ACTUARIAL REVIEW OF THE
2019 ACTUARIAL VALUATION OF THE
PAROCHIAL EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL SERVICES

PRESENTED TO THE PUBLIC RETIREMENT SYSTEMS' ACTUARIAL COMMITTEE

AUGUST 19, 2020

LOUISIANA LEGISLATIVE AUDITOR
DARYL G. PURPERA, CPA, CFE

July 31, 2020

Ms. Dainna S. Tully
Administrative Director
Parochial Employees' Retirement System
7905 Wrenwood Boulevard
Baton Rouge, Louisiana 70809

Re: Actuarial Review of the 2019 Actuarial Valuation

Dear Ms. Tully:

To fulfill the requirements of R.S. 11:127(C) to the Public Retirement Systems' Actuarial Committee (PRSAC) for 2019, the Louisiana Legislative Auditor (LLA) has conducted an Actuarial Review for the Parochial Employees' Retirement System (PERS).

The remainder of this letter contains the results of our Actuarial Review of your December 31, 2019 actuarial valuation (prepared by G.S. Curran & Company and dated June 22, 2020). More specifically, we have evaluated for appropriateness certain actuarial assumptions and methods employed by the System and its actuary.

I would like to thank you, your staff and the board's actuary for the cooperation and assistance provided for this review.

Sincerely,

Daryl G. Purpera, CPA, CFE
Legislative Auditor

DGP:LPG:JJR:ch

cc: G.S. Curran & Company, Ltd.

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Scope of Review

The 2019 actuarial valuation report for the Parochial Employees' Retirement System (PERS) for funding purposes was prepared by G.S. Curran & Company (GSC), and dated June 22, 2020.

This Actuarial Review of that report was prepared jointly by Lowell P. Good, Actuary for the Louisiana Legislative Auditor, and James J. Rizzo, Senior Consultant and Actuary employed by Gabriel, Roeder, Smith and Company (GRS). This Actuarial Review includes evaluations of the appropriateness of key actuarial assumptions and methods. However, a full actuarial valuation replicating the actuary's results was not performed; nor was a full actuarial valuation performed using recommended assumptions and methods. A full analysis of the net return assumption was not undertaken this year, but was conducted for the 2018 valuation report (presented in a Comprehensive Actuarial Review dated July 18, 2019).

This Actuarial Review is limited to evaluations of the valuation's (1) actuarial treatment of COLA benefits that can be provided by PERS, (2) net investment return assumption, and (3) mortality assumptions.

Our Findings

1. <u>Cost-of-Living Adjustments (COLAs)</u>.

The cost of future COLAs is currently not included in the 2019 funding valuation. Future COLAs are currently recognized in the calculations of costs and liabilities only after they are granted. For the 2019 PERS valuation report, the Actuary for the LLA agrees with this treatment.

There are, basically, two broad categories of COLAs available to PERS:

- "Gain-sharing COLA." This is a COLA granted when the actuarial earnings exceed the actuarial assumption by a sufficient margin and

- "FDA COLA." This is a COLA granted and paid out of those funds that have been previously earmarked as "excess" contributions and accumulated in the Funding Deposit Account (FDA).

There are many other rules for COLAs relating to: how often and when they may be granted, minimum and maximum percentage and dollar increases granted, and who is eligible to receive the increases.

Whether and how much *future* COLAs should be recognized in annual actuarial valuations for funding purposes and for accounting purposes depends on whether the future COLAs expected are of the "Gain-sharing COLA" variety or the "FDA COLA" variety.

Over the past several years the PERS board granted COLAs three times:

- Based on the 12/31/13 status, the board of trustees granted a *Gain-sharing* COLA (effective 1/1/15).
- Based on the 12/31/16 status, the board granted an *FDA* COLA (effective 1/1/18), rather than use excess investment earnings for a *Gain-sharing* COLA.
- Based on the 12/31/19 status, the System is permitted to grant an FDA COLA, but the decision is pending.
- Furthermore, the System's FDA currently has a significant balance (which it is expected to maintain) for Plan A and Plan B from which the board may grant COLAs in the future.

Therefore, it is the opinion of Actuary of the LLA that it is more reasonable to expect future COLAs to be of the *FDA* variety, rather than the *Gain-sharing* variety. As such it is acceptable actuarial funding treatment *not* to recognize future COLAs in the measurement of costs and liabilities.

Actuarial Treatment of "Gain-sharing COLAs"

When there is a reasonable expectation (not a guaranteed expectation) of "Gain-sharing COLAs" being granted in the future, an actuary should recognize the likelihood and magnitude of future "Gain-sharing COLAs" in the measurement of a system's costs and liabilities for both funding and accounting purposes.

