STATE OF CONNECTICUT

STATE EMPLOYEES RETIREMENT COMMISSION

ACTUARIAL SUBCOMMITTEE MEETING

SEPTEMBER 1, 2021 MEETING
HELD VIA ZOOM
CONVENED AT 3:04 p.m.

Present (via Zoom):

Peter Adomeit, Chairman
Robert Coffey, Trustee
Tim Ryor, Actuarial Trustee
Claude Poulin, Actuarial Trustee
Michael Bailey, Trustee
John Flores, General Counsel to Treasurer's Office, Ex-Officio Member
John Garrett, Cavanaugh Macdonald
Ed Koebel, Cavanaugh Macdonald
John Herrington, Retirement Services Division Director
Jean Reid, Retirement Services Division
Donald Wilkerson, Retirement Services Division
Cindy M. Cieslak, Rose Kallor, LLP

TRANSCRIPTIONIST: Karin A. Empson

(Proceedings commenced at 3:04 p.m.)

MR. ADOMEIT: So let me call the meeting to order. This is a meeting of the Actuarial Subcommittee of the Connecticut State Employees Retirement Commission. And, Cindy, do you have the attendance, please?

MS. CIESLAK: Sure. This is Cindy Cieslak, just to begin with, Chairman Peter Adomeit. Present today, we have Chairman Peter Adomeit, Trustee Robert Coffey, Actuarial Trustee Tim Ryor, Actuarial Trustee Claude Poulin, Trustee Michael Bailey. We have John Flores, General Counsel to the Treasure's Office and Ex Officio Member of the Retirement Commission. Also present are Ed Koebel from Cavanaugh Macdonald and John Garrett from Cavanaugh Macdonald. From the Retirement Services Division, we have John Herrington, Division Director. From Retirement Services Division, we have Jean Reid, and from the Retirement Services Division, we have Donald Wilkerson. And I am Cindy Cieslak from Rose Kallor, General Counsel to the Retirement Division.

Did I miss anyone? Okay. I think we're all

set.

MR. ADOMEIT: Thank you, Cindy. There is one item on the agenda. It is the Experience Investigation for the Five-year Period Ending June 30th, 2020 from Cavenaugh Macdonald Consulting - or Actuaries. And it covers the Connecticut State Employees Retirement Commission, Judges, Family Support, Magistrates and Compensation Commissioners Retirement System and the Probate Judges and Employees Retirement System.

And so I will turn this over to CavMac.

MR. GARRETT: Thank you, Mr. Chairman. It's a pleasure to finally actually be near the end of this experience study. It has been a long and winding road. We tried to, along the way, give some previews of what we're doing, and hopefully we got you the report. I know it's a lengthy report like, I don't know, 70 pages plus. I think we got it to you on Sunday. So hopefully we gave you all some time to kind of go through that, so we won't have to do a double-take on some of this economic stuff that we've talked about before.

But - so just to jump into it. And Ed is with me. Ed and I will really go through the materials, and then we'll be ready to answer any of the questions you may have. If you have a question along

the way though, there's probably no better time than the present while we're on that topic.

So looking at Slide 2, really, you know, just actuarial valuations are very complex calculations. They rely on a lot of estimates or predictions of future occurrences. And so, you know, that's why it's so important that for large systems, where you have credible data, that we assess it and determine whether or not the assumptions that are currently in place are sufficient to be the forecast of what's going to happen in the future, and if not, what adjustments need to be made to them.

So that's basically what an experience study does. And, you know, it's just like you know what they say about opinions, everybody has one. So, you know, assumptions are never perfect. You know, the intent is that we set an assumption that's kind of in the midpoint of what actually occurred. We know we're going to get one year, you know, much less of that occurrence, and some years, much more – Ed, we're on 3. That's fine.

And so, you know, we know the actual occurrences year-over-year are going to be within a range, and we hope that if we selected an assumption that's in the middle of that range, you know, at that

midpoint, we've minimized the gains and losses. And the gains and losses then actually, you know, relate to the variation in the unfunded liability, and the variation in the unfunded liability then has a corresponding variation in the required contribution of the employer.

So in order to kind of - a hidden objective of maintaining contributions as stable as possible, we have to back into it by, A, setting some assumptions that really tend to be at the midpoint of what is actually going to occur. That's the hope. We do this - you know, we've done this in a lot of places with a lot of plans. Most of - all of them are big plans. We've got to the point to where, just because you have data that specifies a certain complexity of an assumption, and you think that that would be the best way to do it, in our experience, you know, it's not always the case. We try it, and then when it doesn't work, we pull it out.

So a lot of times, you'll see stuff like, for instance, on the retirement assumptions, one of the things we've simplified here this year is we used to have an assumption for a rate at first eligibility, and then a rate that would occur after a person has hit their first eligibility for a retirement benefit. And,

you know, that just didn't really have a material need to have that complexity in there. So you'll see in some places we have added a little complexity, and some places, we've removed some.

But the toughest thing for an actuary to do is to take in all this data and of course, you know, we'd have the data; we can look at it; but one thing we need to be cautioned against is that five years of data does not necessarily represent the data that's necessary to be a perfect prediction of what's going to happen in the next 40 years or 50 years or 60 years. And of course, that's how it's going to be used. So, you know, we do need to try and draw from this how is it impacting a longer-term trend. And so a lot of this is on, you know, professional judgment, our experience in doing this with a lot of the large systems around the country.

And lastly, it's the actuary's job to make these recommendations. It's really the commission's job to adopt them and make them theirs. So, you know, we do have some of these assumptions that are kind of driven from statutes, like the 6.9 percent discount rate. It's kind of something that was based on an agreement. We prefer that when that's the case, instead of saying, that's not our assumption, we take a

look at it, and we say, you know, if we can get behind it and it's reasonable to us, then, you know, if we make that statement that we believe it's reasonable, then it becomes our assumption. So instead of calling it a prescribed assumption - it's kind of forced upon us - then, you know, we'd much rather go along and review it, and if we agree with it, then it's ours too.

So that's what we've done with really most all those assumptions that were driven by SEBAC agreements, the last one, the 2017 agreements that specified really the discount rate and some of the other items.

So, with that, one of the first steps we do, of course, which actually I believe Tim and Claude already beat us to it a few months ago, was to look back at the valuations that were available, to see how the assumptions have performed. And, you know, SERS was certainly losses all across the board. I think the only good point was post-retirement mortality, and it was a pretty minor, you know, gain. So but when we looked a little bit further into the losses, certainly retirement losses are there, they're real, and, you know, we were thinking that the new assumptions we're setting for rates of retirement are going to address that.

The salary-increase losses though, you know, when we looked back at this period, we had a SEBAC agreement in 2017 that froze pay increases for three years, in '17, '18, '19 fiscal years. So I remember when we were valuing that, we were like, well, what's a pay freeze exactly; what does that mean for us as far as how we address that to do an assumption to try and price what that SEBAC agreement was going to do? And a pay freeze is a pay freeze. You know, I mean, people were wondering if that meant something different in Georgia than it means in the rest of the world.

But so what we did is we made an assumption for those three years that we would zero out wage inflation. So zero across-the-board increases, and then reduced by half the merit scale. So the scale that represents the pay increases due to service, promotions, those kind of - we call it a merit scale, we'd reduce those by half. And those really only affect the first 14 years of service. So we had a pretty dramatic - I mean, it was a pretty low rate of increase that was being assumed in those three years. And, you know, the actual pays were actually higher.

So most of this loss was actually driven primarily from 2019. That was the last year of the pay freeze. Twenty-nineteen was actually over 500 million,

and this chart doesn't show the dollar amounts as those are thousands of dollars. So when we're looking at SERS, the salary loss is $459 million over the four years, three valuations, but more than that was only the loss from 2019 doing that.

So again, we think it was a weakness in assuming pay freezes were a little too frozen, and so not that the wage inflation and the merit scales were that off. So for this study, we really focused a little bit more on just those two good years we had, 2016 and 2020, to kind of test how'd they do against typical, you know, unfrozen type of experience. So we just wanted to point that out.

The withdrawal loss, pretty minor. I mean, that's the kind of fluctuations we would expect in withdrawal. So the gain/loss, although it was not pretty to look at, especially when we're performing the valuations and presenting the results to you and loss year after loss year, but when we actually look at it over that period of time, it's not quite as ugly as what we thought. There certainly is a need for an adjustment, and what points, you know, to the greatest need is the rates of retirement. So let's move on.

So first, you know, just to kind of look - the experience study, we take a look at all of the

assumptions, but also the methods that we use. So there are really three primary methods in actual valuation. Actual costs method is really the systematic allocation of future benefits to present – to future normal costs or already accrued liabilities. So that really there's only one game in town anymore, entry as normal cost method. It's what's required for use in GASB.

You know, we just moved from a projected unit of credit. We got out of projected unit of credit in most cases because, I mean, it's pretty clear that if you want to stabilize your costs, and I think that's really what the move that the State of Connecticut has been making with the large plans is to try and get their costs stable - you know, that's why we had to change the amortization policy, the reduction to the discount rates - that entry as normal cost produces - just inherently in the calculations, produces a more stable pattern of normal costs than does projected unit of credit.

