

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
ACTUARIAL COMMITTEE MEETING

Location:

Captain Cook Hotel
Club Room
939 West Fifth Avenue
Anchorage, Alaska

May 3, 2018

ATTENDANCE

Committee Present: Kristin Erchinger, *chair*
Commissioner Sheldon Fisher (by telephone)
Gayle Harbo,
Rob Johnson
Commissioner Leslie Ridle
Norm West (arrived 10:06 a.m.)
Bob Williams
Tom Brice

Department of Revenue Staff Present:
Bob Mitchell (chief investment officer) (by telephone)
Stephanie Alexander (board liaison)

Department of Administration Staff Present:
Ajay Desai (director, Division of Retirement & Benefits)
Kevin Worley (chief financial officer, Division of Retirement & Benefits)

Others Present:
William (Bill) Detweiler (Conduent Human Resource Service, actuary)
David Driscoll (Conduent Human Resource Service, actuary)
David Kershner (Conduent Human Resource Service, actuary)
Stuart Schulman (Conduent Human Resource Service, actuary) (by telephone)
Scott Young (Conduent Human Resource Service, actuary)
Leslie Thompson (Gabriel, Roeder, Smith & Company (GRS) Retirement Consulting,
review actuary)
Paul Wood (GRS Retirement Consulting, review actuary)

I. CALL TO ORDER

CHAIR KRISTIN ERCHINGER called the meeting to order at 10:01 a.m.

ROLL CALL

Seven committee members were present at roll call to form a quorum. MR. WEST joined the meeting at 10:06 a.m. to bring the attendance to eight members.

III. PUBLIC MEETING NOTICE

Board liaison STEPHANIE ALEXANDER confirmed public meeting notice had been met.

IV. A. APPROVAL OF AGENDA

MRS. HARBOR moved to approve the agenda. MR. BRICE seconded the motion. The motion passed without objection.

B. APPROVAL OF MINUTES - March 28, 2018

MR. BRICE moved to approve the minutes of the March 28, 2018 meeting. MR. WILLIAMS seconded the motion. The minutes were approved as presented.

V. PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS, AND APPEARANCES

There was no one present at the meeting or listening by telephone who wished to speak to the committee. There were no written communications for the committee.

VI. A. 2017 EXPERIENCE STUDY: Analysis and Demographic Assumptions

DAVID KERSHNER, DAVID DRISCOLL, BILL DETWEILER, and SCOTT YOUNG of Conduent HR Services gave the PowerPoint presentation that was focused primarily on demographic assumptions. The presentation also reviewed the economic assumptions and funding method considerations discussed during the December and March meetings. Each demographic assumption should be the best estimate of future long-term expectations which matches the long-term funding perspective of the plan. In addition, setting the demographic assumptions blends the art of subjectivity with the science of numerical figures. *[A copy of Conduent's slide presentation of the 2017 Experience Study: Demographic Assumptions is on file at the ARMB office]*

MR. KERSHNER showed the complete list of demographic assumptions used to predict expected patterns of behavior of plan participants. The purpose of an experience study is to analyze what has happened in the last four years regarding demographic assumptive behavior such as, retirement, termination, and disability. The result is actual experience (A) data. The expected experience (E) over that same four-year period is based on the most recent set of assumptions. The comparison between the actual experience and the expected experience is known as the A/E ratio. When the A/E ratio is greater than 100%, the actual experience produced more effects than expected. When the A/E ratio is less than 100%, the actual experience was less than expected. Depending on the assumption, an A/E ratio greater or less than 100% indicates if the current assumption is too conservative or not conservative enough.

MR. KERSHNER indicated the use of pension liabilities versus the use of pension and healthcare liabilities produce materially the same result. Some of the assumptions, like the participation assumption for healthcare, for instance, are retiree medical specific. The A/E ratios shown in this presentation are weighted primarily by pension liabilities. The DCR withdrawal rates are weighted by number of people.

MR. KERSHNER explained the mortality assumption considerations are based on national information and then adjusted for actual Alaska experience. It is comprised of the male and female base tables, consisting of the probabilities of dying at various ages. Mortality improvement means people are living longer. The base tables can be comprised with projected mortality improvement, no projected mortality improvement, or generational mortality improvement. Observable data indicates generational mortality improvement is occurring, which means those born more recently are expected to live longer. The current mortality assumption based on the 2013 experience study uses the industry gold standard RP-2000 table with mortality improvement projected to 2018. The Teachers' Retirement System (TRS) adjusts for the Alaska experience and uses a conservative age setback. Flat percentages of base table rates are used for certain groups to achieve A/E ratios of approximately 110%. Going forward, the age setback and 110% ratio assumptions will be replaced with a future mortality improvement scale that aligns more closely with the experience.