"Gain-sharing COLAs" for PERS are permitted when the actuarial investment earnings exceed the actual valuation rate achieved when calculated on the actuarial basis, effectively sharing the better-than-assumed gains with the eligible members. The authority for the PERS board to pay Gain-sharing COLAs is also subject to various timing and other conditions and restrictions.

Practically speaking, there are two types of Gain-sharing COLAs outlined in statutes for PERS.

- R.S. 11:1937 describes a plan-specific COLA, and
- R.S. 11:246 describes "additional" cost-of-living adjustments.

The statutory permission to grant future Gain-sharing COLAs is actuarially predictable. The statutory provisions that give rise to permitting PERS Gain-sharing COLAs operate under something akin to auto-pilot. The rules are set forth in statutes. However, when a Gain-sharing COLA is permitted to be paid, the PERS board has discretionary authority to grant, or not to grant, a Gain-sharing COLA to increase eligible members' benefits.

Actuarial Treatment of "FDA COLAs"

However, when there is a reasonable expectation that future COLAs will be of the "FDA COLA" type, the actuarial treatment is different:

In addition to Gain-sharing COLAs, "Funding Deposit COLAs" are permitted for PERS when there is a balance in the FDA and certain conditions are satisfied.

Unless the balance in the FDA is used for other purposes in the future (e.g., reducing the net direct employer contribution or reducing the present value of future costs), thereby depleting the balance available for COLAs, the Actuary for the LLA expects that future COLAs would be financed by using the balance in the FDA. This is not the opinion of the Actuary for the LLA with respect to all statewide systems.

For funding purposes, future FDA COLAs are already being pre-funded by making contributions in excess of what is required under a non-COLA future. The excess contributions are set-aside in a notional Funding Deposit Account, and not counted as plan assets in the actuarial valuation until such time an FDA COLA is granted. At that time, an equivalent amount is released from the FDA into the actuarial value of assets. Therefore, for funding purposes, if a reasonable expectation of future COLAs is that they would be granted from the balance in the FDA, then no actuarial advance-recognition is necessary.

For accounting purposes, on the other hand, the Governmental Accounting Standards Board (GASB) does not focus on funding and whether the contributions are exceeding a minimum calculation. GASB requires advance recognition when there is a reasonable pattern expected for granting COLAs (whether they are FDA COLAs or otherwise).

Refer to the Appendix for the recent history of when, how much and what type of COLA PERS was permitted to grant and actually granted.

Conclusion -- For the 2019 PERS funding valuation, the Actuary for the LLA accepts the current practice of not recognizing future COLAs in the funding calculations of costs and liabilities as appropriate treatment in this situation, and accepts the current practice of excluding FDA balances from the actuarial value of assets.

However, consideration should be given to recognizing a pattern for future COLAs in the GASB calculations.

2. **Investment Return Assumption**.

For this Actuarial Review, a detailed analysis of independent experts' 2020 forecasts for PERS's portfolio was not undertaken. The last detailed analysis was prepared by the Actuary for the LLA for the 2018 valuation report (presented in a Comprehensive Actuarial Review dated July 18, 2019) using forecasts published in early 2019. For this Actuarial Review, we present only observational commentary on the assumption in lieu of evidence-based analyses.

The PERS' 2018 valuation report used a 6.50% return assumption. The Comprehensive Actuarial Review prepared at that time suggested a "most appropriate" return assumption of 6.25%, based on a consensus average among independent national investment forecasters applied to an estimate of PERS own asset allocation at that time. However, the 6.50% used for the 2018 return assumption was in the LLA's range of reasonableness.

The PERS board and actuary did not lower the investment return assumption for the 2019 valuation, retaining the same 6.50% rate.

However, in the absence of a new Comprehensive Actuarial Review of the return assumption, we cannot fully assess the current reasonableness of the 6.50% assumption against the forecasters' current (2020) sentiments about future returns.

PERS' asset allocations are relatively conservative, and, therefore, the fund is not expected to earn as much as other portfolios with higher risk profiles. It appears that the asset allocation targets embodied in the 2019 investment policy statement remain unchanged from 2018. In our opinion, the appropriate benchmark for whether 6.50% is conservative or optimistic is a consensus average of expert investment forecasters and, more importantly, applying the fund's asset allocation, with adjustments for investment expenses and cash flow expectations.

Nevertheless, the trend among professional investment forecasters since their 2019 forecasts has generally been decreases in their forecasts. Based on the 2019 asset allocation targets, but using the 2020 forecasters' expectations, our most appropriate return assumption would likely be somewhat lower than the 6.25% developed more rigorously last year. This is confirmed by a drop in the expected 10-year and 20-year geometric means from 2019 forecasts to 2020 forecasts, as presented in a recent asset/liability report prepared by PERS investment consultant (page 6).

