

ACTUARIAL REVIEW OF THE
2019 ACTUARIAL VALUATION OF THE
LOUISIANA ASSESSORS' RETIREMENT FUND



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. Kathy Bertrand
Executive Director and Retirement Benefits Coordinator
Louisiana Assessors' Retirement Fund
3060 Valley Creek Drive
Baton Rouge, Louisiana 70808

Re: Actuarial Review of the 2019 Actuarial Valuation

Dear Ms. Bertrand:

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 Louisiana Assessors' Retirement Fund (LARF).

The remainder of this letter contains the results of our Actuarial Review of your September 30, 2019 actuarial valuation (prepared by G.S. Curran & Company and dated January 3, 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.

LLA's Actuarial Review of LARF's 2019 Actuarial Valuation

Scope of Review

The 2019 actuarial valuation report for the Louisiana Assessors' Retirement Fund (LARF) for funding purposes was prepared by G.S. Curran & Company and dated January 3, 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. 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 2017 valuation report (presented in a Comprehensive Actuarial Review dated August 27, 2018).

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

Our Findings

1. Gain-sharing Cost-of-Living Adjustments (COLAs)

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 LARF valuation report, the Actuary for the LLA agrees with this treatment. The favorable investment performance and other conditions in the past several years put the LARF board in a position of being permitted to grant gain-sharing COLAs in a few of those years. However, the LARF board of trustees has chosen to use the Funding Deposit Account (FDA) to grant the two most recent COLAs (granted as of October 1, 2017, and October 1, 2019) rather than use excess investment earnings for a gain-sharing COLA. Furthermore, the FDA currently has a significant balance (which it is expected to maintain) from which the board may grant COLAs in the future. The board's actuary indicated that the board has expressed interest in paying future COLAs from the FDA. Therefore, it is the opinion of Actuary of the LLA that it is acceptable actuarial treatment not to recognize future COLAs in the measurement of costs and liabilities.

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

- "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 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 *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.

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 system costs and liabilities for both funding and accounting purposes.

“Gain-sharing COLAs” are permitted when the actuarial investment earnings exceed the valuation rate, effectively sharing the better-than-assumed gains with the eligible members. The authority for the LARF 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 LARF:

- R.S. 11:1461 describes a plan-specific COLA, and
- R.S. 11:246 describes “*additional*” COLAs.

The statutory permission to grant future gain-sharing COLAs is actuarially predictable. The statutory provisions that give rise to permitting LARF 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 LARF 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 may be different.

In addition to gain-sharing COLAs, “Funding Deposit COLAs” are permitted for LARF when there is a balance in the FDA and certain conditions are satisfied. For example, a Funding Deposit COLA was granted as of October 1, 2019. Again, the authority for the LARF board to pay FDA COLAs is subject to various timing and other conditions and restrictions.

- R.S. 11:107.1(D)(4)(a) and R.S. 11:243(G)

LARF has now accumulated a significant balance in its FDA and will likely continue to operate with a large balance in the future. Thus, there is a high likelihood of LARF paying future COLAs from the FDA, as compared to paying gain-sharing COLAs.

LARF differs from most other Louisiana state and statewide retirement systems in that it has accumulated a substantial balance in its FDA by way of collecting previous contributions that exceed the minimum recommended net direct employer contribution. The FDA balance in LARF may be used to fund COLAs when otherwise permitted under the rules.

The Actuary for the LLA expects that future COLAs granted for LARF would be of the “FDA COLA” type. The last two COLAs granted were FDA COLAs, effective October 1, 2017, and October 1, 2019. Unless the balance in the FDA is used repeatedly 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 FDA, 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 and how much LARF COLAs were permitted to be granted:

- *What type of COLA was actually granted (FDA or gain-sharing COLAs),*
- *When COLAs were granted or not granted (development of patterns), and*
- *How much COLA was actually granted (and under what statute).*

Conclusion -- For the 2019 LARF 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' 2019 forecasts for LARF's portfolio was not undertaken. The last detailed analysis was prepared by the Actuary for the LLA for the 2017 valuation report (presented in a Comprehensive Actuarial Review dated August 27, 2018). For this Actuarial Review, we present only observational commentary on the assumption.

LARF's 2017 valuation report used a 6.75% return assumption. The Comprehensive Actuarial Review prepared at that time suggested 5.50% for the 2017 return assumption, based on a consensus average among independent national investment forecasters applied to an estimate of LARF's own asset allocation at that time.

The LARF board and actuary lowered its return assumption for the 2018 valuation to 6.25% and lowered it again for the 2019 valuation to 6.00%. This action is commendable and has kept LARF's return assumption moving in the direction where the majority of national investment forecasts (as adjusted for LARF's own asset allocation) have moved.

However, in the absence of a new Comprehensive Actuarial Review of the return assumption, we cannot fully assess the current reasonableness of the 6.00% assumption against the forecasters' current sentiments about future returns.

