



CURRAN ACTUARIAL
— CONSULTING, LTD. —

Annual Funding Valuation
June 30, 2023

District Attorneys'
Retirement System



November 19, 2023

Board of Trustees
District Attorneys' Retirement System
2525 Quail Drive
Baton Rouge, Louisiana 70808

Gentlemen:

We are pleased to present our report on the actuarial valuation of the District Attorneys' Retirement System for the fiscal year ending June 30, 2023. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrator and accountants. This report was prepared at the request of the Board of Trustees of the District Attorneys' Retirement System. The primary purpose of this report is to determine the actuarially required contribution for the retirement system for the fiscal year ending 2024, and to recommend the net direct employer contribution rate for Fiscal 2025. This report does not contain the information necessary for accounting disclosures as required by Governmental Accounting Standards Board (GASB) Statements 67 and 68; that information is included in a separate report. This report was prepared exclusively for the District Attorneys' Retirement System for a specific limited purpose. It is not for the use or benefit of any third party for any purpose.

In our opinion, all of the assumptions on which this valuation is based are reasonable individually and in the aggregate. Both economic and demographic assumptions are based on our expectations for future experience for the fund. This report has been prepared in accordance with generally accepted actuarial principles and practices, and to the best of our knowledge and belief, fairly reflects the actuarial present values and costs stated herein. The undersigned actuary is a member of the American Academy of Actuaries, has met the qualification standards for the American Academy of Actuaries to render the actuarial opinions incorporated in this report, and is available to provide further information or answer any questions with respect to this valuation.

Sincerely,

CURRAN ACTUARIAL CONSULTING, LTD.

By: 

Gregory Curran, F.C.A., M.A.A.A., A.S.A.
Senior Consulting Actuary

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SUMMARY OF VALUATION RESULTS DISTRICT ATTORNEYS' RETIREMENT SYSTEM

	June 30, 2023	June 30, 2022
Census Summary:		
Active Members	734	719
Retired Members and Survivors	467	447
Terminated Due a Deferred Benefit	144	120
Terminated Due a Refund	317	298
Payroll:	\$ 66,074,184	\$ 63,924,334
Benefits in Payment:	\$ 26,580,382	\$ 25,028,703
Present Value of Future Benefits:	\$ 740,255,880	\$ 718,920,899
Actuarial Accrued Liability (EAN):	\$ 606,116,554	\$ 586,876,907
Funding Deposit Account Credit Balance:	\$ 0	\$ 0
Actuarial Value of Assets (AVA):	\$ 530,233,339	\$ 511,313,156
Market Value of Assets (MVA):	\$ 520,361,462	\$ 479,155,679
Ratio of AVA to Actuarial Accrued Liability (EAN):	87.48%	87.12%
	Fiscal 2023	Fiscal 2022
Market Rate of Return:	10.1%	-10.0%
Actuarial Rate of Return:	5.1%	5.6%
	Fiscal 2024	Fiscal 2023
Employers' Normal Cost (Mid-year):	\$ 17,541,979	\$ 16,981,543
Estimated Administrative Cost:	\$ 757,372	\$ 688,752
Projected Ad Valorem Tax Contributions:	\$ (10,838,660)	\$ (10,392,492)
Projected Revenue Sharing Funds:	<u>\$ (213,761)</u>	<u>\$ (213,565)</u>
Net Direct Employer Actuarially Required Contributions:	\$ 7,246,930	\$ 7,064,238
Projected Payroll:	\$ 67,560,238	\$ 65,208,541
Actuarially Required Net Direct Employer Contribution Rate:	10.73%	10.83%
Board Adopted Net Direct Employer Contribution Rate:	12.00%	9.50%
Statutory Employee Contribution Rate:	8.00%	8.00%
	Fiscal 2025	Fiscal 2024
Minimum Recommended Net Direct Employer Cont. Rate:	10.75%	11.00%
Ad Valorem Tax Rate †	0.20%	0.20%

† Percent of the aggregate amount of the ad valorem tax shown to be collected by the tax roll of each respective parish. State Revenue Sharing Funds are allocated based on the ad valorem tax rate.

GENERAL COMMENTS

The values and calculations in this report were determined by applying statistical analysis and projections to system data and the assumptions listed. There is sometimes a tendency for readers to either dismiss results as mere "guesses" or alternatively to ascribe a greater degree of accuracy to the results than is warranted. In fact, neither of these assessments is valid. Actuarial calculations by their very nature involve estimations. As such, it is likely that eventual results will differ from those presented. The degree to which such differences evolve will depend on several factors including the completeness and accuracy of the data utilized, the degree to which assumptions approximate future experience, and the extent to which the mathematical model accurately describes the plan's design and future outcomes.

Data quality varies from system to system and year to year. The data inputs involve both asset information and census information of plan participants. In both cases, the actuary must rely on third parties; nevertheless, steps are taken to reduce the probability and degree of errors. The development of assumptions is primarily the task of the actuary; however, information and advice from plan administrators, staff, and other professionals may be factored into the formation of assumptions. The process of setting assumptions is based primarily on analysis of past trends, but modification of historical experience is often required when the actuary has reason to believe that future circumstances may vary significantly from the past. Setting assumptions includes but is not limited to collecting past plan experience and studying general population demographics and economic factors from the past. The actuary will also consider current and future macro-economic and financial expectations as well as factors that are likely to impact the particular group under consideration. Hence, assumptions will also reflect the actuary's judgment regarding future changes in plan population and decrements in view of the particular factors which impact participants. Thus, the process of setting assumptions is not mere "guess work" but rather a process of mathematical analysis of past experience and of those factors likely to impact the future.

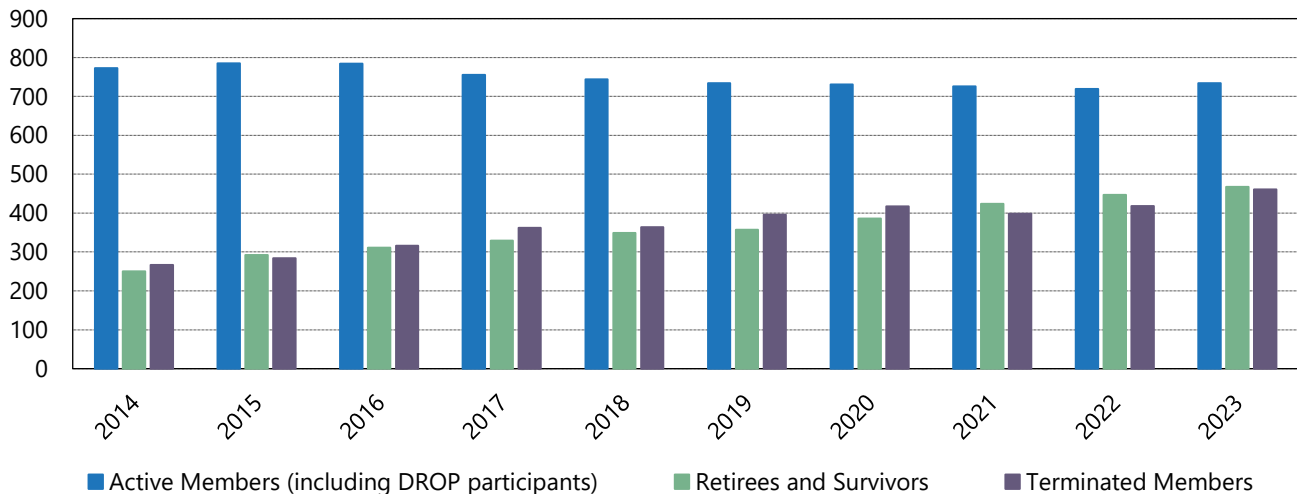
One area where an actuary has limited ability to develop accurate estimates is the projection of future investment earnings. The difficulties here are significant. First, the future is rarely like the past, and the data points available to develop stochastic trials are far fewer than the number required for statistical significance. In this area, some guess work is inevitable. However, there are tools available to lay a foundation for making estimates with an expectation of reliability. Although past data is limited, the available data is likely to provide some insight into the future. This data consists of general economic and financial values such as past rates of inflation, rates of return variance, and correlations of returns among various asset classes along with the actual asset experience of the plan. In addition, the actuary can review the current asset market environment as well as economic forecasts from governmental and investment research groups to form a reasonable opinion regarding probable future investment experience for the plan.

All of the above efforts would be in vain if the assumption process was static, and the plan would have to deal with the consequences of actual experience differing from assumptions after forty or fifty years of compounded errors. However, actuarial funding methods for pension plans all allow for periodic corrections of assumptions to conform with reality as it unfolds. This process of repeated correction of estimates produces results which although imperfect is nevertheless a reasonable approach to determine the contribution levels which will provide for the future benefits of plan participants.

COMMENTS ON DATA

For the valuation, the administrative staff of the system furnished a census derived from the system's master data processing file indicating each active covered employee's sex, date of birth, service credit, annual salary, and accumulated contributions. Information on retirees detailing dates of birth of retirees and beneficiaries, as well as option categories and benefit amounts, was provided in a similar manner. In addition, data was supplied on former employees who are vested or who have contributions remaining on deposit. As illustrated in Exhibit IX, there are 734 active members in the system of whom 302 members have vested retirement benefits; 467 former members or their beneficiaries are receiving retirement benefits. An additional 461 former members have contributions remaining on deposit with the system; of this number, 144 former members have vested rights for future retirement benefits. **Figure 1** shows the membership counts over the past ten years.

Figure 1. Membership Counts



Census data submitted to our office is tested for errors. Several types of census data errors are possible; to ensure that the valuation results are as accurate as possible, a significant effort is made to identify and correct these errors. To minimize coverage errors (i.e., missing or duplicated individual records) the records are checked for duplicates, and a comparison of the current year's records to those submitted in prior years is made. Changes in status, new records, and previous records, which have no corresponding current record, are identified. This portion of the review indicates the annual flow of members from one status to another and is used to check some of the actuarial assumptions, such as retirement rates, rates of withdrawal, and mortality. In addition, the census is checked for reasonableness in several areas, such as age, service, salary, and current benefits. The records identified by this review as questionable are checked against data from prior valuations; those not recently verified are included in a detailed list of items sent to the system's administrator for verification and/or correction. Once the identified data has been researched and verified or corrected, it is returned to us for use in the valuation. Occasionally some requested information is either unavailable or impractical to obtain. In such cases, values may be assigned to missing data. The assigned values are based on information from similar records or based on information implied from other data in the record.

A member's salary is an important component of projecting future cash flows and computing normal costs and accrued liabilities. Our modeling requires the entry of annual salary for this purpose. For individuals who have not completed a full year of service during the measurement period, we use an estimate of their service during the fiscal year to annualize salaries.

In addition to the statistical information provided on the system's participants, the system's administrator furnished general information related to other aspects of the system's expenses, benefits and funding. Valuation asset values as well as income and expenses for the fiscal year were based on information furnished by the system's auditor, the firm of Duplantier, Hrapmann, Hogan & Maher, Certified Public Accountants. As indicated in the system's audit report, the net market value of the system's assets was \$520,361,462 as of June 30, 2023. Net investment income for Fiscal 2023 measured on a market value basis amounted to \$48,017,409. Contributions to the system for the fiscal year totaled \$23,423,417; benefits and expenses amounted to \$30,235,043.

Notwithstanding our efforts to review both census and financial data for apparent errors, we must rely upon the system's administrative staff and accountants to provide accurate information. Our review of submitted information is limited to validation of reasonableness and consistency. Verification of submitted data to source information is beyond the scope of our efforts.

COMMENTS ON ACTUARIAL METHODS AND ASSUMPTIONS

This valuation is based on the Aggregate Actuarial Cost Method. This cost method generally produces normal costs which are level as a percentage of payroll if assumptions are met and the composition of the active group regarding age and service is stable. Overall costs may increase or decrease depending on payroll growth. Under the Aggregate Actuarial Cost Method, actuarial gains and losses are spread over future normal costs. Thus, favorable plan experience will lower future normal costs; unfavorable experience will cause future normal costs to increase. In addition, changes in benefits and assumptions are also spread over future normal costs.