MR. KERSHNER described the process the Society of Actuaries (SOA) underwent in publishing the most recent mortality table for private sector plans, RP-2014. Data from public sector plans was excluded from the RP-2014 because the initial public sector data results were very limited and widely disparate. The SOA is currently studying a much larger cross-section of public sector plans to generate a mortality table specifically for public sector plans. The expectation now is the public sector table will be similar to the RP-2014 table. MR. DRISCOLL explained the SOA updates the mortality improvement projection scale every year, with the most recent one being MP-2017. If the new public sector table does not significantly differ from the RP-2014 table, Conduent would not suggest the ARMB immediately adopt the new public sector specific table.

MR. WEST shared his experience in the for-profit sector in adopting the RP-2014 tables. He commented the adoption has not gone easily and has led to additional monies being spent on actuarial and audit fees. He noted the MP scales adjusted every year have been conservative, which makes the plan have more assets and increases the funded liabilities because the life expectancy of the participants are extended.

MR. KERSHNER informed the ARMB could decide to adopt an assumption now that is based on the RP-2014/MP-2017, and within the four years, change the adoption to an assumption using the most recent mortality improvement scale that may be less conservative at the time of valuation. The Actuarial Standards of Practice do require some consideration for mortality improvement be considered for purposes of setting a reasonable mortality assumption at the time of valuation.

MR. KERSHNER described Conduent's proposed changes to mortality assumptions:

- The base table will change to RP-2014 with MP-2017 generational improvement.
- The RP-2014 table will be altered to reflect Alaska experience using the process for healthy lives from the Society of Actuaries August 2017 publication titled *Credibility*

Educational Resource for Pension Actuaries: Application of Credibility Theory to Mortality Assumption.

- The RP-2014 benefit weighted version will be rolled back to 2006 using MP-2014, then projected forward with MP-2017.
- The white collar version of RP-2014 was used for TRS, and non-collared version was used for the Public Employees' Retirement System (PERS).
- The benefit dispersion and credibility factors were determined for TRS and PERS based on actual and expected experience.
 - Pre-termination: RP-2014 rates used without adjustments
 - Post-retirement: RP-2014 rates adjusted as shown on *slide 13*
- No adjustments were made to RP-2014 disabled rates with MP-2017 generational improvement.

MR. KERSHNER explained the credibility theory for healthy lives was used to determine the mortality assumption changes because the experience study of mortality during the four years was too small for the full credibility determination. Each group would require between 1,500 and 2,500 deaths to have occurred during the four-year period for full credibility. The actual experience for pre-termination Peace/Fire was 10 deaths, TRS was 25 deaths, and PERS/other was 147 deaths. MR. KERSHNER explained the impact of the pre-termination mortality numbers on the liabilities is relatively insignificant because of the low numbers. The post-termination mortality numbers drive the majority of the liabilities in the contribution rates.

COMMISSIONER FISHER requested additional explanation.

MR. KERSHNER discussed each pre-termination mortality assumption change in a side-by-side comparison between the current assumption and the proposed assumption (*starting on slide 12*). The A/E ratio was shown for both current and proposed changes. The numerator, which is the actual experience, remains the same for both the current and proposed. The denominator, which is RP-2000 for the current assumption, changes to RP-2014 for the proposed assumption. The current A/E ratio uses a different basis than the proposed A/E ratio and translates to a decreased percentage. MR. KERSHNER informed the Defined Contribution Retirement (DCR) assumptions are the same as corresponding Defined Benefit (DB) assumptions, unless they are shown separately in the presentation.

MR. KERSHNER reviewed each post-termination mortality assumption change in a side-by-side comparison between the current assumption and the proposed assumption. He reiterated the proposed assumption used the credibility theory for healthy lives. Using the actual experience and for TRS, the male rates adjust to 93% and female rates adjust to 90%. The resulting A/E ratios are roughly 90%, which means the plan is predicting slightly more deaths than we actually had. The result is if the actual experience continues for the next four years, small mortality losses will be generated and the liability will be a little bit higher every year than predicted.

MR. BRICE commented higher liability is not desired. He requested further explanation regarding the differences between the current A/E ratios and proposed A/E ratios.

LESLIE THOMPSON, GRS, informed GRS is supportive of the changes and added she understands members' concerns because the A/E ratios are not intuitive. MR. KERSHNER indicated the assumption cannot be set by the few number of actual deaths because it is not statistically credible. It is possible to keep the current RP-2000 mortality assumption and extend the mortality improvement to generational. MR. KERSHNER believes it is reasonable to assume continued future mortality improvement. The suggested RP-2014 change reflects the most recent mortality study available. He noted it is possible to adjust the numbers in order to reach an A/E ratio closer to 100%. MR. KERSHNER recommended revisiting this discussion during the review of the cost impact later in the presentation.

