

CITY OF FORT PIERCE RETIREMENT AND BENEFIT SYSTEM

BOARD AGENDA

Retirement Board Regular Meeting - Thursday, March 17, 2022 - 2:00 p.m.

City Hall - City Commission Chambers, 100 North U.S. #1, Fort Pierce, Florida

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **COMMENTS FROM THE PUBLIC** (limited to 4 minute duration)
4. **CONSIDERATION OF MINUTES**
5. **REPORT FROM BOARD ATTORNEY**
6. **PUBLIC HEARINGS ON BENEFIT APPLICATIONS**
7. **OLD BUSINESS**
0. **NEW BUSINESS**
 - a. Actuarial Report of Fiscal Year Ending September 30, 2021 – Brad Armstrong of Gabriel Roeder Smith & Company
8. **CONSENT AGENDA**
9. **CONSIDERATION OF ABSENCES**
10. **ADJOURNMENT**

In accordance with the Americans With Disabilities Act of 1990, persons needing a special accommodation to participate in this proceeding should contact the Recording Secretary of the Retirement and Benefit System at the Finance Department of the City of Fort Pierce no later than three business days prior to the proceeding. Telephone (772) 467-3000 for assistance.

Any person seeking to appeal any decision by the Retirement Board with respect to any matter considered at this meeting is advised that a record of proceedings is required in any such appeal and that such person may need to insure that a verbatim record of the proceedings is made including the testimony and evidence upon which the appeal is to be based.

Retirement Board

Meeting Date: 03/17/2022

Re: Minutes of the February 18, 2022 Meeting

Submitted For: Johnna Morris, Finance Director, Finance Department

Information

SUBJECT:

CONSIDERATION OF MINUTES

Attachments

2/18/22 Minutes

Form Review

Form Started By: Johnna Morris
Final Approval Date: 03/14/2022

Started On: 03/14/2022 01:16 PM

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FEBRUARY 17, 2021**

Summarized Minutes of the regular meeting of the City of Fort Pierce Retirement and Benefit System February 17, 2022, 2:01p.m., in the Commission Chambers at City Hall

Present:

Brian Avilla	Vice-Chairperson
Comm. Tom Perona	City Commission Member
Comm. Arnold Gaines	City Commission Member
Keith Stephens	U.A. General Member
Barbara Mika	U.A. Board Appointed Member
Wendy Rydzewski	City of Fort Pierce General Member
Johnna Morris	Secretary/Treasurer

Attorney Jim Walker	Attorney for the Retirement Board, Advisory
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Weston Lewis	Callan Associates
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Paola Juarez	Callan Associates
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Members Absent:

Recording:

Teresa Miller	Executive Assistant to Director of Finance
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ITEM NO. 1 & 2~ ROLL CALL

Mr. Avilla called the meeting to order at 2:01pm, the first item on the agenda being the “Roll Call”.

ITEM NO. 3 ~ COMMENTS FROM THE PUBLIC

Mr. Avilla said the next item on the agenda was comments from the public. Seeing no public, we moved on. There were no comments from the public.

ITEM NO. 4 ~ CONSIDERATION OF MINUTES

Mr. Avilla said the next item on the agenda was consideration of the minutes of December 16, 2021. **A motion was made by Johnna Morris and seconded by Keith Stephens. All those in favor of the motion signified by saying aye. There was no opposition and the motion carried unanimously.**

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ITEM NO. 5 ~ ATTORNEY'S REPORT

Mr. Avilla said next, we have the report from the Board Attorney, we are going to put that to the side for now. We will catch up with that when he gets here.

Mr. Walker said thank you Mr. Chair. All I can say is that we have not been sued this month so the board must be doing something right. I'm happy to entertain any questions, comments or concerns as the board might feel appropriate.

Mr. Avilla asked does anybody have any questions?

Mr. Stephens responded not at this time.

Mr. Avilla said all right we will move on to old business. Seeing no old business, we will move on to new business.

ITEM NO.6 ~ PUBLIC HEARING ON BENEFITS APPLICATIONS

Mr. Avilla said next, we have our public hearing on benefit applications. We will begin with retirement for Luis Munoz with five years and five months of service with the City of Fort Pierce.

Comm. Perona asked are you opening the public hearing?

Mr. Avilla responded yes.

Comm. Perona asked does anybody want to speak? Seeing nobody I think you need to close the public hearings.

Mr. Avilla responded yes; I guess we should. I guess this is a public hearing. Seeing no one we will close the public hearing.

Mr. Avilla asked do we have a motion? **A motion was made by Comm. Tom Perona and seconded by Johnna Morris to approve the request for Retirement from Luis Munoz.**

Mr. Avilla said we have a motion and a second, call roll please. **All those in favor of the motion signified by saying aye. There was no opposition and the motion carried unanimously.**

Mr. Avilla said next, we will continue public hearings. We will open the public hearing for request for Retirement from James Adams with 12 years of service with the Fort Pierce Utilities Authority. Seeing no public, we will close the public

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hearing. Do we have a motion? **A motion was made by Comm. Tom Perona and seconded by Keith Stevens.**

Mr. Avilla said we have a motion and a second, call roll please. **All those in favor of the motion signified by saying aye. There was no opposition and the motion carried unanimously.**

Mr. Avilla said next, we will continue with public hearings. We will open the public hearing for request for Retirement from John Tompeck with 20 years and 5 months of service with the Fort Pierce Utilities Authority. Seeing no public, we will close the public hearing. Do we have a motion? **A motion was made by Keith Stevens and seconded by Comm. Tom Perona.**

Mr. Avilla said we have a motion and a second, call roll please. **All those in favor of the motion signified by saying aye. There was no opposition and the motion carried unanimously.**

Mr. Avilla said we will continue to public hearings and open the request for retirement for Edward Leon Gomez with 25 years in two months of service with the Fort Pierce Utilities Authority entering the DROP Program. Seeing no public, we will move on from the public hearing. **A motion was made by Comm. Tom Perona and seconded by Johnna Morris.**

Mr. Avilla said we have a motion and a second, call roll please. **All those in favor of the motion signified by saying aye. There was no opposition and the motion carried unanimously.**

Mr. Avilla said okay, we will continue with the public hearings for request for retirement from Judith Widmayer with 20 years and 3 months of service with the Fort Pierce Utilities Authority entering the DROP Program. Seeing no public, we will close the public hearing. **A motion was made by Keith Steven and seconded by Wendy Rydzewski.**

Mr. Avilla said we have a motion and a second, call roll please. **All those in favor of the motion signified by saying aye. There was no opposition and the motion carried unanimously.**

Mr. Avilla said the next item on the agenda is public hearings for a request for Retirement from Oliver Wint with 23 years of service with the Fort Pierce Utilities Authority entering into the DROP Program. Seeing no public, we will close the public hearing. Do we have a motion? **A motion was made by Keith Stephens and seconded by Johnna Morris.**

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Mr. Avilla said we have a motion and a second, call roll please. **All those in favor of the motion signified by saying aye. There was no opposition and the motion carried unanimously.**

Mr. Avilla said the next item on the agenda is Public Hearings for a request to Defer Retirement from Joseph Lammers with 16 years and 8 months of service with the Fort Pierce Utilities Authority. Seeing no public, we will close the public hearing. Do we have a motion? **A motion was made by Comm. Tom Perona and seconded by Johnna Morris.**

Mr. Avilla said we have a motion and a second, call roll please. **All those in favor of the motion signified by saying aye. There was no opposition and the motion carried unanimously.**

Mr. Avilla said from here we are going back to the report from the Board Attorney, Mr. Walker.

ITEM NO. 7 ~ OLD BUSINESS

None.

ITEM NO. 8 ~ NEW BUSINESS

Comm. Perona asked maybe we can introduce Comm. Gaines to our folks.

Comm. Gaines said now that I can read my calendar, I was sitting in a second conference room by myself.

Mr. Avilla said we will move on to new business. We have Callan Associates here. Weston and Paola are here. Yes, we have a new member here. Commissioner Gaines. This is his first official meeting sitting in with us. So, I'll let him introduce himself to you if he wishes. Tell us a little bit about yourself if you would like Mr. Gaines.

Comm. Gaines said I was born and raised in Fort Pierce. I have been a commissioner now 6 weeks. This was a board that my colleagues put me on. I said I would take it because I wanted to learn and I'm willing to learn. I will do anything I can to help not only employees but the city of Fort Pierce. So sorry for my tardiness. Like I said if I learn how to read my calendar, and read the or second room, conference room, or chambers, I would have been here on time. I'm here and ready to learn and to jump right in.

Mr. Avilla said welcome Mr. Gaines. Okay, Weston the floor is yours, sir.

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Ms. Juarez said, thank you so much for having us here. Everyone has their presentation in front them. So, we put an agenda just to go quickly through it. We are going to talk a little bit about the market environment for the last quarter, your asset allocation and plan review. This is something that Weston is going to cover, the capital markets expectations are 2022 versions. So basically, that's going to give you Callan's expectations on returns for the next 10 years.

Comm. Perona asked if I may, Comm. Gaines is new, and we are used to seeing you all and know exactly what you do. But if you could just in a couple of sentences, maybe tell us all exactly what you do for the city of Fort Pierce Retirement System.

Mr. Lewis said I will start us off here. Callan has been fortunate to partner with you all on this pension plan for over 20 years. I want to say it stretches into the 30-year time frame and we help you all in four key areas. I think as your stepping back and trying to simplify this because this is how I explained it to my mom. Sometimes I'm a hedge fund manager and sometimes I sell mortgages. It is very simple. The fiduciary process is you create a plan. You find managers to implement that plan and you monitor and evaluate. Now, these are the three simple steps but like you said, there is education that occurs along the way. So really think about what Callan does for you. It is in these four key areas. Setting a strategic plan and you know your asset allocation at with your mix of stocks and bonds are going to be. Second, we have determined what our mix of stocks and bonds are going to be. Let's go and find specialists that you know can manage those stocks and bonds for us. And then you know what we come back to you quarterly and talk about most is that blocking and tackling of monitoring and evaluating. We are going to look at some managers today who are underperforming. Is that a cause for concern or is this expected given their style of management? Then fourth, that very important component of education is we will bring you topics and trends from time to time. We will talk about what are other public plans are doing and what are some of the things that you need to be paying attention to what keeps us up at night. So those are the four key areas but really, at the end of the day, all we are trying to help you all do as a board is make good, prudent financial decisions.

Mr. Avilla said thank you, sir.

Ms. Juarez said I am Paola Juarez and I have been with Callan for nine months. Weston has been with Callan for 14 years.

Mr. Lewis said oh and by the way, my name is Weston.

Ms. Juarez said so we are going to be covering those capital markets expectations. Going back to what Weston was saying looking forward, how does the market look, what do we expect? Are you guys positioned in the right place? So, we are

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going to be covering that at this time. If you flip to page 3, let us start with the equity market and what happened during the fourth quarter. I am sure that you have heard headlines about a lot of topics going on during the fourth quarter. What was it, inflation, supply chain issues, COVID of course.? Maybe the interest rates hike in the next couple of months and stopping stimulus so there is a lot of things going on that were priced into the market. We saw inflation spiking to 7%, which is one of the topics that we are going to be talking a little bit more in the next couple of slides. But if we look at the returns for the quarter and for the year, I know we are talking about how great the returns are for the year. Double digits on your equity side. We see double digits on your develop market side. We see negative returns on the fixed income. It is the fourth year that the Barclays AGG has seen negative returns. There is an explanation for that, rates are going to rise and rose during last year. It is going to hurt them a little bit. About inflation, if you flip to the next page, I know that was the main concern during the quarter, and a lot of our clients have been talking about it. What this chart means to show you is that even though we had a 7% jump on the CPI-U it was kind of expected. We got to a point before the pandemic when inflation was low. So, it was going to take a steady pace for us to get to levels before the pandemic. So even though at the headline from the consumer perspective view, as 7% is scary, and I know the Fed has been saying this is going to be not sticky, we are not going to see it going forward. It has been proven to be a little stickier than we expected. But it is not something that we are going to hopefully continue seeing for the long term. There are very specific areas that have been driving that inflation during the quarter and at the end of last year. Which is going to be mainly your transportation sector. So, if you noticed there were raising gas prices when there were supply chain issues, transporting all those goods and services became a little bit more challenging. That is why your household goods went up in pricing. It is something that over the long term we do not expect this to be completely sticky, it is something that is probably is going to stay with us for the next six months or so. We are looking into it; we have our capital markets expectations; we will share that with you what we think is going to happen over the next 10 years. If you flip to the page five, it echoes basically what I just mentioned. Basically, this is your five-year breakeven inflation rate. It is kind of what the market is expecting for inflation to be and what it does, it takes your regular fixed income bonds minus your treasury, your TIPS Bonds, and that difference is going to give you this number. Right now, what is expected is around 2.5%, I believe currencies is 2.25 for the next 10 years, this is for five years. Again, the expectation is you are going to keep seeing inflation, obviously on headlines for the next few months until everything settles down on supply chain and prices going back to normal levels. We are not expecting this to be long term, something that we will continue seeing. If you turn to page 6 again going back to headlines, when does this become a problem? Probably people like me, have not seen inflation this high ever in our lifetime. It is something that a lot of other people have seen but if you think from my perspective, I have not seen this before when I go to the store, I am going to see prices being high. I'm going to

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see my gas tank going up like crazy when I go to the gas station. It is going to be temporary. It is going to be sticky for a few months, but it is not going last. We have seen the effect on jobs, job opportunities, people are taking those jobs. We have seen inflation still staying but we are going to wait and watch the upcoming months. We will see inflation hopefully become steadier. Any other comments you want to add?

Mr. Lewis responded and said no, you have covered it quite well. Any questions?

Comm. Perona said I have a question. Yes, we are hearing that inflation is here and I am old enough to know what inflation has done in years past and it gets crazy out there and gives a lot of uncertainty, especially to regular folks. I am glad that this is short lived, but you know, I keep thinking that supply chains are probably one of the biggest reasons for the inflation right now. And from what I understand that a lot of supply chains are changing, rather than some cheap labor here and cheap supplies coming in from, you know, the foreign countries and things like that, that they're looking locally for some of these things to happen. I can't imagine that that's going to help correct the inflation part of all this. You say it will go away, but do you think that it may go away and still maintain a certain level of inflation that is moving forward? We are guessing.

Ms. Juarez said you see we are used to seeing a certain level of inflation over the last few years, the last couple of years have been completely an anomaly. And even before COVID, inflation rates were low. So that is where I think the disconnect is from the current situation. We were used to a normal rate of inflation of about 2%, historically, or over the last few years. As we went through the cycle, everybody is scared about what is going to happen going forward. So even though a lot of companies generally may be moving some of the production locally or maybe to some other countries, they are going figure out how to make sure that the ultimate consumer has their product or service. We do not want to continue seeing this, there is two pieces of it, production prices and commodities, they were in a low level, before the pandemic, even before we knew that pandemic was happening. Prices were relatively cheap, and that is why we had a very low inflation, but then the consumer got used to that. Nowadays what is going to happen moving forward? Companies are going to try to make sure that supply chain issue does not happen moving forward. Even if we have a situation like what we do. It is just a learning experience.

Mr. Stephens said say that in layman's term from a perspective of where I work, a lot of times people did not make stuff until we ordered it. It was made to order. They do not keep stuff in warehouses like they did when we were younger. They had a warehouse of certain things. Because of that, as soon as this happened, there was nobody to make that part you were ordering.

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Ms. Juarez said everybody was ordering at the same time.

Mr. Stephens said there were no warehouses, and that is where they are going to have to start rethinking it. That is what I think is going to happen Tom, because I can tell you right now, we have always had long wait times anyway, it was working right and still longer than what we wanted but now it is untenable, really right now.

Ms. Juarez said that is the difference between the two just in case and just in time mentality. They had stuff in the warehouse as just the case and then it became just in time as it was requested.

Comm. Gaines said you opened this door. When you give me graphs and stuff to read prior to meeting I pay attention to the graphs. Especially when you give me a graph and you have a circle on the answer. My question is we are sitting here hoping that the supply chain issue gets resolved and we get back down to this 2% or we stay where we are at this 2.5%. When I see the circle and I look over to the left of this graph and I see 3.5% or 3%. Is there any likelihood that this green, would get up to 3% or 3.5%? Just curious.

Mr. Lewis said I think the big takeaway from this slide here is exactly what you are saying. It is not just Callan that believes that inflation is going to moderate. This is the market, and this is basically thinking on a forward-looking basis. What does the market believe that the inflation rate is going to be for the next five years? It is saying that it is the most recent reading 2.75% is kind of saying that the 7% read that we just had is an anomaly. It is going to come back down. If you all think that the market is wrong and underpricing inflation, which you should do, is you should take some of that bond portfolio and say, I do not want to do nominal bonds, I want to do treasury inflation protected securities, the TIPS portion. Now what we would warn you about with that is, you know, you may be wrong, you may be right, who knows, but the trouble that we have with like the short-term inflation protected type instruments is that they are typically very terrible long term return instruments. So, I think this is a key point on that slide that Paola had, which as you know, when does inflation become a problem? For you all you just have a 28% allocation to bonds, that is going to be the thing that hurts you most, but you have equities, and you have real estate for the remainder. Both of those instruments are very good long term, inflation sensitive instruments, if you will. In the short-term equities are not going to look like you know, respond to inflation, but in the long term, they are actually pretty good. We have real estate in there for that purpose and, real estate they raise rents when inflation goes up. So, you do have some inflation protection in there. I think where it could hurt you though, is and this is getting outside of my scope because we look at the investments but what does it mean for your liabilities? That is where I think that is a conversation.

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Mr. Gaines responded alright, and I thank you for that. Just like I said, when whoever created this graph, when you when you circle and make that extra line, I pick up on stuff like that. There is a reason why you put that circle there, just not to make the graph look pretty. So, I had to ask the question, so not to go into everything else. I will turn it back over.

Ms. Juarez said thanks for the questions. We are going move to talk a little bit about your asset allocation on page eight. This page is just for Comm. Gaines' perspective. It shows you your target asset allocation. What is on your IPS to give you guidance, where do you want to be allocated and what are your targets for that? On the left-hand side is your actual asset allocation at the end of the of December 2021. You are going to see it is easier to look at it on the table on the bottom it shows what is your target and where you are. At the end of the year, the plan ended up with \$259.8 million, and that one was allocated across domestic equity, which has a target of 38%, but it's currently at 42.5%. international equity, domestic equity, real estate, and cash. You have a very small amount of cash, but it is always good to have a good reserve. I think there is nothing material to highlight in here. I know in March usually your cash rates or benefit payments comes up. If we look at that weight for the domestic equity and look where the money is probably going to come from, your domestic equity, your ranges are within 30 to 44%. This is going to be a little bit on the upper side. Maybe we will look at that section to get some cash out whenever you must raise cash for benefit payments. Other than that, there is nothing else. You are well within your target ranges, establishing the IPS and nothing really to highlight in there. Page 39 just provides you with a little bit more information, just what type of managers do you have? What is the allocation for each individual manager? We have targets established like for each kind of assets of asset class. Your Emerald Advisors and Ceredex Value Advisors are going to be your small cap managers, your growth and value. Your S&P 500 is going to be your large cap core and your S&P 400 is going to be your mid cap core. Then we have some international equity exposure in fixed income and real estate. Adding a little bit further to that domestic equity exposure we are probably going to be looking into that S&P 500& 400 because the returns for this segment of the market were really outstanding during the year and have been over the last few years. They are pushing the target a little bit above the target for Fort Pierce. If we compare from last quarter, your assets went up about 12.4 million dollars. If we look a little farther back, as of December of last year, they had \$232.1 million. So, it is a significant return for the year even though you guys were doing benefit payments still you saw a good performance for 2021. Look at the next page. This is going to be in a returns perspective. Basically, what we just talked about in dollar base, this is just on the return base. If we focus on the chart above, what it means is that we look at all the Callan Pension Plans, and then we compare your plan against how those other plans performed. For the quarter Fort Pierce, you guys had a return of 5% a little ahead of the policy benchmark and then your plan ended up on the top 1st quartile for the quarter and the 13th

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percentile compared to the rest of our plans that we advise at Callan. Over the long term I know that the goal and we will see on the next page, we are outperforming the benchmark and there are no concerns. Speaking with Weston has been on this account for a long time. You guys are always very patient with your managers. You do not react immediately after a drop in the market you wait for the cycle to benefit the managers that you have. That has helped you guys out over time. Again, nothing really to be concerned about if you look at the rankings over the 2,3,5, 10 years, same thing you are on the top me median versus your peers. Very good performance historically.