So we moved to entry as normal. We're saying, let's keep it. The smoothing of the assets, we're at a 20 percent writeup method. It's not a – it's probably not the most common method, but when we look at – this is what you always have used for

Municipal Employees Retirement System, and we actually think it actually worked better. In our testing under variable draws of market returns, it produces actually the less volatile asset values. And so this 20 percent writeup method, what it does is you take your beginning of the year actual value of assets, you project where you think you're going to be at the end of the year, so it's an expected amount at the end of the year. And then when you get to the end of the year, you measure the actual market value, and you move the actuarial value you expected it to be 20 percent toward market. So you're always making an adjustment toward the market value.

So we recommend staying with it. It may be biased as far as its current condition. This is something I know we've discussed before with Tim, that it does have a bias in it. It's biased towards its current condition, whether it's understating or overstating market value. But long-term, it has really no bias to it.

The third methodology is how we amortize the unfunded liability. We just kind of moved - with SEBAC's 2017, we moved it into this layered approach. We like it, especially if we're going to close down bases and really focus on trying to get the UAL smaller

every year, going to a level dollar approach. So all these items that have been changed are exactly what we'd recommend if we know your objective is to get to a stable affordable pension plan for the State of Connecticut. And so we recommend no changes to what has been put in place in the last few years.

Ed, let's move to the slide. All right, economic assumptions. So everybody has had a chance hopefully to read a lot of the details that are in the report. Maybe we can just kind of blast through here. We're only recommending one change, which is to real wage increases, and as a change from dropping it from one percent per year down to half a percent per year. Part of that is that experience – of course, it's a whacky year to kind of base experience on in pay increases, but, you know, we see that, I mean, what's apparent in the data is real wage increases were less than expected, certainly less than one percent, less than half a percent. I figure around 39 basis points, if I remember right.

But so, you know, we also asked for input from OPM, who, you know, is setting what the expectation for the State is in pay raises in the upcoming future years. And their recommendation was a half a percent on top of two-and-a-half percent

inflation, and that's exactly where we kind of thought we'd like to be. That's where probably most plans in the country have, around three percent wage inflation. And we think it makes sense here. Even though Connecticut is a higher paid workforce, we think though that, you know, as far as percent of across-the-board increases, in the environment that we're in, I think three percent in total for wage inflation is a good place to be.

So that was the only change we're recommending. All the others, we like: two-and-a-half percent inflation, 4.4 percent real wage – I'm sorry, 4.4 percent real rate of return. That totals to be a 6.9 percent total discount rate. The only other one we added in here, we kind of put in here the COLA's, which we showed some details of what we think about the COLA's. If anything, we're a little bit conservative on these assumptions, but with the kick-up in volatility of CPI, it might be a good time to kind of hang on to what we have. And so we're recommending, let's hang on to these, and keep that margin for adverse outcomes that could occur. So we like all the COLA rates that we've already set. I think we set those a few years back.

So that's economic, unless anybody has any

points that they'd like to touch on or have any questions about that. And without questions, we'll move on to the demographic assumptions. So this is—

MR. POULIN: (Inaudible) okay.

MR. GARRETT: Yeah. I'm sorry.

MR. POULIN: This is Claude Poulin. You're getting into the demographic now?

MR. GARRETT: Yes, sir. Yes, sir.

MR. POULIN: Yeah. Okay, thanks.

MR. GARRETT: Okay. So, yeah, this is a little more actuarial. See Tim and Claude kind of screwed up in their chairs? Because this is a little more of a - this is where actuaries—

MR. RYOR: Actually, can I go back a second? Just because - I apologize. I didn't - I was pretty full up. I got a little bit of a chance to dig in, but not as much as I would have liked.

MR. GARRETT: Okay.

MR. RYOR: But on the merit scale, were you recommending some changes there?

MR. GARRETT: Yeah, so wage, the across-the-board piece, we handle that in the economic assumption. So we're assuming the three percent stays the same - or actually, we're dropping it from three-and-a-half to three percent for the across-the-board piece, the wage

inflation piece. And then the merit component, because it's service-based, we handle that in the demographic section.

MR. RYOR: Oh, okay.

MR. GARRETT: So we haven't gotten there yet.

MR. RYOR: (Inaudible)

MR. GARRETT: Tim, you're ahead of me again, man. You're—

MR. RYOR: (Inaudible) Perfect. I'll wait for the—

MR. GARRETT: All right. All right, good.

All right. So, you know, the demographic piece is where now we kind of look back on what happened over the five years, we compare it to what we expected to happen under the current assumptions, and then we looked for places where we need to make some adjustments. And this year is a new change. We really are convinced that this weighting experience does make a difference instead of just using headcounts approach.

So in years past, for instance, if we're looking at rates of withdrawal, we would have an actual account of the number of people who actually left the plan prior to - you know, because of not for reasons of retirement or death or disability, so withdrawals. And then we'd have the people that were exposed to that,

so, you know, everybody that could have withdrawn, and we do that in headcounts. Well, that's how it was done for years and years. And, you know, we actually have seen more and more a lot of outcomes, even for large plans, where the headcounts look fine. You know, when you're looking backwards, you're saying, well, you know, we got – we expected to have 1,000 people withdraw and we had 1,005, so headcount was perfect; what happened? Why did we have this loss of, you know, $65 million?

And, you know, you dig in and actually, you had the right number of people leave, but they missed – they weren't necessarily the same liability weight, all right? So when we have a lot of lower paid people at the early parts of their careers withdraw, which is typically for withdrawals where we're going to see them, then they're leaving with not much impact to the liability of the plan. So we can generate a lot of headcounts there, but not really move the needle on, you know, did we release enough liability for withdrawal as what we were expecting.

And when we have the higher paid, more years of service people, the higher weighted toward - on the liability side, we don't have enough of those people leave, then we have those losses because, you know, one

of those people not leaving is an offset, you know, by eight of the lower paid young folks that do leave. So headcounts are not as meaningful to the measure of gain and loss. So that's why we're looking at salary weighting, active benefits for post-retirement mortality, we amount-weight it so the amount of the benefit payments they receive. And so since everybody's kind of in categories of ages, that's pretty much a liability weighting, pretty close.

So that's new for this plan. It has actually impacted some of the rates, especially for retirements. Some of the adjustments we made to withdrawal was really driven by that idea that really the liabilities or, you know, the headcount is working fine. In fact, for withdrawal, we had more people withdraw in the last five years of the experience study, period, than what we expected, which typically you would think more withdrawals would be a gain, released more liability than we expected. But we had losses due to withdrawal because, again, where the people were leaving.

So jumping into withdrawal, you can see here we have – this is on the weighted versions. So up top left there, the non-hazardous group, which is the largest of SERS, and this is SERS, that we have – thank you, Ed. You really have improved in your Zoom skills,

Bo. So you can see the A/E ratio is really the metric we really kind of focus on, is we have any actual amount of – here, in this case, a weighted number of withdrawals weighted by their salaries, and an expected number of withdrawals weighted by their salaries, and then we compare that, how much did we actually get versus how much did we expect to get.

And so we had - you know, pretty close. We had only a little bit less actual than expected. So for withdrawal, when we have more than expected, we have more liability released. And so there's a little bit of a gain when you have more withdrawals than you expect. When you have less withdrawals than you expect, you have typically a loss because you didn't release as much liability as you expected.

So we're pretty close, so within two percent. And then if we look at the hazardous duty folks, we're actually a little bit on the – you know, females actually had more withdrawal than we expected. That weighted withdrawal experience of 21 million, we expected 19.6 million. For the male – again, the female hazardous duty is the smallest group of the four that we're looking at here, non-hazardous males, females; hazardous-duty males, females. This is the smallest group, which is, you know, less material to

the outcomes.

And then males again were on the – we had a lower weighted expected withdrawal, lower than expected withdrawal, so 98 percent, again, within two percent. So not too bad, but still, we'd rather be around one-oh-three, one-oh-four, you know, somewhere in between the three – about three and five percent margin when we set new withdrawal rates.

So let's move on. So this is really the chart that shows - the blue line is what actually occurred; the red line is what we expected to occur. And the green line is what we're proposing for the adjustment. And so in this one graph, you can kind of see, you know, there are really not material changes at all, once we get past age 35. But in the earlier years, we're looking at lowering the rates of withdrawal. So we're hanging onto more of those young folks in these valuations.

Same thing for non-hazardous females, again, a slight adjustment, pretty much right on top of everything for the later ages. The rates are pretty small there. And then the A/E ratio, so again, if you remember, we're around two percent, low 0.98's range for the A/E ratios. So now that we've weighted it and adjusted them, we're right where we kind of want to be,

a range of, you know, around three to five percent margin. So this is - with the new assumptions, we have A/E ratios of 1.034 and 1.028 for females.

And then for hazardous, similar – yeah, I think this line probably should have been deleted. But for the hazardous males, it's again, as the adjustments that we're making, not quite as pure, but still the result is we have rates that now, based on the same experience occurring, we have margins of about four percent for male hazardous duty and about almost six percent for females. You remember, females was about seven percent, so this moves it down closer to the range we want to be in.

So that's the assumption changes for withdrawal. Any questions on that one?

Next is disability. So this is folks who become disabled and then start to draw a benefit from the plan due to that disability. Typically it's called disability retirements. Again, we've weighted this exposure as well as the experience. You can see that really hazardous duty is where we really missed it on these last rates. These last rates, we expected way more, you know – here, the weighted number is 12.2 million versus 7.8, roughly, 7.7. So that A/E ratio is 0.62, 0.63. So those rates were a little bit heavy on

expecting disabilities on the hazardous duty side. So that's certainly a place where we need to actually reduce those rates.