LARF's asset allocations are relatively conservative, and, therefore, the fund is not expected to earn as much as some other portfolios with higher risk profiles. Also, it appears that the fund's asset allocation may have changed somewhat since our last comprehensive analysis. The appropriate benchmark for whether 6.00% is conservative or optimistic is a consensus average of expert inflation and investment forecasters' expectations as applied to the fund's asset allocation, with adjustments for investment expenses and cash flow expectations.

Nevertheless, the trend among professional investment forecasters since 2017 has generally been slight decreases (and slight increases) in their forecasts. While LARF's target asset allocation was updated in October 2019, the current 6.00% may continue to be slightly optimistic compared to the direction we have seen, although we cannot be certain. Although, it may be close enough to accept as reasonable without qualification. For example, the Fund's investment consultant (in reliance on J.P. Morgan's capital market assumptions) indicated in its asset allocation report dated July 23, 2019, that the arithmetic mean expected for any one given year in the next 10-15 years was 6.12% for the then-current asset allocation, and arithmetic means expected for five alternative asset allocation mixes presented varied from 6.24% to 6.36%. While it is not certain exactly which asset allocation mix was adopted, that translates into 50th percentile expectations of 10-year compound average return (preferred expectation targets) for the alternative mixes in the "low/high-5% range," i.e., close enough for actuarial work. Furthermore, the board's actuary provided a composite of capital market assumptions that appear to provide similar results.

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

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 and future capital market assumptions for relevant asset classes;
- As forecasted by several reputable and independent professional forecasters, and 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 reliable long-term forecasts due to the pension plan's expected benefit cash flows, 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 and the professional methodologies they employ 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 2019 or 2020 expert forecasts and in the absence of applying them to LARF's new asset allocation, investment expenses, and expected cash flow, the Actuary for the LLA considers the 6.00% return assumption for the 2019 valuation to be reasonable.

Multiple large and reputable independent investment forecasters' 2019 expectations for the next 10 years' investment returns are mostly driven by high stock price valuations 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. While their forecasts are not certain or guaranteed, in our opinion multiple subject matter experts are the best sources for decision-makers to rely on.

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 at the next valuation date.

LARF has demonstrated that a retirement system can make significant progress toward full actuarial funding, even while moving toward lower and more appropriate return assumptions.

3. Mortality Assumption

The 2019 Actuarial Valuation (page 39) states that the mortality assumption:

- For active member mortality is the “RP2000 Employee Table set back 4 years for males and set back 3 years for females,” and
- For annuitant and beneficiary mortality is the “RP 2000 Healthy Annuitant Table set forward 1 year and projected to 2030 for males and projected to 2030 for females with no set forward.”

These 2019 mortality rates are the same as used in the 2018 and 2017 valuations.

Base Mortality table

To evaluate the reasonableness of the mortality assumption, the base mortality (RP2000) was reviewed separately from any projection of future mortality rates.

In terms of materiality, the mortality rates for annuitants and beneficiaries are more significant than those for active members. The system’s actuary provided certain details concerning the methods employed for the selection of the *base* mortality table for annuitants and beneficiaries, which was separated from projections of future *improvements* in mortality rates. Our Comprehensive Actuarial Review of the 2017 valuation report included details concerning the LLA Actuary’s evaluation of these methods and the resulting *base* mortality tables adopted. The conclusion for this year’s 2019 valuation report is the same as 2017 and 2018.

Conclusion – The Actuary for the LLA considers the LARF’s base tables for mortality rates for annuitants and beneficiaries to be reasonable. We look forward to the next experience study later this year, which we expect will update the *base* mortality tables used for the 2020 valuation. A more current approach to estimating *base* mortality rates for valuation purposes would be to use PubG-2010(B) adjusted for partially credible plan-specific experience. We recommend the General Employee subset (G), using Table B from the SOA to approximate a geographic adjustment.

Future Improvements in Base Mortality Rates

The 2019 valuation report does not specify any recognition of future improvements in mortality rates for currently-active members. The 2015 actuarial experience study and supplemental information provided by the system’s actuary indicate the base table and projections for future improvements in mortality rates were combined into a single blended table for current active members by making age adjustments.

Actuarial literature has suggested the use of more modern methods: a base table and a separate treatment disclosed for improvements. While the combining method employed by the system’s actuary for active members is not unreasonable, at a minimum, disclosure that the age adjustments are intended to reflect an estimate of future mortality improvements should be made in the valuation report.

For annuitants and beneficiaries (more significant than for active members), the 2019 valuation report indicates that future mortality improvements to the base rates are reflected in the static projection of the rates to 2030. This is the same as indicated in the 2018 and 2017 valuation reports. The primary observations below are the same as presented in more detail in the LLA's Comprehensive Actuarial Review for the 2017 valuation report as well as the Actuarial Review for the 2018 valuation report:

- There is no disclosure of the projection scale employed.
- Through examination of the 2015 experience study report and supplemental information provided by the system's actuary, it was determined that the projection scale employed was Scale AA. This is an old projection scale which has been replaced several years ago by more modern projections scales.
- The Society of Actuaries has recommended that generational projection rates are recommended over the use of static projections to a given future year. This recommendation has been in place for several years.