CHAIR ERCHINGER agreed to revisit the discussion. She commented the assumptions are important to members because of Alaska's unique experience, particularly with opioid deaths, high-risk recreational activities like bungee jumping, and high-risk job activities like crab fishing.

MR. BRICE suggested information from the Alaska Bureau of Vital Statistics be utilized to provide accurate data for Alaskans that can be used in the assumptions. He stated the ARMB needs to ensure the Legislature has confidence in this process.

MR. KERSHNER reminded members these are the board's assumptions and the board can reasonably change any of the proposed assumptions. The information being presented is based on the analysis and data. It is the responsibility of the board to adopt the proposed assumptions or some modification of the proposed assumptions.

MR. WILLIAMS inquired as to the reason age set-backs rates were not used in the proposed assumptions, as in the current assumptions. MR. DRISCOLL commented the age set-back of four years would treat a 60-year-old person as if the person were 56 years old. The introduction of the projection scales and the ability to use generationally projected improvement scales has superseded set-backs as the way of incorporating a margin for future improvement. MR. DRISCOLL believes set-backs are most often used as a way to fit the table more closely to the pattern of mortality observed in the data and far less often used as a way of introducing an additional margin for future improvements in longevity.

MR. KERSHNER continued the presentation on *slide 14* focusing on the post-retirement mortality for disabled lives. He reiterated the A/E ratios shown are skewed because there were very few deaths of disabled lives. There were no deaths of male disabled retirees in the four-year period. Conduent's proposed assumption makes the mortality assumption more conservative in expecting fewer deaths by moving to the disabled RP-2014 with MP-2017 generational improvement.

COMMISSIONER RIDLE noted Conduent authored a fiscal note for a teacher retiree/hire bill currently in front of the Legislature. She does not believe the bill will pass this year, but may pass next year. COMMISSIONER RIDLE asked MR. KERSHNER if Conduent recommends updating the assumptions in the fiscal note now. MR. KERSHNER replied Conduent could revise the 2017 current assumptions that were used, if requested. The assumptions being discussed now will be used in the upcoming 2018 valuations. If Conduent reviews the fiscal

note in six months, the most current new rates will be used to revise and prepare the assumptions.

MR. KERSHNER reviewed the summary of current assumptions versus proposed assumptions for the unreduced retirement benefit. These only apply to the DB plans because there is no unreduced retirement benefit in the DCR plans. The rates are sex distinct for PERS Others, PERS Peace/Fire (P/F), and TRS. All three categories, except for TRS male, have current A/E ratios of greater than 100%, which indicates more liability was generated due to unreduced retirement than the current retirement rates expected. The proposed adjustment to PERS Others is to increase all of the age-specific rates by 10%, which will result in an A/E ratio of 107%, different from the current A/E ratio of 118%. The proposed adjustment to PERS P/F is to increase male rates by 10%, which will result in the male A/E ratio of 104%, different from the current A/E ratio of 115%. There is no proposed adjustment for female rate and the A/E ratio of 101% will remain. The overall A/E ratio will change from the current of 105% to 101%.

CHAIR ERCHINGER commented she believes members are not leaving the workforce and will work for more years in order to qualify for full retirement. MR. DRISCOLL clarified the unreduced retirement assumptions are the projections for members who have satisfied the criteria to actually take the full unreduced retirement.

MR. WILLIAMS requested explanation of the notation *100% at the age of 85* used in the TRS section. MR. KERSHNER explained the reference assumes 100% of the TRS members will have retired by age 85. Conduent suggests lowering the age for TRS to age 80, and lowering PERS Others age from 90 to age 80. The actual experience does not reflect anyone working after the age of 80. MR. WILLIAMS expressed his surprise to see age 90 reflected in the numbers and believes the age of 80 is still a fairly high.

MR. KERSHNER continued the presentation on *slide 16* describing the current and proposed assumptions for reduced retirement for PERS Others, PERS P/F, and TRS. The DCR rates and DB rates are different. The pattern of behavior for DCR and DB was assumed to be different in 2013 when the retirement rates were set. There are no suggested changes to the PERS DCR and TRS DCR. There are no suggested changes for deferred vested retirement.

MR. DETWEILER provided a detailed explanation of the differences in liability valuations between withdrawal rates and retirement rates. Withdrawal rates are applied before a member becomes eligible for retirement. When the member becomes eligible for retirement, the withdrawal rates cease and the retirement rates are applied. Both withdrawal and retirement rates measure the probability an active member will leave service for reasons besides death or disability. Withdrawal rates are viewed in terms of a select period and an ultimate period. The select period is during the years before a member becomes vested. The patterns seen in the select period are based on service, and subsequently the withdrawal rates are applied based on service. The ultimate period is after a member becomes vested, which is five years in PERS and eight years in TRS. The pattern seen in the ultimate period is based on age, and subsequently the withdrawal rates are applied based on age.

