



Board of Trustees Meeting Agenda

Wednesday, December 18, 2024
1:00 P.M.

- I. **Call to Order** (*Mr. Kelly Breland, Chair*)
 - A. **Invocation**
 - B. **Pledge of Allegiance**
 - C. **Approval of Agenda**
 - D. [Approval of Minutes](#) – October 23, 2024
 - E. [Approval of Minutes](#)- November 19, 2024
 - F. [Employee of the Quarter](#)- (January-March 2025)
- II. **Report of Administrative Committee** (*Mr. Bill Benson*)
 - A. [Retiree Representative Board Election Schedule](#)
 - B. [Actuarial Reports for MHSPRS, SLRP, and MRS](#)
 - C. [PERS Funding Policy Revisions](#)
 - D. [Other](#)
- III. **Report of Audit Committee** (*Mr. Chris Graham*)
 - A. [Annual Comprehensive Financial Report \(ACFR\)](#)
 - B. [External Audit Results](#)
 - C. **Other**
- IV. **Report of Claims Committee** (*Dr. Jay Smith*)
 - A. [Modification of a Joinder Agreement](#) – Newton County Board of Supervisors
 - B. **Other**
- V. **Report of Defined Contribution Committee** (*Dr. Brian Rutledge*)
 - A. [Mississippi Deferred Compensation](#)- Empower Contract Renewal
 - B. **Other**
- VI. **Report of Legislative Committee** (*Mr. George Dale*)
 - A. **PERS Legislation and Legislative Session**
 - B. **Other**
- VII. **Report of Investment Committee** (*Dr. Randy McCoy*)
 - A. [Watchlist](#)
 - B. [Global Equity Search Criteria](#)
 - C. **Other**
- VIII. [Disability Appeals Committee](#)
- IX. **Staff Reports**
 - A. [Retiree Report](#)
 - B. [Investment Report](#)
- X. **Adjourn**

Board Members:

Mr. Kelly Breland, *Board Chair*
Mr. Bill Benson, *Board Vice Chair*
Mr. George Dale
Mr. Chris Graham
Ms. Kim Hanna

Dr. Randy McCoy
State Treasurer David McRae
Dr. Brian Rutledge
Dr. Jay Smith
Mr. Terrance Yarbrough

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Board of Trustees Meeting Agenda Wednesday, October 23, 2024 1:00 P.M.

- I. Call to Order (*Mr. Kelly Breland, Chair*)
 - A. Invocation
 - B. Pledge of Allegiance
 - C. Approval of Agenda
 - D. Approval of Minutes – *August 28, 2024*
- II. Report of Administrative Committee (*Mr. Bill Benson*)
 - A. 2025 Board & Committee Meetings Schedule
 - B. PERS State Representative Election Results
 - C. Actuarial Valuation and Projection
 - D. Additional Independent Actuarial Assessments
 - E. Other
- III. Report of Defined Contribution Committee (*Dr. Brian Rutledge*)
 - A. Other
- IV. Report of Investment Committee (*Dr. Randy McCoy*)
 - A. Other
- V. Report of Legislative Committee (*Mr. George Dale*)
 - A. 2025 Legislative Initiatives
 - B. Other
- VI. FY 2025 Municipal COLA Certification for Tupelo
- VII. Retiree Insurance Advisory Committee
 - A. New Members Appointments
- VIII. Disability Appeals Committee
- IX. Staff Reports
 - A. Retiree Report
 - B. Investment Report
- X. Adjourn

Board Members:

Mr. Kelly Breland, *Board Chair*
Mr. Bill Benson, *Board Vice Chair*
Mr. George Dale
Mr. Chris Graham
Ms. Kim Hanna

Dr. Randy McCoy
State Treasurer David McRae
Dr. Brian Rutledge
Dr. Jay Smith
Vacant State Employee Representative

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The Public Employees' Retirement System of Mississippi (PERS) Board of Trustees met Wednesday, October 23, 2024, at 429 Mississippi Street, Jackson, MS 39201. This meeting was duly announced to the public Friday, October 11, 2024, at 2:08 p.m., on the Public Meetings Notice website of the Mississippi Department of Finance and Administration, as well as was posted in the PERS lobby, on the PERS website, and on the PERS YouTube Channel.

BOARD MEMBER ATTENDEES

In Person: Board Chair Mr. Kelly Breland, Mr. Bill Benson, Mr. George Dale, Mr. Chris Graham, Ms. Kimberly Hanna, Dr. Randy McCoy, Dr. Brian Rutledge, State Treasurer David McRae, and Dr. Jay Smith.

Via Teleconference: None.

Absent: None.

Current Board Vacancies: One of Two State Employee Representatives.

LEGISLATIVE LIAISON ATTENDEES

Absent: Representative John Read and Senator Daniel Sparks.

Via Teleconference: None.

STAFF ATTENDEES

In Person: Executive Director Ray Higgins; Chief Investment Officer Charles Nielsen; Counsel and Policy Advisor Davetta Lee; Member and Employer Services Deputy Director Mason Frantom; Benefit Services Deputy Director Lisa Green; Deputy Director Administrative Services Melanie Estridge; David DeGuire and Ryan Holliday, Investments; Christy Smith, LaMelody Lewis, and Cindy Byars, Accounting; Member Account Support Program Administrator Chris Hudson; Benefit Payments Program Administrator Susan Lyon; Employer Reporting Program Administrator Alisa Evans; Billy Means and Antonio Fisher, Information Technology; Mariam Clayton, Member and Employer Services; and Communications Director Shelley Powers.

GUEST ATTENDEES

In Person: Assistant Attorney General Caroline Johnson; Ray Wright, Mississippi Joint Legislative Committee on Performance Evaluation; Allan Cooper, Mississippi Department of Finance and Administration; Ed Koebel, Darby Carraway, and Ben Mobley, CavMac; Danny White and Cassie Rapoport, GRS; Terrance Yarbrough, Mississippi Department of Transportation and board-member-elect; Toren Ballard, Mississippi First; Phil Sutphin, Retired Education Personnel of Mississippi; Emily Pote and Mike Larsen, Mississippi Retired Public Employees' Association; Laura Hipp Mayer, THL; Nikita Rankin and Brian Ferguson, Mississippi Department of Wildlife, Fisheries, and Parks; Jakelia Brown, Jackson State University; Shannon Dyse, Mississippi Deferred Compensation; and Corbin Stanford and Lee Pittman, Legislative Budget Office.

CALL TO ORDER

Board Chair Breland called the meeting to order at 1:03 p.m.

INVOCATION

Smith gave the invocation.

PLEDGE OF ALLEGIANCE

Smith led the Pledge of Allegiance.

AGENDA

- **Motion:** To approve the meeting agenda.
 - **Made by:** Benson.
 - **Seconded by:** McCoy.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**

MINUTES

- **Motion:** To approve the minutes of the August 28, 2024, PERS Board of Trustees' meeting.
 - **Made by:** McRae.
 - **Seconded by:** Rutledge.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
 - **Voting against:** None.
 - **Absent:** None.

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- Duly Passed.

REPORT OF THE ADMINISTRATIVE COMMITTEE

Committee Chair Benson reported that the Administrative Committee, the hardest-working committee of the week, met the afternoon of October 22, 2024, and the morning of October 23, 2024. Benson said that, along with discussing Tier 5 and actuarial information, the committee approved the following items for the Board's consideration.

2025 Board and Committee Meetings Schedules

Benson presented the Board with the 2025 Board and Committee Meetings Schedule for approval.

Board & Committee Meetings | 2025 Schedule

Board meetings held fourth Wednesday of February, April, June, August, and October and third Wednesday of December.

February 25 Tuesday	Defined Contribution & Investment Committee Meetings
February 26 Wednesday	Board Meeting & Other Committee Meetings
April 22 Tuesday	Defined Contribution & Investment Committee Meetings
April 23 Wednesday	Board Meeting & Other Committee Meetings
June 24 Tuesday	Defined Contribution & Investment Committee Meetings
June 25 Wednesday	Board Meeting & Other Committee Meetings
August 26 Tuesday	Defined Contribution & Investment Committee Meetings
August 27 Wednesday	Board Meeting & Other Committee Meetings
October 21 Tuesday	Defined Contribution & Investment Committee Meetings
October 22 Wednesday	Board Meeting & Other Committee Meetings
December 16 Tuesday	Defined Contribution & Investment Committee Meetings
December 17 Wednesday	Board Meeting & Other Committee Meetings

Investment Committee Presentations | 2025 Schedule

Meetings held only when investment finalists' presentations become necessary.

