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COMPREHENSIVE ANNUAL FINANCIAL REPORT

For Fiscal Years Ended June 30, 2019 & 2018

LASERS Benefits Louisiana.

Louisiana State Employees' Retirement System

A component unit of the State of Louisiana





Prepared by the Fiscal, Investments, and Public Information Divisions of the Louisiana State Employees' Retirement System



Louisiana State Employees' Retirement System

A component unit of the State of Louisiana

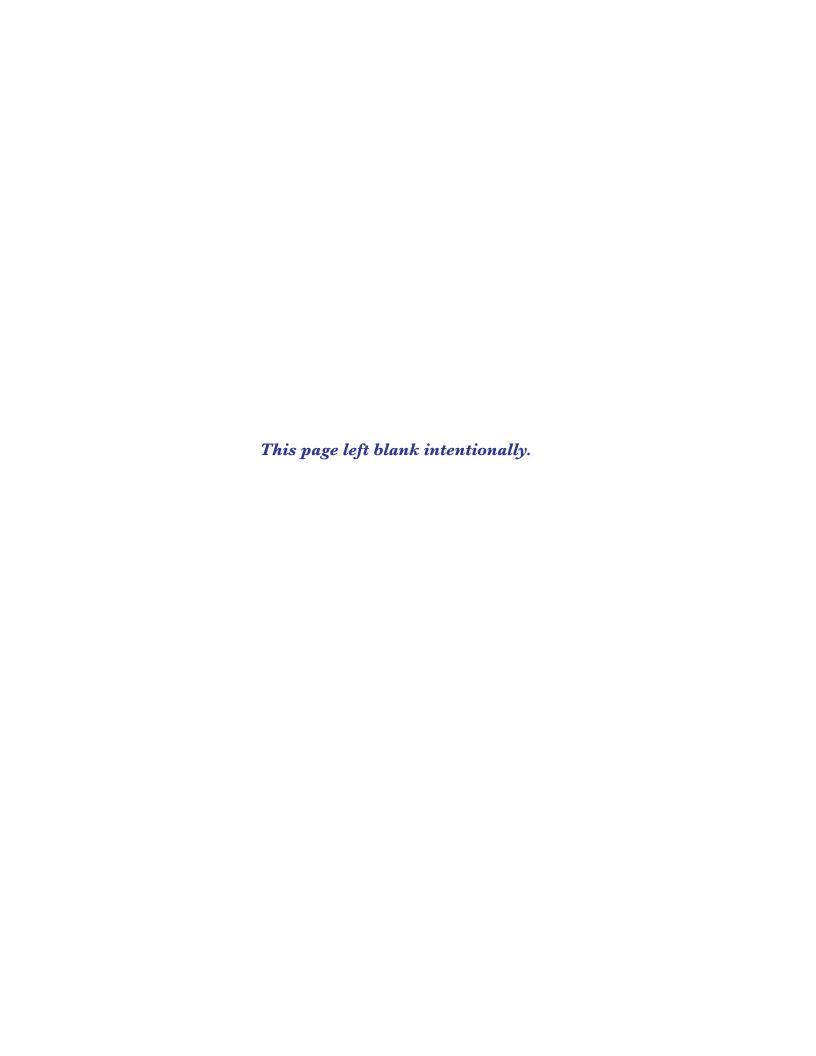


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October 26, 2019

Dear Board Members:

We are pleased to present to you the Comprehensive Annual Financial Report (CAFR) of the Louisiana State Employees' Retirement System (LASERS or the System) for the fiscal years ended June 30, 2019 and 2018. LASERS approach of investing opportunistically was beneficial during this volatile fiscal year. For the fiscal year ending June 30, 2019, LASERS investment portfolio realized a time-weighted return on investment assets of 4.4%. This report includes a wealth of information regarding the activities of LASERS during the past fiscal year, providing clear evidence that LASERS is accomplishing its mission of providing a sound retirement plan for our members through prudent management and exceptional customer service. We trust that you and the other members will find this CAFR helpful in understanding your public employees' retirement system, which is dedicated to protecting your contributions and maximizing your return.

Management Responsibility

This report consists of management's representation concerning LASERS finances. Management assumes full responsibility for the completeness and reliability of all information presented in this report. To provide a reasonable basis for making these representations, management has established a comprehensive internal control framework that is designed both to protect the assets from loss, theft, or misuse, and to compile sufficient, reliable information for the preparation of LASERS financial statements in conformity with generally accepted accounting principles. The internal control framework has been designed to provide reasonable, rather than absolute assurance, that the financial statements will be free from material misstatement. As management, we assert that, to the best of our knowledge and belief, this financial report is complete and reliable in all material respects.

Our independent external auditors, Postlethwaite & Netterville, have conducted an audit of the basic financial statements in accordance with auditing standards generally accepted in the United States of America, performing such tests and other procedures as they deem necessary to express an opinion in their report to the Board. The external auditors also have full and unrestricted access to the Board to discuss their audit and related findings as to the integrity of the financial reporting and adequacy of internal control systems.

BOARD OF TRUSTEES:

Shannon Templet, Board Chair Thomas Bickham, Vice Chair Virginia Burton Commissioner Jay Dardenne Beverly Hodges Judge William Kleinpeter Janice Lansing Barbara McManus Sen. Barrow Peacock Rep. Kevin Pearson Lori Pierce Hon. John Schroder Lorry Simmons Trotter Cindy Rougeou, Executive Director



Financial Information

The basic financial statements have been prepared in accordance with generally accepted accounting principles applied on a consistent basis as promulgated by the Governmental Accounting Standards Board. The Management's Discussion and Analysis (MD&A) includes a narrative introduction, overview, and analysis to accompany the basic financial statements. This Letter of Transmittal is designed to complement the MD&A, and should be read in conjunction with the document. LASERS MD&A can be found immediately following the reports of the independent auditors in the Financial Section of this report.

Profile of LASERS

LASERS is a cost-sharing multiple-employer defined benefit plan, established by the state legislature in 1946, with the first members joining the System on July 1, 1947. The System is a public trust fund created to provide retirement allowances and other benefits for state officers and employees and their beneficiaries. All invested funds, cash, and property are held in the name of LASERS for the sole benefit of the membership. A thirteen-member Board of Trustees (comprised of six active members, three retired members, and four ex officio members) governs the System. The Board administers the programs and appoints key management personnel including the Executive Director, Chief Operating Officer, Chief Administrative Officer, and the Chief Investment Officer.

The Board of Trustees annually approves an operating budget for administrative expenses that is prepared by staff to address member and employer needs while keeping costs reasonable. The Board must also approve any changes in the budget during the year. In addition to the Trustees' approval, the budget is approved by the Louisiana Joint Legislative Committee on the Budget.

Investments

For the fiscal year, LASERS investment portfolio realized a time-weighted return on investment assets of 4.4%. The plan earned an annualized return of 9.8% for the three-year period, 5.6% for the five-year period, 8.4% for the seven-year period, and 9.8% for the ten-year period. LASERS compares itself against other public pension plans with market values greater than \$1 billion in the Wilshire Trust Universe Comparison Service (TUCS), with a focus on long-term results. In the longer-term ten-year period, LASERS ranking is at the median.¹ The foundation of the Investment Division is the asset allocation chosen by the Board of Trustees, which is comprehensively studied, monitored, and adjusted to produce an optimal mix of assets in order to maximize returns while minimizing risk. A more detailed exhibit of investment performance and a summary of LASERS Statement of Investment Objectives can be found in the Investment Section of this report.

¹ Wilshire TUCS rankings were as of August 22, 2019.

Funding

Annually, the LASERS actuary determines the funding requirements needed to meet current and future benefit obligations. Actuarial contributions are based on normal cost and amortization of the unfunded accrued liability, which has existed since the System's inception. Employers are required to pay the percentage of total payroll equal to the normal cost plus an amount sufficient to amortize the unfunded accrued liability as outlined in Louisiana Revised Statute 11:102 as it pertains to LASERS. This year the LASERS actuary is recommending that the Public Retirement Systems' Actuarial Committee (PRSAC) approve a composite employer contribution rate of 40.6% for the fiscal year ending June 30, 2021.

The actuarial value of member benefit liabilities exceeds the value of actuarial assets. At year-end, the ratio of the value of actuarial assets to actuarial accrued liabilities decreased to 64.1% and the System's unfunded actuarial accrued liability increased to \$7.0 billion, primarily a result of interest on the unfunded liability and experience losses related to investment and non-investment assumptions. The investment yield on the actuarial value of assets was 7.8% for 30 years, which is above the net actuarial assumed rate of 7.65%. LASERS Board adopted a plan to reduce the discount rate to 7.5% in 0.05% increments beginning July 1, 2017. Additional information regarding the financial condition of the pension trust fund can be found in the Actuarial Section of this report.

Major Initiatives

Part of our mission is to provide exceptional customer service to our members and contributing agencies as well as to improve the financial security of our members. Key accomplishments for the past year are summarized below:

System Governance

LASERS has positioned itself for the future with significant objectives and performance indicators. The Board of Trustees continues to follow an adopted Board Resolution expressing that the following matters have reached a critical state of importance to System members elevating them to the status of significant board issues:

- Identification and implementation of a legislatively enacted mechanism for the funding and granting of an annual cost-of-living adjustment for eligible System retirees in a reliable and dependable manner;
- 2. Preservation of the defined benefit plan for current and future LASERS members;
- 3. Preservation of Board autonomy as well as its primary composition of elected active and retired system members; and
- 4. While continuing to oppose mandatory Social Security participation, seek the reduction or elimination of the federal offsets, the Windfall Elimination Provision and the Government Pension Offset.

Introductory Section

Legislation

The 2019 Regular Session of the Louisiana Legislature resulted in the passage of the following legislation, which affects the Plan administered by LASERS:

- Act 42 changes the definition for Department of Agriculture and Forestry firefighters eligible to join the Hazardous Duty Services Plan;
- Act 50 appropriates \$9,478,184 in State surplus funds to LASERS to be applied to the initial unfunded accrued liability;
- Act 264 excludes Regional Transit Authority future management class employees from LASERS membership;
- Act 289 removes the insurance premium increase for Hazardous Duty Services Plan members who transfer service and retire with an unreduced benefit when the member reaches the age required for regular plan retirement eligibility.

Technology Improvements

Over the past year, we have addressed the following technology improvements:

- Implemented a secure cloud-based backup and recovery solution for rapid disaster recovery;
- Implemented a Multi-Factor Authentication (MFA) security solution for Virtual Private Networking (VPN);
- Upgraded the telephone system (Avaya) for increased performance and redundancy;
- Installed an additional fiber-based bandwidth line for increased traffic demands and redundancy;
- Designed and implemented Phase 3 of the Enterprise Content Management (ECM) project.

Our next strategic projects will include:

- Implementing a custom member portal (MyLASERS) for Enterprise Content Management System;
- Designing an entirely new secure Employer Self-Service portal for Member agencies;
- Completing implementation of Microsoft Office 365 project including Microsoft Dynamics.

Long-term Investment Program

LASERS had approximately \$12.1 billion under management as of June 30, 2019. This is an increase of \$4.1 billion over the last decade, illustrating the stability of the plan.

The Investment Program continuously maintains its commitment to a broadly diversified portfolio and achieving its actuarial rate of return with the least possible risk. LASERS allocation consists of equities, fixed income, and alternative investments, which consists of private markets, risk parity, and absolute return strategies. Allocation changes initiated during the previous year were fully implemented by June 30, 2019. Those changes included small decreases in the overall equity allocation as well as the domestic fixed income allocation, while adding to the global multisector and emerging market debt allocations, with a long-term focus on increasing private market investments.

LASERS works closely with its investment consultant to conduct a thorough asset allocation and liability review on an annual basis. In addition, our Chief Investment Officer reviews the asset allocation regularly to ensure that it is consistent with the exposure ranges set for LASERS. When necessary, funds are rebalanced, taking into consideration market conditions and transaction costs. This sound asset allocation approach does not veer off course due to market swings.

With nearly one-third of the plan's assets managed internally, LASERS saves millions in management fees each year. Other cost-saving measures include monitoring investment manager trade execution costs and negotiating favorable investment management fees. The Investment Division continues to work with the custodian bank to enhance reporting capabilities, build upon the in-house trade management system, and enhance its risk management evaluation capabilities.

Online Access Expanded

Utilization of technology to improve overall agency performance, communication, and education continues to be a major initiative of LASERS. Technological advances in imaging, bar coding, and online fillable forms enable LASERS to enhance customer service to its members and agencies.

LASERS website, www.lasersonline.org, is continually upgraded to provide access to current System information and news, educational programs, forms, publications, legislation, investment performance, GASB resources, and a video library. New sections on the LASERS website were added to address two important topics that generate commonly asked questions from members. The first section, Ready to Retire? Here's How to Get Started, walks a member through the retirement preparation process and provides helpful resources such as checklists, videos, and publications. The second section, Social Security Offsets: WEP & GPO, provides an overview of how the offsets can impact Social Security benefits for public employees. Additionally, a message was added, Medicare for Retirees: Approaching Age 65?, to direct retirees to check with the State's insurance provider to ensure proper and timely enrollment in Medicare. This improvement to our website allows staff to easily guide members to this information when questions are asked via email, phone, and social media.

Introductory Section

New educational videos were added to the LASERS YouTube Channel, video library, and LEO (Louisiana Employees Online). Our Public Information Division won an award of excellence in the 2018 Videographer Awards for *Your Future Self: How Do You Picture Life at Retirement?* in the category of video production, digital creation, and motion graphics information.

Social media, such as Facebook and Twitter, continues to build a following with the goal of keeping our membership informed.

Member Outreach Enhanced

LASERS continued to enhance the Retirement Readiness initiative by focusing on financial security, healthy living, and happiness and engagement as the three components that strengthen retirement planning. Outreach included improving the Retirement Readiness section of the website and adding a targeted email blast to our communications strategy with retirement planning tips for active members. Additionally, a Retirement Readiness Fair was held in the northern part of the State, and breakout sessions provided attendees information on important LASERS topics.

We have also improved our educational outreach communication plan by promoting Retirement Security Week through our website and social media; and creating a new publication, *A Solid Foundation for the Future*, which demonstrates the growth and strength of the fund.

We also continued our initiative, *Millennials Investing Now for Tomorrow* (MINT), which targets 20 – 35 year-olds, providing retirement and savings tips that help MINT members plan for the future.

The Member Services Division focuses on educating members, retirees, and agencies across the state on LASERS retirement options. Workshops and seminars are scheduled in major cities several times a year for members to attend. Targeted workshops are held at specific agencies to address specialty plans, such as Hazardous Duty Services Plan members, or to address specific needs at the agency, such as an agency merger or large number of employees approaching retirement eligibility. Further improvement has been made to the *Employer's Guide to Retirement* with additional chapters released throughout the year. Ongoing improvements to the LASERS document imaging system, Optimus, continue to enhance workflow processes and search capabilities, integrating with other LASERS software and systems. Ultimately, Optimus will deliver new and exciting self-service offerings to members.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to LASERS for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2018. This was the twenty-second consecutive year that the System has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of only one year. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

LASERS also received the GFOA award for its Popular Annual Financial Report (PAFR) entitled LASERS Summary Annual Report, for the fiscal year ended 2018. This was the twentieth consecutive year LASERS has received this award. The Popular Annual Financial Report presents, in a less technical manner, some of the major financial, actuarial, and other interesting information for the reporting year.

In addition, LASERS received the 2018 Public Pension Standards Award. The Public Pension Coordinating Council presents this award to public employee retirement systems in recognition of their achievement of high professional standards in the areas of plan design and administration, benefits, actuarial valuations, financial reporting, investments, and membership communications. This is the fifteenth consecutive year that LASERS has received this prestigious award.

Conclusion

This report is a product of the combined efforts of the System's staff and advisors functioning under your leadership. It is intended to provide extensive and reliable information that will facilitate management decisions, serve as a means for determining compliance with legal provisions, and allow for the evaluation of responsible stewardship of the funds of the System.

We would like to recognize the teamwork and contributions of our experienced and dedicated staff. They continue to keep the best interests of our members as their top priority. As we look toward the future, we will continue to fine-tune our investment strategies to make every investment dollar count and to minimize employer contributions. Also, we will look to develop innovative programs to improve the value of the services provided to all that we serve.

Respectfully submitted,

Cindy Rougeou Executive Director Arthur P. Fillastre, IV CPA Chief Financial Officer

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Certificate of Achievement for Excellence in Financial Reporting 2018



Public Pension Standards Award 2018



Administrative Organization



Top row, left to right:

Tonja Normand, *Public Information Division Director*Arthur P. Fillastre, IV, *Chief Financial Officer*Dan Bowden, *Information Technology Division Director*Robert W. Beale, *Chief Investment Officer*Sheila Metoyer, *Human Resources Division Director*

Bottom row, left to right:

Ryan Babin, Audit Division Director
Maris E. LeBlanc, Chief Operating Officer
Cindy Rougeou, Executive Director
Bernard E. "Trey" Boudreaux, III, Chief Administrative Officer
Tricia Gibbons, Member Services Division Director
Tina Grant, Executive Counsel

Board of Trustees











Top row, left to right:

Shannon Templet, Board Chair, Elected Active Member Janice Lansing, Elected Active Member Lorry Trotter, Elected Retired Member

Bottom row, left to right:

Virginia Burton, Elected Retired Member
Lori Pierce, Elected Active Member
Judge William Kleinpeter, Elected Active Member
Thomas Bickham, Vice Chair, Elected Active Member
Beverly Hodges, Elected Active Member
Barbara McManus, Elected Retired Member

Individual photos, left to right:

Commissioner Jay Dardenne, *Division of Administration*Senator Barrow Peacock, *Chair, Senate Committee on Retirement*Representative Kevin Pearson, *Chair, House Committee on Retirement*Honorable John Schroder, *State Treasurer*

Professional Consultants

June 30, 2019

Actuary

Foster & Foster Actuaries & Consultants, Inc.

Auditor

Postlethwaite & Netterville, APAC

Custodian Banks and Security Agents

BNY Mellon Asset Servicing Empower Retirement JPMorgan Chase

Legal/Tax Consultants

Deloitte & Touche DLA Piper LLP

Laura Denson Holmes Lowenstein Sandler

PricewaterhouseCoopers Private Limited Roedel Parsons Koch Balhoff & McCollister

Tarcza & Associates, LLC

Medical Examiners

Dr. Thad S. Broussard

Dr. Peter Fail

Dr. David Ferachi

Dr. Brian Gremillion

Dr. Charles Kaufman

Dr. Andrew Morson

Dr. Leah Olivier

Dr. Radha Raman

Dr. Dominick J. Scimeca Jr.

Other Consultants

Cavanaugh Macdonald Consulting, LLC

CMA Technology Solutions

Cognizant Technology Solutions US Corp.

Election Services, Co.

Q Software Global, LLC

Sparkhound

Investment Consultant

NEPC, LLC

Investment Advisors

Adams Street Partners, LLC

AEA Investors, LP

Altas Partners Holdings

Apollo Management, LP

AQR Capital Management, LLC

Arclight Capital Partners

Aronson Johnson Ortiz, LP

Baring Private Equity Asia Fund

Bernhard Capital Partners

BlackRock Financial Management Inc.

Bridgewater Associates, LP

Brookfield Asset Management

CCMP Capital Advisors, LP

Cerberus Capital Management, LP

City of London Investment Group PLC

Coller Capital

DoubleLine Capital, LP

DRI Capital Inc.

EIG Global Energy Partners, LLC

Energy Spectrum Partners, LP

EnTrustPermal

Gamut Capital Management

GoldenTree Asset Management

Goldman Sachs Asset Management, LP

Gramercy Advisors, LLC

GTCR, LLC

Harbourvest Partners, LLC

Insight Venture Partners

J.P. Morgan Investment Management Inc.

Kohlberg Kravis Roberts & Co., LP

Loomis, Sayles & Company, LP

LSV Asset Management

Mesirow Financial Private Equity

Mondrian Investments Partners Limited

Introductory Section

Professional Consultants (continued) June 30, 2019

Investment Advisorsⁱ (continued)

Newstone Capital Partners, LLC

Nomura Corporate Research and Asset Management Inc.

Oak Hill Advisors, LP

Oaktree Capital Management, LP

Orleans Capital Management

PAAMCO Prisma, LLC

Pantheon Ventures, LLP

Pacific Investment Management Group, LLC

Private Advisors, LLC

Rice Hall James & Associates, LLC

Siguler Guff & Company, LP

Stark Investments

Stepstone Capital, LP

Sterling Partners, LP

Stone Harbor Investment Partners, LP

The Blackstone Group Inc.

Vista Equity Partners Management, LLC

W.R. Huff Asset Management Co., LLC

Warburg Pincus, LLC

Westwood Global Investments, LLC

Williams Capital Partners, LP

Zais Group

ⁱSchedules of Brokerage Commissions Paid and Investment Fees are located in the "Investment Section" of this report.

FINANCIAL

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A Professional Accounting Corporation

INDEPENDENT AUDITORS' REPORT

To the Board of Trustees Louisiana State Employees' Retirement System Baton Rouge, Louisiana

We have audited the accompanying financial statements of the Louisiana State Employees' Retirement System (LASERS), a component unit of the State of Louisiana, as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Louisiana State Employees' Retirement System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to LASERS' preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of LASERS' internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Louisiana State Employees' Retirement System, at June 30, 2019, and the respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.



Emphasis of Matter

As disclosed in Note F to the financial statements, the financial statements include investments that are not listed on national exchanges or for which quoted market prices are not available. These investments include private markets, absolute returns, risk parity, and investments in real assets. Such investments totaled \$3.3 billion and \$3.1 billion (24.3% and 22.5% of total assets, respectively) at June 30, 2019 and 2018, respectively. Where a publicly listed price is not available, the management of LASERS uses alternative sources of information including audited financial statements, unaudited interim reports, independent appraisals, and similar evidence to determine the fair value of the investments. Our opinion is not modified with respect to this matter.

As disclosed in Note A to the financial statements, the total pension liability for LASERS was \$19.5 billion and \$19.1 billion at June 30, 2019 and 2018, respectively. The actuarial valuations were based on various assumptions made by LASERS' actuary. Because actual experience may differ from the assumptions used in the actuarial valuation, there is a risk that the total pension liability at June 30, 2019 and 2018 could be materially different from the estimate.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and other required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the basic financial statements that collectively comprise the Louisiana State Employees' Retirement System's basic financial statements. The supporting schedules, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supporting schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supporting schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole



The introductory section, investment section, actuarial section and statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

Postlethwate & Nefferville

In accordance with *Government Auditing Standards*, we have also issued our report dated September 24, 2019, on our consideration of the Louisiana State Employees' Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Louisiana State Employees' Retirement System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Louisiana State Employees' Retirement System's internal control over financial reporting and compliance.

Baton Rouge, Louisiana September 24, 2019



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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Board of Trustees Louisiana State Employees' Retirement System Baton Rouge, Louisiana

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Louisiana State Employees' Retirement System (LASERS), a component unit of the State of Louisiana, as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Louisiana State Employees' Retirement System's basic financial statements, and have issued our report thereon dated September 24, 2019.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Louisiana State Employees' Retirement System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Louisiana State Employees' Retirement System's internal control. Accordingly, we do not express an opinion on the effectiveness of the Louisiana State Employees' Retirement System's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of LASERS' financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Louisiana State Employees' Retirement System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Louisiana State Employees' Retirement System's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Louisiana State Employees' Retirement System's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Baton Rouge, Louisiana September 24, 2019

Postlethwate & Nefferville



8401 United Plaza Blvd., Baton Rouge, LA 70809 | **Mail:** P.O. Box 44213, Baton Rouge, LA 70804-4213 Toll-free 1.800.256.3000 | Local 225.922.0600 | www.lasersonline.org

Management's Discussion and Analysis

The following is management's discussion and analysis of the financial performance of the Louisiana State Employees' Retirement System (LASERS or the System). This narrative overview and analysis helps to interpret the key elements of the financial statements, notes to the financial statements, required supplementary information, and supporting schedules for the current year. Readers are encouraged to consider the information presented here in conjunction with additional information provided in the Transmittal Letter of LASERS Comprehensive Annual Financial Report (CAFR).

Financial Highlights

- Net position restricted for pensions decreased by approximately \$1.0 million.
- LASERS had a Net Pension Liability of \$7.2 billion and the Net Pension Liability as a percentage of covered payroll was 371.1% as of June 30, 2019.
- Net investment income experienced a gain of \$452.9 million for 2019 compared to a gain of \$1.0 billion for 2018.
- Total contributions increased by \$48.3 million or 5.5% to \$930 million in 2019.
- Benefit payments increased by \$26.3 million or 2% to \$1.3 billion in 2019.
- Refund and transfer payments of member contributions decreased by \$0.2 million or 1% to \$34.9 million in 2019.

Overview of the Financial Statements

The System's basic financial statements were prepared in conformity with Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans* and include the following: (1) statements of fiduciary net position, (2) statements of changes in fiduciary net position, (3) notes to the financial statements, (4) required supplementary information, and (5) the supporting schedules.

The Statements of Fiduciary Net Position report the System's assets, liabilities, deferred inflows/outflows, and resultant net position restricted for pensions. They disclose the financial position of the System as of June 30, 2019, and 2018, respectively.

The Statements of Changes in Fiduciary Net Position report the results of the System's operations during years 2019 and 2018 disclosing the additions to and deductions from the fiduciary net position. They support the change that has occurred to the prior year's net position on the statement of fiduciary net position.

Notes to the Financial Statements provide additional information that is essential to a full understanding of the financial statements.

- Note A provides a general description of LASERS organization, employer and membership
 participation, net pension liability of employers, actuarial methods and assumptions, eligibility,
 benefits, and the optional retirement plan.
- Note B provides a summary of significant accounting policies and plan position matters including
 the basis of accounting, securities lending, estimates, methods used to value investments, property
 and equipment, and accumulated leave.
- Note C provides information regarding member and employer contribution requirements.
- Note D categorizes LASERS investments by fair value measurements, the level of fair value hierarchy, and valuation techniques established by generally accepted accounting principles. It also discloses information regarding certain investments that calculate net asset value per share and provides a description of related asset classes.
- Note E describes LASERS deposits and investment risk disclosures, which include custodial credit risk, concentration of credit risk, credit risk, interest rate risk, and foreign currency risk.
- Note F describes the System's cash and investments, and includes information regarding bank balances, investments including the investment policy and rate of return, domestic equity, international equity, domestic core fixed income, global fixed income, emerging market debt, global multi-sector fixed income, derivatives, alternative investments, and risk parity.
- Note G provides information regarding the securities lending program.
- Note H provides information on other postemployment benefits (OPEB).

Required Supplementary Information consists of five schedules and related notes concerning changes in net pension liability, employers' net pension liability, employer pension contributions, and the money-weighted rate of investment returns. It also includes a schedule of proportionate share of the collective total OPEB liability. The related notes disclose key actuarial assumptions and methods used in the schedules.

The *Supporting Schedules* section includes the schedules of administrative expenses, investment expenses, board compensation, and professional/consultant fees.

Financial Analysis

LASERS financial position is measured in several ways. One way is to determine the fiduciary net position (difference between total assets plus deferred outflows and total liabilities plus deferred inflows) available to pay benefits. Over time, increases and decreases in the LASERS fiduciary net position indicates whether its financial health is improving or deteriorating. Other factors, such as financial market conditions and the measurement of its net pension liability, should also be taken into consideration when measuring LASERS overall health.

The following table illustrates a condensed version of LASERS Statements of Fiduciary Net Position for fiscal years ending 2019, 2018, and 2017. LASERS fiduciary net position as of June 30, 2019 and 2018, totaled \$12,282,698,991 and \$12,283,713,118, respectively. All of the fiduciary net position is available to meet LASERS ongoing obligations to members, retirees, and beneficiaries.

Condensed Comparative Statements of Fiduciary Net Position

	2019	2018	2017
Cash and Cash Equivalents	\$ 134,308,012	\$ 176,067,072	\$ 197,912,884
Receivables	166,913,609	194,000,480	158,166,249
Investments	12,078,004,681	12,012,945,909	11,491,499,206
Securities Lending Cash Collateral	1,350,818,807	1,545,232,539	1,239,682,923
Capital Assets (at cost) - Net	5,853,457	5,936,548	3,855,740
Total Assets	13,735,898,566	13,934,182,548	13,091,117,002
Deferred Outflows of Resources	533,161	315,536	-
Accounts Payable and Other Liabilities	101,259,571	104,402,293	98,268,951
Securities Lending Obligations	1,350,756,954	1,545,177,985	1,239,572,201
Total Liabilities	1,452,016,525	1,649,580,278	1,337,841,152
Deferred Inflows of Resources	1,716,211	1,204,688	-
Net Position Restricted for Pensions	\$ 12,282,698,991	\$ 12,283,713,118	\$ 11,753,275,850

For the fiscal year ended June 30, 2019, fiduciary net position was approximately \$12.3 billion. This reflected a decrease of \$1,014,127 from the previous fiscal year-end. In 2019, other postemployment benefits deferred outflows increased by 69% to \$533,161 and deferred inflows increased by 43% to \$1,716,211. The deferred outflows and inflows of resources were first presented in 2018 as a result of GASB 75 implementation. In the one-year period from June 30, 2017 to June 30, 2018, LASERS fiduciary net position increased approximately 4.5% or \$530,437,268. The increases in fiduciary net position for the years presented can be attributed to gains in the financial markets during those periods.

LASERS maintains its commitment to a broadly diversified portfolio. Carefully underwritten and conservative assumptions for future expected returns have been adopted, and the investment portfolio is structured to optimize the risk-return trade-off. This is done in part by reviewing the Plan's asset allocation. LASERS continues to believe that it is well positioned to meet its long-term goals.

Condensed Comparative Statements of Changes in Fiduciary Net Position

	2019	2018	2017
Additions			
Employer Contributions	\$ 769,629,768	\$ 729,479,704	\$ 675,584,000
Employee Contributions	160,338,556	152,189,709	149,931,242
Net Investment Income	452,914,317	1,011,537,508	1,520,600,699
Other Income	13,052,134	15,198,732	14,049,005
Total Additions	1,395,934,775	1,908,405,653	2,360,164,946
Deductions			
Retirement Benefits	1,343,892,705	1,317,635,325	1,274,461,022
Refunds and Transfers of Contributions	34,948,707	35,191,508	37,606,040
Administrative Expenses	16,785,776	14,732,258	17,074,984
Other Postemployment Benefits Expenses	538,097	9,525,495	904,975
Depreciation and Amortization Expenses	783,617	883,799	556,901
Total Deductions	1,396,948,902	1,377,968,385	1,330,603,922
Net Increase (Decrease) in Net Position	(1,014,127)	530,437,268	1,029,561,024
Net Position Restricted for Pensions			
Beginning of Year	12,283,713,118	11,753,275,850	10,723,714,826
End of Year	\$ 12,282,698,991	\$ 12,283,713,118	\$ 11,753,275,850

Additions to Fiduciary Net Position

The revenues needed to finance retirement benefits are accumulated primarily through the collection of employer and employee contributions and earnings on investments. Revenue for the fiscal year ended June 30, 2019 totaled \$1,395,934,775. The revenue consisted of employer and employee contributions totaling \$929,968,324, a net investment gain of \$452,914,317 and other income of \$13,052,134. In 2019, our investment portfolio completed the fiscal year with a rate of return on investment assets of 4.4%. The plan earned an annualized return of 9.8% for the three-year period, 5.6% for the five-year period, 8.4% for the seven-year period, and 9.8% for the ten-year period. LASERS compares itself against other public pension plans with market values greater than \$1 billion in the Wilshire Trust Universe Comparison Service (TUCS), with a focus on long-term results. In the longer-term ten-year period, LASERS ranking is at the median. The three-year ranking places LASERS in the top third of other similar sized public pension plans.¹ LASERS experienced a total net investment income of \$452,914,317 in 2019 compared to \$1,011,537,508 in 2018, and \$1,520,600,699 in 2017.

During 2019, combined employer and employee contribution income increased from 2018 by \$48,298,911. Employer contributions based on covered payroll increased \$40,150,064 or 5.5%, and member contributions increased \$8,148,847, or 5.4%. The increase in employer contributions was primarily a result of an increase in covered payroll and an increase in income from legislative acts.

At June 30, 2018, total revenues decreased by 19.1% or \$451,759,293 over fiscal year 2017. The decreased revenue was due primarily to net investment income decreasing 33.5% from 2017. Combined

¹ Wilshire TUCS rankings were as of August 22, 2019.

contributions increased 6.8% and other income increased 8.2%. Our investment portfolio completed the fiscal year with a positive rate of return on investment assets of 9.5%.

Deductions from Plan Assets

LASERS was created to provide lifetime retirement, survivor, and disability benefits to qualified LASERS members. The cost of such programs includes recurring benefit payments, refund of contributions to employees who left the System, and the cost of administering LASERS.

Deductions for the fiscal year ended June 30, 2019, totaled \$1,396,948,902, an increase of approximately 1.4% over June 30, 2018. For the fiscal year ended June 30, 2018, deductions were \$1,377,968,385, an increase of about 3.6% over June 30, 2017. The increase in deductions for fiscal years ended 2019 and 2018 is primarily a result of an increase in benefits. Benefits paid in 2019, 2018, and 2017 increased because of the increase in the number of retirees and the average benefit resulting from the higher average salary history of the newer retirees.

Administrative expenses increased by \$2,053,518 or 13.9% for the fiscal year ended June 30, 2019. In 2018, administrative expenses decreased by \$2,342,726 or 13.7% over fiscal year ended 2017. The differences between the years are primarily attributable to the completion of two phases of LASERS new enterprise content management system which were capitalized. Details of administrative expense activity can be found in the *Schedules of Administrative Expenses* located under Supporting Schedules.

Other Postemployment Benefit (OPEB) expenses decreased \$8,987,398 or 94.4% for the fiscal year ended June 30, 2019 compared to June 30, 2018. The differences in 2019 and 2018 are attributable to an \$8,808,697 adjustment to increase OPEB liability in 2018, resulting from the initial implementation of GASB 75. In 2018, OPEB expenses increased \$8,620,520 over fiscal year ended 2017.

Depreciation and amortization expense decreased 11.3% for the fiscal year ended June 30, 2019, compared to a 58.7% increase for 2018 over 2017. The decrease in 2019 can be credited to a decrease in depreciable assets due to disposals. The increase in 2018 compared to 2017 can be attributed to an increase in depreciable assets resulting from the upgrade of LASERS enterprise content management system.

Total additions less total deductions resulted in a net decrease in fiduciary net position of \$1,014,127 in 2019, compared to an increase of \$530,437,268 in 2018.

Requests for Information

This Financial Report is designed to provide a general overview of the System's finances. For questions concerning any information in this report or for additional information, contact the Louisiana State Employees' Retirement System; Attention: Fiscal Division, P. O. Box 44213, Baton Rouge, LA 70804-4213.

Louisiana State Employees' Retirement System Statements of Fiduciary Net Position June 30, 2019 and 2018

	2019	2018
Assets		
Cash and Cash Equivalents	\$ 134,308,012	\$ 176,067,072
Receivables:		
Employer Contributions	55,153,826	54,460,502
Member Contributions	12,144,584	11,906,297
Interest and Dividends	48,991,646	41,560,737
Investment Proceeds	46,659,662	82,140,847
Other	3,963,891	3,932,097
Total Receivables	 166,913,609	194,000,480
Investments:	 _	_
Investments at Fair Value		
Short-Term Investments - Domestic/International	128,453,941	122,387,383
Bonds/Fixed Income - Domestic	844,311,068	934,532,055
Bonds/Fixed Income - International	917,116,972	501,059,453
Equity Securities - Domestic	2,567,937,341	2,909,424,470
Equity Securities - International	3,772,924,328	3,903,379,731
Risk Parity	834,882,508	784,834,388
Alternative Investments	2,498,427,982	2,347,575,870
Total Investments at Fair Value	 11,564,054,140	11,503,193,350
Investments at Contract Value		
Synthetic Guaranteed Investment Contract	513,950,541	509,752,559
Total Investments at Contract Value	 513,950,541	509,752,559
Total Investments	12,078,004,681	12,012,945,909
Securities Lending Cash Collateral	 1,350,818,807	1,545,232,539
Capital Assets (at cost) - Net:		
Property and Equipment	 5,853,457	5,936,548
Total Assets	13,735,898,566	13,934,182,548
Deferred Outflows of Resources (OPEB)	 533,161	315,536
Liabilities		
Payables:		
Investment Commitments	63,378,713	72,120,257
Trade Payables and Other Accrued Liabilities	37,880,858	32,282,036
Total Payables	101,259,571	104,402,293
Securities Lending Obligations	 1,350,756,954	1,545,177,985
Total Liabilities	 1,452,016,525	1,649,580,278
Deferred Inflows of Resources (OPEB)	 1,716,211	1,204,688
Net Position Restricted for Pensions	\$ 12,282,698,991	\$ 12,283,713,118

The accompanying notes are an integral part of these statements.

Louisiana State Employees' Retirement System

Statements of Changes in Fiduciary Net Position For the Periods Ended June 30, 2019 and 2018

	2019		2018
Additions			
Contributions:			
Employer Contributions	\$ 760,150,449	\$	725,802,871
Employee Contributions	160,338,556		152,189,709
Legislative Acts Income	9,479,319		3,676,833
Total Contributions	929,968,324		881,669,413
Investment Income:			
From Investment Activities			
Net Appreciation in Fair Value of Investments	67,709,549		533,510,267
Interest & Dividends	249,084,234		231,483,618
Alternative Investment Income	218,184,711		314,426,322
Miscellaneous Investment Income	1,277,871		3,650,263
Total Investment Income	536,256,365		1,083,070,470
Investment Activity Expenses			
Alternative Investment Expenses	(50,664,858)		(41,693,964)
Investment Management Expenses	(38,080,726)		(35,750,349)
Total Investment Expenses	(88,745,584)		(77,444,313)
Net Income from Investing Activities	447,510,781	-	1,005,626,157
From Securities Lending Activities			
Securities Lending Income	29,756,416		20,410,751
Securities Lending Expenses	(24,352,880)		(14,499,400)
Net Income from Securities Lending Activities	5,403,536		5,911,351
Total Net Investment Income	452,914,317	-	1,011,537,508
Other Operating Income	13,052,134		15,198,732
Total Additions	 1,395,934,775		1,908,405,653
Deductions	 _		
Retirement Benefits	1,343,892,705		1,317,635,325
Refunds and Transfers of Member Contributions	34,948,707		35,191,508
Administrative Expenses	16,785,776		14,732,258
Other Postemployment Benefits Expenses	538,097		9,525,495
Depreciation and Amortization Expenses	 783,617		883,799
Total Deductions	1,396,948,902		1,377,968,385
Net Increase (Decrease) in Net Position	(1,014,127)		530,437,268
Net Position Restricted for Pensions			
Beginning of Period	 12,283,713,118		11,753,275,850
End of Period	\$ 12,282,698,991	\$	12,283,713,118

The accompanying notes are an integral part of these statements.

Notes to Financial Statements

A. Plan Description

1. General Organization

The Louisiana State Employees' Retirement System (LASERS or the System) is the administrator of a cost-sharing multi-employer defined benefit pension plan, and is a component unit of the State of Louisiana included in the State's Comprehensive Annual Financial Report (CAFR) as a pension trust fund. The System was established by Section 401 of Title 11 of the Louisiana Revised Statutes (La. R.S. 11:401).

In accordance with Louisiana Revised Statutes, the System is subject to certain elements of oversight:

- The House and Senate Committees on Retirement review administration, benefits, investments, and funding of the public retirement systems.
- The operating budget of the System is subject to budgetary review and approval by the Joint Legislative Committee on the Budget.
- The Legislative Auditor is responsible for the procurement of audits for the public retirement systems, and is authorized to contract with a licensed Certified Public Accountant (CPA) for each audit.
- Actuarial calculations and results are reviewed by the Public Retirement Systems' Actuarial Committee (PRSAC) annually.
- A thirteen-member Board of Trustees, comprised of six active members, three retired members and four ex-officio members, governs the System. The Board administers the programs and appoints key management personnel including the Executive Director, Chief Operating Officer, Chief Administrative Officer, and the Chief Investment Officer.

2. Plan Membership

The System is one of several public retirement systems in Louisiana. Each system has specific membership requirements established by legislation, with LASERS established for state officers, employees, and their beneficiaries. Other public employers report members who retained membership in LASERS upon transfer to other public systems or as provided by specific legislation. A summary of government employers and members participating in LASERS at June 30, 2019, and 2018, are as follows:

	20	19	20	18
	Active Active		Active	Active
Type of Employer	Employers	Members	Employers	Members
State Agencies	205	39,203	205	38,986
Other Public Employers	143	330	141	307
Total	348	39,533	346	39,293

	2019	2018
	Member	Member
Type of Active Members	Count	Count
Active After DROP	1,667	1,649
Alcohol and Tobacco Control	10	11
Appellate Law Clerks	108	118
Bridge Police	3	5
Corrections	1,531	1,688
Harbor Police	22	23
Hazardous Duty	3,006	2,823
Judges	302	304
Legislators	7	7
Peace Officers	40	49
Regular State Employees	32,699	32,469
Wildlife Agents	138	147
Total Active Members	39,533	39,293

At June 30, 2019, and 2018, membership consisted of:

	2019	2018
Active Members	39,533	39,293
Regular Retirees*	41,117	40,832
Disability Retirees*	2,175	2,234
Survivors	5,977	5,940
Vested & Reciprocals	3,744	3,720
Inactive Members Due Refunds	55,280	54,370
DROP Participants	1,354	1,398
Total Membership	149,180	147,787

^{*}For actuarial purposes, "Disability Retirees" includes members who have reached normal retirement eligibility requirements and converted to Regular Retirement; and are therefore, counted by LASERS as "Regular Retirees."

3. Net Pension Liability of Employers

The net pension liability was measured as the portion of the present value of projected benefit payments to be provided through the pension plan to current active and inactive employees that is attributed to those employees' past periods of service, less the amount of the pension plan's fiduciary net position.

The components of the net pension liability of the System's employers determined in accordance with GASB 67 as of June 30, 2019 and 2018 were as follows:

	2019	 2018
Total Pension Liability	\$ 19,527,612,295	\$ 19,103,640,164
Plan Fiduciary Net Position	12,282,698,991	12,283,713,118
Employers' Net Pension Liability	\$ 7,244,913,304	\$ 6,819,927,046
Plan Fiduciary Net Position as a		
Percentage of Total Pension Liability	62.9%	64.3%

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Examples include assumptions about future employment, mortality, and future salary increases. Actuarially determined amounts regarding the net pension liability are subject to continual revision as actual results are compared to past expectations, and new estimates are made about the future. The last experience study was performed in 2019 and was based on the experience of the System for the period of July 1, 2013 through June 30, 2018. The required Schedules of Employers' Net Pension Liability located in Required Supplementary Information following the *Notes to the Financial Statements* presents multi-year trend information regarding whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. The Total Pension Liability as of June 30, 2019 and 2018 is based on actuarial valuations for the same periods, updated using generally accepted actuarial procedures.

4. Actuarial Methods and Assumptions

A summary of the actuarial methods and assumptions used as of the June 30, 2019 and 2018, actuarial valuations are as follows:

Valuation DateJune 30, 2019 and 2018Actuarial Cost MethodEntry Age Normal

Actuarial Assumptions:

Expected Remaining Service Lives2 and 3 years for 2019 and 2018, respectively.

Investment Rate of Return 7.60% and 7.65% per annum for 2019 and 2018, respectively.

Inflation Rate 2.5% and 2.75% per annum for 2019 and 2018, respectively.

Mortality

Non-disabled members - Mortality rates for 2019 were based on the RP-2014 Healthy Mortality Table with mortality improvement projected using the MP-2018 Mortality Improvement Scale, applied on a fully generational basis. 2018 mortality rates were

Mortality (continued)

based on the RP-2000 Combined Healthy Mortality Table with mortality improvement projected through 2015 using scale AA.

Disabled members – Mortality rates based on the RP-2000 Disabled Retiree Mortality Table with no projection for mortality improvement.

Termination, Disability, and Retirement

Termination, disability, and retirement assumptions were projected based on a five-year (2014-2018) experience study of the System's members for 2019. 2018 was projected based on a five-year (2009-2013) experience study of the System's members.

Salary Increases

Salary increases were projected based on 2014-2018 and 2009-2013 experience studies of the System's members for 2019 and 2018, respectively. The salary increase ranges for 2019 specific types of members were:

	Lower	Upper
Member Type	Range	Range
Regular	3.2%	13.0%
Judges	2.8%	5.3%
Corrections	3.8%	14.0%
Hazardous Duty	3.8%	14.0%
Wildlife	3.8%	14.0%

The salary increase ranges for 2018 specific types of members were:

	Lower	Upper
Member Type	Range	Range
Regular	3.8%	12.8%
Judges	2.8%	5.3%
Corrections	3.4%	14.3%
Hazardous Duty	3.4%	14.3%
Wildlife	3.4%	14.3%

Cost of Living Adjustments

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 projected benefit payments do not include provisions for potential future increases not yet authorized by the Board of Trustees as they were deemed not to be substantively automatic.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and an adjustment for the effect of rebalancing/diversification. The expected rate of inflation was

2.75% and 3.25% for 2019 and 2018, respectively. The resulting expected long-term rates of return are 9.00% for 2019 and 8.83% for 2018. Best estimates of geometric real rates of return for each major asset class included in the System's target asset allocation as of June 30, 2019 and 2018 are summarized in the following table:

Expected Long Term Real Rates of Return

Asset Class	2019	2018
Cash	0.24%	-0.48%
Domestic Equity	4.83%	4.31%
International Equity	5.83%	5.26%
Domestic Fixed Income	2.79%	1.49%
International Fixed Income	4.49%	2.23%
Alternative Investments	8.32%	7.67%
Risk Parity	5.06%	4.96%
Total Fund	6.09%	5.40%

The discount rate used to measure the total pension liability was 7.60% and 7.65% for June 30, 2019 and 2018, respectively. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rates and that contributions from participating employers will be made at the actuarially determined rates approved by PRSAC, taking into consideration the recommendation of the System's actuary. Based on those assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

In accordance with GASB 67, regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the following presents the net pension liability of the participating employers calculated using the discount rate of 7.60% and 7.65% for June 30, 2019 and 2018, respectively, as well as what the employers' net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate.