MR. DETWEILER informed there are no proposed changes for select withdrawal rates for PERS Others, PERS P/F, TRS, and TRS DCR. He reviewed the proposed changes to the PERS DCR others is to increase all rates by 5%. The proposed changes to the PERS DCR P/F is to increase male rates by 5% and female rates by 25%. These changes decrease each distinct A/E ratio closer to 100%.

MR. DETWEILER reviewed the proposed changes for ultimate withdrawal age-based rates in every category; PERS Other, PERS P/F, TRS, PERS DCR Others, PERS DCR P/F, and TRS DCR. These are for members who are vested, but not yet eligible for retirement. MR. DETWEILER outlined the proposed changes for disability rates in each category; PERS Others, PERS P/F, and TRS. All of the proposed changes bring the A/E ratios closer to 100%. The occupational-related death and disability rates have proposed changes for both PERS Others and PERS P/F, no proposed changes for TRS.

MR. DETWEILER directed the committee's attention to the overall A/E ratios for the ultimate withdrawal rates for DB PERS Others and PERS P/F and noted it is over 100%. This indicates there are more terminations than expected. However, the four-year gain/loss analysis previously presented showed withdrawal losses, which normally indicate there are fewer terminations than expected. MR. DETWEILER explained the discrepancy is due to the gain/loss analysis including eligible retirees who are not receiving benefits. The ultimate withdrawal analysis does not include the same eligible retirees who are not receiving benefits. This terms used are active status and deferred vested status.

The analysis shows a disproportionate number of retirees who are no longer working and have deferred the commencement of their retirement benefits. The reasons for this could include the normal lag between retirement, processing of papers, and the June 30th valuation. MR. DETWEILER informed the data will be further analyzed to ensure staff is comfortable with the results. It may be a timing issue rather than a behavior issue. MR. JOHNSON suggested Alaska is unique in the situation where there are many Tier I instances when the husband and wife are both working for the system. It is possible one of the spouses may have stopped working, but the other spouse continues to work and tax consequences are taken into considerations. MRS. HARBO expressed other members may leave service and defer benefits until 100% of the healthcare is paid.

MR. KERSHNER explained vested members who withdraw their contributions at termination give up the right for a future benefit. The recent four-year data shows fewer vested people than currently assumed are electing to withdraw their contributions. In fact, no TRS participants withdrew contributions at termination in the last four years. The proposed assumption is to decrease PERS Others to 5%, decrease PERS P/F to 10%, and decrease TRS to 0%.

MR. YOUNG continued the presentation discussing the importance of the marriage assumptions on the retiree medical benefits. The analysis reviewed the historical data and adjusted the proposed assumptions to incorporate the approximately 13% of retirees who have dual coverage, meaning the husband and wife both work for the system and are receiving

coverage as an employee and as a dependant. The proposed percentage reduction is intended to reflect the actual experience of dependent coverage.

MS. THOMPSON noted the marriage assumption section has become a spousal election assumption, reflecting how many spouses were elected to be covered at retirement, as opposed to how many members are married. She recommended changing the title.

MR. WILLIAMS asked if it is possible to clearly identify the number of members who are married and dually covered from the number of members who are married and not dually covered. He expressed concern the marriage assumption percentage rate is being reduced by a factor that is not represented.

MR. YOUNG indicated the suggestion by MR. WILLIAMS would mathematically get to the same point. The presented table is a simplified and more common way to value by reducing the number of married members by the estimated percentage amount that are dually covered.

CHAIR ERCHINGER asked if the significant number of dually covered members is unique to the Alaska experience. MR. YOUNG agreed. CHAIR ERCHINGER requested an explanatory footnote be added to the assumption because it is misleading to suggest the focus is on marriage rates when the rates are altered.

MR. DRISCOLL asked if there is agreement the title should be changed to Spousal Coverage Assumption. MS. THOMPSON agreed. MRS. HARBO agreed. CHAIR ERCHINGER agreed.

MR. KERSHNER reviewed the DB plans Alaska residency for the cost of living adjustment (COLA) and found the actual data was reasonably close to the current data. There is no proposed change. The actual data for part-time service earned during the year for DB plans was reasonably close to the current data for PERS P/F and TRS. It was higher for PERS Other and the suggestion is to slightly increase its assumption.

CHAIR ERCHINGER recessed the meeting from 12:02 p.m. to 1:31 p.m.

MR. YOUNG resumed the presentation of the experience study and demographic assumptions on *slide 25*. There is no proposed change to the current DB healthcare participation for system-paid. The recommendation to keep the assumption at 100% upon eligibility was confirmed to be appropriate by MICHELLE MICHAUD. The non-system paid category for DB healthcare participation proposed assumption increases from 10% to 20% upon eligibility. MR. YOUNG informed this is based on recent data. This change has minimal effect on the liability.