Held the Tuesday two weeks prior to the board meeting, contingent/subject to Board discretion and availability.

Tuesday, February 11
Tuesday, April 8
Tuesday, June 10
Tuesday, August 12
Tuesday, October 7
Tuesday, December 2

Claims Committee Presentations | 2025 Schedule

Meetings held only when claims hearings become necessary.

*Held the fourth Tuesday of every other month that are **not** board meeting months.*

Tuesday, January 28
Tuesday, March 25
Tuesday, May 27
Tuesday, July 22
Tuesday, September 23
Tuesday, November 25

- **Motion:** To approve the 2025 board and committee meetings schedules.

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- **Made by:** Benson.
- **Seconded by:** Hanna.
- **Discussion:** None.
- **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
- **Voting against:** None.
- **Absent:** None.
- **Duly Passed.**

PERS State Representative Election Results Unexpired Term Expiring June 2026

Benson presented the Board with results from the runoff election for the state employees' representative to fill the unexpired term left vacant upon the retirement of Chris Howard. The vote counts were as follows:

Terrance D. Yarbrough...Mississippi Department of Transportation, deputy administrator, human resources 1,071 votes
Allan D. Cooper.....Mississippi Department of Finance and Administration, budget officer 973 votes

- **Motion:** To certify the runoff election results to fill the state employees' representative unexpired term that runs through June 2026.
 - **Made by:** Benson.
 - **Seconded by:** Hanna.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**

Breland congratulated Yarbrough.

(Addendum A – State Representative Runoff Election Results)

Actuarial Valuation and Projection and Additional Independent Actuarial Assessments

Benson reported that discussions from the October 23, 2024, Administrative Committee meeting would continue as part of the board meeting. He said that PERS received a preliminary draft of the actuarial valuation and projection report from CavMac, as well as preliminary drafts of additional independent actuarial assessments from Cheiron and GRS. Cheiron presented its report Tuesday, October 22, 2024, and GRS presented its report on the morning of October 23, 2024. All reports were presented for information only. The committee took no action on them. Benson said the Board will revisit the final reports at its 10 a.m. November 19, 2024, special-called meeting. Higgins summarized that though PERS is certainly stable, additional funding is needed. Higgins also commented on the results of the actuarial reports, with all three providing similar results consistent with last year, essentially validating and verifying what the consulting actuary or board had noted previously. All three reports recommend an ADC of approximately 26% of payroll. He commented that while we understand the difficulty of additional funding for the state or employers, the Board's role is to recommend what is needed. Higgins also stated that he would likely be recommending changes to the Board's funding policy to reflect recent changes in state law and to move to an actuarially determined contribution (ADC) policy.

Dale arrived at 1:11 p.m.

(Addendum B – Actuarial Valuation and Projection Reports)

(Addendum C – Independent Actuarial Assessments)

REPORT OF THE DEFINED CONTRIBUTION COMMITTEE

Committee Chair Rutledge reported that the Defined Contribution Committee met the morning of October 22, 2024, and heard Optional Retirement Plan Annual Reviews from Corebridge, TIAA, and VOYA. No committee action was taken during its meeting, so no items were brought to the Board for consideration.

REPORT OF THE INVESTMENT COMMITTEE

Committee Chair McCoy reported that the Investment Committee met the morning of October 23, 2024, and heard a market update and performance review from Callan. As of September 30, 2024, assets were \$35.3 billion, an increase of \$1.6 billion over the previous quarter. As of Friday, October 18, 2024, the FYTD total fund was up 5.11 percent, which was highlighted by the real estate market turning around. He reported that the committee heard updates from Loomis, Manulife, PIMCO, and PGIM.

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fixed income managers, all of whose returns were up over last year. The committee also heard various miscellaneous updates. No committee action was taken during its meeting, so no items were brought to the Board for consideration.

REPORT OF THE LEGISLATIVE COMMITTEE

Breland reported that, in lieu of not having enough time for the Legislative Committee to meet earlier as scheduled, the legislative items would be covered during the Board meeting. Dale reported that the Board will have two staff-recommended items on which to vote. Prior to the vote, Higgins commented on a potential Tier 5, ORP, the possibility of surplus funding being dedicated to PERS, and the previously mentioned idea of a surcharge or assessment of some type for contracts or outsourcing.

No action was taken.

After hearing Higgins' comments, the Board voted on the two proposals Dale mentioned in the beginning of his report.

- **Motion:** To approve the staff recommended legislative proposal to add Roth provisions to MDC consistent with recent changes in federal law and make MDC subject to Qualified Domestic Relations Orders(QDROs).
 - **Made by:** Rutledge.
 - **Seconded by:** Graham.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**

Sparks left at 1:30 p.m.

- **Motion:** To approve the staff recommended legislative proposal to require any covered employer that is terminated from PERS through legislation, privatization, sale, dissolution, actions of the Board of Trustees, or any other method of termination, to pay their proportionate share of the unfunded actuarial accrued liability (UAAL) as of June 30, 2025, or the date of termination, whichever is greater.
 - **Made by:** Benson.
 - **Seconded by:** McCoy.
 - **Discussion:** Dale and Graham asked for clarification of proposal and Higgins provided.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**

(Addendum D – 2025 Legislative Initiatives)

Read left at 1:35 p.m.

FY 2025 MUNICIPAL COLA CERTIFICATION FOR TUPELO

Higgins presented the Board with a request from Tupelo to approve the pay a 2 percent ad hoc cost-of-living adjustment to the 67 retirees and beneficiaries of the City of Tupelo Fire and Police Disability and Relief Fund, retroactive to October 1, 2024.

- **Motion:** To approve the pay a 2 percent ad hoc cost-of-living adjustment to the 67 retirees and beneficiaries of the City of Tupelo Fire and Police Disability and Relief Fund, retroactive to October 1, 2024.
 - **Made by:** Rutledge.
 - **Seconded by:** Hanna.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**

(Addendum E – Tupelo COLA Certification)

RETIREE INSURANCE ADVISORY COMMITTEE

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Higgins presented the Board with appointments for Mr. Steve Allen, Dr. Kim S. Benton, and Dr. Larry G. Bailey to fill vacancies on the Retiree Insurance Advisory Committee for terms ending October 31, 2027.

- **Motion:** To approve appointments for Mr. Steve Allen, Dr. Kim S. Benton, and Dr. Larry G. Bailey to fill vacancies on the Retiree Insurance Advisory Committee for terms ending October 31, 2027.
 - **Made by:** McCoy.
 - **Seconded by:** Dale.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**

(Addendum F – RIAC Appointments)

DISABILITY APPEALS COMMITTEE

Higgins presented the recommendations to the Board of the Disability Appeals Committee (DAC).

The DAC heard sworn testimony, received evidence, and gave due consideration to the applicable laws and regulations for the following case:

PERS No. 24-04 - This matter came on for hearing before the DAC April 15, 2024. The DAC submits to the Board of Trustees its Proposed Statement of Facts, Conclusions of Law, and Recommendation that the Claimant's request for duty-related disability benefits be approved, subject to reexamination in accordance with PERS regulations.

- **Motion:** To accept the findings of the DAC and approve the DAC recommendations.
 - **Made by:** Benson.
 - **Seconded by:** Graham.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**

(Addendum G – Disability Appeals Summary)

RETIREE REPORT

Higgins presented the Retiree Report for the Board's approval.

- **Motion:** To approve the Retiree Report.
 - **Made by:** Graham.
 - **Seconded by:** Rutledge.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**

(Addendum H - Retiree Report)

INVESTMENT REPORT

Higgins presented the Investment Report. He requested board approval of this report, as well as of all trades and transactions performed by the PERS Investments division since the August 28, 2024, board meeting. Higgins called attention to the information on investment fees, which totaled \$105 million. He said that number may seem high, but when looking at that number in relation to the value of the entire portfolio, the amount is .31 percent, which is slightly less than last year.

Breland said he appreciated the Investment staff and their "ever-present and never-satisfied effort" to reduce fees.

- **Motion:** To approve the Investment Report, as well as all trades and transactions performed by the PERS Investments division since the August 28, 2024, board meeting.