Mr. Lewis said fast, when we when we talk about the peers, there are 200 different pension plans in this database. So, if you are thinking, alright, we are in the top 13%, it is the top 26 or so plans in the nation for the quarter. But that is not what we like to focus on. We like to focus on those numbers on the right-hand side of the page. The number that matters most to you is that 10-year number.

Ms. Juarez said turn to page 11. I know that last quarter, we changed the deck a little bit just to make it a simpler for you and just focus on the managers that you probably want to spend a little more time talking about. I am going to start with Total Fund which is the first row. I know we were just talking about it on the previous page. But the objective that you have is to outperform the CPI plus 5%. I am going to be flipping back to the previous page. Over time, if you look at the 10-year number the return for Fort Pierce is going to be 10.7% and the CPI plus 5% is going to be 7.12%. You have a significant outperformance in there and that is what we want to see. That is why in the comments we have met our objective for the plan.

Mr. Stephens asked did you just say in over ten years we had a return of 10.5?

Ms. Juarez answered yes 10.7% versus the CPI plus 5% is 7.12%

Mr. Stephens said that goes to what I was saying before. When I said that to him, he just couldn't believe in over 10 years, that's what we've got.

Ms. Juarez said I am going to start a little bit from the bottom. I want to start from your large-caps, mid-caps, and small-caps. So, we focus just on the S&P 500 and the S&P 400. The goal for those managers is going to be match your index, that is what we want. Usually, SSgA has a very low fee and looking at their performance for over the long term they have been doing what you guys hired them to do. Just track the index and keep offering you a low fee. On the small cap side, that's going to be your Emerald and your Ceredex. So, one is growth, and one is value. Emerald is going to be your growth index. If we look at the market on its small cap

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side, it was very interesting. Over the quarter and over the year, growth underperformed value, which is something different from what we have seen over the last couple of years with COVID. There was a reversal in there. And there was a significant difference if you look at, I am going to just reference pages 18 and 19. Your Russell 2000 growth had a return that was basically flat .01. Then your value. Russell 2000 value had a return of 4.36%. There was a significant difference in there. And if we look at the year, your Russell 2000 value returned 28.7% which is going to be just the index and then the growth index returned 2.83%. So, we see a big disparity, and this is expected when inflation goes up, your value indexes are going to do a little bit better. From a manager's perspective, Emerald is very focused a little bit on niche companies which are small cap growth companies. They, if you look at their performance, they slightly outperformed. they did not lose money during the quarters. Given the expectation that they have, what stock they had to play around with. They outperformed a little bit, and they picked the right stocks and the right sectors to invest in for the quarter. Over the long term, they have been doing great. I know we had them present in November when we were here. Over the long term we do not have any concerns; they keep outperforming your Russell 2000 growth and that's why we put in there that they met expectations. The opposite happened a little bit with Ceredex. The value index outperformed but Ceredex slightly underperformed over the long term. They did a great job during the quarter, outperformed, and took advantage of the evaluations during the quarter. However, over the long term, we see them closing that gap and hopefully they are going to keep benefiting from that rally on the value side. They are closing the gap on the difference with the index. Nothing to be really concerned about. They pick value stocks. They have a very well-established process, and they did a good job during that quarter. Moving on to your international equities, just for a little bit of background. There are three managers on your international segment. It is going to be Morgan Stanley, Causeway and William Blair. One is going to be your EAFE type manager. The other William Blake is going to be your growth manager.

Mr. Lewis said describe the word. EAFE is developed. It stands for Europe, Australasia, Far East. It is international equities that are in developed nations.

Ms. Juarez said thanks for that. William Blake is going is going to be your growth-oriented manager and track to the ACWI ex US. Your All Country World Index, excluding the US. Causeway is going to be your emerging markets manager. I am going to start with Causeway because it is one of your newest managers. Morgan Stanley emerging markets was replaced because of the style that they had and the exposure that you have through William Blair. We wanted to make sure that you had a broader exposure to emerging markets. We know that it was a challenging year for emerging markets. We had a conversation about China last quarter, and this quarter given the concerns with COVID, the regulatory environment happening in China again, waited a little bit on the index. Causeway

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even though they also finished in negative territory, they outperformed your benchmark. Over the long term, I know that you guys have had them for two and a quarter years. They are still outperforming your benchmark. We are still monitoring them just because we want to make sure that they are making the right decisions where they are putting your money. Nothing from our manager research team stands out for their current investments. On the Morgan Stanley side, this is a manager that you guys decided to keep once you got rid of the emerging markets side, you decided to stay with them. They are if you look at their long term, still outperforming your index. Even though they have struggled over the last year a little bit because of the allocation that they had chosen, the stocks that they picked did not benefit them and Weston was mentioning they are following a little bit more of the EAFE index. We are going to keep an eye on them just to make sure that they continue to follow the process that they are supposed to be following and picking your investments. Over the long term, they are performing well, and they are closing the gap with the index. Specifically, if you look at the objective, we are looking at the three years. They are still underperforming a little bit, but over the long term, 10 years, 15 years, they are outperforming your index. Even though we say it is not met, of course just by policy it is not met but the managers are still performing over the long term. Finally, William Blair, this is going to be your growth-oriented manager. On the international side, they did a great job during the three years. Their return is 23.74% for the manager and the index ACWI ex US is 13.8%. If we look at your objective, it is outperforming the ACWI ex US. They are still following the process of picking growth, and international growth in stocks. They have an allocation to China as well which weighed in on their returns this quarter a little bit. We are just monitoring, and we added into your report allocations for different countries. In case you want to double check what countries they are investing in; your report now has that information. Finally, if we move to fixed income. Richmond, as I mentioned was a very tough year for the Barclays AGG. One of the fourth quarters years historically that they have posted negative returns anyways because of rising yields and rising rates. It impacted them and Richmond is focused on high quality corporate bonds. They do not go below investment grade. I think Weston and I have talked a little bit about the goal that we have. The three-year period is going to tough for them to outperform by 50 basis points. We are going to see more of a 30ish basis points of outperforming. They are outperforming the index, but they are not by the goal that we have established for them. It is just something that we want to keep an eye on or maybe have a conversation down the road. If it is something that you would want to revisit; that goal to adjust the strategy or maybe reassess whether this is the right strategy for you. If you want some fixed income manager that's going to provide that additional return.

Mr. Lewis said I just may add some context here. When this objective for Richmond was put together, it was probably 30 years ago. When interest rates were in a very different scenario outperforming by 50 basis points was very

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doable. Now that we are in an interest rate environment with a 10 year, I mean it has been below two most of the past five years. It has become a lot harder to meet that objective. The question is, do you like it here just to flag your attention to it or is this something that you all as a board are going to look at and say you know what, they have not met their objective in seven years. Should we do something different? That is what we don't want. We would rather you all say, hey it is fine if we flag and we will pay attention to it and understand it, check it and say we understand why they are not doing that. If it is going to lead to action, unnecessary action, then we would say alright, let us revisit this goal.

Mr. Stephens asked is it an unrealistic number?

Mr. Lewis responded in today's interest rate environment; it is going to be tough.

Mr. Stephens asked do you have other clients that said something similar? Is nobody else using Richmond Capital, I'm just curious.

Mr. Lewis responded We do have other clients in Richmond. We still think a lot of what they do, Richmond is a very plain vanilla boring bond manager, which is what you want. This is this role this plays in the portfolio is when stocks start to act silly, this is going to be the thing that supposed to hold up and you want them buying safer securities. By buying those safer securities, they just have not gone up as much as some of their other peers. There are two things that are not meeting is the peer objective, as well as our performance. The top one, you at a minimum, if their fee is, I am struggling to remember what it is. I think it is 20 basis point, 18 basis points. It has got to be north of that for sure. We are paying active management fees, we need to see some outperformance so, that number that Paola mentioned earlier that 30-basis points that is probably where we think is reasonable. If they can't meet their fees the easy answer is just let us be passive. I think this is a longer, you know, bigger strategic conversation, but it is just flagging the issue.

Comm. Perona said I predate you here on this board, barely. But I do not ever remember going through and changing any of anything to do with our objectives on any money manager. I think what we have done is just knew that the economic times were that way. We discussed it, and within maybe three or four quarters, we were back to where the objectives made sense again. This is a different world out there right now and so the question really is, do we want to modify the objectives on that one so that we can closely identify performance as the world is presenting itself to us for the next three years. Then revisit it at that time and maybe change it again or do we leave it this way, and always have the asterisk and the explanation of why it is not hitting, because really, you are right about that. We are sensitive to the point that we see a money manager quarter after quarter is not hitting the objectives that we set forth. It is almost a fiduciary responsibility to sit there and

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raise flags jump up and down and say, let us throw them out let us get somebody else. As you say, in the peer groups, they are doing better than most of them in the peer groups. It is not doing what it is supposed to do when we look at this chart right now and try to figure out what is going on. Paola you are right about that we need to identify that the next three to five years are going to be this way. Give them an objective that we can measure them by; not having to stop all the time, thinking that they are not doing what they are supposed to do. Have we ever? I cannot remember changing an object.

Mr. Lewis responded we have revisited your investment policy statement. This is where they are listed. I do not know if we have ever brought it down. It was for Heitman. That was the most recent one, where we changed it.

Comm. Perona responded I remember that.

Mr. Lewis said I do not want to skip around too much, but on page 33, we have a work plan for you all, as to what we want to accomplish together. Over the course of the year, we have a shaded area for that review investment policy statement. Maybe we will just kind of color this in and say, yes, we will come back to you all, with some proposed changes to your investment policy statement to the next meeting. We know it's a busier agenda because you will have the investment managers here. We think it is a good fiduciary exercise to go through. Periodically sometimes it is once a year sometimes it is a little more than a year just to revisit and re-underwrite these objectives that we have, do they still make sense?

Comm. Perona said the board changes out and it did not for a long time. Now it seems like there are two or three of us here that will not to be here this time next year. As we move through it all I would like to have some sustainability as we go forward. This is what we have, it is measured this way. There must be somebody here that knows what is going on. When Keith leaves nobody is going to remember what happened 5 to 10 years ago. I think it is important for us to stay up to date on this especially when the cycles are not just swinging every year or every three quarters or whatever. We are talking about 3 to 5 years from now; if they ever go back to where they were 30 years ago. I would say that is an excellent opportunity for us to go in and make those changes.

Mr. Stephens said without making it too easy.

Mr. Lewis responded agreed.

Mr. Stephens said you must set a bar. If they are next to it and it is a high bar. I'm happy with that. Especially when you are looking at their peers. That is a big difference.

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Ms. Juarez said Richmond should be coming next quarter.

Mr. Lewis said yes, Richmond I believe will be here next quarter and we will have a conversation with them. And you know, it is a good question that you can ask them.

Mr. Stephens asked will we see money managers?

Comm. Perona responded next time.

Mr. Lewis responded I know they are itching to get down to Florida from where they are.

Mr. Stephens asked have we seen them yet?

Mr. Lewis responded I think the last time you did it by phone. I know just from the investment managers that I have spoken to things are getting back to normal where they are traveling more and more. They are certainly willing if you are willing to see them.

Comm. Perona said this is Florida we do not have COVID.

Ms. Juarez said we will put that on our notes to follow up. I have one more manager and I am going to be quick. So, Weston can cover the fun part. For Heitman, their returns they have not met that goal that you guys have set for them. But we know kind of what happened over the past few years where they were investing in retail, and they had office spaces in the Midwest that negatively impacted them. If you look at their last quarter that obviously had one of their strongest quarters, if not the strongest quarter in a very long time. Heitman beat the benchmark, so they had a return for the quarter of 8.85 and I am referencing those numbers on page 29 if you guys want to look at them. 8.85% versus the index at 7.38%. And over the year they were at 23.6% versus 21.8%. So, what helped them there was they had an allocation that a lot of other managers do not have, self-storage. It was a niche market a few years ago that has been benefiting them. Then they have seen some industrial investments that they had in their portfolio helping them out. When I was in their quarterly investment meeting, they talked a lot about the appraisal of the buildings. The appraisers have been very generous on how they appraise these properties. Also, they have seen a lot of cash flow and increase in rents, and everything is going up with inflation which is what Weston was saying. That is what is helping in what is happening in their portfolio. Even though over the five years like they are still underperforming the index we have seen them reposition that portfolio to seek some value for their investors. That is when we talk about how you guys have been very patient with your managers. And you can see through the cycles, how they do what they are hired to do and when we expect

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them to perform well, they are doing that. They were very clear that we will not see strong returns this year. But they will be a little stronger. They say that starting in 2023 once everything starts settling down and we see how the markets are performing maybe those returns will become more stable going forward after 2023. We will keep monitoring them, but we do not recommend any action at this point.

Comm. Perona said especially with Heitman, and we have all been watching them really close over the years. They had the reassessment of their values, they went, and they looked at their office spaces, their malls, retail and they wrote them all down and it scared everybody, it scared us. I mean, that is all we could think about for the longest time. The idea of it is and of course you are good with that Weston, and you were even on the phone telling us that. Give them the time to go through this thing. Every one of these in that peer group are going to have to do the same thing eventually. They are out there doing it now, and you will see those values as we go forward. I think we are starting to see those values now. So, the patience now has, I thank God we have gotten through all that and now we can get back to real issues. When they reassess their values of their assets, I mean, it shook the whole thing. Heitman is dealing more with realistic values. I think that is the way to approach the market right now and I think it's starting to show up in their value.

Mr. Lewis said I have been doing consulting for 17 years now. Inevitably when there is a poor performing manager, you fire them, you go and you hire the best performer out there, one of the better performers, and you get that guy right as the time where he is about to cycle down. So had you fired them you would not be experiencing this. It is a testament to there are times where we will make tough decisions and we will say it is time to let that manager go.

Comm. Perona said we have done that.

Mr. Lewis said this is one where it was it was a question mark? And you all stuck to your gut and your instinct, and it worked.

Comm. Perona said you delivered them to us too and they told their story. I think at least twice, I know one time in person and one time on the phone. It is important to hear that from them because, you know, they are scrambling. They were scrambling to try to give you something to hold on to. They were very confident in what they were doing. You could tell the professionalism of the whole thing. They were going to get it done. I believe that at the end; I'm sure we all did as we walked away. We are still going to watch them, but we did believe that.

Mr. Stephens asked did they change a little bit or their philosophy? Did they not change it a little bit? Or at least they were looking at it.

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Mr. Lewis responded yes, they had to change their investment philosophy. That is what I am aware of.

Mr. Stephens asked were they not in malls?

Mr. Lewis responded they have some mall exposure and retail. That is what really hurt them, the broader retail. For a long time, mall properties and it still is this way to some degree, but all properties are nearly impossible for people to buy. They are a prized asset. They had some mall exposure and because it was this prized asset, and it was still paying good income. They said well why would we sell it. They ultimately realized that we need to reposition and say, alright, we are going to cut ties if the values continue to drop. We are going to cut ties and reposition into more industrial properties which they have done. And that was another risk, do you stick it out long enough? Are they going to be able to visit reposition if you have investors leaving and you cannot buy new assets with the money that you have?

Mr. Stephens said people in the queue are leaving.

Mr. Lewis responded I think you are right; people are acutely aware. This is going to frustrate you at some point in the future, but it worked to your benefit. They were aggressive about locking investors in and the investors that wanted to get out were frustrated. They were saying we want our money back. It worked to your advantage by them saying no, we are going to hand it out at a time that works best for the total fund, and I credit them. Now there are some other Callan clients that are frustrated that would say that, but yes, I think it has worked out to your benefit.

Ms. Juarez said even looking from their attribution last quarter, a lot of their appreciation came from self-storage, industrials and even apartment complex, retail is like very small percentage because they don't know that much anymore.

Mr. Lewis said that is maybe looking at what happened. Now let us and you all as a board, as a group, we think that a good amount of your time should be spent thinking about what could happen. What is our future direction? What do we want for the future? We must plan for the future. So, every year Callan comes up with our capital market segmentation, so we are giving you numbers to think about, here is what our crystal ball says; here is what we think the future is going to look like. Now, that crystal ball is very murky. We have been doing this for a long time. We are making long term assumptions about what the capital markets could do. This is not just Paola and Weston coming up and saying, you know, equity could return 7%. This is a group of actuaries, economists and some mathematicians that are putting this together and they do it every year. They asked themselves at the beginning of the year, what has changed this year? What do we know more about this year that we did not know last year and what has changed that would cause us

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to change our view? So that is where these originated from. I think that one of the charts that is probably the more important one here in this deck is on page 13. You will look at the history, this is the history of the stock market. Believe it or not this actually predates Comm. Perona. In all seriousness, this is 232 years of return history and put together in a histogram. You will see, the last three years 2019, 2020, and 2021 all very good years and what you had in here was actually a pandemic. It is almost completely lost on the last three-year returns. The part here on the left where it says the S&P 500 five-year return 18.5, ten-year return 16.6. This is looking at it by calendar year. If we were looking at rolling, five-year or rolling ten-year returns, that 16.6% for 10 years would be way out in the tail. I do not mean to be the skunk at the picnic here, but this does not happen very often. So, where you have come and while we like to see that long term return of 10% on, what you have had, our thinking for the future is that it is probably not going to look like the last 10 years. Specifically, on page 14, we talk about what are the ranges of returns and what we are going for. What gets most of the press. What is your median return assumption? What you see in that 10-year geometric column, that is the expected case because it is the midpoint of a range; it is the most likely scenario to occur. I will be extremely surprised if we look back in 10 years' time and the return for the broad US equity has been 6.6. This is as I mentioned, the midpoint of a range. Now, as I mentioned we asked ourselves what has changed this year? We know more this year than we did last year. What has changed to change our view? If you were to compare what we had for our projected return in that 10 year versus what we had in 2021 on the very far right-hand side, we show that we did update from 2021 for equity. All those asset classes are all the categories and US equity. We didn't change anything. We have been suggesting that it is going to be lower returns for some time, and we continue to be wrong. Just something to keep an eye on; I do not want to say we continue to be wrong. That midpoint continues to be lower than what the market is actually giving us. We do think given where we come from; where valuations are starting today, we still think that this lower return expectation for equities makes sense. Now what is driving some of that lower return on equity is what you see and just below in that fixed income category. Because interest rates are so low, there is this notion of investors are willing to take on so much more risk to get paid a little bit more otherwise they would go to a safer option. We call that the equity risk premium. How much more are you paid to take equity risk versus just buying a plane safe US Treasury. When interest rates are down, you can only go so far for that equity risk premium to say that equities are going to return so much more than treasuries. This is really the that tail that wags the whole dog is what you would what you would see in us fixed income. But for the Bloomberg Aggregate Index, this is your bond index. What we expect for that is also unchanged from last year but if you're looking at the numbers, the midpoint of that range is 1.75%. If we say from where we are today over the next 10 years, what do we think fixed income is going to do 1.75%. Now compare that to your actuarial rate of return. It is not going to get you there. A lot of clients are rethinking you know, what do we need to do about

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bonds? A lot of times they come back, and they say nothing, because that bond portfolio is like insurance, and in times of crisis or in times of stress. That is an area that we can tap to when we need benefit payments to be paid. We know it is going to be there. We know it's going to be stable. We know it is going to be something liquid that we can tap into. Is 28 or 27% I think is your target, is that the right number? It is always somewhere close. Food for Thought I guess if you will. The final asset class that you have here that all paid a little bit of attention to is that core real estate and you will see the NCREIF NFI-ODCE this is an open end developed core real estate index. It did not change any of the return expectations, but we did reduce the risk a little bit which actually makes it a slightly better investment than it was. In terms of what broader portfolio has changed for you, not so much. Now, what did change is that CPI-U at the bottom, inflation, we did raise that by 25 basis points. I know we have gotten a lot of pushback from some clients on saying like, really guys inflation 7% right now and you think it is going to moderate down to 2-1/4%. Even with the 7% inflation over the last over the last year, if you were to look at 20 years of history, inflation has averaged around 2.2%. So, we do think it still moderate to something lower than 7%, but you know will it be 2-1/4%? I do think that is an optimistic scenario. What that means is if we did not change any our nominal expectations for the equity, or for fixed income, or for real estate, but we did change it for inflation. Well, in real terms, you just got a 25-basis point haircut. Just something to think about in terms of that overriding goal that you have of CPI plus 5%, that objective of CPI plus 5% just went from 7% as a broader return expectation to now 7-1/4%. I will say that it is not the end of the world if you have a higher discount rate than your peers or anything like that. What it means is you are just in a lot of ways paying less than now than you would otherwise be. I have some clients that have taken it down to 6-1/2%. Why did they do that? It wasn't they thought that the capital markets were going, we want to force in their case the county to pay more into this pension plan because they are not unless we do this. Everybody has different reasons for doing it. One of the reasons that we think is one of the considerations is the funding policy, but it's also the investment policy. It is not just what have you done, but what helps us meet our objectives from funding policy, benefit policy, and investment policy. Then we just summarize what has changed on the next page but there is not much else to go into. I will just open up the floor for questions. That concludes our comments.

