's unfunded actuarial accrued liability without including any Minnesota Post Retirement Investment Fund deficit, for contribution setting purposes, and including any Minnesota Post Retirement Investment Fund deficit, for information purposes. (Section 10)

8. Extension of MSRS-Correctional, Judges Retirement Plan, and PERA-P&F Amortization Target Dates. The amortization target dates for MSRS-Correctional, the Judges Retirement Plan, and PERA-P&F are reset from 2020 to 2038. (Section 10)

Background Information

Background information on the following relevant topics is attached:

A. Minnesota Actuarial Reporting Requirements. Attachment A contains background information on the actuarial reporting requirements of Minnesota public pension plans;

B. Minnesota Public Pension Plan Assets Valuation Definition. Attachment B contains background information on the manner in which pension plan assets are valued for actuarial reporting purposes;

C. Amortization of Public Pension Plan Unfunded Actuarial Accrued Liabilities. Attachment C contains background information on the retiring of the amount by which actuarial accrued liabilities exceed retirement plan assets.

D. Minnesota Post Retirement Investment Fund. Attachment D contains background information on the statewide retirement plan common post-retirement adjustment mechanism;

E. Asset Valuation in the Minnesota Post Retirement Investment Fund. Attachment E contains background information on the current difference between the market value of assets and the actuarial value of assets of the Minnesota Post Retirement Investment Fund;

F. Summary of Minnesota Taxpayers Association/Legislative Auditor Critique of MPRIF Asset Valuation Process. Attachment F contains background information on the discussion of the disclosure of Minnesota Post Retirement Investment Fund liabilities and assets in recent reports by the Minnesota Taxpayers Association and by the Program Evaluation Division of the Office of the Legislative Auditor; and

G. Results of 2000-2004 Statewide Retirement Plan Quadrennial Experience Studies. Attachment G contains background information on the results of the 2000-2004 quadrennial experience studies for the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employees Retirement Plan of the Public Employees Retirement Association (PERA-General), and the Teachers Retirement Association (TRA) and the subsequent recommendations for assumption changes.

H. Results of Recent Experience Studies for DTRFA and SPTRFA. Attachment H contains background information on the results of the 2002-2006 experience study of the Duluth Teachers Retirement Fund Association (DTRFA) and of the 2000-2006 experience study of the St. Paul Teachers Retirement Fund Association (SPTRFA) and the recommendations of the preparing actuary for actuarial assumption changes.

I. Summary of Government Accounting Standards Board Statement 25. Attachment I contains background information on Statement 25 of the Governmental Accounting Standards Board (GASB), governing financial reporting for defined benefit pension plans.

Discussion and Analysis

H.F. 3041 (Murphy, by request); S.F. 2715 (Betzold) amends portions of Minnesota Statutes, Sections 11A.18, the Minnesota Post Retirement Investment Fund post-retirement adjustment mechanism, 356.20, the public pension plan financial reporting requirement law, and 356.215, the public pension plan actuarial reporting law, by eliminating some steps in the post-retirement adjustment calculation process, by replacing an annual financial report distribution requirement with an availability requirement, by eliminating the pre-1986 annual financial reporting requirement specificity, renames "current assets" as the "actuarial value of assets," makes numerous interest, salary increase and payroll growth actuarial assumption changes, shifts salary increase and payroll growth assumptions from statutory specification to a non-statutory establishment process, sets deadline requirements for Commission action on actuarial assumption change proposals, adds an amortization contribution calculation requirement for Minnesota Post Retirement Investment Fund deficits, and extends the amortization target date for the Judges Retirement Plan, the Correctional State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-Correctional), and the Public Employees Police and Fire Retirement Plan (PERA-P&F) to 2038 from 2020.

H.F. 3041 (Murphy, by request); S.F. 2715 (Betzold) raises numerous pension and related public policy issues for potential Commission consideration and discussion, as follows:

1. Appropriateness of Proposed Minnesota Post Retirement Investment Fund Post-Retirement Adjustment Liability Calculation Changes (Section 1). The policy issue is the utility and appropriateness of the proposed changes to the Minnesota Post Retirement Investment Fund (MPRIF) post-retirement adjustment calculation statute, Minnesota Statutes, Section 11A.18, Subdivision 9, where the MPRIF liability for use in calculating any investment-related portion of a post-retirement adjustment would no longer be adjusted for net mortality gains and losses, would no longer be adjusted to eliminate non-eligible required reserves, and would assume a 2.5 percent Consumer Price Index increase-based adjustment even when a lower inflation component is actually paid. The MPRIF post-retirement adjustment is made up of two components, and inflation portion and an investment portion. The inflation portion is based wholly on the Consumer Price Index and is capped at 2.5 percent annually. The investment portion is calculated based on a calculation of a five-year averaged investment performance amount as a percentage of the MPRIF benefit reserves, with an overall cap of five percent annually after 2009. The purpose of the proposed changes is not clear, with no supporting summary or policy analysis supplied by the moving party behind the proposal, the Teachers Retirement Association (TRA), but the language removes from the requirements governing the calculation of the MPRIF benefit reserve value a recognition of net mortality gains and losses, a subtraction of "ineligible reserves," and an overstatement of the inflation component in the event that a Consumer Price Index-based post-retirement adjustment is less than 2.5 percent. It is possible that the State Board of Investment, which is charged with making the benefit reserve calculation, would not miscalculate the figure in fact, but a careful following of the statutory language appears to require a miscalculation of the amount, probably overstating it in most cases. The Commission would be well advised to request a careful and detailed indication of the intent of the proponents of these changes, including a comparison of current and proposed calculation procedures for the last prior year when an investment component adjustment was paid, before approving the proposed changes.

   Amendment H3041-1A reinstates the subtraction of "ineligible reserves" from the MPRIF benefit reserve calculation, one of the proposed changes.

   Amendment H3041-2A reinstates the inclusion of net mortality gains and losses into the MPRIF benefit reserve calculation, another of the three proposed changes.

   Amendment H3041-3A retains the simplification of this portion of the MPRIF post-retirement adjustment provision, but references the eligible reserves and gain and loss transfers in the revised provision, essentially combining the effect of Amendment 1A and Amendment 2A.

   Amendment H3041-4A reinstates the use of the actual Consumer Price Index adjustment reserve amount rather than a presumed 2.5 percent adjustment, the third proposed change.

2. Appropriateness of Language Clarifications and Corrections (Sections 2 and 3). The policy issue is the appropriateness of the proposed language clarifications and corrections contained in the proposed legislation. The replacement of the reference to "fund" with a reference to "plan" and of the reference to "chief administrative official" with a reference to "chief administrative officer" are more consistent with current drafting conventions and appear to be appropriate because they do not appear to have any substantive change in the provisions while making the provision more readable.

3. Appropriateness of Eliminating Annual Financial Report/Synopsis Distribution Requirement (Section 4). The policy issue is the appropriateness of relaxing the current requirement that every Minnesota public pension plan distribute a copy of or a synopsis of the annual financial report of the retirement plan to each member in favor of making the annual financial report "available." The distribution requirement has been in effect for 42 years, since the enactment of the first annual financial reporting law in 1965. The current law synopsis alternative to the distribution of the full financial report requirement obviously was intended to provide retirement plan administrators flexibility in informing its membership. A further relaxation of a requirement that has operated well for more than four decades is presumably sought to allow the retirement plan administrators to eliminate all paper versions of annual financial reporting in favor of Internet postings of annual financial reporting, although the proponents did not provide the Commission staff with any statement of their intent or policy argument for their proposals. With as loose a proposed requirement as "make available" an annual financial report, a retirement plan could meet the requirement in any manner, including simply placing a copy of the document in a public place. Internet information is available to computer-savvy members with greater than dial-up access, that may not be the situation of many plan members. It would be

appropriate for the Commission to request that the proponents of the change indicate their policy rationale for making the change. If the reason for the change is a sense by retirement plan officials that the annual financial report is a little-read document, that is more an indictment of the accounting trade and plan administrators who have created documents in order to obtain awards from the Government Finance Officers Association (GFOA) and to mask actual affairs rather than provide more accessibility. If the policy argument is focused on reducing unnecessary paper and if the current requirement is to be relaxed, some standards for distribution or availability are preferable to insure that the information is broadly and readily available.

If the Commission is concerned about the relaxation of the annual financial reporting requirement, Amendment H3041-5A retains the current annual financial report distribution requirement.

If the Commission is more comfortable with the annual financial report distribution requirement relaxation if there are standards to insure transparency and accessibility, Amendment H3041-6A requires either distribution or, alternatively, availability through posting on the retirement plan's Internet site with the provision of the identical document to each employing unit on compact disc or comparable medium.

4. Appropriateness of the Elimination of Various Asset Values. The policy issue is the appropriateness of the proposed elimination of the specific asset value reporting requirements that have been in place, in part, since 1965, and in part, since 1984. The specific reported items are beyond what is necessary to meet the minimum requirements of generally accepted accounting principles as specified by the Governmental Accounting Standards Board (GASB), and require groupings of pension fund assets into various categories that have been in place for decades, allowing for some long term asset allocation comparisons, and requires the disclosure of those asset groupings at cost or book value and at market value. While the elimination of the detail will make life simpler for the bookkeepers and accountants of the various retirement plans, the loss of the information provides less visibility and transparency of pension plan activities.

   If the Commission would prefer to retain the longstanding asset category reporting and the cost and market value disclosures, Amendment H3041-7A makes that change.

5. Appropriateness of the Retention of the Current Actuarial Value of Assets Definition (Section 7). The policy issue is the appropriateness of retaining the actuarial value of retirement plan assets definition that has been used since 2000 (Laws 2000, Chapter 460, Article 1, Section 3). The proposed legislation eliminates obsolete transitional provisions from the 2000 law, but retains the definition recommended by the consulting actuarial firm retained by the Commission, Milliman & Robertson, in 2000. Good funding practice probably requires and generally accepted accounting principles as enumerated by the Governmental Accounting Standards Board definitely requires the valuation of retirement plan assets in a manner that approximates or reflects market value changes. Milliman recommended the current definition of the actuarial value of assets, to replace the prior method of book value plus or minus one-third of the difference between book value and market value, in order to remove some of the shorter-term volatility in value that would occur with full market value and to insulate the investment decision making process from the actuarial impact of investment choices. The use of the market value of assets was the second choice in 2000 of Milliman if the Commission did not endorse the actuarial value of assets definition. The Commission staff observed in the memorandum accompanying the 2000 change that the historic pattern of volatility in the equity markets has been either over a period shorter than one year and over periods longer than five or seven years, which both fall outside any smoothing provided by the current actuarial value of assets formula. No actual evidence of the actuarial concerns in investment transactions that the current actuarial value of assets formula allegedly attempts to relieve was ever presented in 2000 on the part of retirement plan investment authorities. With the possible exception of the Minneapolis Employees Retirement Fund (MERF) among the statewide and major local retirement plans, no plan actually has its contributions in the following year directly affected by a change in asset values because all other plans have statutory contribution rates requiring legislative action to change. The use of the actuarial value of assets confuses rather than clarifies pension funding, since in bull markets, interested parties all know the market value of plan assets and use those higher market values to argue for benefit modifications and rely on the actuarial value of assets in bear markets to minimize policymakers' funding concerns, even when those funding concerns are well-founded.

   If the Commission wishes to shift to an unadjusted market value for retirement plan assets rather than the current actuarial value of assets, Amendment H3041-8A would make that change.

6. Appropriateness of an Explicit Change to 8.5 Percent Post-Retirement Interest Rate Assumption for the Statewide Retirement Plans (Section 9). The policy issue is the appropriateness of the proposed updating of the post-retirement interest rate assumption for the various statewide retirement plans and the proposed resetting of the interest rate actuarial assumptions. The effective pre-retirement and post-retirement interest rate actuarial assumptions in the actuarial valuations of the statewide retirement plans are 8.5 percent, although the stated interest rate actuarial assumptions for the statewide retirement plans in Minnesota Statutes, Section 356.215, Subdivision 8, sets a 6.0 percent post-retirement interest rate actuarial assumption. The combination of a 6.0 percent post-retirement interest rate actuarial assumption and the addition of the maximum Consumer Price Index-related post-retirement adjustment amount under Minnesota Statutes, Section 11A.18, Subdivision 8, Paragraph (b), produce an effective post-retirement interest rate actuarial assumption of 8.5 percent. If clarity for both outside observers and policymakers is the desired result of the statute governing public retirement plan actuarial reporting and financial reporting, having the actual post-retirement interest rate actuarial assumption conform with the effective rate as proposed would be appropriate.

7. Appropriateness of the Elimination of Asset Value and Unfunded Actuarial Accrued Liability Reporting Requirements. The policy issue is the appropriateness of the proposed elimination of Minnesota Statutes, Section 356.20, Subdivision 4, Paragraphs (b) and (c), which represent generally accepted accounting principle requirements that were in force before 1984 and have been subsequently supplanted in 1994 as the governing accounting principles. Minnesota Statutes, Section 356.20, governs the annual financial reporting requirements applicable to public pension plans in Minnesota. The financial reporting requirement has been in statute since 1965, when there were few or no public pension plan-specific financial reporting requirements in force from other sources. Since the development of the Financial Accounting Standards Board (FASB), primarily applicable to the non-governmental sector, and the development of its governmental sector counterpart, the Governmental Accounting Standards Board (GASB), the general practice in Minnesota has been to reflect in Minnesota Statutes, Section 356.20, the regulation that has been determined to be "generally accepted accounting principles." Compliance with "generally accepted accounting principles" means that the annual financial reporting is eligible for an unqualified opinion by the reviewing accountant or auditor. A qualified opinion by the auditing accountant means that the financial statements of the retirement plan contain a material misstatement in representing the affairs of the plan. The required financial reporting contents items proposed to be eliminated in this proposed legislation are a breakout of various asset classes and a comparison of their book value, market value, and in aggregate, their actuarial value of assets, the calculation of an unfunded liability on the basis of the present value of credited projected benefits in addition to the traditional entry age normal unfunded actuarial accrued liability calculation, and a breakout of benefit obligations based on various retirement plan membership groupings. While the retention of prior reporting requirements does not cause any harm, unless the requirements function to supplant more recent reporting requirements, the elimination decision should be made based on its merits rather than on inertia. It would appear that the continued existence of Minnesota Statutes, Section 356.20, Subdivision 4, Paragraphs (b) and (c), is a result of inaction since 1994 by any interested public pension plan party, chiefly the accounting sections of the various retirement plans, the State Auditor's Office, and the Legislative Auditor's Office. It is unclear that the reporting items proposed for elimination, especially the unfunded actuarial accrued liability items, have provided any additional valued information to public pension plan personnel, the Legislature, the Department of Finance, or any outside consumer of public pension information, which argues for the elimination of the items. Indeed, a review of the 2007 TRA annual financial report indicates that the items required by Minnesota Statutes, Section 356.20, Subdivision 4, Paragraphs (b), (c), and (d), were not contained in the financial section of the report or in any other sections of the report and those omissions likely have occurred for several years. While the presentation of an alternative unfunded liability figure does not appear to add any valuable information and seems to add confusion, the asset value comparisons and benefit obligation breakouts may be valuable items to retain. The proponents of the elimination of these three disclosure items should be requested to provide a policy rationale for those eliminations.

   If the Commission does not find that policy argument convincing in whole or in part,
   Amendment H3041-9A would retain all of the current financial reporting additional disclosure items,
   Amendment H3041-10A would retain the asset class value comparison,
   Amendment H3041-11A would retain the alternative unfunded liability disclosure, and
   Amendment H3041-12A would retain the additional benefit obligation disclosure.

If the Commission is concerned that statutory annual financial reporting items are omitted without disclosure of the omission, Amendment H3041-13A would add a requirement that the retirement plan administration certify that the annual financial report was prepared in conformity with Minnesota Statutes, Section 356.20, a requirement not currently in statute that would likely increase compliance with the annual financial reporting requirements and would clarify who is the responsible party in the event of omitted exhibits or disclosures.

8. Delay In and Inadequate Documentation for Resolving Issues Related to Economic Actuarial Assumptions (Section 9). The policy issue is an unclear rationale for a long delay in resolving issues related to the various economic actuarial assumptions and the lack of documentation underlying the economic actuarial assumption recommendations ultimately made. The recent quadrennial experience studies of the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General), and the Teachers Retirement Association (TRA) included a recommendation that any resolution of the question of appropriate economic assumptions should be postponed until there was a broader study of investment returns, salary increases, and payroll growth, with input from the State Board of Investment. If that study occurred, it apparently was prepared in advance of a January 16, 2007, conference telephone call between Howard Bicker, Executive Director of the State Board of Investment, the executive directors and chief financial staff of the MSRS, the PERA, and the TRA, two representatives of Buck Consultants, a consulting actuarial firm retained by TRA, two representatives of Mercer, a consulting actuarial firm retained by MSRS and PERA, and five personnel from The Segal Company, the consulting actuary firm retained jointly by the statewide and major local retirement plans. The State Board of Investment study has not been provided to the Legislative Commission on Pensions and Retirement and neither the study nor a summary of the study was included in the materials provided to the State Board of Investment for its December 6, 2006, or March 20, 2007, meetings. Based on the February 7, 2007, documentation of the actuarial assumptions conference call prepared by The Segal Company staff, the economic assumption recommendations ultimately reached a consensus on assumption recommendations contained in the proposed legislation. In the Spring 2006 MSRS, PERA, and TRA experience studies, The Segal Company indicated that the current interest rate actuarial assumption was on the optimistic side of average nationwide, that a thorough review of long-term capital market developments is needed, that the economic actuarial assumptions need to be developed based on a "building block" approach required by actuarial standards of practice, and that payroll growth assumptions be reviewed in light of the other concerns. While the Segal experience studies appear to contemplate a thorough review process, the actual recommendations appear to have been delayed without apparent benefits, resolved in an unclear process, with minimal outside or additional consultations, without advance notice to all interested parties about the decision-making process, and without any documentation that would allow the Commission to defer to the conclusion based on a thorough review of the evidence and rationale developed and presented. If the Commission is concerned about this apparent example of policymaking in a vacuum, the Commission should consider taking more testimony about the process used to reach the recommendations and the evidence assembled to support those recommendations before implementing those recommendations.

9. Inadequacies in Spring 2006 Experience Studies (Section 9). The policy issue is the appropriateness of the recommended actuarial assumption changes in light of problems in or inadequacies of the experience studies completed in Spring 2006. There are five problems in or inadequacies of the experience studies observed by the Commission staff, which are:

   a. Reduced Presentation of Data. The 2000-2004 experience studies present annual actuarial experience information on most demographic assumptions with ratios only on an "average per year" basis. The Commission's Standards For Actuarial work, last modified by Commission action on August 20, 2007, requires the calculation of actual to expected events ratios (Standard V, C., (1)(d)) and requires the results to be reported by each year (Standard V.D., (6)). For the salary increase assumptions, the 2000-2004 experience study did not include any year-by-year breakdown of the experience study, while the 1996-2000 experience study presented both annual and full five-year period results. While past experience studies have presented ratios by age or service increments for each year, the 2000-2004 experience study omitted the year specific presentation of ratios for demographic assumptions, producing only average ratio information. *Attached is a comparison of the post-retirement mortality assumption experience results for the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General) for the 1996-2000 experience study (pages 1996-2000 (1) to (5)) and for the 2000-2004 experience study (pages 2000-2004 (1) to (6)).*

b. Unclear "Fit" For the Recommended Salary Scale and Payroll Increase Assumption Changes. The 2000-2004 experience study recommendations on demographic actuarial assumption changes typically include a presentation of the ratio between actual experience and the recommended assumption change as a demonstration of the "fit" of the assumption change. Because recommendations on the salary scale and payroll increase assumptions were deferred for future study and that future deliberation was conducted in a telephone conference call without any extensive documentation, there is no specific information on the actual to expected ratio "fit" of the salary scale and payroll increase assumption changes.

c. Unexplained MSRS-General Post-Retirement Mortality Assumption Data Disclaimer. The 2000-2004 experience study of MSRS-General indicates that the actual death counts used in the study are not reconciled with plan data for retiree mortality experience, but nowhere is the nature of the disparity or the potential deviation explained in the study. Although the experience study inadequacy relates to an actuarial assumption change approved by the Commission in December 2007, the inadequacy combined with other experience problems does raise questions about the adequacy of the entire experience study process and the adequacy of the recommendations underlying this proposed legislation.

d. No Data or Limited Data on Marriage, Beneficiary Age, and Optional Annuity Form Assumption Experience. The 2000-2004 experience study made findings and recommendations about the percent of active members who were married, the presence and age of a potential beneficiary, and the optional annuity form selection, but for the percent married assumption, no data was provided that supported the recommendation that the assumption remains reasonable, for the presence and age of beneficiary assumption, average experience data was present, but the data did not fully support the "therefore...remains reasonable" conclusion, and for the optional annuity form assumptions, no data at all was provided that supported the recommendation that the assumption remains reasonable. Although the experience study inadequacy relates to an actuarial assumption change approved by the Commission in December 2007, the problem casts a shadow on the entire experience study process.

e. No Review of the Combined Service Annuity Utilization Assumption. As part of the recommendations from the 1996-2000 experience studies, an actuarial assumption related to the utilization of the Combined Service Annuity portability provision was added to the various actuarial valuations, but no review of that assumption was included in the 2000-2004 experience studies. Because of the difficulties in identifying all of the required data, the Combined Service Annuity utilization assumption is a "loading" assumption, where liabilities are increased by a specified percentage to approximate the portability mechanism usage. Without a periodic review, the loose nature of a "loading" assumption can lead to a very inaccurate assessment of the impact of the Combined Service Annuity. Since the salary assumption recommendations contained in the proposed legislation tend to reduce recognized actuarial liabilities and make the actuarial situation appear more favorable, these moderating assumption recommendations would best be adopted when the Commission is convinced that all other assumptions have been carefully reviewed and appropriately revised. The Combined Service Annuity loading factor and the internal portability trends it attempts to reflect is a significant actuarial assumption and cost component and its omission from the most recent experience study is potentially significant.

10. Appropriateness of Proposed Salary Scale Assumption Changes (Section 9). The policy issue is the appropriateness of the uniform change in the proposed salary scale assumptions in light of the variable recent salary increase experience. The recent experience studies of the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General), and the Teachers Retirement Association (TRA) indicate that the recent salary increases have been at rates less than the salary increase actuarial assumptions in force, meaning that a change in the assumptions is in order. The proposed salary increase assumptions represent a uniform reduction in the current rates, while the actual pattern of overstatement of salary increases was much more variable. Thus, the old salary increase assumptions did not match well the absolute value of past salary increases at any age or service length and did not match the pattern of salary increases over time and the recommended salary increase assumptions will reduce future salary gains to some degree, but is unlikely to correct for the pattern of the assumption. The Commission should consider requesting from the proponents of the proposed legislation the provision of some evidence to substantiate a belief that the pattern of the new salary increase assumptions will more accurately reflect likely future reality based on recent experience.

11. Appropriateness of Proposed Payroll Increase Assumption Changes. The policy issue is the appropriateness of the proposed changes in the payroll increase assumption. The payroll increase assumption solely relates to the amortization procedure, where the retirement plan's unfunded actuarial accrued liability is amortized as a level percentage of an increasing covered payroll. The payroll increase assumption specifies the rate of increase for the calculation of the amortization requirement through the amortization target date (2020 under Minnesota Statutes, Section 356.215, Subdivision 11, Paragraph (b)) unless there have been benefit increases, actuarial assumption changes, or actuarial method changes since 1989, with a new amortization target date determined by blending the 2020 amortization date for the pre-change unfunded actuarial accrued liability and a new 30-year period for the change-related unfunded actuarial accrued liability. The higher the payroll increase actuarial assumption, the greater the dollar amount of unfunded actuarial accrued liability debt service is postponed to the later half or later third of the amortization period. The new payroll increase assumptions apply to only five of the 12 retirement plans and are all reductions in the rate, meaning that less of the time shift of debt service will occur for those plans. The largest decrease in the payroll increase rate assumption is for the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General), with a reduction from six percent to 4.5 percent. The most recent experience study for the three largest retirement plans, prepared by The Segal Company, lacked the annual detail information for this assumption required of experience studies under the Commission Standards for Actuarial Work, presenting only period averages for payroll growth and membership growth, making the trend lines hard to discern and making an appraisal of the match of a new assumption to the recent experience also very difficult. The General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General) had a 3.5 percent average annual payroll increase for the period 2001-2004, with a 1.46 percent average annual decrease in plan active membership. The PERA-General had a 3.62 percent average annual payroll increase for the period 2001-2004, with a 0.49 percent average annual increase in plan active membership. The Teachers Retirement Association (TRA) had a 2.5 percent average annual payroll increase for the period 2001-2004, with a 0.2 percent average annual increase in plan active membership. The Duluth Teachers Retirement Fund Association (DTRFA) had a 4.6 percent average annual payroll increase for the period 2003-2006, with a 5.1 percent average annual decrease in plan active membership. The MSRS Correctional State Employees Retirement Plan (MSRS-Correctional) experience study, prepared by Mercer Human Resources Consulting, did not present any payroll increase information for the period 1998-2003. The proposed legislation apparently was intended to encompass the entirety of the recommendations presented to the Commission by The Segal Company, the jointly retained actuary, in December 2007, but a number of salary and payroll growth actuarial assumption recommendations from The Segal Company were omitted. The recommended salary increase assumption change for the Judges Retirement Plan (from five percent to four percent), for the Public Employees Police and Fire Retirement Plan (from six percent to 4.5 percent), and the PERA Local Government Correctional Employees Retirement Plan (from six percent to 4.5 percent) were omitted from the proposed legislation, but are contained in Amendment-14A, which also eliminates the salary increase and payroll increase actuarial assumptions for the Elective State Officers Retirement Plan, which has no active members. The Commission should consider taking additional testimony from the consulting actuaries and plan administrators about the actual fit of the new proposed assumption for recent and likely future experience.