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- **Made by:** Benson.
- **Seconded by:** Graham.
- **Discussion:** None.
- **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, and Smith.
- **Voting against:** None.
- **Absent:** None.
- **Duly Passed.**

(Addendum I - Investment Report)

Higgins reminded the Board of its November 19, 2024, special called meeting at 10 a.m. and announced the swearing in of Yarbrough immediately following the board meeting.

ADJOURN

Breland called the meeting adjourned at 1:43 p.m.

Respectfully Submitted,

H. Ray Higgins, Jr.
Executive Director
Public Employees' Retirement System

Mr. Kelly Breland
Chair
PERS Board of Trustees

HRH

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Special Called | Public Employees' Retirement System of Mississippi

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Board of Trustees Meeting Agenda

Special Called Meeting, November 19, 2024

10:00 A.M.

- I. Call to Order
 - A. Approval of Agenda
- II. Actuarial Information
- III. Upcoming Legislative Session
- IV. Other
- V. Adjourn

The PERS board room on the fourth floor of 429 Mississippi Street, Jackson, MS, will be open to any member of the public who wishes to attend this meeting.

Board Members:

Mr. Kelly Breland, *Board Chair*
Mr. Bill Benson, *Board Vice Chair*
Mr. George Dale
Mr. Chris Graham
Ms. Kim Hanna

Dr. Randy McCoy
State Treasurer David McRae
Dr. Brian Rutledge
Dr. Jay Smith
Mr. Terrance Yarbrough

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The Public Employees' Retirement System of Mississippi (PERS) Board of Trustees met Tuesday, November 19, 2024, at 429 Mississippi Street, Jackson, MS 39201. This meeting was duly announced to the public Friday, November 15, 2024, at 2:42 p.m., on the Public Meetings Notice website of the Mississippi Department of Finance and Administration, as well as was posted in the PERS lobby, on the PERS website, and on the PERS YouTube Channel.

BOARD MEMBER ATTENDEES

In Person: Board Chair Mr. Kelly Breland, Mr. Bill Benson, Mr. George Dale, Mr. Chris Graham, Ms. Kimberly Hanna, Dr. Randy McCoy, State Treasurer David McRae, Dr. Brian Rutledge, Dr. Jay Smith, and Mr. Terrance Yarbrough.

Via Teleconference: None.

Absent: None.

Via Teleconference: None.

LEGISLATIVE LIAISON ATTENDEES

In Person: Representative Karl Oliver and Representative John Read.

STAFF ATTENDEES

In Person: Executive Director Ray Higgins; Chief Investment Officer Charles Nielsen; Counsel and Policy Advisor Davetta Lee; Member and Employer Services Deputy Director Mason Frantom; Benefit Services Deputy Director Lisa Green; Deputy Director Administrative Services Melanie Estridge; David DeGuire, Jason Clark, and Ryan Holliday, Investments; Comptroller Tracy Day; Christy Smith, LaMelody Lewis, and Cindy Byars, Accounting; Retirement Services Program Administrator Terri Bennett; Chief Technology Officer Mike Lowry; Billy Means and Antonio Fisher, Information Technology; and Communications Director Shelley Powers.

GUEST ATTENDEES

In Person: Assistant Attorney General Caroline Johnson; Ray Wright, Mississippi Joint Legislative Committee on Performance Evaluation; Allan Cooper, Mississippi Department of Finance and Administration; Ed Koebel, CavMac Consulting; Bonnie Granger and Mike Larsen, Mississippi Retired Public Employees' Association; Emily Tschiffely and Lee Pittman, Legislative Budget Office.

Via Teleconference: Audra Ferguson and Rob Gauss, Ice Miller; Janet Cranna and Patrick Nelson, Cheiron; and Cassie Rapoport, GRS.

CALL TO ORDER

Board Chair Breland called the meeting to order at 10:00 a.m.

McRae arrived at 10:03 a.m.

ACTUARIAL INFORMATION

Actuarial Reports

Higgins presented the Board with final FY 2024 actuarial reports from GRS and Cheiron and the final FY 2024 actuarial valuation from CavMac.

- **Motion:** To acknowledge and accept the final FY 2024 independent actuarial reports from GRS and Cheiron.
 - **Made by:** Hanna.
 - **Seconded by:** Rutledge.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**
- **Motion:** To acknowledge and accept final FY 2024 actuarial valuation from CavMac.
 - **Made by:** Benson.
 - **Seconded by:** McCoy.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
 - **Voting against:** None.

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- **Absent:** None.
- **Duly Passed.**

(Addendum A – Actuarial Valuations and Reports)

AGENDA

- **Motion:** To approve the meeting agenda.
 - **Made by:** Benson.
 - **Seconded by:** McCoy.
 - **Discussion:** None.
 - **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
 - **Voting against:** None.
 - **Absent:** None.
 - **Duly Passed.**

Oliver arrived at 10:15 a.m.

Fiduciary Training

IceMiller conducted fiduciary training with the Board, which prompted questions and answers and a brief discussion regarding legal protections for the Board in fulfilling its fiduciary duties under 2024 changes in law.

Board broke at 10:42 a.m.

Board reconvened at 11:03 a.m.

Actuarially Determined Contribution

Higgins presented the Board with a recommendation to approve recommending to the Legislature the actuarially determined contribution (ADC) of 25.92 percent. This ADC was recommended by CavMac and further supported by the independent GRS and Cheiron actuarial reports. After some discussion about previous board action and the possibility of the Legislature phasing in the increased rate, the Board delayed voting until after hearing Koebel's presentation.

CavMac Presentation

Koebel gave the Board a presentation that looked at investment, demographic, assumption, and contribution risk. Koebel said CavMac, based on assessment of the plan, recommends the Board and the Legislature consider a funding change to either pay the full ADC of 25.92 percent of annual compensation beginning July 1, 2026, or continue the phased-in approach for five consecutive fiscal years; however, increase the fixed contribution rate (FCR) by 2 percent each year until it reaches 27.90 percent of annual compensation. This recommendation would move the plan to a green signal light status in funding and cash flow and would bring the funding ratio to 93.3 percent by 2047. Koebel stressed that a proposed new tier (Tier 5) does not change the plan today but will positively affect funding after 2047. McRae pointed out that action today on a new tier would alleviate the need to annually revisit increases.

- **Motion:** To approve recommending to the Legislature an actuarially determined contribution (ADC) of 25.92 percent for PERS, as recommended by CavMac and supported by the independent actuarial reports from GRS and Cheiron.
 - **Made by:** Benson.
 - **Seconded by:** Rutledge.
 - **Discussion:** The Board discussed the possibility that the Legislature could phase in this increase or approach funding as they see fit (e.g., a cash infusion). Benson said the Legislature has the authority to determine funding, but the Board can only recommend what is needed. Higgins said this will be relayed to Legislature through the actuary reports when the recommendation is made.
 - **Voting for:** Benson, Breland, Dale, Hanna, McCoy, Rutledge, Smith, and Yarbrough.
 - **Voting against:** Graham and McRae.
 - **Absent:** None.
 - **Duly Passed.**

(Addendum B – Summary of Key Results and Contribution Rate Increase by Employer Type)

(Addendum C – Navigating Your Future CavMac presentation)

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Board broke for lunch at 12:03 p.m.

Oliver left the meeting at 12:03 p.m.

Read left the meeting 12:03 p.m.

Board reconvened from lunch at 12:51 p.m.

Dale returned at 12:53 p.m.

Funding Policy Updates

Higgins also presented the Board with updates to the PERS Funding Policy to reflect the new actuarially determined contribution (ADC) of 25.92 percent, moving to an ADC policy, and adjusting for the recent changes in law. The Board decided to delay the vote to adopt the revised policy until the next meeting.

UPCOMING LEGISLATIVE SESSION

Higgins presented the Board with an update on a recent senate leadership meeting about the possible Tier 5, as well as presented additional information with revised scenarios and a hybrid option for their discussion and review. While no action was taken, the Board had an in-depth discussion about the need for a new tier. Higgins, while not presenting a recommendation, encouraged the Board to think of how they feel about a hybrid should state leadership want to pursue a hybrid. He said that, while the Board's obligation is to the trust, the state and employer responsibility is to develop the plan. He gave the example that, if a hybrid reflected better sustainability for PERS and helped pay down unfunded liability while creating less risk, supporting such a new tier might be good. He further said that, regardless of adding a new tier or not, funding is the message of the day. Finally, the Board discussed the possibility of an Investment Advisory Committee or a way to provide audit or review of the agency's investment consultant, similar to the way PERS audits the actuary. Higgins said PERS would consider how best to accomplish and reach out to others like NASRA as needed.