Comm. Perona said quick one, we used to have a table of returns. I collected them over the years because it was just so fascinating to be able to see. Do you still have them?

Mr. Lewis responded yes; we still publish that.

Comm. Perona said I think it is important especially for some of the newer member to be able to see those over an annual basis. Small cap might be the big

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winner this year, and it is the biggest loser next year. They have a table that set up over a period time, a periodic table of returns. I think it was Callan's own little creation all these little colored squares. If you followed it over a 10-year period, you are amazed to see how things could drop to the bottom and come back up the next year. Rarely you get two years in a row of the same, you know the same manager or the same type of money product that is doing the same that has the same success.

Mr. Stephens said you might have to give us last year's too because you did not give us one last year.

Ms. Juarez responded I will make a note to send it every time.

Mr. Lewis when the head of the Capital Markets Group, his name is Jake. Jay came to Callan in the late 90s and he would love to hear what you just said. When he came in late 90s, we were going around and talking to clients, and they would tell us Callan you do not get it. We do not need diversification we need more tech stocks. So, Jay's response to that was like this is the periodic table of returns. This is how things cycle over and it is not going to remain this way forever. He wanted something on a single page to show and emphasize the importance of diversification.

Comm. Perona said if you want to do that, and we should get them every year. I collected them for some reason, and I know they go back in time so the next one adds to it. It becomes this great big display. Just the takeaway from that is that diversification is key to whatever you are doing. Do not take your finger off the little button for change or to increase and stuff like that. Staying firm with your commitment, your plan, like you said, over a longer period of time has the biggest payout. Some of them have some liability and that could crash the next year and you need to have other money sources that can bail you out of that and that is what we do. This is why it is important to have everything set up in the right percentages and that we do exactly what we are supposed to.

Mr. Stephens said I just got one thing to say Commissioner Gaines before you got here, one thing we said, and it goes along with diversification. We were in a class for the FPUA which I am sure you will become familiar with becoming a training and public pension trustee. We were in a class Comm. Perona and during the class, they were talking about returns and everything and said we had over 8% forever. That is the lowest we have ever gotten. He basically called me a liar in the class. Then he went to break, and he came back and stopped the class and he said I just wanted to say I was wrong. I went to look because you know, everything's public. He said yes, I could not believe it. It all goes back to what you just said about that chart. We were, it is because of diversification, and we do not make decisions based off of managers, or even consultants. And because of that, instability is one

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of the biggest things. One of the things you will see with the money managers, and I guess some plans really worry about it but if a person changes; like someone that has been there 10 years; that is like the end of the world for some people. Yes, we had a change, but they know what they are doing. That is when you come into play and you watch that because if they do not change their philosophy on what we have set up, there usually is not a problem.

Mr. Avilla asked does anybody else have any questions?

Ms. Juarez responded I have just one more comment thought. From last quarter we were talking about Callan College and the dates for that. We have a new member also; Callan provides a lot of educational topics. Callan College provides different topics that Weston and I talk about. We have our upcoming Callan College for new members for introduction to investments. There are two virtual sessions, one coming up on March 1 and another one in September. Both of them are virtual. I will send Johnna the invites in case anybody wants to join their virtual session covering members.

Mr. Stephens said we have three new members.

Ms. Juarez said we have three new members so that will be a good introduction. You are getting a lot of people from our team not only Weston and I but from different offices speaking in the class.

Mr. Avila said thank you very much, guys. We really appreciate it. I do not think we have any more questions for you. Feel free to hang around but I am sure you do not want to hang around; feel free to go. We appreciate your time very much. Next, we will move on to the consent agenda.

Mr. Walker said Mr. Chair, I apologize. I was a few minutes late. Did I miss the public hearings? Have those already taken place?

Mr. Avila responded yes, those have already taken place, sir.

Mr. Walker responded yes, thank you, Mr. Chair.

Comm. Perona said they were done perfectly, by the way, Jim.

ITEM NO. 9 ~ CONSENT AGENDA

Mr. Avilla said next we will move on to the consent agenda. **A motion was made by Mrs. Morris and seconded by Comm. Perona. All those in favor of the motion signified by saying aye. There was no opposition, and the motion was carried unanimously.**

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ITEM NO. 10 ~ CONSIDERATION OF ABSENCES

None.

ITEM NO. 11 ~ MISCELLANEOUS INFORMATION

Mr. Avilla said next we will move on to miscellaneous information which is a monthly Financial Report for January of 2022. We do not need any votes on that, correct? Did everybody see it? Perfect. All right. Now any comments from anyone before we adjourn.

Ms. Morris said I just wanted to introduce Anna Ward and she is going to be taking Christine's position. She will be the new pension person that will be sending you information. Anna has been here with the city for 16 years in the IT Department, so she is transitioning over into finance and will be our pension person.

Seeing that there were no further questions or comments, Mr. Avilla adjourned the meeting at 3:17pm. He thanked everyone for their time and attendance.

ATTEST:

Secretary/Treasurer

Chairperson

Note: These minutes are not verbatim, only important issues and motions are reproduced in writing for the benefit of the Fort Pierce Retirement and Benefit System members. The recording itself is the official record for the meeting. The meeting tape/cd is available.

Retirement Board

Meeting Date: 03/17/2022

Re: Actuarial Report of Fiscal Year Ending September 30, 2021 – Brad Armstrong of Gabriel Roeder Smith & Company

Information

SUBJECT:

Actuarial Report of Fiscal Year Ending September 30, 2021 – Brad Armstrong of Gabriel Roeder Smith & Company

Attachments

9/30/21 Actuarial Report

Form Review

Form Started By: Johnna Morris
Final Approval Date: 03/14/2022

Started On: 03/14/2022 02:14 PM

City of Fort Pierce

Retirement and Benefit System

Sixty-Third Annual Actuarial Valuation Report
for the Year Ending September 30, 2021



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Report of September 30, 2021 Actuarial Valuation

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February 7, 2022

City Commission
and Retirement Board
City of Fort Pierce Retirement and Benefit System
Fort Pierce, Florida

Dear City Commission and Retirement Board:

The results of the September 30, 2021 Annual Actuarial Valuation of the City of Fort Pierce Retirement and Benefit System are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the Fund only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the Fund's funding progress and to determine the employer contribution rate for the 2022-2023 fiscal years. Information required by Statement Nos. 67 and 68 of the Governmental Accounting Standards Board (GASB) are provided in separate reports. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution amount in this report is determined using the actuarial assumptions and methods disclosed in Section D of this report. This report includes risk metrics on page A-9 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The findings in this report are based on data and other information through September 30, 2021. The valuation was based upon information furnished by the City, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the City.

This report was prepared using assumptions adopted by the Board. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. Additional information about the actuarial assumptions is included in Section D of this report.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

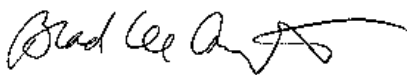
This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the City of Fort Pierce Retirement and Benefit System as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Brad Lee Armstrong and Jeffrey T. Tebeau are Members of the American Academy of Actuaries (MAAA). These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. Our statement by the Enrolled Actuary is contained in Section A.

The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation and report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



Brad Lee Armstrong, ASA, EA, FCA, MAAA



Jeffrey T. Tebeau, FSA, EA, FCA, MAAA

BLA/JTT:ah

C0284



SECTION A

SUMMARY OF VALUATION RESULTS AND CERTIFICATION

Summary of Valuation Results

September 30, 2021

Funding Objective

The basic funding objective of the Retirement and Benefit System is to avoid transfer of the cost of benefit obligations between generations of taxpayers. This objective is implemented by contributions sufficient to:

- Pay for costs allocated to the current year on account of service rendered by participants in the current year (Normal Cost).
- Pay for costs allocated to prior years on account of service rendered by participants in prior years (Unfunded Actuarial Accrued Liability) over a maximum 30-year period.

The annual actuarial valuation measures the relationship between Retirement and Benefit System obligations and assets and determines the contribution rates for the ensuing year. When appropriate, amortization bases were combined in order to moderate scheduled contribution rate volatility.

Funding Progress Indicators

The September 30, 2021 actuarial valuation indicates that the actuarial accrued liabilities of the Retirement and Benefit System are 90% funded by valuation assets. This is the same as last year's funded ratio of 90%, but this is after adopting assumption changes. Although not historically referred to, the ratio of the market value of assets to the Actuarial Accrued Liabilities is 96% which is an increase from last year's market value funded ratio of 90%.

Trends to Monitor

The funding value of assets currently trails the market value of assets by approximately \$17.2 million. Absent investment returns below the 7.25% assumed or losses from other sources, this will create a downward pressure on contribution requirements and a coinciding upward pressure on the funded ratios in the next three valuation reports. Please also refer to pages A-7, A-8 and B-4.



Summary of Valuation Results

September 30, 2021

Assumption Changes

Both forward-looking asset return and inflation expectations have declined significantly in the past few years. The probability of exceeding an 7.50% rate of return is less than 35% over a 10-year period based on our 2021 version of the GRS Capital Market Assumptions Modeler. Therefore, we have lowered the assumed rate of return to 7.25%. If the economic (capital market) assumption expectations continue to decline, we may have to decrease the assumption as soon as the next valuation.

The impact of the assumption change increased the actuarial accrued liability by \$6.5 million and increased the estimated employer contributions by \$640 thousand.

Benefit Changes

The September 30, 2021 valuation reflects changes in relation to City Ordinance No. 21-067. This ordinance removes the \$100,000 dollar maximum pension payment for members hired before October 1, 2012. The impact of the benefit change increased the actuarial accrued liability by \$2.4 million and increased the estimated employer contributions by \$221 thousand.



Summary of Valuation Results

September 30, 2021

Observed Experience

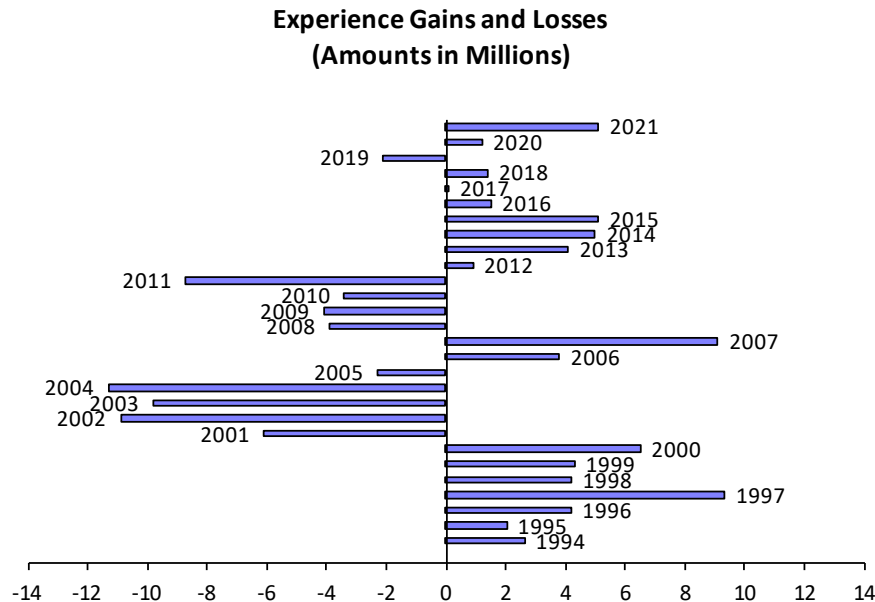
While the investment return on market value was 18.87%, the recognized rate of investment return was 10.15% due to averaging investment experience over the last four years. The recognized investment return was greater than the 7.50% assumed return for fiscal year 2021. This was favorable and contributed to the aggregate experience gain. Note that each year's investment experience gain (loss) is spread over four years in equal dollar installments to reduce the effect of market volatility on contribution rates.

Demographic experience varied among the divisions. The principal deviations from projected demographic experience were:

- 5.0% average pay increases across all the divisions vs. 5.1% expected (favorable)
- Less than expected retiree mortality experience (unfavorable); and
- 10-year average payroll growths were less than the 4.0% assumed (unfavorable for unfunded liability contribution rates)

The net effect of the preceding experience factors was an aggregate experience gain of \$5,088,261.

Year-to-year experience variations are expected and normal in the operation of a retirement system as members vary their activities and economic conditions change. The expectation is that the favorable years and unfavorable years will tend to cancel over 5 to 10-year periods.



Derivation of the current year's gain is located on Page B-3.

Summary of Valuation Results

September 30, 2021

Valuation Results - Contribution Requirement

The percent-of-payroll contribution requirements for the 2022-2023 fiscal year are:

	General	Utilities Authority	Police
Members			
-Bargaining	5.16 %	6.16 %	5.16 %
-Non-Bargaining	5.16	6.16	5.16
Employer for			
-Bargaining	17.13 %	17.96 %	14.62 %
-Non-Bargaining	17.13	17.96	14.62
-Illustrative	\$1,944,771	\$2,912,510	\$1,077,518

For comparison, the percent-of-payroll contribution requirements for the 2021-2022 fiscal year are shown below, and are based on proposal 1 of the actuarial cost estimate dated August 13, 2021, which removed the \$100,000 dollar maximum for annual pension benefits for members hired before October 1, 2012.

	General	Utilities Authority	Police
Members			
-Bargaining	5.16 %	6.16 %	5.16 %
-Non-Bargaining	5.16	6.16	5.16
Employer for			
-Bargaining	17.14 %	16.92 %	13.39 %
-Non-Bargaining	17.14	16.92	13.39
-Illustrative	\$1,893,876	\$2,807,642	\$1,014,745

Comparative contribution information is shown on page B-2. Composition of the current contribution rates is shown on page B-1.

Summary of Valuation Results

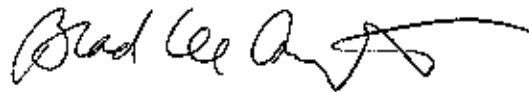
September 30, 2021

Cost-of-Living Adjustment (COLA)

Section 13 - 43 of the City's Code of Ordinances provides for a COLA if the investment return of the fund exceeds that required to satisfy the actuarial interest assumption, which did happen this year. In addition, the cumulative value of any COLA's granted since 1999 may not exceed the cumulative net actuarial gains since 1999. Page B-11 shows the cumulative value of COLA's and net actuarial gains/(losses) since 1999. The present balance is \$(38,220,363). So even though the recognized rate of investment return for the last fiscal year of 10.15% exceeded the actuarial interest assumption of 7.50%, no COLA could be provided under Section 13 - 43 until the Retirement and Benefit System's future actuarial gains exceed \$38,220,363 plus interest. Given the cumulative net actuarial loss balance, this COLA provision is not likely to operate for the indefinite future.

Certification

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation report. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation report.



Brad Lee Armstrong, ASA, EA, FCA, MAAA [20-5614]

2/7/2022

Date

Other Observations

General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Contributions and Funded Status

Given the System's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the Retirement and Benefit System earning 7.25% on the Market Value of Assets), it is expected that:

1. The employer normal cost is sufficient to cover the cost of benefits accruing each year;
2. The Unfunded Actuarial Accrued Liabilities (UAAL) will continue to be amortized according to the schedules on pages B-7 through B-9, but may not be completely paid off in the definite future; and
3. The funded status of the Retirement and Benefit System will continue to increase gradually towards a 100% funded ratio.

The computed contribution shown on page B-1 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the Actuarial Accrued Liability (AAL) and the Funding Value of Assets (FVA). Unless otherwise indicated, with regard to any funded status measurements presented in this report:

1. The measurement is inappropriate for assessing the sufficiency of Retirement System assets to cover the estimated cost of settling the Retirement and Benefit System's benefit obligations; for example, transferring the liability to an unrelated third party in a market value type transaction.
2. The measurement is dependent upon the Actuarial Cost Method which, in combination with the Retirement System's amortization policy, affects the timing and amounts of future contributions. The amounts of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon the actuarial assumptions. A funded status measurement in this report of 100% is not synonymous with no required future contributions. Even if the funded status is over 100%, the Retirement and Benefit System would still require future normal cost contributions (i.e., contributions to cover the cost of active membership accruing an additional year of service credit).
3. The measurement would produce a different result if the Market Value of Assets (MVA) were used instead of the FVA, unless the MVA is used in the measurement.

Other Observations

Limitations of Project Scope

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entities to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

Risks to Future Employer Contribution Requirements

There are ongoing risks to future employer contribution requirements to which the Retirement and Benefit System is exposed, such as:

- Actual and Assumed Investment Rate of Return
- Actual and Assumed Mortality Rates
- Amortization Policy

In particular, the assumed investment rate of return, while reasonable, may produce annual losses over 50% of the time, even if average returns over a multi-year period meet the assumed rate. We believe the investment return assumption should be monitored and reviewed on an annual basis.

Risk Measures - Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the System's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base. The continuing ability of the plan sponsor to make the contributions necessary to fund the plan is outside our scope of expertise and was not performed by GRS;
4. **Salary and Payroll risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **Other demographic risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.