MR. YOUNG described the DCR healthcare participation assumptions are more complicated because there are multiple factors to consider. They are divided into three sets:

- If participant retires directly from disability
 - Subdivided by age <56 to 65+

- Proposed assumption is 100% at age 65 and decreases 2.5% per year prior to age 65
- If participant retires directly from employment - before age 65
 - Subdivided by age 55 to 64
 - Proposed assumption is 100% at age 65 and decreases 5% per year prior to age 65, plus a combination of proposed service-based rates if retire at age 65+
- If participant retires directly from employment - age 65+
 - Subdivided by years of service, <15 to 30+
 - Proposed assumption is 95% at 30+ years of service and decreases 5% per five years of service, until 75% at <15 years

MR. YOUNG noted there are very few members of retirees in this category. The proposed assumptions are slight refinements and simplifications, which will make it easier to understand until actual data can be analyzed. MR. YOUNG informed the proposed changes for the healthcare morbidity was based on information provided by Aetna.

MR. BRICE inquired as to the administrative aspect of retrieving information from Aetna. MR. YOUNG informed Aetna provided a specific report for this analysis.

MR. KERSHNER began the discussion regarding rehire assumptions. Based on previous GRS comments about rehire losses during the 2015 valuation, the decision was made to introduce rehire assumptions as a percentage load to the normal cost amounts, beginning with the 2016 valuations. Alaska has a significant number of people who are rehired. These employees come back with a higher liability as a rehire than when they were valued as either terminated or retired.

The proposed assumption calculation uses a similar approach to the current assumption, with the five-year consideration period ending June 30, 2017. MR. KERSHNER believes the rehire load approach continues to be reasonable. It is adjusted after every experience study. The cost load for PERS pension increased from 14.23% to 18.77%. Healthcare remained about the same from 17.24% to 17.09%. For TRS, the cost load for pension decreased from 18.49% to 15.57%. Healthcare increased from 10.39% to 12.03%.

COMMISSIONER FISHER asked if the process accounts for a comparison between the cost liability of hiring of a new person to the system versus hiring the rehire. MR. KERSHNER stated the process does no such comparison. New hires are reflected in long-term projections and do not go into the DB plan. They go into the DCR plan. If a rehire was in the DB plan, the rehire goes back into the DB plan.

MR. BRICE commented the magnitude of the load in the model seems high. CHAIR ERCHINGER requested additional information and explanation of this issue be presented at a future date. MR. WILLIAMS requested the actual dollar amount be represented, in addition to the percentage amount.

MR. YOUNG stated there are no changes proposed for the number of dependent children receiving medical coverage, and no changes for the number of unused sick days.

MR. DETWEILER explained the active population growth for PERS and TRS DB active and DCR active impacts projections and the two-year roll-forward contribution rate, but does not impact the annual valuations. No changes are proposed to the current 0% overall active population growth assumption.

MRS. HARBO commented she believes the number of jobs and employees in the plan is decreasing because people are leaving the state. CHAIR ERCHINGER agreed. MR. BRICE agreed.

MR. KERSHNER noted an introduction of a long-term declining population growth assumption of negative 1% per year would not affect the calculation of the cost and liabilities, but it would decrease the payroll base, which would increase the contribution rates, and therefore increase the additional state contribution as a percentage of pay basis.

COMMISSIONER FISHER requested additional framework and modeling to review this issue. MR. BRICE suggested Department of Labor may have good information to use. MR. WEST commented on Alaska's recent economic and population trends. He believes the long-term trend for Alaska's population and economy is upward growth. CHAIR ERCHINGER agreed with MR. BRICE's comments regarding the economy. She expressed concern regarding the significant adverse effects on payroll if layoffs occur or if pay is downscaled.

MS. THOMPSON suggested the possibility of two population growth numbers, one reflecting the 30-year growth projections, and more importantly, the other reflecting what is expected in the next two years for the two-year roll-forward calculation. She recommended Conduent discuss the issues and any known information regarding the next two years.

MR. KERSHNER noted MS. THOMPSON's comments bring up an excellent point. The ability to predict population growth in the short-term is better. The two-year expectations for population growth is more impactful and will affect the contribution rate. The 30-year projection is a long-term budgeting exercise.

COMMISSIONER FISHER inquired as to the process to resolve the issue. He believes it is appropriate to maintain a 0% growth assumption of the active employee population for the next two years. His understanding is the state operating budget will not be cut next year. He is confident a fiscal plan in the next couple of years will close the current gap. COMMISSIONER FISHER believes the 30-year active employee population growth will be more than 0%, based on his conviction of long-term economic growth and expansion in the state.