Rutledge left the meeting at 1:59 p.m.

OTHER

No other business was discussed.

ADJOURN

Breland called the meeting adjourned at 2:18 p.m.

Respectfully Submitted,

H. Ray Higgins, Jr.
Executive Director
Public Employees' Retirement System

Kelly Breland
Chair
PERS Board of Trustees

HRH



Employee of the Quarter



Tiffany Jennings

*Retirement Team Lead,
Benefit Payments*

*FY 2025 Third Quarter
January - March 2025*

**PERS Board Election Schedule
Retiree Representative**

Term ends 6/30/31

January 6, 2025	Notice mailed to retirees
February 6, 2025	Deadline for receipt of petitions
February 11, 2025	Deadline for preparation of ballot
February 26, 2025	Board approval of ballot at regularly scheduled meeting
March 12, 2025	Deadline to mail ballots
April 16, 2025	Deadline for receipt of ballots/votes
April 23, 2025	Board approval of election results at regularly scheduled meeting

**Runoff Schedule
(tentative)**

May 14, 2025	Ballots mailed
June 18, 2025	Deadline for receipts of ballots/votes
June 25, 2025	Board approval of election results at regularly scheduled meeting

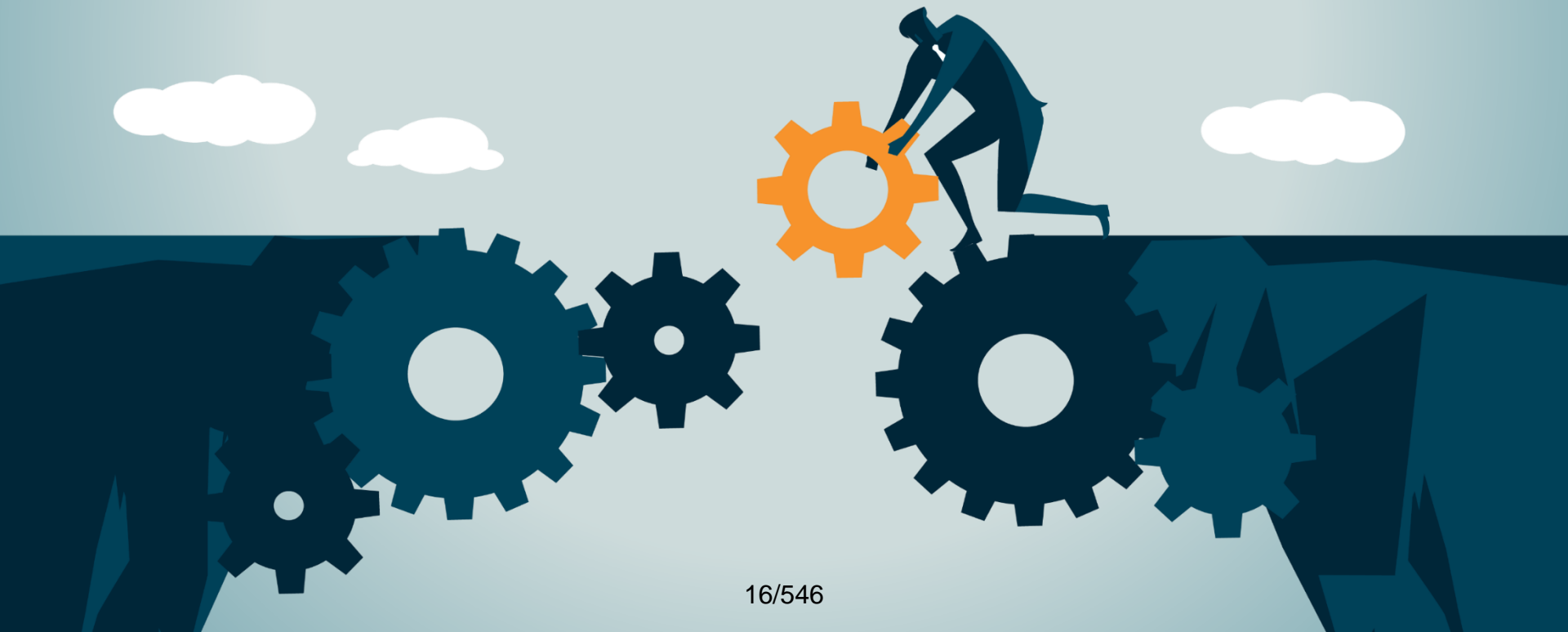
Working Together for You



Mississippi Valuation and Projection Results as of June 30, 2024



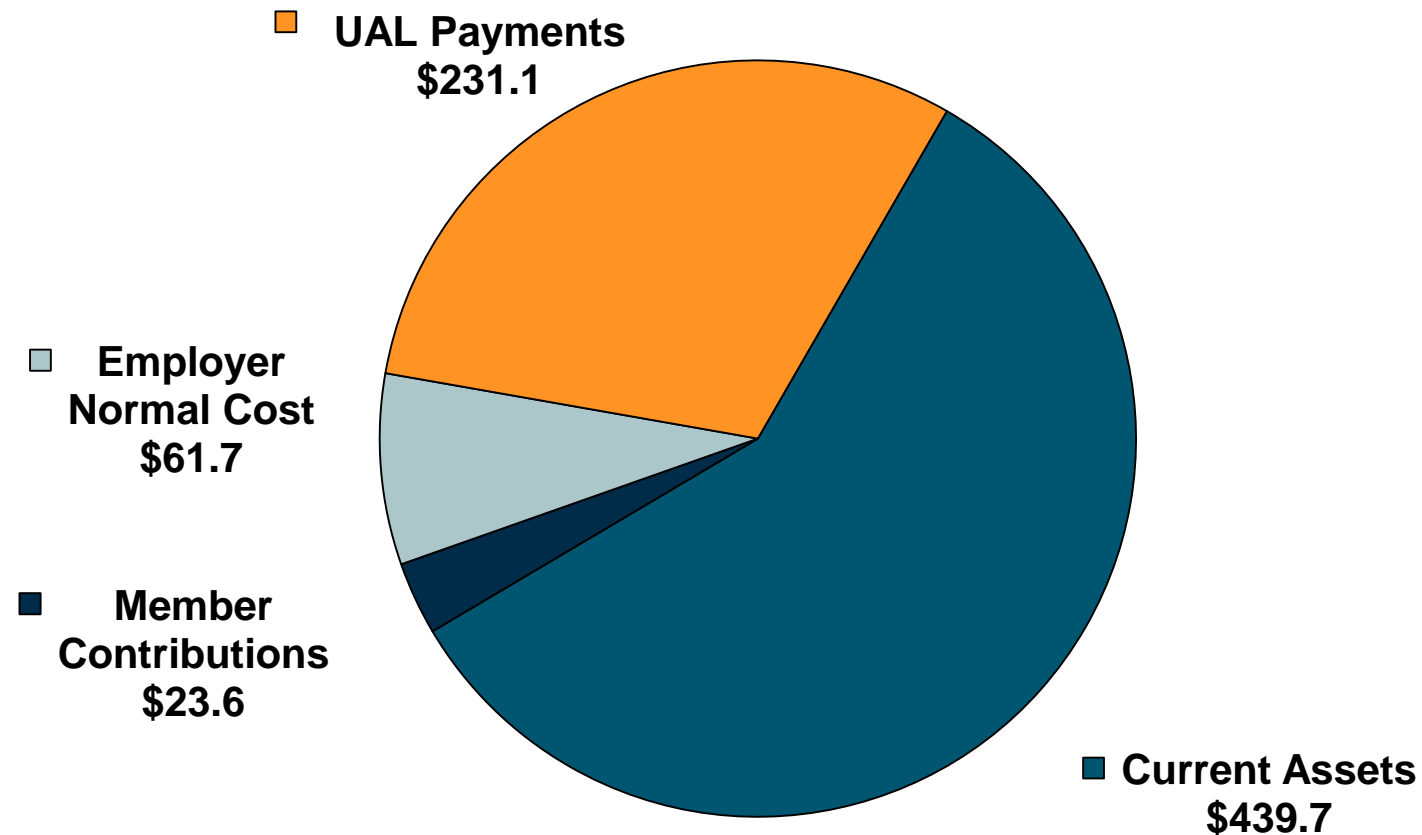
HSPRS Valuation Results



- **Net Market Value of Return for the 2024 FYE was approximately 10.5%**
 - Last year was around 7.5%
 - On an actuarial value basis, the return was 7.3% (last year was 7.4%) due to 5-year smoothing method
- **Funded Ratio went from 65.4% to 65.5%**
- **Amortization period using current Fixed Contribution Rate (FCR) of 49.08% of payroll is 33.0 years**
 - Last year was 30.6 years
 - Increase mainly due to contribution shortfall representing the difference between the Actuarially Determined Contribution Rate and FCR
- **Projection results show HSPRS to be 80.5% funded in 2047**