Changes in Discount Rate

		Current	
	1% Decrease	Discount Rate	1% Increase
2018 Discount Rate	6.65%	7.65%	8.65%
2018 Employer Net Pension Liability	\$ 8,607,201,053	\$ 6,819,927,046	\$ 5,280,643,888
2019 Discount Rate	6.60%	7.60%	8.60%
2019 Employer Net Pension Liability	\$ 9,144,004,495	\$ 7,244,913,304	\$ 5,640,818,554

5. Eligibility Requirements

All state employees, except those specifically excluded by statute, become members of the System's Defined Benefit Plan (DBP) as a condition of employment, unless they elect to continue as a contributing member in any other retirement system for which they remain eligible for membership. Certain elected officials and officials appointed by the Governor may, at their option, become

members of LASERS. Also, qualifying unclassified state employees may have made an irrevocable election to participate in the Optional Retirement Plan (ORP) between July 12, 1999 and December 7, 2007, when the plan closed. All plans are considered one pension plan for financial reporting purposes. All assets accumulated for the payment of benefits may legally be used to pay benefits to any plan members or beneficiaries.

6. Retirement

The age and years of creditable service required in order for a member to retire with full benefits are established by statute, and vary depending on the member's hire date, employer, and job classification. Our rank and file members hired prior to July 1, 2006, may either retire with full benefits at any age upon completing 30 years of creditable service, at age 55 upon completing 25 years of creditable service, and at age 60 upon completing ten years of creditable service depending on their plan. Those members hired between July 1, 2006 and June 30, 2015, may retire at age 60 upon completing five years of creditable service and those hired on or after July 1, 2015 may retire at age 62 upon completing five years of creditable service. The basic annual retirement benefit for members is equal to 2.5% to 3.5% of average compensation multiplied by the number of years of creditable service. Additionally, members may choose to retire with 20 years of service at any age, with an actuarially reduced benefit.

Average compensation is defined as the member's average annual earned compensation for the highest 36 consecutive months of employment for members employed prior to July 1, 2006. For members hired July 1, 2006 or later, average compensation is based on the member's average annual earned compensation for the highest 60 consecutive months of employment. The maximum annual retirement benefit cannot exceed the lesser of 100% of average compensation or a certain specified dollar amount of actuarially determined monetary limits, which vary depending upon the member's age at retirement. Judges, court officers, and certain elected officials receive an additional annual retirement benefit equal to 1.0% of average compensation multiplied by the number of years of creditable service in their respective capacity. As an alternative to the basic retirement benefits, a member may elect to receive their retirement throughout their life, with certain benefits being paid to their designated beneficiary after their death.

Act 992 of the 2010 Louisiana Regular Legislative Session changed the benefit structure for LASERS members hired on or after January 1, 2011. This resulted in three new plans: regular, hazardous duty, and judges. The new regular plan includes regular members and those members who were formerly eligible to participate in specialty plans, excluding hazardous duty and judges. Regular members and judges are eligible to retire at age 60 after five years of creditable service and may also retire at any age with a reduced benefit after 20 years of creditable service. Hazardous duty members are eligible to retire with 12 years of creditable service at age 55, 25 years of creditable service at any age, or with a reduced benefit after 20 years of creditable service. Average compensation will be based on the member's average annual earned compensation for the highest 60 consecutive months of employment for all three new plans. Members in the regular plan will receive a 2.5% accrual rate, hazardous duty plan a 3.33% accrual rate, and judges a 3.5% accrual rate. The extra 1.0% accrual rate for each year of service for court officers, the governor, lieutenant governor, legislators, House clerk, sergeants at arms, or Senate secretary, employed after January 1, 2011, was eliminated by Act 992. Specialty plan and regular members, hired prior to January 1, 2011, who are hazardous duty employees have the option to transition to the new hazardous duty plan.

Act 226 of the 2014 Louisiana Regular Legislative Session established new retirement eligibility for members of LASERS hired on or after July 1, 2015, excluding hazardous duty plan members. Regular members and judges under the new plan are eligible to retire at age 62 after five years of creditable service and may also retire at any age with a reduced benefit after 20 years of creditable service. Average compensation will be based on the member's average annual earned compensation for the highest 60 consecutive months of employment. Members in the regular plan will receive a 2.5% accrual rate; and judges a 3.5% accrual rate, with the extra 1.0% accrual rate based on all years of service as a judge.

Members of the Harbor Police Retirement System who were members prior to July 1, 2014, may retire after 25 years of creditable service at any age, 12 years of creditable service at age 55, 20 years of creditable service at age 45, and 10 years of creditable service at age 60. Average compensation for the plan is the member's average annual earned compensation for the highest 36 consecutive months of employment with a 3.33% accrual rate.

A member leaving employment before attaining minimum retirement age, but after completing certain minimum service requirements, becomes eligible for a benefit provided the member lives to the minimum service retirement age, and does not withdraw their accumulated contributions. The minimum service requirement for benefits varies depending upon the member's employer and service classification.

7. Deferred Benefits

The State Legislature authorized LASERS to establish a Deferred Retirement Option Plan (DROP). When a member enters DROP, their status changes from active member to retiree even though they continue to work and draw their salary for a period of up to three years. The election is irrevocable once participation begins. During DROP participation, accumulated retirement benefits that would have been paid to each retiree are separately tracked. For members who entered DROP prior to January 1, 2004, interest at a rate of one-half percent less than the System's realized actuarial return on its portfolio (not to be less than zero) will be credited to the retiree after participation ends. At that time, the member must choose among available alternatives for the distribution of benefits that have accumulated in the DROP account. Members who enter DROP on or after January 1, 2004, are required to participate in LASERS Self-Directed Plan (SDP) which is administered by a third-party provider. The SDP allows DROP participants to choose from a menu of investment options for the allocation of their DROP balances. Participants may diversify their investments by choosing from an approved list of mutual funds with different holdings, management styles, and risk factors.

Members eligible to retire and who do not choose to participate in DROP may elect to receive at the time of retirement an initial benefit option (IBO) in an amount up to 36 months of benefits with an actuarial reduction of their future benefits. For members who selected the IBO option prior to January 1, 2004, such amount may be withdrawn or remain in the IBO account earning interest at a rate of one-half percent less than the System's realized return on its portfolio (not to be less than zero). Those members who select the IBO on or after January 1, 2004, are required to enter the SDP as described above.

For members who are in the Harbor Police Plan, the annual DROP Interest Rate is the three year average (calculated as the compound average of 36 months) investment return of the plan assets for the period ending the June 30 immediately preceding that given date. The average rate so

determined is to be reduced by a "contingency" adjustment of 0.5%, but not to below zero. DROP interest is forfeited if the member does not cease employment after DROP participation.

The DROP/IBO Reserve consists of the reserves for all members who select the DROP or IBO upon retirement. The balance in the DROP/IBO Reserve as of June 30, 2019 and 2018 was \$1,091,758,883 and \$1,086,044,790 respectively.

8. Disability Benefits

Generally, active members with ten or more years of credited service who become disabled may receive a maximum disability retirement benefit equivalent to the regular retirement formula without reduction by reason of age.

Upon reaching retirement age, the disability retiree may receive a regular retirement benefit by making application to the Board of Trustees.

For injuries sustained in the line of duty, hazardous duty personnel in the Hazardous Duty Services Plan will receive a disability benefit equal to 75% of final average compensation or 100% of final average compensation if the injury was the result of an intentional act of violence.

Members of the Harbor Police Retirement System who become disabled may receive a non-line of duty disability benefit after five years or more of credited service. Members age 55 or older may receive a disability benefit equivalent to the regular retirement benefit. Under age 55, the disability benefit is equal to 40% of final average compensation. Line of duty disability benefits are equal to 60% of final average compensation, regardless of years of credited service or 100% of final average compensation if the injury was the result of an intentional act of violence. If the disability benefit retiree is permanently confined to a wheelchair, or, is an amputee incapable of serving as a law enforcement officer, or is permanently and legally blind, there is no reduction to the benefit if the retiree becomes gainfully employed.

9. Survivor's Benefits

Certain eligible surviving dependents receive benefits based on the deceased member's compensation and their relationship to the deceased. The deceased regular member hired before January 1, 2011 who was in state service at the time of death must have a minimum of five years of service credit, at least two of which were earned immediately prior to death, or who had a minimum of twenty years of service credit regardless of when earned in order for a benefit to be paid to a minor or handicapped child. Benefits are payable to an unmarried child until age 18, or age 23 if the child remains a full-time student. The aforementioned minimum service credit requirement is ten years for a surviving spouse with no minor children, and benefits are to be paid for life to the spouse or qualified handicapped child.

The deceased regular member hired on or after January 1, 2011, must have a minimum of five years of service credit regardless of when earned in order for a benefit to be paid to a minor child. The aforementioned minimum service credit requirements for a surviving spouse are 10 years, 2 years being earned immediately prior to death, and in active state service at the time of death, or a minimum of 20 years of service credit regardless of when earned. A deceased member's spouse must have been married for at least one year before death.

A Hazardous Duty Services Plan member's surviving spouse and minor or handicapped or mentally incapacitated child or children are entitled to survivor benefits of 80% of the member's final average

compensation if the member was killed in the line of duty. If the member dies in the line of duty as a result of an intentional act of violence, survivor benefits may be increased to 100% of the member's final average compensation.

Non-line of duty survivor benefits of the Harbor Police Retirement System may be received after a minimum of five years of credited service. Survivor benefits paid to a surviving spouse without children are equal to 40% of final average compensation, and cease upon remarriage. Surviving spouse with children under 18 benefits are equal to 60% of final average compensation, and cease upon remarriage, or children turning 18. No minimum service credit is required for line of duty survivor benefits which are equal to 60% of final average compensation to surviving spouse or 100% of final average compensation if the injury was the result of an intentional act of violence regardless of children. Line of duty survivor benefits cease upon remarriage, and then benefit is paid to children under 18.

10. Permanent Benefit Increases/Cost-of-Living Adjustments

As fully described in Title 11 of the Louisiana Revised Statutes, the System allows for the payment of permanent benefit increases, also known as cost-of-living adjustments (COLAs), that are funded through investment earnings when recommended by the Board of Trustees and approved by the State Legislature.

The Experience Account Reserve is used to fund permanent benefit increases for retirees. The benefit increase granted must be funded at 100% of the actuarial cost. The account accumulates 50% of the excess investment gain relative to the actuarial valuation rate of 7.60% after such excess return exceeds \$100,000,000 (indexed to positive changes in the actuarial value of assets beginning June 30, 2015).

If the System is at least 80% funded, the balance of the Experience Account maintains a reserve for two permanent benefit increases. However, if the System is less than 80% funded, the reserve is restricted to one permanent benefit increase, based on the current allowable percentage granted for the permanent benefit increase. Excess investment gains that would have otherwise gone to the Experience Account, if not for the restrictions, will be applied to the System's net pension liability. Beginning June 30, 2016, allocations to the Experience Account will be amortized over ten years. At June 30, 2019 and 2018, the balance of the Experience Account Reserve was \$11,824,506 and \$11,241,902, respectively.

11. Optional Retirement Plan

In 1999, an Optional Retirement Plan (ORP) was established as a defined contribution component of LASERS for certain unclassified employees who otherwise would have been eligible to become members of the defined benefit plan. The ORP provides portability of assets and full and immediate vesting of all contributions submitted on behalf of members. The ORP is administered by a third-party provider with oversight from LASERS Board of Trustees. Monthly employer and employee contributions are invested as directed by the member to provide the member with future retirement benefits. The amount of these benefits is entirely dependent upon the total contributions and investment returns accumulated during the member's working lifetime. ORP balances are held by the provider in each participant's name. These balances are included in LASERS total investments on the Statements of Fiduciary Net Position. The ORP was closed to new members on December 7, 2007. However, members in the ORP as of December 31, 2007 were granted the option by Act 718 of

the 2012 Louisiana Regular Legislative Session to regain membership in the defined benefit plan. At June 30, 2019, and 2018, membership consisted of:

	2019	2018
Number of Members	48	52
Employee Contributions	\$ 82,173	\$ 87,642
Employer Contributions	\$ 407,439	\$ 431,055

The ORP Reserve consists of reserves for all members who elected to participate in the ORP, and is credited with contributions made by the employee and the normal employer matching contributions for services rendered. When a member terminates his service, or upon his death before qualifying for a benefit, the refund of his contributions is made from this reserve. Also, when a member retires, his benefits are paid from this reserve. The balance of the ORP Reserve as of June 30, 2019 and 2018 was \$5,500,164 and \$5,431,140, respectively.

B. Summary of Significant Accounting Policies

1. Basis of Accounting

LASERS financial statements are prepared in conformity with accounting principles generally accepted in the United States of America using the accrual basis of accounting. Revenues are recognized in the accounting period in which they are earned, and expenses are recognized in the period incurred. Investment purchases and sales are recorded as of the trade date. State General Fund appropriations are recognized in the period when they are appropriated. Employer and member contributions are recognized when due, pursuant to formal commitments, as well as statutory or contractual requirements. Administrative expenses are funded through contributions to the plan from members, the State of Louisiana, and cumulative investment earnings, and are subject to budgetary control of the Board of Trustees and the Joint Legislative Committee on the Budget. Benefits and refunds are recognized when due and payable in accordance with the terms of the System.

2. Securities Lending

The System records collateral received under its securities lending agreement where the System has the ability to spend, pledge, or sell the collateral without borrower default. Liabilities resulting from these transactions are also reported. The security lending cash collateral pools are reported at the fair value of the underlying securities. Security lending income and expenses are reported as investment income and expenses in the accompanying financial statements. The Statements of Fiduciary Net Position do not include detailed holdings of securities lending collateral by investment classification.

3. Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of additions to and deductions from fiduciary net position during the reporting period. Actuarial valuations are used to determine the net

pension liability and the total OPEB liability. Actual results could differ from those estimates. The retirement system utilizes various investment instruments, which by nature, are exposed to a variety of risk levels and risk types, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term, and those changes could materially affect the amounts reported in the Statements of Fiduciary Net Position.

4. Method Used to Value Investments

As required by GASB 72, investments are reported at fair value. Fair value is described as an exit price. This statement requires a government to use valuation techniques that are appropriate under the circumstances and for which sufficient data are available to measure fair value. Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs. This statement establishes a hierarchy of inputs to valuation techniques used to measure fair value. That hierarchy has three levels. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs, other than quoted prices, are included within Level 1 and are observable for the asset or liability, whether directly or indirectly. Finally, Level 3 inputs are unobservable inputs, such as management's assumption of the default rate among underlying mortgages of a mortgage-backed security. This statement requires disclosures to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques. These disclosures are organized by type of asset or liability. GASB 72 also requires additional disclosures regarding investments in certain entities that calculate net asset value per share (or its equivalent). These disclosures are located in *Note D Fair Value Disclosures*.

Short-term investments are reported at market value when published prices are available, or at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at the current exchange rate. All derivative financial instruments are reported at fair value in the Statements of Fiduciary Net Position with valuation changes recognized in income. Gains and losses are reported in the Statements of Changes in Fiduciary Net Position as net appreciation (depreciation) in fair value of investments during the period the instruments are held, and when the instruments are sold or expire. The nature and use of derivative instruments is discussed in Note F. Cash and Investments (10). The fair value of investments that are organized as limited partnerships and have no readily ascertainable fair value (such as private markets, real estate, and tangible assets) has been recorded based on the investment's capital account balance which is reported at fair value, at the closest available reporting period, adjusted for subsequent contributions, distributions, and management fees. Because of the inherent uncertainties in estimating fair values, it is at least reasonably possible that the estimates will change in the near term. Investments that do not have an established market are reported at estimated fair value. Unrealized gains and losses are included as investment earnings in the Statements of Changes in Fiduciary Net Position. Synthetic Guaranteed Investment Contracts are carried at contract value as required by GASB 53.

5. Accumulated Leave

The employees of the System accumulate unlimited amounts of annual and sick leave at varying rates as established by state regulations. Upon resignation or retirement, unused annual leave of up to 300 hours is paid to an employee at the employee's current rate of pay. Upon retirement, unused annual leave in excess of 300 hours and sick leave are credited at the current pay rate as earned service in computing retirement benefits. The liability for accrued annual leave of up to 300 hours is included in other liabilities in the Statements of Fiduciary Net Position.

6. Postemployment Benefits Other Than Pensions (OPEB)

For purposes of measuring the total OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB and OPEB expense, information about the fiduciary net position of the State of Louisiana Postretirement Benefits Plan (Plan), and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, the Plan recognizes benefit payments when due and payable in accordance with the benefit terms. The Plan is funded on a pay-as-you-go basis and as such, there are no investments held by the Plan.

7. Property and Equipment

Property and equipment and computer software are reported at historical cost. Depreciation is computed using the straight-line method based upon useful lives of 40 years for building, three to 15 years for equipment and furniture, and seven years for computer software. The capitalization thresholds of property and equipment are:

- Computer Software Developed or Modified Internally (reported as Intangible Assets): \$1,000,000
- Movable Property and Equipment: \$5,000

LASERS is a 50% co-owner of the Louisiana Retirement Systems Building and related land with the Teachers' Retirement System of Louisiana. LASERS interest in the building, land, furniture, equipment, vehicles, and intangibles is reflected in the following schedules.

Changes in Property and Equipment

For Period Ending June 30, 2019

						eletions/		
	June 30, 2018			dditions	T	ransfers	June 30, 2019	
Asset Class (at Cost)								
Land	\$	858,390	\$	-	\$	-	\$	858,390
Building		6,422,113		428,219		(50,818)		6,799,514
Furniture, Equipment, and Vehicles		2,812,904		348,027		(120,654)		3,040,277
Intangibles		13,376,839		-		-		13,376,839
Total Property and Equipment	23,470,246		776,246		(171,472)			24,075,020
Accumulated Depreciation								
Building		(4,519,096)		(272,176)		50,818		(4,740,454)
Furniture, Equipment, and Vehicles		(2,128,100)		(231,399)		120,654		(2,238,845)
Intangibles		(10,886,502)		(355,762)		-		(11,242,264)
Total Accumulated Depreciation		(17,533,698)		(859,337)		171,472		(18,221,563)
Total Property and Equipment - Net	\$	5,936,548	\$	(83,091)	\$	-	\$	5,853,457

Changes in Property and Equipment

For Period Ending June 30, 2018

30, 2018
858,390
,422,113
,812,904
,376,839
,470,246
,519,096)
,128,100)
,886,502)
,533,698)
,936,548

8. Reclassifications

Certain prior year amounts have been reclassified to conform to current year presentation. These reclassifications had no effect on Net Position Restricted for Pensions, or the Net Change in Fiduciary Net Position.

C. Contributions

1. Member Contributions

Member contribution rates for the System are established by La. R.S. 11:62. Member contributions are deducted from a member's salary and remitted to the System by participating employers. If a member leaves covered employment or dies before any benefits become payable on their behalf, the accumulated contributions may be refunded to the member or their designated beneficiary. Similarly, accumulated contributions in excess of any benefits paid to members or their survivors are refunded to the member's beneficiaries or their estates upon cessation of any survivor's benefits.

2. Employer Contributions

The employer contribution rate is established annually under La. R.S. 11:101-11:104 by the Public Retirement Systems' Actuarial Committee (PRSAC), taking into consideration the recommendation of the System's Actuary. Each plan pays a separate actuarially determined employer contribution rate. However, all assets of LASERS are used for the payment of benefits for all classes of members, regardless of their plan membership.

The member and employer rates in effect during the years ended June 30, 2019, and 2018, for the various plans are as follows:

		2019	2018	
	Plan	Employer	Employer	Employee
Plan	Status	Rate	Rate	Rate
Appellate Law Clerks	Closed	37.90%	37.90%	7.50%
Appellate Law Clerks hired on or after 7/1/06	Closed	37.90%	37.90%	8.00%
Alcohol Tobacco Control	Closed	31.40%	32.70%	9.00%
Bridge Police	Closed	36.70%	36.50%	8.50%
Bridge Police hired on or after 7/1/06	Closed	36.70%	36.50%	8.50%
Corrections Primary	Closed	33.50%	33.20%	9.00%
Corrections Secondary	Closed	37.70%	37.60%	9.00%
Harbor Police	Closed	7.10%	6.10%	9.00%
Hazardous Duty	Open	38.50%	38.30%	9.50%
Judges hired before 1/1/11	Closed	40.10%	40.10%	11.50%
Judges hired after 12/31/10	Closed	39.00%	39.60%	13.00%
Judges hired on or after 7/1/15	Open	39.00%	39.60%	13.00%
Legislators	Closed	41.60%	41.70%	11.50%
Optional Retirement Plan (ORP) before 7/1/06	Closed	37.90%	37.90%	7.50%
Optional Retirement Plan (ORP) on or after 7/1/06	Closed	37.90%	37.90%	8.00%
Peace Officers	Closed	36.70%	36.70%	9.00%
Regular Employees hired before 7/1/06	Closed	37.90%	37.90%	7.50%
Regular Employees hired on or after 7/1/06	Closed	37.90%	37.90%	8.00%
Regular Employees hired on or after 1/1/11	Closed	37.90%	37.90%	8.00%
Regular Employees hired on or after 7/1/15	Open	37.90%	37.90%	8.00%
Special Legislative Employees	Closed	43.60%	43.70%	9.50%
Wildlife Agents	Closed	46.30%	46.60%	9.50%
Aggregate Rate		37.90%	37.80%	

D. Fair Value Disclosures

LASERS categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The plan has the following recurring fair value measurements as of June 30, 2019 and 2018, respectively:

]	3			
		Q	uoted Prices in	S	ignificant Other		Significant
		Α	ctive Markets	Ob	servable Inputs	Un	observable Inputs
	6/30/2019		(Level 1)		(Level 2)		(Level 3)
Investments by Fair Value Level							
Debt Investments							
U.S. Government Obligations	\$ 81,014,194	\$	81,014,194	\$	-	\$	-
U.S. Agency Obligations	127,580,571		-		127,580,571		-
Mortgages	67,614,276		-		67,614,276		-
Corporate Bonds	567,917,071		-		493,244,383		74,672,688
International Bonds	489,988,669		-		452,652,038		37,336,631
Short-term Investments	128,817,041		850,000		442,657		127,524,384
Total Debt Securities	\$ 1,462,931,822	\$	81,864,194	\$	1,141,533,925	\$	239,533,703
Equity securities							_
Large Cap	\$ 1,045,128,202	\$	1,045,128,202	\$	-	\$	-
Mid Cap	652,691,598		652,691,598		-		-
Small Cap	534,520,337		534,520,337		-		-
International Equities	3,000,937,997		2,992,651,954		6,059,505		2,226,538
Other	404,780,139		363,268,021		33,877,033		7,635,085
Total Equity Securities	\$ 5,638,058,273	\$	5,588,260,112	\$	39,936,538	\$	9,861,623
Securities Lending Cash Collateral	\$ 1,350,818,807	\$		\$	1,350,818,807	\$	
Total Investments at Fair Value Level	\$ 8,451,808,902	\$	5,670,124,306	\$	2,532,289,270	\$	249,395,326
Investments measured at Net Asset Value (NAV)							
Emerging Market Equity	\$ 702,794,549						
Emerging Market Debt	100,867,421						
Global Multi-Sector Funds	326,254,725						
Private Markets	1,779,680,707						
Absolute Return	718,747,275						
Risk Parity	834,882,508						
Total Investments at NAV	\$ 4,463,227,185						
Investment Derivatives							
Futures	\$ (56,997)	\$	(56,997)	\$	-		
Foreign Exchange Contracts	(363,100)		-		(363,100)		
Swaps	 256,957				256,957		
Total Investment Derivatives	\$ (163,140)	\$	(56,997)	\$	(106,143)		
Total Investments at Fair Value	\$ 12,914,872,947						

	Fair Value Measurements Using							
			Q	uoted Prices in	Si	gnificant Other		Significant
			A	ctive Markets	Obs	servable Inputs	Uno	observable Inputs
		6/30/2018		(Level 1)		(Level 2)		(Level 3)
Investments by Fair Value Level								_
Debt Investments								
U.S. Government Obligations	\$	84,086,653	\$	84,086,653	\$	-	\$	-
U.S. Agency Obligations		125,847,882		-		125,847,882		-
Mortgages		64,701,332		-		64,701,332		-
Corporate Bonds		662,285,492		6,498,833		582,343,654		73,443,005
International Bonds		498,782,774		-		460,332,216		38,450,558
Short-term Investments		120,811,625		-		(357,041)		121,168,666
Total Debt Securities	\$	1,556,515,758	\$	90,585,486	\$	1,232,868,043	\$	233,062,229
Equity securities		_						_
Large Cap	\$	1,226,927,151	\$	1,226,927,151	\$	-	\$	-
Mid Cap		825,102,441		825,102,441		-		-
Small Cap		871,077,370		871,077,370		-		-
International Equities		2,668,127,766		2,665,047,444		3,080,306		16
Other		93,239,250		63,506,356		29,732,894		
Total Equity Securities	\$	5,684,473,978	\$	5,651,660,762	\$	32,813,200	\$	16
Securities Lending Cash Collateral	\$	1,545,232,539	\$	-	\$	1,545,232,539	\$	-
Total Investments at Fair Value Level	\$	8,786,222,275	\$	5,742,246,248	\$	2,810,913,782	\$	233,062,245
Investments measured at Net Asset Value (NAV)								
Emerging Market Equity	\$	1,128,336,142						
Private Markets		1,569,727,203						
Absolute Return		777,848,667						
Risk Parity		784,834,388						
Total Investments at NAV	\$	4,260,746,400						
Investment Derivatives								
Futures	\$	(19,285)	\$	(19,285)	\$	-		
Foreign Exchange Contracts		1,575,758		-		1,575,758		
Swaps		(99,259)		-		(99,259)		
Total Investment Derivatives	\$	1,457,214	\$	(19,285)	\$	1,476,499		
Total Investments at Fair Value	\$	13,048,425,889						

Securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

Derivative instruments classified in Level 2 of the fair value hierarchy are valued using a market approach that considers benchmark interest rates and foreign exchange rates. Investments classified in Level 3 of the fair value hierarchy are valued using unobservable inputs and are not directly corroborated with market data.

The unfunded commitments and redemption terms for investments measured at the net asset value (NAV) per share (or its equivalent) as of June 30, 2019 are presented in the following table.

					Redemption
			Unfunded	Redemption	Notice
	Fa	ir Value 2019	Commitments	Frequency	Period
Emerging Market Equity	\$	702,794,549	\$ -	Monthly	7 - 30 days
Emerging Market Debt		100,867,421	-	Quarterly	90 days
Global Multi-Sector		326,254,725	-	Monthly to Quarterly	30 - 60 days
Risk Parity		834,882,508	-	Monthly	5 days
Absolute Return		718,747,275	-	Monthly to Quarterly	5 - 95 days
Private Markets		1,779,680,707	1,145,293,163	N/A	N/A
Total Investments at NAV	\$	4,463,227,185			

The unfunded commitments and redemption terms for investments measured at the net asset value (NAV) per share (or its equivalent) as of June 30, 2018 are presented in the following table.

				Redemption
		Unfunded	Redemption	Notice
	Fair Value 2018	Commitments	Frequency	Period
Emerging Market Equity	\$ 1,128,336,142	\$ -	Monthly	7 - 30 days
Risk Parity	784,834,388	-	Monthly	5 days
Absolute Return	777,848,667	-	Monthly to Quarterly	5 - 95 days
Private Markets	1,569,727,203	1,274,068,768	N/A	N/A
Total Investments at NAV	\$ 4,260,746,400			

1. Emerging Markets

Emerging Markets includes investments in two equity and one debt international emerging market commingled fund for fiscal year 2019. In 2018, there were three international emerging market equity commingled funds. These investments aim to benefit from the higher economic growth, increased independence, and positive demographic trends in emerging countries. The fair value of the investments in these funds has been determined using the NAV per share (or equivalent) of the investments. Units are valued monthly to quarterly and redemption of units varies from seven to 90-

day advanced notice. Any amount redeemed will be paid within five to 30 business days following the date as of which the withdrawal is to be made.

2. Global Multi-Sector

Global Multi-Sector commingled funds were added to the portfolio in 2019 and included investments in three funds for fiscal year ending June 30, 2019. They are designed to be flexible and may move tactically in response to market conditions. It allows investments in securities across the fixed income universe which includes securities such as sovereign debt, corporate credit, structured products, currency, distressed debt, and leveraged loans. Redemption payments range from monthly to quarterly with 30 to 60 day notices. Two of the three funds have an initial one year lock-up.

3. Risk Parity

Risk Parity focuses on allocation of risk, usually defined as volatility, rather than allocation of capital. They are designed to balance risk among a variety of non-correlated assets through active management. This type includes investments in two risk parity funds for fiscal years ending June 30, 2019 and 2018. The redemption notice period is five days with monthly redemptions available. Redemption payments may be delayed in whole or in part to the extent such delay is deemed necessary by the manager to prevent a redemption from having an adverse effect. The fair value of the investments has been determined using the NAV per share (or equivalent) of the investments.

4. Absolute Return

Absolute Return includes investments in six absolute return funds for fiscal years ending June 30, 2019 and 2018. Absolute Return Funds utilize a variety of strategies, asset classes, and securities to generate returns, depending on current market conditions. Funds tend to trade in a variety of strategies and exhibit low correlation to one another and to other absolute fund strategies. They are inherently diversified, with multiple sources of return. Managers have the ability to incubate and quickly execute new strategies. The fair value of the investments has been determined using the NAV per share (or equivalent) of the investments.

5. Private Markets

Private Markets is an asset class consisting of both equity and debt ownership in operating companies not publicly traded on a stock exchange. This type includes 81 and 74 private market funds in fiscal years ending June 30, 2019 and 2018, respectively. Private market funds employ a combination of strategies to earn superior risk-adjusted returns. The fair values of the investments in this type have been determined using the NAV per share (or equivalent) of the Plan's ownership interest in partners' capital. These investments can never be redeemed with the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated approximately seven to 15 years from the commencement of the fund.

E. Deposits and Investment Risk Disclosures

The information presented on the following pages includes disclosures of custodial, interest rate, credit, and foreign currency risks in accordance with GASB 40, 53, and 67 and is designed to inform financial statement users about investment risks that could affect the System's ability to meet its

obligations. The tables presented classify investments by risk type, while the financial statements present investments by asset class; thus, the totals shown on the tables may not be comparable to the amounts shown for the individual asset classes on the financial statements.

1. Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of bank failure, the System's deposits may not be returned. The System does not have a formal deposit policy for custodial credit risk. All U.S. bank balances at year-end were insured or collateralized by the pledge of government securities held by the agents in the entity's name. LASERS had time deposits and certificates of deposits in the securities lending cash collateral pool that were exposed to custodial credit risk of \$73.4 million and \$105.1 million as of June 30, 2019 and June 30, 2018, respectively. LASERS had uninsured cash deposits in non-U.S. banks of \$27.2 million and \$42.7 million for the periods ended June 30, 2019, and June 30, 2018, respectively.

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty, the pension trust fund will not be able to recover the value of its investments, or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government, and are held by either: a) the counterparty or b) the counterparty's trust department or agent but not in the government's name. LASERS had no custodial credit risk for investments for the years ending June 30, 2019 and June 30, 2018.

2. Concentration of Credit Risk

Concentration of credit risk is the "risk of loss attributed to the magnitude of investments in a single issuer." The risk occurs "when investments are concentrated in any one issuer that represents 5% or more of plan net assets." Investments issued or explicitly guaranteed by the U.S. Government and investments in mutual funds, external investment pools, and other pooled investments are excluded from this requirement. The System has no investments of any single organization (other than those issued or guaranteed by the U.S. Government) that represent 5% or more of the System's net plan assets, nor does the System hold more than 5% of any corporation's stock.

3. Credit Risk

Credit risk is the risk that a borrower will be unable to meet its obligation. According to LASERS investment policy, the overall average quality of each core fixed income portfolio shall be rated A- or higher by Standard and Poor's. Non-rated issues or issues below investment grade (below BBB-) may be purchased up to a maximum of 15% of each core fixed income portfolio. These quality restrictions will not apply to a manager that is hired by LASERS to manage dedicated high-yield fixed income portfolios. The average duration shall not differ from the passive benchmark's duration by more than two years.

In preparing this report, credit risk associated with all fixed income holdings including collateral for repurchase agreements and securities lending collateral has been included. The System's exposure to credit risk as of June 30, 2019, and 2018, is as follows:

	Fair Value	Percent	Fair Value	Percent
Rating	2019	2019	2018	2018
AAA	\$ 4,406,603	0.1%	\$ 11,332,681	0.4%
A-1+	39,656,321	1.2%	61,916,316	2.0%
A-1	206,807,857	6.4%	245,472,479	7.9%
AA+	138,197,779	4.3%	210,265,284	6.8%
AA	1,931,144	0.1%	5,157,255	0.2%
AA-	277,080,240	8.6%	256,485,324	8.3%
A+	248,364,790	7.7%	241,548,506	7.8%
A	168,744,164	5.2%	224,222,972	7.2%
A-	59,511,712	1.8%	85,272,944	2.7%
BBB+	27,559,831	0.9%	40,739,132	1.3%
BBB	65,056,180	2.0%	76,469,428	2.5%
BBB-	48,574,473	1.5%	42,840,870	1.4%
BB+	63,115,790	1.9%	71,863,906	2.3%
BB	74,975,926	2.3%	72,142,247	2.3%
BB-	113,389,812	3.5%	119,754,847	3.9%
B+	66,390,296	2.0%	88,184,055	2.8%
В	77,317,439	2.4%	106,156,496	3.4%
B-	62,409,286	1.9%	77,983,863	2.5%
CCC+	38,259,572	1.2%	52,447,009	1.7%
CCC	11,657,741	0.4%	7,618,906	0.2%
CCC-	2,151,416	0.1%	7,830,884	0.3%
CC	3,520,723	0.1%	6,332,757	0.2%
С	744,795	0.0%	383,280	0.0%
D	8,031,337	0.2%	6,325,391	0.2%
Non-rated	1,432,845,561	44.2%	984,464,598	31.7%
Total Fixed Income	\$ 3,240,700,788	100.0%	\$ 3,103,211,430	100.0%

4. Interest Rate Risk

Interest rate risk is the risk from changes in interest rates adversely affecting the fair value of an investment. LASERS has no formal interest rate risk policy. LASERS, as expressed in its investment policy, expects its fixed income managers to approximate the portfolio's duration (a measure of a debt investment's exposure to fair value changes arising from interest rates) to within two years of its respective benchmark. Investments with fair values that are highly sensitive to interest rate changes may contain terms that increase the sensitivity of their fair values.

As of June 30, 2019, and 2018, the System had the following domestic and foreign debt investments and maturities:

		Investment Maturities (in Years)								
]	Fair Value		Less					G	reater
Type	2019		Than 1		1 - 5		5 - 10		T	han 10
U.S. Government Obligations	\$	81,014,194	\$	12,024,917	\$	8,120,818	\$	45,825,214	\$ 1	5,043,245
U.S. Agency Obligations		127,580,571		5,007,403		602,062		7,217,625	11	4,753,481
Mortgages		67,614,276		-		3,983,370		514,126	6	53,116,780
Corporate Bonds		568,102,027		36,925,000	2	200,132,798		233,101,274	9	7,942,955
International Bonds		917,116,972		463,712,703	1	110,701,729		192,003,833	15	50,698,707
Short-term Investments		128,453,941		128,453,941		-		-		-
Securities Lending Collateral										
Corporate Bonds		69,625,176		69,625,176		-		-		-
International Bonds		603,535,472		602,695,437		-		840,035		-
Short-term Investments		15,100,000		15,100,000		-		-		-
International Short-term Investments		662,558,159		662,558,159		-		-		-
Total Debt Investments	\$ 3	,240,700,788	\$ 1	1,996,102,736	\$ 3	23,540,777	\$ 4	179,502,107	\$ 44	1,555,168

		Investment Maturities (in Years)						
	Fair Value	Less			Greater			
Туре	2018	Than 1	1 - 5	5 - 10	Than 10			
U.S. Government Obligations	\$ 84,086,653	\$ 26,744,104	\$ 11,298,499	\$ 29,246,798	\$ 16,797,252			
U.S. Agency Obligations	125,847,882	7,901,120	266,485	4,653,101	113,027,176			
Mortgages	64,701,332	-	900,000	444,776	63,356,556			
Corporate Bonds	659,896,188	29,426,105	234,934,330	310,793,384	84,742,369			
International Bonds	501,059,453	43,623,208	130,322,797	207,681,551	119,431,897			
Short-term Investments	120,811,625	120,811,625	-	-	-			
International Short-term Investments	1,575,758	1,575,758	-	-	-			
Securities Lending Collateral								
Corporate Bonds	88,301,467	88,301,467	-	-	-			
International Bonds	1,132,499,718	1,131,479,504	-	1,020,214	-			
Short-term Investments	46,900,000	46,900,000	-	-	-			
International Short-term Investments	277,531,354	277,531,354	-	-	-			
Total Debt Investments	\$ 3,103,211,430	\$ 1,774,294,245	\$ 377,722,111	\$ 553,839,824	\$ 397,355,250			

5. Foreign Currency Risk

Foreign currency risk is the potential risk for loss due to changes in exchange rates. Cash held by the manager may be in U.S. dollar or foreign currencies of the manager's choice. Managers may purchase or sell currency on a spot basis to accommodate securities settlements. Managers may enter into forward exchange contracts on currency provided that use of such contracts is designed to dampen portfolio volatility or to facilitate the settlement of securities transactions. Currency contracts may be utilized to either hedge the portfolio's currency risk exposure or in the settlement of securities transactions.

Foreign investments denominated in U.S. currency such as American Depository Receipts (ADRs) and Yankee bonds do not carry foreign currency risk; therefore, they are not included in the tables below. LASERS portfolio contained several commingled funds subject to foreign currency risk with aggregate fair values of \$1.2 billion for the years ended June 30, 2019 and June 30, 2018. LASERS Investment Guidelines, some of which are noted in *Note F. Cash and Investments*, are designed to mitigate risk.

The fair value of LASERS securities including derivative instruments held in a foreign currency at June 30, 2019, and 2018, is as follows:

Currency	Global Bonds	Global Stock	Cash/Other	Private Markets	Currency Contracts	Fair Value 2019
Argentinian Peso	\$ -	\$ -	\$ -	\$ -	\$ 3,101,403	\$ 3,101,403
Australian Dollar		141,817,612	393,181	-	-	142,210,793
Brazilian Real	19,484,585	50,060,817	483,024	-	4,196,781	74,225,207
British Pound Sterling	1,300,229	356,806,531	3,499,136	-	(7,401,496)	354,204,400
Canadian Dollar	-	206,618,813	1,380,349	-	(1,307,399)	206,691,763
Chilean Peso	8,695,502	2,676,046	82,343	-	537,574	11,991,465
Colombian Peso	15,314,483	4,267,497	92,800	-	-	19,674,780
Czech Koruna	4,495,495	2,863,278	(2,791)	-	6,054,845	13,410,827
Danish Krone	-	37,492,235	258,456	-	-	37,750,691
Dominican Rep Peso	2,158,416	-	-	-	-	2,158,416
Euro	40,074,892	636,925,457	334,349,273	65,970,565	(52,999,713)	1,024,320,474
Hong Kong Dollar	-	269,692,518	2,767,802	-	(1,697,677)	270,762,643
Hungarian Forint	-	9,677,605	182,040	-	6,207,258	16,066,903
Indian Rupee	-	52,806,833	2,816,054	-	-	55,622,887
Indonesian Rupiah	24,178,110	9,526,391	511,408	-	(851,898)	33,364,011
Israeli Shekel	-	4,071,767	606,119	-	-	4,677,886
Japanese Yen	-	507,067,918	3,509,569	-	1,526,172	512,103,659
Kazakhstan Tenge	343,211	-	-	-	-	343,211
Malaysian Ringgit	5,280,235	14,402,896	636,407	-	(146,036)	20,173,502
Mexican Peso	28,939,544	15,882,822	3,807	-	(12,647,724)	32,178,449
New Taiwan Dollar	-	80,227,545	973,762	-	(45,350)	81,155,957
New Zealand Dollar	-	13,942,934	227,051	-	-	14,169,985
Norwegian Krone	_	21,073,585	932,702	-	62,954	22,069,241
Peruvian Sol	5,299,242	-	-	-	-	5,299,242
Philippines Peso	_	5,008,533	298,512	-	-	5,307,045
Polish Zloty	23,314,824	12,765,776	27,675	-	(2,191,270)	33,917,005
Qatari Riyal		424,866	148,284	-	-	573,150
Romanian Leu	3,833,954	-	-	-	(1,879,517)	1,954,437
Russian Ruble	19,748,477	-	-	-	(3,976,832)	15,771,645
Saudi Arabian Riyal	-	-	-	-	(2,062,686)	(2,062,686)
Singapore Dollar	_	53,616,666	982,387	-	-	54,599,053
South African Rand	22,592,959	40,673,136	149,679	-	(6,279,997)	57,135,777
South Korean Won	-	102,797,010	254,638	-	-	103,051,648
Swedish Krona	-	61,224,454	724,896	-	25,867	61,975,217
Swiss Franc	-	171,198,943	999,524	-	73,846	172,272,313
Thailand Baht	12,168,569	12,466,852	(20,349)	-	391,115	25,006,187
Turkish Lira	7,227,434	13,044,649	(53)	-	(1,017,117)	19,254,913
UAE Dirham	-	5,660,712	337,678	-	-	5,998,390
Uruguayan Peso	1,021,570	-	-	-	-	1,021,570
Total	\$ 245,471,731	\$ 2,916,782,697	\$ 357,605,363	\$ 65,970,565	\$(72,326,897)	\$ 3,513,503,459

Currency	Global Bonds	Global Stock	Cash/Other	Private Markets	Currency Contracts	Fair Value 2018
Argentinian Peso	\$ -	\$ -	\$ -	\$ -	\$ 2,443,588	\$ 2,443,588
Australian Dollar	-	147,668,975	3,100,381	-	-	150,769,356
Brazilian Real	21,249,980	18,268,047	345,179	-	(2,849,818)	37,013,388
British Pound Sterling	1,272,695	395,020,360	5,172,506	-	(4,976,975)	396,488,586
Canadian Dollar	302,148	211,292,696	2,560,455	-	4,457,491	218,612,790
Chilean Peso	612,861	3,074,010	-	-	4,011,304	7,698,175
Colombian Peso	14,610,347	3,522,809	188	-	(2,992,337)	15,141,007
Czech Koruna	3,282,057	-	6,667	-	5,186,599	8,475,323
Danish Krone	-	36,434,221	600,025	-	2,255,485	39,289,731
Dominican Rep Peso	90,663	-	-	-	-	90,663
Euro	30,427,383	636,414,409	306,470,998	75,955,206	(43,180,278)	1,006,087,718
Ghanaian Cedi	-	-	-	-	(394,286)	(394,286)
Hong Kong Dollar	-	169,603,863	1,742,290	-	-	171,346,153
Hungarian Forint	-	5,454,896	18,141	-	-	5,473,037
Indian Rupee	-	21,387,036	65,216	-	-	21,452,252
Indonesian Rupiah	20,908,364	4,195,947	-	-	(2,752,974)	22,351,337
Israeli Shekel	-	5,231,415	424,732	-	-	5,656,147
Japanese Yen	-	499,695,772	4,104,981	-	733,391	504,534,144
Kazakhstan Tenge	388,927	-	-	-	-	388,927
Malaysian Ringgit	-	11,977,576	41,524	-	-	12,019,100
Mexican Peso	34,824,775	3,779,170	57,239	-	(1,022,809)	37,638,375
New Taiwan Dollar	-	42,529,791	204,048	-	(4,187)	42,729,652
New Zealand Dollar	-	13,347,896	875,638	-	(7,793,285)	6,430,249
Nigerian Naira	143,696	-	-	-	(57,548)	86,148
Norwegian Krone	-	25,839,840	1,123,459	-	-	26,963,299
Peruvian Sol	1,502,993	-	-	-	(1,482,981)	20,012
Philippines Peso	-	3,983,887	123,431	-	-	4,107,318
Polish Zloty	19,418,998	6,149,151	-	-	1,909,616	27,477,765
Qatari Riyal	-	466,517	117,616	-	-	584,133
Romanian Leu	2,739,133	-	-	-	628,099	3,367,232
Russian Ruble	22,244,915	-	-	-	-	22,244,915
Saudi Arabian Riyal	-	-	-	-	(1,435,874)	(1,435,874)
Singapore Dollar	-	49,006,728	942,574	-	1,613,495	51,562,797
South African Rand	20,789,830	15,809,912	45,094	-	718,122	37,362,958
South Korean Won	-	53,995,498	-	-	-	53,995,498
Swedish Krona	-	68,975,518	1,323,119	-	(406,439)	69,892,198
Swiss Franc	-	156,006,424	2,364,600	-	-	158,371,024
Thailand Baht	4,271,818	11,804,371	43,808	-	(1,469,266)	14,650,731
Turkish Lira	15,755,765	9,105,471	(118)	-	(779,265)	24,081,853
UAE Dirham	-	3,269,288	-	-	-	3,269,288
Uruguayan Peso	2,335,933	-	-	-	_	2,335,933
Total	\$ 217,173,281	\$ 2,633,311,494	\$ 331,873,791	\$ 75,955,206	\$ (47,641,132)	\$ 3,210,672,640

F. Cash and Investments

1. Cash and Cash Equivalents

Cash and cash equivalents include cash deposited in banks. Cash is insured by the Federal Deposit Insurance Corporation up to \$250,000, and cash equivalents are collateralized by the pledge of government securities held by the agents in LASERS name.

2. Short-Term Investments

Short–term reserves may be held in U.S. dollar or global denominated investment vehicles available through the System's custodian. These funds may be invested in direct U.S. Government obligations such as U.S. Treasury Bills or repurchase agreements, which are fully collateralized by issues of the U.S. Treasury or any agency of the United States Government. Excess cash may also be invested in the negotiable certificates of deposit, global time deposits, global currency, or other short-term investment vehicles designated by the Board.

3. Investments

Louisiana state law (La. R.S. 11:261-269) provides for the fiduciary and investment responsibilities of LASERS. La. R.S. 11:263 states that the prudent man rule shall apply to all investments of LASERS. This law specifically requires management of LASERS to exercise the judgment and care under the circumstances prevailing that a prudent institutional investor would use in the conduct of an enterprise of a like character with like aims.

A) Investment Policy

The System's policy in regard to the allocation of invested assets is established and may be amended by the LASERS Board. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension plan.

The following were LASERS Board adopted asset allocation policies in effect on June 30, 2019 and 2018:

Target Asset Allocation

Asset Class	2019	2018
Cash	0%	0%
Domestic Equity	23%	23%
International Equity	32%	32%
Domestic Fixed Income	6%	6%
International Fixed Income	10%	10%
Alternative Investments	22%	22%
Risk Parity	7%	7%
Totals	100%	100%

B) Rate of Return

For the years ended June 30, 2019 and 2018, the annual money-weighted rates of return on pension plan investments, net of pension plan investment expense, were 3.8% and 8.9%, respectively. The money-weighted return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested.