Risk Measures

(\$ Amounts in Thousands)

Actuarial Valuation Date (9/30)	(1) Funding Value of Assets	(2) Actuarial Accrued Liability (AAL)	(3) Unfunded AAL (UAAL) (2) - (1)	(4) Payroll	(5) Funded Ratio (1) / (2)	(6) Retiree Liabilities (RetLiab)	(7) RetLiab / AAL (6)/(2)	(8) AAL / Payroll (2) / (4)	(9) Assets / Payroll (1) / (4)	(10) UAAL / Payroll (3) / (4)	(11) Non-Invest. Cash Flow (NICF)	(12) NICF / Assets (11)/(1)	(13) Market Rate of Return	(14) 5-year Trailing Average
2017	\$ 192,300	\$ 215,142	\$ 22,842	\$ 28,563	89.4%	\$ 134,409	62.5%	753.2%	673.2%	80.0%	\$ (7,446)	(3.9)%	10.6%	N/A
2018	200,087	221,431	21,344	29,264	90.4%	137,926	62.3%	756.7%	683.7%	72.9%	(7,435)	(3.7)%	10.3%	8.4%
2019	208,092	231,143	23,051	31,804	90.0%	145,327	62.9%	726.8%	654.3%	72.5%	(7,852)	(3.8)%	2.6%	6.9%
2020 *	216,567	239,844	23,277	32,563	90.3%	150,865	62.9%	736.6%	665.1%	71.5%	(8,208)	(3.8)%	9.6%	8.5%
2021 *	229,477	256,316	26,839	32,304	89.5%	163,876	63.9%	793.4%	710.4%	83.1%	(8,624)	(3.8)%	18.9%	10.3%

* Revised actuarial assumptions.

(5). The funded ratio is the most widely known measure of a plan's financial strength, but the trend in the funded ratio is much more important than the absolute ratio. The funded ratio should trend to 100%. As it approaches 100%, it is important to re-evaluate the level of investment risk in the portfolio and potentially to re-evaluate the assumed rate of return.

(6) and (7). The ratio of retiree liabilities to total accrued liabilities gives an indication of the maturity of the system. As the ratio increases, cash flow needs increase, and the liquidity needs of the portfolio change. A ratio on the order of 50% indicates a maturing system.

(8) and (9). The ratio of liabilities and assets to payroll gives an indication of both maturity and volatility. Many systems have ratios between 500% and 700%. Ratios significantly above that range may indicate difficulty in supporting the benefit level as a level % of payroll.

(10) The ratio of unfunded liability to payroll gives an indication of the plan sponsor's ability to actually pay off the unfunded liability. A ratio above approximately 300% or 400% may indicate difficulty in discharging the unfunded liability within a reasonable time frame.

(11) and (12). A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means benefits and expenses exceed contributions, and existing funds may be used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

(13) and (14). Investment return is probably the largest single risk that most systems face. The year-by-year return and the five-year geometric average both give an indication of the reasonableness of the system's assumed return. Of course, past performance is not a guarantee of future results. Market rate shown is based on an actuarial estimation method and will differ modestly from figures reported by the investment consultant.

SECTION B

VALUATION RESULTS

Contributions to Finance Benefits of the Retirement and Benefit System for the Plan Year Beginning October 1, 2022 to be Contributed during the Fiscal Year Beginning October 1, 2022

Contributions for	Contributions Expressed as Percents of Active Member Payroll		
	General Members	Utilities Authority	Police Members
Normal Cost			
Service pensions	12.85 %	11.38 %	13.29 %
Disability pensions	0.47	0.47	1.01
Death-in-service pensions	0.36	0.41	0.27
Deferred service pensions	2.81	2.85	2.32
Refunds of member contributions	0.63	0.74	0.39
Total Normal Cost	17.12	15.85	17.28
Unfunded Actuarial Accrued Liability ⁽¹⁾			
Retired members and beneficiaries	0.00	0.00	0.00
Active and vested terminated members	3.87	6.82	1.77
Total Unf'd. Actuarial Accrued Liability	3.87	6.82	1.77
Administrative Expenses	0.72	0.72	0.72
Total Unadjusted Computed Contribution	21.71	23.39	19.77
Adjustments to Computed Contribution			
FS 112.64 (5) Compliance	0.58	0.73	0.01
Full funding credit ⁽²⁾	0.00	0.00	0.00
Total Adjustments	0.58	0.73	0.01
Total Adjusted Contribution Requirement ⁽³⁾	22.29	24.12	19.78
Member portion	5.16	6.16	5.16
Employer portion	17.13	17.96	14.62

(1) Financing period schedules begin on page B-7.

(2) This is a temporary credit toward the contribution requirement.

(3) FS 112.64 (2) states that "the total contributions to the retirement system or plan shall be sufficient to meet the normal cost of the retirement system or plan and to amortize the unfunded liability." Therefore, the Total Adjusted Contribution for the System shall be no less than Total Normal Cost for the System including the Administrative Expense Load.

FS 112.64 requires employer contributions to be deposited not less frequently than quarterly. Member contributions, which are in addition to the Employer contributions, must be deposited immediately after each pay period.



Recommended and Actual Contributions Comparative Statement

Fiscal Date	Valuation Date	Percentage-of-Payroll Contributions Recommended Percents*			Dollar Contributions@	
		General Members	Utilities Authority	Police Members	Proj. Funding Requirement	Actual \$
80/81	9/79	7.63 %	8.01 %	9.66 %	\$ 745,952	\$ 897,650
85/86	9/84	7.38 %	7.89 %	9.30 %	1,295,413	1,453,799
90/91	9/89	5.50 %	7.78	8.24 %	1,755,622	2,186,008
95/96	9/94	4.74 %	6.41	4.54 %	1,737,080	2,328,501
00/01 (b)	9/99	0.00 %	0.26	0.00 %	801,012	1,195,351
01/02 (b)	9/00	0.00	0.26	0.00	906,649	2,158,784
02/03 (b)	9/01	2.91	1.10	0.00	2,048,079	2,271,079
03/04	9/02	4.67	3.23	1.38	2,893,397	3,610,663
04/05	9/03	6.15	4.93	3.76	3,948,626	5,634,357
05/06	9/04	8.01	6.23	6.76	6,283,117	8,975,380
06/07	9/05	11.05	11.94	14.14	3,624,157	4,114,963
07/08 (b)	9/06	11.59	11.01	14.88	3,939,766	4,082,846
08/09 (b)	9/07	9.71	10.06	12.26	3,517,935	3,580,089
09/10	9/08	10.36	10.67	12.79	3,964,443	3,377,350
10/11	9/09	11.06	11.86	12.97	3,999,560	3,181,447
11/12 (b)	9/10	12.59	14.08	13.51	3,937,037	3,566,751
12/13 (b)	9/11	16.50	18.51	15.83	4,860,538	4,266,803
13/14 (b)	9/12	16.20	17.41	15.33	4,676,221	4,356,127
14/15	9/13	14.61	16.81	13.76	4,242,676	4,093,268
15/16	9/14	15.03	16.30	13.76	4,196,009	4,211,311
16/17 (b)	9/15	14.89	16.23	14.61	4,296,532	4,565,884
17/18 (b)	9/16	17.35	17.92	11.98	4,878,739	4,909,654
18/19	9/17	16.99	18.11	12.00	5,029,181	5,240,707
19/20 (b)	9/18	16.77	17.58	11.86	5,074,604	5,343,484
20/21	9/19	16.82	16.46	13.31	5,456,288	5,328,802
21/22 (c)	9/20	17.14	16.92	13.39	5,716,263	
22/23 (b)	9/21	17.13	17.96	14.62	5,934,799	

* Prior to 9/30/96 the minimum employer contribution required in accordance with Sec. 21.3 of the Retirement and Benefit System Ordinance was 7.60% for General and Utilities Authority, 9.61% for Police.

@ Actual Employer contributions are determined by applying the Employer's contribution rate to the emerging payroll. Projected funding requirement is derived from the City portion of the contribution rates on page B-1. The payroll was increased by a factor of 1.0816 (1.04²) to reflect projected payroll growth to the beginning of the fiscal year during which the contribution will be made. Prior to the valuation date of 9/30/05, dollar contributions included Fire members.

(b) After changes in benefit provisions and/or actuarial assumptions and cost methods.

(c) Reflects contribution rates in accordance with an actuarial impact statement performed after the regular valuation.

Prior to the 9/98 actuarial valuation, reimbursement of investment expenses (approx. 2% of payroll) were included in the contribution requirement. The plan was amended 4/98 to allow payment of investment expenses out of investment income.



Experience Gain/(Loss) Year Ended September 30, 2021

	Divisions			Total
	General Members	Utilities Authority	Police Members	
Derivation				
(1) UAAL* at start of year	\$8,063,651	\$12,261,678	\$2,951,969	\$23,277,298
(2) Employer normal cost for year	1,214,445	1,427,353	816,333	3,458,131
(3) Employer contributions	1,767,431	2,575,357	986,014	5,328,802
(4) Interest accrued: .0750 x [(1) + ½ [(2) – (3)]]	584,037	876,576	215,035	1,675,648
(5) Expected UAAL before changes: [(1) + (2) - (3) + (4)]	8,094,702	11,990,250	2,997,323	23,082,275
(6) Effect of assumption changes	1,939,800	2,929,424	1,615,538	6,484,762
(7) Effect of cost method changes/ accounting and timing differences	0	0	0	0
(8) Effect of benefit changes	818,427	1,257,940	283,739	2,360,106
(9) Expected UAAL after changes	10,852,929	16,177,614	4,896,600	31,927,143
(10) Actual UAAL	9,240,720	14,015,717	3,582,445	26,838,882
(11) Gain/(loss): (9) - (10)	1,612,209	2,161,897	1,314,155	5,088,261

* UAAL represents Unfunded Actuarial Accrued Liability.

Development of Funding Value of Retirement System Assets

Year Ended September 30:	2018	2019	2020	2021	2022	2023	2024
A. Funding Value Beginning of Year	\$192,299,566	\$200,086,678	\$208,092,074	\$216,567,027			
B. Market Value End of Year	206,965,262	204,393,903	215,450,747	246,661,634			
C. Market Value Beginning of Year	194,774,112	206,965,262	204,393,903	215,450,747			
D. Non-Investment Net Cash Flow	(7,434,910)	(7,851,765)	(8,208,240)	(8,624,145)			
E. Investment Income							
E1. Market Total: B - C - D	19,626,060	5,280,406	19,265,084	39,835,032			
E2. Amount for Immediate Recognition	14,615,114	15,202,462	15,809,066	15,919,122			
E3. Amount for Phased-In Recognition: E1 - E2	5,010,946	(9,922,056)	3,456,018	23,915,910			
F. Phased-In Recognition of Investment Income							
F1. Current Year: 0.25 x E3	1,252,737	(2,480,514)	864,005	5,978,978			
F2. First Prior Year	1,237,898	1,252,737	(2,480,514)	864,005	\$ 5,978,978		
F3. Second Prior Year	644,577	1,237,898	1,252,737	(2,480,514)	864,005	\$ 5,978,978	
F4. Third Prior Year	<u>(2,528,304)</u>	<u>644,578</u>	<u>1,237,899</u>	<u>1,252,735</u>	<u>(2,480,514)</u>	<u>864,003</u>	<u>\$ 5,978,976</u>
F5. Total Recognized Investment Gain	606,908	654,699	874,127	5,615,204	4,362,469	6,842,981	5,978,976
G. Funding Value End of Year: A + D + E2 + F5	200,086,678	208,092,074	216,567,027	229,477,208			
H. Difference between Market & Funding Value	6,878,584	(3,698,171)	(1,116,280)	17,184,426			
I. Recognized Rate of Return	8.07%	8.08%	8.18%	10.15%			
J. Market Value Return	10.27%	2.60%	9.62%	18.87%			

The Funding Value of Assets recognizes assumed investment income (Line E2) fully each year. Differences between actual and assumed investment income (Line E3) are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, the Funding Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, the Funding Value of Assets will tend to be greater than Market Value. If assumed rates are exactly realized for three consecutive years, it will become equal to Market Value.



Funding Indicators # – Historical Comparison

(\$ Amounts in Thousands)

Valuation Date	Indicator (1)	Indicator (2)			Indicator (3)		
	Gain/ (Loss)	Valuation Assets	AAL*	Funded Ratio	Unfunded AAL	Member Payroll	Ratio to Payroll
9/30/97	\$ 9,324	\$ 119,224	\$ 100,121	119 %	\$ (19,103)	\$29,986	(64) %
9/30/98 (b)	4,181	132,975	109,210	122	(23,765)	30,296	(78)
9/30/99 (b)	4,315	146,903	120,514	122	(26,389)	31,688	(83)
9/30/00 (b)	6,465	162,020	129,969	125	(32,051)	33,312	(96)
9/30/01 (b)	(6,086)	165,023	137,067	120	(27,955)	35,600	(79)
9/30/02 (b)	(10,908)	167,050	149,437	112	(17,610)	37,037	(48)
9/30/03	(9,845)	168,943	162,127	104	(6,816)	40,313	(17)
9/30/04	(11,328)	171,558	186,671	92	15,113	43,544	35
9/30/05	(2,296)	185,776	216,534	86	30,758	48,880	63
9/30/06 (b)	3,801	120,062	130,861	92	10,800	30,532	35
9/30/07 (b)	9,087	135,944	138,610	98	2,666	30,984	9
9/30/08	(3,888)	143,467	150,475	95	7,008	32,952	21
9/30/09	(4,060)	147,094	158,755	93	11,661	31,016	38
9/30/10 (b)	(3,429)	148,691	164,865	90	16,174	26,779	60
9/30/11 (b)	(8,690)	142,463	167,683	85	25,220	25,744	98
9/30/12 (b)	854	147,618	171,745	86	24,127	25,842	93
9/30/13	4,086	157,145	177,505	89	20,360	25,199	81
9/30/14	4,960	167,451	182,407	92	14,956	25,150	59
9/30/15 (b)	5,140	177,624	191,986	93	14,362	25,475	56
9/30/16 (b)	1,460	185,171	207,945	89	22,774	27,493	83
9/30/17	69	192,300	215,142	89	22,842	28,563	80
9/30/18 (b)	1,383	200,087	221,431	90	21,344	29,264	73
9/30/19	(2,072)	208,092	231,143	90	23,051	31,804	72
9/30/20 (b)	1,202	216,567	239,844	90	23,277	32,563	71
9/30/21	5,088	229,477	247,471	93	17,994	32,304	56
9/30/21 (b)	5,088	229,477	256,316	90	26,839	32,304	83

Excludes Fire after 9/05 valuation date.

* Actuarial Accrued Liabilities.

(b) After changes in benefit provisions and/or actuarial assumptions.



Unfunded Actuarial Accrued Liability

(\$ Amounts in Thousands)*

	September 30, 2021			September 30, 2020		
	General Members	Utilities Authority	Police Members	General Members	Utilities Authority	Police Members
A. Actuarial present value of future benefits	\$89,756	\$131,737	\$73,234	\$83,289	\$122,954	\$68,824
B. Actuarial present value of future normal costs	12,367	16,341	9,702	11,020	15,266	8,937
C. Actuarial accrued liability	77,388	115,396	63,532	72,269	107,688	59,887
D. Funding value of assets	68,147	101,380	59,950	64,205	95,426	56,935
E. Unfunded actuarial accrued liability	9,241	14,016	3,582	8,064	12,262	2,952
F. Funded Ratio	88.1%	87.9%	94.4%	88.8%	88.6%	95.1%

* Totals may not sum exactly due to rounding.

Sources and Financing of Unfunded Actuarial Accrued Liability General Members

Year Established	Initial Years	Years Remaining	Unf'd. Act. Accr. Liab.		Amortization Factor	Amortization Payment*	% of Payroll Contribution*
			Initial Amount	Current Amount			
Initial Unfunded							
1981	34	1	\$ 2,135,178	\$ 54,652	0.9794	\$ 55,800	0.53 %
Experience Changes							
1992	30	1	(260,310)	(31,752)	0.9794	(32,419)	(0.31)
1993	30	2	(1,200,305)	(286,262)	1.9189	(149,184)	(1.42)
1994	30	3	(298,407)	(102,567)	2.8199	(36,372)	(0.35)
1995	30	4	(571,245)	(250,358)	3.6841	(67,955)	(0.65)
1996	30	5	(328,506)	(171,453)	4.5131	(37,990)	(0.36)
1997	30	6	(1,697,188)	(1,009,694)	5.3082	(190,215)	(1.81)
1998	30	7	(1,095,283)	(720,732)	6.0708	(118,722)	(1.13)
1999	30	8	(888,248)	(632,286)	6.8022	(92,953)	(0.89)
2000	30	9	(1,366,921)	(1,035,038)	7.5038	(137,936)	(1.31)
2001	30	10	1,108,179	883,571	8.1767	108,060	1.03
2002	30	11	2,074,314	1,722,834	8.8221	195,286	1.86
2003	30	12	2,097,459	1,798,802	9.4412	190,528	1.82
2004	30	13	2,013,373	1,769,790	10.0349	176,363	1.68
2005	30	14	208,003	186,236	10.6044	17,562	0.17
2006	30	15	(1,561,550)	(1,416,395)	11.1507	(127,023)	(1.21)
2007	30	16	(3,153,776)	(2,884,506)	11.6746	(247,075)	(2.35)
2008	30	17	1,535,312	1,410,019	12.1772	115,792	1.10
2009	30	18	1,306,244	1,200,465	12.6592	94,830	0.90
2010	30	19	301,258	276,137	13.1215	21,045	0.20
2011	30	20	3,140,943	2,863,537	13.5649	211,099	2.01
2012	30	21	(171,717)	(155,298)	13.9902	(11,100)	(0.11)
2013	30	22	(1,386,129)	(1,240,662)	14.3982	(86,168)	(0.82)
2014	30	23	(1,482,476)	(1,361,965)	14.7895	(92,090)	(0.88)
2015	30	24	(2,209,363)	(2,048,102)	15.1648	(135,057)	(1.29)
2016	30	25	(358,467)	(339,128)	15.5247	(21,844)	(0.21)
2017	30	26	91,437	85,808	15.8700	5,407	0.05
2018	30	27	(494,242)	(477,630)	16.2011	(29,481)	(0.28)
2019	30	28	358,225	351,663	16.5188	21,289	0.20
2020	30	29	259,654	257,930	16.8234	15,332	0.15
2021	30	30	(1,612,209)	(1,612,209)	17.1156	(94,195)	(0.90)
Benefit Changes							
1996	30	5	(126,041)	(65,784)	4.5131	(14,576)	(0.14)
1998	30	7	(4,204)	(2,768)	6.0708	(456)	0.00
2000	30	9	416,125	315,091	7.5038	41,991	0.40
2004	30	13	603,572	530,549	10.0349	52,870	0.50
2005	30	14	2,422,727	2,169,201	10.6044	204,556	1.95
2006	30	15	1,820,155	1,650,960	11.1507	148,059	1.41
2010	30	19	421,454	386,310	13.1215	29,441	0.28
2011	30	20	(604,106)	(550,752)	13.5649	(40,601)	(0.39)
2012	30	21	(520,387)	(470,628)	13.9902	(33,640)	(0.32)
2018	30	27	54,741	52,982	16.2011	3,270	0.03
2021	30	30	818,427	818,427	17.1156	47,818	0.46
Assumption Changes							
1995	30	4	822,391	359,089	3.6841	97,469	0.93
2001	30	10	(571,357)	(455,092)	8.1767	(55,657)	(0.53)
2011	30	20	154,468	140,870	13.5649	10,385	0.10
2015	30	24	1,398,986	1,297,604	15.1648	85,567	0.82
2016	30	25	3,523,964	3,335,889	15.5247	214,876	2.05
2020	30	29	708,269	703,565	16.8234	41,821	0.40
2021	30	30	1,939,800	1,939,800	17.1156	113,335	1.08
Totals				\$9,240,720		\$467,142	4.45 %

* Actual wage growth over the past 10 years has been 2.87% versus the 4.0% assumed. FS 112 requires use of the 10-year average if less than assumed. This has been used in the above calculation as required.