An overly optimistic return assumption, applied repeatedly, creates underfunding in a retirement system and undermines the actuarial integrity of the pension-promise made to career public servants.

We estimate that the 6.50% assumption employed in the 2019 valuation likely would still fall within our range of reasonableness, albeit at the upper end, considering the direction we have seen from our survey of numerous major national investment forecasters in their 2020 forecasts compared to their 2019 forecasts.

The appropriateness of a retirement system's investment return assumption for any given year's pension valuation is assessed as follows:

- In terms of the expected future inflation rates (mid-term and long-term) from several reputable and independent professional inflation forecasters (mostly economists and investors);
- In terms of the expected future capital market assumptions (mid-term and long-term) from several reputable and independent professional investment forecasters for relevant asset classes;
- Applied to the pension fund's own asset allocation targets;
- Net of the pension fund's own expected investment-related expenses - both in-house or external - for passive management fees, for custodial and trade-execution fees, and for external investment consulting; and
- Adjusted to lie between mid-term and long-term forecasts due to the pension plan's expected benefit cash flow timing, or the Duration calculation (a proxy for adjustments due to expected benefit cash flows).

While experts' forecasts are not certain or guaranteed, in our opinion, they are the best sources for decision-makers to rely on - a consensus average of the collective expectations of independent subject matter experts applied to the System's own characteristics.

Conclusion -- In the absence of conducting a detailed analysis using updated 2020 expert forecasts and in the absence of applying them to PERS' own asset allocation, investment expenses and expected cash flow, the Actuary for the LLA considers the 6.50% return assumption for the 2019 valuation to be reasonable.

Multiple large and reputable independent investment forecasters' 2019 and 2020 expectations for the next 10 years' investment returns are mostly driven by high stock price valuations, compared to earnings, and currently low yields and interest rates. They are not expecting the next 10 years' investment returns to be anywhere near the high levels we have seen in many prior periods.

Improvements in the stock market since the dramatic lows in March portend toward getting back on previous expectations; but we have seen substantial volatility in the stock markets in the last several months and cannot predict where the markets will be in the coming fiscal year.

3. Mortality Assumption.

The 2019 Actuarial Valuation (page 67) states that the mortality assumption for annuitant and beneficiary mortality is the "Pub-2010 Public Retirement Plans Mortality Table for General Healthy Retirees multiplied by 130% for males and 125% for females, each with full generational projection using the MP2018 scale."

To evaluate the reasonableness of the mortality assumption, we reviewed the base mortality (Pub-2010) separately from the projection scale (MP2018).

Base Mortality Table

The Pub-2010 Public Retirement Plans Mortality Tables Report was published in January 2019. This table was developed by the Society of Actuaries based on data obtained from public sector pension plans across the U.S. It is the most recent reliable broad-base mortality table available, for purposes of national estimates of mortality for public pension plans.

The observed mortality rates were compared to the standard reference table in order to set the appropriate adjustment factors to determine the best fitting table to use for the final mortality assumption. Because the plan is too small for a full statistical credibility of its own mortality experience, observed rates were blended with standard tables. The resulting adjustment factor of 130% was determined by GSC to be the best fit for males and an adjustment factor of 125% was determined by GSC to be the best fit for females.

Conclusion – The Actuary for the LLA considers the PERS' base tables (before projection for future mortality) for mortality rates to be reasonable for the 2019 Actuarial Valuation for PERS.

Projection Scales

Once the base table was found to be reasonable, we turned our attention to the projection scale used in the mortality assumption to reflect expected mortality improvements over time. The 2019 Actuarial Valuation stated that the Pub-2010 table was projected generationally using scale MP2018. We noted that the projection scale MP2019 was the most recent projection scale available as of that valuation date. However, we find the projection scale MP2018 to be appropriate for the 2019 Actuarial Valuation as well.

Conclusion – The Actuary for the LLA considers the mortality improvement scale to be reasonable for the 2019 Actuarial Valuation for PERS.

Actuarial Certification

This Actuarial Review report constitutes a Statement of Actuarial Opinion. It 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 information it is purported to present. All calculations have been made in conformity with generally accepted actuarial principles and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Lowell P. Good and James J. Rizzo are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

The signing actuaries are independent of the Parochial Employees' Retirement System.