HSPRS Financing of Retirement Benefit Promises

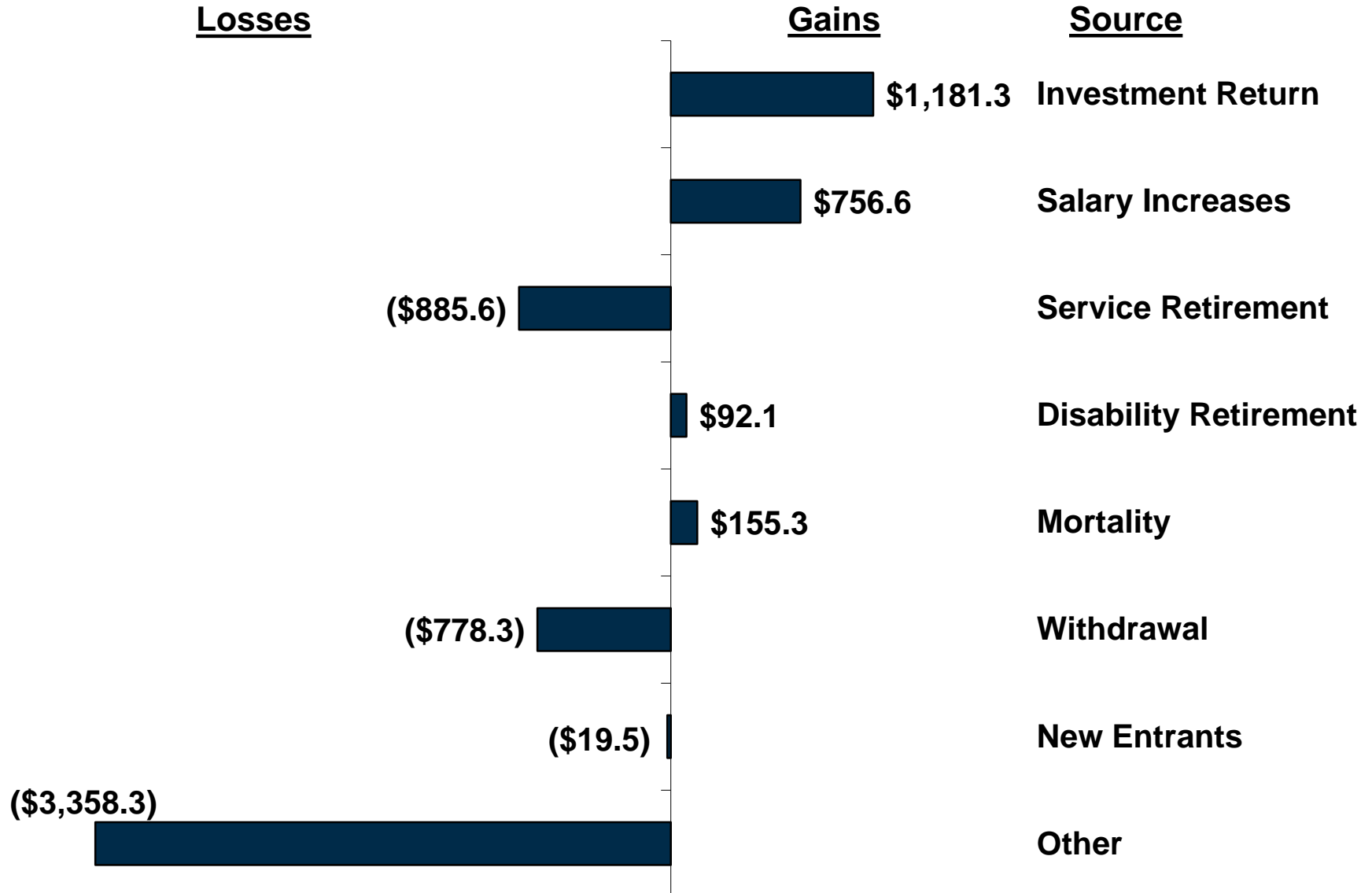
(\$ millions)



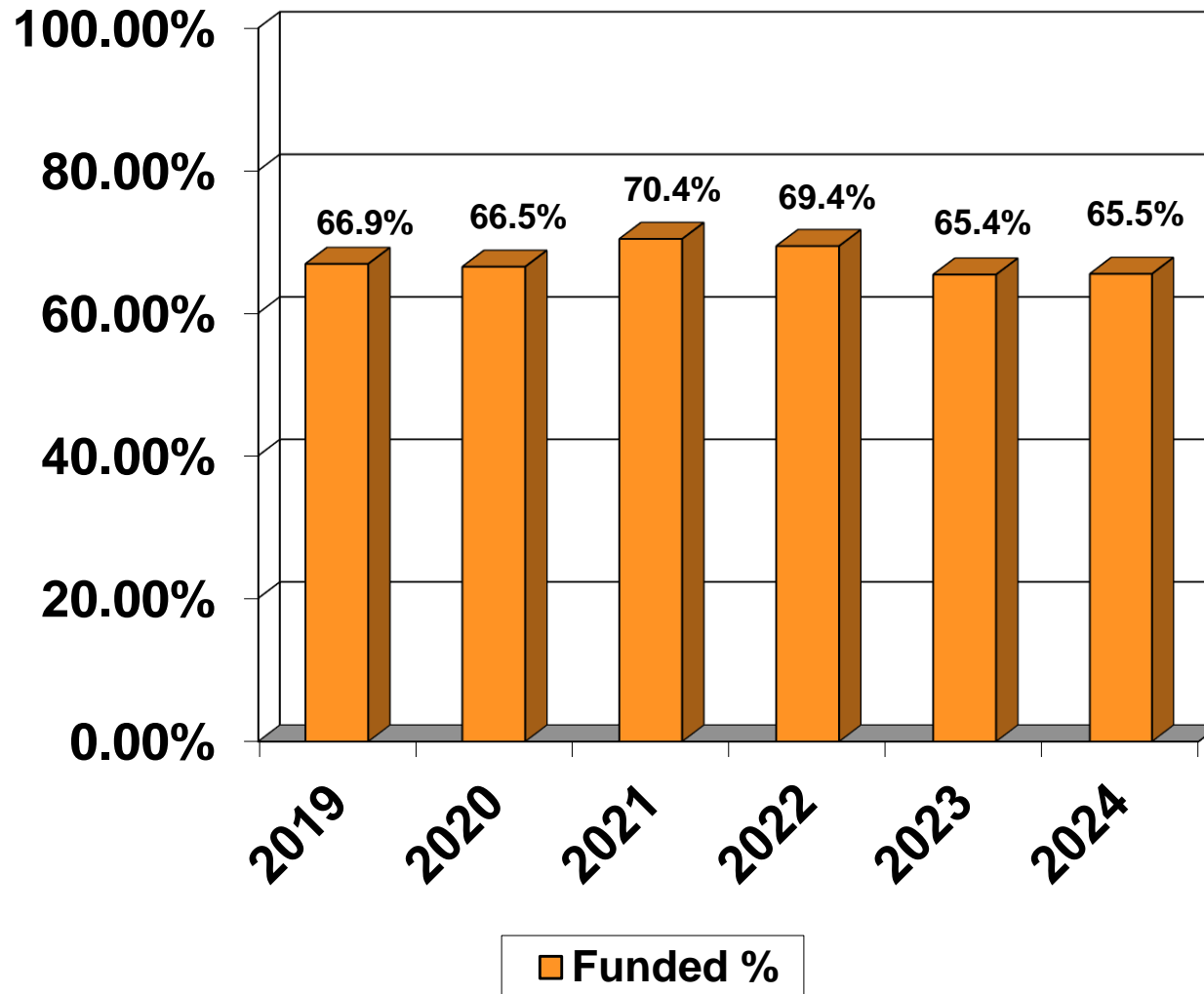
Total - \$756.1

HSPRS Actuarial Gain/Loss Analysis

(\$ thousands)