4. Domestic Equity

Domestic equity purchases are limited to publicly traded common stocks. Exceptions shall be approved by the LASERS Board in advance. No single holding shall account for more than 6% of the allowable equity portion of the portfolio at market value, or 150% of a stock's weighting in the style benchmark against which the manager is measured; whichever is larger.

LASERS domestic equity portfolios are expected to be fully invested. No single holding in LASERS portfolio shall account for more than 5% of the outstanding common stock of any one corporation. No more than 10% of a manager's domestic equity portfolio may consist of cash or cash equivalents. Additionally, no single holding across all actively managed portfolios of an investment management firm shall account for more than 15% of the outstanding common stock of any one corporation.

The purchase of stocks or convertibles in foreign companies, which are publicly traded securities, may be held by each domestic stock manager in proportions up to 10% of the portfolio at fair value. Convertible bonds, convertible preferred stocks, warrants and rights may be purchased as equity substitutes as long as they meet the equity guidelines listed above.

5. International Equity

Short-term reserves may be held in U.S. dollar-denominated, local currency securities, or investment vehicles available through the System's custodian. Managers may purchase or sell currency on a spot basis to accommodate security settlements. Managers may enter into forward exchange contracts on currency provided that use of such contracts is designed to dampen portfolio volatility or to facilitate the settlement of security transactions.

LASERS international equity portfolios are expected to be fully invested. No more than 10% of a manager's international equity portfolio may consist of cash or cash equivalents. Equity securities should be issued by non-U.S. issuers, although the manager has latitude to hold U.S. securities provided that such investment is consistent with attainment of the portfolio's investment objectives, and does not exceed 10% of the portfolio's market value. American Depository Receipts (ADRs) do not count toward this 10% limitation.

The number of issues held and their geographic or industry distribution shall be left to the investment manager provided that equity holdings in any one company (including common stock and convertible securities) do not exceed 6% of the fair value of the manager's portion of LASERS portfolio. Additionally, bonds of the companies in question would be included in LASERS exposure calculation if held in the manager's portfolio.

Managers with established international equity mandates may invest up to 10% of their portfolio(s) in the emerging markets, as defined by the MSCI EM Index. Managers with an emerging markets equity mandate are expected to invest in the emerging (non-established) markets, subject to the guidelines listed above.

6. Domestic Core Fixed Income

Domestic core fixed income investments may include U.S. Government and Federal Agency obligations, corporate bonds, debentures, commercial paper, certificates of deposit, Yankee bonds, mortgage-backed securities, and senior secured debt and other instruments deemed prudent by the investment managers. No more than 6% of the fair value of LASERS domestic core fixed income assets may be invested in the debt securities of any one issuer. No limitations on issues and issuers shall apply to obligations of U.S. Government and Federal Agencies.

The overall average quality of each fixed income portfolio shall be rated A- or higher. Issues not rated may be purchased provided that in the judgment of the manager, they are of a quality sufficient to maintain the average overall portfolio quality of A- or higher. Non-rated issues or issues below investment grade (below BBB-) may be purchased up to a maximum of 15% of the portfolio.

The diversification of securities by maturity, quality, sector, coupon, and geography is the responsibility of the manager. Active bond management is encouraged, as deemed appropriate by the investment managers. The average duration (interest rate sensitivity) of an actively managed portfolio shall not differ from the passive benchmark's duration by more than two years.

Investments in mortgage-backed securities shall have the characteristics of fixed income securities, and be responsive to changes in domestic interest rate changes, as well as other factors that affect the credit markets and mortgage investments. The investment managers are responsible for making an independent analysis of the credit worthiness of securities and their suitability as investments for the Plan, and shall adhere to the specific investment, security, diversification limits, and administrative guidelines established in the investment management agreement(s).

High-yield fixed income managers may invest up to 20% of their portfolios in non-U.S. fixed income securities. They shall perform careful credit analysis to mitigate losses from defaults. Investments should be diversified across sector, industry, sub-industry, and market to mitigate losses. No more than 6% of fair value of the System's high yield assets may be invested in the debt securities of any one issuer.

7. Global Fixed Income

The global bond portfolio may hold no more than 30% of its assets, at fair value, in the debt securities of any single foreign government or non-U.S. government entity. No single non-government debt security shall constitute more than 6% of the global bond portfolio, at fair value. Securities issued by AAA rated supranational organizations (such as the World Bank) shall be considered to be government equivalents.

Short-term reserves may be held in U.S. dollar-denominated or local currency securities or investment vehicles available through the LASERS custodian.

Managers may enter into forward exchange contracts on currency provided that use of such contracts is designed to dampen portfolio volatility rather than leverage portfolio risk exposure. Currency contracts may be utilized to either hedge the portfolio's currency risk exposure or in the settlement of securities transactions. Managers may purchase or sell currency on a spot basis to accommodate securities settlements. Decisions as to the number of issues held and their geographic distribution shall be the responsibility of the investment manager.

The overall average quality of each global fixed income portfolio shall be A- or higher. Non-rated issues may be purchased, provided that in the judgment of the manager, they are of a quality sufficient to maintain the average overall portfolio quality of A- or higher. Issues below investment grade (below BBB-) and/or mortgage backed securities may be purchased up to a maximum of 15% of the portfolio. The average duration (interest rate sensitivity) of a global fixed income portfolio shall not differ from the passive benchmark by more than two years.

8. Emerging Market Debt

The emerging markets debt portfolio may hold no more than 1.75 times the passive benchmark weight, at fair value, in the debt securities of any single sovereign entity. The portfolio may hold up to 15% in securities not issued by benchmark countries. The portfolio may hold up to a combined allocation of 20% in non-benchmark inflation-linked bonds and corporate debt securities. Investments should be diversified across sovereign issuers and markets to mitigate losses from defaults.

Managers may enter into forward exchange contracts on currency provided that use of such contracts is designed to dampen portfolio volatility rather than leverage portfolio risk exposure. Currency contracts may be utilized to either hedge the portfolio's currency risk exposure or in the settlement of securities transactions. Managers may purchase or sell currency on a spot basis to accommodate securities settlements. Decisions as to the number of issues held and their geographic distribution shall be the responsibility of the investment manager.

The overall average quality of each portfolio shall be BBB- or higher. Non-rated issues may be purchased provided that in the judgment of the manager, they are of a quality sufficient to maintain the average overall portfolio quality of BBB- or higher. The modified duration (interest rate sensitivity) of an emerging markets debt (local currency) portfolio shall not differ from the passive benchmark by more than three years.

9. Global Multi-Sector Fixed Income

The global multi-sector portfolio may hold no more than 6% of its assets, in fair value in the securities of any one issuer, excluding securities of the U.S. Government and its agencies. Managers may invest up to 10% of the portfolio fair value in equity securities. These limits may be exceeded with consent from LASERS staff and Consultant.

10. Derivatives

The System invested in collateralized mortgage obligations (forms of mortgage-backed securities), foreign exchange currency contracts, futures, options, warrants, rights, and a Synthetic Guaranteed Investment Contract (SGIC). The System reviews market value of all securities on a monthly basis. Derivative securities may be held in part to maximize yields and in part to hedge against a rise in interest rates. The fair value of rights and warrants are determined based upon quoted market prices. For the years ending June 30, 2019, and June 30, 2018, the derivative instruments held by the System were considered investments and not hedges for accounting purposes. The term hedging, as it is used elsewhere in the notes to these financial statements, denotes an economic activity and not an accounting method. Investments in limited partnerships and commingled funds may include derivatives. Interest rate risk, credit rate risk, and foreign currency risk associated with derivatives are included on their respective tables in *Note E. Deposits and Investment Risk Disclosures*.

- a. Collateralized mortgage obligations (CMOs) are bonds that are collateralized by whole loan mortgages, mortgage pass-through securities, or stripped mortgage-backed securities. Income is derived from payments and prepayments of principal and interest generated from collateral mortgages. Cash flows are distributed to different investment classes or tranches in accordance with that CMOs established payment order. Some CMO tranches have more stable cash flows relative to changes in interest rates than others that can be significantly sensitive to interest rate fluctuations. In a declining interest rate environment, some CMOs may be subject to a reduction in interest payments as a result of prepayments of mortgages which make up the collateral pool. Reductions in interest payments cause a decline in cash flows and, thus, a decline in market value of the CMO security. Rising interest rates may cause an increase in interest payments, thus an increase in the value of the security.
- b. Synthetic Guaranteed Investment Contract (SGIC) is an investment for tax-qualified, defined contribution pension plans consisting of two parts: an asset owned directly by the plan trust and a wrap contract providing book value protection for participant withdrawals prior to maturity. LASERS maintains a fully benefit-responsive synthetic guaranteed investment contract option for members of the Optional Retirement Plan and the Self-Directed Plan. The investment objective of the SGIC is to protect members from loss of their original investment and to provide a competitive interest rate. SGICs are carried at contract value. Fair value of the SGIC contract is cost plus accrued interest. The contract value of the SGIC contract was \$514.0 and \$509.8 million for the fiscal years ended June 30, 2019, and 2018, respectively. The fair value of the underlying investments was \$520.1 and \$498.4 million for the fiscal years ended June 30, 2019 and 2018, respectively. The counterparty rating for the wrap contract was AA.
- c. Futures contracts are standardized, exchange-traded contracts to purchase or sell a specific financial instrument at a predetermined price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. The exchange assumes the risk that the counterparty will not pay and generally requires margin payments to minimize such risk. Futures are used primarily as a tool to increase or decrease market exposure to various asset classes.
- d. Currency forwards are a contractual agreement between two parties to pay or receive specific amounts of foreign currency at a future date in exchange for another currency at an agreed upon exchange rate. Forwards are usually transacted in the over-the-counter market. These transactions are entered into in order to hedge risks from exposure to foreign currency rate fluctuation. They are entered into with the foreign exchange department of a bank located in a major money market. Recognition of realized gain or loss depends on whether the currency exchange rate has moved favorably or unfavorably to the contract holder upon termination of the contract. Prior to termination of the contract, the System records the unrealized translation gain or loss. Forward commitments are not standardized and carry counterparty risk. Counterparty risk ratings from forwards for the years ended June 30, 2019, and 2018, ranged from ratings of A-2 to A-1+.
- e. **Option contracts** provide the option purchaser with the right, but not the obligation, to buy or sell the underlying security at a set price during a period or at a specified date. The option writer is obligated to buy or sell the underlying security if the option purchaser chooses to exercise the option.

- f. **Short sales** are the sale of a security or commodity futures contract that is not owned by the seller. It is a technique used to take advantage of an anticipated decline in the price or to protect a profit in a long position.
- g. **Swaps** are derivative instruments in which two parties agree to exchange one stream of cash flows against another stream or a guarantee. These streams are called the legs of the swap and usually at least one leg has a rate that is variable. The variable leg can depend on a reference rate, the total return of an asset, or an economic statistic. Cash flows are calculated based on the notional amount, which are usually not exchanged between counterparties. Counterparty risk ratings for the years ended June 30, 2019 and June 30, 2018 ranged from A-1 to A-1+.

The following tables represent the fair value of all open currency, futures, and options contracts at June 30, 2019, and 2018:

Char	ige in Fair Value 2	2019	Fair Valu	e at June 30	, 2019	
Derivative Type	Classification	Gain/(Loss)	Classification	Amount	Notional	
Foreign Exchange						
Contracts	Net Depreciation	\$ (1,938,858)	Short-term Invest.	\$ (363,100)	\$ 71,963,797	
Futures Equity	Net Depreciation	(9,875)	Domestic Equity	(9,875)	(441,255)	
Futures Int'l Equity	Net Appreciation	24,641	International Equity	18,722	1,062,720	
Futures Fixed	Net Depreciation	(52,478)	Domestic Bonds	(65,844)	(441,255)	
Swaps Domestic	Net Appreciation	2,626,738	Domestic Bonds	250,800	27,089,520	
Swaps International	Net Depreciation	(2,270,522)	International Bonds	6,157	2,142,314	
Char	ige in Fair Value 2	2018	Fair Valu	Fair Value at June 30, 2018		
Derivative Type	Classification	Gain/(Loss)	Classification	Amount	Notional	
Foreign Exchange						
Contracts	Net Appreciation	\$ 2,427,150	Short-term Invest.	\$1,575,758	\$72,416,891	
Futures Int'l Equity	Net Depreciation	(7,660)	International Equity	(5,919)	(4,433,571)	
Futures Fixed	Net Depreciation	(13,366)	Domestic Bonds	(13,366)	1,020,195	
Swaps Domestic	Net Depreciation	(2,332,977)	Domestic Bonds	(2,375,938)	1,647,000	
Swaps International	Net Appreciation	2,276,679	International Bonds	2,276,679	3,323,667	

11. Alternative Investments

Investments in alternatives include, but are not limited to, private markets, absolute return (hedge funds), and real assets. Investment strategies may include buyouts or corporate restructuring, venture capital, secondary investments, distressed securities, mezzanine instruments, energy and natural resources, and any other special situation.

LASERS endeavors to systematically commit additional funds to this asset class over time as it becomes under-represented relative to the LASERS target asset allocation. LASERS attempts to commit up to 200% of its target weighting to private markets investments to help ensure that the funded portion of the investments approximates the target allocation.

The Board of LASERS recognizes that alternative assets are potentially more risky than other investments of the System. As such, extra care is taken in evaluating and fully understanding all aspects on an alternative investment opportunity.

No more than 25% of the alternative asset investment allocation may be invested with a single manager, general partner, or single fund, with the exception of a fund-of-funds. Preference will be given to those funds where the general partner is contributing at least 1% of the total fund. All investments must have a mechanism for exit.

12. Risk Parity

Risk Parity is a top-down investment strategy that attempts to exploit short-term miss-pricings among a global set of assets. The strategy focuses on general movements in the market rather than on performance of individual securities. This portfolio is managed in a commingled format. As such, LASERS investment guidelines do not apply. The commingled funds' guidelines are broadly similar to LASERS and shall take precedent.

G. Securities Lending Program

State statutes and the Board's policies permit the System to make short-term collateralized loans of its securities to broker-dealers and other entities in order to earn incremental income. LASERS has contracted with its custodian, BNY Mellon, to lend domestic and international equity and debt securities. The majority of security loans can be terminated on demand by either LASERS or the borrower. Collateral in the form of cash or other securities is required for 102% of the fair value of domestic or sovereign debt, and 105% of the fair value of international securities excluding sovereign debt loaned. Since the majority of the loans are terminable at will, their duration does not generally match the duration of the investments made with the cash collateral.

LASERS is not permitted to pledge or sell collateral securities unless a borrower defaults. The System did not impose any restrictions during the fiscal year on the amount of the loans that BNY Mellon made on its behalf, and BNY Mellon indemnified the System by agreeing to purchase replacement securities, or return cash collateral in the event a borrower failed to return a loaned security or pay distributions thereon. There were no such failures by any borrower to return loaned securities or pay distributions thereon during the fiscal year.

On June 30, 2019 and 2018, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the fair value of securities on loan to the borrowers. The fair value of securities on loan totaled \$1,564,084,146 and \$1,747,154,081 for the years ended June 30, 2019, and 2018, respectively. The fair value of non-cash collateral on loan totaled \$259,719,070 and \$265,849,928 as of June 30, 2019 and 2018, respectively.

H. Other Postemployment Benefits (OPEB)

Substantially all employees become eligible for postemployment health care and life insurance benefits if they reach normal retirement age while working for the System. These benefits for retirees and similar benefits for active employees are provided through the Louisiana Office of Group Benefits (OGB).

1. Plan Description

Employees may participate in the State of Louisiana's Other Postretirement Benefit Plan (OPEB Plan), a multiple-employer defined benefit OPEB Plan that provides medical and life insurance to eligible active employees, retirees, and their beneficiaries. The State administers the plan through OGB. LRS 42:801-883 assigns the authority to establish and amend benefit provisions of the plan. No assets are accumulated in a trust that meets the criteria in paragraph 4 of Governmental Accounting Standards Board (GASB) Statement No. 75 to pay related benefits.

2. Benefits Provided

The OPEB Plan provides benefits such as: death benefits, life insurance, disability, and long-term care that are paid in the period after employment and that are provided separately from a pension plan; as well as healthcare benefits paid in the period after employment for retirees, disabled retirees, and their eligible beneficiaries through premium subsidies.

OGB offers retirees under age 65 a choice of three self-insured healthcare plans and one fully insured plan. Retired employees who have Medicare Part A and Part B coverage have access to these plans and an additional two fully insured Medicare Advantage HMO plans; one fully insured plan, and one Zero-Premium HMO plan.

Employer contributions are based on plan premiums and the employer contribution percentage. This percentage is based on the date of participation in an OGB plan (before or after January 1, 2002) and employee years of service at retirement. Employees who began participation or rejoin the plan before January 1, 2002, pay approximately 25% of the cost of coverage (except single retirees under age 65 who pay approximately 25% of the active employee cost). For those beginning participation or rejoining on or after January 1, 2002, the percentage of premiums contributed by the employer is based on the following schedule:

OGB	Employer	Retiree
Participation	Contribution	Contribution
Under 10 years	19%	81%
10-14 years	38%	62%
15-19 years	56%	44%
20+ years	75%	25%

In addition to healthcare benefits, retirees may elect to receive life insurance benefits. Basic and supplemental life insurance are available for the individual retiree and spouses of retirees, subject to maximum values. The retiree pays \$0.54 monthly for each \$1,000 of life insurance. The retiree pays \$0.98 monthly for each \$1,000 of spouse life insurance. The employer pays the remaining amount.

3. Funding Policy

The OPEB Plan is currently funded on a pay-as-you-go basis through a combination of retiree and System contributions. OPEB contributions to the plan are generally made at about the same time and in about the same amount as benefit payments become due.

4. Total OPEB Liabilities, OPEB Expense and Deferred Outflows of Resources, and Deferred Inflows of Resources Related to OPEB

The System reported its proportionate share of the net OPEB liability as \$18,401,229 and \$18,489,294 at June 30, 2019 and 2018, respectively. The net OPEB liability was measured as of June 30th of the prior year and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of July 1st of the prior year. The System's proportion was actuarially determined and was based on its proportionate share of the State of Louisiana's total OPEB liability. The System's proportion was 0.2156% and 0.2127% for measurement at June 30, 2018 and 2017, respectively.

LASERS recognized OPEB expense of \$548,897 and \$9,515,459 during the year ended June 30, 2019 and 2018, respectively. The 2018 amount is comprised of the \$8,808,697 GASB 75 implementation liability adjustment, which was expensed and the 2018 OPEB expense of \$706,762. At June 30, 2019 and 2018, LASERS reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	_	20	19		20		018	
	Deferred Outflows of Resources		Iı	Deferred nflows of	Deferred Outflows of		Iı	Deferred nflows of
	Re	esources	R	lesources	Re	esources	R	Resources
Differences between expected and actual								
experience	\$	-	\$	80,205	\$	-	\$	-
Changes of assumptions		-		1,239,748		-		977,050
Differences between actual and								
proportionate share of OPEB Payments		200,898		-		-		227,638
Employer Contributions subsequent to								
measurement date		332,263		396,258		315,536		
Total	\$	533,161	\$	1,716,211	\$	315,536	\$	1,204,688

Deferred outflows of resources related to OPEB resulting from OPEB payments subsequent to the measurement date of \$533,161 will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2019, compared to \$315,536 in 2018. Amounts reported as deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ended June 30:	OPEB Expense	
2020	534,917	7
2021	534,917	7
2022	352,970)
2023	92,509)
Total	\$ 1,515,313	;

5. Actuarial Assumptions and Other Inputs

The total OPEB liability in the July 1, 2018 and 2017 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

Inflation Rate 2.8% Consumer Price Index

Salary Increases Consistent with various pension plan valuation

assumptions in which employees participate.

Discount Rate 2.98% and 3.13% S&P 20-year municipal bond index rate for

June 30, 2018 and 2017, respectively.

Healthcare Cost Trend Rate Pre-age 65 ranges from 7.0% to 4.5%

Post-age 65 ranges from 5.5% to 4.5%

Mortality For healthy lives the RP-2014 Combined Healthy Mortality

Table projected on a fully generational basis by Mortality Improvement Scale MP-2018 and MP-2017 for 2018 and

2017, respectively.

For existing disabled lives the RP-2014 Disabled Retiree Mortality Tables projected on a fully generational basis by Mortality Improvement Scale MP-2018 and MP-2017 for

2018 and 2017, respectively.

The actuarial assumptions used by the pension plans covering the same participants were used for the retirement, termination, disability, and salary scale assumptions. The actuarial assumptions used in the July 1, 2018 and 2017 valuations were based on the results of an actuarial experience study for pension plan actuarial valuations for the period July 1, 2008 to June 30, 2013. As a result of the 2013 actuarial experience study, the expectation of life after disability was adjusted in the July 1, 2018 and 2017 actuarial valuations to more closely reflect actual experience. There were no changes in benefit terms for 2018 and 2017.

No changes in benefits or assumptions have occurred between the June 30, 2018 and 2017 measurement dates of the collective total OPEB liability and the June 30, 2019 and 2018 reporting dates of the System, respectively, that are expected to have a significant effect on the System's proportionate share of the collective total OPEB liability.

6. Discount Rate

The discount rate used to measure the total OPEB liability was 2.98% and 3.13% and was based on the Standards & Poor's Municipal Bond 20-year High Grade Rate Index as of June 30, 2018 and 2017, respectively.

The discount rate used to measure the total OPEB liability was changed from 3.13% in the June 30, 2017 measurement to 2.98% in the June 30, 2018 measurement which is reflected as changes of assumptions deferred inflow. Also, the discount rate used to measure the total OPEB liability was

changed from 2.71% in the June 30, 2016 measurement to 3.13% in the June 30, 2017 measurement which was reflected as changes of assumptions deferred inflow.

Sensitivity of the total OPEB liability to changes in the discount rate. The following presents the System's proportionate share of the collective total OPEB liability calculated using the discount rate of 2.98% and 3.13%, as well as what the System's proportionate share of the collective total OPEB liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate for June 30, 2019 and 2018, respectively.

Total OPEB Liability Sensitivity to Changes in Discount Rate

				Current		
	1	1% Decrease		scount Rate	1	% Increase
As of June 30, 2019:						
Discount Rate		1.98%		2.98%		3.98%
Total OPEB Liability	\$	22,132,509	\$	18,401,229	\$	15,503,170
As of June 30, 2018:						
Discount Rate		2.13%		3.13%		4.13%
Total OPEB Liability	\$	21,710,150	\$	18,489,294	\$	15,948,384

Sensitivity of the total OPEB liability to changes in the healthcare cost trend rates. The following presents the System's proportionate share of the collective total OPEB liability as well as what the System's proportionate share of the collective total OPEB liability would be if it were calculated using the healthcare cost trend rates that are one percentage point lower or one percentage point higher than the current rates.

Sensitivity of Total OPEB Liability to Changes in Healthcare Cost Trend Rates

		Current Healthcare			
	1% Decrease	Cost Trend Rates	1% Increase		
Pre-65	6.0% decreasing to 3.5%	7.0% decreasing to 4.5%	8.0% decreasing to 5.5%		
Post-65	4.5% decreasing to 3.5%	5.5% decreasing to 4.5%	6.5% decreasing to 5.5%		
2019 Total OPEB Liability	\$ 15,287,473	\$ 18,401,229	\$ 22,527,608		
2018 Total OPEB Liability	\$ 15,935,894	\$ 18,489,294	\$ 21,760,784		

Schedules of Changes in Net Pension Liability

For Six Years Ended June 30, 2019*

	2019	2018	2017
Total Pension Liability			
Service Cost	\$ 218,865,385	\$ 214,222,176	\$ 219,475,741
Interest	1,425,430,990	1,411,403,403	1,405,827,435
Changes of Benefit Terms - Permanent Benefit Increase	1	1	1
Changes of Benefit Terms	875,621	657,700	1
Differences Between Expected and Actual Experience	88,972,166	(45,163,231)	(139,108,937)
Changes of Assumptions	68,669,381	83,241,388	41,711,761
Retirement Benefits	(1,343,892,705)	(1,317,635,325)	(1,274,461,022)
Refunds and Transfers of Member Contributions	(34,948,707)	(35,191,508)	(37,606,040)
Net Change in Total Pension Liability	423,972,131	311,534,603	215,838,938
Total Pension Liability - Beginning	19,103,640,164	18,792,105,561	18,576,266,623
Total Pension Liability - Ending (a)	\$ 19,527,612,295	\$ 19,103,640,164	\$ 18,792,105,561
Plan Fiduciary Net Position			
Employer Contributions	\$ 769,629,768	\$ 729,479,704	\$ 675,583,750
Employee Contributions	160,338,556	152,189,709	149,931,242
Harbor Police Transfer	1	1	1
Net Investment Income (Loss)	452,914,317	1,011,537,508	1,520,600,699
Other Income	13,052,134	15,198,732	14,049,255
Retirement Benefits	(1,343,892,705)	(1,317,635,325)	(1,274,461,022)
Refunds and Transfers of Member Contributions	(34,948,707)	(35,191,508)	(37,606,040)
Administrative Expenses	(16,785,776)	(14,732,258)	(17,074,984)
Other Postemployment Benefits Expenses	(538,097)	(9,525,495)	(904,975)
Depreciation and Amortization Expenses	(783,617)	(883,799)	(556,901)
Net Change in Plan Fiduciary Net Position	(1,014,127)	530,437,268	1,029,561,024
Plan Fiduciary Net Position - Beginning	12,283,713,118	11,753,275,850	10,723,714,826
Plan Fiduciary Net Position - Ending (b)	\$ 12,282,698,991	\$ 12,283,713,118	\$ 11,753,275,850
Net Pension Liability - Ending (a)-(b)	\$ 7,244,913,304	\$ 6,819,927,046	\$ 7,038,829,711

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

2017

Required Supplementary Information

62.5%

\$ 1,821,943,975

Schedules of Changes in Net Pension Liability (Continued)

64.3% 365.9% \$ 1,864,035,191 2018 62.9% 371.1% \$ 1,952,495,777 2019 Net Pension Liability as a Percentage of Covered Payroll Plan Fiduciary Net Position as a Percentage of Total For Six Years Ended June 30, 2019* Pension Liability Covered Payroll

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Schedules of Changes in Net Pension Liability (Continued)

For Six Years Ended June 30, 2019*

	2016	2015	2014
Total Pension Liability			
Service Cost	\$ 222,458,027	\$ 208,898,813	\$ 228,140,255
Interest	1,379,644,606	1,353,766,106	1,334,400,080
Changes of Benefit Terms - Permanent Benefit Increase	120,572,581	•	114,705,590
Changes of Benefit Terms	20,680,250	1	ı
Differences Between Expected and Actual Experience	(109,244,104)	13,638,601	(167,128,306)
Changes of Assumptions	1	1	1
Retirement Benefits	(1,238,507,932)	(1,199,079,252)	(1,167,477,166)
Refunds and Transfers of Member Contributions	(35,997,261)	(38,308,757)	(77,118,765)
Net Change in Total Pension Liability	359,606,167	338,915,511	265,521,688
Total Pension Liability - Beginning	18,216,660,456	17,877,744,945	17,612,223,257
Total Pension Liability - Ending (a)	\$ 18,576,266,623	\$ 18,216,660,456	\$ 17,877,744,945
Plan Fiduciary Net Position			
Employer Contributions	\$ 718,606,512	\$ 726,678,134	\$ 615,164,022
Employee Contributions	152,233,771	153,281,097	152,993,052
Harbor Police Transfer	10,790,721	1	ı
Net Investment Income (Loss)	(296,729,232)	152,809,130	1,770,521,381
Other Income	15,185,502	12,928,989	20,810,679
Retirement Benefits	(1,238,507,932)	(1,199,079,252)	(1,167,477,166)
Refunds and Transfers of Member Contributions	(35,997,261)	(38,308,757)	(77,118,765)
Administrative Expenses	(15,615,605)	(15,877,682)	(14,810,539)
Other Postemployment Benefits Expenses	(982,858)	(940,845)	(1,103,488)
Depreciation and Amortization Expenses	(419,718)	(1,193,314)	(1,724,101)
Net Change in Plan Fiduciary Net Position	(691,436,100)	(209,702,500)	1,297,255,075
Plan Fiduciary Net Position - Beginning	11,415,150,926	11,624,853,426	10,327,598,351
Plan Fiduciary Net Position - Ending (b)	\$ 10,723,714,826	\$ 11,415,150,926	\$ 11,624,853,426
Net Pension Liability - Ending (a)-(b)	\$ 7,852,551,797	\$ 6,801,509,530	\$ 6,252,891,519

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Schedules of Changes in Net Pension Liability (Continued)

For Six Years Ended June 30, 2019*

	2016	2015	го
Plan Fiduciary Net Position as a Percentage of Total			
	27.7%	62.7%	
	\$ 1,842,286,184	; 1,842,286,184 \$ 1,856,735,292 \$ 1,813,759,357	
Net Pension Liability as a Percentage of Covered Payroll	426.2%	366.3%	

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Schedules of Employers' Net Pension Liability

For Seven Years Ended June 30, 2019*

Employers' Net Pension Liability as a Percentage of Covered Payroll	373.2%	344.7%	366.3%	426.2%	386.3%	365.9%	371.1%
Covered Payroll	\$ 1,951,987,750	\$ 1,813,759,357	\$ 1,856,735,292	\$ 1,842,286,184	\$ 1,821,943,975	\$ 1,864,035,191	\$ 1,952,495,777
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	28.6%	65.0%	62.7%	57.7%	62.5%	64.3%	62.9%
Employers' Net Pension Liability	\$ 7,284,624,906	\$ 6,252,891,519	\$ 6,801,509,530	\$ 7,852,551,797	\$ 7,038,829,711	\$ 6,819,927,046	\$ 7,244,913,304
Plan Fiduciary Net Position	\$ 10,327,598,351	\$ 11,624,853,426	\$ 11,415,150,926	\$ 10,723,714,826	\$ 11,753,275,850	\$ 12,283,713,118	\$ 12,282,698,991
Total Pension Liability	\$ 17,612,223,257	\$ 17,877,744,945	\$ 18,216,660,456	\$ 18,576,266,623	\$ 18,792,105,561	\$ 19,103,640,164	\$ 19,527,612,295
Fiscal Year	2013	2014	2015	2016	2017	2018	2019

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Required Supplementary Information

Schedules of Employer Contributions For Ten Years Ended June 30, 2019

			Ū	Contributions				
			ij.	in Relation to				
		Actuarial		Actuarial	Ü	Contribution		Contributions
		Determined	I	Determined	1	Deficiency		as a % of
Date	<u>ا</u>	Contribution		Contribution		(Excess)	Covered Payroll	Covered Payroll
2010	↔	562,524,589	&	491,237,641	&	71,286,948	\$ 2,546,456,790	19.3%
2011	\$	651,770,540	8	558,183,107	8	93,587,433	\$ 2,408,839,604	23.2%
2012	\$	687,019,184	\$	637,285,920	8	49,733,264	\$ 2,341,703,286	27.2%
2013	\$	724,391,420	8	649,029,708	8	75,361,712	\$ 1,951,987,750	33.2%
2014	\$	709,799,409	&	612,698,414	8	97,100,995	\$ 1,813,759,357	33.8%
2015	\$	664,377,899	\$	722,137,361	8	(24,759,462)	\$ 1,856,735,292	38.9%
2016	\$	694,091,525	&	718,606,514	8	(24,514,989)	\$ 1,842,286,184	39.0%
2017	↔	701,906,777	↔	675,583,750	8	26,323,027	\$ 1,821,943,975	37.1%
2018	\$	707,672,002	↔	725,802,871	\$	(18,130,869)	\$ 1,864,035,191	38.9%
2019	S	717,033,569	8	760,150,449	8	(43,116,880)	\$ 1,952,495,777	38.9%

Schedules of Investment Returns

For Seven Years Ended June 30, 2019*

2017 2016 2015 2014 2013	14.9% -2.6% 1.5% 17.9% 12.1%
2018	8.9%
2019	3.8%
	annal Money-Weighted Rate of Return, Net of Investment Expense

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Required Supplementary Information

Schedules of the System's Proportionate Share of the Collective Total OPEB Liability

Proportionate Share of the Collective Total OPEB Liability as a % of Covered- Employee Payroll	222.30%	213 29%
Employers' Covered- Employee Payroll	\$ 8,317,152	\$ 8 627 155
System's Proportionate Share of the Collective Total OPEB Liability	\$ 18,489,294	18 401 229
Percentage of the Collective Total OPEB Liability	0.2127%	0.2156%
Fiscal Year	2018	2019

Note: The amounts presented have a measurement date of the previous fiscal year end.

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

For Two Years Ended June 30, 2019*

Notes to Required Supplementary Information

A. Schedules of Changes in Net Pension Liability

The total pension liability contained in this schedule was provided by the System's actuary, Foster & Foster. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the System.

B. Schedules of Employers' Net Pension Liability

The schedule of employers' net pension liability shows the percentage of LASERS employers' net pension liability as a percentage of covered employee payroll. The employers' net pension liability is the liability of contributing employers to members for benefits provided through LASERS. Covered employee payroll is the payroll of all employees that are provided with benefits through the plan.

C. Schedules of Employer Contributions

The difference between actuarially determined employer contributions and employer contributions received, and the percentage of employer contributions received to covered employee payroll is presented in this schedule.

D. Schedules of Investment Returns

The annual money-weighted rate of return is shown in this schedule. The money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. This expresses investment performance adjusted for the changing amounts actually invested throughout the year, measured on daily inputs with expenses measured on an accrual basis.

E. Schedules of the System's Proportionate Share of the Collective Total OPEB Liability

This schedule shows the System's proportionate share of the collective total OPEB liability allocated to its current employees and retirees participating in the State of Louisiana Postretirement Benefit Plan as of June 30, 2019. No assets are accumulated in a trust that meets the criteria in paragraph 4 of Statement 75. Fiscal year end 2018 data was used in determining the System's proportionate share of the collective total OPEB liability. The discount rate changed from 3.13% as of June 30, 2017 to 2.98% as of June 30, 2018. The number of retirees participating in the plan was the same for fiscal year end 2017 to 2018. There were no changes in benefit terms. The schedule also represents the percentage of the collective total OPEB liability to covered-employee payroll.

Required Supplementary Information

F. Actuarial Assumptions

Contributions presented in the Schedules of Employer Contributions were determined using the following actuarial assumptions and methods that were recommended by the System actuary, adopted by LASERS Board, and approved by the Public Retirement Systems' Actuarial Committee.

Valuation Date Actuarial Cost Method Actuarial Assumptions: June 30, 2019 and 2018 Entry Age Normal

Expected Remaining

Service Lives 2 and 3 years for 2019 and 2018, respectively

Investment Rate of Return 7.60% and 7.65% per annum for 2019 and 2018, respectively.

Inflation Rate 2.5% and 2.75% per annum for 2019 and 2018, respectively.

Mortality

Non-disabled members - Mortality rates for 2019 were based on the RP-2014 Healthy Mortality Table with mortality improvement projected using the MP-2018 Mortality Improvement Scale, applied on a fully generational basis. 2018 mortality rates were based on the RP-2000 Combined Healthy Mortality Table with mortality improvement projected to 2015

using scale AA.

Disabled members – Mortality rates based on the RP-2000 Disabled Retiree Mortality Table, with no projection for mortality

improvement.

Termination, Disability, and Retirement

Termination, disability, and retirement assumptions were projected based on a five-year (2014-2018) experience study of the System's members for 2019. 2018 was projected based on a five-year (2009-2013) experience study of the System's members.

Salary Increases

Salary increases were projected based on 2014-2018 and 2009-2013 experience studies of the System's members for 2019 and 2018, respectively. The salary increase ranges for 2019 specific types of members were:

	Lower	Upper
Member Type	Range	Range
Regular	3.2%	13.0%
Judges	2.8%	5.3%
Corrections	3.8%	14.0%
Hazardous Duty	3.8%	14.0%
Wildlife	3.8%	14.0%

Salary Increases (continued)

The salary increase ranges for 2018 specific types of members were:

	Lower	Upper
Member Type	Range	Range
Regular	3.8%	12.8%
Judges	2.8%	5.3%
Corrections	3.4%	14.3%
Hazardous Duty	3.4%	14.3%
Wildlife	3.4%	14.3%

Cost of Living Adjustments

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 projected benefit payments do not include provisions for potential future increases not yet authorized by the Board of Trustees as they were deemed not to be substantively automatic.

Financial Section

Supporting Schedules

Schedules of Administrative Expenses

	 2019	 2018
Administrative Expenses:		
Salaries and Related Benefits	\$ 12,118,442	\$ 11,877,303
Travel Expenses	137,983	99,842
Operating Services	3,113,205	2,709,818
Professional Services	1,368,596	2,407,166
Acquisitions	47,550	128,466
Capitalized Expenditures:		
ECM Software Project - Personnel Costs	\$ -	\$ (506,435)
ECM Software Project - Professional Services	-	(1,983,902)
Total Capitalized Expenditures	\$ -	\$ (2,490,337)
Total Administrative Expenses	\$ 16,785,776	\$ 14,732,258

Schedules of Investment Expenses

	2019	2018
Investment Activities Expenses:		
Alternative Investment Expenses		
Manager Fees	\$ 47,514,541	\$ 40,316,759
Profit Sharing Fees	3,150,317	1,377,205
Total Alternative Investment Expenses	50,664,858	41,693,964
Investment Management Expenses		
Manager Fees	30,321,475	30,748,384
Administrative Expenses	2,361,889	2,272,717
Profit Sharing Fees	3,684,710	1,264,874
Consultant Fees	731,125	710,000
Research and Data Services	608,819	509,142
Investment Performance Management	111,543	97,766
Investment Legal Expenses	117,993	-
Global Custodian Fees	143,172	147,466
Total Investment Management Expenses	38,080,726	35,750,349
Security Lending Expenses		
Securities Lending Management Fees	24,352,880	14,499,400
Total Investment Expenses	\$ 113,098,464	\$ 91,943,713

Financial Section

Supporting Schedules

Schedules of Board Compensation

	203	19	201	8
Board of Trustees	Number of Meetings	Amount	Number of Meetings	Amount
Thomas Bickham ¹	14	\$ -	14	\$ -
Virginina Burton	11	825	15	1,125
Beverly Hodges	13	975	15	1,125
William Kleinpeter	14	1,050	13	975
Janice Lansing	12	900	12	900
Barbara McManus	14	1,050	7	525
Lori Pierce ¹	12	225	13	-
Kathy Singleton	-	-	6	450
Shannon Templet ¹	13	-	14	-
Lorry Trotter	13	975	13	975
Total Compensation		\$ 6,000		\$ 6,075

 $^{^{1}}$ Board member chose not to receive per diem for all or part of their term.

Schedules of Professional/Consultant Fees

	2019	2018
Accounting and Auditing		
Duplantier, Hrapmann, Hogan & Maher, LLP	\$ -	\$ 77,450
Postlethwaite & Netterville, APAC	78,917	21,742
Actuary		
Foster & Foster Actuaries & Consultants, Inc.	226,500	179,262
Legal Fees		
Laura Denson Holmes	7,963	2,625
Lowenstein Sandler	70,353	48,736
Tarcza & Associates, LLC	2,015	10,720
Disability Program		
Physician and Other Reviews	45,050	35,850
Other Professional Services		
Cognizant Technology Solutions US Corp.	848,268	1,983,902
Election Services, Co.	4,210	37,954
Q Software Global, LLC	7,200	8,000
Sparkhound	78,120	-
Other Non-Consultant Professionals	-	925
Professional Service/Consultant Fees	\$ 1,368,596	\$ 2,407,166

Financial Section

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INVESTMENT

Section

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September 24, 2019

Dear Members,

The Louisiana State Employees' Retirement System (LASERS) earned a 4.4% gross-of-fees, time-weighted return on investments for the fiscal year ended June 30, 2019. As a result, the total gross-of-fee investment value of the fund as of June 30, 2019 exceeded \$11.5 billion. Annualized rates of return for both the three-year and 10-year periods were 9.8%. These returns place LASERS in the top thirtieth percentile for the three-year period and above median for the 10-year period, as compared to other public pension plans with market values greater than \$1 billion in the Wilshire Trust Universe Comparison Service (TUCS)¹.

The fiscal year was marked by a return of volatility in the second half of 2018. Following three consecutive quarters of positive economic growth including historically low unemployment, wage increases and strong corporate earnings, markets took a dramatic tumble in October 2018. The selloff in stocks and volatility in credit spreads were driven by a number of issues, including global trade tensions, especially between the U.S. and China, as well as Mexico. The final outcome of Brexit and uncertainty over monetary policy also contributed. The U.S. Federal Open Market Committee (FOMC) raised the federal funds rate by 0.25% twice in the second half of 2018, then indicated no rate increases for 2019, but rather the probability of its first rate cut since the 2008 financial crisis. This accommodative action followed suit with the expectation of other central banks.

For the fiscal year, the Plan's allocation to Alternative Assets (private markets, absolute return strategies, and risk parity) performed best, returning 7.5%ⁱⁱ. The private markets portfolio alone returned 11.7% for the period, making it the Plan's best performing asset class for the fiscal year overall. The Fixed Income allocation (domestic investment grade and high yield, emerging market debt, and global multi-sector) followed closely behind with a return of 6.8%. While still relatively new, having been implemented in 2016, the Plan's allocation to Global Multi-Sector assets performed best in the Fixed Income space, returning 20 basis points above its benchmark. The overall Equity allocation returned 2.4%. In Equities, the Plan's International Large Cap Value assets performed best, returning 240 basis points above its benchmark, followed by the Plan's International Emerging Markets assets, which out-performed its benchmark by 180 basis points.

BOARD OF TRUSTEES:

Shannon Templet, Board Chair Thomas Bickham, Vice Chair Virginia Burton Commissioner Jay Dardenne Beverly Hodges Judge William Kleinpeter Janice Lansing Barbara McManus Sen. Barrow Peacock Rep. Kevin Pearson Lori Pierce Hon. John Schroder Lorry Simmons Trotter

Cindy Rougeou, Executive Director



LASERS maintains its commitment to a broadly diversified portfolio and continues to comprehensively monitor the plan's investments in relation to current market environments. We continue to believe that LASERS is well-positioned to meet its long-term goals and objectives.

Sincerely,

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Robert W. Beale, CFA, CAIA Chief Investment Officer

ⁱ Based on Wilshire's TUCS Rankings dated August 22, 2019.

ⁱⁱ LASERS custodian bank serves as book of record and calculates investment performance on behalf of the Plan.



RHETT HUMPHREYS, CFA
PARTNER

August 31, 2019

Board of Trustees **Louisiana State Employees' Retirement System**8401 United Plaza Blvd.
Baton Rouge, LA 70809

Dear Board Members,

As an independent investment advisor to the Louisiana State Employees' Retirement System (System) and its Board of Trustees (Board), NEPC is pleased to provide a fiscal-year ending overview of the investment policies, investment planning and implementation, and investment compliance, as well as a summary of investment markets during the fiscal year ending 2019.

INVESTMENT POLICIES

The System's investment policy can be accessed online at https://lasersonline.org/investments/investment-policy/. The investment policy includes a summary of the controlling statutes and regulations, the roles and responsibilities of those with oversight and management of the investment program, the System's investment objectives, an outline of the strategic asset allocation, and guidelines for managing and monitoring the investment program.

In NEPC's opinion, the Sytem's assets are managed under a transparent set of investment policies and guidelines. These policies and guidelines appropriately highlight the long-term strategic performance objectives of the System and emphasize the dual importance of maintaining robust risk controls while pursuing long-term return objectives.

INVESTMENT PLANNING AND IMPLEMENTATION

The System's investment program continues to evolve to address a dynamically changing investment market. In Fiscal Year 2019, the strategic asset allocation has a 55% target to public equities, a 16% target allocation to fixed income, and a 29% target allocation to other alternative asset classes. NEPC and the System's staff have focused on building an appropriate blend of return-seeking and diversifying sub-asset classes and investment managers in the implementation of the equity, fixed income, and alternatives portfolios.

Based on the current target allocations, NEPC forecasts a base-case expected nominal return over the next 5-7 years of 7.6% (annualized) and a return of 9.0% (annualized) over the next 30-years. The current target allocation provides meaningful diversification of the portfolio's sources of risk compared to a traditional 60/40 global stock and bond portfolio. Additional risk metrics, such as stress testing the portfolio under multiple economic scenarios, has been applied in establishing the current target allocation in order to assure a reasonable balance between potential investment gains and downside protection.

255 State Street | Boston, MA 02109 | TEL: 617.374.1300 | www.nepc.com BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO



FISCAL YEAR 2019 MARKET COMMENTARY

The U.S. economy continued its historically long growth streak over the fiscal year that ended June 30, 2019 ("FY 2019"), providing an accommodative backdrop for capital markets. Mid-way through the year, the Federal Reserve ("The Fed") reversed course and adopted a more dovish stance, signaling the potential to cut rates in the near future. The Fed mirrored most other central banks whose accommodative policies are expected to persist in 2019 and, perhaps, beyond. As a result, risk assets pushed higher across the board. Domestic stocks, as measured by the S&P 500 Index, capped off the fiscal year on a record high. U.S. equities outperformed their international counterparts by 9.3%, with the S&P 500 and MSCI EAFE (net) indexes returning 10.4% and 1.1%, respectively. Developed international equity markets were in the black despite a strengthening U.S. dollar and concerns around U.S. trade policy. In particular, emerging market equities underperformed the U.S. but modestly outpaced developed international equities. The dovish pivot by the Fed also bolstered fixed-income returns, broadly causing yields to decline. In the U.S., highquality fixed income, as measured by the Bloomberg Barclays U.S. Aggregate Bond Index, returned 7.9%. Credit spreads also narrowed amid a sustained appetite for risk, resulting in the Barclays U.S. High Yield Index returning 7.5% for the fiscal year ending June 30.

INTERNAL COMPLIANCE AND OVERSIGHT

The constant testing of System's portfolios and the continuous review of the compliance function itself is considered to be best practice within the investment industry. While serving as the System's investment advisor, NEPC has witnessed staff's consistent and ongoing efforts to improve the effectiveness of their internal reporting and compliance procedures. NEPC also believes that the Investment Division's support of the CFA® Institute's Code of Ethics and Standards of Professional Conduct, as well as the guidelines and procedures that are set forth in the LASERS Personal Trading Policies, are consistent with industry best practices.