Lowell P. Good — July 16, 2020

Lowell P. Good, ASA, EA, MAAA — Date
Actuary for the Louisiana Legislative Auditor

James J. Rizzo — July 15, 2020

James J. Rizzo, ASA, EA, MAAA — Date
Senior Consultant and Actuary
Gabriel, Roeder, Smith & Company

Appendix

COLA History for the Parochial Employees' Retirement System										
	Statutory Conditions for COLA Granting Under:		**Authorizing Gain-sharing (G-s) COLAs Pct and Recipients**[1]		**Authorizing Funding Deposit Account COLAs**					
Actuarial Measurement Date	**The Window Rule**[2] **for any COLA**	**The Sufficient Actuarial Return Rule**[3] **for G-s COLAs**	**R.S. 11:1937 G-s COLA [Up to 2.5%, to Elg Over 62]**	**R.S. 11:246 G-s COLA [2% or Nothing, to Elg Over 65]**	**Balance in the FDA**	**FDA Balance Used?**	**Amount Granted by Board**	**Date Approved by Board**	**Effective Date of COLA**	**Comments**
12/31/2019	**Satisfied** (For YE 2020)	Not Satisfied (6.4% and 6.4% vs. 6.50%)	None Permitted [To Elg Over 62]	None Permitted [To Elg Over 65]	$83,972,205 (Plan A) and $6,928,047 (Plan B)	Permitted but pending	Pending	Pending	Pending	Pending
12/31/2018	**Satisfied** (For YE 2019)	Not Satisfied (4.7% and 4.8% vs. 6.75%)	None Permitted [To Elg Over 62]	None Permitted [To Elg Over 65]	$78,847,141 (Plan A) and $6,220,583 (Plan B)	Permitted, but not used	NA	NA	NA	None permitted for failure to satisfy the Inv Return Rule
12/31/2017	Not Satisfied (For YE 2018)	**Satisfied** (17.3% and 8.5% vs. 7.00%)	None Permitted [To Elg Over 62]	None Permitted [To Elg Over 65]	$66,910,393 (Plan A) and $5,361,971 (Plan B)	Not Permitted	NA	NA	NA	None permitted for failure of the Window Rule
12/31/2016	**Satisfied** (For YE 2017)	**Satisfied** (7.8% and 7.5% vs. 7.00%)	**<2.5% Permitted** [To Elg Over 62]	None Permitted [To Elg Over 65]	$68,896,088 (Plan A) and $5,602,259 (Plan B)	Permitted and used	**2.5% Granted** [To Elg Over 62]	Not Available	1/1/2018	COLA granted from Funding Deposit Account
12/31/2015	Not Satisfied (For YE 2016)	**Satisfied** (7.3% and 7.1% vs. 7.25%)	None Permitted [To Elg Over 62]	None Permitted [To Elg Over 65]	$49,644,401 (Plan A) and $4,622,489 (Plan B)	NA	NA	NA	NA	None permitted for failure of the Window Rule
12/31/2014	Not Satisfied (For YE 2015)	**Satisfied** (10.5% and 10.3% vs. 7.25%)	None Permitted [To Elg Over 62]	None Permitted [To Elg Over 65]	$23,781,823 (Plan A) and $2,281,164 (Plan B)	NA	NA	NA	NA	None permitted for failure of the Window Rule
12/31/2013[4]	**Satisfied** (For YE 2014)	**Satisfied** (13.0% and 12.8% vs. 7.50%)	**2.5% Permitted** [To Elg Over 62]	**2%Permitted** [To Elg Over 65]	$4,918,053 (Plan A) and $2,126,959 (Plan B)	NA	**2.5% Granted** [To Elg Over 62]	Not Available	1/1/2015	Gain-sharing COLA granted

[1] Per R.S. 11:1937, the Board is authorized to provide a COLA of up to 2.5% of the current benefit to eligible pensioners over age 62. Additionally, per R.S. 11:246, the Board is authorized to provide an additional or supplemental COLA of 2% to eligible pensioners over age 65. No COLA may be provided during any fiscal year until the lapse of at least one-half of the fiscal year.

[2] Per R.S. 107.1(D)(4)(b) and R.S. 11:243(G)(1) and (3), the Board may grant a benefit increase only if any of the following apply: (a) the system has a funded ratio of at least 90% and has not granted a benefit increase to retirees, survivors, or beneficiaries in the most recent fiscal year, (b) the system has a funded ratio of at least 80% and has not granted such an increase in any of the two most recent fiscal years, or (c) the system has a funded ratio of at least 70% and has not granted a benefit increase to retirees, survivors, or beneficiaries in any of the three most recent fiscal years. The funded ratio as of any fiscal year is the ratio of the actuarial value of assets to the actuarial accrued liability under the funding method prescribed by the office of the legislative auditor.

[3] Per R.S. 11:1937, the Board is authorized to use interest earnings on investments of the system in excess of normal requirements to provide a supplemental COLA of up to 2.5% of the current benefit to eligible pensioners over age 62. Supplementally, per R.S. 11:246, the Board has the authority to provide an additional COLA of 2% to eligible pensioners over age 65 if there is sufficient excess interest earnings to fund the entire 2% additional COLA.

[4] The 12/31/13 valuation date marks the first year that Act 170 applies, after the trustees elected to be covered under R.S. 11:243 by 12/31/13.