And then for the non-hazardous, not too bad. A little bit - you know, maybe a little bit outside where we want to be, but not bad at all, 0.94. Here, for this, again, we'd want to have a little bit of a margin where we're having fewer actual disabilities than expected. So, you know, we want to be below one, but kind of in that range of 0.95-ish.

So this is what we're proposing to do with the hazardous duty rates, again, not moving all the way to where the blue line is. The blue line is what actually occurred. The red line is what we were expecting. And we're moving the green line kind of down, just kind of uniformly down towards the blue, but not going all the way there because, again, there's no five years in time that's a perfect predictor of what's going to happen in the next 30 years. But, you know, we're believing that this is, you know, a trend, that we have over-expected the number of disability retirements, especially for hazardous duty. So this is our recommendation there.

For the non-hazardous, certainly a much larger group and much tighter to fit. Again, the A/E

ratio was 0.94. And so this is our recommendations, really just slight adjustments. And it moves the hazardous duty one, still keeping a lot of margin in there; 0.8 is where we're moving with the new recommended assumptions. And then for the non-hazardous, it moves it from 0.94 to 0.975, so kind of right in the middle of where we want to be.

That was disabled retirement. And here is service retirement. So this is the one that - you know, looking backwards, this is the one that we could see pretty clearly that, you know, we didn't have great fitting assumptions in place.

MR. POULIN: Excuse me, John.

MR. GARRETT: Yes.

MR. POULIN: We had a question on disability.

MR. GARRETT: Sure, Claude.

MR. POULIN: And it's not a part of the PowerPoint, but in the report itself, with respect to the service-connected disability and deaths - this is on Page 7 – the recommendation is to increase the assumed percentage of disabilities from 20 percent for all employees to 30 percent for general employees. Let's stop there. And then it says, 60 percent for highly risk duty.

Is this the proportion of service-connected,

I suppose, to non-service-connected? Because it's not the disability rate that we go from 20 to 30, is it?

MR. GARRETT: Right. So, you know, we left this assumption in place in the last experience study because we really didn't have data. We have better data now, I think, and more reliable. And so when we look at this assumption, we look at the service-connected disabilities. That's the only one that you have enough of them to actually make an assumption with. So when we look at service-connected disabilities, what we actually saw for non-hazardous, about 34 percent were service-connected of the disabilities that were approved; about 34 were service-connected. And for hazardous duty, about 60 – right at 60 percent, a little over 60 percent were service-connected from the hazardous duty folks.

So we know that 20 percent was not working. And we have the data that we're pretty confident we want to move those to that 30 and 60 range. Typically for – even for municipal police and fire plans, typically that assumption, because that benefit for a service-connected disability has advantages other than just dollars. The taxability of it is sometimes more favorable.

So there's sometimes an incentive for a

person to push for, you know, and make sure that they fully go through the whole process for a service-connected disability. So with that, you know, we're pretty convinced that certainly 20 percent was not the good one. We recommend 30 percent for non-hazardous, 60 percent for hazardous, and then use those same splits for death. There aren't enough deaths for us to actually determine what that split is, but typically, you know, using the split for disabilities is what makes sense for death.

MR. POULIN: (Inaudible)

MR. GARRETT: Yes, sir.

MR. RYOR: Just a follow-up on that. Do you have a sense - you know, so you have two pieces to the change in the assumption, what you were just talking about, and then the rates themselves. You know, it looked like, historically, there's been a loss in the last five years in disability. Do you have a sense of what was generating the losses, the rates or the (inaudible) service and non?

MR. GARRETT: Yeah, we think a lot of it is the service - you know, that service-connected piece, is because if a person, if they didn't have enough years, if they didn't have 10 years of service and they went out on disability, well, we were missing it

entirely. We never anticipated them to actually be a disability. But if they go out on a service-connected, it's day-one coverage. So, you know, I think that split is kind of what was hurting us more than anything. And to be honest, I mean, this is a really pretty minor piece of the normal cost. You know, it's a pretty minor change to what we actually see flowing through the cost.

It's the right change. I mean, certainly we needed to tighten up that service-connected piece.

MR. RYOR: Again, no, I was just trying to reconcile the fact that the rates you were—

MR. GARRETT: Right.

MR. RYOR: --connecting way too many, but you were getting losses, and then—

MR. GARRETT: Well, we're only – yeah, it was only the hazardous duty folks, which are probably – Ed, I think they were like a sixth of the total number of disabilities we had. They were a pretty small minority of it. So missing them, I mean, we're – yeah, we're talking about seven people—

MR. RYOR: Right.

MR. GARRETT: --that we expected, you know, whereas in dollars though, we were expecting zero on somebody who was – that didn't have 10 years of

service, but - and then they followed through with a service-connected disability. We were missing, you know - we were holding a liability based on 20 percent of it, when actually, you know, they actually did 100 percent of it. So—

MR. RYOR: Got it.

MR. GARRETT: So, jumping into service retirement, again, this is one that, you know, we know that we have an issue here; we needed to do something here to tighten these up. Part of it is, you know, what we notice is some of the complications we had in the rates versus eligibility versus subsequent eligibilities; it didn't really have any meaning. It didn't - people weren't really electing that. And in fact, you know, we're not convinced that was an important feature.

There was one group. I think it was maybe Tier I where we kept it. But - and there might have been another one too that we kept it because it seemed like it was material enough in the experience. So what we're looking at here is the actual to expected. It's a weighted - again, these numbers are thousands of dollars in weighting. They're weighted here by salaries of the folks.

So we see that we actually had over $3

million of retirements on Tier I. We were expecting under $600,000 – I'm sorry, $600,000, yeah. Tier I normal, again, the 80 ratio, 1.78, so we missed it by – that's 78 percent more actual Tier I normal retirements than what we were expecting. Tier II, Tier II early retirements is the only one that we actually had over-anticipated, and we only had about 80 percent of what we were expecting. But that's more than offset by the Tier II and Tier II-A normal retirements where we had about 12 percent more than what we expected.

That's probably the numbers that drive the losses more than anything. It's just because of the size of it, Tier II and Tier II-A. Certainly, Tier I normal retirements didn't help either. And then we had a 19 percent margin on hazardous duties. Hazardous duty is a pretty significant sized group. This is all three of the tiers.

So really it kind of says that everything but early retirement, we need to kind of anticipate more of them. And so looking at Tier I, this is our recommendation. Now, Tier I is a pretty – getting to be a pretty small group. Part of it, it's got more people retiring than we expected. I mean, it's a declining group of people. It's closed off. I think there's, you know, a few hundreds left. Certainly,

hazardous duty is really, really super small.

So when we look at – we're just going to double the rates. We're going from – on early retirements, we're going from six percent to 12 percent for the expected rate. And then on the normal retirements, we're setting a solid, across-the-board 30 percent rate. It was a little bit on the conservative side, as far as where the midpoint was and where the weighted experience was. I think it was around 26 percent. But we kind of want to be on this side for two reasons.

One is, you know, this is a group that they all have everything they need to retire, and then on top of this, one thing we are adding to this for 2022. And we think that these folks have - and the group of people that, when 2022 comes around, all they're going to see on their side – you know, it's not about their retirement eligibility or anything like that. It's all about with their COLA being deferred for, you know, roughly 18 months longer, and the rate being dropped, and you know, I think that's going to be viewed as a takeaway.

So these folks are the ones that are again probably the ones that are going to be more out the door for 2022 than the other group. So on top of this,

for 2022, we're adding a rate of 40 percent in addition for normal retirements, and 20 percent in addition for early retirements. So for only 2022, we're saying 32 percent of those eligible for early retirement are going to elect it. And we're saying 70 percent of those eligible for normal retirement elect it in 2022. Then it drops back down to 30 percent.

So that's - for Tier I, we want to do something pretty significant there just because we're kind of getting surprised on the wrong side for a five-year period of time.

So and then moving onto Tier II—

MR. POULIN: This is Claude.

MR. GARRETT: Yeah.

MR. POULIN: I do have a question. Because these are people who, on average, well, they have more than 40 years of service, because they're Tier I. So the group closed in '83 or '84, depending on the - so what would be their advantage to continue beyond July 1, 2022? So I would think it would be more - for early retirement, that it would be more than 12 percent plus the 20 percent. Then I think that it might be closer to 40 or 50 percent. What do you think?

It's - because they're already there.

MR. GARRETT: Right.

MR. POULIN: They have – especially - we're talking about Tier I. Their benefit would be close to 100 percent of pre-retirement income when you take taxes into account and everything, so that I think that the 12 percent might be a little low.

MR. GARRETT: Do 12 percent for early—

MR. POULIN: (Inaudible) at 20 percent.

MR. GARRETT: Right. Well, so the early retirement folks, Claude, now, you're right. I mean, Tier I closed a long time ago. But a lot of people had bridged service back to Tier I when they became reemployed at other points. And so we do have people that are still on the rolls that we get data on that have, you know, less than 15 years of service, even though chronologically from Tier I, Plan B, Plan C, you know, they should have a lot more service than that, I agree with you. But there are still a lot of people because of those breaks that have less than that.

So what we see is there's 18 Tier I, Plan C active members. There's 370 Tier I, Plan B active members. And then hazardous duty, there's two. So whatever we do with hazardous duty, we could – you know, that would be one I'd be okay with assuming 100 percent do something.