MR. WILLIAMS noted he is comfortable with the 0% active employee population growth for the next two years. He expressed optimism for population growth in the long-term, but realizes there are many variables and uncertainty for long-term projections.

MR. BRICE suggested a representative from the Department of Labor speak with the board at the June meeting regarding short-term and long-term Alaskan economic growth assumptions. COMMISSIONER FISHER agreed it would be helpful to get perspective from economists.

CHAIR ERCHINGER disagreed that this discussion is about the Alaskan economy. She believes the discussion is about the state and municipality's budget and payroll.

MR. DETWEILER reviewed the assumptions for the Judges Retirement System (JRS). The pre-termination mortality (healthy), post-termination mortality (healthy), post-retirement mortality (disabled), and healthcare morbidity assumptions are the same as the current TRS assumptions. The proposed change is to be the same as the proposed TRS assumptions. There are no proposed changes to the retirement, withdrawal, deferred vested age at retirement, disability, withdrawal of contributions at termination, percent married, age difference, and healthcare participation assumptions.

MR. DETWEILER reviewed the assumptions for the National Guard and Naval Militia Retirement System (NGNMRS). The pre-termination mortality (healthy), post-termination mortality (healthy), post-retirement mortality (disabled), and disability assumptions are the same as the current PERS assumptions. The proposed change is to be the same as the proposed PERS assumptions. There is no proposed change to deferred vested age at retirement. The age rates retirement assumptions are proposed to change, decreasing the overall A/E ratio from 133% to 104%, decreasing the male A/E ratio from 133% to 104% and decreasing the A/E female ratio from 135% to 106%. The proposed withdrawal assumption changes will decrease the overall A/E ratio from 161% to 102%, decrease the male A/E ratio from 154% to 103%, and decrease the female A/E ratio from 161% to 102%. The proposed change for the form of payment is 70% of all assumed to elect a lump sum.

MR. KERSHNER continued the presentation discussing the cost impact of the demographic assumption changes for PERS/TRS DB for pension and healthcare, and for PERS/TRS DCR for occupational death/disability, retiree medical. No cost impact analysis was completed on JRS and NGNMRS assumptions because the change is minimal. The data is based on the economic assumptions from the June 30, 2017 valuation. The funded ratio compares the actuarial value of assets and the actuarial accrued liability. The impact on funded ratio does not include investment return economic assumptions. The items showing a cost impact of zero is due to rounding.

The PERS DB funded status would change from 76.7% to 74.9%, and the contribution rate would increase by 2.11%. The decrease in the funded ratio is expected to be short-term because of the increased contribution rate. The TRS DB funded ratio would change from 82% to 84.2%, and the contribution rate would decrease by 2.07%. MR. KERSHNER reviewed the cost impact results of each of the proposed assumptions changes.

CHAIR ERCHINGER asked if Conduent has actuarial information showing a look-back of the last 10 years' assumption changes and the effects on the aggregate funded ratio. She expressed concern the funded ratio is consistently declining and suggested an added element of conservatism on the rate could be considered. MR. KERSHNER noted the experience

study every four years provides the actual information on which the adjustments are based. The intent is the adjustments will bring the experience closer to the projections going forward.

MR. DRISCOLL explained a decreasing funded ratio could occur, even if the actuarial assumptions are completely accurate. Two factors that could decrease the funded ratio are contributing less than the actuarially recommended level and participating in level percent of pay amortization. The issue regarding reducing the unfunded liability and increasing the funded ratio is related more to funding policy than actuarial assumptions. The presentation today is a measurement of the system's financial health.

MRS. HARBO commented the improved healthcare data over the last few years has contributed to getting closer to the goals.

MR. BRICE requested additional discussion before a vote at the June meeting regarding the mortality assumptions presented. He is not confident the proposed assumptions are reflective of experience. MR. BRICE indicated the funding policy and participation in level percent of pay amortization was set by the Legislature in 2014, and would have to be addressed by the Legislature for statute changes to occur.

CHAIR ERCHINGER reminded members about previous ARMB discussions regarding creating a funding policy. She believes it is important for the ARMB to develop a funding policy, as a matter of due diligence, and provide it to the Legislature as a recommendation. The ARMB does not have the ability to impact funding. The ARMB does have the ability to affect assumptions, but is unable to secure assumptions that will increase the contribution rates for a fully funded system. CHAIR ERCHINGER feels the ARMB has the responsibility to ensure the system is fully funded and expressed frustration the ARMB does not have the tools to implement, but yet is held accountable for not attaining a fully funded system. CHAIR ERCHINGER noted limited resources and the possibility of not having enough money to fund the system are separate and distinct issues.