HSPRS Funded Ratio



Valuation Year	Member Rate	Employer Rate			Total Rate
		Normal*	UAL**	Total	
2020	7.25%	15.69%	33.39%	49.08%	56.33%
2021	7.25%	16.29%	32.79%	49.08%	56.33%
2022	7.25%	16.06%	33.02%	49.08%	56.33%
2023	7.25%	19.36%	29.72%	49.08%	56.33%
2024	7.25%	19.61%	29.47%	49.08%	56.33%

* A budgeted administrative expense is included in the normal cost of the fixed contribution rate

** Additional contributions are expected from SB 2659 of 2004 and HB 1015 of 2013

Actuarially Determined Contribution (ADC) – UAAL Portion

Date Established	Original UAAL Balance	Remaining UAAL Balance	Remaining Amortization Period	Amortization Payment*
June 30, 2023	\$227,309,721	\$227,907,671	24 years	\$15,196,657
June 30, 2024	\$3,181,090	<u>\$3,181,090</u>	25 years	<u>\$207,180</u>
Total		\$231,088,761		\$15,403,837
MVR Fee Reduction				\$(3,300,000)
Total Amortization Payment				\$12,103,837
Estimated Payroll				\$36,152,335
UAAL Amortization Contribution Rate				33.48%

*This amortization payment reflects the impact of the additional contributions from Senate Bill No. 2659 and House Bill No. 1015.

Valuation Year	2023	2024
Employer Normal Cost	19.36%	19.61%
Actuarial Accrued liability	32.26%	33.48%
Total ADC	51.62%	53.09%
ADC/FCR Ratio	105.18%	108.17%
Metric Status	Yellow	Yellow
Anticipated accrued liability payment period	25 years	24.3 years

HSPRS Projections

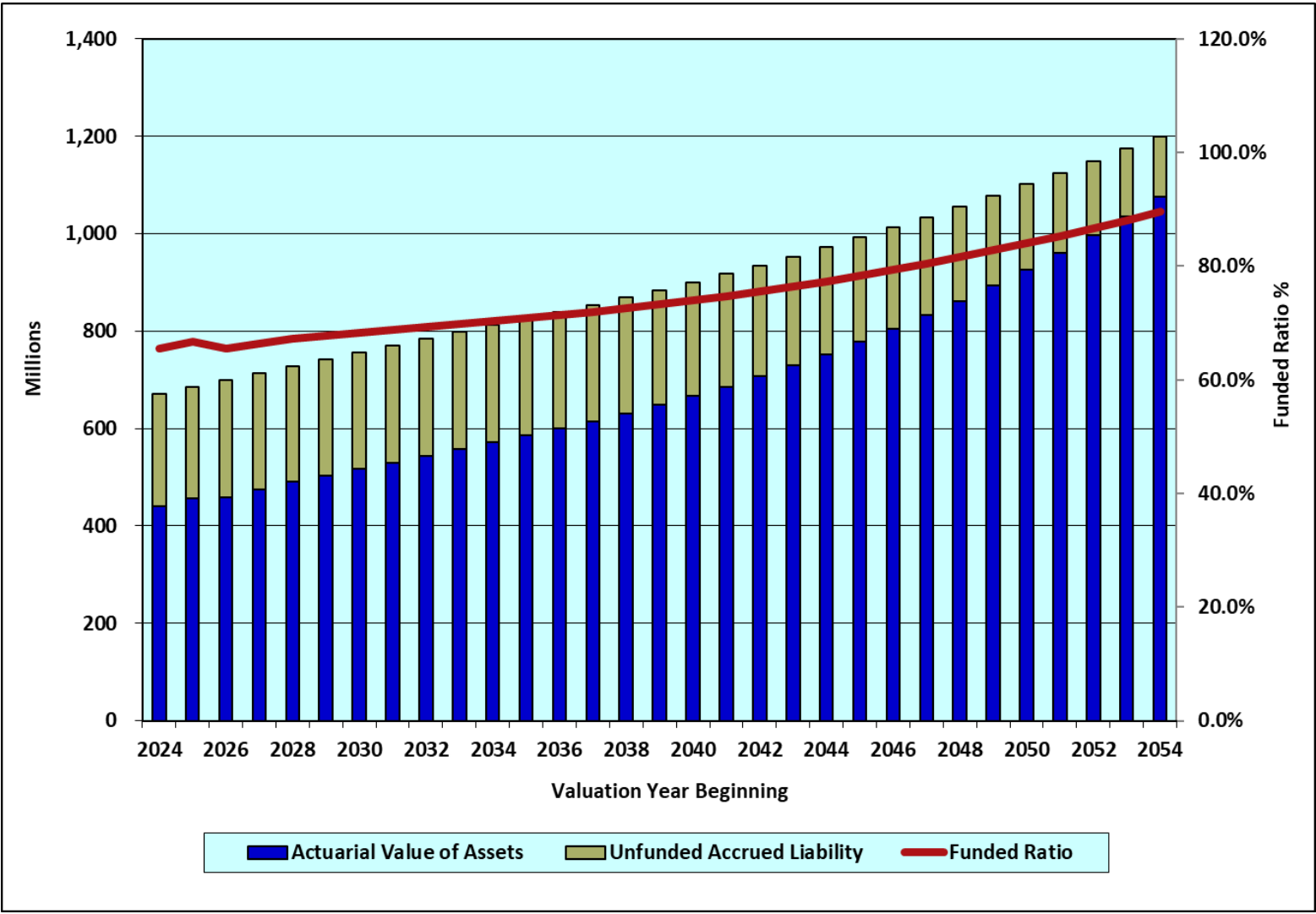


- Baseline Results at 7.00% (Stable 49.08% Rate)

	2024	2029	2034	2044	2047	2054
Total Payroll	\$34,645	\$39,030	\$42,995	\$54,821	\$58,761	\$69,327
UAL	231,089	238,865	240,941	219,857	201,740	124,763
Normal Cost Rate	19.61%	20.20%	20.61%	20.95%	21.03%	21.26%
UAL Rate	29.47%	28.88%	28.47%	28.13%	28.05%	27.82%
FCR Rate	49.08%	49.08%	49.08%	49.08%	49.08%	49.08%
Funded Ratio	65.5%	67.8%	70.3%	77.4%	80.5%	89.6%
Amortization Period	33 years	28 years	25 years	16 years	13 years	6 years
ADC	53.09%	57.97%	63.84%	79.61%	86.92%	41.45%
ADC Ratio	108.2%	118.1%	130.1%	162.3%	177.1%	84.4%
Cash Flow %	(4.1)%	(4.2)%	(4.4)%	(3.6)%	(3.3)%	(2.9)%