The current year actuarial assumptions utilized for this report are based on the results of an actuarial experience study for the period July 1, 2014 – June 30, 2019, unless otherwise specified in this report. This study included a review of all plan decrements in addition to salary scale experience and other demographic factors which impact plan costs. Details related to the study are contained within the 2020 District Attorneys' Retirement System Experience Study Report.

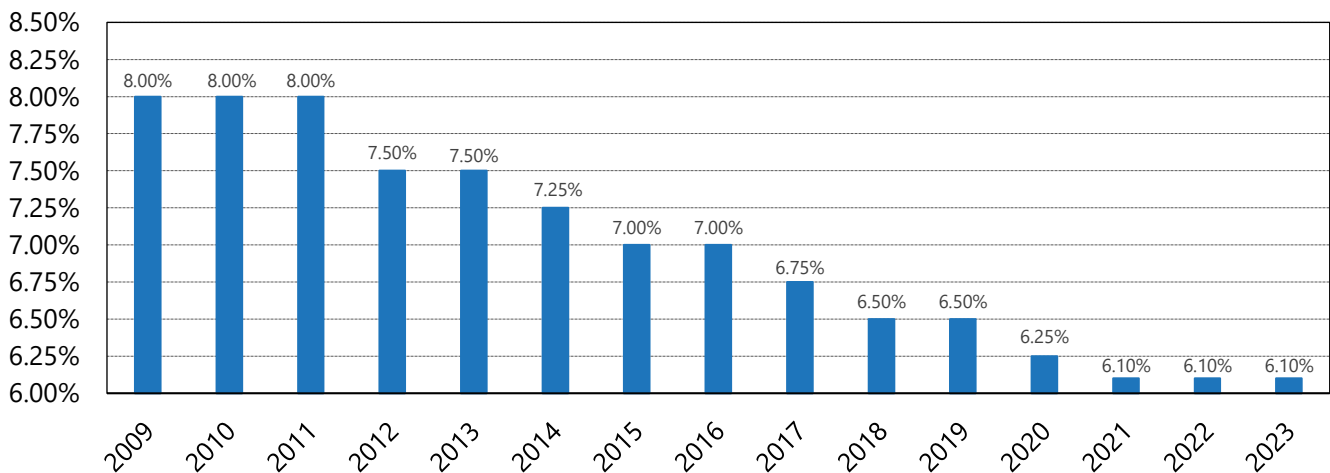
Beginning with Fiscal 2012, the Board of Trustees began reducing the long-term rate of return assumption from 8.0%. Over the period from 2012 through 2021, the assumption was reduced to the current rate of 6.1%. **Figure 2** shows the timing of each of these changes.

Despite all of the changes in the valuation interest rate, we continue to review this important assumption once each year. These reviews involve the development of 10,000 stochastic trials spanning 30 years. These trials were performed based on the assumption that portfolio returns are normally distributed based on the expected rate of return and standard deviation of returns inherent in modeling based on our firm's consultant average capital market assumptions and the system's target asset allocation. These stochastic trials were then used to determine return levels for each percentile. The reasonable range

boundaries were set based on the 40th and 60th percentile expected return levels. Based upon these assumptions and the stochastic simulations, the 2023 review set a reasonable range of 6.20% to 7.39%. The resulting percentiles suggest that there is approximately a 61.8% probability that the system will have long-term earnings at or above 6.1% and a 50% probability that the system will have long-term investment earnings at or above 6.8%.

Since 2021, the system’s 6.1% valuation interest rate has fallen slightly below the actuary’s reasonable range. Actuarial standards of practice allow the rate to be set below the actuary’s reasonable range if the Board of Trustees elects to do so to account for adverse deviation. We recommend no change in the current level of the assumption because the reasonable range has changed in a material way over the recent few years. We believe that it is reasonable to maintain conservatism in this assumption to offset the potential for adverse deviation given the amount of change in capital market assumptions since the pandemic.

Figure 2. Assumed Rate of Return



Although the board of trustees has authority to grant ad hoc Cost of Living Increases (COLAs) under limited circumstances, these COLAs have not been shown to have a historical pattern, the amounts of the COLAs have not been relative to a defined cost-of-living or inflation index, and there is no evidence to conclude that COLAs will be granted on a predictable basis in the future. In addition, the Board of Trustees has elected not to grant COLAs in all situations where authorized by statute. Therefore, for purposes of determining the present value of benefits, these COLAs were deemed not to be substantively automatic, and the present value of benefits excludes COLAs not previously granted by the board of trustees.

The current year actuarial assumptions utilized for the report are outlined at the end of this report.

RISK FACTORS

Defined benefit pension plans are subject to a number of risks. These risks can be related either to plan assets or liabilities. In order to pay benefits, the plan must have sufficient assets when benefits become due. Several factors can lead to asset levels that are below those required to pay promised benefits. The following categories describe a number of key risks and provide measurements related to a few.

Contribution Policy Risk

The first risk in this regard is the failure to contribute adequate funds to the plan. In some ways, this is the greatest risk, since other risks can usually be addressed by adequate actuarial funding. Louisiana constitutional and statutory provisions greatly limit this risk by requiring that state and statewide plans maintain funding on an actuarial basis. The state constitution sets forth general requirements with specific funding parameters specified in the state statutes. This results in a funding policy that is expected to achieve a 100% funded status in time.

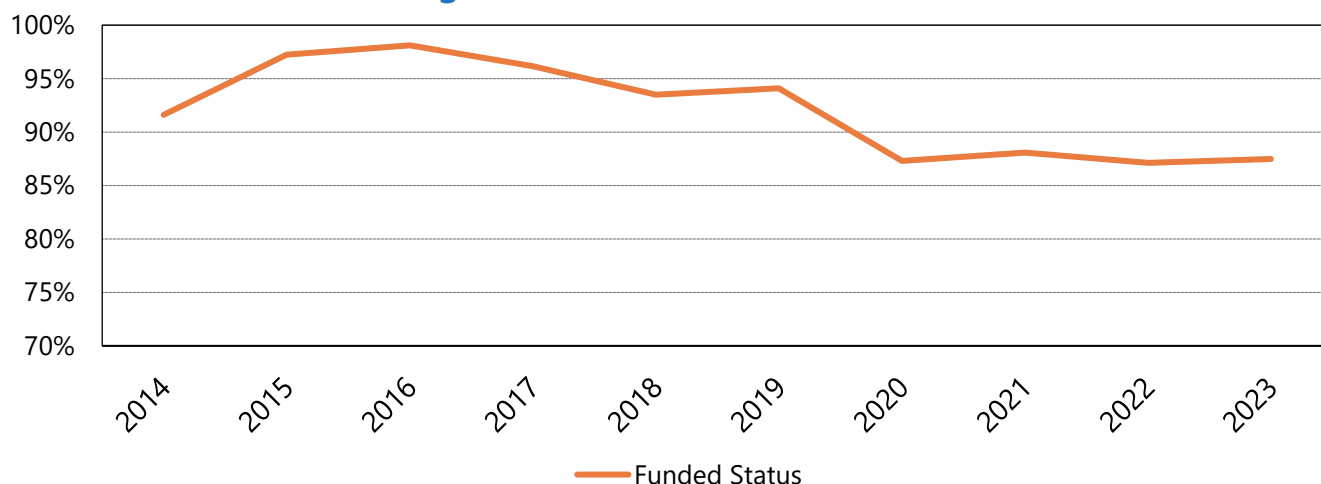
Funded Status

Beyond identifying risk categories, it is possible to quantify some risk factors. One fairly well-known risk metric is the funded ratio of the plan. This rate is given as a ratio of plan assets to plan liabilities. However, the definition of each of these terms may vary. The two typical alternatives used for assets are the market and actuarial value of assets. There are several alternative measures of liability depending on the funding method employed. The Governmental Accounting Standards Board (GASB) specifies that, for financial reporting purposes, the funded ratio is determined by using the market value of assets divided by the entry age normal accrued liability. This value is given in the system's financial report. Alternatively, we have calculated the ratio of the actuarial value of assets to the entry age normal accrued liability based on the funding methodology used to fund the plan. The ratio is 87.48% for the plan as of June 30, 2023.

This value gives some indication of the financial strength of the plan; however, it does not guarantee the ability of the system to pay benefits in the future or indicate that, in the future, contributions are likely to be less than or greater than current contributions. In addition, the ratio cannot be used in isolation to compare the relative strength of different retirement systems. However, the trend of this ratio over time can give some insight into the financial health of the plan. Even in this regard, caution is warranted since market fluctuations in asset values and changes in plan assumptions can distort underlying trends in this value. **Figure 3** gives a history of this value for the last ten years. As shown, the funded ratio has declined slightly over the past decade given the size of changes in the valuation interest rate from 7.5% ten years ago to 6.1% today.

Following are a number of risks and risk measures related to system assets:

Figure 3. Historical Funded Status



Inflation Risk

All pension plans are subject to the uncertainty of asset performance, and inflation is a major component of asset performance. The total nominal rate of return on assets is comprised of the real rates of return earned on the portfolio of investments plus the underlying inflation rate. High levels of inflation pose a risk to plan members in that they reduce the purchasing power of plan benefits. Were the plan to attempt to offset inflation by providing COLAs (often in the form of permanent benefit increases), minimum contribution rates will inevitably increase unless provisions are made to prefund such adjustments. Very low inflation typically reduces the nominal rate of return on assets; deflation can potentially reduce the capital value of trust assets. During the decade preceding 2020, inflation levels remained in a fairly narrow range below traditional levels. Since 2020, inflation has significantly increased. So far, Federal Reserve efforts to fight inflation have not had the desired effect. Forecasters seem to believe that long-term average rates of future inflation may remain higher than rates projected during the period prior to 2020 and the Covid-19 pandemic. There is always the possibility that high inflation will remain a problem in the future or that the country will experience a deflationary period; however, most expert opinion currently assesses these alternatives as unlikely in the near term.

Reinvestment Risk

Another element of asset risk is reinvestment risk. Interest rate declines can subject pension plans to an increase in this risk. As fixed income securities mature, investment managers may be forced to reinvest funds at decreasing rates of return. For the foreseeable future it is unlikely, though not impossible, that interest rates will steeply decline, which mitigates the reinvestment risk the plan currently faces. As the current cycle of increasing interest rates abates, the possibility of reinvestment risk will undoubtedly increase.

Asset Return Volatility Risk

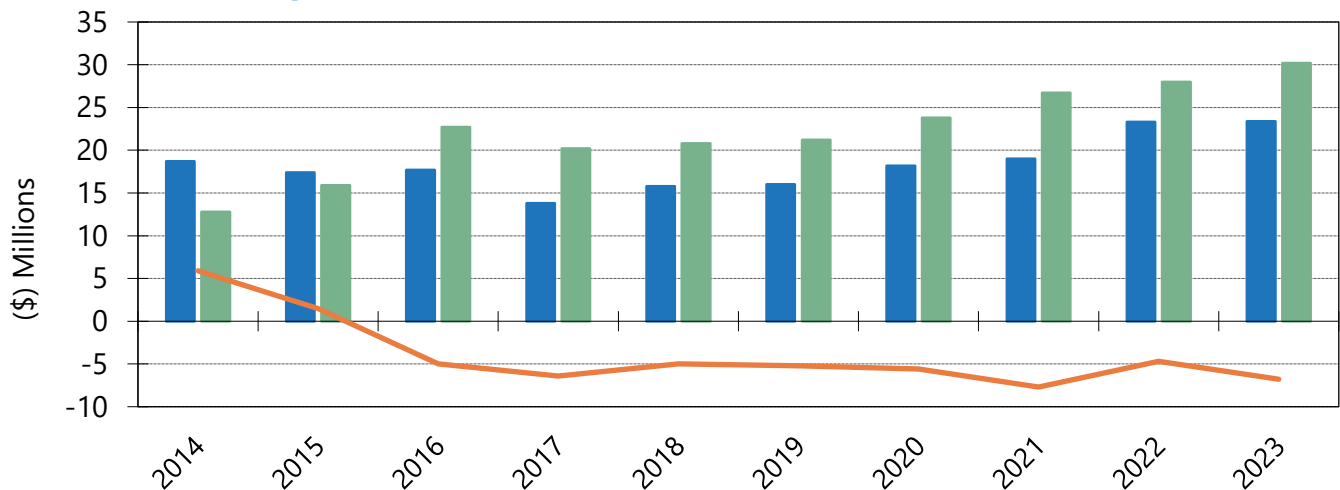
Long-term asset performance depends not only on average returns but also on the volatility of returns. Two portfolios of identical size with identical average rates of return will accumulate different levels of assets if the volatility of returns differs since increased volatility reduces the accumulation of assets.