12. Appropriateness of the Increased Optimism Represented for the Salary Assumption Changes in Light of Recent Criticisms of the Current Optimistic Interest Rate Actuarial Assumption. The policy issue is the appropriateness of following the recommendations of The Segal Company in reducing various salary increase actuarial assumptions, representing additional optimism about future economic experience from the pension plan perspective, following recent criticisms of the excessive optimism inherent in the current 8.5 percent interest rate actuarial assumption applicable to the statewide and major local retirement plans. The Minnesota Taxpayers Association issued a major report on Minnesota public pension plans in 2006, summarized in Attachment F, which was very critical of the optimism contained in the current generally applicable 8.5 percent interest rate actuarial assumption. If the current interest rate actuarial assumptions, which is a prediction of future investment returns on retirement fund assets, is on the optimistic edge of the "acceptable" range of possible interest actuarial assumption rates, as suggested by The Segal Company, the jointly retained consulting actuary, or is overly optimistic and inherently flawed, as argued by the Minnesota Taxpayers Association in 2006, making the salary increase actuarial assumption also more optimistic is potentially problematic. The Commission may wish to take additional expert or knowledgeable testimony on the appropriateness of the level of optimism to be represented in the economic actuarial assumption rates of a retirement plan as a package as well as the accuracy of the individual assumption rates, such as the State Economist or

economic, actuarial or financial experts from the state's institutions of higher education or the state's business community.

13. Appropriateness of Having Retirement Plan Boards Set Economic Actuarial Assumptions. The policy issue is the appropriateness of discontinuing the practice of setting economic actuarial assumptions in statute and shifting to a process where actuarial assumptions are set by the retirement plan governing boards with Commission approval. Since the Legislature first began to regulate the process of financial and actuarial reporting by the various Minnesota public pension plans in 1959 and 1965, the economic actuarial assumptions have been set in law. The various statewide and major local retirement plan administrators are proposing to shift to a process after July 1, 2010, where the salary increase, payroll increase, and demographic actuarial assumptions are set by the retirement plan and the jointly retained actuary, or its consulting actuary, subject to approval by the Commission. Although the economic actuarial assumptions have been set through the legislative process for more than 40 years and periodically revised, the retirement plan administrators either feel that there is some positive policy advantage for delegating the task of setting the salary increase and payroll increase actuarial assumptions to the retirement plans or believe that replacing the Commission and the Legislature in the role of evaluating and setting economic assumptions with a retirement plan-oriented process corrects some error or problem in setting salary increase and payroll increase assumptions, presumably the delay in making assumption changes arising out of the most recent experience studies. Any delay in resolving the most recent sets of actuarial assumption change recommendations has its roots in delays and functional problems with the various retirement plans, the jointly retained consulting actuary, and the State Board of Investment. The jointly retained consulting actuary prepared quadrennial experience studies which generally conformed to the Standards for Actuarial Work, but presented minimal or no experience data for the economic actuarial assumptions, noted that the interest rate actuarial assumption "appears optimistic," made no recommendation as to assumption changes beyond inflation, a non-statutory assumption, in the experience study, recommended "a more comprehensive study with SBI" for the interest rate actuarial assumption, recommended "that further study be given to the overall salary increase assumptions," that experience would be monitored in upcoming valuations, and that "[w]hen a trend of excessive gains or losses is apparent, ... [the actuary] will alert the Fund to these results." Two of the three experience studies were not filed with the Commission until February 10, 2006, when the bill-hearing portion of the 2006 legislative session was more than half over. No additional salary increase and interest rate study apparently ever was conducted by the affected retirement plans or by the State Board of Investment, or no formal study report was ever issued by the parties. In February 2007, a conference telephone call between The Segal Company, the executive director of the State Board of Investment, the various retirement fund directors, and the retirement plan consulting actuaries formulated the recommendations included in this proposed legislation, apparently substituting for the additional study recommended by the three 2006 experience studies. A Segal Company memorandum, documenting that conference telephone call, was not produced until early February 2007, and was not provided to the Commission staff until the end of March 2007. Additional assumption change recommendations for the Public Employees Police and Fire Retirement Plan (PERA-P&F) and the Local Government Correctional Employees Retirement Plan of the Public Employees Retirement Association (PERA-Correctional) assembled by the PERA consulting actuary were forwarded to the Commission staff one week later, but those recommendations had not been reviewed by The Segal Company at that time. The various assumption change recommendations were included in an amendment prepared by the Commission staff, requested by PERA, and contained in the materials for H.F. 2361 (Murphy, M., by request); S.F. 1978 (Betzold) for the April 24, 2007, Commission meeting, but the retirement plan administrators requested that the Commission not hear the bill during the 2007 Session. This bill apparently replaces the 2007 proposed legislation. If the slow implementation of the assumption change recommendations constitutes a problem, that problem was caused by the retirement plans that now seek to minimize a legislative role in the process or could have been controlled or minimized by the retirement plans.

    If the Commission has reservations about limiting the legislative role in setting salary increase assumptions and expanding retirement plan discretion in the process, Amendment H3041-15A eliminates the proposed delegation of authority.

14. Appropriateness of Placing Time Deadlines on Commission Consideration of Actuarial Assumption Change Recommendations. The policy issue is the appropriateness of the proposed time deadline that the retirement plan administrators suggest for the consideration by the Commission of actuarial assumption change recommendations. The proposed legislation provides that the Commission would be required to approve or disapprove actuarial assumption change recommendations within six months of the receipt of the recommendations or the proposed actuarial assumption changes would become effective without legislative action. When the predecessor to the Legislative Commission on Pensions

and Retirement and the Legislature first required actuarial valuations from the various retirement plans in 1957 and began regulating the actuarial method and the major actuarial assumptions used in preparing actuarial valuations in 1965, actuarial assumptions were largely set by the retirement plan boards without Commission approval or input. When the Commission and the Legislature became disenchanted with the conflicting results produced by the consulting actuaries retained by the retirement plans in 1983, 1984 legislation implemented the practice of using a single consulting actuary and of further regulating the actuarial process by requiring the Commission to formulate Standards for Actuarial Work. In 1987, the Minnesota State Retirement System (MSRS) executive director raised the issue of the appropriate procedure for changing actuarial assumptions, giving rose to Minnesota Statutes, Section 356.215, Subdivision 18. Apparently, the retirement plan administrators believe that the Commission has not taken up proposed actuarial assumption recommendations in a timely fashion and seek to regulate the Commission's response to assumption recommendations. Issue #12 indicated the various delays, inconsistencies, and lack of statutory and Standards compliance that plagued the most recent set of assumption recommendations. The set of actuarial assumption recommendations from The Segal Company actually were not complete even in December 2007, when there was the addition of assumption change recommendations for the Judges Retirement Plan and the Legislators Retirement Plan, that had never been forwarded to the Commission until that date, but did not include assumption change recommendations forwarded by the St. Paul Teachers Retirement Fund Association (SPTRFA).

If the Commission does not concur that its consideration of assumption changes needs to be regulated by the addition of a time deadline, Amendment H3041-16A would eliminate the change.

If the Commission is agreeable to a time deadline, but desires to clarify when the six-month consideration period actually begins, Amendment H3041-17A provides that the time period does not begin to run until all actuarial assumption change recommendations have been transmitted to the Commission and those recommendations either have been formulated by the consulting actuary retained under Minnesota Statutes, Section 356.214 or have been reviewed by that consulting actuary and that actuary's written advice about the recommendation has been received by the Commission.

If the Commission wants to avoid disputes over whether recommendations and related filings have been received or not, Amendment H3041-18A provides that all actuarial assumption change documents be transmitted by certified mail or with a signed acknowledgement of receipt by a Commission employee for personally delivered documents has been obtained.

If the Commission is troubled by the possibility that assumption changes could take effect after a time period has elapsed without other interested parties or the public ever having received notice of a proposed actuarial assumption change, Amendment H3041-19A requires that all actuarial assumption change proposals for Commission consideration be submitted for publication in the State Register within 15 days after their transmittal to the Commission.

15. Appropriateness of Additional Annual Actuarial Reporting Requirement for Amortizing the Minnesota Post Retirement Investment Fund Deficit/Unclear Amortization Target Date. The policy issue is the appropriateness of including as an additional actuarial valuation reporting item the amortization requirement related to eliminating the deficit in the Minnesota Post Retirement Investment Fund (MPRIF). Since the Legislative Auditor's discovered in the Fall of 2006 that the 1996 Statement 25 of the Governmental Accounting Standards Board can be interpreted to require a different manner of valuing assets in the MPRIF than had historically been used, there has been interest in including the current MPRIF deficit in the retirement plan's unfunded actuarial accrued liability by carrying the MPRIF participation at its market value rather than at its actuarial reserve value. That resulted in a change in the 2007 actuarial valuations, where MPRIF assets have been revalued. The new reporting requirement is unclear as to the applicable amortization period to be used in calculating this additional amortization requirement.

Amendment H3041-20A sets the amortization target date at the same date as is applicable under Minnesota Statutes, Section 356.215, Subdivision 11, Paragraphs (b) through (i).

Amendment H3041-21A sets the amortization target date at a consistently applied 2038 amortization target date.

Amendment H3041-22A sets the amortization target date at the average remaining expected lifetime of each retirement plan's service retiree group.

16. Appropriateness of Extending Amortization Dates of Various Retirement Plans When There Has Been No Major Assumption Change or Benefit Increase. The policy issue is the appropriateness of the attempted extension of the amortization full funding target date for the Correctional State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-Correctional), the Judges Retirement Plan, and the Public Employees Police and Fire Retirement Plan (PERA-P&F) when the three plans have not had actuarial assumption changes with a significant actuarial impact, have not had a significant recent benefit improvement, and have not had another retirement plan consolidated into it, which were the historic factors that have prompted the Commission to grant an extension in a retirement plan's amortization target date. While there is no stated reason for the attempted amortization date extension, an extension of the amortization will reduce the full actuarial requirements of the affected retirement plan and that may be the motivating factor for the proposal. Extending an amortization date solely to reduce pressure to address a current contribution deficiency reduces the value of the actuarial funding method as a budgetary tool that promotes fiscal discipline.

    If the Commission objects to the proposed resetting of the amortization date rather than addressing contribution deficiencies, Amendment H3041-23A would eliminate this proposed change.

    Amendment H3041-24A adds the three retirement plans covered by the proposed amortization date extension as a clear exception to Minnesota Statutes, Section 356.215, Subdivision 11, Paragraph (b), rather than an implicit exception, thus clarifying that the amortization target date is not the current 2020.

    Amendment H3041-25A makes the same clear explicit exception to the current 2020 amortization date provision for the Teachers Retirement Association (TRA), which received a less cleanly drafted exception in 2006.

17. Appropriate Amortization Target date for MSRS-Correctional, the Judges Retirement Plan, and PERA-P&F. The policy issue is whether a 2038 full funding amortization target date is an appropriate replacement target date for the Correctional State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-Correctional), the Judges Retirement Plan, and the Public Employees Police and Fire Retirement Plan (PERA-P&F). The following compares the current amortization target date for the three plans and the remaining statewide and major plans, the proposed target date for the three plans, and the remaining active member working lifetimes of plan retirees, assuming a normal retirement age retirement:

Retirement Plan	Current Amortization Date	Proposed Amortization Date	Remaining Retiree Lifetime
MSRS-Correctional	2023	2038	14.9 years
Judges	2020	2038	8.6 years
PERA-P&F	2020	2038	15.7 years
State Patrol	2036*	--	14 years
PERA-Correctional	2023	--	15.9 years
MSRS-General	2020	--	18.8 years
PERA-General	2031	--	18.8 years
TRA	2037	--	21.7 years
MERF	2020	--	2.7 years
DTRFA	2032*	--	18.8 years
SPTRFA	2021	--	20.1 years

* *Amortization date represents the date reported in 7/1/2007 actuarial valuations, but not in compliance with Minnesota Statutes, 356.215, Subdivision 11, Paragraph (b)*

If the Commission is concerned that the proposed amortization target dates greatly exceed the remaining active member working lifetime of the plans, Amendment H3041-26A resets the dates for the three retirement plans based on the remaining average active member working lifetime rounded up to the nearest full year.

If the Commission wishes to do the same for the other retirement plans other than the Minneapolis Employees Retirement Fund (MERF), the only closed retirement plan of the group, Amendment H3041-27A makes that change unless the current amortization date is a later date.

If the Commission wishes to return to the single uniform amortization full funding date that prevailed before the early 2000s, Amendment H3041-28A resets the Minnesota Statutes, Section 356.215, Subdivision 11, Paragraph (b) date from 2020 to 2027, the average remaining working lifetime of the three largest statewide retirement plans, rounded up to the next full year.

18. Appropriateness of the Continued Use of Amortization on a Level Percentage of Covered Pay Basis. The policy issue is the appropriateness of amortizing most Minnesota unfunded actuarial accrued liabilities on a level percentage of an increasing covered payroll basis rather than on a level dollar basis. Since 1984, Minnesota has used a level percentage of covered payroll amortization rather than the prior level dollar amortization requirement. A level dollar amortization requirement is the way that home mortgages typically are paid off, with payments based on interest on the principal amount of the debt plus a portion of the principal amount. A level percentage of an increasing covered payroll amortization requirement, combined with the normal cost of the retirement benefit plan, also set as a percentage of covered pay, provides contribution requirement stability over time as a percentage of covered pay. A level percentage of covered payroll amortization procedure is loosely analogous to adjustable rate home mortgages, where the increasing mortgage payment amount is affordable if the household income rises. The level percentage of covered pay amortization procedure provides potential contribution rate stability over time when compared to the level dollar amortization period over time, but has the effect of deferring much of the actual payments to reduce the principal amount of the unfunded actuarial accrued liability to the second half of the amortization period, with early period payments less than full interest on the unfunded actuarial accrued liability and with the unfunded actuarial accrued liability actually increasing in amount during the early portion of the amortization period.

To demonstrate the difference between full interest and the level percentage of covered payroll amortization procedure and its effect of creating late period balloon payments, the following sets forth a comparison of the amortization contribution rate calculated as part of the July 1, 2006, actuarial valuations with the 8.5 percent interest rate actuarial assumption amount on the unfunded actuarial accrued liability of each plan:

Plan	Amortization Target Date	Unfunded Actuarial Accrued Liability	$ Calculated Amortization Requirement	8.5% Interest on Unfunded Actuarial Accrued Liability	Difference
MSRS-General	2020	332,404,901	29,774,591	28,254,417	1,520,174
MSRS-Correctional	2023	112,123,450	8,853,308	9,530,493	(677,185)
Judges	2020	50,450,784	4,620,923	4,288,317	332,606
State Patrol	2036	22,488,729	1,213,074	1,911,542	(698,468)
PERA-General	2031	4,242,549,610	231,431,639	360,616,717	(129,185,078)
PERA-Correctional	2023	7,529,873	550,224	640,039	(89,815)
PERA-P&F	2020	242,613,301	20,977,965	20,622,131	355,834
TRA	2036	1,643,499,040	86,764,874	139,697,418	(52,932,544)
DTRFA	2032	51,303,478	3,012,098	4,360,796	(1,348,698)
SPTRFA	2021	419,700,901	36,420,175	35,674,577	745,598
MERF*	2020	127,373,249	14,265,726	7,642,395*	6,623,331

**Interest only calculated based on 6.00 percent interest actuarial assumption applicable to this plan*

Amendment H3041-29A reverts back to the pre-1984 practice of amortizing unfunded actuarial accrued liabilities on a level dollar basis rather than a level percentage of increasing covered payroll basis and resets the general amortization period to 2038 to mitigate some of the financial impact of that change.

19. Appropriateness of Addressing the Current Lack of a Specific New Amortization Period for Experience Gains and Losses. The policy issue is the appropriateness of adding a specific amortization period and procedure to accommodate net actuarial experience losses. Originally, from 1957 to 1975, the amortization period for all statewide and major local retirement plans was 1997, 40 years from the initial statutory actuarial reporting law, without any procedure for adjusting the target date for the variety of ways that a retirement plan unfunded actuarial accrued liability can be created. In 1975, a procedure was added which provided a mechanism to extend the prior amortization period proportionally to the impact that actuarial method changes, actuarial assumption changes, or benefit increases have on the unfunded actuarial accrued liability, with a new target amortization date calculated on this proportional or weight-averaged basis. No similar procedure has ever been permitted for net actuarial experience losses. Thus, the significant investment losses that occurred in 2000-2001, although delayed in recognition by the use of the actuarial value of assets procedure, once recognized, were required to be amortized over the remaining years to the amortization target date, causing a considerable increase in the amortization requirement. The closer to the amortization target date, the greater the impact will be, especially with the current level percentage of covered pay amortization procedure, which balloons the debt service to the last years of the amortization period. If the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-

General), with a 2020 amortization date, were to experience a large experience loss between 2015 and 2020, especially a large mortality loss, retirement age loss, or salary increase loss, that are not delayed by a procedure like the actuarial value of assets, the lack of any amortization period extension for net actuarial experience losses will produce potentially huge increases in actuarial funding requirements.

If the Commission wishes to mitigate the shock wave impact of large actuarial experience losses, a proportional amortization period extension procedure akin to that applicable to benefit increases and assumption changes could be introduced into Minnesota Statutes, Section 356.215, Subdivision 11, and is provided for in Amendment H3041-30A.

20. Appropriateness of Retaining the Current Funding Surplus Credit Reverse Amortization Provision. The policy issue is whether or not the reverse amortization procedure, where a funding surplus (i.e., assets in excess of accrued liabilities) is partially recognized as a credit against the retirement plan normal cost and administrative experiences by calculating the 30-year rolling amortization requirement for an equivalent unfunded actuarial accrued liability, should be retained or modified. The funding surplus credit was first added to the actuarial reporting law in 1993 (Laws 1993, Chapter 352, Section 7), applicable only to the Public Employees Police and Fire Retirement Plan (PERA-P&F), was extended to the Correctional State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-Correctional) and the State Patrol Retirement Plan in 1997 (Laws 1997, Chapter 233, Article 1, Section 57), and then was extended to any overfunded retirement plan in 2000 (Laws 2000, Chapter 461, Article 1, Section 6). The provision attempts to avoid continuing to overfund and overfunded retirement plan by not recognizing any of the overfunding as a credit against the ongoing contribution stream, and appears to do so, but when a retirement plan shifts from being overfunded to having an unfunded actuarial accrued liability, as a number of the overfunded Minnesota public pension plans did after the 2000-2001 investment market decline, the one-year shift from having a credit (negative amortization requirement) to an amortization contribution can be significant and disruptive. Assets in excess of full funding are simply advanced funding and a margin against future adverse actuarial experience. An argument can be made that the credit provision should be based on a longer amortization period than the current 30-year period, or should be limited to grossly overfunded retirement plans, or eliminated entirely in favor of ad hoc contribution rate adjustments rather than actuarial reporting adjustments.

Amendment H3041-31A lengthens the amortization period for the credit from a rolling 30-year period to a rolling 50-year period, thus reducing the amount of the annual credit.

Amendment H3041-32A restricts the credit calculation to retirement plans that have assets at least 30 percent greater than actual accrued liabilities.

Amendment H3041-33A would eliminate the provision entirely, leaving any recognition of a full funding status in the future to ad hoc changes made in contribution rates after Commission and legislative deliberation.

Attachment A

Background Information on
Minnesota Public Pension Plan Actuarial Reporting Requirements

1. Actuarial Reporting Requirements. With the creation of defined benefit public pension plan liabilities, there arises a need to provide financing to match the liabilities and to create a trust fund for the accumulated assets. The method of financing depends primarily on the nature of the benefit plan as either a defined contribution plan or a defined benefit plan and the liability which is undertaken as a consequence. Since the obligation undertaken with a defined benefit plan is to provide a benefit of a predetermined amount at and after the time of retirement, the financing method will be more complex and will allow more variations. There are a number of possible financing budget estimation methods which have been developed by actuaries which can be utilized.

   The actual or ultimate cost of a pension plan is the total amount of any retirement annuities, disability benefits and survivor benefits plus the total amount of any administrative costs paid. The actual or ultimate cost will result no matter what method of financing is employed to fund pension benefits. The financing or actuarial funding method merely separates out the portion of the actual or ultimate cost that will be paid from investment returns from the portion to be funded from periodic contributions and affects the timing of the financing and the amount of the financing burden which will be borne by the pension plan employer or employers.

   Virtually every public pension plan is required to make annual financial and actuarial reports under Minnesota Statutes, Sections 356.20 and 356.215. The Standards for Actuarial Work, issued by the Commission, specify the detailed contents and format requirements for both the actuarial valuation reports and the experience studies. The public pension plans which are included in this requirement are the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the Correctional State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-Correctional), the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General), the Public Employees Police and Fire Retirement Plan (PERA-P&F), the Teachers Retirement Association (TRA), the State Patrol Retirement Plan, the Minneapolis Teachers Retirement Fund Association (MTRFA), the St. Paul Teachers Retirement Fund Association (SPTRFA), the Duluth Teachers Retirement Fund Association (DTRFA), the Minneapolis Employees Retirement Fund (MERF), the University of Minnesota Faculty Retirement Plan and Supplemental Retirement Plan, the Judges Retirement Plan, and the various local police and firefighters relief associations.

   The annual actuarial valuation is required to include the determination of normal cost as a percentage of salary and accrued liability of the fund calculated according to the entry age normal cost method, with a prescribed pre- and post-retirement interest assumption, a prescribed salary assumption, and other assumptions as to mortality, disability, retirement, and withdrawal which are appropriate to the experience of the plan. A statement of administrative cost of the fund as a gross amount and as a percent of payroll is required. The actuary must also present an actuarial balance sheet, setting forth the accrued assets, the accrued liabilities (reserves for active members, deferred annuitants, inactive members without vested rights, and annuitants) and the unfunded actuarial accrued liability. The valuation is also to include a calculation of the additional rate of support required to amortize the unfunded accrued liability by the end of the applicable target full funding year. The actuary is required to provide an analysis of the increase or decrease in the unfunded accrued liability from changes in benefits, changes in actuarial assumptions, gains and losses from actual deviations from actuarial assumptions, amortization contribution, and changes in membership. An exhibit setting forth total active membership, additions and separations from active service during the year, total benefit recipients, additions to and separations from the annuity payroll, and a breakdown of benefit recipients into service annuitants, disabilitants, surviving spouses and children, and deferred annuitants is also required.

   The quadrennial experience study periodically prepared for MSRS-General, PERA-General, and TRA is required to furnish experience data and an actuarial analysis which substantiates the actuarial assumptions upon which the annual valuations are based. The quadrennial experience study is required to contain an actuarial analysis of the experience of the largest retirement plans and a comparison of that plan experience with the actuarial assumptions in force for the most recent annual actuarial experience.

   The purpose of the quadrennial experience studies is to provide the Commission and the retirement plan administrations with a periodic opportunity to review the accuracy of the current actuarial assumptions of the three largest retirement plans, compared to the experience for the most recent period and to revise those actuarial assumptions based on the recommendation of the retained consulting actuary and on input from plan administrators, their actuarial consultants, and others. The actuarial valuation process, as corrected or refined by the quadrennial experience process, is intended to provide policymakers and others with an accurate picture of the funded condition and financial requirements of a public pension plan and the process is not aided if it relies on incorrect or inadequate assumptions. If a trend line is established in recent experience, that trend line should be reflected in a plan's actuarial assumptions, even if those assumptions make the financing position of the plan appear worse than it would under different assumptions.

Minnesota public pension plan actuarial assumptions are specified in part in statute (the economic assumptions, interest/investment return, individual salary increase, and payroll growth) and are determined in part by other parties, with Commission approval (the balance of all actuarial assumptions, generally, the demographic assumptions). Economic assumptions are required to project the amount of benefits that will be payable. Demographic assumptions are required to project when benefits will be payable. Demographic assumptions are used to project the development of the population covered by the pension plan and hence when the benefits to be provided will be paid. The demographic assumptions project when a member is likely to progress between the various categories of membership (active, deferred, or retired) and how long the person stays in each category. The types of economic assumptions used to measure obligations under a defined benefit pension plan include the following:

(i) inflation;
(ii) investment return (sometimes referred to as the valuation interest rate);
(iii) compensation progression schedule; and
(iv) other economic factors (e.g., Social Security, cost-of-living adjustments, growth of individual account balances, and variable conversion factors).