But, you know, for the early retirements,

it's probably very few that are exposed to it is kind of why we're not overly worried with it. We kicked it up to 32 percent for – but, you know, we're fine if you – if we want to add to that, again, it's not going to move the needle a whole lot as far as liabilities. It would be – you know, it would be not a bad assumption to say 50 percent. I mean, we could move that instead of going to 32 percent for 2022, make it 50 percent. Is that what you're thinking, Claude?

MR. POULIN: Well, I was thinking of the main group. But you're right, there are some people who weren't here when – but they had a break at one point and they came back, and were vested, so they came back to Tier I. And (inaudible) not talking about these people. But for those people from the original group, then I would think that the rate would be like maybe 30, or, you know, 32.

Well, these people are very close to age 65 at the present time. So they add four more. So that there would be more in the normal group. So that the early group, as you just said, and that (inaudible) is these, the additional people who came in over the last four year. So I think that makes sense.

MR. GARRETT: Yeah, you know, of the 370 in Plan C – I'm sorry, Plan B, over 300 of them, right at

300 of them are over age 60. So for the normal retirements, we're saying, let's add 40 percent. So we have a 30 percent across-the-board rate at all ages, and then we're adding 40 percent to it for 2022. So we're really saying 70 percent of these folks go out in 2022. And then it goes back to 30 percent per year until this population is – well, until the next experience study at least or until (inaudible).

But they're becoming less and less relevant as far as worrying about missing the assumption. So I think the last big assumption we have to make is how many of these folks are really going to go in 2022? And to be honest with you, I mean, that's – I could draw a number out of the hat and probably feel just about almost as comfortable as saying adding 40 percent to it.

But the only thing in the back of my mind that worries me is that damn survey the Boston Group did that said 72 percent of people are ready to go. And after John shed the light on exactly how much data that was based on, it was five (inaudible).

MR. HERRINGTON: Right, correct.

MR. GARRETT: Yeah. So, you know, I mean, just on the worry that 70 percent of somebody is going to be going, I would say it's going to be 70 percent of

these Tier I folks. And so that's why I'm saying - you know, that's why we added that rate, that kicker rate is so high on 2022.

MR. RYOR: Well, question on the setting of the rates. I mean, what went into the – you know, I'm looking at that blue line and thinking, I might have started at 55 a little higher and graded down. But what's the rationale for the flat rate all (inaudible)?

MR. GARRETT: Right. Well, again, most everybody is past 55. So when you think about the exposure before that, there's not a whole lot of people back there that are being driven by that pre-55 rate.

MR. RYOR: Okay. Okay.

MR. GARRETT: So what we were looking at is, because this population is declining, we really think 2022 is going to get rid of a lot of them, or a lot of them are going to elect to retire in 2022. But what we wanted to kind of set, one piece rate that was kind of based on a little bit conservative above the weighted average of all years. And that's kind of where we ended up.

MR. RYOR: Okay. So I think what you're saying, based on what the ages are, even though, you know, for—

MR. GARRETT: Well, it's salary-weighted too.

It's salary-weighted too. So the higher paid folks have a bigger weight in that population and why we wanted to be at 30 percent.

MR. RYOR: Okay. So if you did something that - I mean, put it another way, if you did something that fit the blue line a little better, with, you know—

MR. GARRETT: Yeah.

MR. RYOR: --than for over 45 and graded down, and you were maybe at 20 percent in the later years—

MR. GARRETT: Right.

MR. RYOR: --since most people are in those later years, you would actually be less conservative, even though I'm thinking—

MR. GARRETT: Right.

MR. RYOR: --the other, but that's because I'm not seeing the numbers of people and there's—

MR. GARRETT: Right.

MR. RYOR: --actually not too many people left at 55 and 56.

MR. GARRETT: Exactly. Yeah, I mean, there's 64 people between 55 and 59 of the three hundred and - well, of the roughly 400, is it? Let's see. Plan C has 18 people. So 388 people that are 60 - 58 that are less than age 60.

And of those folks, most of them already have 30 years of service. So again, I mean, to start, you know – yeah. I mean, that's – it's amazing we had this many people left, to be honest with you, right? I mean, this is a group – these have the highest benefits of any of the tiers. They – you know, a solid, you know, two percent multiplier per year of service. And it's – the hazardous duty is even – it's two-and-a-half. So—

But, Tim, I think, you know, that effort, we put into Tier II and Tier II-A for setting the rates.

So, Ed, if you want to pull up the next one. So here, you know, this is really where the biggest liability is for SERS is in Tier II, Tier II-A. Early retirement, again, we set one rate across-the-board for this group. It seems like it has been not utilized. This was, again, the only piece that we were overkilling on before, about an 80 percent A/E ratio for Tier II, Tier II-A early retirements.

So here we actually just dropped it just a little bit, made it across-the-board. We're not seeing - and this change – the scale, you've got to kind of consider the scale. The scale goes from two-and-a-half percent at 55 up to six percent at 61. So, you know, four percent kind of sits at the weighted middle of –

especially when we salary-weight these things. This is kind of where we – if we were going to pick one rate that's meaningful, we'd pick four percent, and that's kind of what we did here.

The normal retirements, we actually kind of went in there at categories of ages and then eligibility. So we did look at, for instance, first eligibility for the first normal retirement, 60 with 25 years of service. Then the next one is 60 – what is it, 62 with 10. And then 70 with five for that group of special people that can retire with five years of State service.

So we looked at all of those. Again, we didn't really distinguish a whole lot of difference between first eligibility and subsequent. We just think that's a complication that's not necessary. If we've set the rates, there's no sense in it. What we'd expect would be the rates of first eligibility would be a little bit higher, but what we saw in most cases was it actually wasn't. So why have that rate? Why don't we just keep the bigger group and set a rate on a bigger experience? We're likely to be better off.

So this is what – we set a pattern. Twenty percent really is kind of a little bit of a margin in expectation for people between 60 and 64. This is

probably where the primary exposure is. Then we kind of set it more toward - right on what we just actually had experienced at ages 66 and above. So that's right around 25 percent. It goes back down to 22-and-a-half percent thereafter. Simple, three steps. You know, to us, it kind of fits the data pretty well. And then what it does to the A/E ratios, of course, we like too.

We wanted to be a little heavier on rates at the earlier ages just because, you know, that's kind of where I think we're getting beaten as far is if you look at the exposure. And where we're losing the dollars more so, we're losing the dollars more at 60 to 65 than we're losing it elsewhere.

So going to the A/E ratio of these things, next slide, which is, so, you know, again, we were running around. Tier II, Tier II-A normal, the A/E ratio is 1.12. So we've moved to the six percent on the other side of that. So again, under these assumptions, except for Tier I early, which I think is a shock and it should be a surprise; it should be an outlier; except for Tier I earlier, you know, I mean, I think this is pretty much - would have eliminated. We would have had salary - I mean, I'm sorry, retirement source gains in the last five years under these new assumptions. Not huge gains, but you know, I don't

think we'd have the losses that we would have had.

So this is the basis for assumptions. So even the Tier II, Tier II-A early retirement, we're actually adjusting those. You know, we moved that rate down to across-the-board four percent, and actually improved the funded ratio from 0.8, moved it up toward one. Where we'd want to be on this is, you know, we'd always want a one. We want to have a few less retirements than what we expect, right? That's the side to be on. If we want to miss, we want to miss slightly on being more expected retirements than actually occur.

So we want these A/E ratios to be in that 0.95 range. We were moving it from pretty far away, like hazardous duty Tier I, II and III, moving it from 0.19. You know, to move it all the way down to the other side is kind of an extreme case. So we felt pretty good moving it down to just a two percent less expected than actually occurred during the period.

So with that, that was probably one of the uglier ones. It had a lot of stuff in it. Mortality, we've kind of given you a preview of it. We have no changes. We like where we're going with this. We like that we're setting it to kind of a standard table. We also would have to say that there's enough to question

about the data that, to make any type of, you know, precise adjustments to it - like in a lot of cases, we'll take these standard tables, we'll bend them where we need to bend them to fit what we see as a trend, especially with clients that we've done three or four experience studies for. But, you know, we just - we don't quite have that feeling with the data that, you know, it's precise enough to do any type of significant adjustments to.

So pulling the off-the-shelf above-median amount-weighted Pub-2010 for general employees, specified for, you know, service retirees, contingent survivors, and only using it for contingent survivors, not the living spouses in a joint life annuity, which surprisingly has a visible impact on liabilities, but only for when the retiree actually is dead do we use that contingent survivor table, because the rates are about 20 percent higher than what we see for retiree rates of mortality, and then generationally projecting that with scale MP-2020.

So really, it's pretty much one of the better - as far as longevity measures, one of the, you know, most generous, draw tables we could pull in and use here, which it needs to be because, I mean, statistically, Connecticut is in the top three in the

country. You know, you're certainly top five for longevity. So we kind of want to be there. But what we like is not making any adjustments to it. Let's use it. Based on the data we just ran it through with, you know, what we saw in the last five years, it's still - it's a really conservative assumption, but it's less conservative than what we were using. So it moves it in the right direction.

Of course, if we go into a generational approach, we typically would want to set the A/E ratios of the last five years around one and let the projection scale kind of improve the mortality over time. But we don't have that confidence to make those adjustments to push this back down to one. We think that might be overkill. Again, Connecticut, top five.

So we're pretty happy to just trim back some of that margin that we've had in mortality, and let's use the standard table and really focus on improvements in data and, you know, share those with you. As soon as we start seeing them, we'll start sharing a little bit more of that in the valuations. You know, we do want to add - we kind of look back at our - when we're doing our gain/loss, you know, there's a lot of improvement we need to make to our gain/loss. I think we need to add some sources.