Sources and Financing of Unfunded Actuarial Accrued Liability Utilities Authority Members

Year Established	Initial Years	Years Remaining	Unf'd. Act. Accr. Liab.		Amortization Factor	Amortization Payment*	% of Payroll Contribution*
			Initial Amount	Current Amount			
Initial Unfunded							
1981	34	8	\$3,349,127	\$ 217,441	6.7646	\$ 32,144	0.21 %
Experience Changes							
1989	30	8	(130,266)	(8,620)	6.7646	(1,274)	(0.01)
1990	30	8	407,412	57,270	6.7646	8,466	0.06
1991	30	8	(238,416)	(52,190)	6.7646	(7,715)	(0.05)
1992	30	8	(388,969)	(114,046)	6.7646	(16,859)	(0.11)
1993	30	8	(1,360,632)	(507,032)	6.7646	(74,954)	(0.50)
1994	30	8	(978,978)	(413,260)	6.7646	(61,092)	(0.41)
1995	30	8	(974,186)	(464,725)	6.7646	(68,700)	(0.46)
1996	30	8	(940,560)	(493,876)	6.7646	(73,009)	(0.49)
1997	30	8	(2,192,535)	(1,241,898)	6.7646	(183,589)	(1.22)
1998	30	8	(2,534,640)	(1,524,606)	6.7646	(225,381)	(1.50)
1999	30	8	(1,141,977)	(720,325)	6.7646	(106,485)	(0.71)
2000	30	8	(1,309,143)	(857,056)	6.7646	(126,698)	(0.85)
2001	30	8	1,593,737	1,077,048	6.7646	159,219	1.06
2002	30	8	2,859,829	1,980,592	6.7646	292,789	1.95
2003	30	8	2,692,574	1,899,381	6.7646	280,784	1.87
2004	30	8	1,574,647	1,125,438	6.7646	166,372	1.11
2005	30	8	225,846	162,776	6.7646	24,063	0.16
2006	30	8	(2,695,199)	(1,950,913)	6.7646	(288,402)	(1.92)
2007	30	16	(3,178,605)	(2,672,250)	11.5534	(231,296)	(1.54)
2008	30	17	1,783,264	1,509,430	12.0439	125,328	0.84
2009	30	18	2,272,126	1,929,255	12.5136	154,172	1.03
2010	30	19	2,668,679	2,265,099	12.9635	174,728	1.17
2011	30	20	4,692,517	3,969,594	13.3944	296,361	1.98
2012	30	21	(1,001,517)	(842,029)	13.8071	(60,985)	(0.41)
2013	30	22	(1,332,212)	(1,110,445)	14.2024	(78,187)	(0.52)
2014	30	23	(2,039,760)	(1,881,804)	14.5809	(129,059)	(0.86)
2015	30	24	(1,615,435)	(1,502,768)	14.9435	(100,563)	(0.67)
2016	30	25	178,810	171,286	15.2907	11,202	0.07
2017	30	26	(528,606)	(504,020)	15.6233	(32,261)	(0.22)
2018	30	27	(355,475)	(342,886)	15.9418	(21,509)	(0.14)
2019	30	28	173,150	170,044	16.2468	10,466	0.07
2020	30	29	(170,366)	(170,538)	16.5390	(10,311)	(0.07)
2021	30	30	(2,161,897)	(2,161,897)	16.8188	(128,541)	(0.86)
Benefit Changes							
1996	30	5	1,797,497	807,841	4.4971	179,635	1.20
1998	30	7	(6,868)	(3,973)	6.0411	(658)	(0.00)
2000	30	9	217,608	147,014	7.4574	19,714	0.13
2005	30	14	5,714,128	4,673,371	10.5065	444,807	2.97
2007	30	16	879,772	739,624	11.5534	64,018	0.43
2011	30	20	(859,973)	(727,487)	13.3944	(54,313)	(0.36)
2012	30	21	(837,844)	(704,420)	13.8071	(51,019)	(0.34)
2018	30	27	57,583	55,544	15.9418	3,484	0.02
2021	30	30	1,257,940	1,257,940	16.8188	74,794	0.50
Assumption Changes							
1995	30	4	1,262,801	470,121	3.6736	127,972	0.85
2001	30	10	(1,106,750)	(792,033)	8.1210	(97,529)	(0.65)
2011	30	20	695,546	588,391	13.3944	43,928	0.29
2015	30	24	2,088,919	1,943,231	14.9435	130,039	0.87
2016	30	25	4,976,532	4,767,126	15.2907	311,766	2.08
2020	30	29	865,657	866,533	16.5390	52,393	0.35
2021	30	30	2,929,424	2,929,424	16.8188	174,176	1.16
Totals				\$14,015,717		\$1,132,431	7.55 %

* Actual wage growth over the past 10 years has been 2.72%, versus the 4.0% assumed. FS 112 requires use of the 10-year average if less than assumed. This has been used in the above calculation as required.



Sources and Financing of Unfunded Actuarial Accrued Liability Police Members

Year Established	Initial Years	Years Remaining	Unf'd. Act. Accr. Liab.		Amortization Factor	Amortization Payment*	% of Payroll Contribution*
			Initial Amount	Current Amount			
Initial Unfunded							
1981	34	5	\$ (92,516)	\$ (173,906)	4.6329	\$ (37,537)	(0.55) %
Experience Changes							
1991	30	5	(203,783)	(59,566)	4.6329	(12,857)	(0.19)
1992	30	5	(212,982)	(70,053)	4.6329	(15,121)	(0.22)
1993	30	5	(924,672)	(354,268)	4.6329	(76,468)	(1.12)
1994	30	5	(461,122)	(193,360)	4.6329	(41,736)	(0.61)
1995	30	5	(631,047)	(299,682)	4.6329	(64,685)	(0.95)
1996	30	5	(985,977)	(529,564)	4.6329	(114,305)	(1.68)
1997	30	6	(2,131,299)	(1,294,479)	5.4767	(236,363)	(3.47)
1998	30	7	769,031	513,186	6.2947	81,526	1.20
1999	30	8	(1,200,250)	(861,498)	7.0879	(121,545)	(1.78)
2000	30	9	(597,465)	(453,926)	7.8570	(57,774)	(0.85)
2001	30	10	578,886	461,118	8.6026	53,602	0.79
2002	30	11	1,258,164	1,040,031	9.3256	111,525	1.64
2003	30	12	1,317,638	1,120,897	10.0265	111,793	1.64
2004	30	13	2,033,822	1,768,036	10.7062	165,142	2.42
2005	30	14	(40,822)	(36,049)	11.3651	(3,172)	(0.05)
2006	30	15	455,702	406,688	12.0041	33,879	0.50
2007	30	16	(2,754,392)	(2,473,198)	12.6235	(195,920)	(2.88)
2008	30	17	569,652	512,582	13.2242	38,761	0.57
2009	30	18	481,424	432,696	13.8065	31,340	0.46
2010	30	19	458,881	410,663	14.3711	28,576	0.42
2011	30	20	856,807	761,478	14.9186	51,042	0.75
2012	30	21	319,593	281,358	15.4494	18,212	0.27
2013	30	22	(1,367,523)	(1,189,938)	15.9640	(74,539)	(1.09)
2014	30	23	(1,437,583)	(1,246,731)	16.4630	(75,729)	(1.11)
2015	30	24	(1,315,599)	(1,140,665)	16.9468	(67,309)	(0.99)
2016	30	25	(1,280,599)	(1,127,881)	17.4159	(64,762)	(0.95)
2017	30	26	368,606	358,042	17.8707	20,035	0.29
2018	30	27	(533,546)	(531,085)	18.3117	(29,003)	(0.43)
2019	30	28	1,540,385	1,574,742	18.7392	84,035	1.23
2020	30	29	(1,291,696)	(1,285,202)	19.1538	(67,099)	(0.98)
2021	30	30	(1,314,155)	(1,314,155)	19.5557	(67,201)	(0.99)
Benefit Changes							
1996	30	5	(52,503)	(28,200)	4.6329	(6,087)	(0.09)
1998	30	7	866,643	578,324	6.2947	91,874	1.35
2000	30	9	154,856	117,652	7.8570	14,974	0.22
2002	30	11	(2,757)	(2,279)	9.3256	(244)	(0.00)
2005	30	14	3,376,647	2,981,865	11.3651	262,369	3.85
2006	30	15	21,867	19,516	12.0041	1,626	0.02
2010	30	19	144,060	128,923	14.3711	8,971	0.13
2011	30	20	(576,034)	(511,942)	14.9186	(34,316)	(0.50)
2012	30	21	(211,273)	(185,998)	15.4494	(12,039)	(0.18)
2018	30	27	(508)	(506)	18.3117	(28)	(0.00)
2021	30	30	283,739	283,739	19.5557	14,509	0.21
Assumption Changes							
1995	30	4	576,369	262,463	3.7627	69,754	1.02
2000	30	9	93,418	70,975	7.8570	9,033	0.13
2001	30	10	418,050	333,001	8.6026	38,709	0.57
2011	30	20	577,020	512,821	14.9186	34,375	0.50
2015	30	24	1,193,697	1,035,005	16.9468	61,074	0.90
2016	30	25	1,395,375	1,228,968	17.4159	70,566	1.04
2020	30	29	136,958	136,269	19.1538	7,114	0.10
2021	30	30	1,615,538	1,615,538	19.5557	82,612	1.21
Totals				\$3,582,445		\$121,189	1.78 %

* Actual wage growth over the past 10 years has been 3.99%, versus the 4.0% assumed. FS 112 requires use of the 10-year average if less than assumed. This has been used in the above calculation as required.



Actuarial Balance Sheet - September 30, 2021

(\$ Amounts in Thousands)*

Present Resources and Expected Future Resources

	General Members	Utilities Authority Members	Police Members	Total
A. Funding value of plan assets:				
1. Net assets from plan financial statements (Market)	\$73,251	\$ 108,972	\$ 64,439	\$246,662
2. Funding value adjustment	(5,104)	(7,592)	(4,489)	(17,185)
3. Funding value of assets	\$68,147	\$ 101,380	\$ 59,950	\$229,477
B. Actuarial present value of expected future employer contributions:				
1. For normal costs	\$ 8,606	\$ 9,788	\$ 6,716	\$ 25,110
2. For unfunded actuarial accrued liability	9,241	14,016	3,582	26,839
3. Total	\$17,847	\$ 23,804	\$ 10,298	\$ 51,949
C. Actuarial present value of expected future member contributions	3,761	6,553	2,986	13,300
D. Total Present and Future Resources	\$89,755	\$ 131,737	\$ 73,234	\$294,726

Actuarial Present Value of Expected Future Benefit Payments and Reserves

	General Members	Utilities Authority Members	Police Members	Total
A. To retired members and beneficiaries	\$46,879	\$ 72,015	\$44,982	\$163,876
B. To vested terminated members	1,762	2,272	455	4,489
C. To present active members:				
1. Allocated to service rendered prior to valuation date	\$28,747	\$ 41,109	\$18,095	\$ 87,951
2. Allocated to service likely to be rendered after valuation date	12,367	16,341	9,702	38,410
3. Total	\$41,114	\$ 57,450	\$27,797	\$126,361
D. Total actuarial present value of expected future benefit payments	\$89,755	\$131,737	\$73,234	\$294,726

* Totals may not sum exactly due to rounding.



Cumulative Experience Gains/(Losses)

Year Ended September 30	Balance at Beginning of Year	Interest	Gain/(Loss) During Year	Value of Cost- of-Living Adjustment During Year	Balance at End of Year
1999	\$ -	\$ -	\$ 4,314,699	\$ 709,305	\$ 3,605,394
2000	3,605,394	288,432	6,465,035	1,219,607	9,139,254
2001	9,139,254	731,140	(6,086,030)	1,186,656	2,597,708
2002	2,597,708	207,817	(10,907,939)	-	(8,102,414)
2003	(8,102,414)	(648,193)	(9,844,539)	-	(18,595,145)
2004	(18,595,145)	(1,487,612)	(11,328,205)	-	(31,410,961)
2005	(31,410,961)	(2,512,877)	(2,296,402)	-	(36,220,240)
2006 *	(18,683,996)	(1,494,720)	3,801,047	-	(16,377,668)
2007	(16,377,668)	(1,310,213)	9,086,773	-	(8,601,108)
2008	(8,601,108)	(688,089)	(3,888,228)	-	(13,177,425)
2009	(13,177,425)	(1,054,194)	(4,059,794)	-	(18,291,413)
2010	(18,291,413)	(1,463,313)	(3,428,818)	-	(23,183,544)
2011	(23,183,544)	(1,854,684)	(8,690,267)	-	(33,728,495)
2012	(33,728,495)	(2,698,280)	853,641	-	(35,573,134)
2013	(35,573,134)	(2,845,851)	4,085,864	-	(34,333,121)
2014	(34,333,121)	(2,746,650)	4,959,820	-	(32,119,951)
2015	(32,119,951)	(2,569,596)	5,140,356	-	(29,549,191)
2016	(29,549,191)	(2,290,062)	1,460,257	-	(30,378,996)
2017	(30,378,996)	(2,354,372)	68,563	-	(32,664,805)
2018	(32,664,805)	(2,531,522)	1,383,263	-	(33,813,064)
2019	(33,813,064)	(2,620,512)	(2,071,760)	-	(38,505,336)
2020	(38,505,336)	(2,984,164)	1,202,408	-	(40,287,092)
2021	(40,287,092)	(3,021,532)	5,088,261	-	(38,220,363)

* After removing the estimated impact of Fire members.

SECTION C

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA SUBMITTED BY THE RETIREMENT AND BENEFIT SYSTEM

Summary of Benefit Provisions (September 30, 2021)

Participation: Participation in the Retirement and Benefit System begins upon employment.

Normal Retirement (no reduction factor for age):

Eligibility - Original members: 20 or more years of service.

All members - General, Utilities Authority: 25 or more years of service regardless of age, or age 60 with 5 or more years of service.

- Police: 25 or more years of service, regardless of age, or age 55 with 5 or more years of service.

Mandatory Retirement Age - None.

Annual Amount - All members: Total service times 3.0% of final average salary.

For members hired prior to October 1, 2012:

- The maximum annual pension benefit shall not exceed 100% of final average salary.

For members hired on or after October 1, 2012:

- The maximum annual pension benefit shall not exceed 75% of final average salary.
- The maximum pension benefit is \$100,000 annually.

The normal form of benefit is a benefit payable for life. Optional forms are available on an actuarial equivalent basis.

Type of Final Average Salary - General: Highest 5 consecutive years out of last 10. Police, Utilities Authority: Highest 5 years out of last 10. Overtime hours included in compensation are limited to 300 hours per fiscal year.

For members hired prior to October 1, 2012: Payments for unused sick and vacation time included in compensation are limited to unused sick and vacation time accrued through September 20, 2012 for General and Police, and July 1, 2011 for Utilities Authority.

For members hired on or after October 1, 2012: Payments for unused sick and vacation time are not included in compensation.

Deferred Retirement Option Plan (DROP) Retirement:

Eligibility - General, Police, and Utilities Authority members: Same as Normal Retirement, election may be made on or after normal retirement eligibility, but not after reaching 30 years of service. Participation in the DROP ends after five years.



Annual Amount - Computed as a normal retirement but based upon service and final average salary at time of DROP election. Member contributions cease and monthly benefits (and post-retirement increases, if any) accumulate in a self-directed DROP account and are payable to the member upon termination of employment.

Deferred Retirement (vested benefit):

Eligibility - 5 or more years of service. Benefit begins upon attaining age 60.

Annual Amount - Computed as a normal retirement but based upon service and final average salary at time of termination.

Duty Disability Retirement:

Eligibility - No age or service requirements if the Retirement Board finds the member to be in receipt of weekly workers' compensation on account of disability in the course of duty.

Annual Amount - Computed as a normal retirement based upon service projected to the end of the duty disability period and final average salary at time of disability. Minimum benefit is 75% of final average salary during the duty disability period. The duty disability period ends on the earlier of the 25th anniversary of the member's hire date or the date the member attains age 65 but not prior to 5 years from the date of duty disability retirement.

Non-Duty Disability Retirement:

Eligibility - 5 or more years of service.

Annual Amount - Computed as a normal retirement but based upon service and final average salary at time of disability.

Duty Death Before Retirement:

Eligibility - No age or service requirements. Benefits begin upon termination of workers' compensation.

Annual Amount - A benefit equal to the same amount that was paid by workers' compensation to the spouse until death, to unmarried children under 18 and dependent parents.

Non-Duty Death Before Retirement:

Eligibility - 5 or more years of service.

Annual Amount - Computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election.



Post-Retirement Increases: COLA may be granted from investment returns in excess of actuarial interest assumption, not to exceed 3%.

Military Service: May be purchased by members who meet the eligibility conditions.

Member Contributions: General: 5.16% of annual salary
 Police: 5.16% of annual salary
 Utilities Authority: 6.16% of annual salary

Employer Contributions: Actuarially determined amounts which together with member contributions are sufficient to at least cover the requirements of the funding objective stated on page A-1.

Changes in Plan Provisions: City Ordinance No. 21-067 removes the \$100,000 dollar maximum pension payment for members hired before October 1, 2012.