The daily management of the System's assets has been clearly delegated to the System's investment staff. In NEPC's opinion, this clear delegation and responsibility and accountability helps the Board maintain effective oversight of the System's defined benefit, and defined contribution funds. Quarterly performance reviews, regular oversight of staff's activities, and frequent meetings with staff and the investment service providers has become a critical component in support of the Board's oversight duties.

Sincerely,

Rhett Humphreys, CFA

Rhett Kumphan

Partner

Summary of Investment Policy

I. Statement of Investment Objectives

This document specifically outlines the investment philosophy and practices of LASERS and has been developed to serve as a framework for the management of the System's defined benefit plan. The Board has established the investment guidelines to formalize investment objectives, policies and procedures, and to define the duties and responsibilities of the various entities involved in the investment process. All policy decisions shall include liquidity and risk considerations that are prudent and reasonable under the circumstances that exist over time. The policies will evolve as the internal conditions of the fund and the capital markets environment changes. Any resulting material changes will be communicated to all affected parties.

II. Controlling Statutes and Regulation

Investments of the Louisiana State Employees' Retirement System shall be made in full accordance with Louisiana Revised Statutes, applicable legislation or regulation as well as LASERS internal policies and procedures. Among other applicable rules and regulations, the following apply:

LASERS shall operate under the "Prudent Man" rule, used herein meaning, that when investing, the Board shall exercise the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent institutional investor acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. LASERS will apply this standard to the entire fund portfolio, and as part of an overall investment strategy. This will include an asset allocation study and a plan for implementation which will incorporate risk and return objectives reasonably suitable to the fund. The following types of risk are to be examined: market value, credit, interest rate, inflation, counterparty, and concentration. The study and implementation of such plan will be designed to preserve and enhance principal over the long term, provide adequate liquidity and cash flow for the system, and minimize the risk of loss unless it is clearly prudent not to do so.

LASERS is subject to a legislative limit restricting the fund so that no more than 65% of its total assets are invested in publicly traded equities. Should LASERS have more than 55% of its total assets invested in publicly traded equities, at least 10% of those equities must be invested in one or more index funds. Alternative assets are not considered to be equities when calculating LASERS equity exposure. LASERS is aware that markets will fluctuate, and any rebalancing will appropriately consider market conditions and any other relevant factors.

III. Roles and Responsibilities

The following section outlines the roles and responsibilities for each of the parties involved with executing the policy. In addition to the activities described below, each person involved with the policy serves as a fiduciary and will adhere to the "Prudent Man" rule as described in State Statute.

Board of Trustees

The Board of Trustees is responsible for the total investment program. The Board shall approve

the investment policy, and provide overall direction to the administrative staff in the execution of the investment policy. The Board will conduct formal annual evaluations of the administrative staff, investment consultant and custodian.

Investment Committee

The Investment Committee was established by the Board to assist in oversight of the investment program; it will consist of not less than seven members of the Board. The Committee reviews and makes recommendation to the Board on investment actions including, but not limited to, the following:

- Asset Allocation
- Asset Management
- Risk Control
- Monitoring

Chief Investment Officer

The Chief Investment Officer (CIO) shall assist the Board in developing and modifying policy objectives and guidelines, including the development of liability driven asset allocation strategies and recommendations on long-term asset allocation and the appropriate mix of investment manager styles and strategies. Choosing appropriate manager styles and strategies will include assisting the Board in evaluating the use of index funds as an alternative to active management. Additionally, the CIO shall provide assistance in manager searches and selection, investment performance calculation and evaluation, and any other analysis associated with the proper execution of the Board's directives.

The CIO shall also communicate the decisions of the Investment Committee to investment managers, custodian bank(s), actuary, and consultant. The CIO provides oversight of the investment consultant, investment service providers, and personnel of LASERS investment division.

Investment Consultant

The Investment Consultant works under direction of the Board, offering a third-party perspective and providing an additional level of oversight to the System's investment program. The Consultant's normal functions shall include assisting the Board and the CIO in developing and modifying policy objectives and guidelines, including the development of a liability-driven asset allocation strategy and recommendations on the appropriate mix of investment manager styles, strategies and funding levels.

Investment Managers

The duties and responsibilities of each of the investment managers retained by the Board include, but may not be limited to, the following:

- Investing the assets under its management in accordance with the policy guidelines and objectives as well as directives listed in individual investment manager agreements.
- Meeting or exceeding the manager-specific benchmarks, net of all fees and expenses.
- Exercising investment discretion within the guidelines and objectives.

- Complying with all provisions pertaining to the investment manager's duties and responsibilities as a fiduciary.
- Complying with the CFA Institute's Code of Ethics & Standards of Professional Conduct and Global Investment Performance Standards (GIPS).
- Disclosing all conflicts and potential conflicts of interest.
- Ensuring that all portfolio transactions are made on a "best execution" basis.
- Exercising ownership rights, where applicable.
- Meeting with the Board as needed upon request of the Board, and timely submitting all required reports.
- Promptly informing the Board regarding all significant matters pertaining to the investment of the fund assets.
- Initiating written communication with the Board when the manager believes that this Investment Policy is inhibiting performance and/or should be altered for any valid reason. No deviation from the guidelines and objectives established in the Policy is permitted until after such communication has occurred and the Board has approved such deviation in writing.
- Reconciling performance, holdings and security pricing data with the Fund's custodian bank.
- Any other duties included in the contract.

Custodian Bank

The Custodian is responsible for the safekeeping of System assets and serves as the official book of record. It is understood that investments that are held in partnerships, commingled accounts or unique asset classes are unable to be held by the System's custodian bank.

The Custodian(s) will be responsible for performing the following functions:

- Holding System assets directly, through its agents, its sub-custodians, or designated clearing systems.
- Registration of System assets in good delivery form, collection of income generated by those assets, and any corporate action notification.
- Delivery and receipt of securities.
- Disbursement of all income or principal cash balances as directed.
- Providing daily cash sweep of idle principal and income cash balances.
- Providing online records and reports.
- Providing monthly statements by investment managers' accounts and a consolidated statement
 of all assets.
- Providing monthly performance reports and quarterly performance analysis reports.
- Notifying appropriate entities of proxies.
- Managing the securities lending program (if applicable).
- Overseeing domestic securities class actions on behalf of the System.
- Providing a compliance monitoring system.
- Any other duties and services included in the contract.

IV. Investment Objectives

Nominal Return Requirements

The investment program shall be structured to preserve and enhance principal over the long term,

in both real and nominal terms. For this purpose, short-term fluctuations in values will be considered secondary to long-term investment results. The investments of the Fund shall be diversified to minimize the risk of significant losses. Total return, which includes realized and unrealized gains, plus income less expenses, is the primary goal of LASERS.

The actuarial valuation discount rate for the Fund was 7.65% for the period ending June 30, 2019. However, LASERS seeks to achieve a long-term actuarial assumed rate of return that is 55 basis points greater than the discount rate in order to offset administrative and gain-sharing expenses. LASERS Board adopted a plan to reduce the discount rate to 7.5%. This will be achieved by decreasing the discount rate in 0.05% increments annually.

Relative Return Requirements

LASERS seeks to have total returns rank in the top half of the appropriate public fund universe, reflecting similar circumstances to the Fund. The Total Fund return should, over time, exceed the Policy and Allocation Indices. Returns for LASERS managers should exceed their respective benchmarks, as well as rank in the top half of the appropriate universe of managers adhering to the same investment strategy.

The Board further recognizes that the return targets described herein may not be achieved in any single year. A longer-term horizon of 5-7 years shall be used in measuring the long-term success of the Fund. While the Board expects that returns will vary over time, LASERS has a risk tolerance consistent with that of other funds created for similar purposes, and the assets of the Fund shall be invested accordingly.

V. Performance Benchmarks

Total Fund Return

The Total Fund return shall be compared against other public pension plans. LASERS will compare its returns against other funds of similar size and circumstances. LASERS Total Fund return should meet or exceed the Allocation Index return and the Policy Index return, which are each described below.

Allocation Index

The Allocation Index return shall measure the success of the Fund's current allocation. It shall be calculated by using index rates of return for each asset class invested in by the Fund multiplied by the actual percent allocated to each asset class. The difference between the Allocation Index return and the Total Fund return measures the effect of active management. If the Total Fund return is greater than the Allocation Index return, then active management has in aggregate added value. If the Total Fund return is less than the Allocation Index return, then active management has not added value.

Policy Index

The Policy Index return shall measure the success of the Fund's target allocation. It shall be calculated by using index rates of return for each asset class invested in by the Fund multiplied by the percent targeted to each asset class. The difference between the Allocation Index return and the Policy Index return measures the effects of deviating from the target allocation. If the Allocation Index return is greater than the Policy Index return, then deviating from the target allocation has

added value. If the Allocation Index return is less than the Policy Index return, then deviating has not added value.

Manager Benchmarks

LASERS Investment Managers shall be compared to a combination of passively managed index returns matching the managers' specific investment styles, as well as the median manager in their appropriate peer group universe.

VI. Asset Allocation

The foundation of the System's strength and stability rests upon the diversification of plan assets. The following section outlines the current asset allocation, which was designed to achieve the required return objectives of the System, given certain risk considerations. This is to be pursued by LASERS on a long-term basis, but will be revised if significant changes occur within the economic and/or capital market environments. Changes in liability structure, funded status, or long-term investment prospects should trigger a revision of the asset allocation.

Based on the Board's determination of the appropriate risk tolerance for the System and its long-term expectations, the following asset class policy target allocation and permissible ranges have been established:

Target Asset Mix

	Market Value	Minimum	Maximum
Asset Class	Target (%)	Exposure (%)	Exposure (%)
Equities	55	45	65
Domestic Large Cap	13	8	18
Domestic Mid and Small Cap	10	5	15
Established International Equity	20	10	30
Emerging International Equity	12	6	18
Fixed Income	16	6	26
Core Fixed Income	3	0	10
Domestic High Yield	3	0	10
Global Multi-Sector	7	2	12
Emerging Market Debt	3	0	8
Cash	0	0	5
Alternative Assets	29	19	35
Private Markets	15	10	20
Absolute Return	7	2	12
Risk Parity	7	2	12

Implementation

LASERS recognizes that special expertise is required to properly invest the majority of the assets described. However, certain highly efficient passively managed investment strategies lend themselves to internal management, resulting in lower management fees for the Fund as a whole. Where appropriate, LASERS will manage these assets internally, so long as the same level of care, prudence and oversight is maintained that an outside professional investment advisor would typically provide.

Rebalancing

The CIO will review LASERS asset allocation at least quarterly to determine if it is consistent with the exposure ranges established for LASERS described herein. The CIO will direct staff and investment managers to transfer funds to rebalance the asset allocation as necessary. The CIO will consider market conditions and transaction costs, as well as any other relevant factors when rebalancing.

VII. Risk Management

It is recognized that risk issues permeate the entire investment process, and risk is considered throughout the investment process from asset allocation to performance evaluation. Ongoing monitoring will be accomplished through a "mosaic" approach, in which various forms of analysis and reporting contribute to the total picture. Inspection of levels of diversification, nominal risk exposures, risk/return plots, sortino ratio, Value at Risk, tracking error, and worst-case scenarios modeling form the core of the monitoring process.

VIII. Manager Selection

LASERS reserves the right to retain managers to oversee portions of the System's assets. Manager selection is accomplished in accordance with the vendor selection criteria in LASERS Board Governance Policy.

LASERS will not consider the selection of any manager without first setting a target allocation to a particular asset class, and determining that a manager is needed to implement that allocation strategy. Once LASERS has determined that a manager search is warranted, it will establish certain minimum criteria for a manager to be considered eligible to participate in the search. LASERS intends that any qualified candidate receive fair consideration. As such, industry recognized databases will be used for screening purposes to ensure that an unbiased and objective search process is achieved.

In selecting investment managers LASERS will follow a due diligence process, so as to avoid selecting managers on an ad-hoc basis. The process will involve analyzing investment manager candidates in terms of appropriate criteria. LASERS shall strive to hire investment managers that offer the greatest incremental benefit to the Fund, net of fees and expenses, in accordance with, but not limited to, the due diligence criteria listed below:

Qualitative Factors

- Appropriateness of investment philosophy and process
- Fit between product and existing plan assets, liabilities and objectives

Length of key professionals' tenures

Quantitative Factors

- Absolute and relative returns, and variability of returns
- Portfolio characteristics

Organizational Factors

- Length of firm history
- Stability of the firm's client base and assets under management
- Ownership structure
- Compensation structure
- Fee structure
- References and professional qualifications

As private markets does not lend itself to traditional manager searches, LASERS shall seek to perform the same level of due diligence on these opportunities as it would in a typical manager search. Because most private markets products have only brief, discrete time periods during which they are raising assets, LASERS will consider an additional investment with an existing manager if the investment philosophy, process, people, performance and fees are materially similar to previous investments. LASERS may invest with a new manager only after the appropriate due diligence is performed.

As part of the search process prospective candidates will be required to disclose any campaign contributions made to any LASERS Trustee, staff member or elected official in Louisiana who can influence the selection of an advisor or manager.

IX. Investment Manager Guidelines

Full discretion, within the parameters of the guidelines, is granted to the investment managers regarding the selection of securities, and the timing of transactions. Compliance with all guidelines must be monitored by the investment managers on a regular basis (monthly or more frequently when market conditions warrant), and based on then current market values. Securities that, at purchase, would move the portfolio out of compliance with these guidelines, based on the investment manager's most recent valuation, may not be purchased.

In the event that a portfolio moves out of compliance with these guidelines (as identified in the investment manager's regular review of the portfolio), through market conditions or other changes outside the control of the manager, the manager must bring the portfolio composition back into compliance within 45 days, or make a written request to LASERS Investment Committee for a compliance waiver.

X. Investment Manager Monitoring

General Guidelines

LASERS shall monitor and evaluate manager performance using the following resources:

- Monthly performance reports
- Quarterly Investment Performance and Portfolio Analysis

- Comprehensive Manager Reviews at the end of a manager's contract with LASERS
- Other analyses as needed

Monitoring and Verification

Certain guidelines lend themselves to straightforward manager compliance monitoring. These guidelines will be monitored using daily holdings and transaction information provided by the Fund's custodian bank. The custodian will monitor manager compliance by way of their investment policy reporting software, and shall be responsible for alerting the Staff if a manager is out of compliance.

Guidelines which do not lend themselves to straightforward manager compliance monitoring shall rely on manager supplied attestations of compliance. A guideline compliance checklist shall be reviewed every quarter to ensure that all managers have reported guideline compliance, and note instances where managers claim to be out of compliance.

Manager Evaluation

- LASERS portfolios shall be measured over various and appropriate time periods.
- A horizon of 3-7 years shall be used in measuring the long-term success of the manager.
- Shorter time periods shall be evaluated as appropriate and necessary. LASERS shall make every effort to look at all factors influencing manager performance, and attempt to discern market cyclicality from manager over/underperformance.
- On a timely basis, at least quarterly, the Board will review actual investment results achieved
 by each manager (with a perspective toward a three- to five-year time horizon or a peak-topeak or trough-to-trough market cycle) to determine whether the investment managers
 performed satisfactorily when compared with the objectives set, and in relation to other
 similarly managed funds.
- Investment managers will periodically, upon request, present to the Board a portfolio review. This should include an update of the firm, current investments, their investment process, performance and their outlook for the market.
- The Board will periodically assess the continued appropriateness of: (1) the manager structure;
 (2) the allocation of assets among the managers; and (3) the investment objectives for LASERS assets.
- The Board may appoint investment consultants to assist in the ongoing evaluation process. The
 consultant(s) selected by the Board are expected to be familiar with the investment practices of
 similar retirement plans and will be responsible for suggesting appropriate changes in LASERS
 investment program over time.

Schedules of Investment Expenses and Asset Allocation

By Investment Manager Classificationi

For Year Ended June 30, 2019

				Asset A	llocation
Investment Type		Fair Value	Fees	Target	Actual
Fixed Income Managers					
Domestic Fixed Income	\$	684,828,015	\$ 1,805,025	6.0%	6.0%
International Fixed Income		1,125,916,923	5,894,212	10.0%	9.8%
Total Fixed Income		1,810,744,938	7,699,237	16.0%	15.8%
Equity					
Domestic Equity		2,608,680,404	1,369,800	23.0%	22.7%
International Equity		3,667,000,710	16,073,905	32.0%	31.9%
Total Equity		6,275,681,114	17,443,705	55.0%	54.6%
Alternative Investments		2,498,427,982	50,664,858	22.0%	21.7%
Risk Parity		834,882,508	7,627,766	7.0%	7.3%
Cash		71,586,923	-	0.0%	0.6%
Self-Directed Plan/ORP ⁱⁱ		586,681,216	1,235,477	N/A	N/A
Total	\$	12,078,004,681	\$ 84,671,043	100.0%	100.0%
Other Investment Expenses					
Administrative Expenses			2,361,889		
Consultant Fees			731,125		
Research and Data Services			608,819		
Investment Performance Mana	igeme	ent	111,543		
Investment Legal Expenses			117,993		
Global Custodian Fees			143,172		
Securities Lending Managemen	nt Fee	es	 24,352,880		
Total Investment Expenses			\$ 113,098,464		

¹Financial Statements are prepared on the basis of security class. As specified in Manager Guidelines, at any given point in time, a money manager may have securities not specifically within their defined investment manager type due to market conditions.

ⁱⁱSelf-Directed and Optional Retirement Plans are managed by a third party and are not included in the target asset allocation of LASERS main plan.

Schedules of Investment Expenses and Asset Allocation (Continued)

By Investment Manager Classificationⁱ

For Year Ended June 30, 2018

				Asset A	llocation
Investment Type		Fair Value	Fees	Target	Actual
Fixed Income Managers					
Domestic Fixed Income	\$	850,095,115	\$ 2,131,941	6.0%	7.4%
International Fixed Income		653,690,366	 4,985,070	10.0%	5.7%
Total Fixed Income		1,503,785,481	7,117,011	16.0%	13.2%
Equity					
Domestic Equity		2,961,269,280	1,827,896	23.0%	25.9%
International Equity		3,792,358,672	16,736,264	32.0%	33.1%
Total Equity		6,753,627,952	18,564,160	55.0%	59.0%
Alternative Investments		2,347,575,870	41,693,964	22.0%	20.5%
Risk Parity		784,834,388	5,134,841	7.0%	6.9%
Cash		50,812,731	-	0.0%	0.4%
Self-Directed Plan/ORP ⁱⁱ		572,309,487	1,197,246	N/A	N/A
Total	\$	12,012,945,909	\$ 73,707,222	100.0%	100.0%
Other Investment Expenses					
Administrative Expenses			2,272,717		
Consultant Fees			710,000		
Research and Data Services			509,142		
Investment Performance Manag	geme	ent	97,766		
Investment Legal Expenses			-		
Global Custodian Fees			147,466		
Securities Lending Management	t Fee	es	 14,499,400		
Total Investment Expenses			\$ 91,943,713		

ⁱFinancial Statements are prepared on the basis of security class. As specified in Manager Guidelines, at any given point in time, a money manager may have securities not specifically within their defined investment manager type due to market conditions.

ⁱⁱSelf-Directed and Optional Retirement Plans are managed by a third party and are not included in the target asset allocation of LASERS main plan.

Largest Equity Holdings June 30, 2019

	Shares	Stock Description	I	Fair Value
1)	278,188	Apple Inc.	\$	55,058,969
2)	384,300	Microsoft Corp.	\$	51,480,828
3)	20,700	Amazon.com Inc.	\$	39,198,141
4)	813,200	Samsung Electronics Co. Ltd.	\$	33,101,274
5)	305,973	Nestle SA	\$	31,714,494
6)	278,272	Novartis AG	\$	25,458,320
7)	128,971	Facebook Inc.	\$	24,891,403
8)	164,200	Johnson & Johnson	\$	22,869,776
9)	187,481	JP Morgan Chase & Co.	\$	20,960,376
10)	97,200	Berkshire Hathaway Inc.	\$	20,720,124

Largest Debt Holdings

June 30, 2019

_	Par Value	Bond Description		air Value
1)	17,655,000	U S Treasury Note 3.125% 15-Nov-2028	\$	19,365,328
2)	15,640,000	U S Treasury Note 2.875% 15-Aug-2028	\$	16,808,113
3)	26,120,000	Republic of Poland Government 2.500% 25-Jan-2023	\$	7,159,676
4)	112,491,000	Mexican Bonos 10.000% 05-Dec-2024	\$	6,528,426
5)	21,700,000	Brazil Notas Do Tesouro Nacion 10.000% 01-Jan-2021	\$	5,976,741
6)	158,370,000	Thailand Government Bond 3.775% 25-Jun-2032	\$	5,974,502
7)	17,066,000,000	Colombian Tes 7.500% 26-Aug-2026	\$	5,893,977
8)	78,826,000,000	Indonesia Treasury Bond 8.375% 15-Mar-2024	\$	5,880,844
9)	70,590,000	Republic of South Africa Gover 10.500% 21-Dec-2026	\$	5,657,212
10)	104,498,000	Republic of South Africa Gover 6.250% 31-Mar-2036	\$	5,454,987

The list of largest holdings excludes commingled funds. A complete list of LASERS portfolio holdings is available upon request.

Largest Alternative Investment Holdings June 30, 2019

	Description	Fair Value		
1)	Bridgewater Custom All Weather @ 12%, LLC	\$	430,481,758	
2)	AQR Multi-Strategy Fund XVII, LP	\$	404,400,750	
3)	Prisma Pelican Fund, LLC	\$	264,876,100	
4)	Entrust Magnolia Partners, LP - Class A	\$	198,446,816	
5)	Bridgewater Pure Alpha Trading Company LTD.	\$	181,808,846	
6)	Vista Equity Partners Fund VI, LP	\$	116,795,377	
7)	Cerberus Institutional Partners VI, LP	\$	112,646,844	
8)	Doubleline Mortgage Opportunities Fund	\$	99,149,691	
9)	Vista Equity Partners Fund V, L.P.	\$	97,372,348	
10)	Arclight Energy Partners Fund VI, LP	\$	67,589,969	

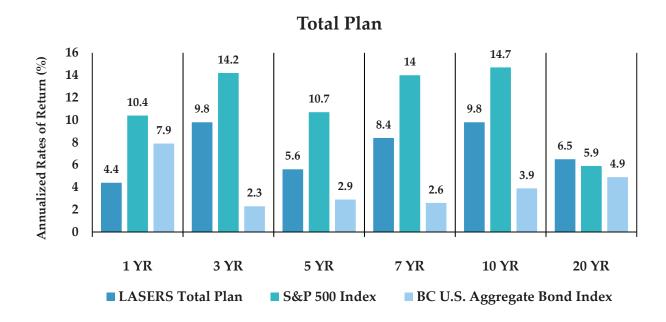
Largest Louisiana Holdings

June 30, 2019

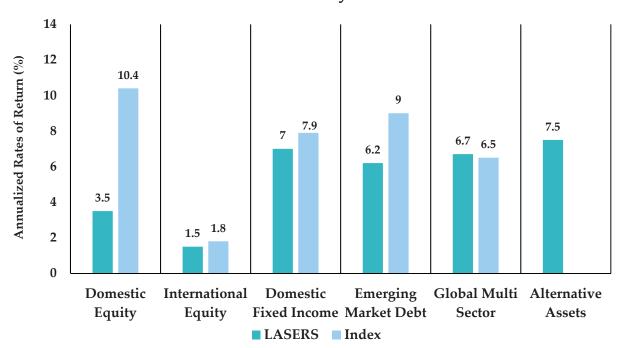
	Company	Fair Value			
1)	United Weld Holdings, LP	\$	13,679,994		
2)	Bernhard LLC	\$	10,780,261		
3)	Brown & Root Industrial Services, LLC	\$	9,704,320		
4)	CenturyLink Inc.	\$	4,160,281		
5)	Lemoine Services Holdings, LP	\$	3,263,806		
6)	Lamar Advertising Co.	\$	1,818,424		
7)	Pool Corp.	\$	1,645,000		
8)	LHC Group	\$	1,303,422		
9)	Entergy Corp.	\$	977,835		
10)	Amedisys Inc.	\$	936,285		

LASERS supports Louisiana by investing in companies that impact local economies. For the fiscal year ended June 30, 2019, LASERS invested approximately \$287 million in Louisiana stocks, bonds, and private markets. The above table illustrates the top ten companies headquartered in Louisiana in which LASERS invests.

Rates of Returnⁱ June 30, 2019



Fiscal Year Return by Asset Class*



^{*}The index for each asset class in the graph is listed in the table on the following page.

Rates of Returnⁱ (continued) June 30, 2019

	Ann	ual Retu	ırns	Annualized Rates of Return			'n	
	2019	2018	2017	3	5	7	10	20
	2019	2010	2017	YR	YR	YR	YR	YR
Total Fund								
LASERS Total Plan	4.4%	9.5%	15.8%	9.8%	5.6%	8.4%	9.8%	6.5%
S&P 500 Index	10.4%	14.4%	17.9%	14.2%	10.7%	14.0%	14.7%	5.9%
Domestic Equity								
LASERS Domestic Equity	3.5%	14.5%	19.1%	12.2%	8.7%	13.0%	14.4%	6.8%
S&P 500 Index	10.4%	14.4%	17.9%	14.2%	10.7%	14.0%	14.7%	5.9%
International Equity								
LASERS International Equity	1.5%	6.8%	22.2%	9.8%	2.8%	6.7%	7.5%	5.5%
MSCI World Ex-USA Index	1.8%	7.6%	20.1%	9.6%	2.6%	7.5%	7.3%	4.6%
Domestic Fixed Income								
LASERS Domestic Fixed Income	7.0%	2.4%	7.8%	5.7%	4.3%	6.1%	8.5%	7.2%
Bloomberg Barclays U.S. Aggregate Bond Index	7.9%	-0.4%	-0.3%	2.3%	2.9%	2.6%	3.9%	4.9%
Emerging Market Debt								
LASERS Emerging Market Debt	6.2%	-3.2%	7.2%	3.3%	-1.4%	N/A	N/A	N/A
J.P. Morgan GBI-EM Global Diversified Index	9.0%	-2.3%	6.4%	4.2%	-0.5%	0.4%	3.4%	N/A
Global Multi-Sector								
LASERS Global Multi-Sector	6.7%	5.8%	4.1%	7.5%	N/A	N/A	N/A	N/A
50/50 Bloomberg Barclays Global Aggregate Index/ Credit Suisse High Yield Index	6.5%	2.1%	5.2%	N/A	N/A	N/A	N/A	N/A
Alternative Assets								
LASERS Alternative Assets ⁱⁱ	7.5%	11.9%	9.7%	9.7%	6.4%	7.5%	8.6%	9.7%

¹ Investment Performance calculated for periods over two years use monthly returns geometrically linked to calculate annualized "time-weighted" rates of return. All returns presented are calculated gross of fees one quarter in arrears. Investment Performance does not include the Self-Directed Plan and Optional Retirement Plan Funds.

ⁱⁱ Benchmark information is not available for alternative assets.

Schedule of Brokerage Commissions Paid For the Period Ended June 30, 2019

				Av	erage
				Com	mission
Brokerage Firm		nmissions	Shares Traded	Per Share	
Merrill Lynch Pierce Fenner Smith	\$	204,678	180,229,291	\$	0.001
Goldman Sachs & Co.		107,910	22,927,986		0.005
UBS Securities LLC		65,086	73,926,056		0.001
Morgan Stanley & Co. Inc.		59,647	77,330,482		0.001
Investment Technology Group Inc.		50,312	18,471,974		0.003
Raymond James Inc.		47,243	1,930,749		0.024
Citigroup Global Markets, Ltd.		42,847	41,380,053		0.001
Barclays Capital		41,209	8,566,598		0.005
William Blair & Company		38,678	1,289,273		0.030
Robert W. Baird & Co. Inc.		35,848	1,194,936		0.030
Instinet Corp.		35,330	12,095,406		0.003
JP Morgan Securities Inc.		34,706	13,151,479		0.003
Credit Suisse		34,232	55,030,084		0.001
Needham & Co. LLC		29,432	981,059		0.030
Stifel Nicolaus		27,633	917,393		0.030
RBC Capital Markets LLC		26,555	9,342,101		0.003
Deutsche Bank Securities Inc.		24,452	7,758,182		0.003
Pershing LLC		22,534	894,814		0.025
Craig-Hallum		17,555	585,169		0.030
Jefferies & Company, Inc.		17,408	1,501,301		0.012
KeyBanc Capital Markets Inc.		16,491	549,696		0.030
National Financial Services LLC		16,165	892,171		0.018
JonesTrading Institutional Services LLC		12,626	1,301,725		0.010
Suntrust Capital Markets, Inc.		12,357	411,901		0.030
Wolfe Trahan Securities		11,298	376,600		0.030
Fildelity Capital Markets		11,285	1,418,940		0.008
Loop Capital Markets LLC		10,998	366,606		0.030
Sanford C. Bernstein & Co. LLC		10,193	1,354,474		0.008
Other Commissions Less than \$10,000		152,479	44,379,889		0.003
	\$	1,217,187	580,556,388	\$	0.002

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ACTUARIAL Section

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September 26, 2019

Board of Trustees Louisiana State Employees' Retirement System Post Office Box 44213 Baton Rouge, Louisiana 70804-4213

Dear Board Members:

Pursuant to your request, we have completed the annual actuarial valuation for the Louisiana State Employees' Retirement System as of June 30, 2019. The valuation was prepared relying on the data submitted by the Retirement System and the actuarial assumptions adopted by the Board of Trustees and reflects the current benefit structure on the valuation date. The primary purpose of the actuarial valuation is to determine the funding requirements of the members and participating employers, to describe the current financial condition of the System, and to analyze changes in the System's funding condition since the prior valuation. In addition, the report provides various summaries of data. The report may not be appropriate for other purposes. The financial reporting requirements of the Governmental Accounting Standards Board (GASB) Statements No. 67/68 in total for the plan are included in the June 30, 2019 Actuarial Valuation Report.

Funding Objective

The funding objective of the Retirement System was established by Constitutional Amendment Number 3 during the 1987 Legislative Session, which requires the current normal cost, determined in accordance with the prescribed statutory funding method, to be fully funded, and requires the unfunded accrued liability as of June 30, 1988, to be fully liquidated by 2029 with subsequent changes in unfunded liabilities amortized as specified by statute.

Progress Toward Realization of the Funding Objective

The employer contributions determined by the June 30, 2019 actuarial valuation and the member contributions, paid as a percentage of payroll, are expected to be sufficient to achieve the funding objective set forth above. The progress toward achieving the intended funding objectives can be measured by funding level, determined as the ratio of actuarial assets to the actuarial accrued liabilities. The current funded ratio is 64.1%. If the experience develops as assumed, and if contribution requirements are met, this ratio is expected to increase over time and the unfunded accrued liabilities will be paid off according to the constitutional and statutory funding objectives of the plan.

The results of the current valuation indicate that the aggregate employer contribution rate for the plan year commencing July 1, 2019, should have been set at 40.0% of payroll, which is a decrease from the 40.8% projected aggregate rate set by the Public Retirement Systems' Actuarial Committee.

The actuarial value of assets is determined as the market value of assets adjusted to gradually recognize investment gains and losses relative to the net assumed investment return, over a five-year period in 20% increments. The adjusted asset value is subject to corridor limits of 80% to 120% of the market value of assets. The objective of the asset valuation method is to smooth the volatility due to market conditions on the measurement date. The actuarial value of assets for the plan year ending on June 30, 2019, is \$12,532,677,866. After adjusting for the Experience Account balance of \$11,824,506 the valuation assets used for funding purposes is \$12,520,853,360.

Data

In performing the June 30, 2019, valuation, we have relied upon the employee data and financial information provided by the administrative staff of the Louisiana State Employees' Retirement System. Participant data was not audited but was reviewed for reasonableness and consistency relative to data used for prior year valuations. Plan assets were compared with information furnished for the prior plan year's valuation and reviewed for consistency.

Methods and Assumptions

The present values shown in the June 30, 2019, actuarial valuation and supporting statistical schedules of this certification, which comprise all the schedules of the Actuarial Section in the annual Financial Report, have been prepared in accordance with the actuarial methods specified in Louisiana Revised Statutes Title 11 Section 22(6) and assumptions which are appropriate for the purposes of this valuation. Valuation results presented in this report are based on the Entry Age Normal cost method as prescribed by state law.

The Board adopted a plan to gradually reduce the discount rate from 7.75% to 7.50% in 0.05% annual increments, beginning July 1, 2017. Therefore, the discount rate was reduced from 7.65% to 7.60% for the July 1, 2019 valuation. A 7.55% discount rate was used to determine the projected contribution requirements for fiscal year 2020/2021.

Following the completion of an experience study for the period July 1, 2013 through June 30, 2018, the Board adopted a revised set of actuarial assumptions to better project plan experience based on the results of the study. The following actuarial assumptions were revised: retirement/DROP rates, inflation, salary increases, withdrawal rates, disability incidence rates, and mortality rates. Sample rates from the revised assumption tables are included in the supporting schedules.

The actuarial assumptions and methods used are within the parameters set forth by the Government Accounting Standards Board (GASB) Statement No. 67 and were employed in the development of the schedules listed below for the Financial Section of this report.

Supporting Schedules

The following supporting schedules were prepared by the system's actuary for the Comprehensive Annual Financial Report:

Actuarial Section

- Summary of Actuarial Methods and Assumptions
- Summary of Unfunded Actuarial Liabilities/Solvency Test
- Summary of Actuarial and Unfunded Actuarial Liabilities
- Reconciliation of Unfunded Actuarial Liabilities
- Membership Data
- Principal Provisions of the Plan

Financial Section

- Schedules of Changes in Net Pension Liability
- Schedules of Employers' Net Pension Liability
- Schedules of Employer Contributions

We certify that, to the best of our knowledge, the methods and assumptions comply with generally recognized and accepted actuarial principles and practices set forth by the American Academy of Actuaries, are reasonable and represent our best estimate of the funding requirement to achieve the Retirement System's Funding Objective, unless otherwise noted. Shelley is an Associate in the Society of Actuaries and Pat is a Fellow in the Society of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

FOSTER & FOSTER INC.

Shelley R. Johnson, ASA, MAAA

Shelley R. Johnson

D. Patrick McDonald, FSA, EA, MAAA, FCA

D. Potruk M Droll

Summary of Actuarial Methods and Assumptions

The actuarial cost method is prescribed in Section 22 of Title 11 of the Louisiana Revised Statutes. The asset valuation method was adopted by the Board of Trustees of the Louisiana State Employees' Retirement System of Louisiana (LASERS). The assumptions outlined below were adopted by the LASERS Board of Trustees based on the recommendations presented to the Board following the completion of the 2014-2018 actuarial experience study.

I. General Actuarial Method

1. Actuarial Cost Method/Amortization of Changes in UAL

The Actuarial cost method, Entry Age Normal, is prescribed in Section 22 of Title 11 of the Louisiana Revised Statutes. Non-investment actuarial gains and losses and investment experience losses are amortized over 30 years with level payments. Investment gains up to the statutory threshold are allocated to the Original Amortization Base and Experience Account Amortization Base. Any remaining gains are amortized for 30 years with level payments. One half of the gain is then amortized as a loss over a ten-year amortization period and the funds are allocated to the Experience Account to fund future permanent benefit increases that have not yet been granted. Further details are provided below.

Historical treatment of changes in UAL:

The unfunded accrued liability on June 30, 1988, also referred to as the initial unfunded accrued liability, or initial UAL, was amortized over a forty-year period commencing in 1989. The amortization payment initially reflected a 4% increase for the first five years, reducing by 0.5% at the end of each five-year period, but has subsequently been revised by Acts of the Louisiana Legislature as described below. Changes in unfunded accrued liabilities occurring after June 30, 1988, were originally amortized as a level dollar amount as follows:

	Act 81	
	Effective	As Amended Act 257
	6/30/88	Effective 6/30/92
Experience Gains/Losses	15 years	Later of 2029 or 15 years
Actuarial Assumptions	30 years	Later of 2029 or 30 years
Actuarial Methods	30 years	Later of 2029 or 30 years
Benefit Changes	Determ	ined by enabling statute

Act 257 of 1992 further amended the amortization schedule to reflect a 4.5% payment increase over the remaining amortization period.

Act 588 of 2004 re-amortized changes in liabilities occurring from 1993 thru 1998 as a level dollar payment to 2029. Amortization periods for changes in liabilities beginning with 1999 were extended to a thirty-year period from the date of occurrence, with a 4.5% increasing payment schedule.

Amortization periods for changes in liabilities beginning with 2004 are extended to a thirty-year period from the date of occurrence, paid as a level dollar amount.

Act 484 of 2007 and resulting Constitutional Amendment requires increases in UAL due to altered benefit provisions by legislative enactment to be amortized over a ten-year period with level payments.

Act 497 of 2009 consolidates the outstanding balance of all amortization schedules established on or before July 1, 2008, except those established due to an increase in benefits after 2007, into two amortization schedules, the Original Amortization Base (OAB) and the Experience Account Amortization Base (EAAB), beginning July 1, 2010. The outstanding balance of the OAB was credited with funds from the Initial UAL fund, excluding the subaccount of this fund. The OAB will be paid off by plan year ending June 30, 2029. The EAAB was credited with funds from the Initial UAL subaccount, which were transferred from the Employee Experience Account on June 30, 2009. The EAAB will be paid off by plan year ending June 30, 2040. Payments increased according to the requirements of Act 497, and beginning July 1, 2018, OAB payments will increase by 2.0% per year, and EAAB payments will be level.

Additionally, Act 497 changed the amortization of investment gains relative to the discount rate. Previously, one-half of any investment gain was amortized over a thirty-year period with level payments and one-half was credited to the Experience Account. Act 497 specifies that the first \$100 million of any investment experience gain will be credited to the OAB and EAAB, with reamortization of these schedules. One-half of the remaining gain is credited to the Experience Account, up to the maximum limit of this account and any remaining gain is amortized over a thirty-year period with level payments.

Employer contribution requirements for normal costs and amortization of the unfunded accrued liabilities are determined as a percentage of payroll. The discrepancy between dollars generated by percent of payroll versus the required dollar amount is treated as a shortfall credit/debit. The five-year level amortization payment of the debit/credit is applied to the following year's contribution requirement. Act 497 provided that contribution variance credits through plan year 2016/2017 would be credited to the OAB. Subsequent overpayments through plan year 2029/2040 will be credited to the EAAB.

Act 399 of 2014 changed the allocation of investment gains to existing schedules and to the Experience Account and changed the amortization of any remaining investment gains. Act 95 of 2016 modified the provisions of Act 399. Investment gains are first allocated to the OAB and EAAB, without re-amortization, up to the \$100 million threshold amounts, indexed beginning June 30, 2016. By not re-amortizing, gains applied to these schedules result in earlier pay-off of these schedules. One-half of any remaining gains are credited to the Experience Account up to the statutory cap. Any remaining gains are then amortized over 30 years with level payments. Beginning in 2016, the full investment gain remaining after the allocation to the OAB and EAAB will be amortized over 30 years, and any gains credited to the Experience Account will be amortized as an offsetting loss over a ten-year period. Once the system attains a 70% funded ratio, all future gains and losses will be amortized over 20 years. The OAB will be re-amortized with level-dollar payments to 2029 in fiscal year 2020/2021 or later, when such re-amortization results in annual payments that are not more than the next annual payment otherwise required. If the System is less than 80% funded, the net remaining liability of the OAB and EAAB shall be re-amortized after application of the "threshold

allocations" in Fiscal Year 2019/2020 and in every fifth fiscal year thereafter. Once the system attains an 80% funded ratio, the OAB and EAAB will be re-amortized following allocations of "threshold allocations" or contribution variance surpluses. Act 399 extended the application of the threshold after the OAB and EAAB are paid off and provides for the allocation of funds.

Statutory provisions pertaining to LASERS provide for the automatic transfer of a portion of excess investment earnings to the Experience Account to potentially fund future post-retirement benefit increases. Since the law does not provide for automatic post-retirement benefit increases, the liabilities do not explicitly include future retiree benefit increases. However, since a portion of investment earnings will be used to fund potential future ad hoc benefit increases, the accrued benefits are discounted using a net discount rate. The net discount rate is determined as the expected long-term return net of investment expenses, less the expected return used to provide for future retiree benefit increases. Since the discount rate for funding purposes reflects LASERS specific gain sharing provisions, the assumptions recognize that investment earnings will be diverted to fund the ad hoc increases.

2. Asset Valuation Method

The actuarial value of assets is determined as the market value of assets adjusted to gradually recognize investment gains and losses relative to the net assumed investment return, over a five-year period in 20% increments, and is subject to Corridor Limits of 80% to 120% of the market value of assets.

3. Valuation Data

The administrative staff of LASERS furnishes the actuary with demographic data relating to the active life membership and retired life members. Retired life members included inactive members who are entitled to a deferred reciprocal or vested benefit. The administrative staff of LASERS provides the book value and market value of system assets. All data is reviewed for reasonableness and consistency from year to year but is not audited by the actuary.

II. Economic Assumptions

1. Actuarially Assumed Rate of Return

The June 30, 2019 valuation for funding and GASB purposes were prepared with a discount rate of 7.60%.

The Board of Trustees adopted a discount rate of 7.60%, net of investment expenses and expected gain sharing, effective June 30, 2019 for purposes of the funding valuation and a discount rate of 7.60% net of investment expenses for purposes of GASB reporting. Investment manager fees are treated as a direct offset to investment income. The Board adopted a plan to reduce the discount rate in 0.05% increments beginning July 1, 2017. Therefore, the projected contribution requirements for Fiscal Year 2020/2021 were determined using a discount rate of 7.55%.

The discount rate for funding purposes reflects the assumed investment rate of return, net of investment expenses, and net of investment gains expected to be allocated to the Experience Account to fund permanent benefit increases. By excluding investment returns to be used to fund future permanent benefit increases, the discount rate represents the expected return on investments to be used to fund regular plan benefits.

A long-term (thirty-year) average of approximately 40 basis points is assumed to be transferred to the Experience Account annually. This estimate is based on one hundred thirty-year projections of annual market returns provided by NEPC and LASERS investment staff, based upon LASERS target portfolio allocation. Annual investment gains and losses are projected for each scenario with the resulting experience gains allocated to the Experience Account, according to current statutory provisions.

2. Employee Salary Increases

Incorporated in the following salary scales (shown for periodic durations but representing full range of assumptions) is an explicit 2.50% inflation assumption. The following salary scale is based upon years of service:

Duration	Regular State		Corrections, Haz
(Years)	Employees	Judges	Duty, Wildlife
0	13.00%	5.25%	14.00%
5	5.10%	2.75%	5.75%
10	3.80%	2.75%	5.00%
15	3.40%	2.75%	3.75%
20	3.20%	2.75%	3.75%
25	3.20%	2.75%	3.75%
30	3.20%	2.75%	3.75%

III. Demographic Assumptions

1. Mortality Assumption

Pre-retirement deaths and post-retirement life expectancies are projected in accordance with the following mortality tables and adjustment factors, based the mortality patterns observed in the 2014-2018 experience study.

General Active Employees

Males RP-2014 Blue Collar Employee * 0.978 Females RP-2014 Blue Collar Employee * 1.144 Public Safety Active Employees

Males RP-2014 Blue Collar Employee * 1.005 Females RP-2014 Blue Collar Employee * 1.129

General Retiree/Inactive Employees

Males RP-2014 Blue Collar Annuitant * 1.280 Females RP-2014 White Collar Annuitant * 1.417

Public Safety Retiree/Inactive Employees

Males RP-2014 Blue Collar Annuitant * 1.185 Females RP-2014 Blue Collar Annuitant * 1.017

Disability Retirees

Males RP-2000 Disability Retiree * 1.009 Females RP-2000 Disability Retiree * 1.043

Mortality assumptions for active and regular retirees include adjustments for expected future mortality improvement using the MP-2018 Generational Improvement Scale. Mortality assumptions for Disability Retirees include no adjustments for expected future mortality improvement, based on plan experience.

2. Disability Assumption

Rates of total and permanent disability were projected by age in accordance with the 2014-2018 disability experience of the Retirement System. Sample rates are illustrated by employment classification.

	Regular State		Corrections, Haz
AGE	Employees	Judges	Duty, Wildlife
25	0.01%	0.00%	0.01%
30	0.01%	0.00%	0.05%
35	0.05%	0.00%	0.13%
40	0.10%	0.00%	0.17%
45	0.15%	0.02%	0.28%
50	0.22%	0.02%	0.55%
55	0.30%	0.02%	0.80%

3. Termination Assumptions

Voluntary withdrawal rates are derived from the 2014-2018 termination experience study. Sample rates are illustrated by employment classification below.

Regular State Employees Years of Service										
Age	< 1	1	2-3	4-6	7-9	10+	Judges			
25	32.5%	27.0%	20.0%	16.0%	10.5%	8.0%	1.20%			
30	29.0%	23.0%	18.0%	13.3%	10.5%	8.0%	1.20%			
35	29.0%	22.0%	18.0%	13.3%	8.0%	5.5%	1.20%			
40	28.0%	18.0%	15.0%	13.0%	8.0%	5.5%	1.20%			
45	25.0%	18.0%	14.0%	12.5%	8.0%	5.0%	1.20%			
50	25.0%	18.0%	12.5%	11.5%	7.5%	5.0%	1.20%			

			Wildlife						
			Years of	Service					
Age	<1	1	2	3-4	5-7	8-9	10+	<6	6+
25	48.0%	30.5%	30.0%	24.0%	15.5%	6.4%	2.8%	7.6%	0.5%
30	43.5%	25.5%	24.0%	20.0%	13.5%	6.4%	2.8%	7.6%	0.5%
35	43.5%	25.5%	20.0%	20.0%	10.0%	6.4%	2.8%	7.6%	0.5%
40	41.0%	21.0%	20.0%	15.5%	9.0%	6.4%	2.8%	7.6%	0.5%
45	32.0%	17.0%	12.0%	15.5%	9.0%	6.4%	2.8%	7.6%	0.5%
50	27.5%	17.0%	12.0%	10.0%	9.0%	6.4%	2.8%	7.6%	0.5%

For members terminating with ten or more years of service, it is assumed that 80% will not withdraw their accumulated employee contributions.