COLAs would be a good source to add. And give a little bit more detail on this post-retirement mortality, how we're doing with that. Because I know that's – you know, that's really – that's kind of a low-hanging fruit for an assumption that really has a big impact for the demographic assumptions post-mortality – post-retirement-mortality is probably, you know, the most impacted. So again, missing it there is, you know, not pretty.

So that's one of the outcomes of this. So going through the mortality again, we're recommending that basis be used for the general employees, so the non-hazardous SERS and judges, both the judges' systems and the PJERS employees. So that's the basis that is called the general - Pub-2010 general employees. And then the safety employees we'd use for the hazardous groups. Safety employees have a little bit higher rates of mortality, a little less longevity.

But, you know, again, the above-median tables, the amount-weighted tables, and specific to healthy retirees, the contingent survivors, disabled retirees, and actives.

So any questions on mortality?

MR. POULIN: One question and a comment. On Page 50 of the report, it shows that the difference

between the count-based A/E ratio for males and the weighted A/E ratio is like 1.402 compared to 1.296. But for women, they are just about the same. Why is the weighted ratio closer to the count-based ratio for women?

MR. GARRETT: Well, Claude, you know, that's part of the problem, right? That's—

MR. POULIN: (Inaudible)

MR. GARRETT: What that's saying is that, really, we didn't miss the male - you know, when we weighted by salaries, we didn't miss the males as much compared to the head-count weight. Right? So the people who died that had the higher liabilities, died more like expected than just in the head counts for males.

So, you know, part of it might be that, you know, females might have enjoyed a little bit more longevity - or, I'm sorry, here because their A/E ratios were above one, we actually had more deaths than what we had expected.

MR. POULIN: Yeah.

MR. GARRETT: You know, the female longevity wasn't showing up as expected. And that's Page 50 of the report? And, you know, there was in the first draft - hopefully we pointed that out - but in the

first draft, that table of A/E ratios, once we changed it, the one – so the one you're looking at right now is really before. That's the old assumption, the A/E ratio (inaudible).

MR. POULIN: Yes. Yes.

MR. GARRETT: So it has both the head-counted based and the weighted-based. And weighting here, we used the amount of their benefit. And then when we changed the assumption, you see we're moving it to a 12 percent, 12-and-a-half percent margin for males. This is non (inaudible).

It cut that about 15, 16 percent off. Same thing for females. It went from around 140 down to 120. So again, more margin than what we typically would want to have. But, you know, we don't feel like we have solid enough data to make all those adjustments. I think we'd want to take these tables and move them to one. If anything, we'd be surprised if the data was - you know, if in our mind, the data was perfect, and it was pointing in this direction in Connecticut, I think we'd have to question that anyway and move with caution.

Because, again, we'd expect longevity – you know, we should see these things moving – well, you know, again, I mean, number one is Hawaii, which, you

know, I get it. They don't - they stop - their weekend starts on Thursday afternoon. And, you know, so they have no heart attacks in the office, certainly not Fridays. (Inaudible) for the beach. But and then, you know, you have the - I think number two is Minnesota, which, you know, is kind of surprising, but you know. And then, I think, last I saw, Connecticut was number three for longevity.

So I think we'd want to keep a nice margin in here even if we're going to a generational approach, but especially now just because the hope is that the next five-year study period, the data is going to be a lot more solid for us to make some adjustments, if we need to, to these raw tables.

The other thing too to point out, and I know Tim might be involved in actually making it, is this new basis for projecting generational - or projecting improvements. What's it called, the MIM, that's going to be coming out live? I think it's probably going to be rolled out to other users around, what, next year, you think, Tim?

MR. RYOR: Yeah, no, I don't have any special insight there.

MR. GARRETT: Oh. I thought you were on the REPC or—

MR. RYOR: No, no. I was on the Actuarial Standards Board a few years back, but that was a while ago.

MR. GARRETT: Okay, okay. Well, still, so there is a possible change. Once we see it, if we like it and think it would be useful in Connecticut's case - it looks like what it is, instead of just taking MP whatever and applying it, which we make adjustments to the MP scales too for some other clients, but it gives you a lot more adjustments to the improvement scales before you apply it to the future projected mortality rates.

So, you know, it might be something that we can use there, but again, I'm kind of comforted - let's - I'm huge behind this recommendation. Let's go to the - a good conservative table, probably the most conservative one out there for public sector plans. And then, you know, let's kind of keep an eye on things as it emerges. And hopefully we'll see that, you know, it's a pretty good fit.

MR. RYOR: So did you see, you know, as far as impact on liability, did it end up being, you know, not as material on the retirees, but then for the actives, maybe you saw a little uptick by going to the generational, and then on the normal cost, maybe a

little bit—

MR. GARRETT: Yes. So the normal cost did cost us a little bit. But we did see about a – God, Ed, was it a $280-million drop in liabilities for retirees?

MR. RYOR: Okay.

MR. GARRETT: Yep. Yeah, I mean, it was a significant drop in retired liability that, you know, was just partially offset by the increase in present value of future normal costs for actives.

But, yeah, I mean, it's – this is the most painless transition to the fully generational Pub-2010 that I have had with a client. And, you know, I'm not saying, pat us on the back. I'm saying, I don't know what we were smoking when we did the last mortality tables to come up with the RPH 2014 white collar projected to 2020 with static BB. But, I mean, it was a little overkill, or this data is really fooling us.

So I really don't think that table was overkill. And actually, in the measures, the A/E ratios look like it's overkill. But look at the size of the gain. The gain was just tens of millions of dollars. So that's why I'm saying, I think the data we're dealing with is trying to fool us a little bit, and I'm not going to take the head-fake this time.

Okay, so salary scale, Tim, your question earlier was about how we – you know, what the merit scale looks like. So we have to go into this knowing right away, our recommendation is, let's drop the across-the-board rate down half-a-percent. And then what we did is we kind of look at what is the apparent merit scale, and we consider the period of time. So over the five years we are looking at, inflation was – CPI-U was 1.56 percent, I believe, over the five-year period of time.

So we take, you know, the rates, five years of service. We pull out CPI. What's left there are the pieces that represent above - so real wage growth and merit, and we kind of looked at where do we think the trend for real wage growth is. We're assuming it's 50 basis points. In the data, it looks more like about 39 basis points. So we pull that out. What's left is what's an apparent merit scale, and then we kind of adjust our rates for that.

And so in doing that, what we actually saw was that pulling out that half percent of wage inflation, less now, we needed to increase our merit scales. And the other thing about it too is that we needed to extend them out beyond the 14 years. So it used to be that we have a merit scale that goes from

zero to 14 years of service. Now, it needs to go out from zero to 19 years of service. So we're adding five years to the length of the period of time we have to select changing rates by years of service. And for the most part though, I think the rates are going up roughly a quarter percent. Some places, they go up a half a percent.

So here's the scales. When we take those merit scales we came up with, and the scales are shown in the report, but when we then add back in the three percent across-the-board rates to them and compound it with them, this is the rates that we get. And you can kind of see that they're not dropping down by more than half percent in most places.

Early on, we were - I mean, we have some ridiculous rates out there, but experience is kind of - it's really not reliable, what we see out there at less than one year of service. Because, you know, you get data and you annualize it, and then, you know, that sometimes is overkill or not, especially if the person leaves and they actually only work, you know, six months in total and they're in two different valuations. So anyway.

But the key is that we want to have a margin, right. So the blue line on this chart is what actually

occurred. The black line is what was being assumed. And we want to have a margin in there because if we're assuming inflation is two-and-a-half percent, what we actually get here is 1.56 percent inflation. Just due to inflation alone, our assumptions should be about one percent higher. So we want to kind of keep that margin in the red line above the blue line, not necessarily five years, like this.

But when you look at the compound of – so if we substitute this salary scale for a one-size-fits-all across-the-board every-year service, we're going to assume one rate-of-pay increase until we kind of compound out this scale to get what that rate is. And we compare it to what actually occurred. We want to see in those compounded rates, especially, you know, 10 to 30 years of service for non-hazardous folks, we'd want to see that we have a margin of at least that one percent. Because, you know, whatever occurred to inflation, although it's typically – you know, salary scales lag that. But still, you know, over a five-year period of time, we are seeing some of that, the depressed portion of salary increases due to lower inflation.

So and then on the hazardous one, similar story. There was a lot of reason for us to think about

having only one across-the-board rate. But what we didn't like about hazardous duty versus – and doing that and then just kind of having one set, which we had before - is, out there at 20 years of service, those rates start kicking up for hazardous duty. That's when they become retirement eligible. And so we didn't like that. So we felt like we wanted to have a little bit more extension, and a little bit higher rates out there at beyond 15 years of service to kind of prepare expected salaries for that. So, you know, they both have a little bit of a kickup out there at 20 years of service.

But still, you know, as long as we have that compound career-based expected wage growths, salary growth, as long as we have a good margin in there, and I think our margin is about 1.2 percent from what actually occurred to what we would expect under the new assumption, you know, that's where I'm confident about my guess.

So any questions on the merit scale? We do have the A/E ratios there. So we were a little bit on the wrong side again. This is a tough year to do this with, the data, right, at three years of pay freezes. So we pulled out the three years of pay freezes, '17, '18 and '19, and we used – we weighted by two years.