Volatility of returns will be determined by both market conditions and the asset allocation of the investment portfolio. If the system’s investment portfolio has a substantial allocation to assets that have low price stability, the risk of portfolio volatility will increase, although low correlations among asset classes can mitigate this risk.

Cash Flow Risk

The system is also exposed to risk related to cash flows. Where benefit payments exceed contributions to a plan, the plan will be required to use investment income or potentially investment capital to pay benefits. In cases where it is necessary to use investment income to pay retirement benefits, investment market downturns place additional stress on the portfolio and make the recovery from such downturns more difficult since funds available for reinvestment are reduced by benefit payments. The historical cash flow graph and demonstration given below in **Figure 4** compares the total contribution income to benefits and expenses to determine the noninvestment cash flow of the system over the last ten years. Since fiscal 2016, annual benefit payments have exceeded annual contributions to the plan. In this situation, portfolio construction is very important, and investment staff must consider what level of liquidity is necessary.

Figure 4. Annual Net Non-Investment Cash Flows



		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Contribution Income (\$Mil)	■	18.7	17.4	17.7	13.8	15.8	16.0	18.2	19.0	23.3	23.4
Benefits and Expenses (\$Mil)	■	12.8	15.9	22.7	20.2	20.8	21.2	23.8	26.7	28.0	30.2
Net Non-Inv. Cash Flow (\$Mil)	—	5.9	1.5	-5.0	-6.4	-5.0	-5.2	-5.6	-7.7	-4.7	-6.8

Future net noninvestment cash flows for the system will be determined based upon both the system maturity and future contribution levels. Hence, increases in future contributions due to adverse actuarial experience will tend to mitigate the potential of negative cash flows arising from the natural maturation of the system, whereas reduced contribution levels resulting from positive experience will tend to increase the scale of negative cash flows.

Sensitivity to Investment Gains/Losses

Every retirement system is subject to investment return risk. When the rate of return on the actuarial value of assets does not equal the assumed rate of return, the system experiences investment gains or losses. These can cause contribution rate requirements to be more volatile. We have determined that based on the system's current assets and demographics, for each percentage the actuarial rate of return is under (over) the assumed rate of return on the actuarial value of assets, there will be a corresponding increase (decrease) in the actuarially required contribution as a percentage of projected payroll of 0.88% for the system.

Sensitivity to Changes in Valuation Interest Rate

With regard to the economic assumptions, we have determined that a reduction in the valuation interest rate by 1% (without any change to other collateral factors) would increase the actuarially required employer contribution rate for Fiscal 2024 by 15.78% of payroll. In the future, adjustments to the assumed rates of return may be required; however, the likelihood of such an event is difficult to gauge since it requires assigning probabilities to future capital market scenarios.

Following are a number of risks and risk measures related to system liabilities:

Maturity Risk

The ability of a system to recover from adverse asset or liability performance is partly related to the maturity of the plan population. In general, plans with increasing active membership are less vulnerable to asset and liability gains and losses than mature plans since changes in plan costs can be partially allocated to new members. If the plan has a large number of active members compared to retirees, asset or liability losses can be more easily addressed. As more members retire, contributions can only be collected from a smaller segment of the overall plan population. Often, population ratios of actives to annuitants are used to measure the plan's ability to adjust or recover from adverse events since contributions are made by or on behalf of active members but not for retirees. Thus, if the plan suffers a mortality loss through increased longevity, this will affect both actives and retirees, but the system can only fund this loss by contributions related to active members. A measure of risk related to plan maturity is the ratio of total benefit payments to active payroll. For Fiscal 2023, this ratio is 40%; ten years ago this ratio was 19%.

Assumption Risk

One other area of exposure the plan faces is the possibility that plan assumptions will need to be revised to conform to changing actual or expected plan experience. Such assumption revisions may relate to economic or demographic factors. With regard to the economic assumptions, there is always the possibility that market expectations will require an adjustment to the assumed rate of return. Market expectations related to the assumed rate of return do not currently suggest that a further decrease in the assumption is warranted. We will continue to monitor capital market assumptions and the Board's decisions related to asset mix. We will advise the Board if the reasonable range changes in any material way in the future.

Noneconomic assumptions such as mortality or other rates of decrement such as withdrawal, retirement, or disability are also subject to change. In general, such changes tend to affect plan costs less than adjustments to the assumed rates of return. Quantifying the probability or magnitude of such changes is beyond the scope of this report.

In summary, there is a risk that future actuarial measurements may differ significantly from current measurements presented in this report due to factors such as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, and changes in plan provisions or applicable law. Ordinarily, variations in these factors will offset to some extent. However, even with the expectation that not all variations in costs will likely travel in the same direction, factors such as those outlined above have the potential on their own accord to pose a significant risk to future cost levels and solvency of the system.

Data Error Risk

Liability risk also includes items such as data errors. No actuarial valuation can provide accurate figures without accurate data on plan members, former members, retirees, and survivors. Significant errors in plan data can distort or disguise plan liabilities. When data corrections are made, the plan may experience unexpected increases or decreases in liabilities.

Liability Duration Risk

Each pension plan has its own unique benefit structure and demographic profile. As a result, each plan will respond to changes in interest rates in a unique way. As the expected rate of return on investments changes and the interest rate used to discount plan liabilities is adjusted, the shift in plan liabilities will depend upon the duration of the liabilities (which can be understood as the plan's sensitivity to the change in the interest rate). A slightly different measure of the duration for the plan can also be understood as an indicator of the plan's maturity. When a pension plan is first established, all of the participants are active members; as members retire and the plan matures, the duration of the plan decreases. A determination of the liability duration gives some insight into the investment time horizon of the plan. Thus, the liability duration of a closed plan can be thought of as the weighted "center of gravity" of plan benefit cash flows with expected cash flows occurring both before and after the duration value. For open plans with a continuous flow of new entrants, this measure is somewhat less informative since the duration horizon keeps changing as new members enter the plan. For this plan we have estimated the effective liability duration as 11.30.

Other Liability Risks

In addition to asset risk, the plan is also subject to risks related to liabilities. These risks include such things as longevity risk (the risk that retirees will live longer than expected), termination risk (the risk that fewer than the anticipated number of members will terminate service prior to retirement), and other factors that may have an impact on the liability structure of the plan. In a general sense, the short-term effects of these risks on the cost structure of the plan are somewhat limited since changes in these factors tend to be gradual and follow long-term secular trends. Final average compensation plans are also vulnerable to unexpectedly large increases in salary for individual members near retirement. The effect of such events frequently relates to pay plan revisions where salaries catch up after several years

of slow growth. Revisions of this type usually depend on general economic conditions and can result in liability losses. However, they generally are infrequent and are more of a short-term issue.

Even natural disasters and dislocations in the economy or other unforeseen events can present risks to the plan. These events can affect member payroll and plan demographics, both of which impact costs. The risk associated with either of these factors can vary depending upon the severity of the event and cannot be easily forecasted.

CHANGES IN PLAN PROVISIONS

The following changes to the system were enacted during the 2023 Regular Session of the Louisiana Legislature:

HCR 67 urges the United States Congress to review and eliminate or reduce the Government Pension Offset and Windfall Elimination Provision, which can result in decreases to Social Security Benefits for certain retirees and beneficiaries.

HCR 70 urges and requests the state treasurer and the state and statewide retirement systems to:

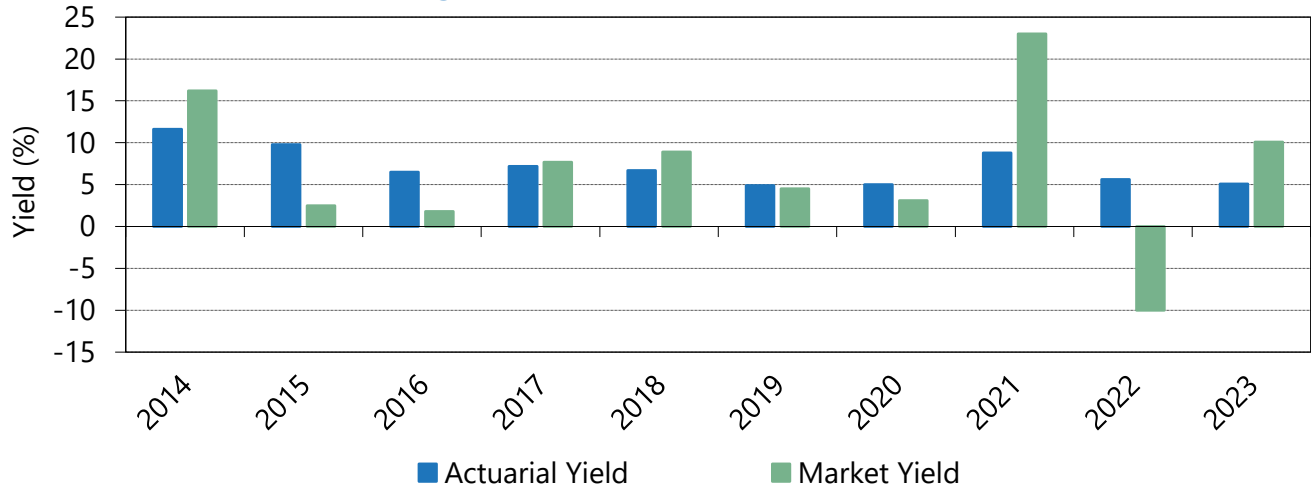
1. Report on investment advisors and companies used by the treasurer and the retirement systems that discriminate against the fossil fuel industry through environmental, social, and governance policies.
2. Report on investment of state and pension assets using nonpecuniary factors.
3. Report on the asset allocation of all of their investments.
4. Provide a report to the legislature including the name of any investment management company, investment advisor, mutual fund, or entity that uses nonpecuniary factors for investment purposes on behalf of the retirement system.
5. Provide a report to the legislature on any entity under contract that is known to boycott energy companies, including the aggregate amount that the listed entity has invested in Louisiana public companies and in U.S. and Louisiana oil and gas companies.
6. Provide a report to the legislature including specified information on investments and categorizing investments in Louisiana, within the United States, and outside the United States.

HCR 110 urges and requests that the state and statewide public retirement system boards of trustees uphold their fiduciary duty when making financial decisions and not allow Environmental, Social, and Governance policies to influence their investment decisions.

ASSET EXPERIENCE

The actuarial and market rates of return for the past ten years are given below in **Figure 5**. These rates of return on assets were determined by assuming a uniform distribution of income and expense throughout the fiscal year.