4. Retirement/DROP Assumptions

Retirement rates and DROP probabilities were projected based upon the 2014-2018 experience study. At eligibility, including eligibility for a reduced early retirement benefit, the probability of retirement or DROP is determined based upon the Retirement/DROP assumptions, based on the most recent experience study. Sample rates are illustrated by employment classification below:

Regul	ar	M	lem	b	ers
					_

	Years of Service										
Age	< 10	10-19	20-24	25-29	30+						
45	0%	5%	5%	5%	0%						
50	0%	10%	10%	10%	20%						
55	0%	18%	18%	60%	60%						
60	35%	35%	35%	35%	35%						
65	20%	20%	20%	20%	20%						
70	18%	18%	18%	18%	18%						

		Judges	Corrections/Haz/Wildlife				
	Ye	ears of Servi	ice	Years of Service			
Age	<12	12-17	18+	< 10	10+		
45	0.0%	0.0%	6.8%	0.0%	23.5%		
50	0.0%	0.0%	6.8%	0.0%	23.5%		
55	0.0%	20.8%	11.5%	0.0%	23.5%		
60	10.8%	9.0%	23.8%	50.0%	24.0%		
65	10.8%	18.2%	17.3%	32.5%	19.6%		
70	10.8%	10.5%	12.2%	32.5%	19.6%		

IV. Other Assumptions

Administrative Expenses:

Administrative expenses are assumed to be \$18,100,000 annually and are funded by employer contributions as a percentage of projected payroll.

Summary of Unfunded Actuarial Liabilities/Solvency Test (Dollar Amounts in Millions)

		(1)		(2)		(3)					
						Active			Portion of A	Actuarial A	Accrued
		Active	I	Retirees	M	lembers	A	Actuarial	Liabilities C	Covered By	y Assets
Valuation	ľ	Member	Ter	m. Vested	Eı	nployer	V	aluation			
Date	Co	ntribution	1	nactive	Fin	. Portion		Assets	(1)	(2)	(3)
2010	\$	1,507.0	\$	9,418.6	\$	3,838.4	\$	8,512.4	100%	74%	0%
2011	\$	1,494.8	\$	10,158.2	\$	3,568.0	\$	8,763.1	100%	72%	0%
2012	\$	1,649.7	\$	11,030.2	\$	3,478.0	\$	9,026.4	100%	67%	0%
2013	\$	1,578.0	\$	11,981.3	\$	2,622.9	\$	9,740.9	100%	68%	0%
2014	\$	1,516.3	\$	13,072.6	\$	3,288.8	\$	10,606.5	100%	70%	0%
2015	\$	1,513.0	\$	13,417.1	\$	3,286.6	\$	11,318.4	100%	73%	0%
2016	\$	1,527.3	\$	13,961.6	\$	3,087.4	\$	11,630.8	100%	72%	0%
2017	\$	1,538.6	\$	13,977.8	\$	3,275.7	\$	11,976.8	100%	75%	0%
2018	\$	1,555.0	\$	14,244.0	\$	3,304.6	\$	12,360.5	100%	76%	0%
2019	\$	1,582.7	\$	14,502.0	\$	3,442.9	\$	12,520.9	100%	75%	0%

Summary of Actuarial and Unfunded Actuarial Liabilities (Dollar Amounts in Millions)

Valuation Date	Actuarial Accrued iabilities (AAL)	Actuarial aluation Assets	ion Assets To AAL Member ts AAL (UAAL) Payroll		UAAL As Percentage of Active Payroll		
2010	\$ 14,764.0	\$ 8,512.4	57.66%	\$	6,251.6	\$ 2,546.5	245.5%
2011	\$ 15,221.0	\$ 8,763.1	57.57%	\$	6,457.9	\$ 2,408.8	268.1%
2012	\$ 16,157.9	\$ 9,026.4	55.86%	\$	7,131.5	\$ 2,341.7	304.5%
2013	\$ 16,182.2	\$ 9,740.9	60.20%	\$	6,441.3	\$ 1,952.0	330.0%
2014	\$ 17,877.7	\$ 10,606.5	59.33%	\$	7,271.2	\$ 1,813.8	400.9%
2015	\$ 18,216.7	\$ 11,318.4	62.13%	\$	6,898.3	\$ 1,856.7	371.5%
2016	\$ 18,576.3	\$ 11,630.8	62.61%	\$	6,945.5	\$ 1,842.3	377.0%
2017	\$ 18,792.1	\$ 11,976.8	63.73%	\$	6,815.3	\$ 1,821.9	374.1%
2018	\$ 19,103.6	\$ 12,360.5	64.70%	\$	6,743.1	\$ 1,864.0	361.7%
2019	\$ 19,527.6	\$ 12,520.9	64.12%	\$	7,006.8	\$ 1,952.5	358.9%

Reconciliation of Unfunded Actuarial Liabilities

(Dollar Amounts in Thousands)

	Fiscal Year Ending							
	2019 2018			2017		2016		
Unfunded Actuarial Liability at Beginning of Fiscal Year (7/1)	\$	6,743,120	\$	6,815,313	\$	6,945,450	\$	6,898,227
Interest on Unfunded Liability		515,849		524,779		538,272		534,613
Investment Experience (excl. change in AVM) (gains) decreases UAL		285,780		20,165		14,363		249,797
Change in Asset Valuation or Actuarial Cost Method		-		-		-		-
Plan Experience (gains) decreases UAL		95,572		(17,939)		(99,637)		(80,839)
Employer Amortization Payments (payments) decreases UAL		(648,891)		(662,437)		(652,321)		(644,435)
Employer Contribution Variance (excess contributions) decreases UAL		(44,736)		(16,984)		27,474		(15,271)
Side Fund Allocation(s) (distributions) decreases UAL		-		-		-		-
Other - Miscellaneous gains and losses from transfers, assumption changes, or Acts of the Legislature		60,065		80,223		41,712		3,358
Unfunded Actuarial Liability at End of Fiscal Year (6/30)	\$	7,006,759	\$	6,743,120	\$	6,815,313	\$	6,945,450

Membership Data

Data regarding the membership of the System for valuation were furnished by the System.

		2019	2018				
Active Members	Census	Avg. Sal.	Census	Avg. Sal.			
Regular Members	32,699	\$ 47,841	32,469	\$ 46,127			
Legislators	7	57,242	7	61,372			
Judges - prior to 1/1/2011	182	147,183	197	147,132			
Judges - on or after 1/1/11	120	147,029	107	145,751			
Appellate Law Clerks	108	83,305	118	81,966			
Wildlife Agents	138	74,356	147	71,720			
Corrections	1,531	54,195	1,688	50,337			
Peace Officers	40	60,414	49	57,792			
Alcohol Tobacco Control	10	67,183	11	63,433			
Bridge Police	3	59,625	5	52,076			
Hazardous Duty	3,006	38,738	2,823	35,142			
Harbor Police	22	55,769	23	53,183			
Active After DROP	1,667	64,508	1,649	60,802			
Total	39,533	\$ 49,070	39,293	\$ 47,143			

Valuation Salaries	\$1,952	2,495,777	\$	51,864,035,191					
Inactive Members	20	19		2018					
Due Refunds	55,	280		54,370					
Terminated Vested	3,	744		3,720					
	2	019		2018					
Annuitants and Survivors	Census	Avg. Be	n. Census	Avg. Ben.					
Retirees	41,117	\$ 27,23	40,832	\$ 26,832					
Disabilities	2,175	14,57	9 2,234	14,408					
Survivors	5,977	17,27	71 5,940	16,947					
DROP	1,354	33,60	00 1,398	33,267					
Total	50,623	\$ 25,68	50,404	\$ 25,295					

Historical Membership Data

(Dollar Amounts in Thousands)

History of Active Membership Data for Last 10 Years

Year Ending	Number of Participating	Number of Active	Percentage Change In	nual Active Member		ual Active nber Avg.	Percentage Change in
6/30	Employers	Members	Membership	Payroll	P	ayroll	Avg. Payroll
2010	359	58,881	-5.02%	\$ 2,546,457	\$	42,983	4.62%
2011	354	54,930	-6.71%	\$ 2,408,840	\$	43,606	1.45%
2012	362	52,352	-4.69%	\$ 2,341,703	\$	44,485	2.02%
2013	355	44,111	-15.74%	\$ 1,951,988	\$	43,957	-1.19%
2014	368	40,321	-8.59%	\$ 1,813,759	\$	44,680	1.64%
2015	361	40,194	-0.31%	\$ 1,856,735	\$	45,919	2.77%
2016	351	39,284	-2.26%	\$ 1,842,286	\$	46,657	1.61%
2017	345	39,055	-0.58%	\$ 1,821,944	\$	46,369	-0.62%
2018	346	39,293	0.61%	\$ 1,864,035	\$	47,143	1.67%
2019	348	39,533	0.61%	\$ 1,952,496	\$	49,070	4.09%

History of Annuitants and Survivor Annuitant Membership for Last 10 Years

Year												Percent
Ending	Total	Me	mbers	Memb	ers .	Added	Membe	rs R	emoved	A	verage	Change in
6/30	No.	I	Amount	No.	A	mount	No.	A	mount	A	nnuity	Annuity
2010	42,014	\$	852,060	2,735	\$	76,189	1,657	\$	28,584	\$	20,281	3.2%
2011	43,711	\$	923,617	3,307	\$	96,480	1,610	\$	24,923	\$	21,130	4.2%
2012	45,299	\$	996,167	3,191	\$	98,955	1,603	\$	26,405	\$	21,991	4.1%
2013	47,517	\$	1,076,245	3,929	\$	113,668	1,711	\$	33,590	\$	22,650	3.0%
2014	48,778	\$	1,135,847	2,944	\$	81,624	1,683	\$	22,022	\$	23,286	2.8%
2015	49,325	\$	1,170,269	1,785	\$	52,052	1,238	\$	17,630	\$	23,725	1.9%
2016	49,810	\$	1,217,859	1,597	\$	46,910	1,112	\$	17,318	\$	24,450	3.1%
2017	50,199	\$	1,248,401	1,563	\$	46,527	1,174	\$	15,985	\$	24,869	1.7%
2018	50,404	\$	1,274,954	1,500	\$	45,825	1,295	\$	19,272	\$	25,295	1.7%
2019	50,623	\$	1,300,065	1,538	\$	46,970	1,319	\$	21,860	\$	25,681	1.5%

Principal Provisions of the Plan

The Louisiana State Employees' Retirement System (LASERS) was enacted in 1947. Initially, the plan covered regular State Employees (Regular Plan), but membership has expanded to participating agencies, and the merger of Louisiana State University Administration Employees and the Judges Retirement System. The purpose of the plan is to provide benefits to members and their dependents at retirement or in the event of death, disability or termination of employment. LASERS is a defined benefit plan and is funded on an actuarial reserve basis to fund benefits as prescribed by law.

I. Administration

The plan is governed by Title 11 Sections 401-699 of the Louisiana Revised Statutes. The Board of Trustees is composed of thirteen members; six elected from the active membership, three elected retired members and four ex-officio members. Elected members serve staggered four-year terms. The treasurer, a member of the House Retirement Committee appointed by the Speaker of the House of Representatives, the chair of the Senate Retirement Committee, and the commissioner of administration serve as voting, ex-officio members. The Board of Trustees appoints an Executive Director who is responsible for the operation of the system. The Board also retains other consultants as deemed necessary.

II. Member Contributions

Members contribute a percentage of their gross compensation, depending on plan participation:

<u>Plan</u>	Current Contribution
Regular Employees and Appellate Law Clerks	
Pre-Act 75 (hired before 7/1/2006)	7.5%
Post-Act 75 (hired after 6/30/2006)	8.0%
Legislators	11.5%
Judges hired before 1/1/2011	11.5%
Judges hired after 12/31/2010	13.0%
Corrections Primary and Secondary	9.0%
Wildlife	9.5%
Peace Officers & Alcohol/Tobacco Control Officers	9.0%
Bridge Police	8.5%
Hazardous Duty	9.5%
Harbor Police	9.0%
Special Legislative Employees (Sergeant at Arms,	9.5%
Secretary of Senate, Clerk of the House)	

III. Employer Contributions

All participating employers, regardless of plan participation, contribute a percentage of their total gross payroll to the system. The employer percentage is actuarially determined and is sufficient to pay annual accruals plus an amortization charge which liquidates the system's unfunded liability as required by law. The rate is determined annually and recommended by the Public Retirement Systems' Actuarial Committee to the State Legislature.

IV. Termination

A member who terminates covered employment, regardless of plan membership, may request a refund of the member's contributions without interest. Upon re-employment, a member may reinstate the credit forfeited through termination of previous membership by repaying the refunded contributions plus interest.

V. Retirement Benefits

Service retirement benefits are payable to members who have terminated covered employment and met both age and service eligibility requirements.

1. Normal Retirement

<u>Regular Plan</u> – Members hired prior to July 1, 2006, may retire with a 2.5% annual accrual rate, at age 55 with 25 years, age 60 with 10 years or at any age with 30 years of service. Members hired on or after July 1, 2006, will be eligible at age 60 with five years of service. Members hired on or after July 1, 2015 will be eligible at age 62 with five years of service.

Note: Members may retire with 20 years at any age with benefits actuarially reduced.

<u>Judges</u> – Judges hired prior to January 1, 2011 may retire with a 3.5% annual accrual rate at any age with 18 years of service, age 55 with 12 years, age 50 with 20 years (minimum 12 years judicial), age 65 with 10 years of service, or 70 without regard to creditable service. Judges hired on or after January 1, 2011 may retire with a 3.5% annual accrual rate with five years of service at age 60. Eligibility requirements apply to Appellate Law Clerks hired prior to January 1, 2011. Judges hired on or after July 1, 2015 may retire with a 3.5% annual accrual rate with five years of service at age 62.

<u>Legislators</u>, <u>Governor</u>, <u>Lieutenant Governor and State Treasurer</u> - May retire with a 3.5% annual accrual rate with 16 years of legislative service; age 50 with 20 years (minimum 12 years legislative service) or age 55 with 12 years.

Correction Officers – Members of the Primary Component may retire with a 2.5% annual accrual rate at age 60 with 10 years of service, age 50 with 20 years, or 20 years of service regardless of age if employed prior to August 15, 1986. Effective January 1, 2002, new members accrue 3.33% per year and are eligible for retirement at 25 years of service regardless of age or age 60 with 10 years of service. Effective June 30, 2014, certain probation and parole officers in the office of adult services of the Department of Corrections who were employed prior to December 21, 2001 and did not join the Corrections Secondary plan may retire with a 3.0% accrual rate for service earned prior to June 30, 2014 and 3.33% for service earned after June 30, 2014.

<u>Wildlife</u> – Members hired prior to July 1, 2003 may retire at age 55 with 10 years of service, or at any age with 20 years. Benefit accrual rate is 3.0% for service earned prior to July 1, 2003 and 3.33% for service earned after July 1, 2003. Members hired on or after July 1, 2003 may retire at age 60 with 10 years or at any age with 25 years of service. Benefit accrual rate is 3.33%, or 2.5% if members retire with less than 10 years of wildlife service.

<u>Peace Officers</u> – Annual accrual rate is 3.33%. Eligibility is the same as regular members hired prior to July 1, 2006.

<u>Alcohol Tobacco Control</u> – Annual accrual rate is 3.33%. Member's eligibility to retire with 25 years of service at any age, age 60 with 10 years.

<u>Bridge Police</u> – Annual accrual rate is 2.5% with 10 years at age 60, or 25 years at any age. The last 10 years of service must be served as bridge police.

<u>Hazardous Duty Plan</u> –Annual accrual rate is 3.33%. Members are eligible to retire with 12 years at age 55. The last 10 years of service must be served in a hazardous duty position.

<u>Harbor Police</u> – Annual accrual rate is 3.33%. Members are eligible to retire with 25 years at any age, 12 years at age 55, 20 years at age 45, and 10 years at age 60.

2. Benefit Formula

For all plans, monthly retirement benefits are based on a formula, which multiplies the final average compensation, by the applicable accrual rate, and by the years of creditable service, plus a \$25 per month supplemental benefit for members hired prior to July 1, 1986. Final average compensation is determined as the highest successive 36 months for all but regular members hired on or after July 1, 2006, Judges whose first membership making them eligible for LASERS membership occurred on or after January 1, 2011, and members of the Hazardous Duty Plan. For these members final average compensation is determined as the highest successive 60 months.

3. Payment Options

A retiring member is entitled to receive the maximum benefit payable until member's death. In lieu of the maximum benefit, the member may elect to receive a reduced benefit payable in the form of a Joint and Survivor Option, or a reduced benefit with a lump-sum payment which cannot exceed 36 monthly benefit payments. In addition, beginning July 1, 2009, members may elect to receive a reduced benefit that will increase at 2.5% annually once the retiree attains age 55. This option is not available to recipients of disability retirement benefits.

Judges hired prior to January 1, 2011 receive the maximum benefit payable without reduction for a 50% Joint and Survivor Option. Wildlife members receive the maximum benefit payable without reduction for a 75% Joint and Survivor Option.

VI. Deferred Retirement Option Program (DROP)

In lieu of terminating employment and accepting a service retirement, an eligible member may begin participation on the first retirement eligibility date or within 60 days thereafter, for a period not to exceed 36 months. Delayed participation reduces the 36-month participation period. During participation, benefits otherwise payable are fixed, and deposited in an individual DROP account. Upon termination of DROP, the member may continue employment and earn additional accruals to be added to the fixed pre-DROP benefit.

Upon termination of employment, the member is entitled to the fixed benefit plus post-DROP accruals, plus the individual DROP account balance, which can be paid in a lump sum, or an additional annuity based upon the account balance.

VII. Disability Retirement Benefits

Active members with 10 or more years of service credit are eligible for disability retirement benefits if determined to be disabled from performing the duties of their job. Members receive a service retirement benefit based upon their accrued retirement benefit, except as specified below:

<u>Judges</u> – A service retirement benefit, but not less than 50% of current salary.

<u>Corrections</u> – Benefit for total disability incurred in-line-of-duty service is the greater of the accrued benefit or 40% of average compensation (60% for members of the Primary Plan). If a member of the Secondary Plan has 10 or more years of service, benefit is the greater of the accrued retirement benefit or 60% of final average compensation. Otherwise, benefit is the accrued retirement benefit.

<u>Wildlife Agents</u> – Minimum total disability incurred in-line-of-duty service is 60% of average compensation

<u>Hazardous Duty Plan</u> – Total disability incurred in-line-of-duty benefit is 75% of average compensation.

Members of the Corrections, Wildlife, Hazardous Duty, or Harbor Police plans totally and permanently disabled by an intentional act of violence while in-line-of-duty receive 100% of final average compensation.

VIII. Survivor Benefits

Members whose first employment which makes them eligible for membership in a Louisiana state retirement system occurs prior to January 1, 2011:

A surviving spouse with minor children of an active member with five years of creditable service (two years immediately prior to death) or 20 years of creditable service is entitled to a benefit equal to the greater of 1) \$300 per month, or 2) 75% of the member's benefit calculated at the 2.5% accrual rate for all creditable service.

A surviving minor child, with no surviving spouse shall receive an amount equal to the greater of 75% of compensation or \$300. Benefits to minors cease at attainment of age 18, marriage or age 23 if enrolled in an approved institution of higher education.

A surviving spouse without minor children of an active member with 10 years of creditable service (two years immediately prior to death) or 20 years of creditable service is entitled to a benefit equal to the greater of 1) \$200 per month, or 2) 50% of the member's benefit calculated at the 2.5% accrual rate for all creditable service.

Members whose first employment which makes them eligible for membership in a Louisiana state retirement system occurs on or after January 1, 2011:

A surviving spouse with minor children of an active member with five years of creditable service (two years immediately prior to death) or 20 years of creditable service is entitled to a benefit equal to the greater of 1) \$600 per month, or 2) 50% of the member's accrued benefit. Each child receives 50% of the spouses benefit, up to two children. Minimum benefit based on the Option 2A equivalent for the surviving spouse.

A surviving minor child, with no surviving spouse shall receive an amount equal 50% of the benefit for surviving spouse with minor children, up to two children, divided equally among all children.

A surviving spouse without minor children of an active member with 10 years of creditable service (two years immediately prior to death) or 20 years of creditable service is entitled to a benefit based on the Option 2A equivalent for the surviving spouse.

The Option 2A equivalent is an actuarially reduced benefit whereby 100% of the actuarially reduced benefit continues for the life of the beneficiary.

A surviving spouse without minor children of an active member with a minimum of five years of creditable service in the Harbor Police Plan may receive a non-line of duty survivor benefit equal to 40% of final average compensation which ceases upon remarriage. The survivor benefit for a surviving spouse with minor children is equal to 60% of final average compensation. No minimum service credit is required for line of duty survivor benefits which are equal to 60% of final average compensation to surviving spouse, regardless of children. Line of duty survivor benefits cease upon remarriage, and the benefit is then paid to minor children.

The survivor benefit is 100% of final salary for any member who is eligible for membership in the Hazardous Duty Plan, if killed in the line of duty by an intentional act of violence.

IX. Post-Retirement Increases

Provisions regarding future Permanent Benefit Increases (PBIs) were substantially changed by Act 399 of 2014. PBIs may be granted, if requested by the Board and approved with a two-thirds vote of both houses of legislature, provided there are sufficient funds in the Experience Account to fully fund the increase on an actuarial basis.

Experience Account Credits/Debits: After allocation of the first \$100,000,000 of investment experience gains to the Unfunded Accrued Liability, the Experience Account is credited with up to 50% of the remaining excess investment income, up to a maximum balance as described below. The \$100,000,000 threshold is indexed based upon the increase in the actuarial value of assets. Excess investment income is investment income for the prior fiscal year in excess of the expected income based on the actuarial valuation rate for that fiscal year. Balances in the Experience Account accrue interest at the actuarial rate of return during the prior year; however, all credits are limited as follows:

If the system's funded ratio is less than 80%, the Experience Account is limited to the reserve necessary to grant one PBI. If the funded ratio is at least 80%, the Experience Account is limited to the reserve necessary to fund two PBI's. The Experience Account is debited for the increase in actuarial accrued liability resulting from the increases.

<u>Permanent Benefit Increases</u>: No increase can be granted if the legislature granted an increase in the preceding fiscal year, unless the system is 85% funded or greater. Additionally, PBI's are limited to the lesser of the increase in the CPI-U for the twelve-month period ending on the system's valuation date, or an amount determined by the system's funded ratio:

Funded Ratio	PBI Increase Limit
< 55%	0%
55% to <65%	1.5%
65% to <75%	2.0%
75% to <80%	2.5%
80% +	3.0%

Beginning July 1, 2015, any increase is limited to the first \$60,000 of a retiree's annual benefit, increased annually by the CPI-U for the twelve-month period ending in June. If the actuarial rate of return for the prior plan year is less than 8.25%, regardless of the discount rate, the increase is limited to the lesser of 2% or the amount described above.

<u>Eligibility Requirements</u>: Benefits are restricted to those retirees who have attained the age of 60 and have been retired for at least one year. The age 60 requirement does not apply to disability retirees.

ATISTICAL SECTION

STATISTICAL

Section

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Summary

The objective of the Statistical Section is to provide financial statement users with a historical perspective, context, and detail to assist in using the information in the financial statements and the notes to the financial statements to better understand and assess LASERS economic condition. All non-accounting data is taken from LASERS internal sources except for that information which is derived from actuarial valuations.

Financial Trends

The schedules listed below provide financial trend information that assists users in understanding and assessing how LASERS financial position has changed over time:

- Changes in Fiduciary Net Position
- Valuation Assets vs. Pension Liabilities
- Employee Contribution Rates
- Employer Contribution Rates

Operational Information

The schedules listed below are intended to provide contextual information about LASERS operations to assist in assessing the System's economic condition:

- Benefit Expenses by Type
- Average Monthly Benefit Amounts
- LASERS Membership
- LASERS Changes In Membership
- Number of Benefit Recipients
- Retired Members by Recipient Type and Plan

Demographic Information

This information is intended to assist readers in understanding the environment in which LASERS operates. The demographic information includes:

- Location of LASERS Benefit Recipients
- Fiscal Year 2019 Gross Benefits Paid by Region
- Top Ten Contributing Employers by Member Count

Changes in Fiduciary Net Position Ten Years Ended June 30, 2019

	2010	2011	2012	2013	2014
Additions (Reductions):					
Employer Contributions	\$ 491,237,641	\$ 558,183,107	\$ 637,285,920	\$ 649,029,708	\$ 612,698,414
Employee Contributions	205,328,033	197,825,267	192,795,057	173,357,802	152,993,052
Legislative Acts Income	1	1	ı	1	2,465,608
Investment Income:					
Net Investment Income (Loss)	1,128,126,909	1,852,933,704	(11,299,929)	1,104,747,865	1,770,521,381
Other Income	12,153,663	14,072,770	32,441,258	33,806,894	20,810,679
Total Additions (Reductions) to Fiduciary Net Position	\$ 1,836,846,246	\$ 2,623,014,848	\$ 851,222,306	\$1,960,942,269	\$2,559,489,134
Deductions					
Retirement Benefits	\$ 829,236,652	\$ 915,840,721	\$ 978,971,262	\$1,070,410,859	\$1,167,477,166
Refunds and Transfers of Member Contributions	35,676,509	41,553,896	43,221,742	61,522,162	77,118,765
Administrative Expenses	13,891,799	13,572,253	13,810,702	14,258,832	14,810,539
Other Postemployment Benefits Expenses	1,561,605	1,310,517	059'666	982,754	1,103,488
Depreciation and Amortization Expenses	2,134,303	1,919,585	1,941,249	1,943,653	1,724,101
Total Deductions from Fiduciary Net Position	\$ 882,500,868	\$ 974,196,972	\$1,038,944,605	\$1,149,118,260	\$1,262,234,059
Total Change in Fiduciary Net Position	\$ 954,345,378	\$ 1,648,817,876	\$ (187,722,299)	\$ 811,824,009	\$1,297,255,075

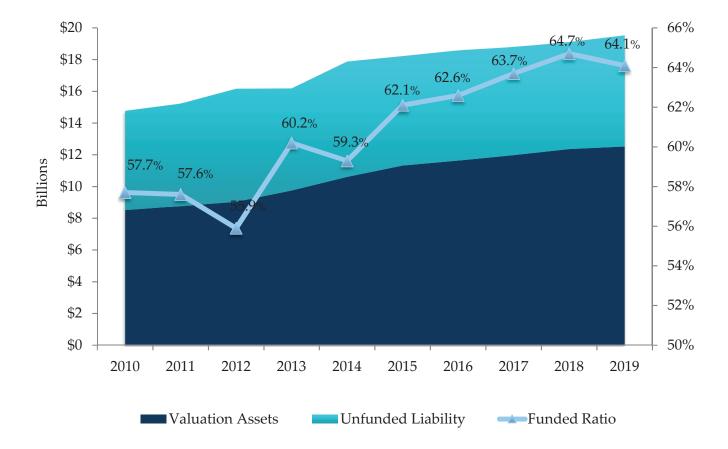
Changes in Fiduciary Net Position (continued) Ten Years Ended June 30, 2019

	2015	2016	2017	2018	2019
Additions (Reductions):					
Employer Contributions	\$ 722,137,361	\$ 718,606,512	\$ 675,583,750	\$ 725,802,871	\$ 760,150,449
Employee Contributions	153,281,097	152,233,771	149,931,242	152,189,709	160,338,556
Legislative Acts Income	4,540,773	10,790,721	250	3,676,833	9,479,319
Investment Income:					
Net Investment Income (Loss)	152,809,130	(296,729,232)	1,520,600,699	1,011,537,508	452,914,317
Other Income	12,928,989	15,185,502	14,049,005	15,198,732	13,052,134
Total Additions (Reductions) to Fiduciary Net Position	\$ 1,045,697,350	\$ 600,087,274	\$ 2,360,164,946	\$ 1,908,405,653	\$ 1,395,934,775
Deductions					
Retirement Benefits	\$ 1,199,079,252	\$1,238,507,932	\$ 1,274,461,022	\$ 1,317,635,325	\$ 1,343,892,705
Refunds and Transfers of Member Contributions	38,308,757	35,997,261	37,606,040	35,191,508	34,948,707
Administrative Expenses	15,877,682	15,615,605	17,074,984	14,732,258	16,785,776
Other Postemployment Benefits Expenses	940,845	982,858	904,975	9,525,495	238,097
Depreciation and Amortization Expenses	1,193,314	419,718	556,901	883,799	783,617
Total Deductions from Fiduciary Net Position	\$ 1,255,399,850	\$ 1,291,523,374	\$ 1,330,603,922	\$ 1,377,968,385	\$ 1,396,948,902
Total Change in Fiduciary Net Position	\$ (209,702,500)	\$ (691,436,100)	\$ 1,029,561,024	\$ 530,437,268	\$ (1,014,127)

Valuation Assets vs. Pension Liabilities Ten Years Ended June 30, 2019

Dollars in Billions

	1	Valuation	1	Unfunded	Accrued	
Fiscal Year		Assets		Liability	Liability	Funded Ratio
2010	\$	8.5124	\$	6.2516	\$ 14.7640	57.7%
2011	\$	8.7631	\$	6.4580	\$ 15.2211	57.6%
2012	\$	9.0264	\$	7.1315	\$ 16.1579	55.9%
2013	\$	9.7409	\$	6.4413	\$ 16.1822	60.2%
2014	\$	10.6065	\$	7.2713	\$ 17.8778	59.3%
2015	\$	11.3184	\$	6.8982	\$ 18.2167	62.1%
2016	\$	11.6308	\$	6.9455	\$ 18.5763	62.6%
2017	\$	11.9768	\$	6.8153	\$ 18.7921	63.7%
2018	\$	12.3605	\$	6.7431	\$ 19.1036	64.7%
2019	\$	12.5208	\$	7.0068	\$ 19.5276	64.1%



Benefit Expenses by Type For the Ten Years Ended June 30, 2019

Type		2010		2011		2012		2013		2014
Benefits										
Regular	€	668,581,029	↔	733,039,471	8	791,945,615	&	872,055,895	↔	965,434,718
Survivors		74,482,830		77,667,823		79,190,930		81,755,704		83,901,456
Deferred Retirement Option		69,287,299		88,056,162		90,928,480		99,350,219		101,306,705
Initial Benefit Option		1,566,842		1,966,560		1,686,544		1,618,364		1,537,741
Disability Benefits		15,318,652		15,110,705		15,219,693		15,630,677		15,296,546
Total Benefits	8	829,236,652	\$	915,840,721	8	978,971,262	\$ 1	\$ 1,070,410,859	\$ 1	\$ 1,167,477,166
Refunds										
Separation	\$	29,724,211	↔	34,393,711	8	38,575,552	↔	52,012,078	&	66,904,948
Death		1,395,156		1,445,450		954,378		2,235,860		1,604,857
Total Refunds	&	31,119,367	&	35,839,161	8	39,529,930	8	54,247,938	8	68,509,805
Transfers to Other Systems	&	4,557,142	&	5,714,735	8	3,691,812	8	7,274,224	8	8,608,960
Total Refunds and Transfers	8	35,676,509	€	41,553,896	€	43,221,742	8	61,522,162	8	77,118,765

Benefit Expenses by Type (continued)

For the Ten Years Ended June 30, 2019

Type	2015		2016		2017		2018		2019
Benefits									
Regular	\$ 1,004,660,577		\$1,039,666,551	\$1,	\$1,082,037,690	1,1	1,110,489,161	1,	1,135,621,034
Survivors	87,434,135	ъ	91,330,722		95,582,244		99,820,473		102,089,676
Deferred Retirement Option	91,103,968	∞ ∞	91,683,522		82,211,054		93,003,819		92,872,233
Initial Benefit Option	1,342,856	9	1,248,317		989'826		1,423,801		1,005,140
Disability Benefits	14,537,716	9	14,578,820		13,651,348		12,898,071		12,304,622
Total Benefits	\$ 1,199,079,252	II II	\$ 1,238,507,932	\$1,	\$1,274,461,022	\$1,3	\$1,317,635,325	\$1,	\$1,343,892,705
Refunds									
Separation	\$ 31,533,895	5 \$	29,026,583	\$	28,443,202	&	24,998,614	\$	24,880,397
Death	2,548,005	5	1,270,829		1,266,083		2,278,608		1,397,220
Total Refunds	\$ 34,081,900	0	30,297,412	8	29,709,285	\$	27,277,222	8	26,277,617
Transfers to Other Systems	\$ 4,226,857	\ <u>\</u>	5,699,849	8	7,896,755	\$	7,914,286	8	8,671,090
Total Refunds and Transfers	\$ 38,308,757	4	35,997,261	8	37,606,040	€	35,191,508	€	34,948,707

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2019

Summary of All Retirees

					Years	of Servic	e Credit				•	
		<5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40+	М	All embers
2019	Average Benefit Received Average Final Average Compensation Number of Retirees	\$ 672 \$ 2,329 102	\$ 740 \$ 3,532 685	\$ 885 \$ 2,886 7,155	\$ 1,377 \$ 3,164 6,119	\$ 1,732 \$ 3,506 9,725	\$ 2,437 \$ 3,683 11,074	\$ 2,999 \$ 3,913 11,984	\$ 3,902 \$ 4,808 2,005	\$ 3,931 \$ 4,872 420	\$ \$	2,123 3,575 49,269
	Average Benefit Received	\$ 879	\$ 729	\$ 872	\$ 1,352	\$ 1,710	\$ 2,390	\$ 2,964	\$ 3,845	\$ 3,862	\$	2,089
2018	Average Final Average Compensation	\$ 2,207	\$ 3,393	\$ 2,828	\$ 3,107	\$ 3,455	\$ 3,609	\$ 3,857	\$ 4,720	\$ 4,759	\$	3,509
	Number of Retirees	132	628	7,184	6,119	9,652	10,975	11,954	1,954	408		49,006
2	Average Benefit Received	\$ 913	\$ 756	\$ 860	\$ 1,329	\$ 1,682	\$ 2,340	\$ 2,924	\$ 3,763	\$ 3,843	\$	2,052
201	Average Final Average Compensation	\$ 2,246	\$ 3,337	\$ 2,763	\$ 3,032	\$ 3,390	\$ 3,523	\$ 3,796	\$ 4,599	\$ 4,698	\$	3,435
	Number of Retirees	142	577	7,178	6,137	9,593	10,868	11,884	1,908	392		48,679
2016	Average Benefit Received	\$ 893	\$ 746	\$ 846	\$ 1,308	\$ 1,653	\$ 2,297	\$ 2,882	\$ 3,665	\$ 3,742	\$	2,014
20	Average Final Average Compensation	\$ 2,245	\$ 3,205	\$ 2,694	\$ 2,961	\$ 3,319	\$ 3,447	\$ 3,727	\$ 4,460	\$ 4,516	\$	3,357
	Number of Retirees Average Benefit Received	\$ 567	\$ 725	7,190 \$ 823	6,122 \$ 1,264	9,541 \$ 1,606	10,696 \$ 2,230	\$ 2,806	1,850 \$ 3,546	\$ 3,540	\$	48,201 1,952
2015	Average Final Average Compensation	\$ 2,152	\$ 2,945	\$ 2,634	\$ 2,873	\$ 3,246	\$ 3,373	\$ 3,657	\$ 4,341	\$ 4,526	\$	3,280
7	Number of Retirees	116	417	7,195	6,083	9,493	10,581	11,615	1,779	364	Ψ	47,643
	Average Benefit Received	\$ 548	\$ 760	\$ 810	\$ 1,231	\$ 1,571	\$ 2,186	\$ 2,750	\$ 3,454	\$ 3,457	\$	1,908
2014	Average Final Average Compensation	\$ 2,129	\$ 2,786	\$ 2,561	\$ 2,780	\$ 3,165	\$ 3,293	\$ 3,570	\$ 4,202	\$ 4,119	\$	3,190
7	Number of Retirees	118	360	7,142	6,067	9,375	10,443	11,340	1,742	353		46,940
~	Average Benefit Received	\$ 538	\$ 805	\$ 786	\$ 1,188	\$ 1,519	\$ 2,106	\$ 2,667	\$ 3,320	\$ 3,372	\$	1,844
2013	Average Final Average Compensation	\$ 2,383	\$ 2,675	\$ 2,638	\$ 2,876	\$ 3,154	\$ 3,334	\$ 3,641	\$ 4,224	\$ 4,114	\$	3,237
	Number of Retirees	124	293	6,982	5,984	8,911	10,149	10,961	1,666	355		45,425
2	Average Benefit Received	\$ 564	\$ 889	\$ 767	\$ 1,148	\$ 1,460	\$ 2,026	\$ 2,575	\$ 3,154	\$ 3,237	\$	1,771
201	Average Final Average Compensation	\$ 2,496	\$ 2,345	\$ 2,516	\$ 2,732	\$ 2,904	\$ 3,158	\$ 3,471	\$ 3,844	\$ 3,687	\$	3,048
	Number of Retirees	132	235	6,745	5,770	8,160	9,589	10,217	1,539	335		42,722
1	Average Benefit Received	\$ 579	\$ 906	\$ 754	\$ 1,112	\$ 1,417	\$ 1,961	\$ 2,491	\$ 3,043	\$ 3,189	\$	1,705
201	Average Final Average Compensation	\$ 2,517	\$ 2,282	\$ 2,474	\$ 2,675	\$ 2,827	\$ 3,067	\$ 3,368	\$ 3,701	\$ 3,593	\$	2,961
	Number of Retirees	138	235	6,637	5,676	7,895	9,246	9,545	1,439	331		41,142
01	Average Benefit Received	\$ 605	\$ 860	\$ 736	\$ 1,080	\$ 1,380	\$ 1,893	\$ 2,413	\$ 2,846	\$ 3,062	\$	1,636
2010	Average Final Average Compensation	\$ 2,456	\$ 2,218	\$ 2,437	\$ 2,620	\$ 2,751	\$ 2,987	\$ 3,267	\$ 3,466	\$ 3,518	\$	2,876
	Number of Retirees	140	234	6,497	5,577	7,629	8,772	8,887	1,337	312		39,385
	Ten Years Ended June 30, 2019											
	Average Benefit Received	\$ 682	\$ 771	\$ 815	\$ 1,242	\$ 1,583	\$ 2,199	\$ 2,765	\$ 3,496	\$ 3,550	\$	1,921
	Average Final Average Compensation	\$ 2,320	\$ 3,050	\$ 2,647	\$ 2,887	\$ 3,192	\$ 3,363	\$ 3,645	\$ 4,289	\$ 4,282	\$	3,262

Ten Years Ended June 30, 2019

Summary of Regular State Employees

					Years	of Service	e Credit				•	
		<5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40+		All mbers
	Average Benefit Received	\$ 301	\$ 609	\$ 875	\$ 1,367	\$ 1,715	\$ 2,419	\$ 3,070	\$ 4,055	\$ 4,067	\$	2,214
2019	Average Final Average Compensation	\$ 1,831	\$ 3,552	\$ 3,008	\$ 3,233	\$ 3,598	\$ 3,648	\$ 3,976	\$ 4,953	\$ 4,945	\$	3,666
	Number of Retirees	65	598	5,002	4,138	6,688	8,887	10,588	1,701	331		37,998
~	Average Benefit Received	\$ 358	\$ 584	\$ 861	\$ 1,345	\$ 1,696	\$ 2,382	\$ 3,035	\$ 3,996	\$ 3,956	\$	2,184
2018	Average Final Average Compensation	\$ 1,803	\$ 3,400	\$ 2,938	\$ 3,167	\$ 3,546	\$ 3,582	\$ 3,921	\$ 4,866	\$ 4,798	\$	3,601
	Number of Retirees	70	541	5,012	4,126	6,654	8,841	10,570	1,652	327		37,793
_	Average Benefit Received	\$ 367	\$ 583	\$ 849	\$ 1,322	\$ 1,673	\$ 2,342	\$ 2,995	\$ 3,920	\$ 3,933	\$	2,151
2017	Average Final Average Compensation	\$ 1,906	\$ 3,319	\$ 2,877	\$ 3,088	\$ 3,491	\$ 3,510	\$ 3,862	\$ 4,750	\$ 4,748	\$	3,533
	Number of Retirees	76	490	4,982	4,137	6,614	8,788	10,542	1,619	314		37,562
, ,	Average Benefit Received	\$ 357	\$ 563	\$ 834	\$ 1,300	\$ 1,642	\$ 2,307	\$ 2,953	\$ 3,844	\$ 3,823	\$	2,116
2016	Average Final Average Compensation	\$ 1,866	\$ 3,201	\$ 2,803	\$ 3,011	\$ 3,417	\$ 3,444	\$ 3,794	\$ 4,638	\$ 4,560	\$	3,457
	Number of Retirees	78	408	4,983	4,117	6,562	8,699	10,465	1,557	308		37,177
	Average Benefit Received	\$ 366	\$ 525	\$ 812	\$ 1,259	\$ 1,592	\$ 2,244	\$ 2,879	\$ 3,721	\$ 3,620	\$	2,055
2015	Average Final Average Compensation	\$ 1,847	\$ 2,938	\$ 2,748	\$ 2,931	\$ 3,341	\$ 3,379	\$ 3,732	\$ 4,513	\$ 4,302	\$	3,382
- 1	Number of Retirees	85	332	4,967	4,067	6,499	8,641	10,307	1,499	284		36,681
_	Average Benefit Received	\$ 363	\$ 522	\$ 800	\$ 1,237	\$ 1,559	\$ 2,210	\$ 2,827	\$ 3,643	\$ 3,546	\$	2,017
2014	Average Final Average Compensation	\$ 1,834	\$ 2,805	\$ 2,680	\$ 2,856	\$ 3,257	\$ 3,315	\$ 3,651	\$ 4,392	\$ 4,147	\$	3,303
	Number of Retirees	89	266	4,925	4,050	6,422	8,583	10,090	1,472	272		36,169
	Average Benefit Received	\$ 359	\$ 516	\$ 773	\$ 1,198	\$ 1,503	\$ 2,134	\$ 2,744	\$ 3,503	\$ 3,449	\$	1,956
2013	Average Final Average Compensation	\$ 2,191	\$ 2,651	\$ 2,705	\$ 2,934	\$ 3,192	\$ 3,316	\$ 3,683	\$ 4,378	\$ 4,146	\$	3,314
	Number of Retirees	94	197	4,756	3,972	5,952	8,356	9,752	1,417	279		34,775
	Average Benefit Received	\$ 410	\$ 521	\$ 752	\$ 1,151	\$ 1,437	\$ 2,051	\$ 2,653	\$ 3,353	\$ 3,356	\$	1,882
2012	Average Final Average Compensation	\$ 2,318	\$ 2,087	\$ 2,566	\$ 2,763	\$ 2,877	\$ 3,126	\$ 3,511	\$ 3,987	\$ 3,743	\$	3,104
	Number of Retirees	98	138	4,578	3,760	5,256	7,859	9,063	1,286	264		32,302
_	Average Benefit Received	\$ 448	\$ 523	\$ 737	\$ 1,119	\$ 1,391	\$ 1,984	\$ 2,566	\$ 3,244	\$ 3,303	\$	1,811
2011	Average Final Average Compensation	\$ 2,386	\$ 2,026	\$ 2,526	\$ 2,708	\$ 2,785	\$ 3,035	\$ 3,402	\$ 3,827	\$ 3,630	\$	3,011
	Number of Retirees	100	130	4,485	3,660	5,030	7,542	8,441	1,194	258		30,840
	Average Benefit Received	\$ 541	\$ 512	\$ 720	\$ 1,088	\$ 1,354	\$ 1,917	\$ 2,492	\$ 3,032	\$ 3,162	\$	1,740
2010	Average Final Average Compensation	\$ 2,382	\$ 1,992	\$ 2,498	\$ 2,657	\$ 2,706	\$ 2,950	\$ 3,300	\$ 3,582	\$ 3,510	\$	2,922
. 4	Number of Retirees	103	129	4,338	3,574	4,836	7,130	7,819	1,091	242		29,262
	Ten Years Ended June 30, 2019											
	A D CLD 1 1	Ф 204	A 500	Φ 004	A 1 0 1 0	A 4 550	A 2 210	A 2 020	0.0.654	A 0 (F4	ф	2.026

Ten Years Ended June 30, 2019													
Average Benefit Received	\$	394	\$	562	\$	804	\$ 1,243	\$ 1,570	\$ 2,210	\$ 2,839	\$ 3,674	\$ 3,651	\$ 2,026
Average Final Average Compensation	\$ 2	2,066	\$ 3	3,081	\$ 2	2,742	\$ 2,943	\$ 3,256	\$ 3,345	\$ 3,703	\$ 4,446	\$ 4,301	\$ 3,349

Ten Years Ended June 30, 2019

Regular State Employees (Hired before July 1, 2006)