So we treated '16 as two years' work and treated 2020 as three years' work. So the data is kind of weighted 60 percent 2020 and 40 percent 2016. We wanted to do that because we think 2020 is the more recent, emerging, you know, type of what we'd expect.

So that's what this is kind of based on, the A/E ratios for the post – you know, for the new assumption set, is based on that weighted experience of 2016 and 2020, eliminate the pay freeze. If we had the pay freezes in here, really that rate at 20 years of service would be, you know, like 1.2 percent or something like that, instead of being two percent. I mean, it was down quite a bit.

MR. POULIN: Okay, John. This is Claude Poulin.

MR. GARRETT: Hey, Claude.

MR. POULIN: I think you just inserted the question that I had, because I was surprised that the actual expected ratio using the combined 2016 and '20 was 0.991, when for the years where there was a salary freeze, it was higher, 1.00. Well, it was in excess of 1.003, if we—

MR. GARRETT: Right. And you know what? That might be a little misleading, in how we did that. So the before A/E ratios that we showed, it was 1.003

or 1.008, I think for hazardous duty; 1.003 for the combined. That was on the five years that we actually saw. So that – because there, we're showing what the A/E ratio and what we assumed was. And what we assumed was, we had a salary – you know, we had wage inflation of three-and-a-half percent; we had a merit scale. But we modified that assumption for that pay freeze to be zero wage inflation and half the merit scale for those three years.

So actual to expected, if you – Ed, can you go back? Do we have that A/E ratio here? I know it's in – it might be in the text there. There it is, at the bottom. So, you know, based on the actual data for the five-year period of time, we actually had a little higher actual salaries than expected. And that kind of relates then to the losses that we saw, especially for 2019.

So when we did the adjustment is when we used only '16 and '20 as the two years of data that was actually non-frozen pay. And there, we show the A/E ratio being 0.99. I think if we had gone the other way, I think – oh, no, we actually had that. I believe it was like, geez, 0.9 – it was actually less – less, right. We moved the A/E ratios up because the merit scale actually got improved. I think – was that – no,

no.

You know, I'll have to look, Claude. In fact, if we had the A/E ratios on the original data slip—

MR. KOEBEL: John, I think it's on Page 55 of the report. It says, using only 2016 and 2020, the ratios were 0.99 and 0.992.

MR. GARRETT: Okay. Well, that's what the new assumption is though, right?

MR. POULIN: This is Claude. I thought this was the actual experience.

MR. GARRETT: So the actual experience for the five years, you know, not including the assumption, is on Page 49 - I mean, it's on Slide 49, what Ed has up here. At the very bottom of that, where it says, the non-hazardous duty A/E ratio, 1.003, right at the very bottom—

MR. POULIN: Yeah.

MR. GARRETT: --and the hazardous duty A/E ratio is 1.008. So that's based on the five years of data, no different. So that's taking our assumptions, including our reduced assumptions for the pay freeze, with the actual data from the pay freeze deduced. So that's kind of the reality of what happened, and that's - you know, because the A/E ratio is above one, we

should have expected losses, and we had (inaudible) loss.

But again, from what we can tell, the losses were not because of the building-block approach of building the salary increase assumption. It was really because we assumed too much of a pay freeze because, you know, pay freezes are never as frozen as you think they are. You know, they're not like the arctic wild. They're – you know, it's kind of like, you know, only in the government do you get this one-time revokable, irrevocable election kind of stuff.

So pay freezes are reduced, certainly, and I think we just might have over-expected the reduction. I mean, we built that into the SEBAC cost. I mean, it's not bad; it's within a basis point; so we were close, or 10 basis points, I guess.

So—

MR. POULIN: I still have – this is Claude Poulin again. So what does the 0.990 represent for the years 2016 and 2020? This means that the actual to expected is less than one.

MR. GARRETT: Right.

MR. POULIN: And what does it include or exclude?

MR. GARRETT: Right. So what that means

specifically for that chart is that if we had used the new assumption for the assumption that was in place for 2016 and 2020, that we would expect actual salaries to have grown one percent less than what they actually did. So actual salaries would be 99 percent of what we expected them to be. So that's an A/E ratio of 0.99. And for hazardous, we'd expect it to be just under that, 0.93. So it's saying that, if we had this assumption in place, over the same period of time, this is what the A/E would be for that.

Now the difference is, this is not apples to apples, to the 1.003. And that's - I think in the report, we actually break that out a little bit. Do we, Ed? Let's see.

MR. POULIN: Yeah, it's on Page 55, I've got.

MR. KOEBEL: Page 55. Those are the numbers I quoted earlier.

MR. GARRETT: Is that only on 2016 - oh, it is. Okay. So, yeah. So, all in all, I mean, it's a pretty tiny change here, 0.991 versus - yeah, so what that's saying, and just like you see here, in these two charts, right, the red line is above the blue line. The blue line is what actually occurred, the rates of salary change by years of service, right. So when the red line is above it, that means we're anticipating

more increases than what actually occurred.

And so this chart is built on the 2016, 2020 cooling date. It removes the pay freeze years. And so it over-anticipated what actual pays were. So that's that 0.991 combined; for non-hazardous, 0.990; for hazardous, 0.992. So what we're saying is, we're really not modifying much, but we are adjusting the merit scale to kind of account – to take into account that drop in a half-a-percent out of wage inflation. It's not necessarily something to the salary scale.

But we want to keep a margin in there because we should have had salary increases less than what's anticipated, simply because our assumption was built on a two-and-a-half inflation assumption, and we actually only got a 1.56 percent rate of inflation over that five-year period of time. And we don't want to give up that margin because we're still assuming one-and-a-half percent inflation.

So because that red line (inaudible) I'm sorry, the black line is above the blue line, and the red line, both these cases, we should have A/E ratios of less than one, so 0.99-something. It's just because, again, the assumptions, both of them, had over – expected higher salary increases than what actually had occurred.

MR. POULIN: Okay. Good.

MR. GARRETT: In our view, it's not because of the merit scale that much. In fact, when we drop out half-a-percent from wage inflation, we've got to put them back into the merit scale in order to kind of keep this relationship (inaudible). (Inaudible) fine being at 0.99. Point-nine-nine to us is a perfect place to be for this – for the A/E ratio on the new assumption. So it's really a little bit of a change in the merit scale, more so to kind of counteract some of the drop of the wage inflation itself.

So there are some miscellaneous assumptions in here. One, we've already discussed, which is service-connected deaths and disability. The other ones are, you know, what percent of active members are married. Eighty percent is kind of a pretty common approach. It really comes into play more for active death benefits. And then there's some police officer benefits that provide benefits to children for that purpose. We assume that those active members that have that eligibility for that benefit all have two children, both of them, age 12. So they all have twins, age 12.

And then, we have maintained this liability load for the Longley decision that changed the

treatment on longevity pay. We have an 84-basis-point load to active member liabilities because of that. We're keeping that just – probably it's better to keep that little bit of a load in there, instead of revisiting that whole study that actually was performed before we got here. We reviewed it, and we felt it was done well and had no reason to say that it's not reasonable to have an 84-basis-point load on the liabilities.

So I think, Ed, is that near – we've still got more slides? Who put this together?

MR. RYOR: Wait. Can I have the last slide? What was the – I don't have it in front of me. But what did the 60 percent, what was that coming up? Was that – was it 20 percent across the board, and one's going to 30 and one's going to 60?

MR. GARRETT: Correct, correct. It was 20 percent across the board. And now, we're seeing actually 30 percent for non-hazardous, 60 percent for hazardous.

MR. RYOR: Perfect. Thank you.

MR. GARRETT: Okay. Yes, sir.

All right, Ed. I think the last parts are the impact and then, Ed, the judges, I guess, we have some slides (inaudible).

MR. KOEBEL: I have a couple slides, yeah. Go ahead on this.

MR. GARRETT: All right. So here's SERS financial impact. So we broke it up into two pieces here. So the assumptions that we just went through is the middle column. So the first column is the valuation results that we've already performed last year, June 30, 2020 valuation results; 38.5 percent funded ratio; normal cost, 5.79. And, you know, the funny period is 25.8 years, just based on the math of breaking it in the different layers that we have.

So with the recommended assumptions, and those recommended assumptions are all the things we just discussed, including the 40 percent kick for Tier I normal retirements and 20 percent for Tier I early retirements, that's the middle column. And that is an improvement in the funded ratio, the 38.8 percent. Normal cost goes way up.

Tim, that's kind of what you – I think we had more than one assumption that interacted this way, is that, you know – well, no, actually, I think it is only the mortality (inaudible).

MR. RYOR: (Inaudible) active mortality, yeah.

MR. GARRETT: Yeah, so the active—

MR. RYOR: Generation.

MR. GARRETT: --mortality, because it's being generationally projected, you know, they're living a lot longer than maybe what we'd anticipate for a retiree who is age 70 now. So we have a higher normal cost rate, but a lower liability. You see that unfunded accrued liability drops almost $300 million.

So that's the middle column. Now what we did is we said, okay, you know, we're all talking about this 2022 run for the door. And I'm kind of - I'm really indifferent whether we have an assumption in this 2021 valuation, because, again, the money doesn't come into the plan until 2023. So I don't get what we're prefunding, when the retirements are actually going to have occurred by June 1st, 2022, that we're going to increase the funding.