Figure 5. Historical Asset Yields



	Market Yield	Actuarial Yield
2014	16.2%	11.6%
2015	2.5%	9.8%
2016	1.8%	6.5%
2017	7.7%	7.2%
2018	8.9%	6.7%
2019	4.5%	4.9%
2020	3.1%	5.0%
2021	23.0%	8.8%
2022	-10.0%	5.6%
2023	10.1%	5.1%

Geometric Average Market Rates of Return		
5-year average	(Fiscal 2019 – 2023)	5.6%
10-year average	(Fiscal 2014 – 2023)	6.4%
15-year average	(Fiscal 2009 – 2023)	6.2%
20-year average	(Fiscal 2004 – 2023)	6.3%
25-year average	(Fiscal 1999 – 2023)	5.3%
30-year average	(Fiscal 1994 – 2023)	6.6%

The market rate of return gives a measure of investment return on a total return basis and includes realized and unrealized capital gains and losses as well as interest income and dividends. This rate of return gives an indication of performance for an actively managed portfolio where securities are bought and sold with the objective of producing the highest total rate of return. During 2023, the fund earned \$22,727,264 of dividends, interest and other recurring income. In addition, the Fund had net realized and unrealized capital gains on investments of \$26,763,584. The Fund also had investment expenses of \$1,473,439.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 6.10% for Fiscal 2023. This rate is calculated based on the actuarial value of assets and all interest,

dividends, and recognized capital gains as given in Exhibit VI. Investment income used to calculate this yield is based upon smoothing earnings above or below the assumed rate of return over a five-year period, subject to constraints as outlined in the section in the report describing actuarial assumptions. Because the valuation interest rate has been lowered several times since the beginning of the smoothing period, smoothing was determined based on a comparison of actual returns to the appropriate valuation interest rate for each year in the smoothing period. The difference between rates of return on an actuarial and market value basis results from the smoothing of gains or losses on investments relative to the valuation interest rate over the five-year period. In the future, yields in excess of the 6.10% assumption will reduce future costs; yields below 6.10% will increase future costs. For Fiscal 2023, the system experienced net actuarial investment losses of \$5,253,614 below the actuarial assumed earnings rate of 6.10% in effect for Fiscal 2023. (Beginning with Fiscal 2024, actuarial investment gains and losses will be measured against the 6.10% valuation interest rate). This shortfall in earnings produced an actuarial loss, which increased the normal cost accrual rate by 0.8762%.

DEMOGRAPHICS AND LIABILITY EXPERIENCE

A reconciliation of the census for the system is given in Exhibit IX. The average active member is 47 years old with 10.6 years of service and an annual salary of \$90,019. The system's active contributing membership increased by 15 members over the prior fiscal year. The plan has experienced a decrease in the active plan population of 10 members over the last five years.

The average service retiree is 71 years old with an annual benefit of \$60,287. The average age at retirement for service retirees is 63. The number of retirees and beneficiaries receiving benefits from the system increased by 20 during the last fiscal year. Over the last five years the number of retirees has increased by 118. During this same period, annual benefits in payment increased by \$8,666,271.

Plan liability experience for Fiscal 2023 was slightly unfavorable. Retirements exceeded projected levels while retiree deaths were below projections. These tend to increase costs. Partially offsetting this were withdrawals significantly above projections and salary increases slightly below projections. Other experience was near projected levels. In aggregate, plan liability losses increased the normal cost accrual rate by 0.1725%.

FUNDING ANALYSIS AND RECOMMENDATIONS

Actuarial funding of a retirement system is a process whereby funds are accumulated over the working lifetimes of employees in such a manner as to have sufficient assets available at retirement to pay for the lifetime benefits accrued by each member of the system. The required contributions are determined by an actuarial valuation based on rates of mortality, termination, disability, and retirement, as well as investment return and other statistical measures specific to the particular group. Each year a determination is made of the normal cost, and the actuarially required contributions are based on the sum of this value and administrative expenses. Under the funding method used for the plan, changes in plan experience, benefits, or assumptions increase or decrease future normal costs. In addition, excess or deficient contributions can decrease or increase future costs.

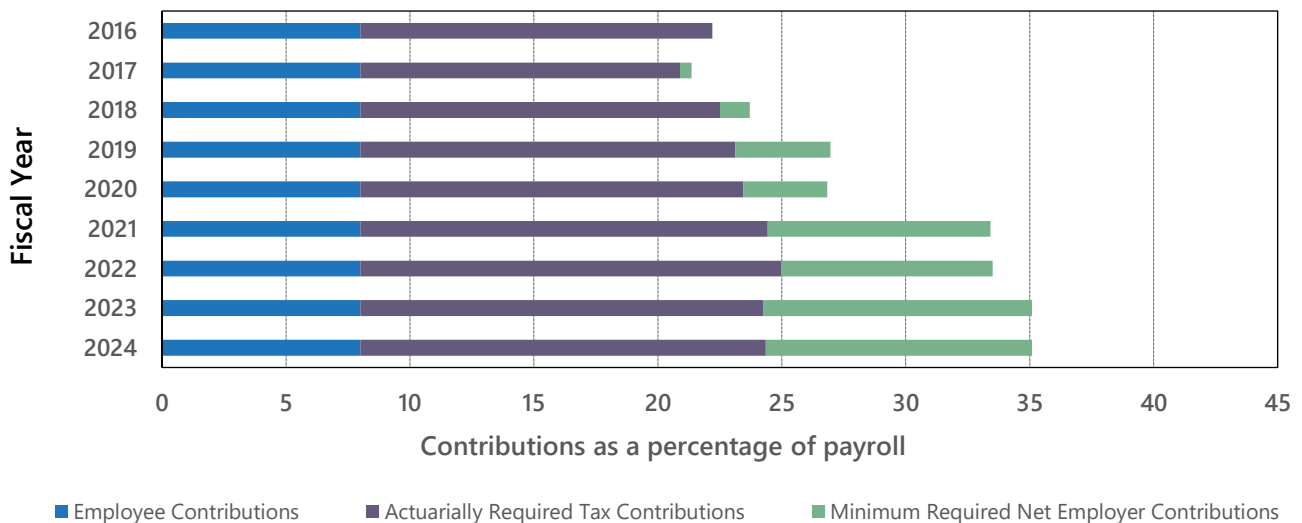
In order to establish the actuarially required contribution in any given year, it is necessary to define the assumptions and funding method. Thus, the determination of what contribution is actuarially required depends upon the funding method employed. Regardless of the method selected, the ultimate cost of providing benefits is dependent upon the benefits, expenses, and investment earnings. Only to the extent that some methods accumulate assets more rapidly and thus produce greater investment earnings does the funding method affect the ultimate cost.

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The normal cost for Fiscal 2024 adjusted with interest for mid-year payment is \$17,541,979. The total actuarially required contribution is determined by adjusting the value for interest (since payments are made throughout the fiscal year) and adding estimated administrative expenses. As given on line 12 of Exhibit I the total actuarially required contribution for Fiscal 2024 is \$18,299,351. Required net direct employer contributions are also affected by the available ad valorem taxes and revenue sharing funds which the system receives each year. When these funds change as a percentage of payroll, net direct employer contributions are adjusted accordingly. We estimate that these funds will increase by 0.10% of payroll in Fiscal 2024. When the gross employer required contribution is reduced by projected tax contributions and revenue sharing funds, the resulting employers' net direct actuarially required contribution for Fiscal 2024 is \$7,246,930. This is 10.73% of the projected payroll for Fiscal 2024.

The cost of providing benefits to current and former members is borne by employees and employers and relies in part on dedicated ad valorem taxes and revenue sharing funds. **Figure 6** shows the breakdown of annual costs as a percentage of payroll over the past ten years.

Liability and asset experience as well as changes in assumptions and benefits can increase or lower plan costs. In addition to these factors, any COLA granted in the prior fiscal year will increase required contributions. New entrants to the system can also increase or lower costs as a percentage of payroll depending upon their demographic distribution and other factors related to prior plan experience. Finally, contributions above or below requirements may reduce or increase future costs.

Figure 6. Components of Actuarial Funding



The effects of various factors on the fund’s cost structure are outlined below:

RECONCILIATION OF THE NORMAL COST ACCRUAL RATE	
Employer’s Normal Cost Accrual Rate – Fiscal 2023	27.0253%
Factors Increasing the Normal Cost Accrual Rate:	
Plan Liability Experience Loss	0.1725%
Asset Experience Loss	0.8762%
Contribution Loss	0.0982%
Factors Decreasing the Normal Cost Accrual Rate:	
New Members	1.1456%
Employer’s Normal Cost Accrual Rate – Fiscal 2024	27.0266%

In addition to the above factors, required net direct employer contributions are also affected by the projected ad valorem taxes and revenue sharing funds which the system is expected to receive each year. When these funds change as a percentage of payroll, net direct employer contributions are adjusted accordingly. Based on a weighted average of the growth rates over the past three years, we estimate that these funds will increase by 0.10% of payroll in Fiscal 2024.

Although the actuarially required net direct employer contribution rate for Fiscal 2024 is 10.73%, the Board adopted employer contribution rate for Fiscal 2024 is 12.00%. R.S. 11:103 requires that the net direct employer contribution rate be rounded to the nearest 0.25%, hence we are recommending a minimum net direct employer contribution rate of 10.75% for Fiscal 2025.

Since the contribution rate for Fiscal 2024 is 12.00%, set above the minimum recommended employer contribution rate in order to add funds to the Funding Deposit Account (FDA), the surplus in employer contributions collected in the fiscal year will be combined with the contribution gain or loss and any resulting gain will be added to the system’s FDA.

The balance in the Funding Deposit Account was zero as of June 30, 2022. Pursuant to R.S. 11:1659, in any year in which the Board of Trustees sets the net direct employer contribution rate higher than the minimum recommended rate, any surplus funds collected by the system shall be credited to the system’s Funding Deposit Account. For Fiscal 2023, the Board of Trustees did set the net direct employer contribution rate at 9.5% which exceeded the minimum recommended employer contribution rate of 8.5%. Despite this, the minimum actuarially required net direct employer contribution rate for Fiscal 2023 exceeded the 9.5% level. Since the system did not experience surplus contributions, no funds were added to the funding deposit account as of June 30, 2023.

R.S. 11:1658 provides that in years where the net direct employer contribution rate is set to decrease, the Board of Trustees may maintain the rate at the previous level or set the rate at any level between the prior rate and the net direct employer contribution rate. In addition, the statute provides that the Board of Trustees may set a net direct employer contribution rate up to three percentage points more than the rate determined under R. S. 11:103. Under the provisions of R.S. 11:1658, the Board of Trustees may set the net direct employer contribution at any level between the minimum recommended employer contribution rate of 10.75% and 13.75% for fiscal 2024. Any excess funds resulting from the application of R.S. 11:1658 will be combined with any contribution surplus or offset by any contribution shortfall, and the resulting balance, if greater than zero, will be deposited into the system's Funding Deposit Account. Funds in this account can be used to reduce either future required contributions in a particular year or the normal cost accrual rate. In addition, if the system may grant a cost-of-living increase to retirees, such increase may be paid from funds in the Funding Deposit Account.

LOW-DEFAULT RISK OBLIGATION MEASURE (LDRM)

The retirement system's annual actuarial funding valuation determines the employer's minimum contribution rate based upon a set of actuarial assumptions found to be reasonable individually and in the aggregate for the purpose of the measurement. For a system like the Clerks' of Court Retirement and Relief Fund that is open to new members and expected to exist in perpetuity, boards of trustees generally elect to invest system assets in a basket of asset classes that subject the system to a number of investment risks, including the risk of default. Such risks are generally mitigated through diversification among the asset classes and through portfolio construction within each asset class. When considering expert opinions about expectations of future returns, generally called capital market assumptions, and when considering historical evidence, it is found that a portfolio composed of a combination of asset classes (including risky assets such as equities, fixed income assets, real estate investments, and other alternative investments) earns a larger return than risk-free or low-default-risk fixed income assets provide. The larger expected return is often referred to as a risk premium as investors generally require a larger return to accept the added risk. It is precisely this exchange of return for added risk that is at the heart of the low-default-risk obligation measure (LDRM) defined within Actuarial Standard of Practice #4. Were the system to simply invest in low-default-risk fixed income securities, the system would be expected to earn less from investment markets but would also expect less portfolio return volatility and less chance of investment default. Since investment income directly offsets the contributions owed by the system's employers, building a portfolio that includes risky assets can be a strategy to lower the long-term requirement for employer contributions, but in doing so, employers accept certain investment risks.

The LDRM can help to quantify both the impact of investing in a portfolio that includes risky assets and using a long-term expected rate of return from such a portfolio to discount liabilities. In addition, the LDRM can help stakeholders understand how much liabilities would increase if the system was measured using a discount rate that did not include the risk premium for assets with higher default risk.

The standard of practice requires the following when determining the LDRM:

- The actuary should use an immediate gain actuarial cost method.