The types of demographic assumptions used to measure pension obligations include, but are not necessarily limited to, the following:

(i) retirement;
(ii) mortality;
(iii) termination of employment;
(iv) disability and disability recovery;
(v) election of optional forms of benefits; and
(vi) other assumptions, such as administrative expenses; household composition; marriage, divorce, and remarriage; open group assumptions; transfers; hours worked; and assumptions regarding missing or incomplete data.

The actuarial assumption selection process should result in actuarial assumptions that are reasonable in light of the particular characteristics of the defined benefit plan that is the subject of the measurement. A reasonable actuarial assumption is one that is expected to appropriately model the contingency being measured and is not anticipated to produce significant cumulative actuarial gains or losses over the measurement period. For any given measurement, two or more reasonable actuarial assumptions may be identified for the same contingency.

2. Historical Development of Actuarial Reporting Requirements. Since the creation of the Legislative Commission on Pensions and Retirement as an interim commission in 1955, data has been required to be provided to the State by the various public pension plans in the State, as follows:

- Laws 1957, Special Session, Chapter 11. The initial actuarial reporting law enacted by the Minnesota Legislature was Laws 1957, Special Session, Chapter 11. The 1957 actuarial reporting law was an uncoded temporary law that was applicable only to actuarial valuations prepared as of January 1, 1958. No prior generally applicable law required specific actuarial reporting to the Legislature or to any other public office or official. The 1957 actuarial reporting law required census tabulations of active members and benefit recipients, an actuarial balance sheet disclosing assets, liabilities and the actuarial full funding deficit, a statement of actuarial assumptions, an indication of the normal support rate for currently accruing liabilities and an indication of the 1997 target date amortization requirement. The 1957 actuarial reporting law was unspecific on the manner in which the actuarial calculation was to be prepared, leading to disputes when some funds prepared valuations on a basis other than the entry age normal actuarial method. The 1957 actuarial reporting law was broadly applicable to all statewide general and public safety pension plans, all local general employee plans, all local police relief associations and all local salaried firefighters relief associations. Problems with the 1957 actuarial reporting law led the Commission to refine the actuarial reporting requirements and procedures and to recommend a general ongoing actuarial reporting law in the years between 1958 and 1965.

- Laws 1965, Chapters 359 and 751. Laws 1965, Chapter 359, was the initial codification of the general employee pension plan actuarial reporting law. Laws 1965, Chapter 751, was an uncoded temporary law applicable to local police and paid firefighters relief association actuarial valuations prepared as of December 31, 1964. The general employee pension plan actuarial reporting law required an indication of the level normal cost, an actuarial balance sheet disclosing assets, accrued liabilities and unfunded accrued liability as well as specific required reserve figures and an indication of the 1997 target date amortization requirement. The general employee pension plan actuarial reporting law required that the actuarial valuation normal cost and accrued liabilities to be prepared using the Entry Age Normal Cost (Level Normal Cost) Method, that the actuarial method be used to value all aspects of the benefit plan and known future benefit changes, that the actuarial valuation be prepared on the basis of a three percent interest assumption and other appropriate assumptions and that assets not include any present value of future amortization contributions. The general employee pension plan actuarial reporting law required annual actuarial valuations for the State Employees Retirement Fund, the Public Employees Retirement Fund, and the State Police Officers Retirement Fund. The general employee pension plan actuarial reporting law also required the preparation of an experience study validating the actuarial assumptions used in the valuation. The local police and paid fire actuarial reporting law was based on the 1957 actuarial reporting law with the additional clarification of a three percent interest rate assumption, the requirement of normal cost and accrued liabilities calculated on the basis of the entry age normal cost method and the reporting of the amount for the amortization of the unfunded accrued liability by the 1997 target date. The local police and paid fire actuarial reporting law was applicable to all police and paid firefighters relief associations.

- Laws 1967, Chapter 729, was a revision in the 1965 local police and paid fire actuarial reporting law. The 1967 local police and paid fire actuarial reporting law was a coded general statute requiring actuarial valuations as of December 31, 1967, and each four years thereafter. It was also made applicable volunteer firefighters relief associations and very small active membership police and paid firefighters relief associations. A three percent salary rate assumption was added. A 2007 target date amortization requirement replaced the prior 1997 target date amortization requirement for police and paid fire plans, leaving the 1997 requirement for volunteer and smaller active membership police and paid fire relief associations. An addition of a requirement to the calculated normal cost for amortizing net actuarial experience gains or losses was also added.

- Laws 1969, Chapter 289, revised the 1965 general employee pension plan actuarial reporting law by making the requirement applicable to the Minneapolis Employees Retirement Fund and to the three first class city teacher retirement fund associations. It also provided for an interest rate assumption to 3.5 percent as well as 3.0 percent for comparison purposes and added a salary assumption of 3.5 percent for funds with a final salary based benefit plan.

- Laws 1973, Chapter 653, Section 45, modified the general employee pension plan actuarial reporting law by increasing the interest assumptions from 3.5 percent to 5 percent.

- Laws 1975, Chapter 192, recodified the general employee pension plan actuarial reporting law, previously coded as Minnesota Statutes 1974, Sections 356.21, 356.211, and 356.212, as Minnesota Statutes, Section 356.215.

- Laws 1978, Chapter 563, Sections 9 to 11 and 31, repealed the separate local police and fire relief association actuarial reporting law, Minnesota Statutes 1976, Sections 69.71 to 69.76, and required the local police and fire relief associations to report under the general employee pension plan actuarial reporting law with specific adaptations, coded as Minnesota Statutes, Section 356.216. It also amended the actuarial reporting law by requiring specific reporting of entry age and retirement age assumptions and the provision of a summary of the benefit plan provisions on which the actuarial valuation is based.

- Laws 1979, Chapter 184, modified the actuarial reporting law by replacing the 1997 amortization target date with a 2009 amortization target date and establishing a procedure for extending that target date in the event of substantial unfunded actuarial accrued liabilities resulting from benefit increases, actuarial cost method changes or actuarial assumption changes.

- Laws 1984, Chapter 564, Sections 43, substantially modified the actuarial reporting law. Actuarial valuations are required to comply with the Standards for Actuarial Work adopted by the Commission. The interest rate assumption was modified, with a post-retirement interest rate of five percent and a pre-retirement interest rate of eight percent for the major, statewide plans. The actuarial balance sheet requirement was also substantially modified, and was expanded to include reporting of current and expected future benefit obligations, current and expected future assets and current and expected future unfunded liabilities. The amortization contribution requirement was also modified, with a change from a level dollar annual amortization procedure to a level percentage of future covered payroll amortization procedure for the major, statewide and local general employee plans other than MERF.

- Laws 1987, Chapter 259, Section 55, revised the language and style of the actuarial reporting provision, specified the particular interest and salary increase actuarial assumptions for the legislators retirement plan and elected state officers retirement plan, set the amortization target date for the Minneapolis Employees Retirement Fund (MERF) at 2017 and exempted MERF from the process for automatically revising the target date upon benefit increases or assumption changes, and required approval by the Legislative Commission on Pensions and Retirement for any demographic actuarial assumption changes.

- Laws 1989, Chapter 319, Article 13, Sections 90 and 91, increased the interest rate actuarial assumption from 8.0 percent to 8.5 percent for all statewide and major local retirement plans other than the Minneapolis Employees Retirement Fund (MERF) and extended the amortization full funding target date from 2009 to 2020 for all statewide and major local retirement plans other than MERF.

- Laws 1991, Chapter 269, Article 3, Sections 3 to 19, updated the actuarial valuation reporting requirements to accommodate governmental pension plan generally accepted accounting changes, required actuarial valuations or experience studies prepared by an actuary other than the actuary retained by the Legislative Commission on Pensions and Retirement to submit the document to the Commission, and modified some of the services performed by the Commission-retained actuary to reduce the cost of retirement plan-reimbursed actuarial services compensation.

- Laws 1991, Chapter 345, Article 4, Sections 3 and 4, reset the interest and salary actuarial assumptions for the Minneapolis Employees Retirement Fund (MERF) at six percent and four percent respectively and extended the MERF amortization target date from 2017 to 2020.

- Laws 1993, Chapter 336, Article 4, Section 1, defines administrative expenses for purposes of inclusion of administrative expenses as part of actuarial cost calculations.

- Laws 1993, Chapter 352, Section 7, provided, for the Public Employees Police and Fire Plan (PERA-P&F), for the reverse amortization of the amount of assets in excess of the plan's actuarial accrued liability.

- Laws 1995, Chapter 141, Article 3, Sections 14 and 15, implemented an age-related salary increase assumption for the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employees Retirement Plan of the Public Employees Retirement Association (PERA-General), and the Teachers Retirement Association (TRA), and set fund-specific payroll growth actuarial assumption rates for MSRS-General, PERA-General, and TRA.

- Laws 1997, Chapter 233, Article 1, Sections 2 and 57, required, two years after the quadrennial experience studies, that the actuary retained by the Legislative Commission on Pensions and Retirement conduct quadrennial projection valuations for MSRS-General, PERA-General, TRA, and for any other plans for which the Commission determines a study of this type would be beneficial. These quadrennial projection valuations were required to be conducted in consultation with the Commission's executive director, the retirement fund directors, the State Economist, the State Demographer, the Commissioner of Finance, and the Commissioner of Employee Relations. The results were required to be reported in the same manner as the quadrennial experience studies. The quadrennial projection valuation cost was required to be paid by retirement plans, with the costs allocated among all plans for which the actuary retained by the Commission performs annual actuarial valuations.

- Laws 1997, Chapter 241, Article 4, Section 1, revised the salary increase assumption for the State Patrol Retirement Plan, the Correctional Employees Retirement Plan of the Minnesota State Retirement System (MSRS-Correctional), Public Employees Police and Fire Plan (PERA-P&F), and the first class city teacher retirement plans, and added a payroll growth assumption to the MSRS-General, MSRS-Correctional, State Patrol, Legislators, Elected State Officers, and Judges Plans; to PERA-General and PERA-P&F; to TRA; and to the first class city teacher retirement plans.

- Laws 1998, Chapter 390, Article 8, Section 2, changed the requirement for a quadrennial projection valuation from the three major statewide retirement plans to one of the statewide or major local retirement plans.

- Laws 1999, Chapter 222, Article 4, Section 14, set the calculated overfunding credit for the Public Employees Police and Fire Plan (PERA-P&F) if the plan has assets in excess of its actuarial accrued liability at the 30-year level percentage of covered pay amortization requirement applicable if the excess assets were an unfunded liability and reset as a new 30-year period for each valuation year.

- Laws 2000, Chapter 461, Article 1, again substantially modified the actuarial reporting law. Salary assumptions and post-retirement interest rate assumptions were reset, and the actuarial value of assets also was changed to an approach that approaches, but smoothes, market values.

- First Special Session Laws 2001, Chapter 10, Article 11, Section 18, exempted the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General) from the automatic amortization target date resetting provisions of Minnesota Statutes, Section 356.215, and sets a 2031 amortization target date for PERA-General.

- Laws 2003, Chapter 392, Articles 9 and 11, the select and ultimate salary increase assumptions (i.e., rates varying based on both age and length of service) for the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General), the Teachers Retirement Association (TRA), the Duluth Teachers Retirement Fund Association (DTRFA), the Minneapolis Teachers Retirement Fund Association (MTRFA) and the St. Paul Teachers Retirement Fund Association (SPTRFA) were revised based on the 2000 experience studies. The structure of Minnesota Statutes, Section 356.215, also was reorganized and revised as part of a recodification of Minnesota Statutes, Chapter 356.

- Laws 2004, Chapter 223, Section 7, replaced a single contracting consulting actuary retained by the Legislative Commission on Pensions and Retirement to prepare the annual actuarial valuations of the various statewide and major local retirement plans with a single contracting consulting actuary retained jointly by the administrators of the seven retirement systems with Commission ratification.

- First Special Session Laws 2005, Chapter 8, Article 11, Section 2, set the interest and salary actuarial assumptions for the Bloomington Fire Department Relief Association at six percent and four percent respectively.

Attachment B

Background Information on the Current Actuarial Value of Assets Determination Procedure

Since the actuarial valuation of assets determination procedure was initially codified in 1965, with the initial codification of public pension plan financial and actuarial reporting requirements, Minnesota public pension plans have utilized two different ways to establish the value of assets for determining the existence of and the size of unfunded actuarial accrued liabilities.

From 1965 to 1983, Minnesota Statutes, Sections 356.20 and 356.215, required that pension plan assets at book value be used in making a comparison of plan assets with plan liabilities. Book value is the generally initial purchase price of the investment security or other marketable asset. For bonds (debt instruments), the investment value was at amortized cost. For stocks (equity investments), the investment value was at cost. For equipment, the investment was at cost less any accrued depreciation. For real estate, the statute was unclear.

In 1984, at the initiation of the Department of Finance, among various actuarial assumption and actuarial method changes, the actuarial value of assets determination procedure changed. The method, still current, defines the actuarial value of assets as the cost value of investments plus one-third of the difference between the cost value of investments and the market value of investments. The proposal for the actuarial value of assets determination procedure change was generated external to the Commission, and the rationale for the change is not well reflected in Commission staff files for Laws 1984, Chapter 564. The change, however, clearly was an attempt to capture some of the stock and bond market appreciation that had occurred in the late 1970s and early 1980s and to have the actuarial value of assets more closely reflect market value than the prior book value definition of the actuarial value of assets.

The following compares the pre-1984 asset valuation determination procedure, the post-1984/pre-2000 asset valuation determination procedure and the current asset valuation determination procedure for a representative statewide retirement plan, the Teachers Retirement Association (TRA), and a representative local retirement plan, the St. Paul Teachers Retirement Fund Association (SPTRFA), for the fiscal year ending on June 30, 2006:

Teachers Retirement Association (TRA)

	Pre-1984 Method	Post-1984/ Pre-2000 Method	Current Method
Summary	Book or cost value of investment securities.	Cost value of investment securities plus one-third of the difference between the cost value and the market value of the investment securities.	Market Value, adjusted for amortization obligations receivable at the end of each fiscal year, less a percentage of the Unrecognized Asset Return determined at the close of each of the four preceding fiscal years. Unrecognized Asset Return is the difference between actual net return on Market Value of Assets at the asset return expected during that fiscal year (based on the assumed interest rate employed in the July 1 Actuarial Valuation of the fiscal year).
Result	$19,649,139,143	$19,694,665,406	$19,035,611,839
Calculation	Book Value $19,649,139,143	Market Value $19,785,671,584 Book Value 19,649,139,143 Difference $136,532,441 Difference $136,532,441 One-Third x 0.3333 Market Adjust. $45,506,263 Book Value $19,649,159,143 Market Adjust 45,506,263 Actuar. Value $19,694,665,406	1. Market value of assets available for benefits $19,785,671,584 2. Calculation of unrecognized return: Orig. Amount / % Not Recognized (a) Year ended 6/30/06 $653,165,303 80% $522,532,242 (b) Year ended 6/30/05 179,823,045 60 107,893,827 (c) Year ended 6/30/04 499,642,191 40 199,856,876 (d) Year ended 6/30/03 (401,116,000) 20 (80,223,200) (e) Year ended 6/30/02 $750,059,745 3. Actuarial value of assets: (1) - (2e) ("Current Assets") $19,035,611,839
Funding Impact	Act. Liab. $20,679,110,879 Assets 19,649,139,143 UAL $1,029,971,736 Funding Ratio 95.02% Normal Cost $349,678,399 Expenses 12,236,072 Amort. 54,374,990 Act. Req. $416,289,461	Act. Liab. $20,679,110,879 Assets 19,694,658,742 UAL $984,452,137 Funding Ratio 95.23% Normal Cost $349,678,399 Expenses 12,236,072 Amort. 51,971,886 Act. Req. $413,886,357	Act. Liab. $20,679,110,879 Assets 19,035,611,839 UAL $1,643,499,040 Funding Ratio 92.05% Normal Cost $349,678,399 Expenses 12,236,072 Amort. 86,764,874 Act. Req. $448,679,345

St. Paul Teachers Retirement Fund Association (SPTRFA)

	Pre-1984 Method	Post-1984/ Pre-2000 Method	Current Method
Summary	Book or cost value of investment securities.	Cost value of investment securities plus one-third of the difference between the cost value and the market value of the investment securities.	Market Value, adjusted for amortization obligations receivable at the end of each fiscal year, less a percentage of the Unrecognized Asset Return determined at the close of each of the four preceding fiscal years. Unrecognized Asset Return is the difference between actual net return on Market Value of Assets at the asset return expected during that fiscal year (based on the assumed interest rate employed in the July 1 Actuarial Valuation of the fiscal year).
Result	$740,961,588	$829,213,976	$938,919,005
Calculation	Book Value $740,961,588	Market Value $1,005,745,229 Book Value 740,961,588 Difference $264,783,641 Difference $264,783,641 One-Third x 0.3333 Market Adjust. $88,252,388 Book Value $740,961,588 Market Adjust 88,252,388 Actuar. Value $829,213,976	1. Market value of assets available for benefits $1,005,745,229 2. Calculation of unrecognized return Orig. Amount / % Not Recognized (a) Year ended 6/30/06 $36,135,488 80% $28,908,390 (b) Year ended 6/30/05 26,860,009 60 16,116,005 (c) Year ended 6/30/04 82,512,072 40 33,004,829 (d) Year ended 6/30/03 (56,015,000) 20 (11,203,000) (e) Year ended 6/30/02 $66,826,224 4. Actuarial value of assets: (1) - (2e) $938,919,005 ("Current Assets")
Funding Impact	Act. Liab. $1,358,619,906 Assets 740,961,588 UAL $617,658,318 Funding Ratio 54.54% Normal Cost $21,575,645 Expenses 608,955 Amort. 53,598,227 Act. Req. $75,782,827	Act. Liab. $1,358,619,916 Assets 829,252,388 UAL $529,367,528 Funding Ratio 61.04% Normal Cost $21,575,645 Expenses 608,955 Amort. 45,936,661 Act. Req. $68,121,261	Act. Liab. $1,358,619,906 Assets 938,919,005 UAL $419,700,901 Funding Ratio 69.11% Normal Cost 21,575,645 Expenses 608,955 Amort. 36,420,175 Act. Req. $58,604,775

Using an actuarial value of assets rather than the market value of assets for a pension plan apparently is not uncommon among public pension plans and complies with generally accepted accounting principles under Government Accounting Standards Board pronouncements. Using a smoothing method that shaves off short-term market volatility is particularly advantageous from a policy perspective if the pension plan funding procedures immediately translate actuarial results into modified employer contribution amounts in the following year, where short-term value changes would produce highly variable contribution levels year to year. In Minnesota, this is a consideration only for Minneapolis Employees Retirement Fund (MERF) and for the five remaining local police and paid firefighter relief associations. The use of a smoothing mechanism may be sensible policy where the smoothing period reflects the actual pattern of market volatility, which tends to be either less than one year or longer than five years based on long-term stock market return data from Ibbotson Associates. Even if the smoothing period matches market cycles, an actuarial value of pension assets definition does nothing more than delay the recognition of actual market changes.

The following compares the actuarial value of assets and the market value of assets for the various statewide and major local retirement plans as of June 30, 2006, and as of June 30, 2007:

	2006			2007		
Plan	Actuarial Value of Assets	Market Value of Assets	Actuarial Value as % of Market Value	Actuarial Value of Assets	Market Value of Assets	Actuarial Value as % of Market Value
MSRS-General	$8,486,756,016	$8,767,249,551	96.8%	$9,171,066,094	$9,773,554,449	93.8%
MSRS-Correctional	535,356,819	549,986,069	97.3	583,318,116	618,523,924	94.3
Judges	151,850,386	154,151,618	98.5	161,749,693	167,551,165	96.5
State Patrol	618,990,349	633,419,202	97.7	650,135,665	681,416,046	95.4
PERA-General	12,495,207,148	12,828,990,072	97.4	13,500,024,678	14,233,159,689	94.8
PERA-Correctional	125,775,917	131,696,690	95.5	160,267,042	175,000,181	91.6
PERA-P&F	5,017,950,719	5,167,417,402	97.1	5,382,707,345	5,713,448,181	94.2
TRA	19,035,611,839	19,785,671,584	96.2	20,111,778,892	21,256,271,688	94.6
DTRFA	270,925,689	281,950,173	96.1	288,264,749	318,973,530	90.4
SPTRFA	938,919,005	1,005,745,229	93.4	1,015,722,034	1,156,017,206	87.9
MERF	1,490,280,063	1,494,046,146	99.7	1,494,081,069	1,508,734,495	99.0
Total	$49,167,623,950	$50,800,323,736	96.8%	$52,519,115,377	$55,602,650,554	94.5%

The valuation of both pension liabilities and pension assets is problematic because they are estimates of potential real life occurrences in advance of experiencing the occurrences. In valuing pension liabilities, the time separation from the estimation of the magnitude of the liability and the actual discharge of the liability can be considerable and the only "real" or "accurate" determination of a pension plan's ultimate pension liabilities occurs when all of the pension plan's obligations have been paid and the pension plan is terminated. In valuing pension assets, time is not the primary problem, but the primary problem is an assumption that the final market price of an investment sold by someone else on a given date by a market reporting mechanism could also be obtained by the pension plan if the plan sold all of its investments on that same date, even though an increase in the supply of investments for sale by that action should have a dampening effect on the available price. The problem of valuing pension plan assets is compounded by the considerable variability in market values from day to day, which makes the comparison of asset values on a predetermined date with the low variability of pension plan liabilities on a given date less reliable.

Attachment C

Background Information on the Amortization of Public Pension Plan Unfunded Actuarial Accrued Liabilities

1. Purpose of Amortizing Unfunded Actuarial Accrued Liabilities. If a public pension plan is intended to be funded on an actuarial basis using the entry age normal actuarial cost method, the plan's actuarial work will generate a normal cost, which is the contribution required to fund the actuarial value percent value of the benefits earned by the active membership of the plan during the current plan year, and an accrued actuarial liability, which is the aggregation of the past normal cost requirements plus interest (actually calculated in the reverse by subtracting the actuarial present value of future normal costs from the actuarial present value of all future benefits payable to all active and retired plan members). If the accrued actuarial liability is compared to plan assets and is the greater amount, the plan has an unfunded actuarial accrued liability, representing unpaid past normal cost amounts plus interest.

   Since the primary purpose of actuarial funding is to maximize the amount of funding to be obtained from investment returns without making the ongoing contribution load disproportionate or unaffordable over time, any pension plan unfunded actuarial accrued liability should be amortized over as short a period as is reasonable and affordable.

   Amortization of unfunded pension plan actuarial accrued liabilities will raise the questions of the amortization method, whether the source of the unfunded actuarial accrued liability should give rise to different amortization periods, what length of amortization period or periods should be utilized, and what factor or developments should cause an extension in amortization periods.

2. Amortization Methods. Akin to any process for retiring a debt, the amortization contribution for a pension plan unfunded actuarial accrued liability can be calculated on a level dollar annual payment basis or on a level percentage of covered payroll bases. Before 1984, Minnesota Statutes, Section 356.215, required that the amortization contribution be calculated on a level dollar annual payment basis. Since 1984, Minnesota has used a level percentage of covered payroll amortization rather than the prior level dollar amortization requirement. A level dollar amortization requirement is the way that home mortgages are routinely paid off, with payments based on interest on the principal amount of the debt plus a portion of the principal amount. A level percentage of an increasing covered payroll amortization requirement, combined with the normal cost of the retirement benefit plan, also set as a percentage of covered pay, provides contribution requirement stability over time as a percentage of covered pay. The level percentage of covered pay amortization procedure provides potential contribution rate stability over time when compared to the level dollar amortization period over time, but has the effect of deferring much of the actual payments to reduce the principal amount of the unfunded actuarial accrued liability to the second half of the amortization period, with early period payments less than full interest on the unfunded actuarial accrued liability and with the unfunded actuarial accrued liability actually increasing in amount during the early portion of the amortization period.

   The following sets forth a comparison of the amortization contribution rate calculated as part of the July 1, 2006, actuarial valuations with the 8.5 percent interest rate actuarial assumption amount on the unfunded actuarial accrued liability of each plan, organized by amortization target date:

Plan	Amortization Target Date	Unfunded Actuarial Accrued Liability	$ Calculated Amortization Requirement	8.5% Interest on Unfunded Actuarial Accrued Liability	Difference	Interest as % of Amortization Contribution
MSRS-General	2020	332,404,901	29,774,591	28,254,417	1,520,174	94.9%
Judges	2020	50,450,784	4,620,923	4,288,317	332,606	53.6
MERF*	2020	127,373,249	14,265,726	7,642,395*	6,623,331	161.0
PERA-P&F	2020	242,613,301	20,977,965	20,622,131	355,834	116.3
SPTRFA	2021	419,700,901	36,420,175	35,674,577	745,598	157.6
MSRS-Correctional	2023	112,123,450	8,853,308	9,530,493	(677,185)	92.8
PERA-Correctional	2023	7,529,873	550,224	640,039	(89,815)	107.6
PERA-General	2031	4,242,549,610	231,431,639	360,616,717	(129,185,078)	97.1
DTRFA**	2032	51,303,478	3,012,098	4,360,796	(1,348,698)	144.8
State Patrol**	2036	22,488,729	1,213,074	1,911,542	(698,468)	98.3
TRA	2036	1,643,499,040	86,764,874	139,697,418	(52,932,544)	155.8

* *Interest only calculated based on 6.00 percent interest actuarial assumption applicable to this plan*

** *The indicated amortization period represents a misinterpretation of Minnesota Statutes, Section 356.215, Subdivision 11, Paragraphs (a) and (g), resulting from a shift from a funding surplus to an unfunded actuarial accrued liability in recent years. The amortization target date should be 2020.*

A sense of the amount of the interest underpayment in the early years of the amortization period and of the growing balloon payment requirements toward the end of the amortization period can be gained from reviewing the comparison between the calculated amortization contribution and the interest only amount as it varies based on the amortization target date.

