

ACTUARIAL REVIEW OF THE  
2018 ACTUARIAL VALUATION OF THE  
DISTRICT ATTORNEYS' RETIREMENT SYSTEM



ACTUARIAL SERVICES  
PRESENTED TO THE PUBLIC RETIREMENT SYSTEMS' ACTUARIAL COMMITTEE  
FEBRUARY 25, 2019



LOUISIANA LEGISLATIVE AUDITOR  
DARYL G. PURPERA, CPA, CFE

February 5, 2019

Mr. E. Pete Adams  
Executive Director  
District Attorneys' Retirement System  
1645 Nicholson Drive  
Baton Rouge, Louisiana 70802-8143

**Re: Actuarial Review of the 2018 Actuarial Valuation**

Dear Mr. Adams:

To fulfill the requirements of R.S. 11:127(C) to the Public Retirement Systems' Actuarial Committee (PRSAC) for 2018, the Louisiana Legislative Auditor (LLA) has arranged for an Actuarial Review for the District Attorneys' Retirement System (DARS).

In lieu of a Comprehensive Actuarial Review or a Brief Actuarial Review as we have prepared for statewide retirement systems in the past, we are submitting herein an Actuarial Review (AR) for PRSAC's consideration. The scope of this Actuarial Review is less robust than a Comprehensive Actuarial Review, but provides more specific opinions and recommendations than previous Brief Actuarial Reviews.

The remainder of this letter contains the results of our Actuarial Review of your June 30, 2018 actuarial valuation (prepared by G.S. Curran & Company and dated November 12, 2018). More specifically, we have evaluated for appropriateness the 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 your cooperation and assistance with this review.

Sincerely,

Daryl G. Purpera, CPA, CFE  
Legislative Auditor

DGP:JJR:ch

cc: G.S. Curran & Company

2018 ACTUARIAL REVIEW FOR DARS

## Scope of Review

The 2018 actuarial valuation report for the District Attorneys' Retirement System (DARS) for funding purposes was prepared by G.S. Curran & Company, and dated November 12, 2018.

This Actuarial Review of that report was prepared by the actuary for the Louisiana Legislative Auditor, Gabriel, Roeder, Smith & Company (under the supervision of Mr. James J. Rizzo), and includes evaluations for appropriateness of key actuarial assumptions and methods.

This Actuarial Review presents opinions concerning various assumptions and methods employed by the board and its actuary in the 2018 funding valuation. 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.

This Actuarial Review is limited to discussion of (1) appropriate actuarial treatment of DARS' COLA benefits, (2) appropriate inflation and investment return assumptions, (3) appropriate salary increase assumptions given recent reductions in the assumed rate of inflation and (4) the actuary's use of acceptable mortality tables.

## Summary of Findings

### 1. Cost-of-Living Adjustments (COLAs).

The cost of future COLAs is currently not included in the actuary's funding valuations. Future COLAs are currently treated by the board and its actuary on a pay-as-you-go basis, recognizing them in the calculations of costs and liabilities only after they are granted.

For DARS, the actuary for the LLA agrees with this treatment, for now. The favorable investment performance and other conditions in the past several years put the DARS board in a position of being allowed to grant gain-sharing COLAs in a few of those years. However, the DARS board has chosen not to exercise its authority to do so. That might change in the future. But for now, it is the opinion of the actuary for the LLA that it is acceptable actuarial treatment not to recognize future COLAs in the measurement of costs and liabilities.

"Gain-sharing COLAs" are allowed when the actual investment earnings exceed the valuation rate, effectively sharing the better-than-assumed gains with the eligible members. The authority for the DARS 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 DARS.

- R.S. 11:1638 describes COLAs (called "*supplemental*" for this purpose) and
- R.S. 11:246 describes "*additional*" cost-of-living adjustments.

The likelihood of future gain-sharing COLAs being allowed is actuarially predictable when standing alone. The statutory provisions that give rise to allowing DARS gain-sharing COLAs operate under something akin to auto-pilot. The rules are set forth in statutes. However, when a gain-sharing COLA is allowed to be paid, the DARS board has discretionary authority to grant, or not to grant, a gain-sharing COLA to increase eligible members' benefits.

In addition, “Funding Deposit COLAs” are allowed for DARS when there is a balance in the Funding Deposit Account (FDA). Again, the authority for the DARS 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)

DARS has not accumulated any balance in its Funding Standard Account and may continue to operate with a zero balance. Therefore, there is little likelihood of DARS paying FDA COLAs either.

Recommendation -- The actuary for the LLA recommends that the DARS board engage its actuary to undertake a quantitative actuarial analysis of the operation of the gain-sharing provisions alone, in order to be able to advise the board about the long term costs and liabilities if the board were to consider paying gain-sharing COLAs (when allowed). Without that sort of study, the board may not have any quantitative measure of the longer term cost of embarking on that path.

## 2. Overly Optimistic Return Assumption

For this Actuarial Review, a detailed analysis of independent experts’ current forecasts for DARS’ portfolio was not undertaken. The last time such a detailed analysis was undertaken by the actuary for the LLA was for the 2016 valuation report (presented in a Comprehensive Actuarial Review dated February 3, 2017).

The DARS’ 2016 valuation report used a 7.0% return assumption. The Comprehensive Actuarial Review suggested 6.24% for the 2016 return assumption, based on a consensus average of independent national investment forecasters applied to the DARS own asset allocation.