- The actuary should select a discount rate or rates derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.
- Other than the discount rate or rates, the actuary may use the same assumptions used in the funding valuation for this measure.

The biggest decision in making LDRM calculations is the discount rate or rates to use. The standard discusses several possibilities. We have elected to base our LDRM calculations on discount rates derived from high-quality corporate bonds, which we believe best represent low-default-risk fixed income investments. For the purpose of these calculations, we intend to use the U.S. Department of the Treasury’s High-Quality Market (HQM) Corporate Bond Yield Curve weighted according to the closed fund cash flows developed for the most recently completed system specific GASB 67 analyses. The LDRM calculations have been performed based on the Entry Age Normal funding method.

The U.S. Treasury HQM Corporate Bond Yield Curve is developed using regression variables, projects yield curves beyond the longest maturity date, and makes use of bond market characteristics to help generate a stable curve. It represents spot yields of corporate bonds rated AAA, AA, or A and is available monthly on the IRS website. When the June 2023 HQM Corporate Bond Yield Curve is weighted based on the GASB 67 cash flows, the effective single discount rate derived from the analysis is 5.20%.

In the following section, we will disclose an LDRM-based actuarial accrued liability, which can be compared to the entry age normal actuarial accrued liability, and an LDRM-based funded ratio, which can be compared to the system’s funded ratio determined based on the entry age normal actuarial accrued liability. Our calculations are based on the effective single discount rate derived from the U.S. Treasury HQM Corporate Bond Yield Curve of 5.20%. All other assumptions match those used to determine funding liabilities.

LDRM Comparison	Funding Valuation	LDRM Valuation
Discount Rate	6.10%	5.20%
Accrued Liability for Active Members	\$ 271,231,026	\$ 308,643,142
Accrued Liability for Terminated Members	\$ 41,789,510	\$ 48,174,863
Accrued Liability for Retired Members	\$ 293,096,018	\$ 315,742,852
Total Actuarial Accrued Liability (AAL)	\$ 606,116,554	\$ 672,560,857
Funded Ratio (AVA/AAL)	87.48%	78.84%

The differences in the measures shown above can be viewed within the risk/return framework. By accepting added investment risk, the system is expected to significantly reduce the employer’s responsibility to fund system liabilities over the long run, but that decision will likely result in greater variability in employer contributions over time as risky assets typically experience greater return volatility.

COST OF LIVING ADJUSTMENTS

During Fiscal 2023 the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 3.0%.

RELEVANT COLA STATUTES	
Statute	Description
R.S. 11:1638	Provides for cost-of-living increases of up to 3% of each retiree or beneficiary's original benefit subject to a limit of \$60 per month. Applies to those retired at least one year.
R.S. 11:246	Provides supplemental cost-of-living increases to retirees and beneficiaries over the age of 65 equal to 2% of the benefit in payment on October 1, 1977, or the date the benefit was originally received if retirement commenced after that date. Applies to those retired for at least one year. May only be granted if the system's earnings exceed those which would be realized based on the valuation interest rate as applied to the actuarial value of assets in sufficient amount to offset the present value of the increase or by funding the lifetime cost of the increase through a withdrawal from the Funding Deposit Account balance.
R.S. 11:241	Provides for cost-of-living benefits payable based on a formula equal to up to \$1 times the total of the number of years of credited service accrued at retirement or at death of the member or retiree plus the number of years since retirement or since death of the member or retiree to the system's fiscal year end preceding the payment of the benefit increase. Applies to those retired for at least one year.

R.S. 11:243 sets forth the funding criteria necessary to grant cost of living adjustments to regular retirees and beneficiaries (who are neither the surviving spouse nor children of the retiree). The criteria for the fund to qualify as eligible to grant any such increase is as follows: a funded ratio of at least 70% if the system has not granted a benefit increase to retirees, survivors, or beneficiaries in any of the three most recent fiscal years; a funded ratio of at least 80% if the system has not granted such an increase in any of the two most recent fiscal years; or a funded ratio of at least 90% if the system has not granted such an increase in the most recent fiscal year. The funded ratio at any fiscal year end is the ratio of the actuarial value of assets to the actuarial accrued liability under the funding method prescribed by the legislative auditor (currently the Projected Unit Credit Method for this system). For Fiscal 2023, this funded ratio is 91.63%.

In addition to the requirements stated in the preceding paragraph, statutory provisions require that to grant an increase authorized by these sections the system's earnings must exceed those which would be realized based on the valuation interest rate as applied to the actuarial value of assets in sufficient amount to offset the present value of the increase or alternatively to withdraw such funds from the system's Funding Deposit Account. For Fiscal 2023, the system's investment income was \$5,253,614 below expectations and the Funding Deposit Account balance is zero. Therefore, the Board is not authorized to provide a cost-of-living increase.

The following is a history of COLAs provided since January 1, 2000:

COLA HISTORY SINCE 2000

July 1, 2022	COLA paying 3% of the original benefit of those retired at least 1 year, plus a supplemental cost-of-living increase of 2% of the original benefit for those at least the age of 65.
Fiscal 2008	COLA paying 3% of the original benefit of those retired at least 1 year, plus a supplemental cost-of-living increase of 2% of the original benefit for those at least the age of 65.
Fiscal 2001	COLA paying 3% of the original benefit of those retired at least 1 year, plus a supplemental cost-of-living increase of 2% of the original benefit for those at least the age of 65.
Fiscal 2000	COLA paying 3% of the original benefit of those retired at least 1 year, plus a supplemental cost-of-living increase of 2% of the original benefit for those at least the age of 65.

EXHIBITS

EXHIBIT I

ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Present Value of Future Benefits.....	\$ 740,255,880
2.	Actuarial Value of Assets.....	\$ 530,233,339
3.	Funding Deposit Account Credit Balance.....	\$ 0
4.	Present Value of Future Employee Contributions	\$ 47,968,672
5.	Present Value of Future Employer Normal Costs (1 – (2 – 3) – 4)	\$ 162,053,869
6.	Present Value of Future Salaries.....	\$ 599,608,403
7.	Employer Normal Cost Accrual Rate (5 ÷ 6)	27.026617%
8.	Projected Fiscal 2024 Salary for Current Membership	\$ 63,012,862
9.	Employer Normal Cost as of July 1, 2023 (7 × 8)	\$ 17,030,245
10.	Employer Normal Cost Interest Adjusted for Mid-year Payment.....	\$ 17,541,979
11.	Estimated Administrative Cost for Fiscal 2024.....	\$ 757,372
12.	GROSS Employer Actuarially Required Contribution for Fiscal 2024 (10 + 11).....	\$ 18,299,351
13.	Projected Ad Valorem Tax Contributions for Fiscal 2024.....	\$ (10,838,660)
14.	Projected Revenue Sharing Funds for Fiscal 2024	\$ (213,761)
15.	Net Direct Employer Actuarially Required Contribution For Fiscal 2024 (12 + 13 + 14)	\$ 7,246,930
16.	Projected Payroll for Fiscal 2024.....	\$ 67,560,238
17.	Employers' Minimum Net Direct Actuarially Required Contribution as a % of Projected Payroll for Fiscal 2024 (15 ÷ 16)	10.73%
18.	Board Adopted Employer Contribution Rate for Fiscal 2024.....	12.00%
19.	Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2025 (17, rounded to the nearest 0.25%)	10.75%

EXHIBIT II PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits.....	\$ 353,508,633	
Survivor Benefits.....	9,131,600	
Disability Benefits.....	693,282	
Vested Termination Benefits.....	35,995,006	
Refunds of Contributions	6,041,831	
 TOTAL Present Value of Future Benefits for Active Members.....		 \$ 405,370,352

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members		
Due Benefits at Retirement.....	\$ 36,994,037	
Terminated Members with Reciprocals		
Due Benefits at Retirement.....	964,699	
Terminated Members Due a Refund	3,830,774	
 TOTAL Present Value of Future Benefits for Terminated Members		 \$ 41,789,510

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees		
Maximum.....	\$ 82,240,161	
Option 1	2,177,375	
Option 2	140,391,749	
Option 3	35,712,717	
Option 4	3,970,788	
 TOTAL Regular Retirees		 \$ 264,492,790
Disability Retirees.....		0
Survivors & Widows		23,637,035
DROP/Back-DROP Deposits		4,966,193
 TOTAL Present Value of Future Benefits for Retirees & Survivors.....		 \$ 293,096,018
 TOTAL Present Value of Future Benefits		 \$ 740,255,880

EXHIBIT III – SCHEDULE A MARKET VALUE OF ASSETS

CURRENT ASSETS:

Cash in Banks	\$ 2,467,378	
Contributions and Taxes Receivable	1,352,771	
Accrued Interest and Dividends.....	4,110,340	
Prepaid Expenses.....	21,000	
 TOTAL CURRENT ASSETS.....		 \$ 7,951,489

INVESTMENTS:

Cash Equivalents	\$ 38,099,444	
Equities	232,909,047	
Fixed Income	203,323,690	
Real Estate	7,061,138	
Alternative Investments	26,541,018	
DROP Balances Held Outside System Assets	5,083,983	
Other Investments	2,397,650	
 TOTAL INVESTMENTS		 \$ 515,415,970
 TOTAL ASSETS.....		 \$ 523,367,459

CURRENT LIABILITIES:

Investments Payable	\$ 3,000,000	
Other Current Liabilities	5,997	
 TOTAL CURRENT LIABILITIES.....		 \$ 3,005,997
 MARKET VALUE OF ASSETS		 \$ 520,361,462

EXHIBIT III – SCHEDULE B ACTUARIAL VALUE OF ASSETS

Excess (Shortfall) of Invested Income
For Current and Previous 4 Years:

Fiscal year 2023	\$ 18,993,592
Fiscal year 2022	(85,974,931)
Fiscal year 2021	73,561,927
Fiscal year 2020	(14,532,817)
Fiscal year 2019	(8,507,803)
Total for Five Years	\$ (16,460,032)

Deferral of Excess (Shortfall) of Invested Income:

Fiscal year 2023 (80%)	\$ 15,194,874
Fiscal year 2022 (60%)	(51,584,959)
Fiscal year 2021 (40%)	29,424,771
Fiscal year 2020 (20%)	(2,906,563)
Fiscal year 2019 (0%)	0
Total Deferred for Year	\$ (9,871,877)

Market Value of Plan Net Assets, End of Year \$ 520,361,462

Preliminary Actuarial Value of Plan Assets, End of Year \$ 530,233,339

Actuarial Value of Assets Corridor

85% of Market Value, End of Year.....	\$ 442,307,243
115% of Market Value, End of Year.....	\$ 598,415,681

Final Actuarial Value of Plan Net Assets, End of Year \$ 530,233,339

EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund.....	\$	47,968,672
Employer Normal Contributions to the Pension Accumulation Fund.....		162,053,869
Funding Deposit Account Credit Balance		0
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS.....	\$	210,022,541

EXHIBIT V
RECONCILIATION OF CONTRIBUTIONS

Employer Normal Cost for Prior Year.....	\$	16,486,158
Interest on the Normal Cost		1,005,656
Administrative Expenses.....		718,665
Interest on Expenses		21,595
TOTAL Interest Adjusted Actuarially Required Contributions.....	\$	18,232,074
Direct Employer Contributions	\$	6,350,908
Interest on Employer Contributions.....		190,836
Ad Valorem Taxes and Revenue Sharing.....		10,777,403
Interest on Ad Valorem Taxes and Revenue Sharing Funds.....		323,845
TOTAL Interest Adjusted Employer Contributions.....	\$	17,642,992
CONTRIBUTION SHORTFALL	\$	(589,082)

EXHIBIT VI ANALYSIS OF CHANGE IN ASSETS

Actuarial Value of Assets (June 30, 2022) \$ 511,313,156

INCOME:

Member Contributions.....	\$	5,351,142
Employer Contributions.....		6,350,908
Irregular Contributions		95,747
Ad Valorem Taxes.....		10,540,359
Revenue Sharing Funds		237,044
Transfers From Other Systems		848,217