3. Amortization Periods for Different Unfunded Actuarial Accrued Liability Sources. Unfunded actuarial accrued liabilities can be attributed to a variety of sources and different amortization periods can be employed for different portions of an unfunded actuarial accrued liability based on its determined source. The use of different amortization periods has an analogy in financing a house, where the longest mortgage period would be for the initial house purchase, a shorter second mortgage period would be for a house addition, and shorter debt service periods would be purchases of appliances, furnishings, and building repairs. The sources for portions of the unfunded actuarial accrued liability would be the initial unfunded actuarial accrued liability upon plan establishment if the retirement plan recognized prior (pre-plan establishment) service or upon the initial actuarial valuation of an existing retirement plan, unfunded actuarial accrued liabilities resulting from benefit increases, unfunded actuarial accrued liabilities resulting from actuarial assumption changes or actuarial method changes, unfunded actuarial accrued liabilities resulting from contribution shortfalls or deficiencies, and unfunded actuarial accrued liabilities resulting from net experience losses (departures between experience and actuarial assumptions).

   Generally accepted accounting principles in the public sector (Government Accounting Standards Board Statement 27) allows amortization periods up to 30 years (40 years for the first ten years after 1997, then 30 years, as a transitional requirement). The federal pension law, the Employee Retirement Income Security Act of 1974 (ERISA), largely applicable only to private sector retirement plans, but largely defining practices for all retirement plans, provides amortization periods of 40 years for the initial (1974) unfunded actuarial accrued liability of existing plans, 30 years for the unfunded actuarial accrued liability of plans created after 1973 (40 years for multiple employer plans), 15 years for the unfunded actuarial accrued liability as a result of net experience losses (20 years for multiple employer plans), 15 years for the unfunded actuarial accrued liability resulting from funding deficiencies, and 30 years for the unfunded actuarial accrued liability resulting from actuarial assumption changes.

4. Appropriate Amortization Period. The theory underlying good actuarial funding suggests that an unfunded actuarial accrued liability should be amortized over a period that does not exceed the average remaining working lifetime of the active membership. The unfunded actuarial accrued liability basically represents past normal cost contributions that were either not recognized, as would occur if actuarial assumptions are incorrect, or were not made in a timely fashion, as would occur if there is a contribution deficiency. Since normal costs should be funded over the working lifetimes of active members, the amortization of the unfunded actuarial accrued liability derived from unpaid normal costs should similarly be funded over the remaining active working lifetime. The following sets forth the current average age of the active membership of the various statewide and major local retirement plans and compares that age with the normal retirement age of the plan, providing some sense of the remaining average active working lifetimes:

Retirement Plan	2006 Average Age (Actives)	Normal Retirement Age	Remaining Period
MSRS-Correctional	40.2	55	14.8
PERA-P&F	39.3	55	15.7
State Patrol	41.0	55	14.0
PERA-Correctional	38.7	55	16.3
MSRS-General	46.2	65	18.8
PERA-General	46.0	65	19.0
TRA	43.3	65	21.7
MERF	56.5	60	3.5
DTRFA	46.3	65	18.7
SPTRFA	44.6	65	20.4
Judges	56.1	65	18.9

5. Appropriate Amortization Period Extensions. Once an amortization period is set, time has passed, and events causing net increases in the unfunded actuarial accrued liability have occurred, it may be desirable or appropriate to revise the amortization period. Currently, a change in actuarial assumptions, a change in actuarial methods, or a change in active member benefits triggers an automatic extension of the amortization date in proportion to the magnitude of the added unfunded actuarial accrued liability under Minnesota Statutes, Section 356.215, Subdivision 11. The new unfunded actuarial accrued liability amount attributable to the triggering change item gets a separate

30-year amortization period and that amortization period and the pre-change amortization period are averaged on a weighted basis (by unfunded actuarial accrued liability amount) to gain a new amortization target date. Ad hoc extensions have been approved by the legislation in the past, with the amortization period for the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General) set at 2031 (and excluded from the automatic extension provision) and with the amortization period for the Teachers Retirement Association (TRA) set at 2037 (but not excluded from the automatic extension provision. A large contribution deficiency (contributions compared to the total required actuarial funding) frequently prompts interest in extending the amortization target date to moderate the perceived or actual pressure for increasing member and employer contribution rates, but changing the target rather than actually making progress toward the target is not an adequate policy basis for resetting an amortization date.

Attachment D

Background Information on the Amortization of Public Pension Plan Unfunded Actuarial Accrued Liabilities

1. In General. The Minnesota Post Retirement Investment Fund (MPRIF) is the post-retirement adjustment mechanism currently applicable to the various statewide public retirement plans in Minnesota. The Minnesota Post Retirement Investment Fund includes both an inflation-related post-retirement adjustment component and an investment-related post-retirement adjustment mechanism.

   Because the Minnesota Post Retirement Investment Fund is the subject of an additional contemporaneous interim study, this background information is abbreviated to avoid undue repetition.

2. Pre-Minnesota Adjustable Fixed Benefit Fund Post-Retirement Adjustments. According to information assembled by the Commission staff in 1976 and 1979, the major Minnesota statewide retirement plans provided some post-retirement adjustments during the period 1953-1969, but none of the adjustments were determined based on investment performance on retirement assets or were otherwise investment related.. Between 1953 and 1969, retirees of the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General) received three post-retirement adjustments, retirees of the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General) received three post-retirement adjustments, and retirees of the Teachers Retirement Association (TRA) received seven post-retirement adjustments. The post-retirement adjustments during the period 1953-1969 generally were granted to retirees at large (except for TRA, where four adjustments were related to the 1959 law (prior plan) retirees) and were funded out of the retirement fund rather than the State General Fund more frequently.

3. Minnesota Adjustable Fixed Benefit Fund. The initial automatic post-retirement adjustment mechanism (Laws 1969, Chapter 485, Section 32, and Laws 1969, Chapter 914, Section 10) was the Minnesota Adjustable Fixed Benefit Fund (MAFB), which was created to provide increases in the pensions of retired persons to help meet increased costs of living. The adjustments under the Minnesota Adjustable Fixed Benefit Fund were wholly funded from investment gains in excess of the post-retirement interest rate actuarial assumption on the fully funded reserves for the retirement annuities covered by the mechanism. Under the Minnesota Adjustable Fixed Benefit Fund, if the mechanism experiences investment losses, previous post-retirement increases, if any, can be reduced, but the retirement annuity amount originally payable at retirement is guaranteed. Thus, the Minnesota Adjustable Fixed Benefit Fund was functionally a variable annuity mechanism with an original benefit amount benefit floor.

   Each retirement fund taking part in the Minnesota Adjustable Fixed Benefit Fund transferred sufficient reserves to permit level annuities to be paid to retirees, providing the fund continued to earn at least the actuarial interest requirement. The Minnesota Adjustable Fixed Benefit Fund annuity amounts could be modified through an adjustment mechanism relying on a two-year average total rate of return measure. The use of the averaging feature was intended to add some stability. The total rate of return included dividends, interest, and realized and unrealized gains or losses. Annually, a "benefit adjustment factor" was computed. This was calculated by dividing the result of one plus a two-year average total rate of return by one plus the actuarial return. If the fund was not meeting the actuarial investment earnings requirement, the ratio was less than one. If the return equaled the actuarial return, the ratio was equal to one. If the returns exceeded the actuarial return, the ratio would be greater than one. The law provided that benefits could be increased if the benefit adjustment factor was greater than 1.02, providing that certain additional requirements were met. If the benefit adjustment factor was less than .98, a benefit decrease was required, but at no time could the retirement benefits drop below the benefit level received on the date of retirement.

   The benefit increases actually granted through the Minnesota Adjustable Fixed Benefit Fund were minimal, due in part to an initial failure to isolate out mortality gains and losses in the first version adjustment formula, to the poor investment climate during the early 1970s, and to the presence of the annuity stabilization reserve that was part of the Minnesota Adjustable Fixed Benefit Fund adjustment process. Benefit increases above four percent could not be paid unless the annuity stabilization reserve contained enough assets to cover 15 percent of the past year's benefit payments. If the reserve was insufficient, part of the new investment earnings were added to the reserve, rather than being paid out as benefits. Benefit increases above four percent required correspondingly higher annuity reserves under the Minnesota Adjustable Fixed Benefit Fund law.

The Minnesota Adjustable Fixed Benefit Fund was initially proposed by the Teachers Retirement Association (TRA), was developed by the TRA actuary (the late Edward Brown of the actuarial firm of Brown & Flott), and was not reviewed by the Legislative Retirement Study Commission during the 1967-1969 interim. The initial TRA proposal provided for separate adjustment mechanisms for each of the various statewide plans and was funded from investment income in excess of the interest rate actuarial assumption when that fortuitous funding occurred. During the 1969 Session, the TRA proposal was broadened to cover all statewide retirement plans and to cover the Minneapolis Employees Retirement Fund (MERF) in a single combined mechanism administered by the State Board of Investment. The mechanism benefited from the funding progress that the State experienced since 1957 when its pension funds amassed assets greater than the required reserves for retirees and attempted to balance the limited goal of providing periodic increases to help meet the increased costs of living without "raiding" the pension funds or the public treasury because increases were funded from the yield on investment assets in excess of the statutory assumptions. Commission policy before 1969 held that post-retirement adjustments were a version of public assistance rather than part of the pension program. The Commission staff in the 1960s appears to have been strongly committed to variably annuity programs.

With the enactment of the 1973 benefit improvements, principally the replacement of the career average salary base with the highest five years average salary base for benefit calculations, the increase of the interest rate actuarial assumption from 3.5 percent to 5.0 percent, the granting of a two-part 25 percent post-retirement increase to pre-1973 retirees, and the occurrence of high inflation and modest investment performance in the mid-1970s, the Minnesota Adjustable Fixed Benefit Fund did not fulfill the fanfare that accompanied its establishment. The Minnesota Adjustable Fixed Benefit Fund only paid one set of increases operating as designed, in 1972 (MSRS-General, 2.0 percent; MERF, 4.0 percent; PERA-General, 4.0 percent; and TRA, 2.5 percent; differing because mortality gains and losses were not isolated out of the formula until 1973), with the potential for increases 1973-1975 overridden by the 25 percent 1973 interest rate actuarial assumption modification-based adjustments, with the "initial benefit amount" reset to include the benefit amounts payable after the 1973 and 1974 increases, and with legislative intervention (Laws 1978, Chapter 665, Section 2) allowing for a 4.0 percent 1978 adjustment, even though the Minnesota Adjustable Fixed Benefit Fund formula did not permit the payment of an increase.

4. Minnesota Post Retirement Investment Fund 1980-1992. The Minnesota Adjustable Fixed Benefit Fund was substantially revised in 1980 (see Laws 1980, Chapter 607, Article XV, Section 16) and was renamed the Minnesota Post Retirement Investment Fund. The 1980 Minnesota Post Retirement Investment Fund retained the pooling of fully funded retirement annuity reserves of the Minnesota Adjustable Fixed Benefit Fund and increases were based on investment performance in excess of the post-retirement interest rate actuarial assumption akin to the Minnesota Adjustable Fixed Benefit Fund, but the investment performance was determined on a yield basis (i.e., dividends on equities, interest on debt equities, and realized gains on the sale of investments) rather than the total rate of return used by the Minnesota Adjustable Fixed Benefit Fund.

   Like the Minnesota Adjustable Fixed Benefit Fund, the 1980 version of the Minnesota Post Retirement Investment Fund included an automatic adjustment mechanism intended to provide benefit adjustments to help offset, to some degree, increases in living costs. One difference was that while the Minnesota Adjustable Fixed Benefit Fund based adjustments on total investment return, including unrealized gains, the 1980 version of the revised Minnesota Post Retirement Investment Fund provided adjustments based solely on realized income. Another difference was that the Minnesota Post Retirement Investment Fund contained no provisions for reducing benefit levels when investment returns were low. Third, the original revised Minnesota Post Retirement Investment Fund based adjustments on a single year's realized investment return, rather than using an average of a multi-year period. To determine adjustments, at the end of each fiscal year (June 30), the required reserves were calculated. The required reserves were the assets needed to meet the current stream of annuity payments to be paid to retirees over time, providing that the assets earned at least five percent, which was the Minnesota Post Retirement Investment Fund actuarial interest assumption at that time. The total reserves were multiplied by 1.05 to determine the amount of investment income needed to sustain the current benefit level. By subtracting this amount from total realized investment earnings, excess investment earnings were determined and were used to create a permanent increase in the annuities of retirees. The fiscal year information was used to determine the amount of increase, if any, payable on the next January 1, the effective date of any benefit increase. To determine benefit increases payable as of January 1, the excess investment income and the required reserves must be projected forward to that date by increasing the excess investment income by 2.5 percent, the return which those funds must earn for the six month period in order to meet the actuarial assumption, and by estimating the total required reserves on January 1 for those eligible for a post-retirement adjustment.

The 1980-1992 Minnesota Post Retirement Investment Fund paid increases in each of the 12 years that it was in effect. The average increase during the 12-year period was 6.5 percent.

5. Combined Cost-of-Living Component/Investment-Performance Component Minnesota Post Retirement Investment Fund. Significant changes in the Minnesota Post Retirement Investment Fund occurred in 1992 (Laws 1992, Chapter 530). The mechanism was revised to include two components rather than the prior single component. The combined components were:

   i) Inflation Match Component. An annual post-retirement increase matching inflation, but not to exceed 3.5 percent, was created; and

   ii) Additional Investment-Based Component. An additional investment performance-based increase was permitted based on investment performance in excess of 8.5 percent total returns over five-year periods, based on the total rate of return of the investment fund rather than investment yield.

   The addition of an inflation match component to the Minnesota Post Retirement Investment Fund, measured by the annual increase in the Consumer Price Index, changed the effective post-retirement interest rate actuarial assumption from the previous understated five percent assumption to the identical rate as the pre-retirement interest rate actuarial assumption, the official rate of five percent plus 3.5 percent to account for the inflation component, or 8.5 percent. The investment performance component was triggered by total rate of return investment performance in excess of 8.5 percent, with one-fifth of that performance credited to the current year and the remaining four one-fifths credited to the succeeding four years to smooth out performance results over several years. The net total amount of past and current investment performance credited to the current year become the required reserves for the investment performance component increase based on the percentage relationship between the new reserves and the total required reserves of retirees eligible for an investment component increase.

   The 1992 revisions in the Minnesota Post Retirement Investment Fund resulted in the payment of post-retirement adjustments in each of the five years that this version of the mechanism was in effect. The average increase during the five-year period was 5.80 percent.

6. Downsized Cost of Living Component of the Minnesota Post Retirement Investment Fund. In 1997 (Laws 1997, Chapter 233, Article 1, Section 5), the inflation match component was revised downward to 2.5 percent rather than 3.5 percent, and at the same time the Minnesota Post Retirement Investment Fund investment return assumption was revised from five percent to six percent, retaining the effective post-retirement interest rate actuarial assumption governing the mechanism at 8.5 percent. The revised Minnesota Post Retirement Investment Fund investment return assumption was part of a package of benefit changes intended to increase the benefit level payable at the time of retirement. The benefit improvement as it applied to the State Board of Investment-invested plans increased the benefit accrual rates for all of the defined benefit plans participating in the Minnesota Post Retirement Investment Fund. In part, the 1997 benefit accrual rate increase was financed by the revised Minnesota Post Retirement Investment Fund inflation-match component and investment component actuarial assumption. Fewer reserves are needed to support any given annuity if the assets are assumed to earn six percent prior to payout rather than five percent. The released reserves were used to cover higher benefits at the time of retirement. But the 1997 six percent return requirement, rather than the prior five percent, leaves less of a margin between the Minnesota Post Retirement Investment Fund investment return assumption and the true long-term expected annual rate of return, which is 8.5 percent. The inflation match component was reduced from 3.5 percent to 2.5 percent to compensate. In effect, in 1997 a higher benefit at the time of retirement was traded for approximately one percent per year lower Minnesota Post Retirement Investment Fund inflation-related adjustments.

   The 1997 revisions in the Minnesota Post Retirement Investment Fund resulted in the payment of a post-retirement adjustment in each of the past nine years since the most recent substantive modifications. The average increase during the nine-year period was 5.88 percent.

7. Post-Retirement Adjustment Maximum. In 2006 (Laws 2006, Chapter 277, Article 1, Section 1), a maximum annual adjustment from the Minnesota Post Retirement Investment Fund of five percent was adopted, effective July 1, 2010. The 2006 maximum was intended to moderate the high and low adjustments year to year by eliminating very high rates of increase, automatically retaining the reserves related to the unpaid increase amount to fund higher future increases during low investment performance periods. The delay to 2010 was intended to permit the applicable retirement plans to seek approval from the federal Internal Revenue Service of the change.

Attachment E

Background Information on the Current Deficit in the Minnesota Post Retirement Investment Fund (MPRIF)

1. Brief Description of the Minnesota Post Retirement Investment Fund (MPRIF). The Minnesota Post Retirement Investment Fund (MPRIF) is an investment fund and the post-retirement adjustment mechanism for the various statewide retirement plans. Post-retirement increases are a combination of the percentage increase in the federal Consumer Price Index (CPI), subject to a 2.5 percent annual maximum, and one-fifth of the investment income on the MPRIF assets in excess of 8.5 percent plus one-fifth of any "excess" investment income from each of the prior four years. At retirement, actuarially determined required reserves for each retiree are transferred to the MPRIF and are invested in a manner virtually identically to the assets related to plan active members, with a heavy stock investment component. Transfers are made to and from the MPRIF annually in the event of future mortality gains or losses. If the market value of MPRIF assets is less than the required reserves value, no future excess investment income post-retirement increase is payable until the MPRIF deficit is eliminated. Post-retirement increases are compounding percentage amounts and increases, once granted, are not subject to any future reduction. For actuarial and annual financial reporting, MPRIF asserts are carried at the actuarial required reserve value rather than market value or other value. The MPRIF increases have averaged 5.7 percent over a 28-year period (1978-2005), compared to the CPI average increase of 4.3 percent, and have exceeded the cost of living increase in 19 of 28 years, include an 11-year continuing period 1992-2002. When the MPRIF increase over-performed the cost of living in the past, it usually did so by a considerable margin.

2. MPRIF Deficit Amount. Because MPRIF increases are not rolled back when the investment climate is bad and because of the significant decline in the equity markets that occurred in 2001-2002, the current (June 30, 2007) market value of the MPRIF is \$2.323 billion less than the actuarial required reserves value of the MPRIF on that date, as follows:

	MPRIF-Whole	MSRS Portion	PERA Portion	TRA Portion
Required Reserves	\$27,498,649,353	\$4,869,793,880	\$9,671,931,068	\$12,956,924,405
Market Value	25,176,000,000	4,458,468,192	8,855,003,424	11,862,528,384
Deficit	\$2,322,649,353	\$411,325,688	\$816,927,644	\$1,094,396,021

3. Accounting Issue. Generally accepted accounting principles for Minnesota public pension plans are governed by the Government Accounting Standards Board (GASB), which requires the use of market value or actuarial value of assets based on market value in pension accounting. The use of the actuarial required reserves of the MPRIF as the carrying value of the MPRIF for actuarial valuations and annual financial reporting is now viewed by some of the accounting personnel of the retirement plans and by the Office of the Legislative Auditor as being outside of the permitted values under GASB pronouncements and they may be seeking modifications in Minnesota actuarial and financial reporting laws to gain GASB consistency.

4. Funding Issue. The sole funding mechanism for retiring the MPRIF deficit is the statutory claim against any potential future investment performance-related post-retirement adjustment until the deficit is eliminated (see Minnesota Statutes, Section 11A.18, Subdivision 9, Paragraph (c), Clause (9)). Unless MPRIF investment performance greatly exceeds 8.5 percent in the short run, the elimination of the MPRIF deficit may take one or two decades to eliminate. Unless the MPRIF never again earns an investment return in excess of 8.5 percent and the assets of the MPRIF become insufficient to pay benefits due and owing, the active member accounts of the participating retirement plans and the State will not have any enforceable legal obligation to provide additional funding to eliminate the MPRIF deficit. Because the market value of the MPRIF is only 83.99 percent of the MPRIF required reserves value, to produce one dollar excess MPRIF investment income (in excess of 8.5 percent of required reserves) would necessitate an actual rate of return on the market value of assets in excess of 10.12 percent.

   A report produced by the Minnesota Taxpayers Association in Spring 2006 was strongly critical of various MPRIF practices, including the non-inclusion of the MPRIF deficit in the calculation of the unfunded actuarial accrued liability and funded ratio of the affected retirement plans. Reportedly, a report to be released by the Program Evaluation Division of the Office of the Legislative Auditor on Post-Employment Benefits for Public Employees will also be critical of the lack of a direct disclosure of the funding impact of the MPRIF deficit.

5. Benefit Issue. The claim against all future potential MPRIF investment performance-related post-retirement adjustments that arises under Minnesota Statutes, Section 11A.18, Subdivision 9, whenever the MPRIF has a deficit means that current retirees of the statewide retirement plans (a total of 143,608 benefit recipients) will not receive a post-retirement adjustment in excess of 2.5 percent in any future year for the foreseeable future. Based on the experience of retirees during the period 1992-2002, when MPRIF increases were frequently twice or three times the cost of living, retirees will likely take issue with the expected modest future pattern of MPRIF adjustments.

   The Legislature established the MPRIF with conflicting goals, seeking a post-retirement adjustment mechanism that would be affordable (hence the reliance on "excess" investment performance to fund a considerable portion of future adjustments), recurring (hence automatically payable every year), and capable of replacing purchasing power lost to inflation (hence the CPI-related adjustment component). While low inflation combined with strong equity markets accomplished these goals during the 1990s, that pattern is unlikely to be repeated for some time into the future.

   The Commission was mandated to study the issue during the 2006-2007 Interim and report to the 2007 Legislature in Laws 2006, Chapter 277, Article 7. The Commission has conducted the basic research required to complete the study, but the Commission delayed completion of the study until after January 1, 2007, and the 2007 Commission concluded that further study of the topic is needed.

Attachment F

Background Information on the Recent Reports by the Minnesota Taxpayers Association and by the Legislative Auditor, Program Evaluation Division

1. Summary of the Minnesota Taxpayers Association/Minnesota Center for Public Finance Research. The Minnesota Taxpayers Association was founded in 1926 and is a nonprofit, nonpartisan organization with a statewide membership. The organization provides state and local policymakers with objective nonpartisan research about the impacts of tax and spending policies, and advocates for the adoption of rational public fiscal policy.

   The Minnesota Center for Public Finance Research is the Internal Revenue Code Section 501(c)(3) supporting research and education organization for the Minnesota Taxpayers Association. The Center's mission is to provide objective research and analysis on state and local tax and spending issues in support of effective, efficient, and accountable government.

2. Summary of the Findings and Recommendations of the Minnesota Taxpayers Association/ Minnesota Center for Public Finance Research Pension Report.

   a. Minnesota Taxpayers Association Findings

      i. Extent of Unfunded Pension Liabilities. Six of Minnesota's largest public employee pension funds, which cover 600,000 people, had $9.8 billion in unfunded liabilities in June 2005 – about 21 percent of total liabilities for the six funds. This includes $6.1 billion for current state employees and employees and retirees covered by teacher pension funds in Duluth, Minneapolis and St. Paul, and $3.7 billion for current retirees covered by three state plans.

      ii. Funding Levels and Contribution Deficiencies. Funding levels for the six pension plans range from 98 percent fully funded down to 45 percent funded. At the time, five of the six plans suffer from contribution deficiencies, meaning current contributions made by employees and employers (taxpayers) are not enough to close the existing funding gap. However, one fund (PERA) has already increased employer and employee contributions to begin closing the gap, and one is pending (MSRS).

      iii. Investment Performance-Related Post-Retirement Adjustment Practices. Minnesota is the only state that requires turning exceptional – and volatile – investment gains into permanent benefit increases for retirees. When annual investment returns exceed 8.5%, revenue over that is added to benefits of current retirees. Between 1994 and 2006, this practice committed $4.87 billion in fund assets to permanent benefit increases that continue, regardless of future fund performance. This is in addition to $3.52 billion inflation-driven benefit increases over the same period. (Wisconsin's main pension fund is the only other fund we are aware of with a similar requirement. But the fund also reduces benefits in response to exceptional investment losses.)