Well, you know, by the time that money would be going in, we'd kind of know what the loss is in that next year. I mean, the advantage we have is maybe one year of interest on the loss, if we put some money in now. So with that, what we said is, let's assume there's 20 percent more retirements for Tier II, Tier II-A. And that's kind of the bigger - you know, that's where a lot of the people are, in Tier II, Tier II-A. And so with that, we increase - the liability goes up

about $200 million, $180 million, the funded ratio, 38.6, still better than the 2020 valuation. Normal cost is up another seven basis points to 6.43 percent.

And then the total cost of the plan, about 54.69 percent. In money, that looks like it's about an increase of around $17 million. So again, it's not – when we're talking about a $2-million-ADEC, you know, this is not – it's not that material to throw an assumption in here, that we're going to assume 20 percent of the people who are eligible to retire by 2022 take it.

So I put that in here just for us to have that discussion. This is something I kind of wanted to talk about in the last meeting to kind of get some feedback on since, to me, it's not that material that we have it in the valuation. But we have some time actually to make a decision on it too, because the valuation is going to be undergoing, probably in October, right, next month, and October is the big month for retirements.

And I talked to John. And, you know, John is going to, you know – he has his finger on the pulse of what people are doing, and if he sees there's, you know, a 20 percent increase in retirements, then, you know, we can include that with the 2020 valuation. If

he sees it's 30 percent, we can kick it up. If he—

So just to - you know, one other thing too, because I think nobody has a feel for what are we talking about in numbers of people, right—

MR. RYOR: Yeah, I'm glad you're on there. Thank you. This is Tim.

MR. GARRETT: Yeah, yeah. Well, I think you mentioned that last time too, Tim.

MR. RYOR: Yeah.

MR. GARRETT: So I wanted to get that together for you. So we would assume roughly 2,400 people retire a year. So the new assumptions, just the new retirement assumptions, increases our expectation by about 300 people. So from - the old assumptions would have had predicted around 2,100 retirees. Now we're predicting around 2,400 retirees. So we add 300 with the new retirement assumption, which, you know, is over 10 percent. So I mean, that's quite a bit.

And then when we consider this 20 percent kick for 2022, that's another 2,400 people. So headcount-wise, it doubles really what we'd expect for 2022, which makes sense too, because now the Tier II retirement rates are around 22 - you know, the bounce from 20 percent up to 25 and down to 22.5 percent. So throwing another 20 percent on there almost doubles

them. So that would be that.

Now, the key is, John, are we on path for having 4,800 retirements in 2022? And, I guess, we already have a couple months into the fiscal year, but—

MR. HERRINGTON: Yeah, as you were saying that, I was actually looking at the headcount for this, this year, right. I mean, I would say that I think for all but one month, we have exceeded the historical averages. But, I mean, I think that we're definitely going to skew above 2,400. Whether we get to 4,800, a lot of that is - as you said, it's going to depend on where we are for October.

I will say, you know, we had, you know, just this month, for September, we had 223 applications, and we typically would expect about 170, maybe 160, for this month. And September usually is one of our lighter months.

MR. GARRETT: So that sounds about 50 percent higher, instead of doubling. So maybe we're kind of leaning more towards a 10 percent kicker. But I think one thing you mentioned before, John, is that you'd expect most of these people that elect to retire are going to probably wait until the last day that they can do it, right?

MR. HERRINGTON: Correct, right. I mean, I

guess the month where I would expect to see people move would be this October, January, April, and then July. I think that those are going to be the heaviest of the months going forward. I would expect, right, we would see, you know, of those, right, I would expect that we would see, you know, from mid-October, of those four months, January is probably going to be the lightest. April is probably going to be the second heaviest. And then, it's probably going to be July when people are kind of, you know, waiting until the last minute to go out.

But I do think, you know, October would be somewhat of a bell weather for what we would (inaudible) predict going forward.

MR. GARRETT: And so for you to get a pretty good feel on the number of retirements you're going to have in October, I mean, people are applying for them all through August and September, I would guess, right?

MR. HERRINGTON: Right, correct. But I would say, you know, there's a reason why we're somewhat behind. We've kind of changed our administrative process. So it used to be that each agency submitted those applications. Now, there's a centralization where, you know, all the executive branch agencies go through one pod, and they are probably behind in the

paperwork compared to where we (inaudible).

MR. GARRETT: John, hopefully – I mean, I hope you understand that that's not what I was implying, that you're behind on anything, because you're the client and I'm the consultant. You're doing everything perfectly good.

And, no, but if we're doing the valuation through – I mean, I'm thinking we typically would present this to you – it's usually a November or a December thing. But if we push this to a December – well, we can use – you know, if you think you're going to have some pretty good material for us to kind of gauge whether we ought to have a kicker rate in here for the '21 valuation, if we know that, I mean, if that's going to be known by, say November, then – in fact, it could be the last thing we do, and still probably have the valuation done for the November Board meeting, done, and actually, Tim, also to give you like three or four days to read it too.

MR. RYOR: Beautiful. This is Tim again. And, I mean, by then too, you'll have another year of experience. And also, I would imagine you're going to then see pretty significant asset gains.

MR. GARRETT: Yeah.

MR. RYOR: So from a budget standpoint, you

know, it's going to be pretty, you know - even with the 20 percent, it looks like a non-event as far as—

MR. GARRETT: Right.

MR. RYOR: --increases in ADEC.

MR. GARRETT: That's what I was hoping, that you would see by that as even - I mean, 20 percent doubles the number of retirements, and it's not moving the needle in a horrible way, in my mind, either.

UNIDENTIFIED SPEAKER: That's (inaudible).

MR. GARRETT: So, yeah, I mean, we can kind of play it by ear, and then maybe have a powwow about this in maybe the October Actuarial Subcommittee meeting. But that's going to be probably before John can actually pull - accounting people are really - I mean, just because they ask for an estimate, right, you don't know if they're actually going to do it, right?

MR. HERRINGTON: Correct. But, I mean, I do think, right, by the October Actuarial Subcommittee meeting, we will know the number of applications that we receive for October 1st.

MR. GARRETT: Okay.

MR. HERRINGTON: And there could be something to, you know, glean from that.

MR. GARRETT: Right. Well, good. So why don't we hold that last piece, that last assumption,

although that's an assumption really for the '21 valuation and not part of the experience study. So we're saying, you know, if this is our recommendation for the assumptions and methodologies going for the next five years, but, you know, this is an additional thing. And so let's think about, do we want to put a load in for retirements, especially Tier II, Tier II-A retirements, for 2022. So that's more of a valuation issue than an experience study. So I'm saying, you know, I wouldn't hold up the process of the commission considering this study because of that.

You know, one more thing too. Based on some of the work we did for the teachers' plan, and their assets are similarly situated as SERS, yeah, I think it's like around a 24 percent rate of return for fiscal year '21, so, yeah, Ed and I will be able to wear our lighter gray suits, because that's good news, right?

MR. RYOR: I'm going to be feeling better about that smoothing method.

MR. GARRETT: Yeah, you're actually going to see it move the other way now, right? So buckle your seatbelt, Tim. You're actually going to get to see it work the other way.

MR. RYOR: Yeah.

MR. GARRETT: In fact, I've already kind of

looked at it. I think it moves to about, you know, 98 percent of market, something like that.

But, yeah, so, I mean, the other thing too that's out there is this potential - and I don't know if the State Treasurer has decided where to put - I think it's the leprechaun's pot of gold somebody found there in Connecticut, that they're deciding on what pension plan to put it into.

MR. FLORES: He has not yet.

MR. GARRETT: Okay. Okay. Well, so that means if I get up there in person, do I have a chance of getting a little piece? No? No. Okay. Yeah. Yeah, I'm Irish, you know? I know about - I have a leprechaun in my family, I think.

Okay. Ed, you want to take over with the judges' experience studies?

MR. KOEBEL: Sure. I know you're all exhausted already, so we'll go through this rather quickly.

So this is the Judges, Family, Magistrates and Compensation Commissioners Retirement System we'll start with. So currently, with the withdrawals, there's actually no assumption being used. We never saw too many withdrawals. Most people, when they get into the plan, they make it to retirement. However, we

did see nine withdrawals over this five-year period, mostly on the compensation and family magistrate group, not many of the judges.

But we are recommending just a small assumption to account for these very few instances, again, very minor assumption change. For retirements, we actually saw more retirements than we expected. And the current rates - and we didn't look at these, you know, five years ago during the experience study, but the current rates are only at age 65 and age 70. So it just had a 50 percent assumption at age 65, and then everybody else would go at 70, and they have to go at 70 in this plan.

But there was no retirement assumptions for 30 years of service because some folks make it to 30 years of service in this plan before they reach 65, and there was no rates of retirement in between 65 and 70. So we're recommending adding some rates of retirement in between those, and lowering the amount of retirement assumptions at age 65. Still 100 percent at age 70, kicking those out.

And then the other three components, mortality preretirement and postretirement, there's such little data, it's not credible enough. So, you know, we combined this with the SERS data to come up

with the SERS mortality tables. So we recommend using the same mortality, and as John said, using the non-hazardous, the general Pub table for these judges. For disabilities, there was actually none over the five-year period. So we're recommending decreasing the rates of retirement for those folks as well.

For the salary scale, so current rates of salary increases are four-and-a-half percent at all ages, and that was broken down by the three-and-a-half percent wage inflation plus the one percent merit. We still think the one percent merit is okay, maybe not so much for the judges, but for the other side of the group. So we - with the decrease in the wage inflation assumption from three-and-a-half to three, we feel like that 50-basis-point change is good enough for right now, and we'll stay a little conservative. So we'll use a proposed rate going forward of four percent, so we're going to lower that, again, for all ages. We didn't really see any kind of credible - tied to service or anything like that.