- Under baseline projection, the funded ratio is 80.5% in 2047

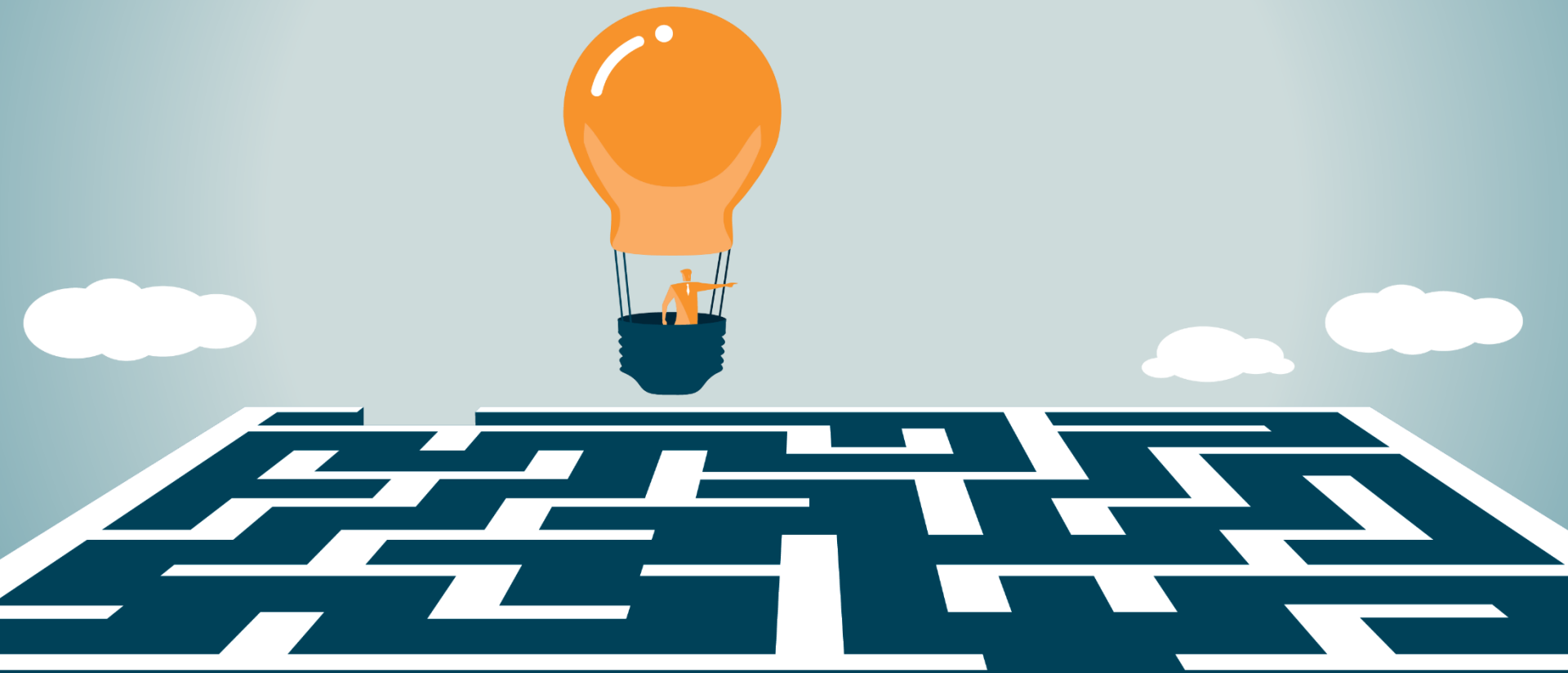
30 Year Projection of Funded Ratio on Actuarial Asset Value Based on June 30, 2024 Valuation Results - HSPRS



Metric	2024 Baseline Projection (7.00%)	Status
Funding Ratio in 2047	80.5%	Yellow
Cash Flow as a Percentage of Assets	(4.4)%	Green
ADC/FCR Ratio from 2024 Valuation	108.2%	Yellow
ADC/FCR Ratio from 2025 Valuation	108.0%	Yellow

- **As shown above, none of the metrics are in the “Red Status” for the valuation and projections.**
- **Therefore, we recommend to the PERS Board that the Fixed Contribution Rate (FCR) continue at a rate of 49.08% of annual compensation for HSPRS at this time. However, without any further actuarial gains, it is expected that the ADC/FCR ratio could be in the Red status in the next few years requiring an increase in the next 5 years.**

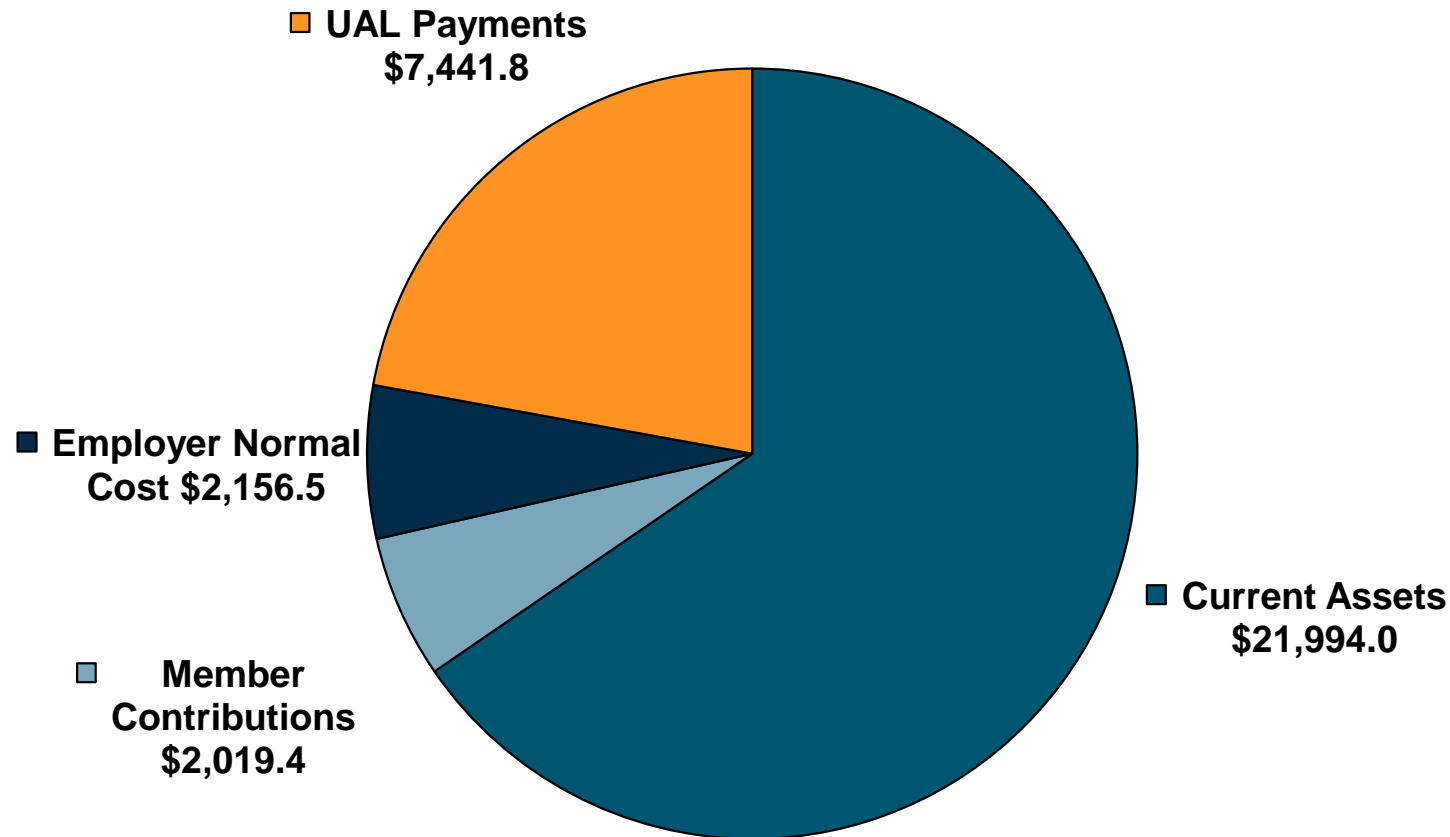
SLRP Valuation Results



- **Net Market Value of Return for the 2024 FYE was approximately 10.5%**
 - Last year was around 7.5%
 - On an actuarial value basis, the return was 7.7% (last year was 7.1%) due to 5-year smoothing method
- **Funded Ratio went from 75.2% to 74.7%**
- **Amortization period using the FCR of 8.40% of payroll is 25.5 years**
 - Last year was 26.5 years
 - Decrease mainly due to increased contributions this year
- **Projection results show SLRP to be 86.9% funded in 2047**