         These mandatory investment performance bonuses have had a profound impact on Minnesota's public employee pension plans. Mandatory investment performance bonuses have:

         (a) contributed $4.87 billion to the total liabilities of the funds;

         (b) created tremendous generational inequity, giving public employees who retired prior to 2001 generous pension increases that post-2001 retirees have not, and likely will not, see;

         (c) pushed Minnesota's per capita state and local employee retirement payments to fifth highest in the nation in 2002 – up from 25th in 1992; and

         (d) put taxpayers on the hook for future benefits even after markets recover, because exceptional investment income will still be dedicated for additional benefit increases.

   b. Minnesota Taxpayers Association Recommendations

      i. To Improve the Monitoring and Reporting of Pension Health and Spending in Minnesota

         (a) Require Governors' proposed budgets to list pension contribution costs separately.

         (b) Initiate value-added performance auditing, which would translate annual investment rates of return into actual pension dollars gained or lost, and would quantify those results over time.

         (c) Move public pension fund monitoring from the State Auditor's Office to an agency with personnel not directly elected by the voters.

         (d) Develop and report funded ratios and unfunded liability totals for both the basic funds and the "post-retirement" fund, which applies to retirees covered by the state-managed pension plans.

ii. To Improve the Design and Function of Minnesota's Defined Benefit Pension System

(a) Apply standards used in the financial planning industry to set replacement income guidelines for public pension plans

(b) Permanently end benefit increases based on superior investment returns and provide only capped inflationary adjustments.

(c) Develop quantifiable standards of replacement income to be achieved through pension benefits.

(d) When the Basic Funds are under-funded and the Post Fund is fully funded, transfer only the fractional reserves necessary to keep the Post Fund "whole."

(e) Should surpluses for both the basic and post funds return, give first priority to reducing employee and employer contributions, followed by establishing self-managed accounts.

3. Summary of the Office of the Legislative Auditor/Program Evaluation Division. The Office of the Legislative Auditor is a professional, nonpartisan audit and evaluation office within the legislative branch of the Minnesota state government, created in 1973, and operating under the direction of the Legislative Auditor, who is appointed by the Legislative Audit Commission. The office's principal goal is to provide the Legislature, agencies, and the public with audit and evaluation reports and the office focuses primarily on state agencies and programs.

   The Program Evaluation Division was created within the Office of the Legislative Auditor in 1975, and its mission is to determine the degree to which state agencies and programs are accomplishing their goals and objectives and utilizing resources efficiently. Topics for evaluations are approved by the Legislative Audit Commission and are independently researched by the Legislative Auditor's professional staff.

4. Summary of the Findings and Recommendations of the Office of the Legislative Auditor, Program Evaluation Division, Public Employee Post Retirement Benefits Report

a. Office of the Legislative Auditor, Program Evaluation Division Findings

i. Non-Pension Post-Employment Benefit Coverage and Funding Problems. Twenty-four public employers in Minnesota have accumulated $1.5 billion in liabilities from promises to pay for retiree benefits (excluding pension obligations) over the next 30 years and this estimate could grow significantly as additional jurisdictions have actuarial studies completed. The principal post-employment benefit public employers pay for, other than pensions, is healthcare insurance and, currently significant spending on this and similar post-employment benefits is concentrated in a small number of jurisdictions. Most local governments are not setting aside money to fund liabilities for non-pension post-employment benefits that will come due in the future as employees retire.

ii. Public Pension Plan Funded Condition Understated. Widely reported funding ratios make statewide pension plans appear better funded than they really are because they do not reflect a $4 billion deficit in the Post Fund used to pay benefits to retirees.

iii. Recent Public Pension Plan Contribution Increases Insufficient. Recent legislative changes will help statewide pension funds become fully funded and have improved the Post Fund formula for increasing benefits, but they will not solve the Post Fund's deficit or eliminate risk of future deficits.

iv. Major Local Pension Plan Funding Problems Exist. Among the major local pension plans, the St. Paul Teachers Retirement Fund Association (SPTRFA) currently is the most at risk of serious future funding problems.

b. Office of the Legislative Auditor, Program Evaluation Division Recommendations

i. To Improve Non-Pension Post-Employment Benefit Funding. The Legislature should allow local governments to establish irrevocable trusts to fund post-employment benefits other than pensions.

ii. To Improve Statewide Pension Plan Financial Disclosure. The Legislature should require statewide pension plans' funding ratios to reflect the actual market-related value of the Post Fund.

iii. To Revise the Statewide Pension Plan Post-Retirement Adjustment Mechanism. The Legislature should fully fund the Post Fund and change the benefit formula to protect against future deficits, treat retirees equitably, and better protect pension benefits against inflation.

iv. To Improve Local Pension Plan Funded Conditions. The Legislature should disallow certain benefit increases when local teacher pension funds have large deficits. It should consider changing the formulas used to increase post-retirement benefits, and it should consider increasing contributions for the St. Paul Teachers Retirement Fund Association (SPTRFA).

Attachment G

Background Information on the 2000-2004 MSRS-General, PERA-General, and TRA Quadrennial Experience Study Results and Recommendations

1. Quadrennial Experience Study Requirement. Minnesota Statutes, Section 356.215, Subdivisions 2 and 16, require that experience studies be conducted every four years for the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employees Retirement Plan of the Public Employees Retirement Association (PERA-General), and the Teachers Retirement Association (TRA) to analyze the experience of each retirement plan and to compare that experience with the expected results under the actuarial assumptions on which the most recent actuarial valuation is based.

   Quadrennial experience studies augment actuarial valuations. Actuarial valuations are prepared annually to determine whether the statutory contribution rates are sufficient to fund the retirement plan on an actuarial reserve basis, using a projection of the benefits expected to be paid in the future to all members of the plan based on the characteristics of members as of the valuation date, the benefit provisions in effect on that date, and assumptions of future events and conditions. The assumptions used in actuarial valuations can be grouped in two categories: (1) economic assumptions—the assumed long-term rates of investment return, salary increases, and payroll growth; and (2) non-economic or demographic assumptions—the assumed rates of withdrawal, disability, retirement, and mortality. Demographic assumptions are selected primarily on the basis of recent experience, while economic assumptions rely more on a long-term perspective of expected future trends. Actuarial experience studies serve as the basis for recommended changes in actuarial assumptions and methods. A change in assumptions should be recommended when it is demonstrated that the current assumptions do not accurately reflect the current trend determined from analysis of the data or anticipated future trends based upon reasonable expectations. The data analyzed is the actual experience for demographic assumptions and an economic forecast for economic assumptions. The Actuarial Standards Board provides actuaries with the standards of practice that provide guidance and recommendations on acceptable methods and techniques to be used in developing both economic and demographic assumption (see Actuarial Standard of Practice No. 27 (Selection of Economic Assumptions for Measuring Pension Obligations) and Actuarial Standards of Practice No. 35 (Selection of Demographic and Other Non-Economic Assumptions for Measuring Pension Obligations)).

2. Summary of 2000-2004 MSRS-General, PERA-Genera, and TRA Quadrennial Experience Study Results. The 2000-2004 experience studies of the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employees Retirement Plan of the Public Employees Retirement Association (PERA-General), and the Teachers Retirement Association (TRA) are extensive documents, where a summary of results does less than full justice to each document.

   The following sets forth the characterization of the experience study results for each actuarial assumption, generally collectively for the three plans with respect to economic actuarial assumptions and individually with respect to demographic actuarial assumptions:

Economic Assumptions

Type	Plan	Current Assumption	Comparison With Experience
Inflation	All Three	4.00% - 4.50%/year	Currently ranges between 2.75% - 3.50%/year.
Interest (Rate of Return)	All Three	8.5%	Current range estimate 7.92% - 8.42%/year.
Salary Increase	MSRS-General	Select & Ultimate	Observed less than assumed during both select and ultimate periods, significantly less at higher ages and with longer service.
	PERA-General	Select & Ultimate	Observed less than assumed during both select and ultimate periods, notably less at higher ages and with longer service.
	TRA	Select & Ultimate	Observed less than assumed during both select and ultimate periods, somewhat less at higher ages and with longer service.
Payroll Growth	MSRS-General	5.00%	3.5% average annual payroll increase, with modestly declining number of active members.
	PERA-General	6.00%	3.62% average annual payroll increase, with very modestly increasing number of active members.
	TRA	5.00%	2.5% average annual payroll increase, with slightly increasing number of active members.

Demographic Assumptions

Type	Plan	Current Assumption	Comparison With Experience
Withdrawal	MSRS-General	Select & Ultimate	During select period, modestly less for males and slightly less for females. During ultimate period, slightly less for males and modestly less for females.
	PERA-General	Select & Ultimate	During select period, very slightly greater for males and modestly greater for females. During ultimate period, slightly greater for males and significantly greater for females.
	TRA	Select & Ultimate	During select period, nominally greater for both males and females. During ultimate period, very slightly less for males and modestly greater for females.
Disability	MSRS-General	Table	Significantly greater than assumed for both males and females.
	PERA-General	Table	Moderately less than assumed for males and nominally less than assumed for females.
	TRA	Table	On point for males and very significantly greater for females.
Retirement Rates	MSRS-General	Table	Very significantly less than assumed for "Rule of 90" and significantly less than assumed for other retirements.
	PERA-General	Table	Very significantly less than assumed for "Rule of 90" and very significantly less than assumed for other retirements.
	TRA	Table	Significantly greater than assumed for "Rule of 90" and very significantly less than assumed for other retirements.
Post-Retirement Mortality	MSRS-General	Table	Very significantly greater than assumed for males and significantly greater than assumed for females.
	PERA-General	Table	Nominally greater than assumed for males and slightly greater than assumed for females.
	TRA	Table	Slightly less than assumed for males and significantly greater than assumed for females.
Pre-Retirement Mortality	MSRS-General	Table	Very slightly greater than assumed for males and very significantly less than assumed for females.
	PERA-General	Table	Significantly less than assumed for males and slightly greater than assumed for females.
	TRA	Table	Very significantly less than assumed for males and significantly less than assumed for females.
Disabled Mortality	MSRS-General	Table	Very significantly greater than assumed for males and significantly greater than assumed for females.
	PERA-General	Table	Very significantly less than assumed for males and very significantly less than assumed for females.
	TRA	Table	Moderately less than assumed for males and moderately greater than assumed for females.
Percentage Married	MSRS-General	85% married	No data presented.
	PERA-General	85% male / 65% female married	No data presented.
	TRA	85% male / 65% female married	No data presented.
Beneficiary Age	MSRS-General	Females 3 years younger	Males 3.29 years older than spouse; females 2.51 years younger than spouse.
	PERA-General	Females 4 years younger	Males 3.06 years older than spouse; females 1.82 years younger than spouse.
	TRA	Females 3 years younger	Males 4 years older than spouse; females 5 years younger than spouse.
Optional Annuity Form	MSRS-General	Variable utilization	No data presented.
	PERA-General	Variable utilization	No data presented.
	TRA	Variable utilization	No data presented.

3. Summary of Actuarial Assumption Change Recommendations From 2000-2004 Quadrennial Experience Studies and January 16, 2007, Conference Call. The quadrennial experience studies of the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employees Retirement Plan of the Public Employees Retirement Association (PERA-General), and the Teachers Retirement Association (TRA) prepared during Winter 2005-2006 contained a number of recommendations for most demographic actuarial assumption changes and suggested further consultations with the affected retirement plans and the State Board of Investment for the various economic actuarial assumptions. That consultation occurred during a telephone conference call on January 16, 2007, reflected in a summary memorandum from Andre Latia of The Segal Company on February 7, 2007, provided to the Commission office on March 23, 2007.

The resulting recommendations for actuarial assumption changes are summarized as follows:

	MSRS-General		PERA-General		TRA	
Assumption/ Method	Assumptions Used in 7/1/2004 Actuarial Val.	Assumptions Recommended in 2005 Exp. Study	Assumptions Used in 7/1/2004 Actuarial Val.	Assumptions Recommended in 2005 Exp. Study	7/1/2004 Actuarial Valuation	Recommended Assumption/ Method
Inflation	4%-4.50% per annum	3% per annum	4%-4.50% per annum	3% per annum	5% per annum	3% per annum
Investment Return	8.50% per annum, net of investment expenses	No change	8.50% per annum, net of investment expenses	No change	8.50% per annum, net of investment expenses	No change
Salary Increases	Age based rates, with 10-year select period	Lower select rate period from 10 years to 5 years, change select rate from 0.30% to 0.60%, and lower ultimate rate by 1.00% for all ages	Age and service based rates with 10-year select period	Lower select rate period from 10 years to 5 years, change select rate from 0.30% to 0.60%, and lower ultimate rate by 1.00% for all ages	Age and service based rates with 10-year select period	Retain 10-year select rate period, retain 0.30% select rate, lower ultimate rate by 0.50% for all ages
Payroll Growth	5% per annum	4.50% per annum	5% per annum	4.50% per annum	5% per annum	4.50% per annum
Withdrawal	Age and gender based rates with 3-year select period	Lower female rates for ages 35 to 54	Age and service based rates with 3-year select period	No change	Age and service based rates with 3-year select period	No change
Disability Incidence	Age based rates	Higher rates for ages 50 to 65	Age based rates	No change	Age based rates	No change
Retirement	Age based rates for "Rule of 90" retirements and for non-"Rule of 90" retirements	Lower "Rule of 90" retirement rates for ages 55 to 60; no change for all other retirements	Age based rates for "Rule of 90" and for all other retirements	Lower "Rule of 90" rates from ages 55 to 61 and 63-64; change all other retirement rates at ages 61-62	Age based rates for "Rule of 90" retirements and for all other retirements	Increase "Rule of 90" retirement rates for ages 56 and 57, decrease rates for all other rates at ages 55-59, 61, and 65
Post-Retirement Mortality	1983 GAM Table for regular members set back 2 years for males and 1 year for females	No change	1983 GAM Table for regular members set back 1 year for males and 1 year for females	No change	1983 GAM Table set back 6 years for males and 3 years for females	No change
Pre-Retirement Mortality	1983 GAM Table for regular employees set back 5 years for males and 2 years for females	No change	1983 GAM Table for regular employees set back 8 years for males and 7 years for females	No change	1983 GAM Table set back 12 years for males and 10 years for females	No change
Disabled Mortality	1965 Railroad Retirement Board Disabled Life Mortality Table through age 54, graded to healthy mortality at age 65	No change	1965 Railroad Retirement Board Disabled Life Mortality Table through age 54, graded to healthy post-retirement mortality at age 65	No change	1965 Railroad Retirement Board Disabled Life Mortality Table through age 54, graded to healthy post-retirement mortality at age 65	No change
Beneficiary Mortality	1983 GAM Table for regular beneficiaries set back 2 years for males and 1 year for females	No change	1983 GAM Table for regular beneficiaries set back 1 year for males and 1 year for females	No change	1983 GAM Table set back 6 years for males and 3 years for females	No change

	MSRS-General		PERA-General		TRA	
Assumption/ Method	Assumptions Used in 7/1/2004 Actuarial Val.	Assumptions Recommended in 2005 Exp. Study	Assumptions Used in 7/1/2004 Actuarial Val.	Assumptions Recommended in 2005 Exp. Study	7/1/2004 Actuarial Valuation	Recommended Assumption/ Method
Dependent Children	No dependent children are assumed	No change	No dependent children are assumed	No change	No dependent children are assumed	No change
Marital Status	85% of all members are assumed to be married	No change	85% of male members and 65% of female members are assumed to be married	No change	85% of male members and 65% of female members are assumed to be married	No change
Spouse Age	Females are assumed to be 3 years younger than males	No change	Females are assumed to be 4 years younger	No change	Females are assumed to be 3 years younger than males	No change
Optional Form Elec-tion	Joint-and-survivor annuities elected at gender-based rates	No change	Joint-and-survivor annuities elected at gender-based rates	No change	Joint-and-survivor annuities elected at gender-based rates	No change
Actuarial Cost Method	Entry age normal	No change	Entry age normal	No change	Entry age normal	No change
Asset Valuation Method	5-year smoothing method under only the non-MPRIF reserves	Recommend review by audi-tors to determine GASB compli-ance	5-year smoothing method under only the non-MPRIF reserves	Recommend review by auditors to determine GASB compliance	5-year smoothing method under only the non-MPRIF reserves	Recommend review by auditors to determine GASB compliance
Amortization Method	Closed amortization period, 30 years as of 7/1/2004	Recommend on-going review with Board and broader study	Closed amortization period; 27 years as of 7/1/2004	Recommend on-going review and broader study with the Association	Closed amortization period ending 7/1/2020 if positive UAAL; 30 years as of 7/1/2004 due to surplus	Recommend ongoing review and broader study with the Association

Attachment H

Background Information on the Experience Studies of the Duluth Teachers Retirement Fund Association (DTRFA) and the St. Paul Teachers Retirement Fund Association (SPTRFA)

1. Ad Hoc Experience Studies.

From 1965 (Laws 1965, Chapter 359, Section 2) until 1991 (Laws 1991, Chapter 269, Article 3, Section 4), retirement plans that were required to have actuarial valuations prepared were also required to have experience studies (initially referred to as actuarial surveys) prepared every four years. Until 1969, only the major statewide retirement plans, the State Patrol Retirement Plan, and the former State Police Retirement Plan were required to have actuarial valuations prepared. In 1969 (Laws 1969, Chapter 249), the annual financial reporting requirements were extended to the first class city teacher retirement fund associations, the Minneapolis Employees Retirement Fund (MERF) and the St. Paul Bureau of Health Relief Association and, in 1971 (Laws 1971, Chapter 7), annual actuarial valuations and periodic experience studies were required from the same retirement plans that were required to file annual financial reporting.

In 1984 (Laws 1984, Chapter 584), the responsibility for the preparation of actuarial valuations and experience studies was transferred from various consulting actuaries retained by the governing boards of the various retirement plans to a single consulting actuarial firm retained by the Legislative Commission on Pensions and Retirement and experience studies for the various retirement plans were produced every four years until 1991 (Laws 1991, Chapter 269, Article 3), when regular quadrennial experience studies were limited to the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General), the General Employee Retirement Plan of the Public Employees Retirement Association (PERA-General) and the Teachers Retirement Association (TRA). The Commission's Standards for Actuarial Work (Section V, Part D, Paragraph 4) provide that special experience studies may be appropriate for the first class city teacher retirement fund associations, the Minneapolis Employees Retirement Fund (MERF), or the Public Employees Police and Fire Retirement Plan (PERA-P&F), but may only be prepared with the prior approval of the Commission of a request from the actuary or the plan administrator.

2. Summary of the 2002-2006 DTRFA Experience Study and the 2000-2006 SPTRFA Experience Study.

The Duluth Teachers Retirement Fund Association (DTRFA) had the jointly retained actuary, The Segal Company, prepare an experience study of the plan for the period July 1, 2002, through June 30, 2006. The St. Paul Teachers Retirement Fund Association (SPTRFA) had its consulting actuarial advisor, Gabriel, Roeder, Smith & Company, prepare an experience study of the plan for the period July 1, 2000, through June 30, 2006. Neither experience study was requested for pre-approval by the Legislative Commission on Pensions and Retirement as required by the Standards for Actuarial Work. Neither experience study includes a certification by the preparing actuary that the experience study conforms with the requirements of Minnesota Statutes, Section 356.215, or with the requirements of the Commission's Standards for Actuarial Work. Additionally, the SPTRFA experience study does not comply for all assumptions with the Standards for Actuarial Work requirement that comparisons between expected experience and actual experience be indicated on a year-by-year basis and did not comply for the salary increase assumption with the Standards for Actuarial Work requirement that numeric comparisons between the expected experience and the actual experience be presented.

The following sets forth a summary of the experience study results for the two retirement plans:

Economic Assumptions

Type	Plan	Current Assumption	Comparison With Experience
Inflation	DTRFA	5%	2.65 over past five years.
	SPTRFA	Unclear	2.6 for period 2000-2005.
Interest (Rate of Return)	DTRFA	8.5	No data presented.
	SPTRFA	8.5	On market value basis, actual compared to expected overstated for 3 years, understated for 3 years.
Salary Increase	DTRFA	Select & Ultimate	Actual exceeded expected during the select period for 8 of 10 years, exceeded expected during the ultimate period for ages 20-40, slight understatement for ages 40-45, greater understatement after age 44.
	SPTRFA	Select & Ultimate	Actual modestly exceeded expected under age 38 or under ten years of service and over age 48 or over 21 years of service, slightly exceeded actual between ages 33 and 38 and at ten years of service.

Type	Plan	Current Assumption	Comparison With Experience
Payroll Growth	DTRFA	5.00%	4.6% average per capita payroll increase with 5.1% decrease in number of active members.
	SPTRFA	5.00%	No data supplied.

Demographic Assumptions

Withdrawal	DTRFA	Select & Ultimate	Actual two times greater than expected for both males and females during select period, and actual essentially matched expected for males during ultimate period and actual doubled expected for females during ultimate period.
	SPTRFA	Select & Ultimate	Actual exceeds expected by two or three times.
Disability	DTRFA	Percentage Increasing with Age	Virtually no experience, actual essentially matched expected.
	SPTRFA	Percentage Increasing with Age	Actual is one-half of expected.
Retirement Ratio	DTRFA	Table	For the Old Law Plan, actual essentially matched expected for non-"Rule of 90" tier and actual was one-third of expected for "Rule of 90" tier. For the New Law Plan, actual significantly exceeded expected for both "Rule of 90" and non-"Rule of 90" tiers.
	SPTRFA	Table	For the Basic Program, actual exceeded expected except at age 55 for non-"Rule of 90" tier and actual exceeded expected at ages 56, 64, and 65 and actual was less than expected for all other ages for "Rule of 90" tier. For the Coordinated Program, actual exceeded expected for most ages for non-"Rule of 90" tier and actual generally matched expected for "Rule of 90" tier.
Post-Retirement Mortality	DTRFA	Table	Actual was slightly less than expected for males and actual was slightly greater than expected for females.
	SPTRFA	Table	Actual was modestly under the expected for males and actual was very slightly under the expected for females.
Pre-Retirement Mortality	DTRFA	Table	Virtually no experience; actual was less than expected for both males and females.
	SPTRFA	Table	Actual was modestly under the expected for males and actual was very slightly under the expected for females
Disabled Mortality	DTRFA	Table	Actual was twice the expected amount.
	SPTRFA	Table	Not reviewed.
Percentage Married	DTRFA	Percentage	No date available.
	SPTRFA	Percentage	Not reviewed.
Beneficiary Age	DTRFA	Females 3 Years Younger	Male retirees about three years older than spouse and female retirees about one year younger than spouse
	SPTRFA	Females 4 Years Younger	Not reviewed.
Optional Annuity Form Selection	DTRFA	Percentage	No data presented.
	SPTRFA	Percentage	Not reviewed.
Combined Service Annuity Utilization	DTRFA	10% active load and 10% former member load	Not reviewed.
	SPTRFA	7% active load and 30% former member load	No data presented.

3. Summary of Actuarial Assumption Change Recommendations from DTRFA and SPTRFA Experience Studies.

The experience studies of the Duluth Teachers Retirement Fund Association (DTRFA) and of the St. Paul Teachers Retirement Fund Association (SPTRFA) included assumption changes recommended by The Segal Company with respect to DTRFA and by Gabriel, Roeder, Smith & Company with respect to SPTRFA. The recommended SPTRFA actuarial assumption changes apparently have not been reviewed by The Segal Company.