Accounting Information Submitted for Valuation

Revenues and Expenditures

	Year Ended	
	9/30/2021	9/30/2020
Revenues:		
a. Member contributions:		
General	\$ 542,669	\$ 522,888
Police	382,555	373,389
Utilities Authority	964,291	974,174
b. Employer contributions:		
General	1,767,431	1,697,807
Police	986,014	870,642
Utilities Authority	2,575,357	2,775,035
c. Investment income:		
1. Interest and dividends	3,635,729	3,547,103
2. Gain or loss on sales	13,029,930	(2,107,322)
3. Unrealized gain/loss	24,028,230	18,573,987
d. Total revenues	\$ 47,912,206	\$ 27,227,703
Expenditures:		
a. Refunds of member contributions:		
General	\$ 43,047	\$ 123,163
Police	69,318	145,163
Utilities Authority	68,758	141,530
b. Benefits paid:		
General	4,641,965	4,576,922
Police	3,949,183	3,812,934
Utilities Authority	6,795,485	6,359,883
c. Investment expenses	858,857	748,684
d. Administrative expenses	232,885	222,249
e. Other	41,821	40,331
f. Total expenditures	\$ 16,701,319	\$ 16,170,859
Adjustments:	\$ -	\$ -
Reserve Increase:	\$ 31,210,887	\$ 11,056,844

Market Value of Assets

	9/30/2021	9/30/2020
Cash	\$ 0	\$ 0
Receivables & Accruals	630,256	606,780
Other short-term	1,981,699	5,250,798
Real Estate	23,118,490	20,039,072
Bonds - corporate	32,528,889	34,409,420
- government	24,585,776	24,435,899
Stocks - common	16,244,807	11,461,963
- mutual funds	148,685,099	119,260,908
Other - prepaid expenses	0	0
Total assets	247,775,016	215,464,840
Less accounts payable	1,113,382	14,093
Net assets	\$ 246,661,634	\$ 215,450,747

Retired Member and Beneficiary Data September 30, 2021 Tabulated by Valuation Divisions

Valuation Divisions	No.	Annual Benefits	Average Benefit	Actuarial Value of Benefits
General Members	212	\$ 4,722,214	\$ 22,275	\$ 46,878,966
Utilities Authority Members	244	6,996,627	28,675	72,015,316
Police Members	98	4,196,319	42,820	44,982,197
Totals	554	\$15,915,160	\$28,728	\$163,876,479

Divisions	All Retirement's Averages			New Age and Service Retired Members Added During Year Ended 9/30/2021 Averages		
	Attained Age	Retirement Age	Current Annual Benefits	No.	Age	Annual Benefits
	General Members	70.5	59.8	\$ 22,275	6	59.9
Utilities Authority Members	69.9	58.1	28,675	14	61.5	35,891
Police Members	65.5	53.4	42,820	6	54.6	62,783

Retired Member and Beneficiary Data Historical Comparison

Period	Added		Removed		Net Increase		End of Period		Expected Removals	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Benefits
9/30/87	17	\$ 182,208	7	\$ 18,904	10	\$ 163,304	185	\$ 1,176,613	6	\$ 25,092
9/30/88	16	176,569	6	18,144	10	158,425	195	1,335,038	6	29,181
9/30/89	18	210,866	7	29,378	11	181,488	206	1,516,526	7	34,395
9/30/90	19	284,294	8	50,713	11	233,581	217	1,750,107	7	40,904
9/30/91	12	166,933	12	40,397	0	126,536	217	1,876,643	8	48,142
9/30/92	19	279,791	6	12,185	13	267,606	230	2,144,249	7	46,602
9/30/93	26	505,107	8	102,192	18	402,915	248	2,547,164	8	53,142
9/30/94	20	319,610	8	59,627	12	259,983	260	2,807,147	9	58,237
9/30/95	22	481,651	9	41,888	13	439,763	273	3,246,910	9	64,542
9/30/96	12	177,476	9	54,301	3	123,175	276	3,370,085	8	61,052
9/30/97	20	311,526	11	62,949	9	248,577	285	3,618,662	9	66,449
9/30/98	35	833,113	9	47,534	27	785,579	311	4,404,241	9	72,632
9/30/99	25	507,447	15	126,797	10	380,650	321	4,784,891	10	82,380
9/30/00	27	646,116	14	129,198	13	516,918	334	5,301,809	10	90,589
9/30/01	23	628,192	15	97,296	8	530,896	342	5,832,705	10	97,991
9/30/02	23	526,601	3	33,319	20	493,282	362	6,325,987	10	109,931
9/30/03	17	313,250	5	42,129	12	271,121	374	6,597,108	11	121,871
9/30/04	25	705,692	3	44,505	22	661,187	396	7,258,295	11	132,981
9/30/05	11	354,475	22	266,853	-11	87,622	385	7,345,917	12	149,279
9/30/06 *	37	1,017,845	99	2,907,201	-62	(1,889,356)	323	5,456,561	10	109,462
9/30/07	32	820,021	18	202,924	14	617,097	337	6,073,658	11	126,496
9/30/08	23	635,039	12	184,195	11	450,844	348	6,524,502	11	138,459
9/30/09	55	1,551,148	16	182,856	39	1,368,292	387	7,892,794	12	149,577
9/30/10	56	2,229,035	14	177,196	42	2,051,839	429	9,944,633	12	170,609
9/30/11	26	672,328	16	239,318	10	433,010	439	10,377,643	13	197,045
9/30/12	27	746,421	14	251,747	13	494,674	452	10,872,317	14	196,990
9/30/13	32	927,561	15	134,978	17	792,583	469	11,664,900	14	214,174
9/30/14	40	890,500	20	262,625	20	627,875	489	12,292,775	14	232,649
9/30/15	31	739,422	19	262,533	12	476,889	501	12,769,664	15	249,235
9/30/16	24	653,823	26	380,819	-2	273,004	499	13,042,668	16	270,359
9/30/17	19	382,822	13	154,607	6	228,215	505	13,270,883	14	249,276
9/30/18	32	777,459	20	342,128	12	435,331	517	13,706,214	14	267,842
9/30/19	31	1,018,350	22	345,024	9	673,326	526	14,379,540	14	285,051
9/30/20	25	861,733	17	302,652	8	559,081	534	14,938,621	14	292,501
9/30/21	39	1,245,027	19	268,488	20	976,539	554	15,915,160	15	328,322

* Removed 90 Fire retirees and beneficiaries, and \$2,811,761 annual benefits in the 9/30/2006 valuation.



Retired Members and Beneficiaries Historical Comparison

Valuation Date	% Increase in Annual Benefits	No. of Active Per Retired	Annual Benefits as % of Active Payroll	Average Benefits
9/30/87	16.1 %	4.2	6.6 %	\$ 6,360
9/30/88	13.5	4.2	6.8	6,846
9/30/89	13.6	4.0	7.5	7,362
9/30/90	15.4	3.9	7.8	8,065
9/30/91	7.2	3.9	7.9	8,648
9/30/92	14.3	3.6	8.6	9,323
9/30/93	18.8	3.1	10.8	10,271
9/30/94	10.2	3.0	11.6	10,797
9/30/95	15.7	3.0	12.4	11,893
9/30/96	3.8	3.0	12.2	12,210
9/30/97	7.4	3.2	12.1	12,697
9/30/98	21.7	2.8	14.5	14,162
9/30/99	8.6	2.7	15.1	14,906
9/30/00	10.8	2.7	15.9	15,874
9/30/01	10.0	2.7	16.4	17,055
9/30/02	8.5	2.5	17.1	17,475
9/30/03	4.3	2.5	16.4	17,639
9/30/04	10.0	2.4	16.7	18,329
9/30/05	1.2	2.6	15.0	19,080
9/30/06 *	20.3	2.0	17.9	16,893
9/30/07	11.3	2.0	19.6	18,023
9/30/08	7.4	2.0	19.8	18,749
9/30/09	21.0	1.7	25.4	20,395
9/30/10	26.0	1.3	37.1	23,181
9/30/11	4.4	1.3	40.3	23,639
9/30/12	4.8	1.2	42.1	24,054
9/30/13	7.3	1.1	46.3	24,872
9/30/14	5.4	1.1	48.9	25,139
9/30/15	3.9	1.0	50.1	25,488
9/30/16	2.1	1.1	47.4	26,138
9/30/17	1.7	1.1	46.5	26,279
9/30/18	3.3	1.1	46.8	26,511
9/30/19	4.9	1.1	45.2	27,338
9/30/20	3.9	1.1	45.9	27,975
9/30/21	6.5	1.0	49.3	28,728

* Removed 90 Fire retirees and beneficiaries, and \$2,811,761 annual benefits in the 9/30/2006 valuation.



Retired Member and Beneficiary Data as of September 30, 2021 by Type of Benefit Being Paid

<u>Type of Benefit Being Paid</u>	<u>No.</u>	<u>Annual Benefits</u>	<u>Average Benefits</u>
Age and Service Benefits			
Straight Life - benefit terminating at death of retirant	198	\$ 6,130,891	\$30,964
Option A - 100% joint and survivor benefit*	116	3,553,793	30,636
Option B/D/E - 50%/75%/67% joint and survivor benefit*	106	3,639,799	34,338
Option C - 10-year certain and life	24	607,969	25,332
Other Age and Service Benefits	<u>0</u>	<u>0</u>	<u>0</u>
Total Age and Service Benefits	444	13,932,452	31,379
Surviving Beneficiary Benefits	74	1,046,439	14,141
Casualty Benefits			
Duty disability	10	370,165	37,017
Non-duty disability	10	210,376	21,038
Duty death	2	47,846	23,923
Non-duty death	<u>14</u>	<u>307,882</u>	<u>21,992</u>
Total Casualty Benefits	36	936,269	26,007
Total Benefits Being Paid	554	\$15,915,160	\$28,728

* Includes Pop-Up provision.

Retired Members and Beneficiaries as of September 30, 2021 by Attained Age

Age Last Birthday	Age and Service*		Casualty		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45	3	\$ 17,257	0	\$ -	3	\$ 17,257
45-49	5	143,528	2	81,768	7	225,296
50-54	21	1,286,972	6	150,465	27	1,437,437
55-59	36	1,482,320	8	223,565	44	1,705,885
60-64	109	3,518,226	5	156,130	114	3,674,356
65-69	112	3,064,150	4	94,870	116	3,159,020
70-74	90	2,486,550	6	121,996	96	2,608,546
75-79	66	1,790,910	3	52,775	69	1,843,685
80-84	37	585,761	2	54,700	39	640,461
85-89	17	300,622	0	-	17	300,622
90 & Over	22	302,595	0	-	22	302,595
Totals	518	\$ 14,978,891	36	\$ 936,269	554	\$ 15,915,160

* Includes Surviving Beneficiary Benefits.

Inactive Vested Members as of September 30, 2021 by Attained Age

Attained Age	General Members		Utilities Authority*		Police Members*		TOTAL	
	No.	Estimated Annual Benefits	No.	Estimated Annual Benefits	No.	Estimated Annual Benefits	No.	Estimated Annual Benefits
Under 30			1	\$ 7,632		\$ 0	1	\$ 7,632
30-34	2	\$ 16,968			1	10,452	3	27,420
35-39			2	67,627	2	41,360	4	108,987
40-44	3	34,333	1	23,773	1	23,159	5	81,265
45-49	1	38,381	5	68,196	2	25,182	8	131,759
50-54	5	117,776	6	94,069	2	20,479	13	232,324
55-59	3	46,179	4	109,831	1	7,094	8	163,104
60-64	1	12,324	1	5,964			2	18,288
TOTALS	15	\$ 265,961	20	\$ 377,092	9	\$ 127,726	44	\$770,779

* Deferred annuities were estimated for 4 Utilities Authority members and 1 Police member who terminated during the 2020-2021 plan year.

Active Members Included in Valuation General Members

Valuation September 30	Active Members	Vested		Valuation Payroll	Average		
		Term. Members			Age	Service	Pay
2002	275	7		\$ 8,901,179	45.5 yrs.	8.1 yrs.	\$ 32,368
2003	302	5		9,994,351	46.5	7.7	33,094
2004	294	7		10,546,747	46.1	8.1	35,873
2005	297	7		11,854,374	46.4	8.6	39,914
2006	287	6		11,206,771	46.5	8.0	39,048
2007	289	6		11,131,329	47.3	8.3	38,517
2008	281	6		11,949,389	47.9	9.0	42,525
2009	265	8		11,108,762	47.5	8.6	41,920
2010	226	13		8,874,396	46.8	8.0	39,267
2011	219	16		8,488,894	47.1	8.2	38,762
2012	216	16		8,625,945	47.8	8.9	39,935
2013	198	17		7,765,325	48.2	9.4	39,219
2014	198	14		7,912,918	48.3	9.3	39,964
2015	185	15		7,383,853	48.9	9.8	39,913
2016	203	20		8,738,017	48.5	8.8	43,044
2017	199	19		8,858,072	48.7	9.1	44,513
2018	197	21		8,802,993	48.4	8.9	44,685
2019	203	18		9,532,368	48.5	8.6	46,957
2020	213	15		10,215,838	48.4	8.6	47,962
2021	212	15		10,496,497	48.3	8.6	49,512

Number Added to and Removed from Active Membership General Members

Year Ended September 30	Number Added During Year		Normal Retirement		Disability Retirement		Died-in- Service		Terminations				Active Members End of Year	
	A	E	A	E	A	E	A	E	Withdrawal			Transfer		
									Vested	Totals				
2012	10	13	4	7.0	0	0.5	3	0.3	5	1	6	12.3		216
2013	9	27	10	9.8	0	0.5	1	0.4	13	3	16	11.0		198
2014	23	23	10	8.4	0	0.5	0	0.4	13	0	13	9.5		198
2015	14	26	8	10.1	0	0.4	2	0.4	14	2	16	10.9	(1)	185
2016	41	23	7	8.3	0	0.5	0	0.4	10	6	16	9.9		203
2017	17	23	7	6.7	1	0.4	0	0.3	14	1	15	16.5	2	199
2018	32	33	8	8.4	1	0.4	1	0.3	19	4	23	14.7	(1)	197
2019	38	31	7	7.6	0	0.4	0	0.2	22	2	24	15.6	(1)	203
2020	28	18	5	8.4	1	0.3	0	0.2	12	0	12	17.3	0	213
2021	27	26	5	11.0	1	0.4	0	0.2	18	2	20	16.8	(2)	212
10-Year Totals	239	243	71	85.7	4	4.3	7	3.1	140	21	161	134.5		

A represents actual number; E represents expected number.



Active Members Included in Valuation Utilities Authority Members

Valuation September 30	Active Members	Vested Term. Members	Valuation Payroll	Average		
				Age	Service	Pay
2002	253	9	\$ 10,675,070	44.9 yrs.	9.7 yrs.	\$ 42,194
2003	248	10	10,744,695	45.3	10.0	43,325
2004	245	11	11,193,220	45.8	10.1	45,687
2005	256	12	12,754,845	46.5	10.1	49,824
2006	263	11	12,551,346	46.6	9.6	47,724
2007	278	10	13,494,349	46.5	9.3	48,541
2008	282	12	13,970,069	46.5	9.1	49,539
2009	266	7	13,244,000	46.0	9.3	49,789
2010	248	8	12,119,371	46.2	9.3	48,868
2011	237	10	11,893,916	47.0	9.9	50,185
2012	237	10	11,801,344	47.2	9.9	49,795
2013	232	9	11,534,243	46.7	9.6	49,717
2014	219	15	11,071,951	46.4	9.3	50,557
2015	228	18	11,841,919	46.3	9.1	51,938
2016	229	16	12,588,492	46.3	9.4	54,972
2017	230	18	12,768,134	46.5	9.8	55,514
2018	242	18	13,635,436	46.4	9.5	56,345
2019	257	15	15,141,890	46.2	9.3	58,918
2020	254	17	15,341,742	46.5	9.4	60,401
2021	244	20	14,993,204	46.0	9.4	61,448

Number Added to and Removed from Active Membership Utilities Authority Members

Year Ended September 30	Number Added During Year		Normal Retirement		Disability Retirement		Died-in- Service		Terminations				Active Members End of Year	
	A	E	A	E	A	E	A	E	Withdrawal		Totals	Transfer		
									A	A				A
2012	20	20	8	8.6	0	0.6	0	0.4	11	1	12	11.0	237	
2013	25	30	14	9.0	0	0.6	1	0.5	15	0	15	12.0	232	
2014	23	36	18	8.8	0	0.6	0	0.4	12	6	18	13.3	219	
2015	27	19	10	6.1	1	0.5	0	0.4	4	4	8	13.5	1	228
2016	25	24	6	5.3	0	0.5	0	0.3	15	3	18	15.0	229	
2017	19	18	2	6.8	0	0.5	0	0.3	10	6	16	16.7	230	
2018	31	19	7	7.9	0	0.5	0	0.3	10	2	12	15.5	242	
2019	35	21	6	7.9	0	0.4	0	0.4	12	3	15	17.4	1	257
2020	19	22	11	8.8	0	0.4	0	0.4	9	2	11	19.2	0	254
2021	23	33	14	10.2	0	0.4	1	0.3	14	4	18	17.9	0	244
10-Year Totals	247	242	96	79.4	1	5.0	2	3.7	112	31	143	151.5		

A represents actual number; E represents expected number.



Active Members Included in Valuation Police Members

Valuation September 30	Active Members	Vested Term. Members	Payroll	Average		
				Age	Service	Pay
2002	102	2	\$ 4,567,931	39.7 yrs.	9.0 yrs.	\$ 44,784
2003	103	3	4,921,744	39.9	9.1	47,784
2004	103	3	5,496,631	40.3	9.9	53,365
2005	105	3	5,943,309	40.9	10.6	56,603
2006	111	2	6,773,879	39.3	9.4	61,026
2007	106	2	6,358,225	38.9	9.4	59,983
2008	117	2	7,032,172	39.2	9.4	60,104
2009	111	3	6,663,530	38.6	9.2	60,032
2010	102	3	5,785,106	38.4	9.0	56,717
2011	101	4	5,361,391	38.9	9.7	53,083
2012	99	3	5,415,125	39.0	9.8	54,698
2013	106	3	5,899,165	39.2	9.2	55,653
2014	109	2	6,165,492	38.4	8.9	56,564
2015	107	4	6,249,587	39.0	9.1	58,407
2016	100	6	6,166,648	38.3	9.0	61,666
2017	110	8	6,937,207	37.9	8.6	63,066
2018	111	8	6,825,562	37.9	8.6	61,492
2019	107	7	7,129,571	37.6	8.2	66,632
2020	103	8	7,005,232	37.9	8.4	68,012
2021	99	9	6,814,130	37.4	7.9	68,830

Number Added to and Removed from Active Membership Police Members

Year Ended September 30	Number Added During Year		Normal Retirement		Disability Retirement		Died-in- Service		Terminations				Active Members End of Year	
	A	E	A	E	A	E	A	E	Withdrawal		Totals			Transfer
									A	E	A	E		
2012	14	16	1	0.9	3	0.3	0	0.1	12	0	12	3.7		99
2013	17	10	2	1.4	0	0.2	0	0.1	8	0	8	4.4		106
2014	19	16	4	2.0	0	0.2	0	0.1	12	0	12	5.3		109
2015	14	16	2	2.0	1	0.2	0	0.1	11	2	13	5.8		107
2016	15	22	4	3.4	0	0.2	0	0.1	15	3	18	5.8		100
2017	17	5	1	1.5	0	0.2	1	0.1	2	1	3	6.6	(2)	110
2018	10	11	4	1.9	0	0.3	0	0.1	5	1	6	7.2	1	111
2019	8	15	7	4.5	1	0.3	0	0.1	4	0	4	6.7	0	107
2020	13	17	2	0.9	0	0.3	0	0.1	13	2	15	6.4	0	103
2021	10	16	5	2.1	1	0.3	0	0.1	8	2	10	6.7	2	99
10-Year Totals	137	144	32	20.6	6	2.5	1	1.0	90	11	101	58.6		

A represents actual number; E represents expected number.



General Members as of September 30, 2021 by Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	4							4	\$ 139,518
25-29	12	1						13	528,324
30-34	10	4						14	670,054
35-39	6	2	1	4	1			14	603,519
40-44	13	6	2	2	2			25	1,164,721
45-49	11	6	6	3	7	2		35	1,891,985
50-54	21	8	4	6	4	2		45	2,497,988
55-59	11	5	3	9	4			32	1,675,735
60	2			3				5	325,788
61	4				1			5	202,497
62	1	1			1			3	194,932
63	1	1		1				3	95,999
64	2	1						3	196,934
66	1	1				1		3	135,342
67		1						1	56,392
68			1					1	26,468
70		1						1	10,959
71		1		1				2	49,234
76		1						1	9,105
77				1				1	10,399
79					1			1	10,604
Totals	99	40	17	30	21	5	0	212	\$10,496,497

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 48.3 years
Service: 8.6 years
Annual Pay: \$49,512



Utilities Authority Members as of September 30, 2021 by Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	5							5	\$ 204,514
25-29	13							13	500,247
30-34	18	15	1					34	1,806,076
35-39	16	7	8	1				32	1,915,952
40-44	8	9	3	3	3			26	1,428,950
45-49	8	5	6	6	3			28	2,001,352
50-54	11	8	6	4	4	4	1	38	2,661,020
55-59	7	5	6	12	1	1		32	1,957,333
60	2	1	2					5	258,574
61	2	2	1		3	1		9	608,036
62		1	1		1			3	189,078
63	2			2				4	227,070
64	1	1	3	2				7	521,312
65		2	1		1		1	5	427,707
66			1					1	68,503
67	1							1	47,528
70					1			1	169,952
Totals	94	56	39	30	17	6	2	244	\$14,993,204

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 46.0 years
Service: 9.4 years
Annual Pay: \$61,448

Police Members as of September 30, 2021 by Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	6							6	\$ 282,761
25-29	14	2						16	865,046
30-34	12	12						24	1,456,670
35-39	3	5	2	1				11	834,295
40-44	4	6	2	2	2			16	1,182,421
45-49	5	2	2	5	3			17	1,365,541
50-54				1	4			5	455,120
55-59		3			1			4	372,276
Totals	44	30	6	9	10	0	0	99	\$6,814,130

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 37.4 years
Service: 7.9 years
Annual Pay: \$68,830

SECTION D

ACTUARIAL COST METHOD, ACTUARIAL ESTIMATES AND DEFINITIONS OF TECHNICAL TERMS

Actuarial Cost Method Used for the Valuation

The actuarial cost method is a procedure for allocating the actuarial present value of future benefits and expenses to time periods. The method used for this valuation is the individual entry-age actuarial cost method, and has the following characteristics:

Actuarial Present Value of Future Benefits. Actuarial present values are calculated using the benefit provisions applicable to active members, vested terminated members, and retirees and beneficiaries as of the valuation date using the assumptions summarized elsewhere in this report.