MR. BRICE agreed with the development of a funding policy and offering the information as a pathway to attain the funding level goals. He understands the ARMB's funding policy would be a "perfect world" solution.

MR. KERSHNER continued the presentation and noted the same amount of detailed cost impact information for proposed demographic assumptions was specified for TRS, PERS DCR, and TRS DCR. MR. DETWEILER showed the four-year history of liability demographic gain/loss information for PERS, TRS, PERS DCR, and TRS DCR. The PERS termination row reflects withdrawals and includes members who changed their status from active service to deferred vested service, even though they were retirement eligible. The data is included as part of the retirement withdrawal assumptions in the experience study, but are classified as termination losses in the gain/loss analysis.

MR. DETWEILER explained the first three years of the rehires show large losses, which is the reason the rehire loss load was added into the normal cost. FY17 is still showing a loss, but it is much lower. The load was altered again as discussed in the attempt to bring the loss

as close to zero as possible. MR. DETWEILER showed the liability demographic gains/losses for TRS and indicated the rehires show a gain in FY17 because the assumption load overestimated the amount of liability loss. The proposed for change to the assumption is intended to bring the result closer to zero. Neither the PERS DCR nor the TRS DCR have implemented a rehire load because the liabilities are not large and the losses have not been significant.

MR. KERSHNER indicated the summary of economic assumptions presented in December were included in the packet for members to review. Conduent will present the additional analysis on the economic assumptions during the June meeting requested previously by Chief Investment Officer BOB MITCHELL.

MR. KERSHNER directed the members' attention to *slide 63* outlining the three potential changes to the funding method reviewed in detail at the March meeting. MR. KERSHNER provided responses to questions raised at the March meeting in this section. The previous question was asked if changing the healthcare normal cost from level dollar to level percentage of pay was required by statute. Conduent reviewed the statutes and did not find the specific requirement of level dollar. The statutes refer to an appropriate normal cost or an actuarially determined normal cost.

MR. KERSHNER reviewed an additional previous question regarding best practice in reference to changing the amortization method from a closed 25-year period to a "layered approach." Conduent listed the white paper titled "Actuarial Funding Policies and Practices for Public Pension Plans" published in October of 2014 in the Public Plans Community publication and the information quoted from the 2016 Government Finance Officers Association related to the amortization period as best practice. The layered approach to amortization is not asset smoothing.

MR. JOHNSON urged the Department of Revenue and Department of Administration request the Attorney General's Office conduct a legal review of the three proposed funding method considerations and provide the ARMB with a legal opinion as to whether or not the proposed funding method considerations are appropriate and consistent. MR. KERSHNER stated utilizing a layered approach for the amortization method would require a change in the statutory language at AS37.10.220(a)(8) regarding the closed term of 25 years.

COMMISSIONER FISHER commented on the redundancy on the discussion regarding these issues. He reminded the committee that certain members of the Legislature believe the layered approach is what was intended in the statute. COMMISSIONER FISHER reiterated he has spoken with the Department of Law. COMMISSIONER FISHER expressed his understanding the Department of Law indicated to him the statute is ambiguous on the specific issue of a single or layered amortization period of 25 years, which affords the ARMB an opportunity to interpret as appropriate. COMMISSIONER FISHER reminded the committee he has previously asserted his belief the funding method considerations are consistent with the statute and the ARMB can effect a set of recommendations.

MR. JOHNSON requested the Department of Law's opinion be provided to ARMB in a written form. COMMISSIONER FISHER agreed to work to get a written response.

CHAIR ERCHINGER strenuously objected for the record to the recommendation of changing to a layered amortization approach. The ARMB has consistently supported the level dollar amount to reach the goal of a fully funded system sooner, rather than later. The Legislature made the decision to change to the level percentage of pay, which considerably added to the number of years of when the system would be fully funded and increased the costs exponentially in deferring the costs to the future. CHAIR ERCHINGER disagrees with using a layered amortization period because it will extend the amortization period, increase the cost, and reduce the annual contributions, thus shifting the cost onto the municipalities.

CHAIR ERCHINGER recessed the meeting from 3:13 p.m. to 3:18 p.m.

B. REVIEW OF PROPOSED DEMOGRAPHIC ASSUMPTIONS

MS. THOMPSON reviewed the chart highlighting the major demographic assumptions and GRS' concurrence or concern. GRS concurred with the assumption/recommendation for mortality, retirement, rehire, population growth, and funding method. The GRS concern regarding withdrawal-termination was addressed and has since been alleviated. Conduent explained the issue today during the presentation relating to retirement losses being included with termination losses. The GRS concern on participation healthcare has been alleviated. GRS has the aging/morbidity data and expressed no concern.

MS. THOMPSON explained the demographic assumption review was conducted from three perspectives; 1) whether the experience study data supports the recommendation, 2) whether the history of gains and losses by source supports the recommendation, and 3) whether the practice is within the public sector community. The findings were supportive in these areas.