Total Contributions..... \$ 23,423,417

Net Appreciation of Investments	\$	26,763,584
Interest & Dividends		15,412,281
Alternative Investment Income		7,314,983
Investment Expense.....		(1,473,439)

Net Investment Income \$ 48,017,409

TOTAL Income \$ 71,440,826

EXPENSES:

Retirement Benefits	\$	25,510,900
DROP Disbursements.....		3,362,515
Refunds of Contributions		467,251
Transfers to Other Systems.....		175,712
Administrative Expenses		718,665

TOTAL Expenses..... \$ 30,235,043

Net Market Value Income for Fiscal 2023 (Income – Expenses) \$ 41,205,783

Unadjusted Fund Balance as of June 30, 2023
(Fund Balance Previous Year + Net Income) \$ 552,518,939

Adjustment for Actuarial Smoothing..... \$ (22,285,600)

Actuarial Value of Assets: (June 30, 2023) \$ 530,233,339

**EXHIBIT VII
FUNDING DEPOSIT ACCOUNT**

Funding Deposit Account Balance as of June 30, 2022.....	\$	0
Interest on Opening Balance at 6.10%.....		0
Contributions to the Funding Deposit Account.....		0
Withdrawals from the Funding Deposit Account.....		0
Funding Deposit Account Balance as of June 30, 2023.....	\$	0

**EXHIBIT VIII – SCHEDULE A
PENSION BENEFIT OBLIGATION**

Present Value of Credited Projected Benefits Payable to Current Employees.....	\$	243,781,616
Present Value of Benefits Payable to Terminated Employees.....		41,789,510
Present Value of Benefits Payable to Current Retirees and Beneficiaries.....		293,096,018
TOTAL PENSION BENEFIT OBLIGATION.....	\$	578,667,144
NET ACTUARIAL VALUE OF ASSETS.....	\$	530,233,339
Ratio of Net Actuarial Value of Assets to Pension Benefit Obligation.....		91.63%

**EXHIBIT VIII – SCHEDULE B
ENTRY AGE NORMAL ACCRUED LIABILITIES**

Accrued Liability for Active Employees	\$	271,231,026
Accrued Liability for Terminated Employees.....		41,789,510
Accrued Liability for Current Retirees and Beneficiaries		293,096,018
TOTAL ENTRY AGE NORMAL ACCRUED LIABILITY	\$	606,116,554
NET ACTUARIAL VALUE OF ASSETS.....	\$	530,233,339
Ratio of Net Actuarial Value of Assets to Entry Age Normal Accrued Liability.....		87.48%

EXHIBIT IX CENSUS DATA

	Active	Terminated with Funds on Deposit	Retired	Total
Number of members as of June 30, 2022	719	418	447	1,584
Additions to Census				
Initial membership	106	13		119
Omitted in error last year				
Death of another member			7	7
Adjustment for multiple records	1			1
Change in Status during Year				
Actives terminating service	(66)	66		
Actives who retired	(18)		18	
Actives entering DROP				
Term. members rehired	7	(7)		
Term. members who retire		(5)	5	
Retirees who are rehired				
Refunded who are rehired				
Eliminated from Census				
Refund of contributions	(13)	(24)		(37)
Deaths	(2)		(9)	(11)
Included in error last year				
Adjustment for multiple records			(1)	(1)
Number of members as of June 30, 2023	734	461	467	1,662

Actives Census by Age:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
21 - 25	0	2	2	46,156	92,311
26 - 30	32	26	58	62,451	3,622,136
31 - 35	51	44	95	70,778	6,723,900
36 - 40	54	44	98	78,218	7,665,388
41 - 45	40	54	94	80,861	7,600,974
46 - 50	43	47	90	95,205	8,568,438
51 - 55	42	32	74	105,100	7,777,416
56 - 60	65	30	95	109,216	10,375,561
61 - 65	48	19	67	106,425	7,130,481
66 - 70	32	10	42	112,221	4,713,291
71 - 75	12	1	13	94,768	1,231,989
76 - 80	5	0	5	100,088	500,440
81 - 85	1	0	1	71,859	71,859
Total	425	309	734	90,019	66,074,184

Includes 302 actives with vested benefits, including 1 active former DROP participants

Terminated Members Due a Deferred Retirement Benefit:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
36 - 40	5	8	13	32,712	425,262
41 - 45	18	17	35	34,112	1,193,936
46 - 50	12	12	24	41,689	1,000,526
51 - 55	21	9	30	37,505	1,125,136
56 - 60	22	11	33	33,066	1,091,183
61 - 65	5	2	7	34,290	240,030
66 - 70	1	0	1	15,323	15,323
71 - 75	0	1	1	5,863	5,863
Total	84	60	144	35,398	5,097,259

Terminated Members Due a Refund of Contributions:

Contributions Ranging		Number	Total Contributions
From	To		
0	- 99	16	496
100	- 499	25	6,793
500	- 999	26	18,808
1,000	- 1,999	22	33,374
2,000	- 4,999	51	180,266
5,000	- 9,999	48	366,400
10,000	- 19,999	57	816,071
20,000	- 99,999	72	2,377,286
Total		317	3,799,494

Excludes \$31,280 for deceased members due a refund of contributions.

Regular Retirees:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
56 - 60	20	2	22	82,712	1,819,671
61 - 65	28	20	48	53,746	2,579,795
66 - 70	76	25	101	56,924	5,749,290
71 - 75	103	17	120	59,788	7,174,615
76 - 80	64	6	70	69,076	4,835,322
81 - 85	25	4	29	53,966	1,565,013
86 - 90	10	0	10	42,377	423,765
91 - 95	1	0	1	29,557	29,557
96 - 100	1	0	1	58,201	58,201
Total	328	74	402	60,287	24,235,229

Survivors:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
46 - 50	0	1	1	49,036	49,036
51 - 55	0	3	3	49,193	147,579
56 - 60	0	4	4	41,790	167,160
61 - 65	1	6	7	45,697	319,881
66 - 70	0	12	12	47,101	565,214
71 - 75	0	9	9	27,525	247,725
76 - 80	0	17	17	28,420	483,138
81 - 85	0	6	6	22,208	133,245
86 - 90	0	6	6	38,696	232,175
Total	1	64	65	36,079	2,345,153

Active Members:

Attained Ages	Completed Years of Service								Total
	0 - 1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 & Over	
0 - 20	-	-	-	-	-	-	-	-	-
21 - 25	1	1	-	-	-	-	-	-	2
26 - 30	26	32	-	-	-	-	-	-	58
31 - 35	25	45	24	1	-	-	-	-	95
36 - 40	15	26	38	18	1	-	-	-	98
41 - 45	5	24	30	23	12	-	-	-	94
46 - 50	12	14	12	11	23	18	-	-	90
51 - 55	8	11	9	7	9	19	11	-	74
56 - 60	7	8	13	6	11	18	24	8	95
61 - 65	1	9	11	6	12	9	12	7	67
66 - 70	-	4	12	9	5	4	3	5	42
71 & Over	1	4	4	2	3	1	3	1	19
Total	101	178	153	83	76	69	53	21	734

Average Annual Salary of Active Members:

Attained Ages	Completed Years of Service								Total
	0 - 1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 & Over	
0 - 20	-	-	-	-	-	-	-	-	-
21 - 25	53,458	38,853	-	-	-	-	-	-	46,156
26 - 30	58,622	65,561	-	-	-	-	-	-	62,451
31 - 35	63,943	69,184	79,541	103,064	-	-	-	-	70,778
36 - 40	60,374	73,066	82,380	90,648	97,967	-	-	-	78,218
41 - 45	67,252	70,912	85,329	85,080	87,178	-	-	-	80,861
46 - 50	74,876	93,314	92,133	93,359	98,590	109,078	-	-	95,205
51 - 55	71,375	92,437	97,932	89,022	115,697	121,327	121,689	-	105,100
56 - 60	63,618	59,871	87,717	130,368	94,630	123,963	123,259	162,283	109,216
61 - 65	53,458	93,461	92,733	117,268	78,497	98,724	135,683	150,505	106,425
66 - 70	-	62,891	128,886	98,192	106,181	105,503	68,732	174,452	112,221
71 & Over	109,567	93,019	80,337	128,273	81,683	104,269	107,859	71,859	94,963
Total	64,316	73,700	88,984	95,997	94,892	114,707	121,788	156,948	90,019

Terminated Members Due a Deferred Retirement Benefit:

Attained Ages	Years until Retirement Eligibility								Total
	0 - 1	1 - 2	2 - 3	3 - 5	5 - 10	10 - 15	15 - 20	20 & Over	
0 - 30	-	-	-	-	-	-	-	-	-
31 - 35	-	-	-	-	-	-	-	-	-
36 - 40	-	-	-	-	-	-	1	12	13
41 - 45	-	-	-	-	-	3	32	-	35
46 - 50	-	-	-	-	4	20	-	-	24
51 - 55	1	-	-	4	25	-	-	-	30
56 - 60	12	3	6	12	-	-	-	-	33
61 - 65	7	-	-	-	-	-	-	-	7
66 - 70	1	-	-	-	-	-	-	-	1
71 & Over	1	-	-	-	-	-	-	-	1
Total	22	3	6	16	29	23	33	12	144

Average Annual Benefits of Terminated Members Due a Deferred Retirement Benefit:

Attained Ages	Years until Retirement Eligibility								Total
	0 - 1	1 - 2	2 - 3	3 - 5	5 - 10	10 - 15	15 - 20	20 & Over	
0 - 30	-	-	-	-	-	-	-	-	-
31 - 35	-	-	-	-	-	-	-	-	-
36 - 40	-	-	-	-	-	-	20,029	33,769	32,712
41 - 45	-	-	-	-	-	35,433	33,989	-	34,112
46 - 50	-	-	-	-	37,528	42,521	-	-	41,689
51 - 55	13,491	-	-	33,235	39,148	-	-	-	37,505
56 - 60	31,467	39,856	30,617	34,192	-	-	-	-	33,066
61 - 65	34,290	-	-	-	-	-	-	-	34,290
66 - 70	15,323	-	-	-	-	-	-	-	15,323
71 & Over	5,863	-	-	-	-	-	-	-	5,863
Total	29,651	39,856	30,617	33,953	38,925	41,596	33,566	33,769	35,398

Service Retirees:

Attained Ages	Completed Years Since Retirement								Total
	0 - 1	1 - 2	2 - 3	3 - 5	5 - 10	10 - 15	15 - 20	20 & Over	
0 - 50	-	-	-	-	-	-	-	-	-
51 - 55	-	-	-	-	-	-	-	-	-
56 - 60	8	2	4	6	2	-	-	-	22
61 - 65	7	8	6	13	14	-	-	-	48
66 - 70	2	9	19	12	46	12	1	-	101
71 - 75	5	5	9	12	31	36	21	1	120
76 - 80	-	1	4	2	23	18	17	5	70
81 - 85	-	-	1	1	4	7	2	14	29
86 - 90	-	-	-	-	1	-	2	7	10
91 & Over	-	-	-	-	-	-	-	2	2
Total	22	25	43	46	121	73	43	29	402

Average Annual Benefits Payable to Service Retirees:

Attained Ages	Completed Years Since Retirement								Total
	0 - 1	1 - 2	2 - 3	3 - 5	5 - 10	10 - 15	15 - 20	20 & Over	
0 - 50	-	-	-	-	-	-	-	-	-
51 - 55	-	-	-	-	-	-	-	-	-
56 - 60	99,436	90,660	117,543	47,063	45,156	-	-	-	82,712
61 - 65	50,853	42,663	73,587	59,596	47,590	-	-	-	53,746
66 - 70	89,905	53,146	67,443	53,931	52,150	59,824	45,804	-	56,924
71 - 75	48,383	42,295	78,363	64,385	70,792	52,958	53,932	9,707	59,788
76 - 80	-	34,102	53,095	46,817	79,988	78,300	53,165	68,455	69,076
81 - 85	-	-	102,262	158,916	43,802	72,545	26,759	40,521	53,966
86 - 90	-	-	-	-	19,042	-	22,345	51,433	42,377
91 & Over	-	-	-	-	-	-	-	43,879	43,879
Total	71,508	49,860	74,722	59,336	61,025	62,214	50,707	47,141	60,287