					Years o	of Service	Credit				-	
		<5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40+		All
	Account Bounds Described											embers
2019	Average Benefit Received	\$ 302	\$ 616	\$ 870	\$ 1,362	\$ 1,713	\$ 2,419	\$ 3,070	\$ 4,055	\$ 4,067	\$	2,242
20	Average Final Average Compensation	\$ 1,706	\$ 2,211	\$ 2,971	\$ 3,219	\$ 3,594	\$ 3,647	\$ 3,976	\$ 4,953	\$ 4,945	\$	3,660
	Number of Retirees	60	98	4,819	4,121	6,675	8,884	10,587	1,701	331		37,276
81	Average Benefit Received	\$ 363	\$ 611	\$ 857	\$ 1,341	\$ 1,693	\$ 2,382	\$ 3,035	\$ 3,996	\$ 3,956	\$	2,206
2018	Average Final Average Compensation	\$ 1,711	\$ 2,187	\$ 2,914	\$ 3,155	\$ 3,542	\$ 3,582	\$ 3,921	\$ 4,866	\$ 4,798	\$	3,597
	Number of Retirees	66	100	4,903	4,114	6,644	8,839	10,569	1,652	327		37,214
2	Average Benefit Received	\$ 374	\$ 617	\$ 846	\$ 1,320	\$ 1,671	\$ 2,342	\$ 2,995	\$ 3,920	\$ 3,933	\$	2,169
2017	Average Final Average Compensation	\$ 1,872	\$ 2,142	\$ 2,861	\$ 3,084	\$ 3,487	\$ 3,509	\$ 3,862	\$ 4,750	\$ 4,745	\$	3,530
	Number of Retirees	73	106	4,931	4,130	6,606	8,787	10,541	1,619	314		37,107
9	Average Benefit Received	\$ 360	\$ 605	\$ 831	\$ 1,300	\$ 1,639	\$ 2,307	\$ 2,953	\$ 3,844	\$ 3,823	\$	2,129
2016	Average Final Average Compensation	\$ 1,835	\$ 2,146	\$ 2,791	\$ 3,010	\$ 3,413	\$ 3,444	\$ 3,794	\$ 4,638	\$ 4,560	\$	3,454
	Number of Retirees	76	109	4,955	4,113	6,555	8,698	10,464	1,557	308		36,835
ro.	Average Benefit Received	\$ 367	\$ 596	\$ 810	\$ 1,258	\$ 1,592	\$ 2,244	\$ 2,879	\$ 3,721	\$ 3,620	\$	2,064
2015	Average Final Average Compensation	\$ 1,805	\$ 2,115	\$ 2,739	\$ 2,930	\$ 3,339	\$ 3,379	\$ 3,731	\$ 4,513	\$ 4,302	\$	3,381
	Number of Retirees	84	118	4,951	4,064	6,495	8,641	10,306	1,499	284		36,442
₩	Average Benefit Received	\$ 364	\$ 586	\$ 798	\$ 1,237	\$ 1,558	\$ 2,209	\$ 2,827	\$ 3,643	\$ 3,546	\$	2,023
2014	Average Final Average Compensation	\$ 1,794	\$ 2,105	\$ 2,674	\$ 2,856	\$ 3,255	\$ 3,314	\$ 3,651	\$ 4,392	\$ 4,147	\$	3,302
	Number of Retirees	88	122	4,913	4,047	6,418	8,582	10,090	1,472	272		36,004
~	Average Benefit Received	\$ 360	\$ 542	\$ 771	\$ 1,197	\$ 1,503	\$ 2,134	\$ 2,744	\$ 3,503	\$ 3,449	\$	1,959
2013	Average Final Average Compensation	\$ 2,156	\$ 2,131	\$ 2,701	\$ 2,933	\$ 3,192	\$ 3,316	\$ 3,683	\$ 4,378	\$ 4,146	\$	3,313
	Number of Retirees	93	125	4,750	3,969	5,951	8,356	9,752	1,417	279		34,692
61	Average Benefit Received	\$ 411	\$ 529	\$ 752	\$ 1,151	\$ 1,437	\$ 2,051	\$ 2,653	\$ 3,353	\$ 3,356	\$	1,883
2012	Average Final Average Compensation	\$ 2,287	\$ 2,068	\$ 2,566	\$ 2,763	\$ 2,877	\$ 3,126	\$ 3,511	\$ 3,987	\$ 3,743	\$	3,105
	Number of Retirees	97	128	4,577	3,759	5,256	7,859	9,063	1,286	264		32,289
	Average Benefit Received	\$ 450	\$ 523	\$ 737	\$ 1,119	\$ 1,391	\$ 1,984	\$ 2,566	\$ 3,244	\$ 3,303	\$	1,811
2011	Average Final Average Compensation	\$ 2,356	\$ 2,026	\$ 2,525	\$ 2,708	\$ 2,785	\$ 3,035	\$ 3,402	\$ 3,827	\$ 3,630	\$	3,011
	Number of Retirees	99	130	4,484	3,659	5,030	7,542	8,441	1,194	258		30,837
	Average Benefit Received	\$ 541	\$ 512	\$ 720	\$ 1,088	\$ 1,354	\$ 1,917	\$ 2,492	\$ 3,032	\$ 3,162	\$	1,740
2010	Average Final Average Compensation	\$ 2,382	\$ 1,992	\$ 2,498	\$ 2,657	\$ 2,706	\$ 2,950	\$ 3,300	\$ 3,582	\$ 3,510	\$	2,922
(4	Number of Retirees	103	129	4,337	3,574	4,836	7,130	7,819	1,091	242		29,261
	•											
	Ten Years Ended June 30, 2019											
	Average Benefit Received	\$ 397	\$ 570	\$ 801	\$ 1,242	\$ 1,569	\$ 2,210	\$ 2,839	\$ 3,674	\$ 3,651	\$	2,035
	Average Final Average Compensation	\$ 2,028	\$ 2,107	\$ 2,729	\$ 2,940	\$ 3,253	\$ 3,345	\$ 3,703	\$ 4,446	\$ 4,300	\$	3,345

Ten Years Ended June 30, 2019

Regular State Employees 2 (Hired on or after July 1, 2006)

		-			Years	of Servic	e Credit							
		<5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	,	40+	-	Me	All embers
6	Average Benefit Received	\$ 278	\$ 613	\$ \$ 993	\$ 2,760	\$ 3,349	\$ 1,928	\$ 3,558	\$ -	-	\$	-	\$	815
2019	Average Final Average Compensation	\$ 3,332	\$ 3,774	\$ 3,916	\$ 6,865	\$ 6,203	\$ 4,927	\$ 5,756	\$ -	-	\$	-	\$	3,925
	Number of Retirees	4	425	171	14	10	2	1	(0		0		627
~	Average Benefit Received	\$ 278	\$ 581	\$ 987	\$ 2,894	\$ 3,608	\$ 2,808	\$ 3,558	\$ -	-	\$	-	\$	762
2018	Average Final Average Compensation	\$ 3,332	\$ 3,633	\$ 3,969	\$ 7,494	\$ 6,573	\$ 5,620	\$ 5,756	\$.	-	\$	-	\$	3,826
•	Number of Retirees	4	400	100	10	9	1	1	(0		0		525
	Average Benefit Received	\$ 201	\$ 577	\$ 1,091	\$ 2,366	\$ 3,720	\$ -	\$ 3,588	\$ -	-	\$	-	\$	720
2017	Average Final Average Compensation	\$ 2,749	\$ 3,622	\$ 4,214	\$ 5,686	\$ 6,764	\$ -	\$ 5,756	\$ -	-	\$	-	\$	3,771
	Number of Retirees	3	363	45	6	8	0	1	(0		0		426
, 6	Average Benefit Received	\$ 217	\$ 547	\$ 1,369	\$ 1,726	\$ 3,649	\$ -	\$ 3,558	\$.	-	\$	-	\$	693
2016	Average Final Average Compensation	\$ 3,055	\$ 3,567	\$ 5,064	\$ 3,960	\$ 6,770	\$ -	\$ 5,756	\$ -	-	\$	-	\$	3,756
.,	Number of Retirees	2	291	. 25	3	7	0	1	(0		0		329
	Average Benefit Received	\$ 299	\$ 486	\$ 1,550	\$ 1,701	\$ 2,455	\$ -	\$ 3,506	\$ -	-	\$	-	\$	614
2015	Average Final Average Compensation	\$ 5,355	\$ 3,391	\$ 5,644	\$ 3,960	\$ 5,415	\$ -	\$ 5,756	\$ -	-	\$	-	\$	3,594
	Number of Retirees	1	212	. 15	3	4	0	1	(0		0		236
	Average Benefit Received	\$ 299	\$ 469	\$ 1,537	\$ 1,701	\$ 2,455	\$ 9,200	\$ -	\$.	-	\$	_	\$	664
2014	Average Final Average Compensation	\$ 5,355	\$ 3,397	\$ 5,691	\$ 3,960	\$ 5,415	\$ 12,041	\$ -	\$ -	-	\$	-	\$	3,675
(1	Number of Retirees	1	144	. 11	3	4	1	0	(0		0		164
	Average Benefit Received	\$ 295	\$ 471	\$ 1,805	\$ 1,666	\$ 2,174	\$ -	\$ -	\$ -	_	\$	-	\$	615
2013	Average Final Average Compensation	\$ 5,355	\$ 3,539	\$ 6,780	\$ 3,960	\$ 4,596	\$ -	\$ -	\$ -	_	\$	_	\$	3,787
7	Number of Retirees	1	72	. 5	3	1	0	0	(0		0		82
	Average Benefit Received	\$ 295	\$ 411	\$ 876	\$ 723	\$ -	\$ -	\$ -	\$ -	_	\$	_	\$	462
2012	Average Final Average Compensation	\$ 5,355	\$ 3,278	\$ \$ 3,151	\$ 1,409	\$ -	\$ -	\$ -	\$ -	_	\$	_	\$	3,284
7	Number of Retirees	1	10		1	0	0	0	(0		0		13
	Average Benefit Received	\$ 295	\$	- \$ 876	\$ 711	\$ -	\$ -	\$ -	\$ -	_	\$	_	\$	627
2011	Average Final Average Compensation	\$ 5,355	\$	\$ 3,151	\$ 1,409	\$ -	s -	\$ -	\$ -	_	\$	_	\$	3,305
7	Number of Retirees	1	(1	0	0	0	,	0	7	0	4	3
	Average Benefit Received	\$ -		- \$ 876		\$ -	\$ -	\$ -	\$ -		\$	_	\$	876
2010	Average Final Average Compensation	\$ -		\$ 3,151	\$ -	\$ -	\$ -	\$ -	\$ -	_	\$	_	\$	3,151
7	Number of Retirees	0	Ψ (0	0	0	0		0	4	0	Ψ	1
	runner of fedirect	0		, 1	0	0	0	0		_				
	Ten Years Ended June 30, 2019		Φ =:					.						
	Average Final Average Compensation	\$ 264 \$ 3.766	\$ 558	' '		\$ 3,327	\$ 3,966 \$ 6,879	\$ 3,554 \$ 5,756	\$.	-	\$ \$	-	\$	731 3 794
	A VECAUS FINAL A VETAUS L OMNSSTION	7 2 / 1212	D 5 DII.	7 4 146	7 7 7 7 11 /	70 /44	D D 3/4	77/20		-	.79	-		3 /4

Ten Years Ended June 30, 2019												
Average Benefit Received	\$	264	\$	558	\$ 1,076	\$ 2,354	\$ 3,327	\$ 3,966	\$ 3,554	\$ -	\$ -	\$ 731
Average Final Average Compensation	\$ 3	,766	\$ 3	,602	\$ 4,196	\$ 5,807	\$ 6,293	\$ 6,879	\$ 5,756	\$ -	\$ -	\$ 3,794

Ten Years Ended June 30, 2019

Regular State Employees 3 (Hired on or after January 1, 2011)

						Years o	f Se	rvice	Credit								
	<	5	į	5 - 10	10 - 15	15 - 20	20	- 25	25 - 30	30 -	35	35 -	40	40)+		All mber
Average Benefit Received	\$	370	\$	562	\$ 1,388	\$ 2,001	\$	900	\$ 2,706	\$	-	\$	-	\$	-	\$	74
Average Final Average Compensation	\$ 3,	362	\$	3,967	\$ 4,903	\$ 5,072	\$3	,873	\$ 5,888	\$	-	\$	-	\$	-	\$	4,13
Number of Retirees		1		74	12	3		3	1		0		0		0		ç
Average Benefit Received	\$	-	\$	520	\$ 1,379	\$ 2,216	\$	822	\$ 2,706	\$	-	\$	-	\$	-	\$	77
Average Final Average Compensation	\$	-	\$	3,953	\$ 4,665	\$ 5,962	\$4	,615	\$ 5,888	\$	-	\$	-	\$	-	\$	4,19
Number of Retirees		0		40	9	2		1	1		0		0		0		5
Average Benefit Received	\$	-	\$	507	\$ 1,949	\$ 1,019	\$	-	\$ 2,706	\$	-	\$	-	\$	-	\$	89
Average Final Average Compensation	\$	-	\$	4,023	\$ 6,088	\$ 3,748	\$	-	\$ 5,888	\$	-	\$	-	\$	-	\$	4,50
Number of Retirees		0		21	6	1		0	1		0		0		0		2
Average Benefit Received	\$	-	\$	583	\$ 1,114	\$ 1,019	\$	-	\$ 2,706	\$	-	\$	-	\$	-	\$	9(
Average Final Average Compensation	\$	_	\$	4,283	\$ 3,769	\$ 3,748	\$	_	\$ 5,888	\$	_	\$	_	\$	_	\$	4,2
Number of Retirees		0		8	3	1		0	1		0		0		0		
Average Benefit Received	\$	-	\$	487	\$ 1,168	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-	\$	7
	\$	_	\$	3,568	\$ 3,405	\$ -	\$	_	\$ -	\$	_	\$	_	\$	_	\$	3,5
Number of Retirees		0		2	1	0		0	0		0		0		0		
Average Benefit Received	\$	-	\$	_	\$ 1,168	\$ -	\$	-	\$ -	\$	-	\$	-	\$	_	\$	1,10
	\$	_	\$	_	\$ 3,405	\$ -	\$	_	\$ -	\$	_	\$	_	\$	_	\$	3,4
Number of Retirees		0		0	1	0		0	0		0		0		0		,
Average Benefit Received	\$	_	\$	_	\$ 1,151	\$ -	\$	_	\$ -	\$	_	\$	_	\$	_	\$	1,1
		_	\$	_	\$ 3,405	\$ -	\$	_		\$	_	\$	_	\$	_	\$	3,40
Number of Retirees	,	0	,	0	1	0	,	0	0	,	0	,	0	,	0	,	-,
Average Benefit Received	No	Acti	vity	7													
Ŭ																	
Number of Retirees	No	Acti	vity	7													
	Average Final Average Compensation Number of Retirees Average Benefit Received Average Final Average Compensation Number of Retirees Average Benefit Received Average Final Average Compensation Number of Retirees Average Benefit Received Average Final Average Compensation Number of Retirees Average Benefit Received Average Final Average Compensation Number of Retirees Average Final Average Compensation Number of Retirees Average Benefit Received Average Final Average Compensation Number of Retirees Average Benefit Received Average Final Average Compensation Number of Retirees Average Benefit Received Average Final Average Compensation	Average Benefit Received \$ Average Final Average Compensation \$ Number of Retirees Average Benefit Received \$ Average Final Average Compensation \$ Number of Retirees Average Benefit Received \$ Average Final Average Compensation \$ Number of Retirees Average Final Average Compensation \$ Number of Retirees Average Benefit Received \$ Average Final Average Compensation \$ Number of Retirees Average Benefit Received \$ Average Final Average Compensation \$ Number of Retirees Average Final Average Compensation \$ Number of Retirees Average Benefit Received \$ Average Final Average Compensation \$ Number of Retirees Average Final Average Compensation \$ Number of Retirees Average Benefit Received \$ Average Final Average Compensation \$ Number of Retirees Average Benefit Received \$ Average Final Average Compensation \$ Number of Retirees	Average Final Average Compensation Number of Retirees 1 Average Benefit Received Average Final Average Compensation Number of Retirees 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 Average Final Average Compensation Number of Retirees 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 Average Final Average Compensation Number of Retirees 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 Average Benefit Received No Acti	Average Benefit Received \$370 \$ Average Final Average Compensation \$3,362 \$ Number of Retirees \$1 Average Benefit Received \$-\$ Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Benefit Received \$-\$ Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Benefit Received \$-\$ Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Benefit Received \$-\$ Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Benefit Received \$-\$ Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$-\$ Number of Retirees \$0 Average Final Average Compensation \$	Average Benefit Received Average Final Average Compensation Number of Retirees 1 74 Average Benefit Received Average Final Average Compensation Number of Retirees 0 40 Average Benefit Received Average Benefit Received Average Final Average Compensation Number of Retirees 0 40 Average Final Average Compensation Number of Retirees 0 21 Average Benefit Received \$ - \$583 Average Final Average Compensation Number of Retirees 0 8 Average Final Average Compensation Number of Retirees 0 8 Average Benefit Received \$ - \$487 Average Final Average Compensation Number of Retirees 0 2 Average Final Average Compensation Number of Retirees 0 2 Average Benefit Received \$ - \$ - \$ - \$ Average Final Average Compensation Number of Retirees 0 0 Average Final Average Compensation Number of Retirees 0 0 Average Final Average Compensation Number of Retirees 0 0 Average Final Average Compensation Number of Retirees 0 0 Average Final Average Compensation Number of Retirees 0 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 0 Average Benefit Received Average Final Average Compensation Number of Retirees 0 0 Average Benefit Received	Average Benefit Received \$ 370 \$ 562 \$ 1,388 Average Final Average Compensation \$ 3,362 \$ 3,967 \$ 4,903 Number of Retirees 1 74 12 Average Benefit Received \$ - \$ 520 \$ 1,379 Average Final Average Compensation \$ - \$ 3,953 \$ 4,665 Number of Retirees 0 40 9 Average Benefit Received \$ - \$ 507 \$ 1,949 Average Final Average Compensation \$ - \$ 4,023 \$ 6,088 Number of Retirees 0 21 6 Average Benefit Received \$ - \$ 583 \$ 1,114 Average Final Average Compensation \$ - \$ 4,283 \$ 3,769 Number of Retirees 0 8 3 Average Final Average Compensation \$ - \$ 4,283 \$ 3,405 Number of Retirees 0 2 1 Average Final Average Compensation \$ - \$ 3,568 \$ 3,405 Number of Retirees 0 0 1 Average Benefit Received \$ - \$ - \$ 1,158 <td> S</td> <td> S</td> <td>Average Benefit Received \$ 370 \$ 5-20 \$ 15-20 \$ 20-25 Average Final Average Compensation Number of Retirees \$ 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 Average Benefit Received \$ - \$ 520 \$ 1,379 \$ 2,216 \$ 822 Average Final Average Compensation Number of Retirees 0 40 9 2 1 Average Benefit Received \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - Average Benefit Received \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - Average Final Average Compensation \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - Average Final Average Compensation \$ - \$ 4,023 \$ 6,088 \$ 3,748 \$ - Average Benefit Received \$ - \$ 583 \$ 1,114 \$ 1,019 \$ - Average Final Average Compensation \$ - \$ 4,283 \$ 3,748 \$ - Average Final Average Compensation \$ - \$ 4,87 \$ 1,168 \$ - \$ - Average Benefit Received</td> <td>Average Benefit Received Average Final Average Compensation Number of Retirees 1 74 12 3 3 1 Average Benefit Received Average Final Average Compensation Average Final Average Compensation Average Final Average Compensation Average Final Average Compensation S 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 \$ 5,888 Number of Retirees 1 74 12 3 3 3 1 Average Benefit Received Average Final Average Compensation S 4,023 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 Number of Retirees 0 40 9 2 1 1 Average Benefit Received Average Final Average Compensation S 5,070 \$ 1,949 \$ 1,019 \$ - \$ 2,706 Average Final Average Compensation S 6,088 \$ 3,748 \$ - \$ 5,888 Number of Retirees 0 21 6 1 0 1 Average Benefit Received S 5,883 \$ 1,114 \$ 1,019 \$ - \$ 2,706 Average Final Average Compensation S 6,4283 \$ 3,769 \$ 3,748 \$ - \$ 5,888 Number of Retirees 0 8 3 1 0 1 Average Benefit Received S 7 \$ 4,283 \$ 3,769 \$ 3,748 \$ - \$ 5,888 Number of Retirees 0 8 3 1 0 1 Average Benefit Received S 7 \$ 4,283 \$ 3,769 \$ 3,748 \$ - \$ 5,888 Number of Retirees 0 8 3 1 0 1 Average Final Average Compensation S 7 \$ 4,283 \$ 3,405 \$ - \$ - \$ 5,888 Number of Retirees 0 8 3 1 0 0 Average Final Average Compensation S 7 \$ 4,87 \$ 1,168 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$</td> <td>Average Benefit Received \$ 370 \$ 5e2 \$ 1,388 \$ 2,001 \$ 900 \$ 2,706 \$ 2,706 \$ 3,362 \$ 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 \$ 5,888 \$ 5,002 \$ 1,388 \$ 2,001 \$ 900 \$ 2,706 \$ 5,888 \$ 5,002 \$ 1,379 \$ 2,216 \$ 3,873 \$ 5,888 \$ 3 1 Average Benefit Received \$ - \$ 520 \$ 1,379 \$ 2,216 \$ 822 \$ 2,706 \$ \$ 3,953 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 \$ \$ 1 Average Benefit Received \$ - \$ 3,953 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 \$ \$ 1 Average Benefit Received \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - \$ 2,706 \$ \$ 3,769 \$ 3,748 \$ - \$ 5,888 \$ \$ 1 Average Benefit Received \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - \$ 2,706 \$ \$ 3,748 \$ - \$ 5,888 \$ 1 Average Benefit Received \$ - \$ 4,023 \$ 6,088</td> <td>Average Benefit Received \$ 370 \$ 5-10 \$ 10-15 \$ 15-20 \$ 20-25 \$ 25-30 \$ 30-35 Average Final Average Compensation Number of Retirees \$ 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 \$ 5,888 \$ - Average Benefit Received \$ 1 74 12 3 3 1 0 Average Benefit Received \$ - \$ 5,201 \$ 1,379 \$ 2,216 \$ 822 \$ 2,706 \$ - Average Benefit Received \$ - \$ 5,903 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 \$ - Number of Retirees 0 40 9 2 1 1 0 Average Benefit Received \$ - \$ 5,077 \$ 1,949 \$ 1,019 \$ - \$ 2,706 \$ - Average Benefit Received \$ - \$ 5,072 \$ 1,949 \$ 1,019 \$ - \$ 2,706 \$ - Average Final Average Compensation \$ - \$ 5,023 \$ 1,114 \$ 1,00 \$ 1 \$ 0 Average Benefit Received</td> <td>Average Benefit Received \$370 \$5-10 \$10-15 \$15-20 \$20-25 \$25-30 \$30-35 \$35-40 \$10-15 \$15-20 \$20-25 \$25-30 \$30-35 \$35-40 \$4 everage Final Average Compensation Number of Retirees \$1 \$74 \$12 \$3 \$5.07 \$1.389 \$1 \$0 \$4 everage Final Average Compensation \$3,362 \$3,967 \$4,903 \$5,072 \$3,873 \$5,888 \$-\$\$ Number of Retirees \$1 \$74 \$12 \$3 \$3 \$1 \$0 \$4 everage Final Average Compensation \$5.00 \$1.379 \$2,216 \$822 \$2,706 \$-\$\$ \$4 everage Final Average Compensation \$0.00 \$40 \$9.00 \$2.00 \$1.00 \$1.00 \$4 everage Final Average Compensation \$0.00 \$1</td> <td>Average Benefit Received \$ 370 \$ 562 \$ 1,388 \$ 2,001 \$ 900 \$ 2,706 \$ - \$ - Average Final Average Compensation \$ 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 \$ 5,888 \$ - \$ - Number of Retirees 1 74 12 3 3 1 0 0 Average Benefit Received \$ - \$ 520 \$ 1,379 \$ 2,216 \$ 822 \$ 2,706 \$ - \$ - Average Final Average Compensation \$ - \$ 5502 \$ 1,379 \$ 2,216 \$ 822 \$ 2,706 \$ - \$ - Average Final Average Compensation \$ - \$ 3,953 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 \$ - \$ - Number of Retirees 0 4 9 \$ 2,015 \$ 2,706 \$ - \$ - Average Final Average Compensation \$ - \$ 4,023 \$ 6,088 \$ 3,748 \$ - \$ 5,888 \$ - \$ - Average Final Average Compensation \$ - \$ 4,23</td> <td> Average Benefit Received \$370 \$562 \$1,388 \$2,001 \$900 \$2,706 \$ - \$ - \$ \$ \$ \$ \$ \$ \$ \$</td> <td>Average Benefit Received \$370 \$562 \$1,388 \$2,001 \$900 \$2,706 \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$-</td> <td> Average Benefit Received \$370 \$520 \$3,967 \$4,903 \$562 \$1,388 \$2,001 \$900 \$2,706 \$0 \$0 \$0 \$0 \$0 \$0 \$0 </td>	S	S	Average Benefit Received \$ 370 \$ 5-20 \$ 15-20 \$ 20-25 Average Final Average Compensation Number of Retirees \$ 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 Average Benefit Received \$ - \$ 520 \$ 1,379 \$ 2,216 \$ 822 Average Final Average Compensation Number of Retirees 0 40 9 2 1 Average Benefit Received \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - Average Benefit Received \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - Average Final Average Compensation \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - Average Final Average Compensation \$ - \$ 4,023 \$ 6,088 \$ 3,748 \$ - Average Benefit Received \$ - \$ 583 \$ 1,114 \$ 1,019 \$ - Average Final Average Compensation \$ - \$ 4,283 \$ 3,748 \$ - Average Final Average Compensation \$ - \$ 4,87 \$ 1,168 \$ - \$ - Average Benefit Received	Average Benefit Received Average Final Average Compensation Number of Retirees 1 74 12 3 3 1 Average Benefit Received Average Final Average Compensation Average Final Average Compensation Average Final Average Compensation Average Final Average Compensation S 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 \$ 5,888 Number of Retirees 1 74 12 3 3 3 1 Average Benefit Received Average Final Average Compensation S 4,023 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 Number of Retirees 0 40 9 2 1 1 Average Benefit Received Average Final Average Compensation S 5,070 \$ 1,949 \$ 1,019 \$ - \$ 2,706 Average Final Average Compensation S 6,088 \$ 3,748 \$ - \$ 5,888 Number of Retirees 0 21 6 1 0 1 Average Benefit Received S 5,883 \$ 1,114 \$ 1,019 \$ - \$ 2,706 Average Final Average Compensation S 6,4283 \$ 3,769 \$ 3,748 \$ - \$ 5,888 Number of Retirees 0 8 3 1 0 1 Average Benefit Received S 7 \$ 4,283 \$ 3,769 \$ 3,748 \$ - \$ 5,888 Number of Retirees 0 8 3 1 0 1 Average Benefit Received S 7 \$ 4,283 \$ 3,769 \$ 3,748 \$ - \$ 5,888 Number of Retirees 0 8 3 1 0 1 Average Final Average Compensation S 7 \$ 4,283 \$ 3,405 \$ - \$ - \$ 5,888 Number of Retirees 0 8 3 1 0 0 Average Final Average Compensation S 7 \$ 4,87 \$ 1,168 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	Average Benefit Received \$ 370 \$ 5e2 \$ 1,388 \$ 2,001 \$ 900 \$ 2,706 \$ 2,706 \$ 3,362 \$ 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 \$ 5,888 \$ 5,002 \$ 1,388 \$ 2,001 \$ 900 \$ 2,706 \$ 5,888 \$ 5,002 \$ 1,379 \$ 2,216 \$ 3,873 \$ 5,888 \$ 3 1 Average Benefit Received \$ - \$ 520 \$ 1,379 \$ 2,216 \$ 822 \$ 2,706 \$ \$ 3,953 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 \$ \$ 1 Average Benefit Received \$ - \$ 3,953 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 \$ \$ 1 Average Benefit Received \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - \$ 2,706 \$ \$ 3,769 \$ 3,748 \$ - \$ 5,888 \$ \$ 1 Average Benefit Received \$ - \$ 507 \$ 1,949 \$ 1,019 \$ - \$ 2,706 \$ \$ 3,748 \$ - \$ 5,888 \$ 1 Average Benefit Received \$ - \$ 4,023 \$ 6,088	Average Benefit Received \$ 370 \$ 5-10 \$ 10-15 \$ 15-20 \$ 20-25 \$ 25-30 \$ 30-35 Average Final Average Compensation Number of Retirees \$ 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 \$ 5,888 \$ - Average Benefit Received \$ 1 74 12 3 3 1 0 Average Benefit Received \$ - \$ 5,201 \$ 1,379 \$ 2,216 \$ 822 \$ 2,706 \$ - Average Benefit Received \$ - \$ 5,903 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 \$ - Number of Retirees 0 40 9 2 1 1 0 Average Benefit Received \$ - \$ 5,077 \$ 1,949 \$ 1,019 \$ - \$ 2,706 \$ - Average Benefit Received \$ - \$ 5,072 \$ 1,949 \$ 1,019 \$ - \$ 2,706 \$ - Average Final Average Compensation \$ - \$ 5,023 \$ 1,114 \$ 1,00 \$ 1 \$ 0 Average Benefit Received	Average Benefit Received \$370 \$5-10 \$10-15 \$15-20 \$20-25 \$25-30 \$30-35 \$35-40 \$10-15 \$15-20 \$20-25 \$25-30 \$30-35 \$35-40 \$4 everage Final Average Compensation Number of Retirees \$1 \$74 \$12 \$3 \$5.07 \$1.389 \$1 \$0 \$4 everage Final Average Compensation \$3,362 \$3,967 \$4,903 \$5,072 \$3,873 \$5,888 \$-\$\$ Number of Retirees \$1 \$74 \$12 \$3 \$3 \$1 \$0 \$4 everage Final Average Compensation \$5.00 \$1.379 \$2,216 \$822 \$2,706 \$-\$\$ \$4 everage Final Average Compensation \$0.00 \$40 \$9.00 \$2.00 \$1.00 \$1.00 \$4 everage Final Average Compensation \$0.00 \$1	Average Benefit Received \$ 370 \$ 562 \$ 1,388 \$ 2,001 \$ 900 \$ 2,706 \$ - \$ - Average Final Average Compensation \$ 3,362 \$ 3,967 \$ 4,903 \$ 5,072 \$ 3,873 \$ 5,888 \$ - \$ - Number of Retirees 1 74 12 3 3 1 0 0 Average Benefit Received \$ - \$ 520 \$ 1,379 \$ 2,216 \$ 822 \$ 2,706 \$ - \$ - Average Final Average Compensation \$ - \$ 5502 \$ 1,379 \$ 2,216 \$ 822 \$ 2,706 \$ - \$ - Average Final Average Compensation \$ - \$ 3,953 \$ 4,665 \$ 5,962 \$ 4,615 \$ 5,888 \$ - \$ - Number of Retirees 0 4 9 \$ 2,015 \$ 2,706 \$ - \$ - Average Final Average Compensation \$ - \$ 4,023 \$ 6,088 \$ 3,748 \$ - \$ 5,888 \$ - \$ - Average Final Average Compensation \$ - \$ 4,23	Average Benefit Received \$370 \$562 \$1,388 \$2,001 \$900 \$2,706 \$ - \$ - \$ \$ \$ \$ \$ \$ \$ \$	Average Benefit Received \$370 \$562 \$1,388 \$2,001 \$900 \$2,706 \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$- \$-	Average Benefit Received \$370 \$520 \$3,967 \$4,903 \$562 \$1,388 \$2,001 \$900 \$2,706 \$0 \$0 \$0 \$0 \$0 \$0 \$0

Ten Years Ended June 30, 2019										
Average Benefit Received	\$ 370	\$ 543	\$ 1,442	\$ 1,782	\$ 881	\$ 2,706	\$ -	\$ -	\$ -	\$ 791
Average Final Average Compensation	\$ 3,362	\$ 3,983	\$ 4,814	\$ 4,948	\$ 4,059	\$ 5,888	\$ -	\$ -	\$ -	\$ 4,197

Ten Years Ended June 30, 2019

Regular State Employees 4 (Hired on or after July 1, 2015)

							Ye	ars o	f Se	rvice	Cre	edit							-	
		<′	5	5 - 10	10 -	- 15	15 -	- 20	20 -	- 25	25	- 30	30	- 35	35	- 40	40)+	Mo	All embers
6	Average Benefit Received	\$	-	\$1,793	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	1,793
2019	Average Final Average Compensation	\$	-	\$9,601	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	9,601
.,	Number of Retirees		0	1		0		0		0		0		0		0		0		1
	Average Benefit Received	\$	-	\$1,793	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	1,793
2018	Average Final Average Compensation	\$	-	\$9,601	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	9,601
.,	Number of Retirees		0	1		0		0		0		0		0		0		0		1
117	Average Benefit Received	No	Acti	vity																
2010-2017	Average Final Average Compensation	No	Acti	vity																
201	Number of Retirees	No	Acti	vity																
	Ten Years Ended June 30, 2019																			
	Average Benefit Received	\$	-	\$1,793	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	1,793
	Average Final Average Compensation	\$	-	\$9,601	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	9,601

Ten Years Ended June 30, 2019

Summary of Corrections

							Years	of Servic	e C	redit					
		<5		5 - 10	0	10 - 15	15 - 20	20 - 25	2	5 - 30	30 - 35	35 - 40	40+	Me	All embers
	Average Benefit Received	\$	-	\$	-	\$ 1,114	\$ 1,735	\$ 1,795	\$	3,223	\$ 4,050	\$ 4,584	\$ 7,104	\$	2,362
2019	Average Final Average Compensation	\$	-	\$	-	\$ 3,468	\$ 4,033	\$ 3,458	\$	4,855	\$ 5,485	\$ 6,055	\$ 8,574	\$	4,094
	Number of Retirees		0		0	169	164	1,081		675	158	27	4		2,278
~	Average Benefit Received	\$	-	\$	-	\$ 1,104	\$ 1,699	\$ 1,775	\$	3,166	\$ 3,990	\$ 4,705	\$ 7,104	\$	2,318
2018	Average Final Average Compensation	\$	-	\$	-	\$ 3,474	\$ 4,002	\$ 3,424	\$	4,808	\$ 5,409	\$ 6,124	\$ 8,574	\$	4,046
	Number of Retirees	(0		0	161	159	1,078		645	155	23	4		2,225
_	Average Benefit Received	\$	-	\$	-	\$ 1,093	\$ 1,712	\$ 1,766	\$	3,085	\$ 3,858	\$ 4,709	\$ 6,757	\$	2,254
2017	Average Final Average Compensation	\$	-	\$	-	\$ 3,458	\$ 4,019	\$ 3,395	\$	4,731	\$ 5,275	\$ 6,009	\$ 7,917	\$	3,969
	Number of Retirees	(0	ı	0	146	153	1,081		592	144	18	3		2,137
	Average Benefit Received	\$	-	\$	-	\$ 1,059	\$ 1,684	\$ 1,751	\$	2,981	\$ 3,787	\$ 4,642	\$ 6,757	\$	2,185
2016	Average Final Average Compensation	\$	-	\$	-	\$ 3,418	\$ 3,998	\$ 3,370	\$	4,635	\$ 5,189	\$ 5,790	\$ 7,917	\$	3,892
	Number of Retirees		0		0	132	144	1,082		536	133	15	3		2,045
2	Average Benefit Received	\$	-	\$	-	\$ 1,027	\$ 1,633	\$ 1,717	\$	2,886	\$ 3,691	\$ 4,363	\$ 6,683	\$	2,100
2015	Average Final Average Compensation	\$	-	\$	-	\$ 3,401	\$ 3,972	\$ 3,336	\$	4,554	\$ 5,122	\$ 5,568	\$ 7,917	\$	3,812
	Number of Retirees		0		0	122	130	1,084		475	120	13	3		1,947
	Average Benefit Received	\$	-	\$	-	\$ 997	\$ 1,621	\$ 1,697	\$	2,782	\$ 3,639	\$ 4,110	\$ 5,977	\$	2,028
2014	Average Final Average Compensation	\$	-	\$	-	\$ 3,341	\$ 3,972	\$ 3,296	\$	4,452	\$ 5,036	\$ 5,290	\$ 7,515	\$	3,723
	Number of Retirees		0		0	112	118	1,078		424	107	8	3		1,850
	Average Benefit Received	\$	-	\$	-	\$ 972	\$ 1,594	\$ 1,665	\$	2,657	\$ 3,562	\$ 4,330	\$ 4,542	\$	1,952
2013	Average Final Average Compensation	\$	-	\$	-	\$ 3,305	\$ 3,954	\$ 3,243	\$	4,320	\$ 4,969	\$ 5,575	\$ 5,577	\$	3,629
	Number of Retirees		0		0	105	105	1,055		373	97	6	4		1,745
	Average Benefit Received	\$ 1,64	5	\$	-	\$ 966	\$ 1,574	\$ 1,622	\$	2,552	\$ 3,495	\$ 4,256	\$ 4,542	\$	1,886
2012	Average Final Average Compensation	\$ 3,47	4	\$	-	\$ 3,284	\$ 3,942	\$ 3,165	\$	4,205	\$ 4,871	\$ 5,586	\$ 5,577	\$	3,529
	Number of Retirees		1		0	86	93	1,036		337	84	5	4		1,646
	Average Benefit Received	\$ 1,64	5	\$	-	\$ 958	\$ 1,552	\$ 1,588	\$	2,436	\$ 3,354	\$ 4,096	\$ 4,542	\$	1,825
2011	Average Final Average Compensation	\$ 3,47	4	\$	-	\$ 3,267	\$ 3,904	\$ 3,090	\$	4,000	\$ 4,605	\$ 5,135	\$ 5,577	\$	3,405
	Number of Retirees		1		0	66	83	1,001		296	76	4	4		1,531
	Average Benefit Received	\$ 1,64	5	\$	-	\$ 874	\$ 1,424	\$ 1,526	\$	2,362	\$ 3,290	\$ 3,980	\$ 4,542	\$	1,758
2010	Average Final Average Compensation	\$ 3,47	4	\$	-	\$ 3,072	\$ 3,662	\$ 2,930	\$	3,824	\$ 4,395	\$ 4,656	\$ 5,577	\$	3,208
	Number of Retirees		1		0	33	48	915		250	58	3	4		1,312
	Ten Years Ended June 30, 2019			Φ.		A 4 0 4 5	0.4.640	# 4 CO 4	ф	2.004	A 2 545	Φ.4.F24	d = ==0	ф	2.000
	Average Benefit Received	\$ 1,64		\$	-	\$ 1,042	\$ 1,649	\$ 1,694	\$	2,901	\$ 3,741	\$ 4,521	\$ 5,779	\$	2,099
	Average Final Average Compensation	\$ 3,47	4	\$	-	\$ 3,390	\$ 3,972	\$ 3,278	\$	4,537	\$ 5,127	\$ 5,819	\$ 6,989	\$	3,774

Ten Years Ended June 30, 2019

Corrections Employees Primary (Hired before January 1, 2002)

						Years	of Servi	ce C	Credit				-	
		<5		5 - 10	10 - 1	5 15 - 20	20 - 25	2	5 - 30	30 - 35	35 - 40	40+	Me	All embers
	Average Benefit Received	\$ -	. :	\$ -	\$ 95	\$ 1,542	\$ 1,708	\$	2,498	\$ 3,181	\$ 3,387	\$ 4,912	\$	1,856
2019	Average Final Average Compensation	\$ -		\$ -	\$ 3,29	\$ 3,864	\$ 3,308	\$	3,997	\$ 4,251	\$ 4,752	\$ 5,808	\$	3,485
	Number of Retirees	0)	0	5	l 69	941		204	49	5	1		1,320
×	Average Benefit Received	\$ -	. (\$ -	\$ 95	5 \$ 1,530	\$ 1,694	\$	2,484	\$ 3,079	\$ 3,617	\$ 4,912	\$	1,838
2018	Average Final Average Compensation	\$ -	. (\$ -	\$ 3,335	\$ 3,854	\$ 3,277	\$	3,966	\$ 4,131	\$ 4,839	\$ 5,808	\$	3,454
	Number of Retirees	0)	0	52	2 69	943		203	51	3	1		1,322
_	Average Benefit Received	\$ -	. (\$ -	\$ 963	\$ 1,551	\$ 1,686	\$	2,467	\$ 3,057	\$ 3,750	\$ 4,912	\$	1,831
2017	Average Final Average Compensation	\$ -	. (\$ -	\$ 3,330	\$ 3,866	\$ 3,250	\$	3,954	\$ 4,095	\$ 4,455	\$ 5,808	\$	3,432
	Number of Retirees	0)	0	54	1 70	948		207	53	2	1		1,335
,	Average Benefit Received	\$ -		\$ -	\$ 950	\$ 1,527	\$ 1,678	\$	2,444	\$ 2,982	\$ 3,750	\$ 4,912	\$	1,814
2016	Average Final Average Compensation	\$ -	. (\$ -	\$ 3,30	\$ 3,843	\$ 3,232	\$	3,910	\$ 4,017	\$ 4,455	\$ 5,808	\$	3,402
	Number of Retirees	0)	0	53	3 65	956		204	51	2	1		1,332
TC.	Average Benefit Received	\$ -	. (\$ -	\$ 919	\$ 1,517	\$ 1,647	\$	2,387	\$ 2,938	\$ 3,695	\$ 4,840	\$	1,781
201	Average Final Average Compensation	\$ -	. :	\$ -	\$ 3,24	\$ 3,844	\$ 3,198	\$	3,870	\$ 4,017	\$ 4,455	\$ 5,808	\$	3,367
	Number of Retirees	0)	0	5	1 60	959		202	51	2	1		1,326
-	Average Benefit Received	\$ -	. (\$ -	\$ 900	\$ 1,534	\$ 1,629	\$	2,371	\$ 2,936	\$ 3,695	\$ 4,066	\$	1,767
2014	Average Final Average Compensation	\$ -	. (\$ -	\$ 3,218	\$ 3,855	\$ 3,159	\$	3,834	\$ 4,005	\$ 4,455	\$ 5,005	\$	3,331
	Number of Retirees	0)	0	49	57	960		201	50	2	2		1,321
~	Average Benefit Received	\$ -		\$ -	\$ 87	\$ 1,521	\$ 1,604	\$	2,278	\$ 2,858	\$ 3,640	\$ 4,542	\$	1,736
2013	Average Final Average Compensation	\$ -	. (\$ -	\$ 3,133	\$ 3,851	\$ 3,120	\$	3,693	\$ 3,962	\$ 4,455	\$ 5,577	\$	3,277
	Number of Retirees	0)	0	40	5 52	947		194	49	2	4		1,294
61	Average Benefit Received	\$ 1,645		\$ -	\$ 873	\$ 1,510	\$ 1,577	\$	2,244	\$ 2,850	\$ 3,640	\$ 4,542	\$	1,708
2012	Average Final Average Compensation	\$ 3,474	: 5	\$ -	\$ 3,078	3 \$ 3,847	\$ 3,060	\$	3,626	\$ 3,922	\$ 4,455	\$ 5,577	\$	3,217
	Number of Retirees	1		0	4	1 50	948		191	47	2	4		1,287
	Average Benefit Received	\$ 1,645		\$ -	\$ 868	\$ 1,512	\$ 1,551	\$	2,237	\$ 2,845	\$ 3,640	\$ 4,542	\$	1,697
2011	Average Final Average Compensation	\$ 3,474	: :	\$ -	\$ 3,040	\$ 3,787	\$ 3,000	\$	3,596	\$ 3,922	\$ 4,455	\$ 5,577	\$	3,166
	Number of Retirees	1		0	3.	5 45	930		193	47	2	4		1,257
	Average Benefit Received	\$ 1,645		\$ -	\$ 860	\$ 1,401	\$ 1,505	\$	2,212	\$ 2,838	\$ 3,640	\$ 4,542	\$	1,671
2010	Average Final Average Compensation	\$ 3,474	: :	\$ -	\$ 2,93	\$ 3,550	\$ 2,877	\$	3,572	\$ 3,902	\$ 4,455	\$ 5,577	\$	3,060
	Number of Retirees	1		0	20	30	873		190	44	2	4		1,164
	Tow Very Ended Lyn - 20, 2010													
	Ten Years Ended June 30, 2019 Average Benefit Received	\$ 1,645	4	5 -	\$ 918	3 \$ 1.522	\$ 1,629	\$	2,365	\$ 2,960	\$ 3,612	\$ 4,578	\$	1,772
	Average Final Average Compensation	\$ 3,474		s -	\$ 3,218		· ´	\$	3,806	\$ 4,025	\$ 4,565	\$ 5,578	\$	3,324

Ten Years Ended June 30, 2019

Corrections Employees Secondary (Hired on or after January 1, 2002)

							Years	of Service	e Credit				-	
		<	<5	5	- 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40+	Me	All embers
	Average Benefit Received	\$	-	\$	-	\$ 1,184	\$ 1,875	\$ 2,385	\$ 3,536	\$ 4,442	\$ 4,856	\$ 7,835	\$	3,060
2016	Average Final Average Compensation	\$	-	\$	-	\$ 3,544	\$ 4,156	\$ 4,470	\$ 5,226	\$ 6,040	\$ 6,351	\$ 9,496	\$	4,934
	Number of Retirees		0		0	118	95	140	471	109	22	3		958
~	Average Benefit Received	\$	-	\$	-	\$ 1,173	\$ 1,828	\$ 2,340	\$ 3,479	\$ 4,437	\$ 4,868	\$ 7,835	\$	3,021
2018	Average Final Average Compensation	\$	-	\$	-	\$ 3,541	\$ 4,116	\$ 4,455	\$ 5,194	\$ 6,036	\$ 6,317	\$ 9,496	\$	4,913
	Number of Retirees		0		0	109	90	135	442	104	20	3		903
_	Average Benefit Received	\$	-	\$	-	\$ 1,169	\$ 1,849	\$ 2,334	\$ 3,418	\$ 4,325	\$ 4,829	\$ 7,679	\$	2,960
2017	Average Final Average Compensation	\$	-	\$	-	\$ 3,533	\$ 4,149	\$ 4,430	\$ 5,149	\$ 5,963	\$ 6,204	\$ 8,971	\$	4,864
.,	Number of Retirees		0		0	92	83	133	385	91	16	2		802
	Average Benefit Received	\$	-	\$	-	\$ 1,132	\$ 1,813	\$ 2,298	\$ 3,311	\$ 4,288	\$ 4,779	\$ 7,679	\$	2,876
2016	Average Final Average Compensation	\$	-	\$	-	\$ 3,492	\$ 4,125	\$ 4,416	\$ 5,080	\$ 5,918	\$ 5,995	\$ 8,971	\$	4,805
.,	Number of Retirees		0		0	79	79	126	332	82	13	2		713
	Average Benefit Received	\$	-	\$	-	\$1,106	\$1,732	\$2,249	\$3,255	\$4,248	\$4,485	\$ 7,604	\$	2,781
2015	Average Final Average Compensation	\$	-	\$	-	\$3,513	\$4,082	\$4,395	\$5,059	\$5,939	\$5,771	\$ 8,971	\$	4,761
	Number of Retirees		0		0	71	70	125	273	69	11	2		621
	Average Benefit Received	\$	-	\$	-	\$ 1,072	\$ 1,703	\$ 2,249	\$ 3,152	\$ 4,255	\$ 4,248	\$ 9,800	\$	2,680
2014	Average Final Average Compensation	\$	-	\$	-	\$ 3,436	\$ 4,082	\$ 4,407	\$ 5,008	\$ 5,942	\$ 5,569	\$12,534	\$	4,701
	Number of Retirees		0		0	63	61	118	223	57	6	1		529
	Average Benefit Received	\$	-	\$	-	\$ 1,047	\$ 1,667	\$ 2,193	\$ 3,067	\$ 4,280	\$ 4,676	\$ -	\$	2,572
2013	Average Final Average Compensation	\$	-	\$	-	\$ 3,440	\$ 4,055	\$ 4,323	\$ 4,999	\$ 5,997	\$ 6,135	\$ -	\$	4,639
	Number of Retirees		0		0	59	53	108	179	48	4	0		451
	Average Benefit Received	\$	-	\$	-	\$ 1,062	\$ 1,648	\$ 2,106	\$ 2,954	\$ 4,338	\$ 4,667	\$ -	\$	2,525
2012	Average Final Average Compensation	\$	-	\$	-	\$ 3,495	\$ 4,050	\$ 4,282	\$ 4,962	\$ 6,111	\$ 6,340	\$ -	\$	4,644
	Number of Retirees		0		0	42	43	88	146	37	3	0		359
	Average Benefit Received	\$	-	\$	-	\$ 1,059	\$ 1,598	\$ 2,068	\$ 2,806	\$ 4,207	\$ 4,553	\$ -	\$	2,411
2011	Average Final Average Compensation	\$	-	\$	-	\$ 3,517	\$ 4,040	\$ 4,264	\$ 4,752	\$ 5,752	\$ 5,815	\$ -	\$	4,501
	Number of Retirees		0		0	31	38	71	103	29	2	0		274
	Average Benefit Received	\$	-	\$	-	\$ 896	\$ 1,461	\$ 1,950	\$ 2,839	\$ 4,711	\$ 4,661	\$ -	\$	2,438
2010	Average Final Average Compensation	\$	-	\$	-	\$ 3,282	\$ 3,844	\$ 4,010	\$ 4,625	\$ 5,945	\$ 5,058	\$ -	\$	4,365
54	Number of Retirees		0		0	13	18	42	60	14	1	0		148
	Ten Years Ended June 30, 2019													
	Average Benefit Received	\$	-	\$	-	\$ 1,125	\$ 1,763	\$ 2,253	\$ 3,309	\$ 4,344	\$ 4,744	\$ 7,903	\$	2,834
	Average Final Average Compensation	\$	-	\$	-	\$ 3,504	\$ 4,098	\$ 4,380	\$ 5,092	\$ 5,979	\$ 6,127	\$ 9,487	\$	4,788