The following is a summary of the DTRFA and SPTRFA actuarial assumption change recommendations:

	DTRFA		SPTRFA	
Assumption	Assumptions Used in 7/1/2007 Actuarial Valuation	Assumption Change Recommended in 2007 Experience Study	Assumptions Used in 7/1/2007 Actuarial Valuation	Assumption Change Recommended in 2007 Experience Study
Inflation	5% per annum	Further study and modeling	5% per annum	No recommendation
Investment Return	8.5% per annum	No change until further comprehensive review occurs	8.5% per annum	No change
Salary Increases	Age based rates with 10-year select period	Retain 10-year select period; use select rate of 8% through service year 7, 7.25% through service year 8, 6.5% through service year 9; use decreasing pattern for ultimate rates after age 50 of 0.1% through age 64, ultimate rate of 3.5% after age 64	Age based rates with 10-year select period	No recommendation
Payroll Growth	5% per annum	No change	5% per annum	No recommendation
Withdrawal	Select and ultimate tables	Increase select period rates and retain ultimate rates	Select and ultimate tables	Increase select rates and ultimate rate
Disability Incidence	Increasing percentage table	No change	Increasing percentage table	Reduce percentage rates
Retirement Age	Select and ultimate tables	No change in Old Plan rates; change to Old Plan rates for New Plan	Select and ultimate tables	Increase over age 55 rates for Basic non-"Rule of 90" tier; increase age 55, 56, 67 over age 70 rates and reduce all other rates for Basic "Rule of 90" tier; increase pre-age066 and post-age-69 rates and decrease age 66-69 rates for Coordinated non-"Rule of 90" tier; increase age 55, 56, 61, 62 and over age 69 rates and decrease age 59-60 and age 63-69 rates for Coordinated "Rule of 90" tier
Post-Retirement Mortality	1983 GAM table for males set back 2 years and 1983 GAM table for females	1994 GAM table set back two years for both males and for females (slight decrease in old rates for all years)	1983 GAM table for males set back 3 years and 1983 GAM table for females set back one year	1983 GAM table for males set back 4 years; no change for females
Pre-Retirement Mortality	1983 GAM table for males set back 10 years and 1983 GAM table for females set back 7 years	1994 GAM table set back two years for both males and for females	1983 GAM table for males set back 7 years and 1983 GAM table for females set back 5 years	No change
Disabled Mortality	1977 Railroad Retirement Board Mortality Table for Disabled Lives for both males and females	552006 table for males and females before age 54, blend of 552006 table for males and females and 1994 GAM table set back two years for males and for females ages 55 to 64, and 1994 GAM table set back two years for males and females after age 64	1977 Railroad Retirement Board Mortality Table for Disabled Lives for both males and females	No change
Beneficiary Mortality	Same as Post-Retirement Mortality	Same as Post-Retirement Mortality	Same as Post-Retirement Mortality	Same as Post-Retirement Mortality
Marital Status	80% members married	No change	85% of male members married and 60% of female members married; Married members assumed to have two children	No change
Spouse Age	Females 3 years younger than male spouses	No change	Females 4 years younger than male spouses	No change
Optional Form Election	Optional annuity forms elected at gender-related rates	Reduction in male and female 50% joint-and-survivor and 100% joint-and-survivor rates	Optional annuity forms elected at gender-related rates	Reduction in male 100% joint-and-survivor rate, increase in female 100% joint-and-survivor rate
Actuarial Cost Method	Entry Age Normal	No change	Entry Age Normal	No change
Asset Valuation Method	Five-year smoothing	No recommendation	Five-year smoothing	No recommendation
Amortization Method	Closed amortization period	No recommendation	Closed amortization period	No recommendation

Attachment I

Governmental Accounting Standards Board

Summaries / Status

Summary of Statement No. 25
Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans
(Issued 11/94)

Summary

This Statement establishes financial reporting standards for defined benefit pension plans and for the notes to the financial statements of defined contribution plans of state and local governmental entities. Financial reporting standards for postemployment healthcare plans administered by defined benefit pension plans and for the pension expenditures/expense of employers are included, respectively, in two related Statements: No. 26, *Financial Reporting for Postemployment Healthcare Plans Administered by Defined Benefit Pension Plans,* and No. 27, *Accounting for Pensions by State and Local Governmental Employers.*

The standards in this Statement apply for pension trust funds included in the financial reports of plan sponsors or employers as well as for the stand-alone financial reports of pension plans or the public employee retirement systems that administer them. Reduced disclosures are acceptable for pension trust funds when a stand-alone plan financial report is publicly available and contains all required information.

This Statement establishes a financial reporting framework for *defined benefit pension plans* that distinguishes between two categories of information: (a) current financial information about plan assets and financial activities and (b) actuarially determined information, from a long-term perspective, about the funded status of the plan and the progress being made in accumulating sufficient assets to pay benefits when due.

Plans should include information in the first category in two financial statements: (a) a *statement of plan net assets* that provides information about the fair value and composition of plan assets, plan liabilities, and plan net assets and (b) a *statement of changes in plan net assets* that provides information about the year-to-year changes in plan net assets. The requirements for the notes to the financial statements include a brief plan description, a summary of significant accounting policies, and information about contributions, legally required reserves, and investment concentrations.

Information in the second category should be included, for a minimum of six years, in two schedules of historical trend information that should be presented as required supplementary information immediately after the notes to the financial statements. The required schedules are (a) a *schedule of funding progress* that reports the actuarial value of assets, the actuarial accrued liability, and the relationship between the two over time and (b) a *schedule of employer contributions* that provides information about the annual required contributions of the employer(s) (ARC) and the percentage of the ARC recognized by the plan as contributed. Note disclosures related to the required schedules should be presented after the schedules and should include the actuarial methods and significant assumptions used for financial reporting.

Plans may elect to report one or more years of the information required for either or both schedules in an additional financial statement(s) or in the notes to the financial statements. Information for all required years also should be reported as required supplementary information, unless all years are included in the additional statement(s) or notes.

Plans should measure all actuarially determined information included in their financial reports in accordance with certain parameters. The parameters include requirements for the frequency and timing of actuarial valuations as well as for the actuarial methods and assumptions that are acceptable for financial reporting. When the methods and assumptions used in determining a plan's funding requirements meet the parameters, the same methods and assumptions are required for financial reporting by both a plan and its participating employer(s).

This Statement requires the notes to the financial statements of *defined contribution plans* to include a brief plan description, a summary of significant accounting policies (including the fair value of plan assets, unless reported at fair value), and information about contributions and investment concentrations.

The provisions of this Statement are effective for periods beginning after June 15, 1996. Early implementation is encouraged; however, Statement 26, if applicable, should be implemented in the same fiscal year.

Unless otherwise specified, pronouncements of the GASB apply to financial reports of all state and local governmental entities, including general purpose governments, public benefit corporations and authorities, public employee retirement systems, utilities, hospitals and other healthcare providers, and colleges and universities. Paragraphs 9 and 10 discuss the applicability of this Statement.

TABLE 7
1996-2000

STATE EMPLOYEES RETIREMENT FUND
1996-2000 ANNUITANT AND SURVIVOR MORTALITY

	Males			Females		
Age	Actual	Expected	Actual/ Expected	Actual	Expected	Actual/ Expected
<55	1	0.5	208%	1	0.6	167%
55-59	13	9.3	140%	9	4.5	201%
60-64	41	48.3	85%	25	17.9	140%
65-69	113	133.5	85%	58	50.9	114%
70-74	202	217.4	93%	124	100.3	124%
75-79	272	274.9	99%	177	167.3	106%
80-84	270	274.5	98%	222	233.0	95%
85-89	216	192.8	112%	257	216.8	119%
90-94	94	100.0	94%	186	135.7	137%
95+	44	32.6	135%	86	69.4	124%
ALL	1,266	1,283.8	99%	1,145	996.4	115%
65-84	857	900.3	95%	581	551.5	105%

Total

Age	Actual	Expected	Actual/ Expected
<55	2	1.1	185%
55-59	22	13.8	160%
60-64	66	66.2	100%
65-69	171	184.4	93%
70-74	326	317.7	103%
75-79	449	442.2	102%
80-84	492	507.5	97%
85-89	473	409.5	115%
90-94	280	235.7	119%
95+	130	102.1	127%
ALL	2,411	2,280.2	106%
65-84	1,438	1,451.9	99%

TABLE 7
1996-1997

STATE EMPLOYEES RETIREMENT FUND
1996-1997 ANNUITANT AND SURVIVOR MORTALITY

	Males			Females		
Age	Actual	Expected	Actual/ Expected	Actual	Expected	Actual/ Expected
<55	0	0.1	0%	0	0.1	0%
55-59	4	2.1	193%	2	0.9	214%
60-64	8	11.9	67%	11	4.0	276%
65-69	29	32.1	90%	15	12.7	118%
70-74	47	53.5	88%	35	24.2	144%
75-79	65	66.1	98%	44	40.2	110%
80-84	63	63.6	99%	54	56.6	95%
85-89	58	46.9	124%	51	47.2	108%
90-94	17	21.0	81%	50	32.4	154%
95+	5	7.9	63%	26	18.0	145%
ALL	296	305.1	97%	288	236.3	122%
65-84	204	215.3	95%	148	133.7	111%

Total

Age	Actual	Expected	Actual/ Expected
<55	0	0.2	0%
55-59	6	3.0	200%
60-64	19	15.8	120%
65-69	44	44.7	98%
70-74	82	77.7	105%
75-79	109	106.3	103%
80-84	117	120.3	97%
85-89	109	94.1	116%
90-94	67	53.3	126%
95+	31	25.8	120%
ALL	584	541.3	108%
65-84	352	349.0	101%

TABLE 7
1997-1998

STATE EMPLOYEES RETIREMENT FUND
1997-1998 ANNUITANT AND SURVIVOR MORTALITY

	Males			Females		
Age	Actual	Expected	Actual/ Expected	Actual	Expected	Actual/ Expected
<55	0	0.1	0%	0	0.2	0%
55-59	2	2.1	96%	3	1.0	300%
60-64	7	11.6	60%	8	4.3	186%
65-69	27	33.2	81%	12	12.5	96%
70-74	53	54.2	98%	35	25.1	140%
75-79	73	67.7	108%	49	40.8	120%
80-84	76	67.6	112%	59	59.1	100%
85-89	44	47.8	92%	61	51.0	120%
90-94	23	21.7	106%	42	32.4	130%
95+	9	9.6	94%	22	16.3	135%
ALL	314	315.6	99%	291	242.7	120%
65-84	229	222.7	103%	155	137.5	113%

Total

Age	Actual	Expected	Actual/ Expected
<55	0	0.3	0%
55-59	5	3.1	162%
60-64	15	15.9	94%
65-69	39	45.7	85%
70-74	88	79.3	111%
75-79	122	108.5	112%
80-84	135	126.8	107%
85-89	105	98.8	106%
90-94	65	54.1	120%
95+	31	25.9	120%
ALL	605	558.3	108%
65-84	384	360.3	107%

TABLE 7
1998-1999

STATE EMPLOYEES RETIREMENT FUND
1998-1999 ANNUITANT AND SURVIVOR MORTALITY

	Males			Females		
Age	Actual	Expected	Actual/ Expected	Actual	Expected	Actual/ Expected
<55	1	0.1	752%	1	0.2	634%
55-59	4	2.4	170%	1	1.2	84%
60-64	13	12.3	105%	0	4.6	0%
65-69	34	33.5	102%	13	12.7	102%
70-74	52	54.9	95%	33	25.3	131%
75-79	59	68.9	86%	53	42.7	124%
80-84	80	70.7	113%	48	58.1	83%
85-89	59	49.1	120%	72	57.8	125%
90-94	25	26.8	93%	42	33.4	126%
95+	18	8.7	206%	18	16.6	108%
ALL	345	327.4	105%	281	252.6	111%
65-84	225	227.9	99%	147	138.9	106%

Total

Age	Actual	Expected	Actual/ Expected
<55	2	0.3	688%
55-59	5	3.5	141%
60-64	13	16.9	77%
65-69	47	46.2	102%
70-74	85	80.1	106%
75-79	112	111.6	100%
80-84	128	128.8	99%
85-89	131	106.9	123%
90-94	67	60.2	111%
95+	36	25.3	142%
ALL	626	580.0	108%
65-84	372	366.7	101%

TABLE 7
1999-2000

STATE EMPLOYEES RETIREMENT FUND
1999-2000 ANNUITANT AND SURVIVOR MORTALITY

	Males			Females		
Age	Actual	Expected	Actual/ Expected	Actual	Expected	Actual/ Expected
<55	0	0.2	0%	0	0.1	0%
55-59	3	2.8	108%	3	1.4	220%
60-64	13	12.5	104%	6	5.0	120%
65-69	23	34.8	66%	18	13.0	139%
70-74	50	54.8	91%	21	25.7	82%
75-79	75	72.2	104%	31	43.6	71%
80-84	51	72.5	70%	61	59.1	103%
85-89	55	48.9	112%	73	60.8	120%
90-94	29	30.5	95%	52	37.5	139%
95+	12	6.4	187%	20	18.6	108%
ALL	311	335.7	93%	285	264.8	108%
65-84	199	234.4	85%	131	141.5	93%

Total

Age	Actual	Expected	Actual/ Expected
<55	0	0.3	0%
55-59	6	4.1	145%
60-64	19	17.5	109%
65-69	41	47.8	86%
70-74	71	80.6	88%
75-79	106	115.8	91%
80-84	112	131.6	85%
85-89	128	109.7	117%
90-94	81	68.0	119%
95+	32	25.0	128%
ALL	596	600.6	99%
65-84	330	375.9	88%

III. DEMOGRAPHIC ASSUMPTIONS (continued)

D. Mortality Rates – Post-Retirement

The post-retirement mortality rates used in actuarial valuations project the percentage of beneficiaries and non-disabled retirees who are expected to die in the upcoming year.

<u>Current Actuarial Assumptions</u>

The mortality table for male beneficiaries and non-disabled retirees used for the July 1, 2004 actuarial valuation is the 1983 Group Annuity Mortality (GAM) Table for males, set back two years. The mortality table for female beneficiaries and non-disabled retirees is the 1983 Group Annuity Mortality (GAM) Table for females, set back one year. The mortality rates are shown below for selected ages:

Mortality Rates

Age	Male	Female
50	0.31%	0.15%
55	0.52%	0.23%
60	0.77%	0.38%
65	1.24%	0.64%
70	2.22%	1.09%
75	3.67%	2.11%
80	6.07%	3.85%
85	9.75%	6.38%
90	14.41%	10.14%
95	20.30%	16.51%
100	28.08%	26.82%

III. DEMOGRAPHIC ASSUMPTIONS (continued)

D. Mortality Rates – Post-Retirement (continued)

The tables below and on the next page summarize the total number of deaths in each age group, the actual average number and the expected average number based on the assumed mortality rates for male and female participants.

Male

	Number of Deaths Fiscal Year Ended June 30*				Average Per Year		
Age Group	**2001**	**2002**	**2003**	**2004**	**Actual**	**Expected**	**Ratio**
50 – 55	2	0	0	1	1	0	--
55 – 60	4	13	4	3	6	3	2.00
60 – 65	14	18	17	21	18	13	1.38
65 – 70	46	46	35	52	45	32	1.41
70 – 75	87	75	61	74	74	51	1.45
75 – 80	103	85	104	94	97	70	1.39
80 – 85	105	115	91	117	107	76	1.41
85 – 90	72	69	70	80	73	56	1.30
90 – 95	40	35	43	34	38	28	1.36
95 – 100	4	7	10	18	10	8	1.25
Total	**477**	**463**	**435**	**494**	**469**	**337**	**1.39**

** Death counts not reconciled with Fund data.*

III. DEMOGRAPHIC ASSUMPTIONS (continued)

D. Mortality Rates – Post-Retirement (continued)

Female

Age Group	Number of Deaths Fiscal Year Ended June 30*				Average Per Year		
	2001	2002	2003	2004	Actual	Expected	Ratio
50 – 55	0	1	0	1	1	0	--
55 – 60	3	2	1	8	4	2	2.00
60 – 65	6	10	8	14	10	6	1.67
65 – 70	18	24	13	13	17	14	1.21
70 – 75	31	31	40	31	33	27	1.22
75 – 80	46	56	50	44	49	48	1.02
80 – 85	73	80	69	54	69	65	1.06
85 – 90	84	74	80	77	79	69	1.14
90 – 95	56	43	60	49	52	43	1.21
95 – 100	21	21	22	26	23	19	1.21
Total	**338**	**342**	**343**	**317**	**337**	**293**	**1.15**

* *Death counts not reconciled with Fund data.*

III. DEMOGRAPHIC ASSUMPTIONS (continued)

D. Mortality Rates – Post-Retirement (continued)

The tables below and on the next page summarize the actual, expected and recommended post-retirement mortality rates for male and female participants for selected ages.

Male

Age Group	Actual*	Average Expected	Ratio	Average Recommended
50 – 55	2.36%	0.41%	--	0.41%
55 – 60	1.13%	0.65%	2.00	0.65%
60 – 65	1.28%	0.95%	1.38	0.95%
65 – 70	2.21%	1.59%	1.41	1.59%
70 – 75	3.98%	2.74%	1.45	2.74%
75 – 80	6.16%	4.47%	1.39	4.47%
80 – 85	10.25%	7.29%	1.41	7.29%
85 – 90	14.46%	11.14%	1.30	11.14%
90 – 95	22.00%	16.27%	1.36	16.27%
95 – 100	25.49%	22.02%	1.25	22.02%

** Death counts not reconciled with Fund data.*

III. DEMOGRAPHIC ASSUMPTIONS (continued)

D. Mortality Rates – Post-Retirement (continued)

Female

Age Group	Actual*	Average Expected	Ratio	Average Recommended
50 – 55	0.58%	0.19%	--	0.19%
55 – 60	0.63%	0.30%	2.00	0.30%
60 – 65	0.74%	0.49%	1.67	0.49%
65 – 70	0.94%	0.79%	1.21	0.79%
70 – 75	1.80%	1.44%	1.22	1.44%
75 – 80	2.80%	2.72%	1.02	2.72%
80 – 85	5.00%	4.72%	1.06	4.72%
85 – 90	8.63%	7.58%	1.14	7.58%
90 – 95	14.40%	11.85%	1.21	11.85%
95 – 100	22.73%	19.33%	1.21	19.33%

** Death counts not reconciled with Fund data.*

III. DEMOGRAPHIC ASSUMPTIONS (continued)

D. Mortality Rates – Post-Retirement (continued)

Findings and Recommendations

Post-Retirement experience was similar for males and females. According to Segal's death data, the current mortality assumption overstated both male experience and female experience. However, we could not reconcile the reported death counts with the Fund data, therefore, we do not recommend changing the mortality rates at this time.

We recommend the continued use of the 1983 GAM table set back two years for males and one year for females. We will monitor future mortality experience of the entire membership group and recommend adjustments as necessary.

The complete tables of recommended mortality rates for non-disabled retirees are shown in Appendix E.

The actual/expected ratios of the recommended assumptions are as follows:

Males:	139.2%
Females:	115.0%

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 2, reinstate line 27

Page 2, line 28, reinstate everything before "~~, as~~"

Page 2, line 29, reinstate everything after "~~subdivision 11,~~"

Page 2, line 30, reinstate "~~(4)~~" and delete "(3)"

Page 2, line 34, reinstate the stricken language and delete the new language

Page 3, lines 1 to 4, reinstate the stricken language and delete the new language

Page 3, lines 6 and 9, reinstate the stricken language and delete the new language

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 2, line 33, before "<u>by</u>" insert "<u>, as adjusted for mortality gains and losses under subdivision 11, </u>"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 2, line 30, before "reserves" insert "eligible "

Page 2, line 33, before "by" insert ", as adjusted for mortality gains and losses under subdivision 11, "

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 2, line 30, reinstate "add" and delete "multiply "

Page 2, line 33, delete the new language and insert "to the amount of reserves required to support the postretirement adjustment amount under paragraph (b)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 5, delete section 4

Renumber the sections in sequence and correct the internal references

Amend the title accordingly

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 5, line 12, reinstate the stricken "~~distributed~~"and before "made" insert "or, alternatively, "

Page 5, line 14, after "contribution." insert "If the annual financial report of synopsis is not distributed to plan members and is only made available to plan members, the annual financial report or synopsis must be posted on the retirement plan's website and a copy of the annual financial report or synopsis must be provided to each participating employing unit on a compact disk or equivalent digitally-readable medium."

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 6, reinstate lines 6 to 29

Page 6, line 6, after "(b)" insert "In addition to any asset value disclosure required under generally accepted accounting principles, "

Page 6, reinstate lines 40 and 41

Page 6, line 40, strike "(d)" and insert "(c)"

Page 7, reinstate lines 1 to 19

Page 7, line 20, delete "(c)" and insert "(d)"

Page 7, line 28, delete "(d)" and insert "(e)"

Page 7, line 33, delete "(e)" and insert "(f)"

Page 8, line 3, strike "duly" and after "filed" insert "in a timely manner"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 9, line 33, strike ", reduced by:" and insert "."

Page 9, strike lines 34 to 36

Page 10, strike lines 1 to 18

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 5, delete section 5

Renumber the sections in sequence and correct the internal references

Amend the title accordingly

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 6, line 6, reinstate everything after "~~(b)~~"and after "~~(b)~~" insert "(c)"

Page 6, reinstate lines 7 to 29

Page 7, line 20, delete "(c)" and insert "(d)"

Page 7, line 28, delete "(d)" and insert "(e)"

Page 7, line 33, delete "(e)" and insert "(f)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 6, reinstate lines 30 to 39

Page 7, line 20, delete "(c)" and insert "(d)"

Page 7, line 28, delete "(d)" and insert "(e)"

Page 7, line 33, delete "(e)" and insert "(f)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 6, line 40, reinstate everything after "~~(d)~~"and after "~~(d)~~" insert "(c)"

Page 6, reinstate line 41

Page 7, reinstate lines 1 to 19

Page 7, line 20, delete "(c)" and insert "(d)"

Page 7, line 28, delete "(d)" and insert "(e)"

Page 7, line 33, delete "(e)" and insert "(f)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 4, after line 17, insert:

"(d) The report must include a certification by the chief financial officer of the retirement plan that the financial report was prepared in accord with generally accepted accounting principles and conforms with the requirements of this section."

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 12, strike line 19

Page 12, line 20, strike "5.0" and insert "4.0"

Page 17, line 3, strike "5.00" and insert "4.50"

Page 17, line 4, strike "5.00" and insert "4.50"

Page 17, strike line 5

Page 17, line 6, strike "5.00" and insert "4.00"

Page 17, line 9, strike "6.00" and insert "4.50"

Page 17, line 11, strike "6.00" and insert "4.50"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 12, line 11, delete "Before July 1, 2010, "

Page 17, delete lines 15 to 21

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 20, delete section 11

Renumber the sections in sequence and correct the internal references

Amend the title accordingly

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 20, after line 27, insert:

"(c) The time period under paragraph (c) or (b) only commences when all proposed actuarial assumptions changes have been submitted in writing to the executive director of the Legislative Commission on Pensions and Retirement and written advice on each assumption change from the actuary retained under section 356.214 also has been submitted to the executive director of the Legislative Commission on Pensions and Retirement."

Page 20, line 28, delete "(c)" and insert "(d)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 20, after line 33, insert:

"<u>(d) Proposed assumption changes and any accompanying documentation must be transmitted to the office of the Legislative Commission on Pensions and Retirement by certified mail or delivered in person with the receipt of a signed acknowledgment by a Commission employee of receipt.</u>"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 20, after line 33, insert:

"(d) All proposed assumption changes under this subdivision must be submitted for publication in the State Register within 15 days of the transmittal of the proposed change or changes to the Legislative Commission on Pensions and Retirement."

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 20, line 10, after "Fund" insert " or the retirement benefit fund by the applicable full funding date under paragraphs (b) to (i)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 20, line 10, after "Fund" insert " or the retirement benefit fund by June 30, 2038"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 20, line 10, after "Fund" insert " or the retirement benefit fund by the end of the period determined by adding the average remaining expected lifetime of retired members of the retirement plan, rounded up to the nearest full year, to the valuation date"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 19, deletes lines 29 to 34

Page 19, line 35, reinstate the stricken language and delete the new language

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 18, line 5, strike " and" and insert ","

Page 18, line 6, after "~~plan~~" insert " the correctional state employees retirement plan of the Minnesota State Retirement System, the judges retirement plan, and the public employees police and fire retirement plan"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 18, line 5, strike " and" and insert ","

Page 18, line 6, after "~~plan~~" insert " and the Teachers Retirement Association"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 19, line 30, delete "2038" and insert "2023"

Page 19, delete lines 31 and 32

Page 19, line 34, delete "2038" and insert "2023"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 18, line 5, strike everything after "Fund"

Page 18, line 6, strike "Association"

Page 18, line 13, strike "2020." and insert "of the applicable following year:"

Page 18, after line 13, insert:

"(1)	for the general state employees retirement plan of the Minnesota State Retirement System	2026
(2)	for the general state employees retirement plan of the Public Employees Retirement Association	2031
(3)	for the Teachers Retirement Association	2037
(4)	for the correctional state employees retirement plan of the Minnesota State Retirement System	2023
(5)	for the state patrol retirement plan	2023
(6)	for the public employees police and fire retirement plan	2023
(7)	for the local government correctional employees retirement plan	2023
(8)	for the judges retirement plan	2020
(9)	for the legislators retirement plan	2020
(10)	for the elective state officers retirement plan	2020
(11)	for the Duluth Teachers Retirement Fund Association	2025
(12)	for the St. Paul Teachers Retirement Fund Association	2027
(13)	for the Minneapolis Employees Retirement Fund	2020"

Page 18, line 15, strike everything after "Fund"

Page 18, line 16, strike "Retirement Association"

Page 19, strike lines 23 to 28 and delete lines 29 to 34

Page 19, line 35, delete "(j)" and insert "(d)"

Page 20, line 5, delete "(k)" and insert "(e)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 18, line 5, delete the new language and strike everything after "Fund"

Page 18, line 6, strike "Association "

Page 18, line 13, strike "2020" and insert "2027. For the Minneapolis Employees Retirement Fund, the established date for full funding is the first actuarial valuation date occurring after June 1, 2020"

Page 18, line 15, strike everything after "Fund"

Page 18, line 16, strike "Retirement Association "

Page 19, strike lines 23 to 28 and delete lines 29 to 34

Page 19, line 35, delete "(j)" and insert "(d)"

Page 20, line 5, delete "(k)" and insert "(e)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 17, line 29, delete "the" and insert "all" and delete "listed in subdivision 8"

Page 17, line 30, delete "paragraph (c)" and strike "percentage of"

Page 17, line 31, strike "covered payroll" and insert "annual dollar amount"

Page 18, lines 1 and 2, delete the new language and strike the old language

Page 18, line 3, strike everything before the period

Page 18, line 5, delete the new language and strike everything after "Fund"

Page 18, line 6, strike "Association "

Page 18, line 13, strike "2020" and insert "2038. For the Minneapolis Employees Retirement Fund, the established date for full funding is the first actuarial valuation date occurring after June 1, 2020"

Page 18, line 15, strike everything after "Fund"

Page 18, line 16, strike "Retirement Association "

Page 19, strike lines 23 to 28 and delete lines 29 to 34

Page 19, line 35, delete "(j)" and insert "(d)"

Page 20, line 5, delete "(k)" and insert "(e)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 19, after line 22, insert:

"(d) For any retirement plan other than the Minneapolis Employees Retirement Fund, if there has been a net actuarial experience loss that produces a net increase in the unfunded actuarial accrued liability in the fund, the established date for full funding must be determined using the following procedure:

(i) the unfunded actuarial accrued liability of the fund must be determined without inclusion of the experience loss item or items;

(ii) the level annual dollar contribution or level percentage, whichever is applicable, needed to amortize the unfunded actuarial accrued liability amount determined under item (i) by the established date for full funding in effect before the net experience loss must be calculated using the interest assumption specified in subdivision 8 in effect before the net experience loss;

(iii) the unfunded actuarial accrued liability of the fund including the experience lost must be determined;

(iv) the level annual dollar contribution or level percentage, whichever is applicable, needed to amortize the difference between the unfunded actuarial accrued liability amount calculated under item (i) and the unfunded actuarial accrued liability amount calculated under item (iii) over a period of 15 years from the end of the plan year in which the applicable change is effective must be calculated using the applicable interest assumption specified in subdivision 8 in effect after any applicable change;

(v) the level annual dollar or level percentage amortization contribution under item (iv) must be added to the level annual dollar amortization contribution or level percentage calculated under item (ii);

(vi) the period in which the unfunded actuarial accrued liability amount determined in item (iii) is amortized by the total level annual dollar or level percentage amortization contribution computed under item (v) must be calculated using the interest assumption specified in subdivision 8 in effect after the net experience loss, rounded to the nearest integral number of years, but not to exceed 30 years from the end of the plan year in which the determination of the established date for full funding using the procedure set forth in this clause is made and not to be less than the period of years beginning in the plan year in which the determination of the established date for full funding using the procedure set forth in this clause is made and ending by the date for full funding in effect before the net experience loss; and

(vii) the period determined under item (vi) must be added to the date as of which the actuarial valuation was prepared and the date obtained is the new established date for full funding."