Surviving Beneficiaries of Former Members:

Attained Ages	Completed Years Since Retirement								Total
	0 - 1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 & Over	
0 - 30	-	-	-	-	-	-	-	-	-
31 - 35	-	-	-	-	-	-	-	-	-
36 - 40	-	-	-	-	-	-	-	-	-
41 - 45	-	-	-	-	-	-	-	-	-
46 - 50	1	-	-	-	-	-	-	-	1
51 - 55	-	1	1	-	-	-	-	1	3
56 - 60	-	1	2	1	-	-	-	-	4
61 - 65	-	3	1	3	-	-	-	-	7
66 - 70	-	2	5	3	-	1	1	-	12
71 - 75	-	-	3	3	1	1	1	-	9
76 - 80	-	-	-	3	4	1	4	5	17
81 & Over	-	1	1	-	1	1	3	5	12
Total	1	8	13	13	6	4	9	11	65

Average Annual Benefits Payable To Survivors of Former Members:

Attained Ages	Completed Years Since Retirement								Total
	0 - 1	1 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 & Over	
0 - 30	-	-	-	-	-	-	-	-	-
31 - 35	-	-	-	-	-	-	-	-	-
36 - 40	-	-	-	-	-	-	-	-	-
41 - 45	-	-	-	-	-	-	-	-	-
46 - 50	49,036	-	-	-	-	-	-	-	49,036
51 - 55	-	72,198	53,172	-	-	-	-	22,209	49,193
56 - 60	-	24,004	47,784	47,588	-	-	-	-	41,790
61 - 65	-	34,246	51,713	55,144	-	-	-	-	45,697
66 - 70	-	61,334	55,029	33,326	-	15,851	51,572	-	47,101
71 - 75	-	-	32,882	26,003	14,479	43,802	12,791	-	27,525
76 - 80	-	-	-	61,610	21,159	45,266	29,435	10,133	28,420
81 & Over	-	27,522	121,238	-	34,733	9,507	17,221	24,151	30,452
Total	49,036	43,641	53,499	44,295	22,308	28,607	25,974	17,603	36,079

EXHIBIT X YEAR-TO-YEAR COMPARISON

	Fiscal 2023	Fiscal 2022	Fiscal 2021	Fiscal 2020
Number of Active Members	734	719	726	731
Number of Retirees & Survivors	467	447	424	386
Number of Terminated Due Deferred Benefits	144	120	122	108
Number Terminated Due Refunds	317	298	276	309
Active Lives Payroll	\$ 66,074,184	\$ 63,924,334	\$ 61,661,164	\$ 61,509,353
Retiree Benefits in Payment	\$ 26,580,382	\$ 25,028,703	\$ 23,178,155	\$ 20,476,692
Market Value of Assets	\$ 520,361,462	\$ 479,155,679	\$ 537,267,140	\$ 443,953,251
Entry Age Normal Accrued Liability				
Active Lives	\$ 271,231,026	\$ 270,572,062	\$ 253,273,739	\$ 261,356,775
Retired Lives	\$ 293,096,018	\$ 279,422,050	\$ 263,617,143	\$ 229,903,850
Terminated Members	<u>\$ 41,789,510</u>	<u>\$ 36,882,795</u>	<u>\$ 38,179,489</u>	<u>\$ 31,919,873</u>
Total EAN Accrued Liability	\$ 606,116,554	\$ 586,876,907	\$ 555,070,371	\$ 523,180,498
Ratio of AVA to EAN Accrued Liability	87.48%	87.12%	88.07%	87.31%
Actuarial Value of Assets	\$ 530,233,339	\$ 511,313,156	\$ 488,846,632	\$ 456,797,449
Present Value of Future Employer Normal Cost	\$ 162,053,869	\$ 160,188,830	\$ 147,680,310	\$ 141,325,384
Present Value of Future Employee Contrib.	\$ 47,968,672	\$ 47,418,913	\$ 45,933,589	\$ 44,627,125
Present Value of Future Benefits	\$ 740,255,880	\$ 718,920,899	\$ 682,460,531	\$ 642,749,958
	Fiscal 2024	Fiscal 2023	Fiscal 2022	Fiscal 2021
Employee Contribution Rate	8.00%	8.00%	8.00%	8.00%
Estimated Tax Contribution as a % of Payroll	16.36%	16.26%	16.98%	16.43%
Actuarially Required Net Direct Employer Contribution Rate	10.73%	10.83%	8.53%	8.99%
Actual Employer Contribution Rate	12.00%	9.50%	9.50%	4.00%

Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014
734	744	755	784	785	773
357	349	329	311	292	250
104	94	96	93	86	89
292	270	266	223	198	178
\$ 60,738,553	\$ 60,501,312	\$ 60,086,832	\$ 60,325,526	\$ 58,474,383	\$ 58,331,096
\$ 18,448,464	\$ 17,914,111	\$ 16,725,377	\$ 15,461,663	\$ 14,442,365	\$ 11,477,547
\$ 435,940,046	\$ 422,384,994	\$ 392,603,825	\$ 370,742,452	\$ 369,054,289	\$ 358,527,405
\$ 234,026,312	\$ 226,631,689	\$ 208,049,012	\$ 194,383,880	\$ 186,222,204	\$ 216,200,259
\$ 204,630,972	\$ 201,812,879	\$ 185,685,403	\$ 171,716,093	\$ 165,495,344	\$ 124,365,651
<u>\$ 29,453,077</u>	<u>\$ 26,119,629</u>	<u>\$ 25,841,592</u>	<u>\$ 23,783,204</u>	<u>\$ 22,723,280</u>	<u>\$ 19,955,780</u>
\$ 468,110,361	\$ 454,564,197	\$ 419,576,007	\$ 389,883,177	\$ 374,440,828	\$ 360,521,690
94.09%	93.51%	96.15%	98.11%	97.24%	91.61%
\$ 440,451,633	\$ 425,079,441	\$ 403,428,322	\$ 382,512,520	\$ 364,107,538	\$ 330,282,320
\$ 118,446,881	\$ 120,523,030	\$ 97,589,720	\$ 81,119,123	\$ 82,050,485	\$ 94,513,585
\$ 52,045,598	\$ 52,395,819	\$ 51,278,304	\$ 50,725,195	\$ 49,134,254	\$ 40,605,011
\$ 610,944,112	\$ 597,998,290	\$ 552,296,346	\$ 514,356,838	\$ 495,292,277	\$ 465,400,916
Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016	Fiscal 2015
8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
15.45%	15.13%	14.51%	12.90%	14.20%	14.51%
3.38%	3.83%	1.20%	0.46%	0.00%	3.95%
4.00%	1.25%	0.00%	0.00%	3.50%	7.00%

SUMMARY OF PRINCIPAL PLAN PROVISIONS

The District Attorneys' Retirement System is a defined benefit pension plan that provides retirement allowances and other benefits. The following summary of plan provisions is for general informational purposes only and does not constitute a guarantee of benefits.

MEMBERSHIP

All District Attorneys, Assistant District Attorneys, (who earn more than the minimum salary specified by the board), and persons employed by this retirement system and the Louisiana District Attorneys' Association, are required to be members of the system as a condition of their employment.

CONTRIBUTION RATES

The fund is financed by employee contributions of 8.0% of salary for active members. In addition, the fund receives revenue sharing funds as appropriated by the legislature and ad valorem taxes as determined by the Public Retirement Systems' Actuarial Committee up to a maximum of 0.2% of the ad valorem taxes shown to be collected. In the event that the contributions from ad valorem taxes and revenue sharing funds are insufficient to provide for the gross employer actuarially required contribution, the employer is required to make direct contributions as determined by the Public Retirement Systems' Actuarial Committee.

CONTRIBUTION REFUNDS

Upon withdrawal from service, members not entitled to a retirement allowance are paid a refund of accumulated contributions upon request. Receipt of such a refund cancels all accrued rights in the system.

RETIREMENT BENEFITS

For members who joined the system before July 1, 1990, and who have elected not to be covered by the new provisions – Members are eligible to receive a normal retirement benefit if they have ten or more years of creditable service and are at least age sixty-two, or if they have eighteen or more years of service and are at least age sixty, or if they have twenty-three or more years of service and are at least age fifty-five, or if they have thirty years of service regardless of age. The normal retirement benefit is equal to 3% of the member's average final compensation for each year of creditable service. Members are eligible for early retirement at age sixty if they have at least ten years of creditable service or at age fifty-five with at least eighteen years of creditable service. Members who retire prior to age sixty with less than twenty-three years of service credit receives a retirement benefit reduced 3% for each year of age below sixty. Members who retire prior to age sixty-two who have less than eighteen years of service receive a retirement benefit reduced 3% for each year of age below sixty-two. Retirement benefits may not exceed 100% of final average compensation.

For members who joined the system after July 1, 1990, or who elected to be covered by the new provisions – Members are eligible to receive normal retirement benefits if they are age sixty and have ten years of service credit, are age fifty-five and have twenty-four years of service credit or have thirty years of service credit regardless of age. The normal retirement benefit is equal to 3.5% of the member's

final average compensation multiplied by years of membership service. A member is eligible for an early retirement benefit if he is age fifty-five and has at least eighteen years of service credit. The early retirement benefit is equal to the normal retirement benefit reduced 3% for each year the member retires in advance of normal retirement age. Benefits may not exceed 100% of average final compensation.

FINAL AVERAGE COMPENSATION

The period of final average compensation is thirty-six months plus the number of whole months elapsed since January 1, 2013, not to exceed sixty months, subject to the limitation that the final average compensation shall not be less than the highest thirty-six month final average compensation as of January 1, 2013.

OPTIONAL ALLOWANCES

Members may receive their benefits as a life annuity, or in lieu of such receive a reduced benefit according to the option selected which is the actuarial equivalent of the maximum benefit.

Option 1 – If the member dies before he has received in annuity payments the present value of his member's annuity as it was at the time of retirement the balance is paid to his beneficiary.

Option 2 – Upon retirement, the member receives a reduced benefit. Upon the member's death, the designated beneficiary will continue to receive the same reduced benefit.

Option 3 – Upon retirement, the member receives a reduced benefit. Upon the member's death, the designated beneficiary will receive one-half of the members reduced benefit.

Option 4 – Upon retirement, the member elects to receive a board-approved benefit which is actuarially equivalent to the maximum benefit.

A member may also elect to receive an actuarially reduced benefit which provides for an automatic 2½% annual compound increase in monthly retirement benefits based on the reduced benefit and commencing on the later of age fifty-five or retirement anniversary; this COLA is in addition to any ad hoc COLAs which are payable. This is not available to members who select a Back-DROP benefit.

DISABILITY BENEFITS

Disability benefits are awarded to active contributing members with at least ten years of service who are found to be totally disabled as a result of injuries incurred while in active service. The member receives a benefit equal to 3.5% (3% for members covered under the old retirement benefit provisions) of his average final compensation multiplied by the lesser of his actual service (not to be less than fifteen years) or projected continued service to age sixty.

SURVIVOR BENEFITS

Upon the death of a member with less than five years of creditable service, his accumulated contributions and interest thereon are paid to his spouse, if he is married, or to his designated beneficiary, if he is not married. Upon the death of any active, contributing member with five or more years of service or any member with twenty-three years of service who has not retired, automatic option 2 benefits are payable to the surviving spouse. These benefits are based on the retirement benefits

accrued at the member's date of death with option factors used as if the member had continued in service to earliest normal retirement age. If a member has no surviving spouse, the surviving minor children under eighteen or disabled children are paid 80% of the member's accrued retirement benefit divided into equal shares. If a member has no surviving spouse or children, his accumulated contributions and interest are paid to his designated beneficiary. In lieu of periodic payments, the surviving spouse or children may receive a refund of the member's accumulated contributions with interest.