Ten Years Ended June 30, 2019

Peace Officers (Hired before January 1, 2011)

						Years	of Servic	e C	redit					-	
		<5	5	5 - 10	10 - 15	15 - 20	20 - 25	2	5 - 30	30 - 35	35	- 40	40+	M	All embers
	Average Benefit Received	\$ -	\$	_	\$ 1,527	\$ 1,802	\$ 2,266	\$	3,524	\$ 4,149	\$	_	\$ 8,745	\$	3,129
2019	Average Final Average Compensation	\$ -	\$	-	\$ 4,323	\$ 3,634	\$ 4,586	\$	4,481	\$ 4,612	\$	-	\$ 5,285	\$	4,482
C	Number of Retirees	()	0	12	3	9		10	21		0	1		56
~	Average Benefit Received	\$ _	\$	-	\$ 1,522	\$ 2,011	\$ 2,392	\$	3,504	\$ 4,135	\$	-	\$ 8,745	\$	3,145
2018	Average Final Average Compensation	\$ -	\$	-	\$ 4,243	\$ 3,749	\$ 4,295	\$	4,437	\$ 4,601	\$	-	\$ 5,285	\$	4,422
	Number of Retirees	()	0	13	2	7		9	20		0	1		52
	Average Benefit Received	\$ _	\$	-	\$ 1,527	\$ 2,011	\$ 2,101	\$	3,504	\$ 4,089	\$	-	\$ 8,745	\$	3,121
2017	Average Final Average Compensation	\$ -	\$	-	\$ 4,323	\$ 3,749	\$ 4,138	\$	4,437	\$ 4,561	\$	-	\$ 5,285	\$	4,410
	Number of Retirees)	0	12	2	6		9	19		0	1		49
	Average Benefit Received	\$ -	\$	-	\$ 1,527	\$ 2,011	\$ 2,101	\$	3,341	\$ 4,042	\$	-	\$ 8,745	\$	3,046
2016	Average Final Average Compensation	\$ -	\$	-	\$ 4,323	\$ 3,749	\$ 4,138	\$	4,318	\$ 4,540	\$	-	\$ 5,285	\$	4,378
	Number of Retirees	()	0	12	2	6		8	18		0	1		47
	Average Benefit Received	\$ -	\$	-	\$ 1,500	\$ 1,982	\$ 2,061	\$	3,298	\$ 4,010	\$	-	\$ 8,675	\$	3,039
2015	Average Final Average Compensation	\$ -	\$	-	\$ 4,258	\$ 3,749	\$ 4,138	\$	4,214	\$ 4,540	\$	-	\$ 5,285	\$	4,348
Ì	Number of Retirees	 ()	0	11	2	6		7	18		0	1		45
	Average Benefit Received	\$ -	\$	-	\$ 1,555	\$ 1,982	\$ 2,258	\$	3,298	\$ 3,831	\$	-	\$ 8,675	\$	3,001
2014	Average Final Average Compensation	\$ -	\$	-	\$ 4,243	\$ 3,749	\$ 4,222	\$	4,214	\$ 4,289	\$	-	\$ 5,285	\$	4,254
	Number of Retirees	 ()	0	10	2	5		7	15		0	1		40
	Average Benefit Received	\$ -	\$	-	\$ 1,532	\$ 1,952	\$ 2,338	\$	3,219	\$ 3,622	\$	-	\$ 8,675	\$	2,879
2013	Average Final Average Compensation	\$ -	\$	-	\$ 4,243	\$ 3,749	\$ 4,252	\$	4,158	\$ 4,056	\$	-	\$ 5,285	\$	4,164
Ì	Number of Retirees	 ()	0	10	2	4		6	13		0	1		36
	Average Benefit Received	\$ -	\$	-	\$ 1,435	\$ 1,952	\$ 2,338	\$	3,219	\$ 3,658	\$	-	\$ -	\$	2,776
2012	Average Final Average Compensation	\$ -	\$	-	\$ 4,078	\$ 3,749	\$ 4,252	\$	4,158	\$ 4,056	\$	-	\$ -	\$	4,085
	Number of Retirees	 ()	0	8	2	4		6	13		0	()	33
	Average Benefit Received	\$ -	\$	-	\$ 1,429	\$ 1,952	\$ 2,286	\$	3,214	\$ 3,624	\$	-	\$ -	\$	2,788
2011	Average Final Average Compensation	\$ -	\$	-	\$ 3,951	\$ 3,749	\$ 4,202	\$	3,953	\$ 4,100	\$	-	\$ -	\$	4,025
	Number of Retirees	 ()	0	6	2	3		5	11		0	()	27
_	Average Benefit Received	\$ -	\$	-	\$ 1,409	\$ 1,886	\$ 1,727	\$	2,631	\$ 3,540	\$	-	\$ -	\$	2,503
2010	Average Final Average Compensation	\$ -	\$	-	\$ 3,977	\$ 3,582	\$ 3,986	\$	3,690	\$ 4,178	\$	-	\$ -	\$	3,986
	Number of Retirees	 ()	0	5	1	2		3	7		0	()	18
	T V F. 1. 1 1 20 2010														
	Ten Years Ended June 30, 2019 Average Benefit Received	\$ _	\$	_	\$ 1,507	\$ 1,950	\$ 2,212	\$	3,340	\$ 3,930	\$	_	\$ 8,715	\$	2,996
	Average Final Average Compensation	\$ -	\$	-	\$ 4,229	\$ 3,723	\$ 4,260		4,271	\$ 4,407	\$	-	\$ 5,285	\$	4,302

Ten Years Ended June 30, 2019

Summary of Appellate Law Clerks

							Years	of Service	e C	redit					-	
		<	<5	5	- 10	10 - 15	15 - 20	20 - 25	2	5 - 30	30 - 35	35 - 40	4	10+	Me	All embers
	Average Benefit Received	\$	-	\$	-	\$1,888	\$ 2,838	\$ 3,741	\$	4,351	\$5,733	\$ 8,201	\$	-	\$	4,356
2019	Average Final Average Compensation	\$	-	\$	-	\$5,602	\$ 6,193	\$ 7,024	\$	7,388	\$7,814	\$ 8,953	\$	-	\$	7,117
	Number of Retirees		0		0	5	16	11		8	12	7		0		59
~	Average Benefit Received	\$	-	\$	-	\$1,775	\$ 2,813	\$ 3,802	\$	4,351	\$5,527	\$ 7,871	\$	-	\$	4,332
2018	Average Final Average Compensation	\$	-	\$	-	\$5,338	\$ 6,164	\$ 7,105	\$	7,388	\$7,637	\$ 8,743	\$	-	\$	7,082
	Number of Retirees		0		0	5	14	12		8	10	8		0		57
_	Average Benefit Received	\$	-	\$	-	\$1,777	\$ 2,702	\$ 3,768	\$	4,342	\$5,503	\$ 7,510	\$	-	\$	4,232
2017	Average Final Average Compensation	\$	-	\$	-	\$5,325	\$ 5,935	\$ 7,133	\$	7,350	\$7,653	\$ 8,410	\$	-	\$	6,989
	Number of Retirees		0		0	4	11	11		6	9	6		0		47
,0	Average Benefit Received	\$	-	\$	-	\$1,777	\$ 2,637	\$ 3,814	\$	4,342	\$5,482	\$ 7,562	\$	-	\$	3,916
2016	Average Final Average Compensation	\$	-	\$	-	\$5,325	\$ 5,848	\$ 7,172	\$	7,350	\$7,595	\$ 8,618	\$	-	\$	6,840
	Number of Retirees		0		0	4	10	10		6	8	2		0		40
10	Average Benefit Received	\$	-	\$	-	\$1,756	\$ 2,621	\$ 3,724	\$	4,288	\$5,372	\$ 7,487	\$	-	\$	3,822
201	Average Final Average Compensation	\$	-	\$	-	\$5,325	\$ 5,848	\$ 6,883	\$	7,350	\$7,612	\$ 8,618	\$	-	\$	6,738
	Number of Retirees		0		0	4	10	7		6	7	2		0		36
	Average Benefit Received	\$	-	\$	-	\$1,806	\$ 2,432	\$ 3,724	\$	4,282	\$5,308	\$ 7,487	\$	-	\$	3,837
2014	Average Final Average Compensation	\$	-	\$	-	\$5,271	\$ 5,585	\$ 6,635	\$	7,178	\$7,645	\$ 8,618	\$	-	\$	6,625
	Number of Retirees		0		0	3	8	5		4	6	2		0		28
	Average Benefit Received	\$	-	\$	-	\$1,795	\$ 2,595	\$ 3,840	\$	4,063	\$4,207	\$ 5,406	\$	-	\$	3,292
2013	Average Final Average Compensation	\$	-	\$	-	\$5,271	\$ 5,813	\$ 6,787	\$	7,217	\$7,355	\$ 7,277	\$	-	\$	6,412
	Number of Retirees		0		0	3	7	4		3	3	1		0		21
61	Average Benefit Received	\$	-	\$	-	\$2,032	\$ 2,464	\$ 3,944	\$	4,446	\$4,906	\$ 5,406	\$	-	\$	3,387
2012	Average Final Average Compensation	\$	-	\$	-	\$5,930	\$ 5,837	\$ 7,038	\$	7,255	\$6,833	\$ 7,277	\$	-	\$	6,484
	Number of Retirees		0		0	2	5	3		2	1	1		0		14
	Average Benefit Received	\$	-	\$	-	\$ -	\$ 2,310	\$ 4,039	\$	3,150	\$4,906	\$ -	\$	-	\$	3,172
2011	Average Final Average Compensation	\$	-	\$	-	\$ -	\$ 5,794	\$ 6,838	\$	6,878	\$6,833	\$ -	\$	-	\$	6,320
	Number of Retirees		0		0	0	4	2		1	1	0		0		8
	Average Benefit Received	\$	-	\$	-	\$ -	\$ 2,442	\$ 4,030	\$	4,906	\$ -	\$ -	\$	-	\$	3,382
2010	Average Final Average Compensation	\$	-	\$	-	\$ -	\$ 5,876	\$ 6,838	\$	6,833	\$ -	\$ -	\$	-	\$	6,356
	Number of Retirees		0		0	0	3	2		1	0	0		0		6
	Ten Years Ended June 30, 2019															
	Average Benefit Received	\$	_	\$	-	\$ 1,814	\$ 2,655	\$ 3,797	\$	4,305	\$5,427	\$ 7,632	\$	-	\$	4,009
	Average Final Average Compensation	\$	-	\$	-	\$ 5,403	\$ 5,943	\$ 7,010	\$	7,313	\$7,626	\$ 8,598	\$	-	\$	6,860

Ten Years Ended June 30, 2019															
Average Benefit Received	\$	-	\$	-	\$ 1,814	\$ 2,655	\$ 3,797	\$	4,305	\$5,427	\$ 7,632	\$	-	\$	4,009
Average Final Average Compensation	\$	-	\$	-	\$ 5,403	\$ 5,943	\$ 7,010	\$	7,313	\$7,626	\$ 8,598	\$	-	\$	6,860

Ten Years Ended June 30, 2019

Appellate Law Clerks (Hired before July 1, 2006)

		Years of Service Credit													-	
		<5		<5 5 - 10		10 - 15	15 - 20	20 - 25	25 - 30		30 - 35	35 - 40		40+	M	All embers
	Average Benefit Received	\$	-	\$	-	\$ 1,852	\$ 2,838	\$ 3,741	\$	4,351	\$5,733	\$ 8,201	\$	-	\$	4,396
2019	Average Final Average Compensation	\$	-	\$	-	\$ 5,320	\$ 6,193	\$ 7,024	\$	7,388	\$7,814	\$ 8,953	\$	-	\$	7,124
	Number of Retirees		0		0	4	16	11		8	12	7		0		58
	Average Benefit Received	\$	-	\$	-	\$ 1,775	\$ 2,813	\$ 3,802	\$	4,351	\$5,527	\$ 7,871	\$	-	\$	4,332
2018	Average Final Average Compensation	\$	-	\$	-	\$ 5,338	\$ 6,164	\$ 7,105	\$	7,388	\$7,637	\$ 8,743	\$	-	\$	7,082
	Number of Retirees		0		0	5	14	12		8	10	8		0		57
	Average Benefit Received	\$	-	\$	-	\$ 1,777	\$ 2,702	\$ 3,768	\$	4,342	\$5,503	\$ 7,510	\$	-	\$	4,232
2017	Average Final Average Compensation	\$	-	\$	-	\$ 5,325	\$ 5,935	\$ 7,133	\$	7,350	\$7,653	\$ 8,410	\$	-	\$	6,989
	Number of Retirees		0		0	4	11	11		6	9	6		0		47
	Average Benefit Received	\$	-	\$	-	\$ 1,777	\$ 2,637	\$ 3,814	\$	4,342	\$5,482	\$ 7,562	\$	-	\$	3,916
2016	Average Final Average Compensation	\$	-	\$	_	\$ 5,325	\$ 5,848	\$ 7,172	\$	7,350	\$7,595	\$ 8,618	\$	-	\$	6,840
2	Number of Retirees		0		0	4	10	10		6	8	2		0		40
	Average Benefit Received	\$	-	\$	-	\$ 1,756	\$ 2,621	\$ 3,724	\$	4,288	\$5,372	\$ 7,487	\$	-	\$	3,822
2015	Average Final Average Compensation	\$	-	\$	_	\$ 5,325	\$ 5,848	\$ 6,883	\$	7,350	\$7,612	\$ 8,618	\$	-	\$	6,738
2	Number of Retirees		0		0	4	10	7		6	7	2		0		36
	Average Benefit Received	\$	-	\$	-	\$ 1,806	\$ 2,432	\$ 3,724	\$	4,282	\$5,308	\$ 7,487	\$	-	\$	3,837
2014	Average Final Average Compensation	\$	-	\$	-	\$ 5,271	\$ 5,585	\$ 6,635	\$	7,178	\$7,645	\$ 8,618	\$	-	\$	6,625
(4	Number of Retirees		0		0	3	8	5		4	6	2		0		28
	Average Benefit Received	\$	-	\$	-	\$ 1,795	\$ 2,595	\$ 3,840	\$	4,063	\$4,207	\$ 5,406	\$	-	\$	3,292
2013	Average Final Average Compensation	\$	-	\$	_	\$ 5,271	\$ 5,813	\$ 6,787	\$	7,217	\$7,355	\$ 7,277	\$	-	\$	6,412
2	Number of Retirees		0		0	3	7	4		3	3	1		0		21
	Average Benefit Received	\$	-	\$	-	\$ 2,032	\$ 2,464	\$ 3,944	\$	4,446	\$4,906	\$ 5,406	\$	-	\$	3,387
2012	Average Final Average Compensation	\$	-	\$	_	\$ 5,930	\$ 5,837	\$ 7,038	\$	7,255	\$6,833	\$ 7,277	\$	-	\$	6,484
2	Number of Retirees		0		0	2	5	3		2	1	1		0		14
	Average Benefit Received	\$	-	\$	-	\$ -	\$ 2,310	\$ 4,039	\$	3,150	\$4,906	\$ -	\$	-	\$	3,172
2011	Average Final Average Compensation	\$	-	\$	_	\$ -	\$ 5,794	\$ 6,838	\$	6,878	\$6,833	\$ -	\$	-	\$	6,320
6	Number of Retirees		0		0	0	4	2		1	1	0		0		8
	Average Benefit Received	\$	-	\$	_	\$ -	\$ 2,442	\$ 4,030	\$	4,906	\$ -	\$ -	\$	-	\$	3,382
2010	Average Final Average Compensation	\$	-	\$	_	\$ -	\$ 5,876	\$ 6,838	\$	6,833	\$ -	\$ -	\$	-	\$	6,356
2	Number of Retirees		0		0	0	3	2		1	0	0		0		6
	Ten Years Ended June 30, 2019															
	Average Benefit Received	\$	-	\$	-	\$ 1,807	\$ 2,655	\$ 3,797	\$	4,305	\$5,427	\$ 7,632	\$	-	\$	4,015
	Average Final Average Compensation	\$	-	\$	-	\$ 5,357	\$ 5,943	\$ 7,010	\$	7,313	\$7,626	\$ 8,598	\$	-	\$	6,861

Ten Years Ended June 30, 2019										
Average Benefit Received	\$ -	\$ -	\$ 1,807	\$ 2,655	\$ 3,797	\$ 4,305	\$5,427	\$ 7,632	\$ -	\$ 4,015
Average Final Average Compensation	\$ -	\$ -	\$ 5,357	\$ 5,943	\$ 7,010	\$ 7,313	\$7,626	\$ 8,598	\$ -	\$ 6,861

Ten Years Ended June 30, 2019

Appellate Law Clerks (Hired between July 1, 2006 and December 31, 2010)

								•	Years	of S	Servi	ce C	redit							-	
			<5		5 -	10	10 - 15	15	- 20	20	- 25	25	5 - 30	30	- 35	35	- 40	4	40+	M	All embers
	Average Benefit Received	\$		-	\$	-	\$ 2,036	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	2,036
0100	Average Final Average Compensation	\$		-	\$	-	\$ 6,729	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	6,729
	Number of Retirees			0		0	1		0		0		0		0		0		0		1
040	Average Benefit Received	No	A	ctivi	ty																
0100 0100	Average Final Average Compensation	No) A	ctivi	ty																
50	Number of Retirees	No) A	ctivi	ty																
	Ten Years Ended June 30, 2019																				
	Average Benefit Received	\$	-		5 -		\$ 2,036	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	2,036
	Average Final Average Compensation	\$	-		5 -		\$ 6,729	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	6,729

Ten Years Ended June 30, 2019

Alcohol and Tobacco Control (Hired after June 30, 2007)

		-							Years	of Servic	e C	redit							-	
			<5		5 -	· 10	10 - 15	1	5 - 20	20 - 25	2	5 - 30	30	- 35	35	- 40	4	1 0+		All
	A P ('P : 1				ф										ф		ф			embers
2019	Average Benefit Received	\$		-	\$	-	\$ 2,011		4,617	\$ 4,375	\$		\$	-	\$	-	\$	-	\$	3,956
20	Average Final Average Compensation	\$		-	\$	-	\$ 4,258		9,103	\$ 5,586	\$,	\$	-	\$	-	\$	-	\$	5,297
	Number of Retirees			0	ф.	0	.		1	1		6	ф.	0		0	ф.	0		9
81	Average Benefit Received	\$		-	\$	-	\$ 2,011		4,617	\$ 4,375	\$	4,088	\$	-	\$	-	\$	-	\$	3,948
2018	Average Final Average Compensation	\$		-	\$	-	\$ 4,258		9,103	\$ 5,586	\$	4,788	\$	-	\$	-	\$	-	\$	5,297
	Number of Retirees			0		0			1	1		6		0		0		0		9
<u></u>	Average Benefit Received	\$		-	\$	-	\$ 2,011	\$	4,617	\$ 4,375	\$	3,726	\$	-	\$	-	\$	-	\$	3,704
2017	Average Final Average Compensation	\$		-	\$	-	\$ 4,258	\$	9,103	\$ 5,586	\$	4,629	\$	-	\$	-	\$	-	\$	5,261
	Number of Retirees			0		0		1	1	1		5		0		0		0		8
2	Average Benefit Received	\$		-	\$	-	\$ 2,011	\$	4,617	\$ 4,375	\$	3,700	\$	-	\$	-	\$	-	\$	3,688
2010	Average Final Average Compensation	\$		-	\$	-	\$ 4,258	\$	9,103	\$ 5,586	\$	4,506	\$	-	\$	-	\$	-	\$	5,185
.,	Number of Retirees			0		0		1	1	1		5		0		0		0		8
	Average Benefit Received	\$		-	\$	-	\$ 1,981	\$	4,548	\$ 4,375	\$	3,700	\$	-	\$	-	\$	-	\$	3,676
2015	Average Final Average Compensation	\$		_	\$	-	\$ 4,258	\$	9,103	\$ 5,586	\$	4,506	\$	-	\$	-	\$	-	\$	5,185
2	Number of Retirees			0		0		1	1	1		5		0		0		0		8
	Average Benefit Received	\$		-	\$	-	\$ 1,981	\$	4,548	\$ 4,375	\$	3,554	\$	-	\$	-	\$	-	\$	3,589
2014	Average Final Average Compensation	\$		-	\$	-	\$ 4,258	\$	9,103	\$ 5,586	\$	4,445	\$	-	\$	-	\$	-	\$	5,247
54	Number of Retirees			0		0		1	1	1		4		0		0		0		7
	Average Benefit Received	\$		-	\$	-	\$ 1,952	\$	4,481	\$ -	\$	3,649	\$	-	\$	-	\$	-	\$	3,433
2013	Average Final Average Compensation	\$		_	\$	-	\$ 4,258	\$	9,103	\$ -	\$	4,740	\$	-	\$	-	\$	-	\$	5,710
2	Number of Retirees			0		0		1	1	0)	2		0		0		0		4
	Average Benefit Received	\$		-	\$	_	\$ 1,604	\$	-	\$ -	\$	2,976	\$	-	\$ 3	,970	\$	-	\$	2,882
2012	Average Final Average Compensation	\$		_	\$	_	\$ 4,754	\$	-	\$ -	\$	4,425	\$	_	\$ 4	,889	\$	_	\$	4,623
2	Number of Retirees			0		0		1	0	C)	2		0		1		0		4
)11	Average Benefit Received	No	A	ctivi	ty															
2010-2011	Average Final Average Compensation	No	A	ctivi	ty															
201	Number of Retirees	No	A	ctivi	ty															
	Ten Years Ended June 30, 2019																			
	Average Benefit Received Average Final Average Compensation	\$ \$	-		\$ \$	-	\$ 1,945 \$ 4,320	\$ \$	4,578 9,103	\$ 4,375 \$ 5,586	\$ \$	3,778 4,622	\$ \$	-		,970 ,889	\$ \$	-	\$ \$	3,685 5,236

Ten Years Ended June 30, 2019

Summary of Wildlife

								Years	of Servic	e C	redit				_	
		<5	5	5 -	10	10 -	15	15 - 20	20 - 25	25	5 - 30	30 - 35	35 - 40	40+	M	All embers
6	Average Benefit Received	\$	-	\$	-	\$ 8	887	\$ 2,478	\$ 2,794	\$	4,245	\$ 4,970	\$ 2,237	\$ 6,736	\$	3,567
2019	Average Final Average Compensation	\$	-	\$	-	\$ 2,7	64	\$ 4,148	\$ 4,202	\$	4,891	\$ 5,136	\$ 3,061	\$ 7,505	\$	4,565
	Number of Retirees		0		0		1	7	90		69	21	2	2		192
00	Average Benefit Received	\$	-	\$	-	\$	-	\$ 2,478	\$ 2,741	\$	4,041	\$ 4,909	\$ 2,237	\$ 6,736	\$	3,463
2018	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 4,148	\$ 4,078	\$	4,696	\$ 5,136	\$ 3,061	\$ 7,505	\$	4,439
	Number of Retirees		0		0		0	7	91		66	21	2	2		189
_	Average Benefit Received	\$	-	\$	-	\$	-	\$ 2,356	\$ 2,610	\$	3,716	\$ 4,909	\$ 2,237	\$ 6,736	\$	3,299
2017	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 3,963	\$ 3,894	\$	4,342	\$ 5,136	\$ 3,061	\$ 7,505	\$	4,228
	Number of Retirees		0		0		0	7	87		67	21	2	2		186
ĵ.	Average Benefit Received	\$	-	\$	-	\$	-	\$ 2,356	\$ 2,541	\$	3,557	\$ 4,909	\$ 2,237	\$ 6,736	\$	3,222
2016	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 3,963	\$ 3,812	\$	4,248	\$ 5,136	\$ 3,061	\$ 7,505	\$	4,159
	Number of Retirees		0		0		0	7	87		74	21	2	2		193
10	Average Benefit Received	\$	-	\$	-	\$	-	\$ 2,117	\$ 2,491	\$	3,417	\$ 4,851	\$ 2,204	\$ 6,680	\$	3,139
2015	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 3,644	\$ 3,697	\$	4,210	\$ 5,136	\$ 3,061	\$ 7,505	\$	4,085
	Number of Retirees		0		0		0	6	87		77	21	2	2		195
	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,792	\$ 2,374	\$	3,317	\$ 4,851	\$ 2,204	\$ 6,680	\$	3,053
2014	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 3,271	\$ 3,594	\$	4,044	\$ 5,136	\$ 3,061	\$ 7,505	\$	3,971
	Number of Retirees		0		0		0	5	84		76	21	2	2		190
~	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,621	\$ 2,205	\$	3,181	\$ 4,798	\$ 2,171	\$ 6,601	\$	2,925
2013	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,936	\$ 3,450	\$	3,969	\$ 5,033	\$ 3,061	\$ 7,505	\$	3,864
	Number of Retirees		0		0		0	6	79		76	21	2	2		186
61	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,597	\$ 2,056	\$	3,037	\$ 4,751	\$ 2,171	\$ 2,434	\$	2,761
2012	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,885	\$ 3,230	\$	3,792	\$ 4,998	\$ 3,061	\$ 4,024	\$	3,656
	Number of Retirees		0		0		0	7	73		77	20	2	1		180
	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,547	\$ 1,974	\$	3,026	\$ 4,680	\$ 2,171	\$ 2,434	\$	2,709
2011	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,781	\$ 3,151	\$	3,786	\$ 4,927	\$ 3,061	\$ 4,024	\$	3,606
	Number of Retirees		0		0		0	8	70		78	19	2	1		178
	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,547	\$ 1,917	\$	2,957	\$ 4,172	\$ 2,171	\$ 2,434	\$	2,595
2010	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,781	\$ 3,119	\$	3,717	\$ 4,542	\$ 3,061	\$ 4,024	\$	3,518
	Number of Retirees		0		0		0	8	71		76	19	2	1		177
	Ten Years Ended June 30, 2019															
	Average Benefit Received	\$	-	\$	-		887	\$ 1,985	\$ 2,398	\$	3,428	\$ 4,787	\$ 2,204	\$ 5,948	\$	3,081
	Average Final Average Compensation	\$	-	\$	-	\$ 2,7	64	\$ 3,442	\$ 3,655	\$	4,152	\$ 5,038	\$ 3,061	\$ 6,891	\$	4,018

Ten Years Ended June 30, 2019

Wildlife Agents (Hired before July 1, 2003)

								Years	of Servic	e C	Credit				-	
		<5	5	5 -	10	10	- 15	15 - 20	20 - 25	2.	5 - 30	30 - 35	35 - 40	40+	Me	All
	Average Benefit Received	\$	-	\$	-	\$	887	\$ 1,504	\$ 1,785	\$	2,547	\$ 3,354	\$ 2,237	\$ 2,507	\$	2,145
2019	Average Final Average Compensation	\$	-	\$	-	\$ 2	,764	\$ 2,865	\$ 2,763	\$	3,045	\$ 4,408	\$ 3,061	\$ 4,024	\$	3,013
	Number of Retirees		0		0		1	3	44		25	7	2	1		83
~	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,504	\$ 1,806	\$	2,500	\$ 3,402	\$ 2,237	\$ 2,507	\$	2,161
2018	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,865	\$ 2,775	\$	2,961	\$ 4,408	\$ 3,061	\$ 4,024	\$	2,991
	Number of Retirees		0		0		0	3	46		27	7	2	1		86
_	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,219	\$ 1,809	\$	2,476	\$ 3,402	\$ 2,237	\$ 2,507	\$	2,156
2017	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,434	\$ 2,780	\$	2,877	\$ 4,408	\$ 3,061	\$ 4,024	\$	2,944
	Number of Retirees		0		0		0	3	48		32	7	2	1		93
, 6	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,219	\$ 1,797	\$	2,401	\$ 3,402	\$ 2,237	\$ 2,507	\$	2,137
2016	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,434	\$ 2,740	\$	2,961	\$ 4,408	\$ 3,061	\$ 4,024	\$	2,949
	Number of Retirees		0		0		0	3	50		39	7	2	1		102
5	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,201	\$ 1,755	\$	2,350	\$ 3,352	\$ 2,204	\$ 2,470	\$	2,092
2015	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,434	\$ 2,688	\$	3,055	\$ 4,408	\$ 3,061	\$ 4,024	\$	2,955
	Number of Retirees		0		0		0	3	53		43	7	2	1		109
	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,201	\$ 1,751	\$	2,320	\$ 3,352	\$ 2,204	\$ 2,470	\$	2,079
2014	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,434	\$ 2,674	\$	2,987	\$ 4,408	\$ 3,061	\$ 4,024	\$	2,921
	Number of Retirees		0		0		0	3	54		45	7	2	1		112
	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,113	\$ 1,730	\$	2,264	\$ 3,302	\$ 2,171	\$ 2,434	\$	2,036
2013	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,141	\$ 2,753	\$	3,014	\$ 4,408	\$ 3,061	\$ 4,024	\$	2,954
	Number of Retirees		0		0		0	4	55		48	7	2	1		117
61	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,181	\$ 1,724	\$	2,251	\$ 3,302	\$ 2,171	\$ 2,434	\$	2,028
2012	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,228	\$ 2,727	\$	2,969	\$ 4,408	\$ 3,061	\$ 4,024	\$	2,921
	Number of Retirees		0		0		0	5	56		52	7	2	1		123
_	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,183	\$ 1,707	\$	2,264	\$ 3,302	\$ 2,171	\$ 2,434	\$	2,016
2011	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,200	\$ 2,811	\$	2,990	\$ 4,408	\$ 3,061	\$ 4,024	\$	2,958
	Number of Retirees		0		0		0	6	58		53	7	2	1		127
	Average Benefit Received	\$	-	\$	-	\$	-	\$ 1,183	\$ 1,692	\$	2,264	\$ 3,058	\$ 2,171	\$ 2,434	\$	2,007
2010	Average Final Average Compensation	\$	-	\$	-	\$	-	\$ 2,200	\$ 2,847	\$	2,990	\$ 4,005	\$ 3,061	\$ 4,024	\$	2,967
	Number of Retirees		0		0		0	6	60		53	9	2	1		131
	Ten Years Ended June 30, 2019 Average Benefit Received	\$.		s		\$	887	\$ 1,233	\$ 1,752	\$	2,339	\$ 3,315	\$ 2.204	\$ 2.470	\$	2,077
	Average Final Average Compensation	\$		\$	_	\$ 2	.764	\$ 2,372	\$ 2,757	\$	2,987	\$ 4,358	\$ 3,061	\$ 4,024	\$	2,955

Ten Years Ended June 30, 2019

Wildlife Agents (Hired on or after July 1, 2003)

							Year	s of Serv	ice	Credit					_	
		<5	5	- 10	10) - 15	15 - 20	20 - 25	2.	5 - 30	30 - 35	35	- 40	40+	N	All ⁄Iembers
	Average Benefit Received	\$ -	\$	-	\$	-	\$ 3,209	\$ 3,780	\$	5,210	\$ 5,663	\$	-	\$ 10,96	4 \$	4,644
2019	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 5,110	\$ 5,578	\$	5,941	\$ 5,499	\$	-	\$ 10,98	6 \$	5,747
	Number of Retirees	0		0		0	4	46		44	14		0		1	109
	Average Benefit Received	\$ -	\$	-	\$	-	\$ 3,209	\$ 3,697	\$	5,108	\$ 5,663	\$	-	\$ 10,96	4 \$	4,550
2018	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 5,110	\$ 5,410	\$	5,897	\$ 5,499	\$	-	\$ 10,98	6 \$	5,649
.4	Number of Retirees	0		0		0	4	45		39	14		0		1	103
	Average Benefit Received	\$ -	\$	-	\$	-	\$ 3,209	\$ 3,595	\$	4,849	\$ 5,663	\$	-	\$ 10,96	4 \$	4,441
2017	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 5,110	\$ 5,264	\$	5,681	\$ 5,499	\$	-	\$ 10,98	6 \$	5,511
.4	Number of Retirees	0		0		0	4	39		35	14		0		1	93
	Average Benefit Received	\$ -	\$	-	\$	-	\$ 3,209	\$ 3,547	\$	4,845	\$ 5,663	\$	-	\$ 10,96	4 \$	4,438
2016	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 5,110	\$ 5,261	\$	5,681	\$ 5,499	\$	-	\$ 10,98	6 \$	5,515
.4	Number of Retirees	0		0		0	4	37		35	14		0		1	91
	Average Benefit Received	\$ -	\$	-	\$	-	\$ 3,034	\$ 3,617	\$	4,768	\$ 5,601	\$	-	\$ 10,88	9 \$	4,459
2015	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 4,854	\$ 5,269	\$	5,672	\$ 5,499	\$	-	\$ 10,98	6 \$	5,518
	Number of Retirees	0		0		0	3	34		34	14		0		1	86
	Average Benefit Received	\$ -	\$	-	\$	-	\$ 2,678	\$ 3,495	\$	4,763	\$ 5,601	\$	-	\$ 10,88	9 \$	4,451
2014	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 4,526	\$ 5,248	\$	5,578	\$ 5,499	\$	-	\$ 10,98	6 \$	5,479
.4	Number of Retirees	0		0		0	2	30		31	14		0		1	78
	Average Benefit Received	\$ -	\$	-	\$	-	\$ 2,638	\$ 3,294	\$	4,753	\$ 5,546	\$	-	\$ 10,76	7 \$	4,432
2013	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 4,526	\$ 5,045	\$	5,606	\$ 5,345	\$	-	\$ 10,98	6 \$	5,405
	Number of Retirees	0		0		0	2	24		28	14		0		1	69
	Average Benefit Received	\$ -	\$	-	\$	-	\$ 2,638	\$ 3,152	\$	4,642	\$ 5,531	\$	-	\$	- \$	4,330
2012	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 4,526	\$ 4,887	\$	5,472	\$ 5,316	\$	-	\$	- \$	5,229
	Number of Retirees	0		0		0	2	17		25	13		0		0	57
	Average Benefit Received	\$ -	\$	-	\$	-	\$ 2,638	\$ 3,264	\$	4,642	\$ 5,484	\$	-	\$	- \$	4,437
2011	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 4,526	\$ 4,790	\$	5,472	\$ 5,229	\$	-	\$	- \$	5,217
	Number of Retirees	0		0		0	2	12		25	12		0		0	51
0	Average Monthly Benefit	\$ -	\$	-	\$	-	\$ 2,638	\$ 3,141	\$	4,554	\$ 5,063	\$	-	\$	- \$	4,243
2010	Average Final Average Compensation	\$ -	\$	-	\$	-	\$ 4,526	\$ 4,602	\$	5,391	\$ 4,973	\$	-	\$	- \$	5,074
	Number of Retirees	0		0		0	2	11		23	10		0		0	46
	Ten Years Ended June 30, 2019															
	Average Benefit Received	\$ _	S.	_	\$	_	\$ 2.997	\$ 3,545	\$	4,851	\$ 5,563	\$	_	\$ 10,91	4 \$	4,466
	Average Final Average Compensation	\$ _	\$	_	\$	_	\$ 4,882	\$ 5,250	\$	5,672	\$ 5,401	\$	-	\$ 10,98		

Ten Years Ended June 30, 2019

Judges (Elected before January 1, 2011)

						Years	of Servi	ce (Credit					
			<5	5 - 10	10 - 15	15 - 20	20 - 25	2	5 - 30	30 - 35	35 - 40	40+	Me	All embers
•	Average Benefit Received	\$	778	\$ 2,528	\$ 4,078	\$ 5,777	\$ 7,084	\$	9,114	\$ 9,008	\$10,377	\$15,104	\$	7,222
2019	Average Final Average Compensation	\$ 9	,598	\$ 9,834	\$ 8,639	\$ 8,935	\$ 9,235	\$	9,714	\$ 9,661	\$10,541	\$15,104	\$	9,333
	Number of Retirees		1	3	28	69	63		65	34	8	1		272
an.	Average Benefit Received	\$	-	\$ 2,616	\$ 4,081	\$ 5,740	\$ 6,957	\$	8,689	\$ 8,959	\$10,378	\$13,995	\$	7,055
2018	Average Final Average Compensation	\$	-	\$ 8,301	\$ 8,934	\$ 9,014	\$ 9,101	\$	9,172	\$ 9,504	\$10,502	\$13,897	\$	9,198
	Number of Retirees		0	3	33	72	60		61	36	9	2		276
_	Average Benefit Received	\$	-	\$ 2,219	\$ 4,097	\$ 5,737	\$ 6,716	\$	8,512	\$ 8,990	\$10,368	\$11,977	\$	6,956
2017	Average Final Average Compensation	\$	-	\$ 7,993	\$ 8,846	\$ 8,998	\$ 8,623	\$	8,840	\$ 9,465	\$10,492	\$11,470	\$	8,986
	Number of Retirees		0	4	32	73	58		62	35	9	3		276
0	Average Benefit Received	\$	-	\$ 2,219	\$ 3,916	\$ 5,704	\$ 6,587	\$	8,230	\$ 8,970	\$ 9,391	\$10,896	\$	6,783
2016	Average Final Average Compensation	\$	-	\$ 7,993	\$ 8,603	\$ 8,981	\$ 8,329	\$	8,505	\$ 9,396	\$ 9,784	\$10,375	\$	8,777
	Number of Retirees		0	4	33	75	60		61	36	10	3		282
10	Average Benefit Received	\$	-	\$ 2,187	\$ 3,850	\$ 5,568	\$ 6,496	\$	8,123	\$ 8,872	\$ 9,259	\$10,821	\$	6,726
2015	Average Final Average Compensation	\$	-	\$ 7,993	\$ 8,584	\$ 8,797	\$ 8,315	\$	8,437	\$ 9,282	\$ 9,209	\$10,375	\$	8,679
	Number of Retirees		0	4	31	72	59		61	38	10	3		278
⇌	Average Benefit Received	\$	-	\$ 2,094	\$ 3,834	\$ 5,341	\$ 6,133	\$	7,978	\$ 8,406	\$ 8,983	\$10,821	\$	6,542
2014	Average Final Average Compensation	\$	-	\$ 6,742	\$ 8,079	\$ 8,159	\$ 7,663	\$	7,859	\$ 8,393	\$ 8,927	\$10,375	\$	8,050
- '	Number of Retirees		0	3	25	59	50		53	33	9	3		235
~	Average Benefit Received	\$	-	\$ 2,100	\$ 3,788	\$ 5,197	\$ 6,047	\$	7,775	\$ 8,213	\$ 8,485	\$10,701	\$	6,374
2013	Average Final Average Compensation	\$	-	\$ 6,522	\$ 7,774	\$ 7,955	\$ 7,289	\$	7,681	\$ 8,129	\$ 8,195	\$10,375	\$	7,775
	Number of Retirees		0	4	25	55	48		50	35	7	3		227
<u>د</u> ا	Average Benefit Received	\$	-	\$ 2,100	\$ 3,745	\$ 5,113	\$ 6,039	\$	7,642	\$ 7,754	\$ 7,832	\$10,220	\$	6,174
2012	Average Final Average Compensation	\$	-	\$ 6,522	\$ 7,622	\$ 7,299	\$ 7,235	\$	6,736	\$ 5,524	\$ 5,936	\$ 3,837	\$	6,866
• •	Number of Retirees		0	4	24	57	50		51	31	6	2		225
_	Average Benefit Received	\$	-	\$ 2,100	\$ 3,745	\$ 5,090	\$ 6,039	\$	7,614	\$ 7,595	\$ 7,361	\$ 9,449	\$	6,136
2011	Average Final Average Compensation	\$	-	\$ 6,522	\$ 7,622	\$ 7,485	\$ 7,235	\$	6,685	\$ 5,844	\$ 6,854	\$ 4,880	\$	6,972
• •	Number of Retirees		0	4	24	53	50		51	29	5	3		219
_	Average Benefit Received	\$	-	\$ 2,100	\$ 3,695	\$ 5,106	\$ 6,058	\$	7,489	\$ 7,370	\$ 7,361	\$ 9,449	\$	6,011
2010	Average Final Average Compensation	\$	-	\$ 6,522	\$ 7,490	\$ 7,469	\$ 7,202	\$	7,188	\$ 6,128	\$ 6,954	\$ 4,880	\$	7,118
	Number of Retirees		0	4	27	54	52		48	27	5	3		220
	Ten Years Ended June 30, 2019													

Ten Years Ended June 30, 2019										
Average Benefit Received	778	\$ 2,211	\$ 3,896	\$ 5,473	\$ 6,450	\$ 8,165	\$ 8,467	\$ 9,193	\$10,995	\$ 6,635
Average Final Average Compensation	\$ 9,598	\$ 7,430	\$ 8,277	\$ 8,395	\$ 8,090	\$ 8,175	\$ 8,265	\$ 9,046	\$ 9,183	\$ 8,263

Ten Years Ended June 30, 2019

Legislators (Elected before January 1, 2011)

							Years	of Service	e C	redit					-	
		<	:5	5	- 10	10 - 15	15 - 20	20 - 25	2	5 - 30	30 - 35	35 - 40		40+	Me	All embers
	Average Benefit Received	\$	-	\$	-	\$ 1,189	\$ 1,766	\$ 3,009	\$	4,198	\$ 3,145	\$ 6,725	\$	-	\$	2,644
2019	Average Final Average Compensation	\$	-	\$	-	\$ 2,921	\$ 3,021	\$ 4,035	\$	4,577	\$ 4,995	\$ 8,522	\$	-	\$	3,896
	Number of Retirees		0		0	12	19	22		7	6	3		0		69
~	Average Benefit Received	\$	-	\$	-	\$ 1,189	\$ 1,752	\$ 3,001	\$	4,198	\$ 3,145	\$ 6,725	\$	-	\$	2,630
2018	Average Final Average Compensation	\$	-	\$	-	\$ 2,921	\$ 2,978	\$ 3,996	\$	4,577	\$ 4,995	\$ 8,522	\$	-	\$	3,860
	Number of Retirees		0		0	12	20	23		7	6	3		0		71
7	Average Benefit Received	\$	-	\$	-	\$ 1,189	\$ 1,735	\$ 2,959	\$	4,198	\$ 3,145	\$ 6,725	\$	-	\$	2,605
2017	Average Final Average Compensation	\$	-	\$	-	\$ 2,921	\$ 2,974	\$ 3,887	\$	4,577	\$ 4,995	\$ 8,522	\$	-	\$	3,813
	Number of Retirees		0		0	12	21	24		7	6	3		0		73
,	Average Benefit Received	\$	-	\$	-	\$ 1,158	\$ 1,727	\$ 2,908	\$	4,021	\$ 2,882	\$ 6,725	\$	-	\$	2,565
2016	Average Final Average Compensation	\$	-	\$	-	\$ 2,894	\$ 2,974	\$ 3,774	\$	4,334	\$ 4,052	\$ 8,522	\$	-	\$	3,686
	Number of Retirees		0		0	13	21	26		8	9	3		0		80
	Average Benefit Received	\$	-	\$	-	\$ 1,140	\$ 1,622	\$ 2,849	\$	3,701	\$ 2,733	\$ 6,675	\$	-	\$	2,463
2015	Average Final Average Compensation	\$	-	\$	-	\$ 2,894	\$ 2,846	\$ 3,758	\$	3,856	\$ 3,449	\$ 8,522	\$	-	\$	3,522
	Number of Retirees		0		0	13	23	25		10	7	3		0		81
	Average Benefit Received	\$	-	\$	-	\$ 1,139	\$ 1,618	\$ 2,849	\$	3,507	\$ 2,733	\$ 6,675	\$	-	\$	2,421
2014	Average Final Average Compensation	\$	-	\$	-	\$ 2,894	\$ 2,691	\$ 3,758	\$	3,596	\$ 3,449	\$ 8,522	\$	-	\$	3,421
- 1	Number of Retirees		0		0	13	26	25		11	7	3		0		85
~	Average Benefit Received	\$	-	\$	-	\$ 1,119	\$ 1,598	\$ 2,764	\$	3,491	\$ 2,634	\$ 5,702	\$	-	\$	2,387
2013	Average Final Average Compensation	\$	-	\$	-	\$ 2,899	\$ 2,996	\$ 4,194	\$	4,278	\$ 3,295	\$ 7,224	\$	-	\$	3,712
- ,	Number of Retirees		0		0	14	26	26		12	8	4		0		90
~	Average Benefit Received	\$	-	\$	-	\$ 1,140	\$ 1,598	\$ 2,764	\$	3,473	\$ 2,634	\$ 3,623	\$	-	\$	2,292
2012	Average Final Average Compensation	\$	-	\$	-	\$ 2,947	\$ 2,996	\$ 4,194	\$	4,128	\$ 3,295	\$ 5,248	\$	-	\$	3,588
- ,	Number of Retirees		0		0	13	26	26		13	8	2		0		88
	Average Benefit Received	\$	-	\$	-	\$ 1,140	\$ 1,549	\$ 2,729	\$	3,414	\$ 2,634	\$ 3,517	\$	-	\$	2,286
2011	Average Final Average Compensation	\$	-	\$	-	\$ 2,947	\$ 3,233	\$ 4,177	\$	4,060	\$ 3,295	\$ 4,804	\$	-	\$	3,650
	Number of Retirees		0		0	13	25	25		14	8	3		0		88
0	Average Benefit Received	\$	-	\$	-	\$ 1,134	\$ 1,547	\$ 2,728	\$	3,297	\$ 2,634	\$ 3,517	\$	-	\$	2,257
2010	Average Final Average Compensation	\$	-	\$	-	\$ 2,883	\$ 3,326	\$ 4,177	\$	3,984	\$ 3,295	\$ 4,804	\$	-	\$	3,646
	Number of Retirees		0		0	14	26	25		15	8	3		0		91
													_			
	Ten Years Ended June 30, 2019	ø		¢		¢1.4F2	¢ 1.642	¢ 2 052	¢.	2.656	¢ 2 040	¢ = 730	¢		ď	0.440
	Average Benefit Received	\$	-	\$	-	\$ 1,153	\$ 1,643	\$ 2,852	\$	3,656	\$ 2,810	\$ 5,730	\$	-	\$	2,442
	Average Final Average Compensation	\$	-	\$	-	\$ 2,912	\$ 3,006	\$ 3,996	\$	4,139	\$ 3,837	\$ 7,387	\$	-	\$	3,670