Page 19, line 23, strike "(d)" and insert "(e)"

Page 19, line 25, strike "(e)" and insert "(f)"

Page 19, line 27, strike "(f)" and insert "(g)"

Page 19, line 29, delete "(g)" and insert "(h)"

Page 19, line 31, delete "(h)" and insert "(i)"

Page 19, line 33, delete "(i)" and insert "(j)"

Page 19, line 35, delete "(j)" and insert "(k)"

Page 20, line 5, delete "(k)" and insert "(l)"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 20, line 3, strike "30-year" and insert "50-year"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 19, line 36, strike "an excess of" and strike "over" and insert "in excess of" and after "liability" insert "by at least 30 percent"

.... moves to amend H.F. No. 3041; S.F. No. 2715, as follows:

Page 19, strike lines 35 and 36

Page 20, strike lines 1 to 4

Page 20, line 5, delete "(k)" and insert "(j)"

State of Minnesota

HOUSE OF REPRESENTATIVES

EIGHTY-FIFTH SESSION

HOUSE FILE NO. 3041

February 18, 2008
Authored by Murphy, M., by request,; and Smith
The bill was read for the first time and referred to the Committee on Governmental Operations, Reform, Technology and Elections

A bill for an act

relating to retirement; actuarial and financial reporting, sunsetting statutory salary increase and payroll increase actuarial assumptions; modifying postretirement interest rate assumption for the Minnesota post retirement investment fund; permitting annual financial reports to be made available to plan members rather than provided to them; reducing specificity of annual financial reports; eliminating transitional portions of actuarial value of assets definition; modifying the select and ultimate salary increase actuarial assumptions for various retirement plans; changing procedure for setting salary increase and payroll increase actuarial assumptions after July 1, 2010; resetting amortization target dates for various retirement plans; requiring an alternative amortization contribution calculation; amending Minnesota Statutes 2006, sections 11A.18, subdivision 9; 356.20, subdivisions 1, 2, 3, 4, 4a; 356.215, subdivisions 1, 2, 8, 11, 18; Minnesota Statutes 2007 Supplement, section 356.96, subdivision 1.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 2006, section 11A.18, subdivision 9, is amended to read:

Subd. 9. **Calculation of postretirement adjustment.** (a) Annually, following June 30, the state board shall use the procedures in paragraphs (b), (c), and (d) to determine whether a postretirement adjustment is payable and to determine the amount of any postretirement adjustment.

(b) If the Consumer Price Index for urban wage earners and clerical workers all items index published by the Bureau of Labor Statistics of the United States Department of Labor increases from June 30 of the preceding year to June 30 of the current year, the state board shall certify the percentage increase. The amount certified must not exceed ~~the lesser of the difference between the preretirement interest assumption and postretirement interest assumption in section 356.215, subdivision 8, paragraph (a), or~~ 2.5 percent. For the Minneapolis Employees Retirement Fund, the amount certified must not exceed 3.5 percent.

(c) In addition to any percentage increase certified under paragraph (b), the board shall use the following procedures to determine if a postretirement adjustment is payable under this paragraph:

(1) the state board shall determine the market value of the fund on June 30 of that year;

(2) the amount of reserves required as of the current June 30 for the annuity or benefit payable to an annuitant and benefit recipient of the participating public pension plans or funds must be determined by the actuary retained under section 356.214. An annuitant or benefit recipient who has been receiving an annuity or benefit for at least 12 full months as of the current June 30 is eligible to receive a full postretirement adjustment. An annuitant or benefit recipient who has been receiving an annuity or benefit for at least one full month, but less than 12 full months as of the current June 30, is eligible to receive a partial postretirement adjustment. Each fund shall report separately the amount of the reserves for those annuitants and benefit recipients who are eligible to receive a full postretirement benefit adjustment. This amount is known as "eligible reserves." Each fund shall also report separately the amount of the reserves for those annuitants and benefit recipients who are not eligible to receive a postretirement adjustment. This amount is known as "noneligible reserves." For an annuitant or benefit recipient who is eligible to receive a partial postretirement adjustment, each fund shall report separately as additional "eligible reserves" an amount that bears the same ratio to the total reserves required for the annuitant or benefit recipient as the number of full months of annuity or benefit receipt as of the current June 30 bears to 12 full months. The remainder of the annuitant's or benefit recipient's reserves must be separately reported as additional "noneligible reserves." The amount of "eligible" and "noneligible" required reserves must be certified to the board by the actuary retained under section 356.214 as soon as is practical following the current June 30;

~~(3) The state board shall determine the percentage increase certified under paragraph (b) multiplied by the eligible required reserves, as adjusted for mortality gains and losses under subdivision 11, determined under clause (2);~~

~~(4)~~ (3) the state board shall ~~add~~ multiply the amount of reserves required for the annuities or benefits payable to annuitants and benefit recipients of the participating public pension plans or funds as of the current June 30 ~~to the amount determined under clause (3)~~ by the factor 1.085;

~~(5)~~ (4) the state board shall subtract the amount determined under clause ~~(4)~~ (3) from the market value of the fund determined under clause (1);

~~(6)~~ (5) the state board shall adjust the amount determined under clause ~~(5)~~ (4) by the cumulative current balance determined under clause ~~(8)~~ (7) and any negative balance carried forward under clause ~~(9)~~ (8);

~~(7)~~ (6) a positive amount resulting from the calculations in clauses (1) to ~~(6)~~ (5) is the excess market value. A negative amount is the negative balance;

~~(8)~~ (7) the state board shall allocate one-fifth of the excess market value or one-fifth of the negative balance to each of five consecutive years, beginning with the fiscal year ending the current June 30; and

~~(9)~~ (8) to calculate the postretirement adjustment under this paragraph based on investment performance for a fiscal year, the state board shall add together all excess market value allocated to that year and subtract from the sum all negative balances allocated to that year. If this calculation results in a negative number, the entire negative balance must be carried forward and allocated to the next year. If the resulting amount is positive, a postretirement adjustment is payable under this paragraph. The board shall express a positive amount as a percentage of the total eligible required reserves certified to the board under clause (2).

(d) The state board shall determine the amount of any postretirement adjustment which is payable using the following procedure:

(1) the total "eligible" required reserves as of the first of January next following the end of the fiscal year for the annuitants and benefit recipients eligible to receive a full or partial postretirement adjustment as determined by clause (2) must be certified to the state board by the actuary retained under section 356.214. The total "eligible" required reserves must be determined by the actuary retained under section 356.214 on the assumption that all annuitants and benefit recipients eligible to receive a full or partial postretirement adjustment will be alive on the January 1 in question; and

(2) the state board shall add the percentage certified under paragraph (b) to any positive percentage calculated under paragraph (c). The board shall not subtract from the percentage certified under paragraph (b) any negative amount calculated under paragraph (c). The sum of these percentages must be carried to five decimal places and must be certified to each participating public pension fund or plan as the full postretirement adjustment percentage. The full postretirement adjustment percentage certified to each participating public pension plan or fund must not exceed five percent. For the Minneapolis Employees Retirement Fund, no maximum percentage adjustment is applicable.

(e) A retirement annuity payable in the event of retirement before becoming eligible for Social Security benefits as provided in section 352.116, subdivision 3; 353.29, subdivision 6; or 354.35 must be treated as the sum of a period certain retirement annuity and a life retirement annuity for the purposes of any postretirement adjustment. The period certain retirement annuity plus the life retirement annuity must be the annuity amount payable until age 62 or 65, whichever applies. A postretirement adjustment granted on the period certain retirement annuity must terminate when the period certain retirement annuity terminates.

Sec. 2. Minnesota Statutes 2006, section 356.20, subdivision 1, is amended to read:

Subdivision 1. **Report required.** (a) The governing or managing board or the chief administrative ~~officials~~ officer of ~~the~~ each public pension and retirement ~~funds~~ plan enumerated in subdivision 2 shall annually prepare and file a financial report following the close of each fiscal year.

(b) This requirement also applies to any plan or fund which may be a successor to any organization so enumerated or to any newly formed retirement plan, fund or association operating under the control or supervision of any public employee group, governmental unit, or institution receiving a portion of its support through legislative appropriations.

(c) The report must be prepared under the supervision and at the direction of the management of each ~~fund~~ plan and must be signed by the presiding officer of the managing board of the ~~fund~~ plan and the chief administrative official of the ~~fund~~ plan.

Sec. 3. Minnesota Statutes 2006, section 356.20, subdivision 2, is amended to read:

Subd. 2. **Covered public pension plans and funds.** This section applies to the following public pension plans:

(1) the general state employees retirement plan of the Minnesota State Retirement System;

(2) the general employees retirement plan of the Public Employees Retirement Association;

(3) the Teachers Retirement Association;

(4) the State Patrol retirement plan;

(5) the St. Paul Teachers Retirement Fund Association;

(6) the Duluth Teachers Retirement Fund Association;

(7) the Minneapolis Employees Retirement Fund;

(8) the University of Minnesota faculty retirement plan;

(9) the University of Minnesota faculty supplemental retirement plan;

(10) the judges retirement fund;

(11) a police or firefighter's relief association specified or described in section 69.77, subdivision 1a~~, or~~;

<ins>(12) a volunteer firefighter relief association governed by section</ins> 69.771, subdivision 1;

~~(12)~~ <ins>(13)</ins> the public employees police and fire plan of the Public Employees Retirement Association;

~~(13)~~ <ins>(14)</ins> the correctional state employees retirement plan of the Minnesota State Retirement System; and

~~(14)~~ <ins>(15)</ins> the local government correctional service retirement plan of the Public Employees Retirement Association.

Sec. 4. Minnesota Statutes 2006, section 356.20, subdivision 3, is amended to read:

Subd. 3. **Filing requirement.** The financial report is a public record. A copy of the report or a synopsis of the report containing the information required by this section must be ~~distributed~~ <ins>made available</ins> annually to each member of the fund and to the governing body of each governmental subdivision of the state which makes employers contributions thereto or in whose behalf taxes are levied for the employers' contribution. A signed copy of the report must be delivered to the executive director of the Legislative Commission on Pensions and Retirement and to the Legislative Reference Library not later than six months after the close of each fiscal year or one month following the completion and delivery to the retirement fund of the actuarial valuation report of the fund by the actuary retained under section 356.214, if applicable, whichever is later.

Sec. 5. Minnesota Statutes 2006, section 356.20, subdivision 4, is amended to read:

Subd. 4. **Contents of financial report.** (a) The financial report required by this section must contain financial statements and disclosures that indicate the financial operations and position of the retirement plan and fund. The report must conform with generally accepted governmental accounting principles, applied on a consistent basis. The report must be audited.

<ins>(b)</ins> The report must include, as part of its exhibits or its footnotes, an actuarial disclosure item based on the actuarial valuation calculations prepared by the actuary retained under section 356.214 or by the actuary retained by the retirement fund or plan, whichever applies, according to applicable actuarial requirements enumerated in section 356.215, and specified in the most recent standards for actuarial work adopted by the Legislative Commission on Pensions and Retirement. The ~~accrued~~ <ins>actuarial value of</ins> assets, the <ins>actuarial</ins> accrued liabilities, including accrued reserves, and the unfunded actuarial accrued liability of the fund or plan must be disclosed. The disclosure item must contain a declaration by the actuary retained under section 356.214 or the actuary

retained by the fund or plan, whichever applies, specifying that the required reserves for any retirement, disability, or survivor benefits provided under a benefit formula are computed in accordance with the entry age actuarial cost method and in accordance with the most recent applicable standards for actuarial work adopted by the Legislative Commission on Pensions and Retirement.

~~(b) Assets of the fund or plan contained in the disclosure item must include the following statement of the actuarial value of current assets as defined in section 356.215, subdivision 1:~~

	~~Value at cost~~	~~Value at market~~
~~Cash, cash equivalents, and short-term securities~~	~~..........~~	~~..........~~
~~Accounts receivable~~	~~..........~~	~~..........~~
~~Accrued investment income~~	~~..........~~	~~..........~~
~~Fixed income investments~~	~~..........~~	~~..........~~
~~Equity investments other than real estate~~	~~..........~~	~~..........~~
~~Real estate investments~~	~~..........~~	~~..........~~
~~Equipment~~	~~..........~~	~~..........~~
~~Participation in the Minnesota postretirement investment fund or the retirement benefit fund~~	~~..........~~	~~..........~~
~~Other~~	~~..........~~	~~..........~~
~~Total assets~~		
~~Value at cost~~		~~..........~~
~~Value at market~~		~~..........~~
~~Actuarial value of current assets~~		~~..........~~

~~(c) The unfunded actuarial accrued liability of the fund or plan contained in the disclosure item must include the following measures of unfunded actuarial accrued liability, using the actuarial value of current assets:~~

~~(1) the unfunded actuarial accrued liability, determined by subtracting the current assets and the present value of future normal costs from the total current and expected future benefit obligations; and~~

~~(2) the unfunded pension benefit obligation, determined by subtracting the current assets from the actuarial present value of credited projected benefits.~~

~~If the current assets of the fund or plan exceed the actuarial accrued liabilities, the excess must be disclosed and indicated as a surplus.~~

~~(d) The pension benefit obligations schedule included in the disclosure must contain the following information on the benefit obligations:~~

~~(1) the pension benefit obligation, determined as the actuarial present value of credited projected benefits on account of service rendered to date, separately identified as follows:~~

~~(i) for annuitants,~~
~~retirement annuities,~~
~~disability benefits,~~
~~surviving spouse and child benefits;~~
~~(ii) for former members without vested rights;~~
~~(iii) for deferred annuitants' benefits, including any augmentation;~~
~~(iv) for active employees,~~
~~accumulated employee contributions, including allocated investment income,~~
~~employer-financed benefits vested,~~
~~employer-financed benefits nonvested,~~
~~total pension benefit obligation; and~~

~~(2) if there are additional benefits not appropriately covered by the foregoing items of benefit obligations, a separate identification of the obligation.~~

~~(e)~~ (c) The report must contain an itemized exhibit describing the administrative expenses of the plan, including, but not limited to, the following items, classified on a consistent basis from year to year, and with any further meaningful detail:

(1) personnel expenses;

(2) communication-related expenses;

(3) office building and maintenance expenses;

(4) professional services fees; and

(5) other expenses.

~~(f)~~ (d) The report must contain an itemized exhibit describing the investment expenses of the plan, including, but not limited to, the following items, classified on a consistent basis from year to year, and with any further meaningful detail:

(1) internal investment-related expenses; and

(2) external investment-related expenses.

~~(g)~~ (e) Any additional statements or exhibits or more detailed or subdivided itemization of a disclosure item that will enable the management of the ~~fund~~ plan to portray a true interpretation of the ~~fund's~~ plan's financial condition must be included in the additional statements or exhibits.

Sec. 6. Minnesota Statutes 2006, section 356.20, subdivision 4a, is amended to read:

Subd. 4a. **Financial report for police or firefighters relief association.** For any police or firefighter's relief association referred to in subdivision 2, clause (11) or (12), a financial report that is duly filed and ~~meeting~~ that meets the requirements of section 69.051 ~~must be~~ is deemed to have met the requirements of subdivision 4.

Sec. 7. Minnesota Statutes 2006, section 356.215, subdivision 1, is amended to read:

Subdivision 1. **Definitions.** (a) For the purposes of sections 3.85 and 356.20 to 356.23, each of the terms in the following paragraphs has the meaning given.

(b) "Actuarial valuation" means a set of calculations prepared by the actuary retained under section 356.214 if so required under section 3.85, or otherwise, by an approved actuary, to determine the normal cost and the accrued actuarial liabilities of a benefit plan, according to the entry age actuarial cost method and based upon stated assumptions including, but not limited to rates of interest, mortality, salary increase, disability, withdrawal, and retirement and to determine the payment necessary to amortize over a stated period any unfunded accrued actuarial liability disclosed as a result of the actuarial valuation of the benefit plan.

(c) "Approved actuary" means a person who is regularly engaged in the business of providing actuarial services and who has at least 15 years of service to major public employee pension or retirement funds or who is a fellow in the Society of Actuaries.

(d) "Entry age actuarial cost method" means an actuarial cost method under which the actuarial present value of the projected benefits of each individual currently covered by the benefit plan and included in the actuarial valuation is allocated on a level basis over the service of the individual, if the benefit plan is governed by section 69.773, or over the earnings of the individual, if the benefit plan is governed by any other law, between the entry age and the assumed exit age, with the portion of the actuarial present value which is allocated to the valuation year to be the normal cost and the portion of the actuarial present value not provided for at the valuation date by the actuarial present value of future normal costs to be the actuarial accrued liability, with aggregation in the calculation process to be the sum of the calculated result for each covered individual and with recognition given to any different benefit formulas which may apply to various periods of service.

(e) "Experience study" means a report providing experience data and an actuarial analysis of the adequacy of the actuarial assumptions on which actuarial valuations are based.

(f) ~~"Current~~ "Actuarial value of assets" means~~:~~

~~(1) for the July 1, 2001, actuarial valuation, the market value of all assets as of June 30, 2001, reduced by:~~

~~(i) 30 percent of the difference between the market value of all assets as of June 30, 1999, and the actuarial value of assets used in the July 1, 1999, actuarial valuation;~~

~~(ii) 60 percent of the difference between the actual net change in the market value of assets between June 30, 1999, and June 30, 2000, and the computed increase in the market value of assets between June 30, 1999, and June 30, 2000, if the assets had increased at the percentage preretirement interest rate assumption used in the July 1, 1999, actuarial valuation; and~~

~~(iii) 80 percent of the difference between the actual net change in the market value of assets between June 30, 2000, and June 30, 2001, and the computed increase in the market value of assets between June 30, 2000, and June 30, 2001, if the assets had increased at the percentage preretirement interest rate assumption used in the July 1, 2000, actuarial valuation;~~

~~(2) for the July 1, 2002, actuarial valuation, the market value of all assets as of June 30, 2002, reduced by:~~

~~(i) ten percent of the difference between the market value of all assets as of June 30, 1999, and the actuarial value of assets used in the July 1, 1999, actuarial valuation;~~

~~(ii) 40 percent of the difference between the actual net change in the market value of assets between June 30, 1999, and June 30, 2000, and the computed increase in the market value of assets between June 30, 1999, and June 30, 2000, if the assets had increased at the percentage preretirement interest rate assumption used in the July 1, 1999, actuarial valuation;~~

~~(iii) 60 percent of the difference between the actual net change in the market value of assets between June 30, 2000, and June 30, 2001, and the computed increase in the market value of assets between June 30, 2000, and June 30, 2001, if the assets had increased at the percentage preretirement interest rate assumption used in the July 1, 2000, actuarial valuation; and~~

~~(iv) 80 percent of the difference between the actual net change in the market value of assets between June 30, 2001, and June 30, 2002, and the computed increase in the market value of assets between June 30, 2001, and June 30, 2002, if the assets had increased at the percentage preretirement interest rate assumption used in the July 1, 2001, actuarial valuation; or~~

~~(3) for any actuarial valuation after July 1, 2002,~~ the market value of all assets as of the preceding June 30, reduced by:

~~(i)~~ (1) 20 percent of the difference between the actual net change in the market value of assets between the June 30 that occurred three years earlier and the June 30 that occurred four years earlier and the computed increase in the market value of assets over that fiscal year period if the assets had increased at the percentage preretirement interest rate assumption used in the actuarial valuation for the July 1 that occurred four years earlier;

~~(ii)~~ (2) 40 percent of the difference between the actual net change in the market value of assets between the June 30 that occurred two years earlier and the June 30 that occurred three years earlier and the computed increase in the market value of assets over that fiscal year period if the assets had increased at the percentage preretirement interest rate assumption used in the actuarial valuation for the July 1 that occurred three years earlier;

~~(iii)~~ (3) 60 percent of the difference between the actual net change in the market value of assets between the June 30 that occurred one year earlier and the June 30 that occurred two years earlier and the computed increase in the market value of assets over that fiscal year period if the assets had increased at the percentage preretirement interest rate assumption used in the actuarial valuation for the July 1 that occurred two years earlier; and

~~(iv)~~ (4) 80 percent of the difference between the actual net change in the market value of assets between the immediately prior June 30 and the June 30 that occurred one year earlier and the computed increase in the market value of assets over that fiscal year period if the assets had increased at the percentage preretirement interest rate assumption used in the actuarial valuation for the July 1 that occurred one year earlier.

(g) "Unfunded actuarial accrued liability" means the total current and expected future benefit obligations, reduced by the sum of ~~current~~ the actuarial value of assets and the present value of future normal costs.

(h) "Pension benefit obligation" means the actuarial present value of credited projected benefits, determined as the actuarial present value of benefits estimated to be payable in the future as a result of employee service attributing an equal benefit amount, including the effect of projected salary increases and any step rate benefit accrual rate differences, to each year of credited and expected future employee service.

Sec. 8. Minnesota Statutes 2006, section 356.215, subdivision 2, is amended to read:

Subd. 2. **Requirements.** (a) It is the policy of the legislature that it is necessary and appropriate to determine annually the financial status of tax supported retirement and pension plans for public employees. To achieve this goal:

(1) the actuary retained under section 356.214 shall prepare annual actuarial valuations of the retirement plans enumerated in section 356.214, subdivision 1, paragraph (b), and quadrennial experience studies of the retirement plans enumerated in section 356.214, subdivision 1, paragraph (b), clauses (1), (2), and (7); and

(2) the commissioner of finance may have prepared by the actuary retained by the commission, two years after each set of quadrennial experience studies, quadrennial projection valuations of at least one of the retirement plans enumerated in section 6, subdivision 1, paragraph (b), for which the commissioner determines that the analysis may be beneficial.

(b) The governing or managing board or administrative officials of each public pension and retirement ~~fund or~~ plan enumerated in section 356.20, subdivision 2, clauses (9), ~~(10)~~ (11), and (12), shall have prepared by an approved actuary annual actuarial valuations of their respective funds as provided in this section. This requirement also applies to any ~~fund or~~ plan that is the successor to any organization enumerated in section 356.20, subdivision 2, or to the governing or managing board or administrative officials of any newly formed retirement fund, plan, or association operating under the control or supervision of any public employee group, governmental unit, or institution receiving a portion of its support through legislative appropriations, and any local police or fire ~~fund~~ relief association to which section 356.216 applies.