The DARS board and actuary lowered its return assumption for the 2017 valuation to 6.75% and lowered it again for the 2018 valuation to 6.50%. This action is commendable and has kept the DARS return assumption moving in the direction where the majority of national investment forecasts (as adjusted for DARS own asset allocation) have moved.

DARS portfolio and asset allocation is conservative and, therefore, it is expected not to earn as much as other portfolios. Nevertheless, the trend among professional investment forecasters since 2016 has generally been to lower their forecasts well below the 6.24% for 2016.

Recommendation -- In the absence of conducting a detailed analysis using DARS’ own asset allocation and its own expected cash flow, the actuary for the LLA recommends that the DARS retirement board and actuary consider lowering the return assumption to be somewhere within a range from 5.25% to 6.25%, with the top end of that range being an aggressive (not conservative) assumption. A 6.50% (or 6.25%) assumption might appear conservative compared to other funds, but not compared to expert professional forecasters’ expectations applied to DARS own asset allocation. Again, this range was not developed scientifically, but estimated based on the last detailed Comprehensive Actuarial Review for DARS and the general trend seen in forecasts for other retirement systems. It is recommended that the DARS board lower its return assumption again for the 2019 valuation, in order to (a) bring it into the mainstream of professional forecasters and (b) produce a more appropriate representation of the system’s costs and liabilities.

### 3. Salary Scale Inconsistency

The assumed rate of inflation is an important and common building block in a pension valuation’s assumption concerning expected rate of return as well as salary increases for individual members.

In the most recent funding valuation report (2018), the board’s assumption for inflation dropped by 0.10% from the prior year. However, the salary increase assumption was not lowered by a similar level. No parallel change was made to the salary increase assumptions in tandem with the change in the assumed rate of inflation. This makes the salary increase assumption inconsistent with the embedded inflation assumption.<sup>1</sup>

Valuation June 30:	2016	2017	2018
Return Assumption	7.0%	6.75%	6.50%
<b>Reduction in Return Assumption from Prior Year</b>	NA	<b>0.25%</b>	<b>0.25%</b>
Inflation Assumption	2.5%	2.5%	2.4%
<b>Reduction in Inflation Assumption from Prior Year</b>	NA	NA	<b>0.1%</b>
Salary Increase Assumption	5.50%	5.50%	5.50%
<b>Reduction in Salary Increase Assumption From Prior Year</b>	NA	<b><u>None</u></b>	<b><u>None</u></b>

If the board had lowered the salary increase assumption to be consistent with lowering the inflation assumption for the 2018 valuation (decreasing effect), this would have been a perfect opportunity to partially offset the effects of even lower and more mainstream return assumptions for 2018 (increasing effect). This way, the return assumption could be lower than 6.50% by now, with less impact on the contribution and liability levels.

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<sup>1</sup> Actuarial Standard of Practice (ASOP) No. 27, section 3.12 states:  
*Consistency among Economic Assumptions Selected by the Actuary for a Particular Measurement—With respect to any particular measurement, each economic assumption selected by the actuary should be consistent with every other economic assumption selected by the actuary for the measurement period, unless the assumption, considered individually, is not material, as provided in section 3.5.2. A number of factors may ASOP No. 27—September 2013 14 interact with one another and may be components of other economic assumptions, such as inflation, economic growth, and risk premiums. In some circumstances, consistency may be achieved by using the same inflation, economic growth, and other relevant components in each of the economic assumptions selected by the actuary. Consistency is not necessarily achieved by maintaining a constant difference between one economic assumption and another. For each measurement date, the actuary should reevaluate the individual assumptions and the relationships among them, and make appropriate adjustments.*

#### **4. Mortality Assumption**

The 2018 Actuarial Valuation (page 38) states that the mortality assumption for annuitant and beneficiary mortality is the “RP 2000 Combined Healthy with White Collar Adjustment Sex Distinct Tables Projected to 2032 (Female table set back one year)”

To evaluate the reasonableness of the mortality assumption, we reviewed the base mortality (RP2000 with White Collar Adjustment) separately from the projection scale (Scale AA). We believe the use of the RP2000 as the base mortality table to be reasonable. Therefore, we find the base table (before projection for future mortality) to be fully appropriate for the 2018 Actuarial Valuation.

Once the base table was found to be reasonable, we then reviewed the projection scale used in the mortality assumption (projection Scale AA). We believe the actuary’s use of Scale AA projected to 2032 is not unreasonable.

A more current approach to estimating mortality rates for valuation purposes would be to use either: (a) RP2000 projected generationally by Scale BB or (b) RP2014 loaded with 120% (for CDC data) and adjusted for partially credible plan-specific experience, then projecting generationally using MP2017 or MP 2018. White Collar adjustment would also be reasonable for each. While either of these two approaches would be more current and preferable methodologies, we do not find the mortality tables used in the DARS 2018 actuarial funding valuation report to be unreasonable.

## Actuarial Certification

This report is considered to be a Statement of Actuarial Opinion. We therefore make the following certification:

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. 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.

We, James J. Rizzo and Piotr Krekora, are Consultants and Actuaries with Gabriel, Roeder, Smith & Company, the current actuary for the Louisiana Legislative Auditor. We are members of the American Academy of Actuaries, Associates in the Society of Actuaries, and Enrolled Actuaries, and we meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein.



James J. Rizzo, ASA, MAAA

February 4, 2019

Date



Piotr Krekora, ASA, MAAA, PhD

February 4, 2019

Date