With newer methods recommended by the Society of Actuaries and as published in other actuarial literature, reluctance to move mortality rates to more modern approaches has been defended by stating the board's intention not to make any changes until the next scheduled actuarial experience study. A new experience study is not required before updating to more modern approaches. More appropriate and current actuarial treatments can be implemented in any valuation report with relative ease (whether it was the 2017 or 2018 reports, or this 2019 report).

Thus, while the use of Scale AA projected to 2030 is not unreasonable, there are more modern approaches that could have been implemented without difficulty.

Conclusion – For the 2019 valuation, the Actuary for the LLA recommends a more current approach to estimating mortality rate *improvements* for valuation purposes by projecting the *base* table generationally by either Scale BB or MP2019. While either of these two approaches would be more current and preferable methodologies, we do not find the adjustments for mortality improvement for annuitants and beneficiaries used in the LARF 2019 actuarial funding valuation report to be unreasonable.

This is similar to the conclusion and recommendation in the 2017 Comprehensive Actuarial Review and the 2018 Actuarial Review. However, no changes in mortality rates were made in LARF's 2019 valuation report.

We look forward to the next experience study later this year, which we expect will update the method for recognizing mortality *improvements* to the base table used for the 2020 valuation. A more current approach to recognizing mortality *improvements* for the 2020 valuation purposes would be to use Scale MP-2019, or MP-2020 if available.

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 Louisiana Assessors' Retirement Fund.

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

July 16, 2020

Date



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

July 15, 2020

Date

Appendix

COLA History for the Louisiana Assessors' Retirement Fund

Actuarial Measurement Date	Statutory Conditions for COLA Granting Under:		Authorizing Gain-sharing (G-s) COLAs Pct and Recipients ¹		Authorizing Funding Deposit Account COLAs		Amount Granted by Board	Date Approved by Board	Effective Date of COLA	Comments
	The Window Rule for Any COLA ²	The Sufficient Actuarial Return Rule ³ for G-s COLAs	R.S. 11:1461 G-s COLA [Up to 3%, to All Elg]	R.S. 11:246 G-s COLA [2% or Nothing, to Elg Over 65]	Balance in the FDA	FDA Balance Used?				
9/30/2019	Not Satisfied (For YE 2020)	Not Satisfied (5.8% vs. 6.25%)	None Permitted [To All Eligibles]	None Permitted [To Elg Over 65]	\$38,100,032	Not Permitted	NA	NA	NA	None permitted for failure to satisfy both Rules
9/30/2018	<u>Satisfied</u> (For YE 2019)	<u>Satisfied</u> (7.0% vs. 6.75%)	<u>3.0% Permitted</u> [To All Eligibles]	<u>2% Permitted</u> [To Elg Over 65]	\$37,949,749	Permitted and used	Based on the \$1 x (A + B) formula	7/23/2019	10/1/2019	COLA granted from Funding Deposit Account
9/30/2017	Not Satisfied (For YE 2018)	<u>Satisfied</u> (7.6% vs. 7.0%)	None Permitted [To All Eligibles]	None Permitted [To Elg Over 65]	\$34,439,283	Not Permitted	NA	NA	NA	None permitted for failure of the Window Rule
9/30/2016	<u>Satisfied</u> (For YE 2017)	<u>Satisfied</u> (8.2% vs. 7.0%)	<u>3.0% Permitted</u> [To All Eligibles]	<u>2% Permitted</u> [To Elg Over 65]	\$31,866,114	Permitted and used	Based on the \$1 x (A + B) formula	7/25/2017	10/1/2017	COLA granted from Funding Deposit Account
9/30/2015	Not Satisfied (For YE 2016)	<u>Satisfied</u> (7.4% vs. 7.25%)	None Permitted [To All Eligibles]	None Permitted [To Elg Over 65]	\$21,170,541	Not Permitted	NA	NA	NA	None permitted for failure of the Window Rule
9/30/2014 ⁴	Not Satisfied (For YE 2015)	<u>Satisfied</u> (9.8% vs. 7.5%)	None Permitted [To All Eligibles]	None Permitted [To Elg Over 65]	\$17,024,774	Not Permitted	NA	NA	NA	None permitted for failure of the Window Rule

¹ Per R.S. 11:1461, the Board is authorized to provide a COLA of up to 3% of the original benefit (with a maximum of \$25 per month) to all eligible pensioners. Additionally, per R.S. 11:246, the Board is authorized to provide a 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. 11:1461, the Board is authorized to use interest earnings on investments of the system in excess of normal requirements to provide a COLA of up to 3% of the original benefit (with a maximum of \$25 per month) to all eligible pensioners. Additionally, per R.S. 11:246, the Board has the authority to provide a supplemental 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 9/30/14 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.