MS. THOMPSON requested Conduent provide an explanation at a later date for the proposed increase withdrawal rates for teachers at older ages. MS. THOMPSON reiterated the suggestion to replace the term marriage rate with spousal election rate to accurately reflect the experience. The healthcare participation rate question was answered that retirees who move to the Lower 48 can remain on the plan. MS. THOMPSON suggested clarity be established relating to the wording when describing the dual coverage assumption.

GRS continues to have concerns with the cost sharing factor of .2% per year on the DCR healthcare plan, which assumes the DCR plan has lower costs of .2% per year of DCR health versus DB health. The basis is an intention to continually change the DCR healthcare provisions, including deductible and co-pay, to keep that cost differential. MS. THOMPSON does not believe this has occurred in practice and has not found a written agreement for it to become practice. GRS previously recommended the assumption be eliminated and continues to recommend the assumption be eliminated.

MR. YOUNG explained the DCR booklet on the State's website states the plan can change deductibles, co-pays and out-of-pocket limits from time-to-time. This is the projected long-term basis for the .2% cost sharing factor annually. MR. YOUNG agreed the assumption

should be eliminated if there are no intentions of changing the deductibles, co-pays and out-of-pocket expenses. COMMISSIONER RIDLE is confident changes will occur.

MS. THOMPSON listed GRS requests for additional information from Conduent regarding:

- Relative value between DCR healthcare and DB healthcare
- Cumulative long-term assumption for Rx trend
- Last year's Rx drug rebate data as the assumption
- Employer Group Waiver Plan (EGWP) assumption
- Medicare coordination discount assumption
- NGNMRS lump sum option and annuity option are actuarially inequivalent

MS. THOMPSON reviewed the highlights of GRS Actuarial Review of PERS DB, TRS DB, PERS DCR, and TRS DCR dated April 17, 2018. A number of the comments in the report have been discussed and resolved. Comments and suggestions that remain outstanding include:

- Written disclosure in the report when data assumptions or proxy data is used
- Changing the language on gain/loss exhibit to reflect granularity of the experience and adding a separate category reporting gains due to election differences
 - Included in gain due to retirement were gains due to retirees electing single coverage when it was assumed they would elect two-person coverage
 - Set assumptions should be measured separately and distinct from each other
- Written disclosure in the report when Cadillac tax is added to the trend rates
- Clearly identify and separate the gain/loss medical claims experience language to reflect changes in method and data collection
- Explain the difference in impact of the trend rates for DB versus DCR
- Provide data-based rationale for the EGWP assumption
- Explain the basis for the increased test lives assumption change from 66.2% to 70.7% for the Medicare coordination discount

MS. THOMPSON discussed a standard process change going forward for the GRS audit in receiving the test lives data. The test lives data will now come from the final run of the liabilities the ARMB receives.

C. COMMITTEE DISCUSSION ON ACTUARIAL PRESENTATIONS

CHAIR ERCHINGER expressed appreciation for the visual table format used in the presentation. She commented on the effectiveness of the presenters and the dialog from the committee members.

D. REVIEW OF TIMELINES AND DELIVERABLES

CHAIR ERCHINGER informed a summary discussion will occur at the June committee meeting, followed by an in-depth discussion at the full board meeting, and final approval at the September meeting.

MR. MITCHELL outlined Conduent will provide a summary of the actuarial assumptions from the experience study at both the committee and board level meetings in June. In addition, GRS will opine on the assumptions at the same meetings. Callan will specifically

include similar metrics and identified return assumptions for 10, 20 and 30 years as part of their asset allocation process at the June meeting. Conduent will discuss their opinion on Callan's metrics and economic assumption. At the September board meeting, the Department of Revenue will provide analysis of the assumptions by Conduent, GRS, and Callan. The board will then identify and adopt the set of assumptions.

VII. FUTURE MEETINGS

A. Calendar Review

The schedule of 2018 meetings was included in the packet. The next meeting is Wednesday, June 20 in Anchorage.

B. Agenda Items - None

C. Requests / Follow-Ups

CHAIR ERCHINGER instructed MS. ALEXANDER to follow-up on the request for legal information surrounding the effects in PERS DCR and TRS DCR when the funded ratio becomes above 100%.

MR. WILLIAMS suggested the board continue to discuss and receive feedback on the 30-year trajectory assumption of active employees.

VII. ADJOURNMENT

Mrs. Harbo moved to adjourn the meeting, and Mr. Brice seconded. The meeting adjourned at 3:50 p.m.

Note: An outside contractor recorded the meeting and prepared the summary minutes. For in-depth discussion and presentation details, please refer to the recording, staff reports, and written presentation materials on file at the ARMB office.