Normal Costs. The actuarial present values for each year of service rendered before and after the valuation date are determined so that:

- (i) The annual normal costs for each individual active member, payable from the member's effective date of employment (or entry age) to projected date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) Each annual normal cost is a constant percentage of the active member's year-by-year projected pensionable pay.

Actuarial Accrued Liabilities. The actuarial present value of future benefits minus the actuarial present value of normal costs rendered after the valuation date is the Actuarial Accrued Liabilities.

Funding Value of Assets. The accrued assets recognized as of the valuation date for the purpose of determining contribution requirements.

Unfunded Actuarial Accrued Liabilities. The Actuarial Accrued Liabilities minus the funding value of assets are the Unfunded Actuarial Accrued Liabilities.

Amortization of Unfunded Actuarial Accrued Liabilities. Unfunded Actuarial Accrued Liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions over periods shown elsewhere in this report. Active member payroll was assumed to increase 4.0% a year for the purpose of determining the level percent contributions, unless the 10-year average annual payroll growth is lower than 4.0%.

Actuarial Assumptions. Assumptions are established by the Board after consulting with the actuary. Non-economic assumptions are generally selected on the basis of the System's historical activity, modified for expected future differences. The reasonableness of the economic assumptions is based upon capital market expectations provided by various investment consultants and other sources such as the Social Security Trustees report. All actuarial assumptions are based on future expectations, not market measures.

Level Percent of Active Member Covered Payroll Amortization of Unfunded Actuarial Accrued Liability*

General Members

(\$ Amounts in Thousands)

Year	Pay		Unfunded		Contribution	
	Inflated Dollars	Constant Dollars	Inflated Dollars	Constant Dollars	Inflated Dollars	Constant Dollars
2021	\$ 10,496	\$10,496	\$ 9,241	\$9,241	\$ 404	\$ 404
2022	10,916	10,496	9,484	9,119	396	381
2023	11,353	10,496	9,753	9,018	571	528
2024	11,807	10,496	9,857	8,763	634	564
2025	12,279	10,496	9,902	8,464	626	535
2030	14,940	10,496	8,333	5,854	1,518	1,066
2035	18,177	10,496	4,233	2,445	400	231
2040	22,115	10,496	2,691	1,277	422	200
2050	32,735	10,496	180	58	182	59
2051	34,044	10,496	0	0	0	0

*	\$ 1,146,018	over 30 years	\$ 234,565	over 15 years
	961,495	over 29 years	2,355,437	over 14 years
	351,663	over 28 years	2,300,339	over 13 years
	(424,648)	over 27 years	1,798,802	over 12 years
	85,808	over 26 years	1,722,834	over 11 years
	2,996,761	over 25 years	428,479	over 10 years
	(750,498)	over 24 years	(719,947)	over 9 years
	(1,361,965)	over 23 years	(632,286)	over 8 years
	(1,240,662)	over 22 years	(723,500)	over 7 years
	(625,926)	over 21 years	(1,009,694)	over 6 years
	2,453,655	over 20 years	(237,237)	over 5 years
	662,447	over 19 years	108,731	over 4 years
	1,200,465	over 18 years	(102,567)	over 3 years
	1,410,019	over 17 years	(286,262)	over 2 years
	(2,884,506)	over 16 years	22,900	over 1 year
			\$ 9,240,720	TOTAL

Level percent-of-payroll financing of unfunded actuarial accrued liabilities treats each generation of taxpayers equally during the financing period. The alternative, level-dollar financing, produces declining percent-of-payroll contributions and places a greater relative burden on current taxpayers.

The annual rate of increase in member payroll used to compute the level percent-of-payroll contribution is the same rate of payroll growth used to compute actuarial liabilities and costs. It reflects across-the-board salary increases not group size increases.

If future payroll growth is less than the assumed rate due to smaller than projected salary increases, the percent-of-payroll contribution rate for unfunded actuarial accrued liabilities will tend to decline.

If future payroll growth is less than the assumed rate due to decreases in the number of members, the percent-of-payroll contribution rate for unfunded actuarial accrued liabilities will tend to increase but dollar contributions will be less than indicated in the preceding schedule.



Level Percent of Active Member Covered Payroll Amortization of Unfunded Actuarial Accrued Liability*

Utility Authority Members

(\$ Amounts in Thousands)

Year	Pay		Unfunded		Contribution	
	Inflated Dollars	Constant Dollars	Inflated Dollars	Constant Dollars	Inflated Dollars	Constant Dollars
2021	\$14,993	\$14,993	\$14,016	\$14,016	\$ 1,023	\$ 1,023
2022	15,593	14,993	13,951	13,415	1,064	1,023
2023	16,217	14,993	13,839	12,795	1,107	1,023
2024	16,865	14,993	13,673	12,155	1,151	1,023
2025	17,540	14,993	13,448	11,496	1,051	898
2030	21,340	14,993	12,854	9,031	1,372	964
2035	25,963	14,993	8,540	4,931	1,117	645
2040	31,588	14,993	4,554	2,162	815	387
2050	46,759	14,993	318	102	322	103
2051	48,629	14,993	0	0	0	0

	* \$ 2,025,467	over 30 years	\$ -	over 15 years
	695,995	over 29 years	4,673,371	over 14 years
	170,044	over 28 years	0	over 13 years
	(287,342)	over 27 years	0	over 12 years
	(504,020)	over 26 years	0	over 11 years
	4,938,412	over 25 years	(792,033)	over 10 years
	440,463	over 24 years	147,014	over 9 years
	(1,881,804)	over 23 years	(1,828,601)	over 8 years
	(1,110,445)	over 22 years	(3,973)	over 7 years
	(1,546,449)	over 21 years	0	over 6 years
	3,830,498	over 20 years	807,841	over 5 years
	2,265,099	over 19 years	470,121	over 4 years
	1,929,255	over 18 years	0	over 3 years
	1,509,430	over 17 years	0	over 2 years
	(1,932,626)	over 16 years	0	over 1 year
			\$ 14,015,717	TOTAL

Level percent-of-payroll financing of unfunded actuarial accrued liabilities treats each generation of taxpayers equally during the financing period. The alternative, level-dollar financing, produces declining percent-of-payroll contributions and places a greater relative burden on current taxpayers.

The annual rate of increase in member payroll used to compute the level percent-of-payroll contribution is the same rate of payroll growth used to compute actuarial liabilities and costs. It reflects across-the-board salary increases not group size increases.

If future payroll growth is less than the assumed rate due to smaller than projected salary increases, the percent-of-payroll contribution rate for unfunded actuarial accrued liabilities will tend to decline.

If future payroll growth is less than the assumed rate due to decreases in the number of members, the percent-of-payroll contribution rate for unfunded actuarial accrued liabilities will tend to increase but dollar contributions will be less than indicated in the preceding schedule.



Level Percent of Active Member Covered Payroll Amortization of Unfunded Actuarial Accrued Liability*

Police Members

(\$ Amounts in Thousands)

Year	Pay		Unfunded		Contribution	
	Inflated Dollars	Constant Dollars	Inflated Dollars	Constant Dollars	Inflated Dollars	Constant Dollars
2021	\$ 6,814	\$6,814	\$3,582	\$3,582	\$ 121	\$ 121
2022	7,087	6,814	3,714	3,572	126	121
2023	7,370	6,814	3,851	3,560	131	121
2024	7,665	6,814	3,992	3,549	136	121
2025	7,972	6,814	4,138	3,537	60	51
2030	9,699	6,814	2,520	1,771	908	638
2035	11,800	6,814	(421)	(243)	(175)	(101)
2040	14,356	6,814	(189)	(90)	(102)	(48)
2050	21,251	6,814	92	29	93	30
2051	22,101	6,814	0	0	0	0

	* \$	585,122	over 30 years	\$	426,204	over 15 years
		(1,148,933)	over 29 years		2,945,816	over 14 years
		1,574,742	over 28 years		1,768,036	over 13 years
		(531,591)	over 27 years		1,120,897	over 12 years
		358,042	over 26 years		1,037,752	over 11 years
		101,087	over 25 years		794,119	over 10 years
		(105,660)	over 24 years		(265,299)	over 9 years
		(1,246,731)	over 23 years		(861,498)	over 8 years
		(1,189,938)	over 22 years		1,091,510	over 7 years
		95,360	over 21 years		(1,294,479)	over 6 years
		762,357	over 20 years		(1,708,599)	over 5 years
		539,586	over 19 years		262,463	over 4 years
		432,696	over 18 years		0	over 3 years
		512,582	over 17 years		0	over 2 years
		(2,473,198)	over 16 years		0	over 1 year
				\$	3,582,445	TOTAL

Level percent-of-payroll financing of unfunded actuarial accrued liabilities treats each generation of taxpayers equally during the financing period. The alternative, level-dollar financing, produces declining percent-of-payroll contributions and places a greater relative burden on current taxpayers.

The annual rate of increase in member payroll used to compute the level percent-of-payroll contribution is the same rate of payroll growth used to compute actuarial liabilities and costs. It reflects across-the-board salary increases not group size increases.

If future payroll growth is less than the assumed rate due to smaller than projected salary increases, the percent-of-payroll contribution rate for unfunded actuarial accrued liabilities will tend to decline.

If future payroll growth is less than the assumed rate due to decreases in the number of members, the percent-of-payroll contribution rate for unfunded actuarial accrued liabilities will tend to increase but dollar contributions will be less than indicated in the preceding schedule.

Actuarial Estimates Used for the Valuation

Funding objective contribution requirements and actuarial present values are calculated by applying estimates of future activities (actuarial estimates) to the benefit provisions and people information of the System.

The principal areas of risk which require estimates of future activities are:

- (i) Long-term rates of investment return to be generated by the assets of the System
- (ii) Patterns of pay increases to members
- (iii) Rates of mortality among members, retirants, and beneficiaries
- (iv) Rates of withdrawal of active members
- (v) Rates of disability among active members
- (vi) The age patterns of actual retirements

In a valuation, the monetary effect of each activity is calculated for as long as a present covered person survives - - - a period of time which can be as long as a century.

Actual activities of the System will not coincide exactly with estimated activities, due to the nature of the activities. Each valuation provides a complete recalculation of estimated future activities and takes into account the effect of differences between estimated and actual activities to date. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time-to-time one or more of the estimates are modified to reflect experience trends (but not random or temporary year-to-year fluctuations).

In accordance with Chapter 112, Florida Statutes, 112.661(9), the Retirement Board adopts the assumed rate of return assumption used for actuarial valuation purposes. The actuarial assumptions are set by the Board. The rationale for certain actuarial assumptions is described in the October 1, 1995 through September 30, 2000 experience study report. All actuarial assumptions are estimates of future experience.

Actuarial estimates regarding the net investment return, inflation, real investment return, and salary increase rates are used, in combination with the other assumptions, to (i) determine the present value of amounts expected to be paid in the future and (ii) establish rates of contribution which are expected to remain relatively level as a percent of total valuation payroll.

Net Rate of Investment Return. 7.25% per annum, compounded annually, net of investment expenses.

Inflation. 2.75% per annum, compounded annually. This is the rate at which growth in the supply of money and credit is estimated to exceed growth in the supply of goods and services. It may be thought of as the rate of depreciation of the purchasing power of the dollar. There are a number of indices for measuring the inflation rate. The recent inflation rate, as measured by the Consumer Price Index, has been:

	Year Ended September 30					Average for Period
	2021	2020	2019	2018	2017	
Actual	5.40%	1.40%	1.70%	2.30%	2.20%	2.59%
Assumed	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%

Real Investment Return. 4.50% per annum, compounded annually. This is the rate of return assumed to be produced by investing a pool of assets in an inflation-free environment. Recent real investment return for the Retirement and Benefit System has been:

	Year Ended September 30					Average for Period
	2021	2020	2019	2018	2017	
Total Rate of Return	10.15%	8.18%	8.08%	8.07%	8.03%	8.50%
Less Inflation Rate	5.40%	1.40%	1.70%	2.30%	2.20%	2.59%
Actual Real Rate of Return	4.75%	6.78%	6.38%	5.77%	5.80%	5.91%
Assumed Real Rate of Return	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Assumed Net Rate of Return	7.50%	7.75%	7.75%	7.75%	7.75%	7.70%

The total investment return rate was computed using the approximate formula $i = I$ divided by $1/2 (A + B - I)$, where I is actual realized investment income plus market value adjustments, A is the beginning of year asset value, and B is the end of year asset value.

The preceding investment return rates reflect the particular characteristics of this Retirement and Benefit System and should not be used to measure an investment advisor's performance or for comparison with other retirement systems. Such use will usually mislead.

Salary Increases. Employee salaries are estimated to increase between the date of hire and date of retirement. Salary increases occur in recognition of (i) individual merit and seniority, (ii) inflation related depreciation of the purchasing power of salaries, and (iii) competition from other employers for personnel.

A schedule of estimated rates of increases in individual salaries for sample ages follows:

Annual Rates of Salary Increases for Sample Ages						
Age	General and Utilities Authority			Police Officers		
	Merit & Seniority	Wage Inflation	Total	Merit & Seniority	Wage Inflation	Total
20	2.5 %	4.0 %	6.5 %	4.0 %	4.0 %	8.0 %
30	1.7 %	4.0 %	5.7 %	2.8 %	4.0 %	6.8 %
40	1.1 %	4.0 %	5.1 %	2.2 %	4.0 %	6.2 %
50	0.6 %	4.0 %	4.6 %	1.2 %	4.0 %	5.2 %
55	0.5 %	4.0 %	4.5 %	0.7 %	4.0 %	4.7 %
60	0.5 %	4.0 %	4.5 %	0.2 %	4.0 %	4.2 %

The merit and seniority rates for General and Utilities Authority were first used in the September 30, 2016 valuation.

The merit and seniority rates for Police Officers were first used in the September 30, 2001 valuation.

It is estimated that the group size will remain constant and that total payroll for the group will increase at the rate of the general increase in wage levels due to inflation, which in this case is 4.0%.

A schedule of recent salary change experience follows:

	% Change in Salaries					
	Year Ended September 30					Average
	2021	2020	2019	2018	2017	5-Year
Rate of Change in Salaries						
- Total	5.0 %	4.7 %	9.2 %	2.9 %	5.7 %	5.5 %
- General	4.9	5.1	7.4	3.9	6.1	5.5
- U.A.	4.2	4.6	7.3	3.7	4.6	4.9
- Police	6.4	4.0	15.2	0.2	7.2	6.5
Expected - Total	5.1	5.1	5.1	5.2	5.0	5.1 %
- General	4.7	4.7	4.7	4.7	4.7	4.7
- U.A.	4.8	4.8	4.8	4.8	4.8	4.8
- Police	6.4	6.3	6.3	6.3	6.3	6.3

	% Change in Total Payroll						
	Year Ended September 30					Average*	
	2021	2020	2019	2018	2017	5-Year	10-Year
- Total	(0.8) %	2.4 %	8.7 %	2.5 %	3.9 %	1.7 %	3.0 %
- General	2.7	7.2	8.3	(0.6)	1.4	1.4	2.9
- U.A.	(2.3)	1.3	11.0	6.8	1.4	1.6	2.7
- Police	(2.7)	(1.7)	4.5	(1.6)	12.5	2.1	4.0

* 5-year and 10-year averages include DROP payroll.

In order to achieve the funding objective of a contribution rate which remains level as a percent-of-payroll, the total rate of investment return must exceed the rate of average increase in salaries by an amount equal to the estimated real investment return rate.

Mortality Tables. The mortality tables used to measure retired life mortality were the Florida Retirement System (FRS) Mortality Tables, as described below:

General & Utilities Authority

- Male non-disabled pre-retirement mortality: fully generational mortality. PUB-2010 Headcount Weighted General Below Median Employee Male Table, set back 1 year, projected with scale MP-2018.
- Female non-disabled pre-retirement mortality: fully generational mortality. PUB-2010 Headcount Weighted General Below Median Employee Female Table, projected with scale MP-2018.
- Male non-disabled post-retirement mortality: fully generational mortality. PUB-2010 Headcount Weighted General Below Median Healthy Retiree Male Table, set back 1 year, projected with scale MP-2018.
- Female non-disabled post-retirement mortality: fully generational mortality. PUB-2010 Headcount Weighted General Below Median Healthy Retiree Female Table, projected with scale MP-2018.
- Male disabled mortality: PUB-2010 Headcount Weighted General Disabled Retiree Male Table, set forward 3 years.
- Female disabled mortality: PUB-2010 Headcount Weighted General Disabled Retiree Female Table, set forward 3 years.

Police

- Male non-disabled pre-retirement mortality: fully generational mortality. PUB-2010 Headcount Weighted Public Safety Below Median Employee Male Table, set forward 1 year, projected with scale MP-2018.
- Female non-disabled pre-retirement mortality: fully generational mortality. PUB-2010 Headcount Weighted Public Safety Employee Female Table, set forward 1 year, projected with scale MP-2018.
- Male non-disabled post-retirement mortality: fully generational mortality. PUB-2010 Headcount Weighted Public Safety Below Median Healthy Retiree Male Table, set forward 1 year, projected with scale MP-2018.
- Female non-disabled post-retirement mortality: fully generational mortality. PUB-2010 Headcount Weighted Public Safety Healthy Retiree Female Table, set forward 1 year, projected with scale MP-2018.
- Male disabled mortality: PUB-2010 Headcount Weighted 80% General Disabled Retiree/20% Public Safety Disabled Retiree Male Table.
- Female disabled mortality: PUB-2010 Headcount Weighted 80% General Disabled Retiree/20% Public Safety Disabled Retiree Female Table.

Single Life Retirement Values

Sample Ages in 2021	Present Value of \$1 Monthly for Life				Future Life Expectancy (Years)			
	General & UA		Police		General & UA		Police	
	Males	Females	Males	Females	Males	Females	Males	Females
45	\$151.63	\$156.42	\$151.41	\$156.72	38.33	42.20	37.29	41.47
50	143.91	150.30	145.55	151.29	33.10	36.91	32.46	36.29
55	137.38	145.78	137.66	144.26	28.73	32.46	27.68	31.26
60	130.17	139.14	127.67	135.62	24.64	27.92	23.10	26.47
65	120.65	129.66	115.87	125.16	20.58	23.35	18.83	21.96
70	107.95	117.07	101.46	112.37	16.58	18.87	14.82	17.70
75	92.93	101.75	85.15	97.26	12.87	14.69	11.22	13.78
80	76.43	84.28	67.91	80.62	9.59	10.93	8.14	10.31

The margin for future mortality improvements is included in projection scales. 100% of deaths were assumed to be non-duty related.