Sec. 9. Minnesota Statutes 2006, section 356.215, subdivision 8, is amended to read:

Subd. 8. **Interest and salary assumptions.** (a) The actuarial valuation must use the applicable following preretirement interest assumption and the applicable following postretirement interest assumption:

plan	preretirement interest rate assumption	postretirement interest rate assumption
general state employees retirement plan	8.5%	~~6.0~~ 8.5%
correctional state employees retirement plan	8.5	~~6.0~~ 8.5
State Patrol retirement plan	8.5	~~6.0~~ 8.5
legislators retirement plan	8.5	~~6.0~~ 8.5
elective state officers retirement plan	8.5	~~6.0~~ 8.5
judges retirement plan	8.5	~~6.0~~ 8.5
general public employees retirement plan	8.5	~~6.0~~ 8.5
public employees police and fire retirement plan	8.5	~~6.0~~ 8.5
local government correctional service retirement plan	8.5	~~6.0~~ 8.5
teachers retirement plan	8.5	~~6.0~~ 8.5
Minneapolis employees retirement plan	6.0	5.0
Duluth teachers retirement plan	8.5	8.5
St. Paul teachers retirement plan	8.5	8.5

Minneapolis Police Relief Association	6.0	6.0
Fairmont Police Relief Association	5.0	5.0
Minneapolis Fire Department Relief Association	6.0	6.0
Virginia Fire Department Relief Association	5.0	5.0
Bloomington Fire Department Relief Association	6.0	6.0
local monthly benefit volunteer firefighters relief associations	5.0	5.0

(b) Before July 1, 2010, the actuarial valuation must use the applicable following single rate future salary increase assumption, the applicable following modified single rate future salary increase assumption, or the applicable following graded rate future salary increase assumption:

(1) single rate future salary increase assumption

plan	future salary increase assumption
legislators retirement plan	5.0%
elective state officers retirement plan	5.0
judges retirement plan	5.0
Minneapolis Police Relief Association	4.0
Fairmont Police Relief Association	3.5
Minneapolis Fire Department Relief Association	4.0
Virginia Fire Department Relief Association	3.5
Bloomington Fire Department Relief Association	4.0

(2) modified single rate future salary increase assumption

plan	future salary increase assumption
Minneapolis employees retirement plan	the prior calendar year amount increased first by 1.0198 percent to prior fiscal year date and then increased by 4.0 percent annually for each future year

(3) select and ultimate future salary increase assumption or graded rate future salary increase assumption

plan	future salary increase assumption
general state employees retirement plan	select calculation and assumption A

correctional state employees retirement plan	assumption ~~G~~ H
State Patrol retirement plan	assumption G
general public employees retirement plan	select calculation and assumption B
public employees police and fire fund retirement plan	assumption C
local government correctional service retirement plan	assumption G
teachers retirement plan	assumption D
Duluth teachers retirement plan	assumption E
St. Paul teachers retirement plan	assumption F

The select calculation is: during the ~~ten-year~~ designated select period, a designated ~~percent~~ percentage rate is multiplied by the result of ~~ten~~ the designated integer minus T, where T is the number of completed years of service, and is added to the applicable future salary increase assumption. The designated select period is five years and the designated integer is five for the general state employees retirement plan and the general public employees retirement plan. The designated select period is ten years and the designated integer is ten for all other retirement plans covered by this clause. The designated ~~percent~~ percentage rate is 0.2 percent for the correctional state employees retirement plan, the State Patrol retirement plan, the public employees police and fire plan, and the local government correctional service plan; ~~and 0.3~~ is 0.6 percent for the general state employees retirement plan~~,~~ and the general public employees retirement plan~~,~~; and is 0.3 percent for the teachers retirement plan, the Duluth Teachers Retirement Fund Association, and the St. Paul Teachers Retirement Fund Association.

The select calculation for the Duluth Teachers Retirement Fund Association is 8.00 percent per year for service years one through seven, 7.25 percent per year for service years seven through eight, and 6.50 percent per year for service years eight through nine.

The ultimate future salary increase assumption is:

~~age~~	~~A~~	~~B~~	~~C~~	~~D~~	~~E~~	~~F~~	~~G~~
~~16~~	~~6.95%~~	~~6.95%~~	~~11.50%~~	~~8.20%~~	~~8.00%~~	~~6.90%~~	~~7.7500%~~
~~17~~	~~6.90~~	~~6.90~~	~~11.50~~	~~8.15~~	~~8.00~~	~~6.90~~	~~7.7500~~
~~18~~	~~6.85~~	~~6.85~~	~~11.50~~	~~8.10~~	~~8.00~~	~~6.90~~	~~7.7500~~
~~19~~	~~6.80~~	~~6.80~~	~~11.50~~	~~8.05~~	~~8.00~~	~~6.90~~	~~7.7500~~
~~20~~	~~6.75~~	~~6.40~~	~~11.50~~	~~6.00~~	~~6.90~~	~~6.90~~	~~7.7500~~
~~21~~	~~6.75~~	~~6.40~~	~~11.50~~	~~6.00~~	~~6.90~~	~~6.90~~	~~7.1454~~
~~22~~	~~6.75~~	~~6.40~~	~~11.00~~	~~6.00~~	~~6.90~~	~~6.90~~	~~7.0725~~
~~23~~	~~6.75~~	~~6.40~~	~~10.50~~	~~6.00~~	~~6.85~~	~~6.85~~	~~7.0544~~
~~24~~	~~6.75~~	~~6.40~~	~~10.00~~	~~6.00~~	~~6.80~~	~~6.80~~	~~7.0363~~
~~25~~	~~6.75~~	~~6.40~~	~~9.50~~	~~6.00~~	~~6.75~~	~~6.75~~	~~7.0000~~
~~26~~	~~6.75~~	~~6.36~~	~~9.20~~	~~6.00~~	~~6.70~~	~~6.70~~	~~7.0000~~
~~27~~	~~6.75~~	~~6.32~~	~~8.90~~	~~6.00~~	~~6.65~~	~~6.65~~	~~7.0000~~
~~28~~	~~6.75~~	~~6.28~~	~~8.60~~	~~6.00~~	~~6.60~~	~~6.60~~	~~7.0000~~
~~29~~	~~6.75~~	~~6.24~~	~~8.30~~	~~6.00~~	~~6.55~~	~~6.55~~	~~7.0000~~
~~30~~	~~6.75~~	~~6.20~~	~~8.00~~	~~6.00~~	~~6.50~~	~~6.50~~	~~7.0000~~
~~31~~	~~6.75~~	~~6.16~~	~~7.80~~	~~6.00~~	~~6.45~~	~~6.45~~	~~7.0000~~
~~32~~	~~6.75~~	~~6.12~~	~~7.60~~	~~6.00~~	~~6.40~~	~~6.40~~	~~7.0000~~
~~33~~	~~6.75~~	~~6.08~~	~~7.40~~	~~6.00~~	~~6.35~~	~~6.35~~	~~7.0000~~
~~34~~	~~6.75~~	~~6.04~~	~~7.20~~	~~6.00~~	~~6.30~~	~~6.30~~	~~7.0000~~
~~35~~	~~6.75~~	~~6.00~~	~~7.00~~	~~6.00~~	~~6.25~~	~~6.25~~	~~7.0000~~
~~36~~	~~6.75~~	~~5.96~~	~~6.80~~	~~6.00~~	~~6.20~~	~~6.20~~	~~6.9019~~
~~37~~	~~6.75~~	~~5.92~~	~~6.60~~	~~6.00~~	~~6.15~~	~~6.15~~	~~6.8074~~
~~38~~	~~6.75~~	~~5.88~~	~~6.40~~	~~5.90~~	~~6.10~~	~~6.10~~	~~6.7125~~
~~39~~	~~6.75~~	~~5.84~~	~~6.20~~	~~5.80~~	~~6.05~~	~~6.05~~	~~6.6054~~
~~40~~	~~6.75~~	~~5.80~~	~~6.00~~	~~5.70~~	~~6.00~~	~~6.00~~	~~6.5000~~
~~41~~	~~6.75~~	~~5.76~~	~~5.90~~	~~5.60~~	~~5.90~~	~~5.95~~	~~6.3540~~
~~42~~	~~6.75~~	~~5.72~~	~~5.80~~	~~5.50~~	~~5.80~~	~~5.90~~	~~6.2087~~
~~43~~	~~6.65~~	~~5.68~~	~~5.70~~	~~5.40~~	~~5.70~~	~~5.85~~	~~6.0622~~
~~44~~	~~6.55~~	~~5.64~~	~~5.60~~	~~5.30~~	~~5.60~~	~~5.80~~	~~5.9048~~
~~45~~	~~6.45~~	~~5.60~~	~~5.50~~	~~5.20~~	~~5.50~~	~~5.75~~	~~5.7500~~
~~46~~	~~6.35~~	~~5.56~~	~~5.45~~	~~5.10~~	~~5.40~~	~~5.70~~	~~5.6940~~
~~47~~	~~6.25~~	~~5.52~~	~~5.40~~	~~5.00~~	~~5.30~~	~~5.65~~	~~5.6375~~
~~48~~	~~6.15~~	~~5.48~~	~~5.35~~	~~5.00~~	~~5.20~~	~~5.60~~	~~5.5822~~
~~49~~	~~6.05~~	~~5.44~~	~~5.30~~	~~5.00~~	~~5.10~~	~~5.55~~	~~5.5404~~

~~50~~	~~5.95~~	~~5.40~~	~~5.25~~	~~5.00~~	~~5.00~~	~~5.50~~	~~5.5000~~
~~51~~	~~5.85~~	~~5.36~~	~~5.25~~	~~5.00~~	~~5.00~~	~~5.45~~	~~5.4384~~
~~52~~	~~5.75~~	~~5.32~~	~~5.25~~	~~5.00~~	~~5.00~~	~~5.40~~	~~5.3776~~
~~53~~	~~5.65~~	~~5.28~~	~~5.25~~	~~5.00~~	~~5.00~~	~~5.35~~	~~5.3167~~
~~54~~	~~5.55~~	~~5.24~~	~~5.25~~	~~5.00~~	~~5.00~~	~~5.30~~	~~5.2826~~
~~55~~	~~5.45~~	~~5.20~~	~~5.25~~	~~5.00~~	~~5.00~~	~~5.25~~	~~5.2500~~
~~56~~	~~5.35~~	~~5.16~~	~~5.25~~	~~5.00~~	~~5.00~~	~~5.20~~	~~5.2500~~
~~57~~	~~5.25~~	~~5.12~~	~~5.25~~	~~5.00~~	~~5.00~~	~~5.15~~	~~5.2500~~
~~58~~	~~5.25~~	~~5.08~~	~~5.25~~	~~5.10~~	~~5.00~~	~~5.10~~	~~5.2500~~
~~59~~	~~5.25~~	~~5.04~~	~~5.25~~	~~5.20~~	~~5.00~~	~~5.05~~	~~5.2500~~
~~60~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.30~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~61~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.40~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~62~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.50~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~63~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.60~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~64~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.70~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~65~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.70~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~66~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.70~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~67~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.70~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~68~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.70~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~69~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.70~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~70~~	~~5.25~~	~~5.00~~	~~5.25~~	~~5.70~~	~~5.00~~	~~5.00~~	~~5.2500~~
~~71~~	~~5.25~~	~~5.00~~		~~5.70~~			

age	A	B	C	D	E	F	G	H
16	5.95%	5.95%	11.00%	7.70%	8.00%	6.90%	7.7500%	7.2500%
17	5.90	5.90	11.00	7.65	8.00	6.90	7.7500	7.2500
18	5.85	5.85	11.00	7.60	8.00	6.90	7.7500	7.2500
19	5.80	5.80	11.00	7.55	8.00	6.90	7.7500	7.2500
20	5.75	5.40	11.00	5.50	6.90	6.90	7.7500	7.2500
21	5.75	5.40	11.00	5.50	6.90	6.90	7.1454	6.6454
22	5.75	5.40	10.50	5.50	6.90	6.90	7.0725	6.5725
23	5.75	5.40	10.00	5.50	6.85	6.85	7.0544	6.5544
24	5.75	5.40	9.50	5.50	6.80	6.80	7.0363	6.5363
25	5.75	5.40	9.00	5.50	6.75	6.75	7.0000	6.5000
26	5.75	5.36	8.70	5.50	6.70	6.70	7.0000	6.5000
27	5.75	5.32	8.40	5.50	6.65	6.65	7.0000	6.5000
28	5.75	5.28	8.10	5.50	6.60	6.60	7.0000	6.5000
29	5.75	5.24	7.80	5.50	6.55	6.55	7.0000	6.5000
30	5.75	5.20	7.50	5.50	6.50	6.50	7.0000	6.5000
31	5.75	5.16	7.30	5.50	6.45	6.45	7.0000	6.5000
32	5.75	5.12	7.10	5.50	6.40	6.40	7.0000	6.5000
33	5.75	5.08	6.90	5.50	6.35	6.35	7.0000	6.5000
34	5.75	5.04	6.70	5.50	6.30	6.30	7.0000	6.5000
35	5.75	5.00	6.50	5.50	6.25	6.25	7.0000	6.5000

36	5.75	4.96	6.30	5.50	6.20	6.20	6.9019	6.4019
37	5.75	4.92	6.10	5.50	6.15	6.15	6.8074	6.3074
38	5.75	4.88	5.90	5.40	6.10	6.10	6.7125	6.2125
39	5.75	4.84	5.70	5.30	6.05	6.05	6.6054	6.1054
40	5.75	4.80	5.50	5.20	6.00	6.00	6.5000	6.0000
41	5.75	4.76	5.40	5.10	5.90	5.95	6.3540	5.8540
42	5.75	4.72	5.30	5.00	5.80	5.90	6.2087	5.7087
43	5.65	4.68	5.20	4.90	5.70	5.85	6.0622	5.5622
44	5.55	4.64	5.10	4.80	5.60	5.80	5.9048	5.4078
45	5.45	4.60	5.00	4.70	5.50	5.75	5.7500	5.2500
46	5.35	4.56	4.95	4.60	5.40	5.70	5.6940	5.1940
47	5.25	4.52	4.90	4.50	5.30	5.65	5.6375	5.1375
48	5.15	4.48	4.85	4.50	5.20	5.60	5.5822	5.0822
49	5.05	4.44	4.80	4.50	5.10	5.55	5.5404	5.0404
50	4.95	4.40	4.75	4.50	5.00	5.50	5.5000	5.0000
51	4.85	4.36	4.75	4.50	4.90	5.45	5.4384	4.9384
52	4.75	4.32	4.75	4.50	4.80	5.40	5.3776	4.8776
53	4.65	4.28	4.75	4.50	4.70	5.35	5.3167	4.8167
54	4.55	4.24	4.75	4.50	4.60	5.30	5.2826	4.7826
55	4.45	4.20	4.75	4.50	4.50	5.25	5.2500	4.7500
56	4.35	4.16	4.75	4.50	4.40	5.20	5.2500	4.7500
57	4.25	4.12	4.75	4.50	4.30	5.15	5.2500	4.7500
58	4.25	4.08	4.75	4.60	4.20	5.10	5.2500	4.7500
59	4.25	4.04	4.75	4.70	4.10	5.05	5.2500	4.7500
60	4.25	4.00	4.75	4.80	4.00	5.00	5.2500	4.7500
61	4.25	4.00	4.75	4.90	3.90	5.00	5.2500	4.7500
62	4.25	4.00	4.75	5.00	3.80	5.00	5.2500	4.7500
63	4.25	4.00	4.75	5.10	3.70	5.00	5.2500	4.7500
64	4.25	4.00	4.75	5.20	3.60	5.00	5.2500	4.7500
65	4.25	4.00	4.75	5.20	3.50	5.00	5.2500	4.7500
66	4.25	4.00	4.75	5.20	3.50	5.00	5.2500	4.7500
67	4.25	4.00	4.75	5.20	3.50	5.00	5.2500	4.7500
68	4.25	4.00	4.75	5.20	3.50	5.00	5.2500	4.7500
69	4.25	4.00	4.75	5.20	3.50	5.00	5.2500	4.7500
70	4.25	4.00	4.75	5.20	3.50	5.00	5.2500	4.7500
71	4.25	4.00		5.20				

(c) Before July 2, 2010, the actuarial valuation must use the applicable following payroll growth assumption for calculating the amortization requirement for the unfunded actuarial accrued liability where the amortization retirement is calculated as a level percentage of an increasing payroll:

plan	payroll growth assumption

general state employees retirement plan	~~5.00~~ 4.50%
correctional state employees retirement plan	~~5.00~~ 4.50
State Patrol retirement plan	5.00
legislators retirement plan	5.00
elective state officers retirement plan	5.00
judges retirement plan	5.00
general public employees retirement plan	~~6.00~~ 4.50
public employees police and fire retirement plan	6.00
local government correctional service retirement plan	6.00
teachers retirement plan	~~5.00~~ 4.50
Duluth teachers retirement plan	~~5.00~~ 4.50
St. Paul teachers retirement plan	5.00

(d) After July 1, 2010, the assumptions set forth in paragraphs (b) and (c) continue to apply, unless a different salary assumption or a different payroll increase assumption:

(1) has been proposed by the governing board of the applicable retirement plan;

(2) is accompanied by the concurring recommendation of the actuary retained under section 356.214, if applicable, or by the approved actuary preparing the most recent actuarial valuation report if section 356.214 does not apply; and

(3) has been approved or deemed approved under subdivision 18.

Sec. 10. Minnesota Statutes 2006, section 356.215, subdivision 11, is amended to read:

Subd. 11. **Amortization contributions.** (a) In addition to the exhibit indicating the level normal cost, the actuarial valuation of the retirement plan must contain an exhibit for financial reporting purposes indicating the additional annual contribution sufficient to amortize the unfunded actuarial accrued liability and must contain an exhibit for contribution determination purposes indicating the additional contribution sufficient to amortize the unfunded actuarial accrued liability. For ~~funds governed by chapters 3A, 352, 352B, 352C, 353, 354, 354A, and 490~~ the retirement plans listed in subdivision 8, paragraph (c), the additional contribution must be calculated on a level percentage of covered payroll basis by the established date for full funding in effect when the valuation is prepared~~. For funds governed by chapter 3A, sections 352.90 through 352.951, chapters 352B, 352C, sections 353.63 through 353.68, and chapters 353C, 354A, and 490, the level percent additional contribution must be calculated~~, assuming annual payroll growth ~~of 6.5 percent. For funds governed by sections 352.01 through 352.86 and chapter 354, the level percent additional contribution must be calculated assuming an annual payroll growth of five percent. For the fund governed by sections 353.01 through 353.46, the level percent additional contribution must be calculated assuming an annual payroll growth of six~~

~~percent~~ at the applicable percentage rate set forth in subdivision 8, paragraph (c). For all other ~~funds~~ retirement plans, the additional annual contribution must be calculated on a level annual dollar amount basis.

(b) For any ~~fund~~ retirement plan other than the Minneapolis Employees Retirement Fund and the general employees retirement plan of the Public Employees Retirement Association ~~general plan~~, if there has not been a change in the actuarial assumptions used for calculating the actuarial accrued liability of the fund, a change in the benefit plan governing annuities and benefits payable from the fund, a change in the actuarial cost method used in calculating the actuarial accrued liability of all or a portion of the fund, or a combination of the three, which change or changes by itself or by themselves without inclusion of any other items of increase or decrease produce a net increase in the unfunded actuarial accrued liability of the fund, the established date for full funding is the first actuarial valuation date occurring after June 1, 2020.

(c) For any ~~fund or~~ retirement plan other than the Minneapolis Employees Retirement Fund and the general employees retirement plan of the Public Employees Retirement Association ~~general plan~~, if there has been a change in any or all of the actuarial assumptions used for calculating the actuarial accrued liability of the fund, a change in the benefit plan governing annuities and benefits payable from the fund, a change in the actuarial cost method used in calculating the actuarial accrued liability of all or a portion of the fund, or a combination of the three, and the change or changes, by itself or by themselves and without inclusion of any other items of increase or decrease, produce a net increase in the unfunded actuarial accrued liability in the fund, the established date for full funding must be determined using the following procedure:

(i) the unfunded actuarial accrued liability of the fund must be determined in accordance with the plan provisions governing annuities and retirement benefits and the actuarial assumptions in effect before an applicable change;

(ii) the level annual dollar contribution or level percentage, whichever is applicable, needed to amortize the unfunded actuarial accrued liability amount determined under item (i) by the established date for full funding in effect before the change must be calculated using the interest assumption specified in subdivision 8 in effect before the change;

(iii) the unfunded actuarial accrued liability of the fund must be determined in accordance with any new plan provisions governing annuities and benefits payable from the fund and any new actuarial assumptions and the remaining plan provisions governing annuities and benefits payable from the fund and actuarial assumptions in effect before the change;

(iv) the level annual dollar contribution or level percentage, whichever is applicable, needed to amortize the difference between the unfunded actuarial accrued liability amount calculated under item (i) and the unfunded actuarial accrued liability amount calculated under item (iii) over a period of 30 years from the end of the plan year in which the applicable change is effective must be calculated using the applicable interest assumption specified in subdivision 8 in effect after any applicable change;

(v) the level annual dollar or level percentage amortization contribution under item (iv) must be added to the level annual dollar amortization contribution or level percentage calculated under item (ii);

(vi) the period in which the unfunded actuarial accrued liability amount determined in item (iii) is amortized by the total level annual dollar or level percentage amortization contribution computed under item (v) must be calculated using the interest assumption specified in subdivision 8 in effect after any applicable change, rounded to the nearest integral number of years, but not to exceed 30 years from the end of the plan year in which the determination of the established date for full funding using the procedure set forth in this clause is made and not to be less than the period of years beginning in the plan year in which the determination of the established date for full funding using the procedure set forth in this clause is made and ending by the date for full funding in effect before the change; and

(vii) the period determined under item (vi) must be added to the date as of which the actuarial valuation was prepared and the date obtained is the new established date for full funding.

(d) For the Minneapolis Employees Retirement Fund, the established date for full funding is June 30, 2020.

(e) For the general employees retirement plan of the Public Employees Retirement Association, the established date for full funding is June 30, 2031.

(f) For the Teachers Retirement Association, the established date for full funding is June 30, 2037.

(g) For the correctional state employees retirement plan of the Minnesota State Retirement System, the established date for full funding is June 30, 2038.

(h) For the judges retirement plan, the established date for full funding is June 30, 2038.

(i) For the public employees police and fire retirement plan, the established date for full funding is June 30, 2038.

~~(g)~~ (j) For the retirement plans for which the annual actuarial valuation indicates an excess of valuation assets over the actuarial accrued liability, the valuation assets in excess of the actuarial accrued liability must be recognized as a reduction in the current contribution requirements by an amount equal to the amortization of the excess expressed as a level percentage of pay over a 30-year period beginning anew with each annual actuarial valuation of the plan.

(k) In addition to calculating the unfunded actuarial accrued liability of the retirement plan for financial reporting purposes under paragraphs (a) to (j), the actuarial valuation of the retirement plan must also include a calculation of the unfunded actuarial accrued liability of the retirement plan for purposes of determining the amortization contribution sufficient to amortize the unfunded actuarial liability of the Minnesota Post Retirement Investment Fund. For this exhibit, the calculation must be the unfunded actuarial accrued liability net of the postretirement adjustment liability funded from the investment performance of the Minnesota Post Retirement Investment Fund or the retirement benefit fund.

Sec. 11. Minnesota Statutes 2006, section 356.215, subdivision 18, is amended to read:

Subd. 18. **Establishment of actuarial assumptions.** (a) Before July 2, 2010, the actuarial assumptions used for the preparation of actuarial valuations under this section that are other than ~~those set forth in this section~~ preretirement interest, postretirement interest, salary increase, and payroll increase may be changed only with the approval of the Legislative Commission on Pensions and Retirement or after a period of six months have elapsed since the date on which the proposed assumption change or changes were received by the Legislative Commission on Pensions and Retirement without commission action.

(b) After July 1, 2010, the actuarial assumptions used for the preparation of actuarial valuations under this section that are other than postretirement interest and preretirement interest may be changed only with the approval of the Legislative Commission on Pensions and Retirement or after a period of six months have elapsed since the date on which the proposed assumption change or changes were received by the Legislative Commission on Pensions and Retirement without commission action.

~~(b)~~ (c) A change in the applicable actuarial assumptions may be proposed by the governing board of the applicable pension fund or relief association, by the actuary retained by the joint retirement systems under section 356.214, by the actuarial advisor to a pension fund governed by chapter 352, 353, 354, or 354A, or by the actuary retained by a local police or firefighters relief association governed by sections 69.77 or 69.771 to 69.776, if one is retained.

Sec. 12. Minnesota Statutes 2007 Supplement, section 356.96, subdivision 1, is amended to read:

Subdivision 1. **Definitions.** (a) Unless the language or context clearly indicates that a different meaning is intended, for the purpose of this section, the terms in paragraphs (b) to (e) have the meanings given them.

(b) "Chief administrative officer" means the executive director of a covered pension plan or the executive director's designee or representative.

(c) "Covered pension plan" means a plan enumerated in section 356.20, subdivision 2, clauses (1) to (4), (10), and ~~(12) to (14)~~ (13) to (15), but does not mean the deferred compensation plan administered under sections 352.96 and 352.97 or to the postretirement health care savings plan administered under section 352.98.

(d) "Governing board" means the Board of Trustees of the Public Employees Retirement Association, the Board of Trustees of the Teachers Retirement Association, or the Board of Directors of the Minnesota State Retirement System.

(e) "Person" includes an active, retired, deferred, or nonvested inactive participant in a covered pension plan or a beneficiary of a participant, or an individual who has applied to be a participant or who is or may be a survivor of a participant, or a state agency or other governmental unit that employs active participants in a covered pension plan.

Sec. 13. **EFFECTIVE DATE.**

(a) Section 1 is effective June 30, 2008.

(b) Sections 2 to 12 are effective June 30, 2008, and apply to annual financial reports and actuarial valuations prepared after June 1, 2008.