Ten Years Ended June 30, 2019

Special Legislative Employees (Hired before January 1, 2011)

		-)	ears	of S	ervi	ce C	redit					-	
		<	:5	5 -	10	10 -	15	15 -	20	20 -	25	25	- 30	30 - 35	35	- 40	40+	M	All
	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 15,909	\$	-	\$ -	\$	15,909
2019	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 18,743	\$	-	\$ -	\$	18,743
	Number of Retirees		0		0		0		0		0		0	1		0	 0		1
80	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 15,909	\$	-	\$ -	\$	15,909
2018	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 18,743	\$	-	\$ -	\$	18,743
	Number of Retirees		0		0		0		0		0		0	1		0	0		1
_	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 15,909	\$	-	\$ -	\$	15,909
2017	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 18,743	\$	-	\$ -	\$	18,743
	Number of Retirees		0		0		0		0		0		0	1		0	0		1
	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 15,909	\$	-	\$ -	\$	15,909
2016	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 18,743	\$	-	\$ -	\$	18,743
	Number of Retirees		0		0		0		0		0		0	1		0	0		1
	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 15,834	\$	-	\$ -	\$	15,834
2015	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 18,743	\$	-	\$ -	\$	18,743
2	Number of Retirees		0		0		0		0		0		0	1		0	0		1
14	Average Benefit Received	No A	Activ	ity												-			
2010-2014	Average Final Average Compensation	No A	Activ	/itv															
201	Number of Retirees	No a	Activ	ity															
	Ten Years Ended June 30, 2019																		
	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 15,894	\$	-	\$ -	\$	15,894
	Average Final Average Compensation	\$	_	\$	_	\$	_	\$	-	\$	_	\$	_	\$ 18,743	\$	-	\$ _	\$	18,743

Ten Years Ended June 30, 2019

Bridge Police Employees (Hired before July 1, 2006)

								Y	ears	of Se	rvic	e C	redit				_		·	
		<	<5	5	- 10	10	- 15	15 -	20	20 - 2	25	25	5 - 30	30 - 35	35 -	40		40+	M	All embers
	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	5,544	\$ 4,003	\$	-	\$	-	\$	4,774
2019	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	-	\$	-	\$	7,206	\$ 6,627	\$	-	\$	-	\$	6,917
.,	Number of Retirees		0		0		0		0		0		1	1		0		0		2
~	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	5,544	\$ 4,003	\$	-	\$	-	\$	4,774
2018	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	-	\$	-	\$	7,206	\$ 6,627	\$	-	\$	-	\$	6,917
.,	Number of Retirees		0		0		0		0		0		1	1		0		0		2
2	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 4,003	\$	-	\$	-	\$	4,003
2017	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 6,627	\$	-	\$	-	\$	6,627
	Number of Retirees		0		0		0		0		0		0	1		0		0		1
	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 4,003	\$	-	\$	-	\$	4,003
2016	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 6,627	\$	-	\$	-	\$	6,627
2	Number of Retirees		0		0		0		0		0		0	1		0		0		1
	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$ 3,1	24	\$	-	\$ 3,944	\$	-	\$	-	\$	3,534
2015	Average Final Average Compensation	\$	_	\$	_	\$	_	\$	_	\$ 5,5	05	\$	_	\$ 6,627	\$	_	\$	_	\$	6,066
2	Number of Retirees		0		0		0		0		1		0	1		0		0		2
	Average Benefit Received	\$	_	\$	_	\$	_	\$	_	\$ 3,1	24	\$	-	\$ 3,944	\$	_	\$	-	\$	3,534
2014	Average Final Average Compensation	\$	_	\$	_	\$	_	\$	_	\$ 5,5	05	\$	_	\$ 6,627	\$	_	\$	_	\$	6,066
2	Number of Retirees		0		0		0		0	, ,	1		0	1		0		0		2
	Average Benefit Received	\$	_	\$	_	\$	_	\$	_	\$ 3,1	24	\$	_	\$ 3,886	\$	_	\$	_	\$	3,505
2013	Average Final Average Compensation	\$	_	\$	_	\$	_	\$	_	\$ 5,5	05	\$	_	\$ 6,627	\$	_	\$	_	\$	6,066
2	Number of Retirees		0	·	0	·	0	·	0	, ,	1		0	1		0	·	0	·	2
	Average Benefit Received	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$ 3,886	\$	_	\$		\$	3,886
2012	Average Final Average Compensation	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$ 6,627	\$	_	\$	_	\$	6,627
2	Number of Retirees	,	0	,	0	•	0	,	0	,	0	,	0	1	•	0	,	0	,	1
	Average Benefit Received	\$		\$		\$		\$		\$	_	\$		\$ 3,886	\$		\$		\$	3,886
2011	Average Final Average Compensation	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$ 6,627	\$	_	\$	_	\$	6,627
7	Number of Retirees	Ψ	0	Ψ	0	Ψ	0	Ψ	0	Ψ	0	Ψ	0	1	Ψ	0	Ψ	0	Ψ	1
	Average Benefit Received	No	Activ	zitv.							J									
2010	Average Final Average Compensation		Activ																	
7	Number of Retirees		Activ																	
	rumoer or remees	110	, 1CII	ity																
	Ten Years Ended June 30, 2019																			
	Average Benefit Received	\$	-	\$	-	\$	-	\$	-	\$ 3,1	24	\$	5,544	\$ 3,951	\$	-	\$	-	\$	4,001
	Average Final Average Compensation	\$	-	\$	-	\$	-	\$	_	\$ 5,5	05	\$	7,206	\$ 6,627	\$	-	\$	-	\$	6,469

Ten Years Ended June 30, 2019

Hazardous Duty (Hired on or after January 1, 2011)

							Years	of Service	e C	Credit						-	
		<	:5	5	- 10	10 - 15	15 - 20	20 - 25	2	5 - 30	30 - 35	35	- 40	,	40+	M	All embers
6	Average Benefit Received	\$	-	\$	-	\$ 1,321	\$ 1,870	\$ 2,428	\$	3,918	\$ 4,963	\$	-	\$	-	\$	2,474
2019	Average Final Average Compensation	\$	-	\$	-	\$ 3,655	\$ 3,951	\$ 4,495	\$	5,232	\$ 5,089	\$	-	\$	-	\$	4,422
- 1	Number of Retirees		0		0	17	32	78		26	2		0		0		155
90	Average Benefit Received	\$	-	\$	-	\$ 1,190	\$ 1,754	\$ 2,444	\$	3,999	\$ 4,963	\$	-	\$	-	\$	2,444
2018	Average Final Average Compensation	\$	-	\$	-	\$ 3,391	\$ 3,852	\$ 4,542	\$	5,464	\$ 5,089	\$	-	\$	-	\$	4,426
- 1	Number of Retirees		0		0	14	27	68		20	2		0		0		131
_	Average Benefit Received	\$	-	\$	-	\$ 1,211	\$ 1,779	\$ 2,422	\$	3,960	\$ 4,963	\$	-	\$	-	\$	2,352
2017	Average Final Average Compensation	\$	-	\$	-	\$ 3,429	\$ 3,914	\$ 4,558	\$	5,416	\$ 5,089	\$	-	\$	-	\$	4,394
- \	Number of Retirees		0		0	12	24	64		11	2		0		0		113
,	Average Benefit Received	\$	-	\$	-	\$ 1,243	\$ 1,927	\$ 2,427	\$	3,801	\$ 4,963	\$	-	\$	-	\$	2,352
2016	Average Final Average Compensation	\$	-	\$	-	\$ 3,462	\$ 4,067	\$ 4,567	\$	5,231	\$ 5,089	\$	-	\$	-	\$	4,400
	Number of Retirees		0		0	12	18	55		8	2		0		0		95
	Average Benefit Received	\$	-	\$	-	\$ 1,268	\$ 1,766	\$ 2,338	\$	3,824	\$ 4,963	\$	-	\$	-	\$	2,206
2015	Average Final Average Compensation	\$	-	\$	-	\$ 3,478	\$ 3,914	\$ 4,450	\$	5,320	\$ 5,089	\$	-	\$	-	\$	4,257
	Number of Retirees		0		0	11	17	44		4	2		0		0		78
	Average Benefit Received	\$	-	\$	-	\$ 1,263	\$ 1,699	\$ 2,382	\$	3,219	\$ 4,963	\$	-	\$	-	\$	2,180
2014	Average Final Average Compensation	\$	-	\$	-	\$ 3,430	\$ 3,895	\$ 4,491	\$	4,292	\$ 5,089	\$	-	\$	-	\$	4,228
	Number of Retirees		0		0	10	14	41		2	2		0		0		69
	Average Benefit Received	\$	-	\$	-	\$ 1,267	\$ 1,728	\$ 2,353	\$	4,016	\$ 5,650	\$	-	\$	-	\$	2,152
2013	Average Final Average Compensation	\$	-	\$	-	\$ 3,539	\$ 3,941	\$ 4,516	\$	4,805	\$ 5,650	\$	-	\$	-	\$	4,281
	Number of Retirees		0		0	8	13	36		1	1		0		0		59
	Average Benefit Received	\$	-	\$	-	\$ 1,137	\$ 1,791	\$ 2,375	\$	4,016	\$ -	\$	-	\$	-	\$	2,155
2012	Average Final Average Compensation	\$	-	\$	-	\$ 3,552	\$ 4,252	\$ 4,410	\$	4,802	\$ -	\$	_	\$	-	\$	4,269
	Number of Retirees		0		0	3	4	12		1	0		0		0		20
	Average Benefit Received	\$	-	\$	-	\$ 1,434	\$ 1,561	\$ 2,010	\$	-	\$ -	\$	-	\$	-	\$	1,805
2011	Average Final Average Compensation	\$	_	\$	_	\$ 4,499	\$ 3,471	\$ 4,082	\$	_	\$ -	\$	_	\$	-	\$	4,043
2	Number of Retirees		0		0	1	1	3		0	0		0		0		5
	Average Benefit Received	No A	Activ	ity													
2010	Average Final Average Compensation	No A	Activ	ity													
2	Number of Retirees	No A	Activ	ity													
	1																
	Ten Years Ended June 30, 2019																
	Average Benefit Received	\$	-	\$	-	\$ 1,251	\$ 1,797	\$ 2,404	\$	3,912	\$ 5,016	\$	-	\$	-	\$	2,337
	Average Final Average Compensation	\$	-	\$	-	\$ 3,504	\$ 3,936	\$ 4,514	\$	5,291	\$ 5,132	\$	-	\$	-	\$	4,361

Ten Years Ended June 30, 2019										
Average Benefit Received	\$ -	\$ -	\$ 1,251	\$ 1,797	\$ 2,404	\$ 3,912	\$ 5,016	\$ -	\$ -	\$ 2,337
Average Final Average Compensation	\$ -	\$ -	\$ 3,504	\$ 3,936	\$ 4,514	\$ 5,291	\$ 5,132	\$ -	\$ -	\$ 4,361

Ten Years Ended June 30, 2019

New Orleans Harbor Police

						Years o	of Service	Credit						
		<5**	5 -	- 10	10 - 15	15 - 20	20 - 25	25 - 30	30 -	35	35 - 40	40)+	All
	Average Benefit Received*	\$ 3,326	\$	-	\$ -	\$ 1,586	\$ 2,394	\$ 3,750	\$	-	\$ 3,227	\$	-	\$ 2,693
2019	Average Final Average Compensation	\$ 3,663	\$	-	\$ 6,550	\$ 2,682	\$ 2,931	\$ 4,158	\$	-	\$ 4,414	\$	-	\$ 3,410
	Number of Retirees	1		0	1	3	14	6		0	1		0	 26
~	Average Benefit Received*	\$ 2,311	\$	-	\$ -	\$ 2,200	\$ 2,144	\$ 4,427	\$	-	\$ 3,227	\$	-	\$ 2,590
2018	Average Final Average Compensation	\$ 2,651	\$	-	\$ 6,550	\$ 4,226	\$ 3,037	\$ 5,150	\$	-	\$ 4,414	\$	-	\$ 3,233
	Number of Retirees	19		0	1	1	1	3		0	1		0	 26
_	Average Benefit Received*	\$ 2,386	\$	-	\$ -	\$ 2,200	\$ 2,144	\$ 4,827	\$	-	\$ 3,227	\$	-	\$ 2,662
2017	Average Final Average Compensation	\$ 2,654	\$	-	\$ 6,550	\$ 4,226	\$ 3,037	\$ 5,130	\$	-	\$ 4,414	\$	-	\$ 3,173
	Number of Retirees	22		0	1	1	1	3		0	1		0	 29
9	Average Benefit Received	\$ 2,386	\$	-	\$ -	\$ 2,200	\$ 2,712	\$ 3,618	\$	-	\$ 3,227	\$	-	\$ 2,521
2016	Average Final Average Compensation	\$ 2,654	\$	-	\$ 6,550	\$ 4,226	\$ 3,893	\$ 4,490	\$	-	\$ 4,414	\$	-	\$ 3,115
	Number of Retirees	22		0	1	1	2	2		0	1		0	 29
712	Average Benefit Received	No Activ	vity											
2010-2015	Average Final Average Compensation	No Activ	vity											
201	Number of Retirees	No Activ	vity											
	Ten Years Ended June 30, 2019													
	Average Benefit Received	\$ 2,378	\$	-	\$ -	\$ 1,893	\$ 2,402	\$ 4,107	\$	-	\$ 3,227	\$	-	\$ 2,615
	Average Final Average Compensation	\$ 2,669	\$	-	\$ 6,550	\$ 3,454	\$ 3,050	\$ 4,626	\$	-	\$ 4,414	\$	-	\$ 3,228

^{*} The retired member appearing in the 10-15 years of service credit column is working after DROP and is not receiving a benefit.

^{**} Years of service credit for retirees converted into LASERS was not available from FY 2016 to 2018, therefore they appear in the <5 years of service credit column

Ten Years Ended June 30, 2019

Disability

					Years	of Servic	e Credit						
		<5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35	- 40	40+		All
		*		+ 0.4			+ +				_		embers
61	Average Benefit Received	\$ 1,140	\$ 1,516	\$ 813	\$ 1,203	\$ 1,552	\$ 1,905	\$ 2,278	\$	-	\$ -	\$	1,215
2019	Average Final Average Compensation	\$ 3,027	\$ 3,103	\$ 2,345	\$ 2,587	\$ 2,611	\$ 2,667	\$ 2,723	\$	-	\$ -	\$	2,523
	Number of Retirees	9	14	738	721	507	179	7		0	C		2,175
<u>∞</u>	Average Benefit Received	\$ 807	\$ 1,422	\$ 803	\$ 1,181	\$ 1,549	\$ 1,893	\$ 2,278	\$	-	\$ -	Ψ	1,201
2018	Average Final Average Compensation	\$ 2,667	\$ 3,263	\$ 2,317	\$ 2,552	\$ 2,600	\$ 2,642	\$ 2,723	\$	-	\$ -	\$	2,496
	Number of Retirees	11	12	758	740	520	186	7		0	C		2,234
_	Average Benefit Received	\$ 871	\$ 1,189	\$ 791	\$ 1,170	\$ 1,530	\$ 1,897	\$ 2,135	\$	-	\$ -	\$	1,187
2017	Average Final Average Compensation	\$ 2,559	\$ 2,985	\$ 2,294	\$ 2,531	\$ 2,582	\$ 2,636	\$ 2,567	\$	-	\$ -	\$	2,473
	Number of Retirees	12	12	795	762	539	197	8		0	C		2,325
9	Average Benefit Received	\$ 833	\$ 1,189	\$ 794	\$ 1,161	\$ 1,522	\$ 1,888	\$ 1,984	\$	-	\$ -	\$	1,182
2016	Average Final Average Compensation	\$ 2,872	\$ 2,985	\$ 2,286	\$ 2,494	\$ 2,561	\$ 2,610	\$ 3,084	\$	-	\$ -	\$	2,455
	Number of Retirees	12	12	825	783	557	202	10		0	C		2,401
	Average Benefit Received	\$ 743	\$ 1,079	\$ 768	\$ 1,125	\$ 1,489	\$ 1,848	\$ 1,918	\$	-	\$ -	\$	1,154
2015	Average Final Average Compensation	\$ 3,055	\$ 2,638	\$ 2,236	\$ 2,446	\$ 2,546	\$ 2,581	\$ 2,940	\$	-	\$ -	\$	2,415
	Number of Retirees	9	15	844	782	580	216	11		0	0		2,457
	Average Benefit Received	\$ 534	\$ 981	\$ 746	\$ 1,118	\$ 1,469	\$ 1,832	\$ 1,980	\$	-	\$ -	\$	1,143
2014	Average Final Average Compensation	\$ 3,080	\$ 2,423	\$ 2,173	\$ 2,422	\$ 2,516	\$ 2,583	\$ 2,926	\$	-	\$ -	\$	2,379
	Number of Retirees	7	16	849	789	605	228	12		0	C		2,506
	Average Benefit Received	\$ 458	\$ 922	\$ 723	\$ 1,070	\$ 1,436	\$ 1,778	\$ 1,958	\$	-	\$ -	\$	1,112
2013	Average Final Average Compensation	\$ 3,151	\$ 2,326	\$ 2,349	\$ 2,439	\$ 2,698	\$ 2,897	\$ 2,942	\$	-	\$ -	\$	2,519
(4	Number of Retirees	6	16	858	790	636	235	13		0	C		2,554
	Average Benefit Received	\$ 327	\$ 1,161	\$ 692	\$ 1,040	\$ 1,396	\$ 1,760	\$ 1,958	\$	-	\$ -	\$	1,085
2012	Average Final Average Compensation	\$ 3,410	\$ 2,365	\$ 2,157	\$ 2,244	\$ 2,434	\$ 2,835	\$ 2,942	\$	-	\$ -	\$	2,325
2	Number of Retirees	5	17	848	786	635	240	13		0	C		2,544
	Average Benefit Received	\$ 333	\$ 1,113	\$ 677	\$ 1,026	\$ 1,364	\$ 1,749	\$ 1,958	\$	-	\$ -	\$	1,067
2011	Average Final Average Compensation	\$ 3,250	\$ 2,615	\$ 2,266	\$ 2,375	\$ 2,566	\$ 2,875	\$ 2,942	\$	_	\$ -	\$	2,441
6	Number of Retirees	6	18	856	803	642	248	13		0	C		2,586
	Average Benefit Received	\$ 294	\$ 955	\$ 662	\$ 1,001	\$ 1,349	\$ 1,699	\$ 1,884	\$	_	\$ -	\$	1,041
2010	Average Final Average Compensation	\$ 3,506	\$ 2,793	\$ 2,185	\$ 2,268	\$ 2,515	\$ 2,821	\$ 2,878	\$	_	\$ -		2,363
2	Number of Retirees	8	20	863	817	642	238	15	·	0	C	·	2,603
	1				-					-			,
	Ten Years Ended June 30, 2019												
	Average Benefit Received	\$ 691	\$ 1,134	\$ 745	\$ 1,107	\$ 1,460	\$ 1,818	\$ 2,003	\$	-	\$ -	\$	1,136
	Average Final Average Compensation	\$ 2,992	\$ 2,717	\$ 2,259	\$ 2,433	\$ 2,561	\$ 2,724	\$ 2,889	\$	-	\$ -	\$	2,437

Ten Years Ended June 30, 2019

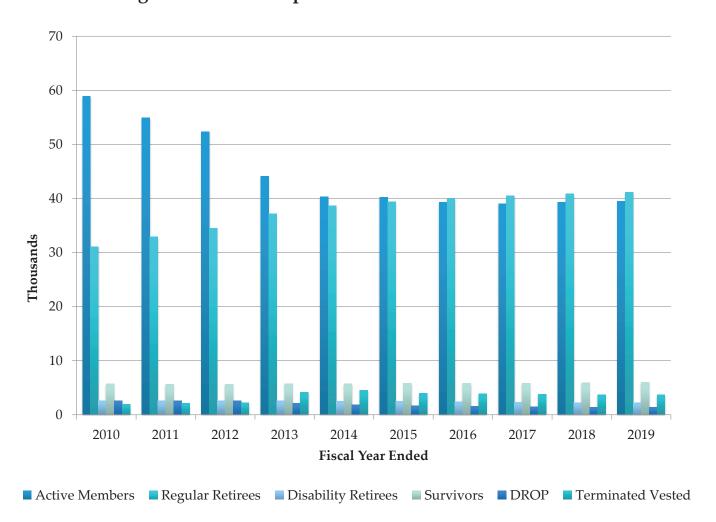
Survivors

					Years	of Servic	e Cre	dit				-	
_		<5	5 - 10	10 - 15	15 - 20	20 - 25	25 -	- 30	30 - 35	35 - 40	40+	Me	All embers
	Average Benefit Received	\$ 1,303	\$ 1,628	\$ 842	\$ 1,103	\$ 1,367	\$ 1	,601	\$ 1,896	\$ 2,473	\$ 2,958	\$	1,439
2019	Average Final Average Compensation	\$ 3,000	\$ 3,176	\$ 2,438	\$ 2,646	\$ 2,931	\$ 2	2,921	\$ 2,837	\$ 3,394	\$ 4,192	\$	2,810
	Number of Retirees	26	70	1,169	946	1,161	1	,135	1,133	256	81		5,977
~	Average Benefit Received	\$ 1,178	\$ 1,653	\$ 839	\$ 1,093	\$ 1,356	\$ 1	,573	\$ 1,855	\$ 2,402	\$ 2,825	\$	1,413
2018	Average Final Average Compensation	\$ 2,682	\$ 3,151	\$ 2,391	\$ 2,603	\$ 2,874	\$ 2	,834	\$ 2,771	\$ 3,292	\$ 4,034	\$	2,743
	Number of Retirees	32	72	1,174	950	1,137	1	,122	1,125	256	72		5,940
_	Average Benefit Received	\$ 1,164	\$ 1,791	\$ 830	\$ 1,064	\$ 1,301	\$ 1	,534	\$ 1,822	\$ 2,320	\$ 2,800	\$	1,376
2017	Average Final Average Compensation	\$ 2,665	\$ 3,254	\$ 2,307	\$ 2,503	\$ 2,740	\$ 2	2,738	\$ 2,695	\$ 3,186	\$ 3,945	\$	2,645
	Number of Retirees	32	71	1,181	945	1,107	1	,121	1,096	250	69		5,872
,	Average Benefit Received	\$ 1,164	\$ 1,636	\$ 822	\$ 1,045	\$ 1,268	\$ 1	,492	\$ 1,773	\$ 2,229	\$ 2,763	\$	1,341
2016	Average Final Average Compensation	\$ 2,665	\$ 2,993	\$ 2,231	\$ 2,423	\$ 2,637	\$ 2	2,648	\$ 2,615	\$ 3,044	\$ 3,808	\$	2,555
	Number of Retirees	32	71	1,174	943	1,093	1	,087	1,074	260	68		5,802
	Average Benefit Received	\$ 1,254	\$ 1,584	\$ 803	\$ 1,004	\$ 1,217	\$ 1	,433	\$ 1,685	\$ 2,142	\$ 2,619	\$	1,285
2015	Average Final Average Compensation	\$ 2,961	\$ 2,743	\$ 2,171	\$ 2,326	\$ 2,568	\$ 2	,568	\$ 2,510	\$ 2,974	\$ 3,616	\$	2,469
	Number of Retirees	22	66	1,191	973	1,100	1	,079	1,082	250	71		5,834
_	Average Benefit Received	\$ 1,286	\$ 1,499	\$ 804	\$ 979	\$ 1,206	\$ 1	,398	\$ 1,638	\$ 2,012	\$ 2,545	\$	1,252
2014	Average Final Average Compensation	\$ 3,017	\$ 2,639	\$ 2,118	\$ 2,242	\$ 2,504	\$ 2	,484	\$ 2,421	\$ 2,775	\$ 3,502	\$	2,388
	Number of Retirees	22	75	1,194	995	1,058	1	,051	1,046	246	72		5,759
	Average Benefit Received	\$ 1,235	\$ 1,445	\$ 769	\$ 922	\$ 1,137	\$ 1	,322	\$ 1,545	\$ 1,896	\$ 2,416	\$	1,177
2013	Average Final Average Compensation	\$ 2,918	\$ 2,591	\$ 2,377	\$ 2,545	\$ 2,808	\$ 2	2,940	\$ 2,924	\$ 3,050	\$ 3,499	\$	2,731
	Number of Retirees	24	76	1,202	1,007	1,070	1	,035	1,017	229	66		5,726
	Average Benefit Received	\$ 1,084	\$ 1,423	\$ 777	\$ 912	\$ 1,110	\$ 1	,288	\$ 1,521	\$ 1,880	\$ 2,462	\$	1,159
2012	Average Final Average Compensation	\$ 2,970	\$ 2,418	\$ 2,279	\$ 2,444	\$ 2,652	\$ 2	,855	\$ 2,884	\$ 2,954	\$ 3,333	\$	2,631
	Number of Retirees	28	76	1,182	1,030	1,065	1	,001	983	236	64		5,665
	Average Benefit Received	\$ 1,010	\$ 1,387	\$ 774	\$ 877	\$ 1,088	\$ 1	,266	\$ 1,512	\$ 1,843	\$ 2,374	\$	1,136
2017	Average Final Average Compensation	\$ 2,763	\$ 2,385	\$ 2,267	\$ 2,435	\$ 2,664	\$ 2	,839	\$ 2,851	\$ 2,951	\$ 3,259	\$	2,616
	Number of Retirees	31	83	1,186	1,037	1,069	1	,011	946	231	65		5,659
	Average Benefit Received	\$ 868	\$ 1,315	\$ 746	\$ 841	\$ 1,051	\$ 1	,227	\$ 1,484	\$ 1,827	\$ 2,278	\$	1,097
2010	Average Final Average Compensation	\$ 2,628	\$ 2,317	\$ 2,260	\$ 2,397	\$ 2,656	\$ 2	2,838	\$ 2,826	\$ 2,849	\$ 3,355	\$	2,595
	Number of Retirees	28	81	1,217	1,046	1,084	1	,012	933	233	62		5,696
		-											
	Ten Years Ended June 30, 2019												
	Average Benefit Received	\$ 1,146	\$ 1,529	\$ 800	\$ 981	\$ 1,213	· ·	,419	\$ 1,682	\$ 2,112	\$ 2,617	\$	1,270
	Average Final Average Compensation	\$ 2,810	\$ 2,750	\$ 2,284	\$ 2,455	\$ 2,706	\$ 2	.,766	\$ 2,730	\$ 3,051	\$ 3,673	\$	2,619

LASERS Membership

Fiscal	Active	Regular	Disability			Terminated	Terminated	Total
Year	Members	Retirees	Retirees	Survivors	DROP	Vested	Nonvested**	Members
2010	58,881	31,086	2,603	5,696	2,629	1,981	50,842	153,718
2011	54,930	32,897	2,586	5,659	2,569	2,125	51,959	152,725
2012	52,352	34,513	2,544	5,665	2,577	2,222	50,590	150,463
2013	44,111	37,145	2,554	5,726	2,092	4,162	52,385	148,175
2014	40,321	38,675	2,506	5,759	1,838	4,558	52,042	145,699
2015	40,194	39,352	2,457	5,834	1,682	3,953	52,193	145,665
2016	39,284	39,998	2,401	5,802	1,609	3,865	52,837	145,796
2017	39,055	40,482	2,325	5,872	1,520	3,794	53,573	146,621
2018	39,293	40,832	2,234	5,940	1,398	3,720	54,370	147,787
2019	39,533	41,117	2,175	5,977	1,354	3,744	55,280	149,180

LASERS Changes In Membership**



^{**} Graph does not include Terminated Nonvested

Number of Benefit Recipients

Fis	cal Ye	ar Ende	d		Recip	ients*			Net C	Change	
	20	010			39,	385			3.	0%	
	20)11			41,	142			4.	5%	
	20)12			42,	722			3.	8%	
	20)13			45,	425			6.	3%	
	20)14			46,	940			3.	3%	
)15				643				5%	
)16				201				2%	
)17				679				0%	
		018				006				7%	
	20)19			49,	269			0.	5%	
	50 - 48 -					46.9	47.6	48.2	48.	7 49	.0 49.3
Thousands	44 -				45.4	1					
Thou	42 -			42.7	7						
	40 -		41.	1							
	38 -	39.4	4								
	30	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
					-	Fiscal Ye	ear Ende	ed			

^{*}Recipients include Regular, Disability and Survivor retirees.

Fiscal Year

Retired Members by Recipient Type and Plan Ten Years Ended June 30, 2019

5,442 45,893 13 15 114 1,320 215 1,615 1,991 1,184 27 52 719 94 67 13 1,154 2,065 1,246 37,214 5,422 45,947 525 ∞ 1,322 1,614 1,077 22 42 597 53 \mathcal{C} 11 67 211 69 9 57 57 2018 2,163 1,367 426 1,335 37,107 5,394 46,031 20 38 487 29 6 39 196 74 1,613 48 52 65 296 2017 378 5,373 2,237 45,918 1,332 36,835 1,473 329 13 14 53 864 180 1,601 2016 36,442 5,443 2,302 1,535 45,722 1,326 31 277 75 20 1,590 54 760 621 36,004 2,363 45,472 196 1,714 1,580 529 5,391 24 158 72 30 38 641 164 1,321 2014 2,425 34,692 5,370 44,476 1,989 82 16 101 1,294 154 69 32 1,549 29 34 546 451 2013 2,425 2,469 32,289 5,325 42,508 1,287 146 443 21 62 46 1,541 359 31 21 30,837 5,336 2,474 2,460 4 16 23 343 41,107 1,257 1,511 61 57 5,383 2,491 2,526 39,661 1,164 1,421 148 16 199 29,261 134 67 56 11 Benefit Recipient Type Disability Retiree Disability Retiree Disability Retiree Disability Retiree Regular Retiree Regular Retiree Regular Retiree Regular Retiree Regular Retiree Regular Retiree DROP Accrual DROP Accrual DROP Accrual DROP Accrual **DROP** Accrual Survivor Survivor Survivor Survivor Corrections Employees Secondary-Total **Corrections Employees Primary-Total** Corrections Employees Secondary Regular State Employees 2-Total Regular State Employees 3-Total Regular State Employees 4-Total Corrections Employees Primary Regular State Employees-Total Regulary State Employees 2 Regulary State Employees 4 Regulary State Employees 3 Regular State Employees (Hired on or after January 1, 2011) (Hired on or after January 1, 2002) (Hired on or after July 1, 2015) (Hired on or after July 1, 2006) (Hired before January 1, 2002) Retirement Plan (Hired before July 1, 2006)

Retired Members by Recipient Type and Plan (continued) Ten Years Ended June 30, 2019

Fiscal Year

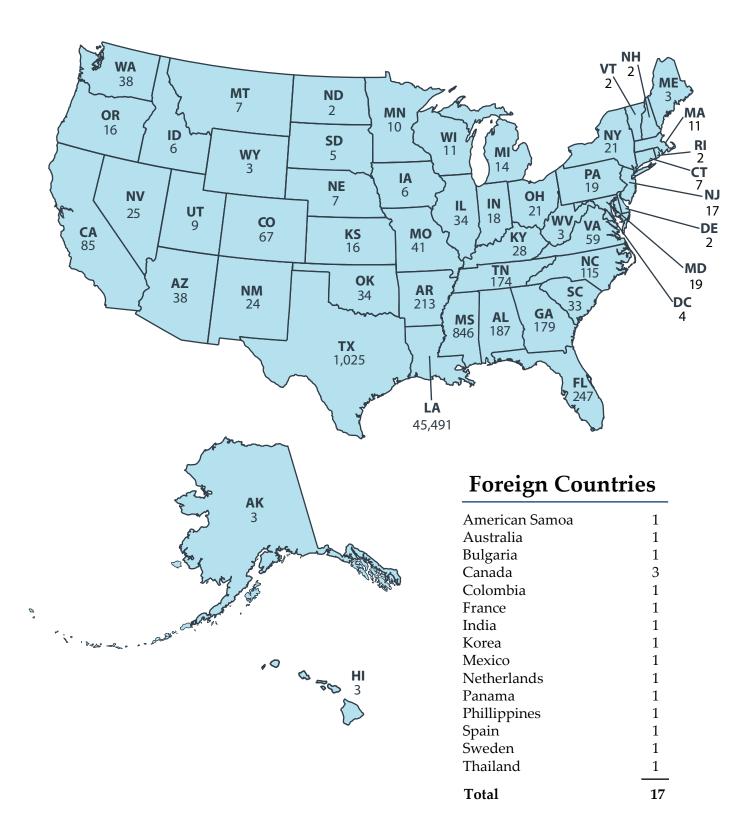
;		9		9	6		1	Č	i G	9	
Ketirement Plan	Benefit Kecipient Type	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Peace Officers	Regular Retiree	18	27	33	36	40	45	47	49	52	26
(Hired before January 1, 2011)	Disability Retiree	1	1	1	1	1	1	1	1	1	1
	DROP Accrual	9	2	1	3	3	9	D	2	1	ſΩ
Peace Officers-Total		25	30	35	40	44	52	53	52	54	62
Appellate Law Clerks	Regular Retiree	9	8	14	21	28	36	40	47	22	58
(Hired before July 1, 2006)	Disability Retiree	ı	ı	ı	ı	ı	1	1	1	1	1
	DROP Accrual	1	1	2	-	1	1	1	2	3	7
Appellate Law Clerks-Total		9	8	16	21	29	38	42	20	61	99
Appellate Law Clerks 2	Regular Retiree	ı	ı	1	1	,	ı	ı	1	1	1
(Hired before July 1, 2006)											
Appellate Law Clerks 2-Total		•	1	•	•	-	1	ı	•	•	1
Wildlife Agents	Regular Retiree	131	127	123	117	112	109	102	93	98	83
(Hired before July 1, 2003)	Survivor	09	26	57	22	54	51	26	09	62	26
	Disability Retiree	19	19	17	17	16	15	14	15	15	15
	DROP Accrual	1	2	ı	ı	ı	1	ı	ı	ı	ı
Wildlife Agents (Before 2003)-Total		210	207	197	189	182	175	172	168	163	157
Wildlife Agents	Regular Retiree	46	51	22	69	28	98	91	93	103	109
(Hired on or after July 1, 2003)	Survivor	2	2	3	3	3	3	3	3	3	4
	Disability Retiree	3	3	3	3	3	3	3	3	3	4
	DROP Accrual	4	3	8	9	5	1	2	3	3	1
Wildlife Agents (After 2003)-Total		55	29	71	81	68	93	66	102	112	118
Judges	Regular Retiree	220	219	225	227	235	278	282	276	276	272
(Elected before January 1, 2011)	Survivor	82	87	88	68	06	95	86	107	112	107
	Disability Retiree	9	Ŋ	Ŋ	гO	гO	ſΟ	ſΩ	Ŋ	гO	гO
	DROP Accrual	13	14	11	13	21	22	15	10	10	8
Judges-Total		321	325	329	334	351	400	400	398	403	392
Legislators	Regular Retiree	91	88	88	06	85	81	80	73	71	69
(Elected before January 1, 2011)	Survivor	24	23	25	23	26	28	28	33	34	32
Legislators-Total		115	111	113	113	111	109	108	106	105	101

Retired Members by Recipient Type and Plan (continued)

Ten Years Ended June 30, 2019

						Fiscal Year	Year				
Retirement Plan	Benefit Recipient Type	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Special Legislative Employees	Regular Retiree	1	ı	ı	ı	ı	1	1	1	1	1
	DROP Accrual	1	1	1	1	1	1	1	1	1	•
Special Legislative Employees-Total	1	•	•	•	1	1	2	2	2	1	1
Bridge Police Employees	Regular Retiree		1	1	2	2	2	П	1	2	2
	Survivor	•	ı	ı	ı	ı	ı	⊣	ı	1	
(Hired before July 1, 2006)	DROP Accrual	•	ı	ı	1	1	1	1	П	1	ı
Bridge Police Employees-Total		-	1	1	2	2	3	3	2	2	2
Hazardous Duty	Regular Retiree	ı	D	20	29	69	28	92	113	131	155
(Hired on or after January 1, 2011)	Survivor	1	ı	ı	ı	ı	1	П	2	2	3
	Disability Retiree	1	ı	ı	ı	1	3	Ŋ	ſΩ	9	6
	DROP Accrual	•	1	1	1	3	6	8	11	8	9
Hazardous Duty-Total		,	īC	21	09	73	91	109	131	147	173
Alcohol and Tobacco Control	Regular Retiree		ı	4	4	7	8	8	8	6	6
(Hired on or after June 30, 2007)	Disability Retiree	•	ı	ı	ı	ı	1	1	П	1	1
	DROP Accrual	•	1	ı	1	1	ı	1	1	1	1
Alcohol and Tobacco Control-Total			-	4	4	7	6	6	6	10	11
NO Harbor Police	Regular Retiree		1	ı	1	1	ı	29	29	26	26
	Survivor	•	1	ı	ı	ı	ı	^	8	6	10
	Disability Retiree	•	1	ı	1	1	ı	2	2	3	3
	DROP Accrual	•	1	ı	1	1	ı	ı	3	гO	4
NO Harbor Police		•	-	•	-	-	•	38	42	43	43
Grand Total Benefit Recipients		42,014	43,711	45,300	47,517	48,778	49,325	49,810	50,199	50,404	50,623

Location of LASERS Benefit Recipients¹



¹Recipients include Regular, Disability and Survivor retirees

Statistical Section

Fiscal Year 2019 Gross Benefits Paid by Region

This chart provides a regional snapshot of benefits paid to retirees during the 2018-2019 fiscal year. It does not include DROP, IBO, and lump sum leave payments. The parishes are separated into eight regions: Shreveport, Monroe, Alexandria, Lake Charles, Acadiana, Baton Rouge, New Orleans, and North Shore.



Fiscal Year 2019 Gross Benefits Paid by Region (continued)

<u>Acadiana</u>		Monroe	
Acadia	\$ 8,453,557	Caldwell	\$ 3,290,699
Evangeline	6,619,218	East Carroll	771,622
Iberia	7,103,800	Franklin	6,212,648
Lafayette	40,821,999	Jackson	3,348,796
St. Landry	13,984,541	Lincoln	15,952,798
St. Martin	9,158,232	Madison	1,799,218
St. Mary	3,118,048	Morehouse	3,959,840
Vermilion	6,509,634	Ouachita	35,543,034
	\$ 95,769,029	Richland	5,078,499
<u>Alexandria</u>		Tensas	1,493,169
Avoyelles	20,219,374	Union	5,074,605
Catahoula	2,229,156	West Carroll	1,975,849
Concordia	2,684,319		\$ 84,500,777
Grant	7,739,229	New Orleans	
La Salle	2,156,271	Jefferson	65,763,694
Natchitoches	9,581,774	Lafourche	15,258,452
Rapides	54,561,173	Orleans	73,807,007
Sabine	3,898,193	Plaquemines	2,187,646
Vernon	6,321,619	St. Bernard	4,100,197
Winn	2,673,680	St. Charles	4,500,404
	\$ 112,064,788	St. John the Baptist	4,560,958
Baton Rouge		Terrebonne	14,731,057
Ascension	30,267,122		\$ 184,909,415
Assumption	1,971,421	North Shore	
East Baton Rouge	255,306,499	St. Helena	3,802,352
East Feliciana	28,849,693	St. Tammany	37,253,192
Iberville	13,838,351	Tangipahoa	38,261,142
Livingston	55,140,945	Washington	15,580,603
Pointe Coupee	9,924,917		\$ 94,897,289
St. James	2,566,803	<u>Shreveport</u>	
West Baton Rouge	13,121,256	Bienville	3,891,525
West Feliciana	12,483,518	Bossier	21,172,057
	\$ 423,470,525	Caddo	52,007,660
Lake Charles		Claiborne	4,938,817
Allen	3,175,124	De Soto	3,698,283
Beauregard	5,141,651	Red River	2,165,917
Calcasieu	28,573,618	Webster	8,029,442
Cameron	627,410		\$ 95,903,701
Jefferson Davis	4,508,652		
	\$ 42,026,455	Total	\$ 1,133,541,979
	_		

Top 10 Contributing Employers by Member Count Ten Years Ended June 30, 2019

	A come on NT and a	Member	% of Total
	Agency Name	Count	Members
	Department of Corrections	4,588	11.3%
	Department of Transportation & Development	3,986	9.9%
	Department of Children & Family Services	3,406	8.4%
	Louisiana State University	1,616	4.0%
2019	Division of Administration Office of Human Resources	1,522	3.8%
20	Office for Citizens With Disabilities	1,505	3.7%
	Office of Mental Health	1,376	3.4%
	Department of Public Safety	1,346	3.3%
	Department of Health & Hospitals Office of Public Health	1,119	2.8%
	Department of Health & Hospitals Medical Vendor Administration	761	1.9%
	Department of Corrections	4,606	11.4%
	Department of Transportation & Development	3,977	9.9%
	Department of Children & Family Services	3,328	8.3%
	Louisiana State University	1,699	4.2%
2018	Division of Administration Office of Human Resources	1,463	3.6%
20	Department of Public Safety	1,386	3.4%
	Office for Citizens With Disabilities	1,385	3.4%
	Office of Mental Health	1,337	3.3%
	Department of Health & Hospitals Office of Public Health	1,086	2.7%
	Department of Health & Hospitals Medical Vendor Administration	802	2.0%
	Department of Corrections	4,531	11.3%
	Department of Transportation & Development	3,966	9.9%
	Department of Children & Family Services	3,299	8.2%
	Division of Administration Office of Human Resources	1,847	4.6%
2017	Louisiana State University	1,434	3.6%
7	Department of Public Safety	1,328	3.3%
	Office for Citizens With Disabilities	1,281	3.2%
	Office of Mental Health	1,279	3.2%
	Department of Health & Hospitals Office of Public Health	1,058	2.6%
	Department of Health & Hospitals Medical Vendor Administration	841	2.1%
	Department of Corrections Department of Transportation & Development	4,611	11.5%
	Department of Children & Femily Services	3,919	9.7%
	Department of Children & Family Services	3,120	7.8%
	Louisiana State University Division of Administration Office of Human Resources	1,760	4.4%
2016		1,633	4.1%
2	Department of Public Safety Office for Citizens With Disabilities	1,313	3.3%
	Office of Mental Health	1,262	3.1%
	Department of Health & Hospitals Office of Public Health	1,239	3.1% 2.6%
	*	1,058	
	Department of Health & Hospitals Medical Vendor Administration	873	2.2%

Top 10 Contributing Employers by Member Count (continued) Ten Years Ended June 30, 2019

	A gangy Nama	Member	% of Total
	Agency Name	Count	Members
	Department of Corrections	4,679	11.4%
	Department of Transportation & Development	3,976	9.7%
	Department of Children & Family Services	3,345	8.1%
	Louisiana State University	1,775	4.3%
2015	Division of Administration Office of Human Resources	1,499	3.6%
20	Department of Public Safety	1,357	3.3%
	Office for Citizens With Disabilities	1,276	3.1%
	Office of Mental Health	1,264	3.1%
	Department of Health & Hospitals Office of Public Health	1,060	2.6%
	Department of Labor	851	2.1%
	Department of Corrections	4,635	11.1%
	Department of Transportation & Development	3,965	9.5%
	Department of Children & Family Services	3,419	8.2%
	Louisiana State University Medical Center in Shreveport	1,804	4.3%
2014	Louisiana State University	1,477	3.5%
20	Medical Center of Louisiana New Orleans	1,388	3.3%
	Department of Public Safety	1,257	3.0%
	Office of Mental Health	1,239	3.0%
	Office for Citizens With Disabilities	1,038	2.5%
	Department of Health & Hospitals Office of Public Health	849	2.0%
	Department of Corrections	4,657	9.6%
	Department of Transportation & Development	4,098	8.5%
	Department of Children & Family Services	3,446	7.1%
	Louisiana State University Medical Center in Shreveport	2,625	5.4%
2013	Office for Citizens With Disabilities	1,864	3.9%
20	Office of Mental Health	1,603	3.3%
	Louisiana State University	1,561	3.2%
	Medical Center of Louisiana New Orleans	1,470	3.0%
	Department of Public Safety	1,285	2.7%
	Department of Health & Hospitals Office of Public Health	1,051	2.2%
	Department of Corrections	5,043	9.4%
	Department of Transportation & Development	4,173	7.8%
	Department of Children & Family Services	3,685	6.9%
	Louisiana State University Medical Center in Shreveport	2,849	5.3%
2012	Office for Citizens With Disabilities	2,362	4.4%
20	Office of Mental Health	2,078	3.9%
	Louisiana State University	1,886	3.5%
	Medical Center of Louisiana New Orleans	1,787	3.3%
	Department of Public Safety	1,528	2.8%
	Department of Health & Hospitals Office of Public Health	1,162	2.2%

Top 10 Contributing Employers by Member Count (continued) Ten Years Ended June 30, 2019

	A con on Nicona	Member	% of Total
	Agency Name	Count	Members
	Department of Corrections	5,064	9.0%
	Department of Transportation & Development	4,158	7.4%
	Office for Citizens With Disabilities	3,932	7.0%
	Louisiana State University Medical Center in Shreveport	2,893	5.1%
11	Department of Children & Family Services	2,736	4.9%
2011	Office of Family Support	2,294	4.1%
	Louisiana State University	2,001	3.6%
	Medical Center of Louisiana New Orleans	1,925	3.4%
	Department of Public Safety	1,563	2.8%
	Department of Health & Hospitals Office of Public Health	1,272	2.3%
	Department of Corrections	5,529	9.3%
	Department of Transportation & Development	4,316	7.2%
	Office for Citizens With Disabilities	3,208	5.4%
	Louisiana State University Medical Center in Shreveport	3,010	5.0%
10	Office of Family Support	2,295	3.8%
2010	Department of Children & Family Services	2,236	3.7%
	Louisiana State University	2,148	3.6%
	Medical Center of Louisiana New Orleans	1,945	3.3%
	Department of Public Safety	1,563	2.6%
	Department of Health & Hospitals Office of Public Health	1,488	2.5%

The LASERS Mission

The LASERS Vision

LASERS Core Values

To provide a sound retirement plan for our members through prudent management and exceptional service Confidence in our service, assuring financial security for your future

Highest Ethical Standards Integrity Prudent Management



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