Rates of separation from active membership. The rates do not apply to members eligible to retire and do not include separation on account of death or disability. This estimate measures the probabilities of members remaining in employment.

Samples Ages	Years of Service	Percent Separating Within Next Year	
		General and Utilities Authority	Police
ALL	0	22.00 %	15.00 %
	1	16.50	12.00
	2	12.00	10.00
	3	10.00	8.00
	4	8.00	6.00
20	5 & Over	8.00	6.00
25		8.00	6.00
30		8.00	6.00
35		8.00	6.00
40		8.00	6.00
45		5.00	3.50
50		2.25	1.00
55		2.25	1.00
60		2.25	1.00
65		2.25	1.00

The rates for all divisions were first used in the September 30, 2016 valuation.

Rates of Disability. These estimates represent the probabilities of active members becoming disabled.

Sample Ages	Percent Becoming Disabled Within Next Year	
	General and Utilities Authority	Police
20	0.04 %	0.07 %
25	0.04	0.09
30	0.04	0.10
35	0.05	0.14
40	0.10	0.21
45	0.17	0.32
50	0.36	0.52
55	0.59	0.92
60	0.90	1.53
65	1.00	1.65

The mortality table was set forward ten years for projecting disability costs. 100% of the disability retirements were assumed to be non-duty related for General and Utilities Authority members. 75% of the disability retirements were assumed to be non-duty for Police members.



Rates of Retirement. These rates are used to measure the probabilities of an eligible member retiring during the next year.

Service Years	Service Based		Age Based		
	General and Utilities Authority	Police	Retirement Ages	General and Utilities Authority	Police
25	40 %	75 %	55		35 %
26	40	75	56		30
27	40	75	57		30
28	40	75	58		30
29	40	75	59		30
30	40	100	60	10 %	30
31	40	100	61	5	30
32	40	100	62	12	30
33	40	100	63	6	30
34	40	100	64	14	40
35	100	100	65	65	100
			66	25	
			67	30	
			68	40	
			69	50	
			70	100	

These rates were first used for the September 30, 1995 valuation with the exception of the Police service based rates, which were first used for the September 30, 2000 valuation, Police age based rates which were first used for the September 30, 2001 valuation, and Utilities Authority service based rates which were first used for the September 30, 2007 valuation.

Miscellaneous and Technical Assumptions

Marriage Assumption. It is estimated that 80% of active members who meet the age and service requirements for pre-retirement survivor benefits are married. Female spouses are estimated to be 3 years younger than the male participant. Male spouses are estimated to be 3 years older than the female participant.

Pay Increase Timing. Middle of (Fiscal) year.

Decrement Timing. Retirement decrements are assumed to occur at the beginning of the year. Decrements of all other types are assumed to occur at the end of the year.

Eligibility Testing. Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

Benefit Service. The nearest whole year of service on the date the decrement is assumed to occur is used to determine the amount of benefit payable.

Decrement Relativity. Decrement rates are used without adjustment for multiple decrement table effects.

Decrement Operation. Disability and mortality decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during retirement eligibility.

Normal Form of Benefit. The assumed normal form of benefit is the straight life form. Optional benefit forms are available on an actuarial equivalent basis.

Incidence of Contributions. Contributions are assumed to be received continuously throughout the year based upon the computed percent-of-payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

Vested members who terminate with a benefit worth less than 100% of their own accumulated contributions were presumed to elect a refund of accumulated contributions and forfeit the vested benefit.

Lump sum payments included in the calculation of the average pay upon which benefits are computed were estimated to increase benefits by the following percents.

General members	3.5 %
Utilities Authority members	3.0
Police members	4.0

Administrative Expenses. Administrative expenses for the next year are assumed to be equal to the previous year's amount.

Investment Expenses. Investment expenses are paid out of investment income.

Active Member Group Size. The valuation was based on a constant active member group size.

Valuation Pay. Active members whose current pay is at least 10% less than their pay in the prior valuation were assumed to have their prior year pay for this valuation.



Definitions of Technical Terms

Accrued Service. Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability. The difference between the actuarial present value of future benefit payments and the actuarial present value of future normal costs. Also referred to as "accrued liability" or "past service liability."

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefit payments" between future normal costs and actuarial accrued liability. Sometimes referred to as the "actuarial valuation cost method."

Actuarial Equivalent. A single amount or series of amounts of equal actuarial present value to another single amount or series of amounts, computed on the basis of appropriate actuarial activities.

Actuarial Present Value. The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment. Also referred to as "present value."

Amortization. Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying off with lump sum payment.

Experience Estimates (Assumptions). Estimates of expected future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement estimates (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic estimates (salary increases and investment income) consist of the underlying rates in an inflation-free environment plus a provision for a long-term average rate of inflation.

Experience Gain (Loss). The difference between actual actuarial costs and estimated actuarial costs -- during the period between two valuation dates.

Funding Value of Assets. The actuarial value of assets used to determine contribution amounts.

Normal Cost. The actuarial cost allocated to the current year by the actuarial cost method. Sometimes referred to as "current service cost."

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and the actuarial value of system assets. Sometimes referred to as "unfunded past service liability," "unfunded accrued liability" or "unfunded supplemental present value."

Most retirement systems have an unfunded actuarial accrued liability. They arise each time new benefits are added and each time an experience loss is realized.

Unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to control the amount of unfunded actuarial accrued liability and the trend in its amount (after due allowance for devaluation of the dollar).



SECTION E

ADDITIONAL DISCLOSURE INFORMATION

GASB Statements No. 67 and No. 68 are the accounting standards which replaced GASB Statements No. 25 and No. 27. GASB Statement No. 67 is first effective for fiscal year 2014 and GASB Statement No. 68 is first effective for fiscal year 2015. A separate GASB Statements No. 67 and No. 68 report has been issued outside of this report. This section contains historical GASB Statements No. 25 and No. 27 reporting information for prior fiscal years and illustrative information for fiscal year 2015 and after.

Additional Disclosure Information

Schedule of Funding Progress

(\$ Amounts in Thousands)

Valuation Date	Valuation Assets	AAL*	Funded Ratio	Unfunded AAL*	Member Payroll	Ratio to Payroll
9/30/11 (b)	\$ 142,463	\$ 167,683	85 %	\$ 25,220	\$25,744	98 %
9/30/12 (b)	147,618	171,745	86	24,127	25,842	93
9/30/13	157,145	177,505	89	20,360	25,199	81
9/30/14	167,451	182,407	92	14,956	25,150	59
9/30/15 (b)	177,624	191,986	93	14,362	25,475	56
9/30/16 (b)	185,171	207,945	89	22,774	27,493	83
9/30/17	192,300	215,142	89	22,842	28,563	80
9/30/18	200,087	221,431	90	21,344	29,264	73
9/30/19	208,092	231,143	90	23,051	31,804	72
9/30/20 (b)	216,567	239,844	90	23,277	32,563	71
9/30/21 (b)	229,477	256,316	90	26,839	32,304	83

* Actuarial Accrued Liabilities.

(b) After changes in benefit provisions and/or actuarial assumptions.

Schedule of Employer Contributions

Fiscal Year	Aggregate Contribution Rates as Percents of Valuation Payroll	Projected Dollar Contribution Based on Valuation Payroll	Actual Contribution Based on Actual Payroll@
13/14	16.57 %	\$ 4,676,221	\$ 4,356,127
14/15	15.42	4,242,676	4,093,268
15/16	15.28	4,196,009	4,211,311
16/17	15.44	4,296,532	4,565,884
17/18	16.41	4,878,739	4,909,654
18/19	16.28	5,029,181	5,240,707
19/20	16.03	5,074,604	5,343,484
20/21	15.86	5,456,288	5,328,802
21/22	15.55	5,475,742	
22/23	16.99	5,934,799	

@ Actual Employer contributions are determined by applying the Employer's contribution rate to the emerging payroll. Projected funding requirement is based on a stable work force and projected salary increases.



Additional Disclosure Information

Supplementary Information

The information presented in the additional disclosure schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date	September 30, 2021
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Percent-of-Payroll, Closed
Remaining Amortization Periods#	1-30 years
Asset Valuation Method	4-year smoothed market
Actuarial Assumptions:	
Investment Rate of Return*	7.25%
Projected Salary Increases**	General & U.A.: 4.0% - 6.5% Police: 4.0% - 8.0%
* Includes Price Inflation at	2.75%
**Includes Wage Inflation and other general increases at	4.00%
Cost-of-living adjustments	None
Retirees and beneficiaries receiving benefits	554
Terminated plan members entitled to but not yet receiving benefits	44
Active plan members	
- Vested	318
- Non-vested	<u>237</u>
Total	1,153

The periods are in compliance with Florida Statutes and Actuarial Standards of Practice, but do not necessarily produce an Annual Required Contribution with an aggregate amortization of the unfunded actuarial accrued liability under 30 years.



SECTION F

STATE REQUIRED DATA

Actuarial Present Value of Accrued Benefits

(\$ Amounts in Thousands)*

	September 30, 2021								September 30, 2020			
	After				Before				General Members	Utilities Authority	Police Members	Total
	General Members	Utilities Authority	Police Members	Total	General Members	Utilities Authority	Police Members	Total				
(i) Actuarial present value of active member benefits:												
Service retirement	\$35,919	\$49,428	\$24,188	\$ 109,535	\$33,487	\$45,897	\$22,703	\$ 102,087	\$32,136	\$47,722	\$24,916	\$ 104,774
Vested termination benefits	3,495	5,581	2,095	11,171	3,284	5,237	1,936	10,457	3,238	5,094	1,887	10,219
Disability retirement	747	1,111	1,101	2,959	717	1,068	1,054	2,839	712	1,042	1,048	2,802
Survivor benefits (pre-retirement)	677	1,140	321	2,138	643	1,081	305	2,029	627	1,104	315	2,046
Termination benefits - refunds	276	190	92	558	275	188	92	555	223	209	107	539
Total	41,114	57,450	27,797	126,361	38,406	53,471	26,090	117,967	36,936	55,171	28,273	120,380
(ii) Actuarial present value of terminated vested members	1,762	2,272	455	4,489	1,701	2,189	431	4,321	1,497	1,960	364	3,821
(iii) Actuarial present value of retired members & beneficiaries:												
Present value of benefits	46,879	72,015	44,982	163,876	45,964	70,572	44,032	160,568	44,856	65,823	40,186	150,865
Reserve	0	0	0	0	0	0	0	0	0	0	0	0
Total	46,879	72,015	44,982	163,876	45,964	70,572	44,032	160,568	44,856	65,823	40,186	150,865
(iv) Total actuarial present value of future benefit payments	89,755	131,737	73,234	294,726	86,071	126,232	70,553	282,856	83,289	122,954	68,823	275,066
(v) Present value of active member future payroll	72,886	106,383	57,871	237,140	71,889	104,870	56,951	233,710	69,486	105,532	56,115	231,132
(vi) Present value of future active member contributions	3,761	6,553	2,986	13,300	3,709	6,460	2,939	13,108	3,585	6,501	2,896	12,982
(vii) Active member accumulated contributions	4,941	9,374	2,945	17,260	4,941	9,374	2,945	17,260	4,747	9,509	3,248	17,504
(viii) Plan costs for fiscal year beginning October 1, 2022												
Normal costs												
Service pensions	12.85%	11.38%	13.29%		12.02%	10.56%	12.38%		11.97%	10.77%	12.65%	
Disability pensions	0.47%	0.47%	1.01%		0.45%	0.45%	0.98%		0.45%	0.45%	1.00%	
Death-in-service pensions	0.36%	0.41%	0.27%		0.35%	0.39%	0.26%		0.34%	0.39%	0.27%	
Deferred service pensions	2.81%	2.85%	2.32%		2.65%	2.68%	2.15%		2.65%	2.64%	2.16%	
Refunds of member contributions	0.63%	0.74%	0.39%		0.63%	0.74%	0.39%		0.64%	0.75%	0.38%	
Total normal cost	17.12%	15.85%	17.28%		16.10%	14.82%	16.16%		16.05%	15.00%	16.46%	
Payment to amortize unf'd act. accr. liab.	3.87%	6.82%	1.77%		2.58%	5.65%	0.38%		3.89%	5.98%	0.68%	
Administrative expenses	0.72%	0.72%	0.72%		0.72%	0.72%	0.72%		0.68%	0.68%	0.68%	
FS112.64(5) Requirement/Temporary Funding Credits	0.58%	0.73%	0.01%		0.41%	0.50%	0.00%		0.94%	0.67%	0.28%	
Amount to be paid by participants	5.16%	6.16%	5.16%		5.16%	6.16%	5.16%		5.16%	6.16%	5.16%	
Expected plan sponsor contribution												
% of payroll	17.13%	17.96%	14.62%	16.99%	14.65%	15.53%	12.10%	14.52%	16.40%	16.17%	12.94%	15.55%
dollars	1,945	2,913	1,078	5,935	1,663	2,518	892	5,074	1,812	2,683	980	5,476

* Totals may not sum exactly due to rounding.



Actuarial Present Value of Accrued Benefits

(\$ Amounts in Thousands)*

	September 30, 2021								September 30, 2020				
	After				Before				General Members	Utilities Authority	Police Members	Total	
	General Members	Utilities Authority	Police Members	Total	General Members	Utilities Authority	Police Members	Total					
Actuarial Present Value of Accrued Benefits (calculated in accordance with FASB Statement No. 35)													
(i) Vested accrued benefits													
Retired members and beneficiaries	\$ 46,879	\$ 72,015	\$ 44,982	\$ 163,876	\$ 45,964	\$ 70,572	\$ 44,032	\$ 160,568	\$ 44,856	\$ 65,823	\$ 40,186	\$ 150,865	
Terminated members	1,762	2,272	455	4,489	1,701	2,189	431	4,321	1,497	1,960	364	3,821	
Active members (includes non-forfeitable accum. member contributions)	18,644	27,665	12,079	58,388	17,935	26,696	11,654	56,285	17,013	28,189	13,740	58,942	
Total	\$ 67,285	\$ 101,952	\$ 57,516	\$ 226,753	\$ 65,600	\$ 99,457	\$ 56,117	\$ 221,174	\$ 63,366	\$ 95,972	\$ 54,290	\$ 213,628	
(ii) Non-vested accrued benefits	2,087	2,474	1,125	5,686	2,014	2,375	1,072	5,461	1,979	2,218	1,090	5,287	
(iii) Total actuarial p.v. of accrued benefits	\$ 69,372	\$ 104,426	\$ 58,641	\$ 232,439	\$ 67,614	\$ 101,832	\$ 57,189	\$ 226,635	\$ 65,345	\$ 98,190	\$ 55,380	\$ 218,915	
(iv) Actuarial p.v. of accrued benefits at begin. of year	\$ 65,345	\$ 98,190	\$ 55,380	\$ 218,915	\$ 65,345	\$ 98,190	\$ 55,380	\$ 218,915	\$ 61,828	\$ 92,615	\$ 53,389	\$ 207,832	
(v) Changes attributable to:													
Amendments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Assumption change	1,758	2,594	1,452	5,804	-	-	-	-	636	815	83	1,534	
Operation of decrements	6,954	10,506	5,828	23,288	6,954	10,506	5,828	23,288	7,581	11,261	5,866	24,708	
Benefit payments	(4,685)	(6,864)	(4,019)	(15,568)	(4,685)	(6,864)	(4,019)	(15,568)	(4,700)	(6,501)	(3,958)	(15,159)	
Other	-	-	-	-	-	-	-	-	-	-	-	-	
(vi) Net change	4,027	6,236	3,261	13,524	2,269	3,642	1,809	7,720	3,517	5,575	1,991	11,083	
(vii) Actuarial p.v. of Accr. benefits at end of year	\$ 69,372	\$ 104,426	\$ 58,641	\$ 232,439	\$ 67,614	\$ 101,832	\$ 57,189	\$ 226,635	\$ 65,345	\$ 98,190	\$ 55,380	\$ 218,915	

* Totals may not sum exactly due to rounding.



Reconciliation of Membership Data

	<u>From 10/1/20 To 9/30/21</u>	<u>From 10/1/19 To 9/30/20</u>
A. Active Members		
1. Number Included in Last Valuation	570	567
2. New Members Included in Current Valuation	60	60
3. Non-Vested Employment Terminations	(36)	(34)
4. Vested Employment Terminations	(8)	(4)
5. Service Retirements	(24)	(18)
6. Disability Retirements	(2)	(1)
7. Deaths	(5)	0
8. Other	0	0
9. Number Included in this Valuation	555	570
B. Terminated Vested Members		
1. Number Included in Last Valuation	40	40
2. Additions from Active Members	8	4
3. Lump Sum Payments	(1)	(3)
4. Payments Commenced	(3)	(3)
5. Deaths	0	0
6. Other	0	2
7. Number Included in this Valuation	44	40
C. Service Retirees, Disability Retirees and Beneficiaries		
1. Number Included in Last Valuation	534	526
2. Additions from Active Members	26	19
3. Additions from Terminated Vested Members	3	3
4. Removals Resulting in No Further Payments	(19)	(17)
5. Deaths Resulting in New Survivor Benefits	10	3
6. Other	0	0
7. Number Included in this Valuation	554	534

Retirement Board

Meeting Date: 03/17/2022

Re: Consent Agenda 3-17-22

Information

SUBJECT:

CONSENT AGENDA

Attachments

Consent Agenda 3/17/22

Form Review

Form Started By: Johnna Morris

Final Approval Date: 03/14/2022

Started On: 03/14/2022 01:56 PM

CONSENT AGENDA
 REFUND OF MEMBER CONTRIBUTIONS
 MARCH 2022
 RETIREMENT BOARD MEETING

<u>CITY</u>	<u>AGENCY</u>	<u>PERIOD</u>	<u>DATE OF TERMINATION</u>	<u>DATE OF REFUND</u>	<u>TOTAL AMOUNT OF REFUND</u>	<u>TAX DEBIT</u>	<u>RE-PAYMENT</u>	<u>NET AMOUNT</u>	<u>CHECK NUMBER</u>
SELLERS, JOHN	City	6	8/16/2021	3/11/2022	11353.89	2,270.78		9,083.11	46978
PALACIO, KATHY	City	6	9/6/2021	3/11/2022	8870.67	1,774.13		7,096.54	46971
LOVE, NANCY	City	6	7/7/2021	3/11/2022	1093.03	218.61		874.42	46972
BENTON, KESHONDA	City	6	2/21/2022	3/11/2022	11502.4	2,300.48		9,201.92	46973
ROUNDTREE, CELESTINE	City	6	11/29/2021	3/11/2022	13567.45	2,713.49		10,853.96	46974

Sub-Total: **46,387.44** **9,277.49** **-** **37,109.95**

POLICE

SUHLING, TASHA	Police	6	11/29/2019	3/11/2022	14022.91	2,804.58		11,218.33	46975
SUHLING, TASHA	185	6	11/29/2019	3/11/2022	16668.93	3,333.79		13,335.14	46975
						-		-	
								-	

Sub-Total: **30,691.84** **6,138.37** **-** **24,553.47**

U.A.

WARREN, JABAREY	UA	6	01/27/21	3/11/2022	10,212.99	2,042.60		8,170.39	46976
COX, TYLER	UA	6	02/25/22	3/11/2022	8,759.98	1,752.00		7,007.98	46977
						-		-	
						-		-	
						-		-	
						-		-	

Sub-Total: **18,972.97** **3,794.59** **-** **15,178.38**

GRAND TOTAL: **\$ 96,052.25** **\$ 19,210.45** **\$ -** **\$ 76,841.80**