BACK-DROP

In lieu of receiving a service retirement allowance any member of the fund who has more than sufficient service for a regular service retirement may elect to receive a "Back-DROP" benefit. The Back-DROP benefit is based upon the Back-DROP period selected and the final average compensation prior to the period selected. The Back-DROP period is the lesser of three years or the service accrued between the time a member first becomes eligible for retirement and his actual date of retirement. At retirement the member's maximum monthly retirement benefit is based upon his service, final average compensation, and plan provisions in effect on the last day of creditable service immediately prior to the commencement of the Back-DROP period. In addition to the monthly benefit at retirement, the member receives a lump-sum payment equal to the maximum monthly benefit as calculated above multiplied by the number of months in the Back-DROP period. In lieu of receiving the lump-sum payment, the member may leave the funds on deposit with the system in an interest bearing account. The surviving spouse of members eligible to retire may elect to receive benefits as though the member had elected the Back-DROP option as of the day following the date of death.

COST-OF-LIVING ADJUSTMENTS

The board of trustees is authorized to grant retired members and widows of members who have retired an annual cost of living increase of 3% of their original benefit, (not to exceed sixty dollars per month) and all retired members and widows who are sixty-five years of age and older a 2% increase in their original benefit. In lieu of the prior provisions, R.S. 11:241 provides for cost of living benefits payable based on a formula equal to up to \$1 times the total of the number of years of credited service accrued at retirement or at death of the member or retiree plus the number of years since retirement or since death of the member or retiree to the system's fiscal year end preceding the payment of the benefit increase. In order for the board to grant any of these increases, the system must meet certain criteria detailed in the statute related to funding status and interest earnings.

ACTUARIAL ASSUMPTIONS

In determining actuarial costs, certain assumptions must be made regarding future experience under the plan. These assumptions include the rate of investment return, mortality of plan members, rates of salary increase, rates of retirement, rates of termination, rates of disability, and various other factors which have an impact on the cost of the plan. To the extent that future experience varies from the assumptions selected for valuation, future costs will be either higher or lower than anticipated. The following chart illustrates the effect of emerging experience on the plan.

Factor	Increase in Factor Results in
Investment Earnings Rate	Decrease in Cost
Annual Rate of Salary Increase	Increase in Cost
Rates of Retirement	Increase in Cost
Rates of Termination	Decrease in Cost
Rates of Disability	Increase in Cost
Rates of Mortality	Decrease in Cost

ACTUARIAL COST METHOD

The Aggregate Actuarial Cost Method with allocation based on earnings.

VALUATION INTEREST RATE

6.10% (Net of Investment Expense)

ACTUARIAL ASSET VALUES

Assets are valued at market value adjusted to defer four-fifths of all earnings above or below the valuation interest rate in the valuation year, three-fifths of all earnings above or below the valuation interest rate in the prior year, two-fifths of all earnings above or below the valuation interest rate from two years prior, and one-fifth of all earnings above or below the valuation interest rate from three years prior. The resulting smoothed values are subject to a corridor of 85% to 115% of the market value of assets. If the smoothed value falls outside the corridor, the actuarial value is set equal to the average of the corridor limit and the smoothed value.

ANNUAL SALARY INCREASE RATE

5.00% (2.20% inflation / 2.80% merit)

ACTIVE MEMBER MORTALITY

Pub-2010 Public Retirement Plans Mortality Table for General Above-Median Employees multiplied by 115% for males and 115% for females, each with full generational projection using the MP2019 scale.

ANNUITANT AND BENEFICIARY MORTALITY

Pub-2010 Public Retirement Plans Mortality Table for General Above-Median Healthy Retirees multiplied by 115% for males and 115% for females, each with full generational projection using the MP2019 scale.

DISABLED LIVES MORTALITY

Pub -2010 Public Retirement Plans Mortality Table for Non-Safety Disabled Retirees multiplied by 115% for males and 115% for females, each with full generational projection using the MP2019 scale.

RETIREE COST OF LIVING INCREASES

The present value of future retirement benefits is based on benefits currently being paid by the system and includes previously granted cost of living increases. The present values do not include provisions for potential future increases not yet authorized by the Board of Trustees.

RATES OF RETIREMENT

The table of these rates is included later in the report. These rates apply only to those individuals eligible to retire. Retirement rates for members who have completed DROP participation and are currently active are 0.33.

RETIREMENT LIMITATIONS

Projected retirement benefits are not subjected to IRS Section 415 limits.

RATES OF WITHDRAWAL

The rates of withdrawal are applied based upon completed years of service according to the following table:

Service Duration (\leq)	Rate	Service Duration (\leq)	Rate
1	0.12	16	0.04
2	0.12	17	0.04
3	0.11	18	0.05
4	0.11	19	0.05
5	0.10	20	0.05
6	0.10	21	0.05
7	0.09	22	0.05
8	0.08	23	0.05
9	0.07	24	0.04
10	0.07	25	0.04
11	0.06	26	0.03
12	0.05	27	0.02
13	0.05	28	0.02
14	0.04	29	0.02
15	0.04	>30	0.01

Note: Withdrawal rates for members eligible to retire are assumed to be zero.

INTEREST RATE ON CONTRIBUTION REFUNDS

2%

RATES OF DISABILITY

The table of these rates is included later in the report. These rates are based on 10% of the disability rates used for the 27th valuation of the Railroad Retirement System for individuals with 10-19 years of service.

VESTING ELECTING PERCENTAGE

90% of those vested elect deferred benefits in lieu of contribution refunds.

MARRIAGE STATISTICS

70% of the members are assumed to be married; husbands are assumed to be three years older than their wives.

FAMILY STATISTICS

Assumptions utilized in determining the costs of various survivor benefits as listed below, are derived from the information provided in the 2019 Table F1: Family Households, by Type, Age of Own Children, Age of Family Members, and Age of Householder provided by the U.S. Census Bureau:

Member's Age	% With Children	Number of Children	Average Age	Remarriage Rates
25	60%	1.77	4	0.04566
35	82%	2.11	8	0.02636
45	63%	1.75	11	0.01355
55	11%	1.42	14	N/A
65	2%	1.50	14	N/A

ACTUARIAL TABLES AND RATES

Age	Retirement Rates	Disability Rates
18	0.00000	0.00012
19	0.00000	0.00012
20	0.00000	0.00012
21	0.00000	0.00012
22	0.00000	0.00012
23	0.00000	0.00012
24	0.00000	0.00012
25	0.00000	0.00012
26	0.00000	0.00012
27	0.00000	0.00012
28	0.00000	0.00012
29	0.00000	0.00012
30	0.00000	0.00012
31	0.00000	0.00012
32	0.00000	0.00012
33	0.00000	0.00012
34	0.00000	0.00012
35	0.00000	0.00013
36	0.00000	0.00013
37	0.00000	0.00013
38	0.00000	0.00014
39	0.00000	0.00015
40	0.00000	0.00016
41	0.00000	0.00017
42	0.00000	0.00018
43	0.00000	0.00020
44	0.00000	0.00021
45	0.00000	0.00024
46	0.15000	0.00026
47	0.15000	0.00029
48	0.15000	0.00033
49	0.15000	0.00038
50	0.15000	0.00043
51	0.15000	0.00049
52	0.15000	0.00057
53	0.15000	0.00066
54	0.15000	0.00077
55	0.08000	0.00090
56	0.08000	0.00106
57	0.08000	0.00125
58	0.08000	0.00148
59	0.08000	0.00175
60	0.08000	0.00239
61	0.08000	0.00291
62	0.08000	0.00322
63	0.16000	0.00338
64	0.16000	0.00257
65	0.16000	0.00207
66	0.16000	0.00052
67	0.16000	0.00052
68	0.16000	0.00052
69	0.16000	0.00052
70	0.16000	0.00052
71	0.18000	0.00052
72	0.18000	0.00052
73	0.18000	0.00052
74	0.18000	0.00052
75	0.18000	0.00052

GLOSSARY

ACCRUED BENEFIT

The pension benefit that an individual has earned as of a specific date based on the provisions of the plan and the individual's age, service, and salary as of that date.

ACTUARIAL ACCRUED LIABILITY

The actuarial present value of benefits payable to members of the fund less the present value of future normal costs attributable to the members.

ACTUARIAL ASSUMPTIONS

Assumptions as to the occurrence of future events affecting pension costs. These assumptions include rates of mortality, withdrawal, disablement, and retirement. Also included are rates of investment earnings, changes in compensation, as well as statistics related to marriage and family composition.

ACTUARIAL COST METHOD

A procedure for determining the portion of the cost of a pension plan to be allocated to each year. Each cost method allocates a certain portion of the actuarial present value of benefits between the actuarial accrued liability and future normal costs. Once this allocation is made, a determination of the normal cost attributable to a specific year can be made along with the payment to amortize any unfunded actuarial accrued liability. To the extent that a particular funding method allocates a greater (lesser) portion of the actual present value of benefits to the actuarial accrued liability it will allocate less (more) to future normal costs.

ACTUARIAL EQUIVALENCE

Payments or receipts with equal actuarial value on a given date when valued using the same set of actuarial assumptions.

ACTUARIAL GAIN (LOSS)

The financial effect on the fund of the difference between the expected and actual experience of the fund. The experience may be related to investment earnings above (or below) those expected or changes in the liability structure due to fewer (or greater) than the expected numbers of retirements, deaths, disabilities, or withdrawals. In addition, other factors such as pay increases above (or below) those forecast can result in actuarial gains or losses. The effect of such gains (or losses) is to decrease (or increase) future costs.

ACTUARIAL PRESENT VALUE

The value, as of a specified date, of an amount or series of amounts payable or receivable thereafter, with each amount adjusted to reflect the time value of money (through accrual of interest) and the probability of payments. For example: if \$600 invested today will be worth \$1,000 in 10 years and there is a 50% probability that a person will live 10 years, then the actuarial present value of \$1,000 payable to that person if he should survive 10 years is \$300.

ACTUARIAL VALUE OF ASSETS

The value of cash, investments, and other property belonging to the pension plan as used by the actuary for the purpose of the actuarial valuation. This may correspond to the book value, market value, or some modification involving either or both book and market value. Adjustments to market values are often made to reduce the volatility of asset values.

ASSET GAIN (LOSS)

That portion of the actuarial gain attributable to investment performance above (below) the expected rate of return in the actuarial assumptions.

AMORTIZATION PAYMENT

That portion of the pension plan contribution designated to pay interest and reduce the outstanding principal balance of unfunded actuarial accrued liability. If the amortization payment is less than the accrued interest on the unfunded actuarial accrued liability the outstanding principal balance will increase.

CONTRIBUTION SHORTFALL (EXCESS)

The difference between contributions recommended in the prior valuation and the actual amount received.

DECREMENTS

Events which result in the termination of membership in the system such as retirement, disability, withdrawal, or death.

EMPLOYER NORMAL COST

That portion of the normal cost not attributable to employee contributions. It includes both direct contributions made by the employer and contributions from other non-employee sources such as revenue sharing and revenues related to taxes.

FUNDED RATIO

A measure of the ratio of assets to liabilities of the system according to a specific definition of those two values. Typically, the assets used in the measure are the actuarial value of assets; the liabilities are defined by reference to some recognized actuarial funding method. Thus, the funded ratio of a plan depends not only on the financial strength of the plan but also on the funding method used to determine the liabilities and the asset valuation method used to determine the assets in the ratio.

NORMAL COST

That portion of the actuarial present value of pension plan benefits and expenses allocated to a valuation year by the actuarial cost method. This is analogous to one year's insurance premium.

PENSION BENEFIT OBLIGATION

The actuarial present value of benefits earned or credited to date based on the members expected final average compensation at retirement. For current retirees or terminated members this is equivalent to the actuarial present value of their accrued benefit.

PROJECTED BENEFITS

The benefits expected to be paid in the future based on the provisions of the plan and the actuarial assumptions. The projected values are based on anticipated future advancement in age and accrual of service as well as increases in salary paid to the participant.

UNFUNDED ACTUARIAL ACCRUED LIABILITY

The excess of the actuarial accrued liability over the actuarial value of assets.

VESTED BENEFITS

Benefits that the members are entitled to even if they withdraw from service.