And the COLA rate for this group is actually tied to the salary scale. And it's for those members who are – and it's a declining population, but for hired prior to January 1st of 1981, so they were hired over 40 years ago, and then they retired before 2011.

So that group of retirees only is getting a COLA based on that rate. So we're going to lower that assumption to four percent as well.

So here's the impact of this, and it's very minimal. You know, you had some offsetting things here going on, retirement increased, but mortality and salary scales decreased. So we have just a slight decrease in the unfunded, just about a million dollars. These numbers are whole numbers, not in thousands. So just about a million-dollar decrease in the liability, actually a 0.1 increase in the funded ratio, and you see the contribution requirement is pretty much the same.

Going forward onto the probate judges, withdrawals, we do have an assumption for that, for these folks, and there were actually more withdrawals than we expected over the five-year period. However - that was over the five-year period. However, when we broke it down by year, we actually had small losses in the 2019 and 2020 val's that were very minor, and we basically hit the number, a headcount almost right on over the last two years. I think it was 23 versus 22.

So we feel like the withdrawal assumption is good even though it wasn't so good over the five years. It could have been data cleanup in that past – before

the last two val's. But the last two val's, we feel like the assumption hit it pretty closely. So we recommend no change.

Pretty much same thing on retirements. There were 45 actual retirements. We expected 52. There was a small aggregate gain. And we're just going to recommend just a small little adjustment in those rates, but really didn't have much impact on the results. For these guys, the mortality is exactly the same. We're recommending the SERS non-hazardous group table. And disabilities, there were none. We have a very small probability of disability anyway. So we recommend no change.

And as far as the salary scale, their salary scales were significantly less, and if we went back to that table at the beginning, you saw a huge salary gain for this group percentagewise. I think it was over four percent of the accrued liability. So it was rather large. So we really want to drop that pretty significantly going forward.

Again, this has four-and-a-half percent at all ages based on the three-and-a-half to the one. We're already going to the three percent on the wage inflation. We feel like another quarter of a basis – a quarter of a percent on the merit scale would suffice.

So we go down to 3.75 percent for all ages there.

And then here's their plan. Their plan is over 100 percent funded. Remember they made that big contribution earlier this year that really put them over the 100 percent and has a surplus unfunded accrued liability. Well, these assumptions are building onto that surplus and making even a larger funded ratio.

So their requirement on contribution will actually – is anticipated to go down. Even with the asset returns, it's going to even go further down. Though this plan, we do – we are – the contribution is equal to the normal cost. So, you know, there's no – even if this is a huge surplus and 120 percent, this plan, based on the funding policy, will still pay the normal cost of the plan. So just a slight little decrease due to the cost.

MR. GARRETT: And, you know, that was a method we really kind of recommended, what, in probably 2016, Ed—

MR. KOEBEL: Yeah.

MR. GARRETT: --for the judges - for these small plans and judges' plans. And actually, it's not a bad policy to have for any of them. It's just, you know, the others wouldn't have to worry about being overfunded for quite a while. But at some point, maybe

when this plan is, you know, 120 percent overfunded or something, then we'd maybe discuss exactly how we want to start, you know, metering out that surplus as far as potential to reductions and employer contributions of normal cost.

So, you know, there's some point, but not a whole lot of plans in the country have this to worry about. So it's a good problem to have. But it might be a topic of discussion.

Well, Ed, you're young enough. They'll probably - you know, you'll see 120 percent funded in the PJERS, yeah.

MR. KOEBEL: I hope so. And that's the end of those two little plans.

Any other questions?

MR. RYOR: It might - it does have gains, right? This is Tim.

MR. KOEBEL: Yeah. Yeah, we might. Yeah.

MR. RYOR: Yeah.

MR. KOEBEL: Very well might.

MR. GARRETT: Well, and I know this is a brutal kind of presentation. The good thing is we don't have to do it again next month, I don't think, right. But, you know, I just hope you guys aren't on your deathbed thinking, damn, if I didn't spend that

time in that experience study presentation, I'd have another two hours to actually enjoy life. So I hope Ed, you know, doesn't have a flashback.

MR. ADOMEIT: Okay. Well, John and Ed, are you at the end of your presentations?

MR. GARRETT: That is. So I think the plan would be that this would be for the September 15th - well, the subcommittee is the 15th. I think the commission meeting is the 16th, is that right? So we want to do it ahead of time in case, you know, we wanted - you guys wanted us to, you know, make some tweaks here and there. We'd have a couple weeks to get that done, and then present it again with those tweaks. But without - you know, if there's no other questions or any additional work we need to do on it, then we can finalize this.

I know there's some typos and stuff we still need to fix. I did go to Georgia public high schools. I mean, you're lucky. I have a garage full of commas because I've been told, I never use them. So I have boxes of commas in my garage. If you all need any up there, just let me know. I can go in—

But we'll - you know, we'll have some text edits. Anything material, we'll let you all know about. But, you know, we did find a couple things that

needed to be fixed from the first draft to the second that we're – you know, in our mind, reason for us to point out to you all. But the grammar stuff and all that, we'll probably just make the changes, have a final version for the commission meeting on the 16th. And unless we want to discuss this again on the 15th – we'll wait and see the agenda. If you all have us on there, we're happy to go through any of the questions you may have at that point too.

MR. RYOR: This is Tim. Maybe it's just one follow-up if – on that last – you know, the decision point seemed to be surrounding that retirement. If you could do 30 percent just so we can have an increment just so, you know – or 10, whatever you think is appropriate, and give us those numbers, all right, 4,800 retirees; here's fifty-two; here's what it would do to the dollar contribution; just so we can have that picture.

So then when John does get the data, we can say, all right, it looks like there are going to be 6,000 retirees or whatever, we can kind of—

MR. GARRETT: Yeah. So right now, we have zero and we have 20. You want us to do 10 and 30? And so we'll do – we want to include this in the report, right. The report is done, but we'll give you the—

MR. RYOR: Yeah, just to get it—

MR. GARRETT: The spreadsheet that shows the counts, headcounts of retirements, the net effects, and then what the impact is to the valuation results as of 2020.

MR. RYOR: Okay, perfect. And maybe add to that ADEC display, the dollars.

MR. GARRETT: Okay. Yeah, you know—

MR. RYOR: To do the math on our head (inaudible). What does 0.22 percent do to the—

MR. GARRETT: Tim, I'm pretty - yeah. So I did look at it. I think it's $17 million to go from the last - from the actual 2020 valuation to the full assumptions, including the 20 percent kicker rates for retirements. That was around $17 million of increase. I think without that is only a $3-million increase, if we have zero rates for the kickers. So—

MR. RYOR: Okay.

MR. GARRETT: But the dollar amount does go up even though, you know, it's just that change in the normal cost is driving cost harder than the drop in the amortization cost. Ed.

MR. ADOMEIT: Peter Adomeit here. John, will there be changes at all between now and the commission meeting? I assume there going to be some minor ones.

Am I correct?

MR. GARRETT: If there are any, the only thing I would anticipate is we might find some more commas to put there.

MR. ADOMEIT: The reason I ask the question is whether it's necessary to present this another time before the commission meeting, or whether we are prepared to recommend its acceptance in its current form.

MR. GARRETT: And, Mr. Chairman, you are a glutton for punishment then, if you want us to go through (inaudible) again.

MR. ADOMEIT: No, I'm not suggesting you do, but if you're make changes, then perhaps—

MR. GARRETT: Right. Well, this is what - what we can do—

MR. ADOMEIT: Yeah.

MR. GARRETT: --is when we finalize this, we'll note any material changes, especially if any of the numbers change—

MR. ADOMEIT: All right.

MR. GARRETT: --if we have rates in here wrong. And we'll send that out with the draft in an email that says, here's what - here is the material changes. If there are no material changes, any

typographical, we'll note that too.

MR. ADOMEIT: All right.

MR. GARRETT: And then you guys decide if you want us to present it again at the 15th meeting.

MR. ADOMEIT: Sure enough. Sure enough.

MR. GARRETT: And we'll have that final version out, I would say, early next week.

MR. ADOMEIT: Okay. Very nice. Are there any other questions or comments?

Well, thank you, John. Thank you, Ed.

MR. GARRETT: Pleasure.

MR. ADOMEIT: I love your slides. It makes it very simple.

MR. GARRETT: Thank you.

MR. ADOMEIT: I think we're at the end of our agenda. That means we need a motion to adjourn.

MR. RYOR: This is Tim Ryor. I will make that motion.

MR. ADOMEIT: Okay, Tim.

MR. POULIN: This is Claude. Second.

MR. ADOMEIT: All right. All in favor, say aye, or raise your hand.

UNIDENTIFIED SPEAKERS: Aye.

MR. ADOMEIT: Opposed, nay, or raise your hand. The ayes have it.

MR. GARRETT: Thank you all very much.

MR. ADOMEIT: Nice to see you all.

MR. GARRETT: Thank you.

(Adjourned at 4:45 p.m.)

I, Karin A. Empson, do hereby certify that the preceding pages are an accurate transcription of the Connecticut State Employees Retirement Commission, Actuarial Subcommittee meeting held electronically via Zoom, conducted at 3:04 p.m. on September 1, 2021.

Karin A. Empson

Karin A. Empson

10/04/2021

Date