SLRP Financing of Retirement Benefit Promises

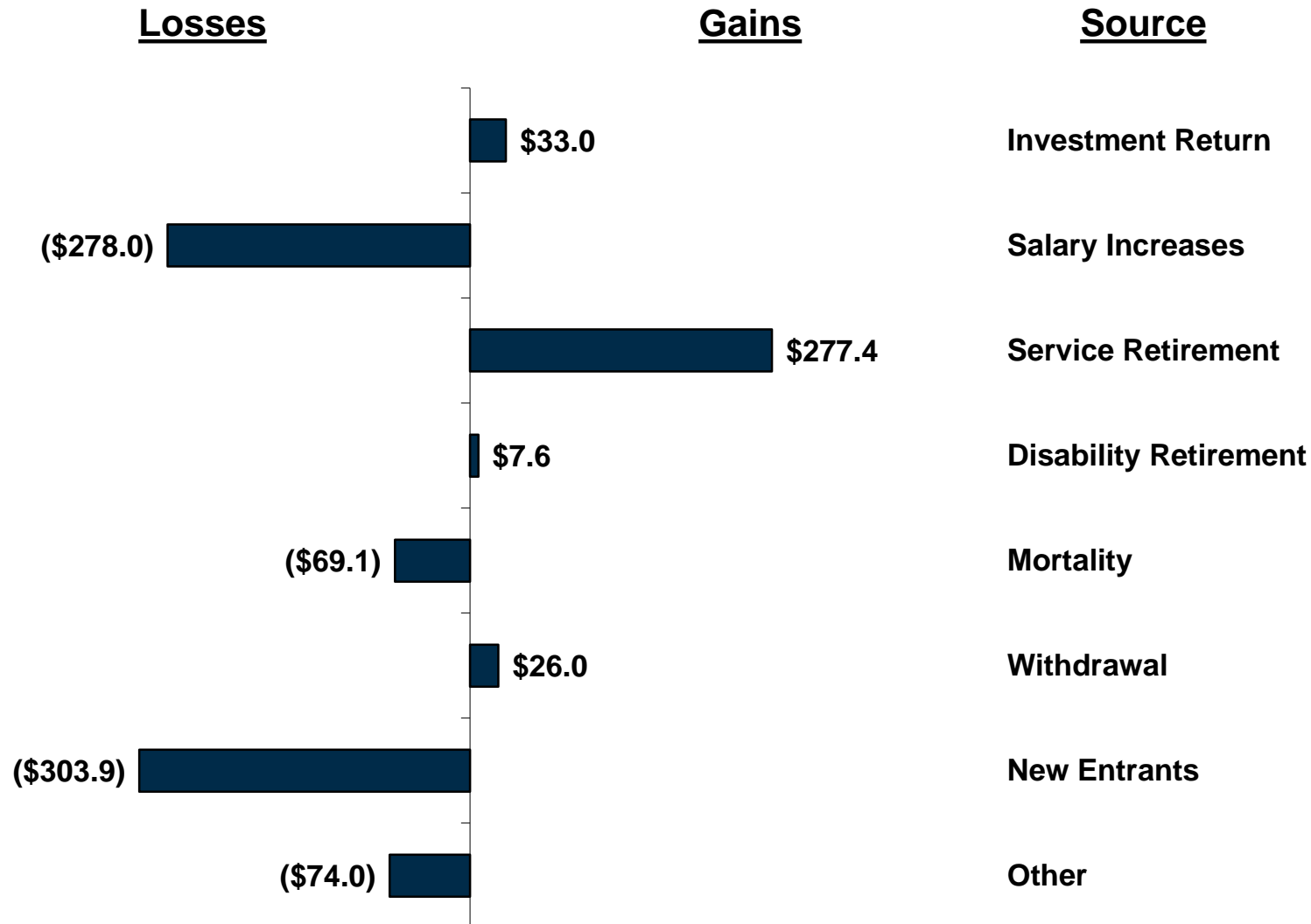
(\$ thousands)

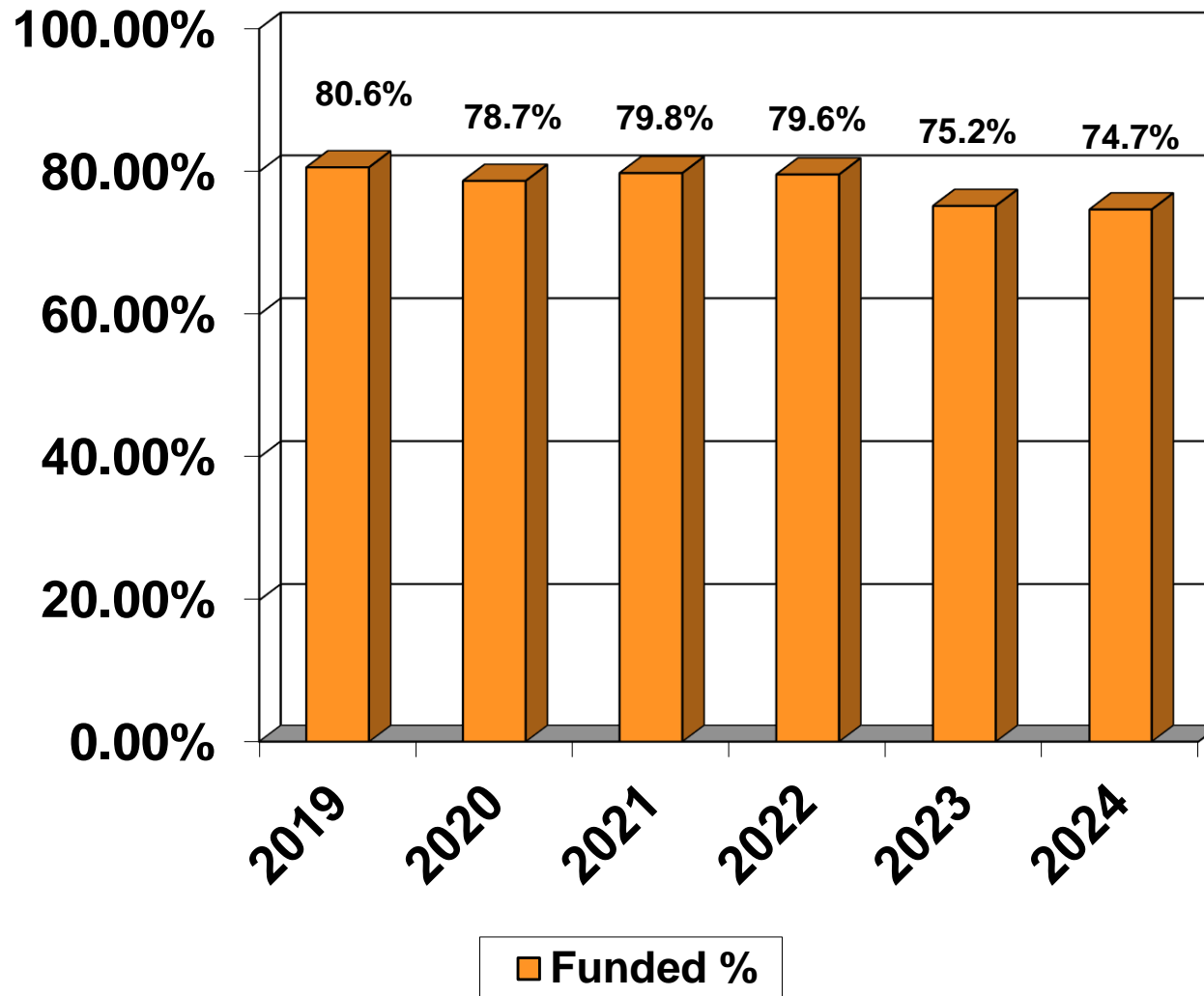


Total - \$33,611.7

SLRP Actuarial Gain/Loss Analysis

(\$ thousands)





Valuation Year	Member Rate	Employer Rate			Total Rate
		Normal*	UAL	Total	
2020	3.00%	2.83%	4.57%	7.40%	10.40%
2021	3.00%	2.85%	4.55%	7.40%	10.40%
2022	3.00%	2.67%	4.73%	7.40%	10.40%
2023	3.00%	3.21%	5.19%	8.40%	11.40%
2024	3.00%	3.22%	5.18%	8.40%	11.40%

* A budgeted administrative expense is included in the normal cost of the fixed contribution rate.

Actuarially Determined Contribution (ADC) – UAAL Portion

Date Established	Original UAAL Balance	Remaining UAAL Balance	Remaining Amortization Period	Amortization Payment
June 30, 2023	\$7,065,466	\$7,084,052	24 years	\$472,357
June 30, 2024	\$357,716	<u>\$357,716</u>	25 years	<u>\$23,298</u>
Total		\$7,441,768		\$495,655
Estimated Payroll				9,331,683
UAAL Amortization Contribution Rate				5.31%

Valuation Year	2023	2024
Employer Normal Cost	3.21%	3.22%
Actuarial Accrued liability	5.36%	5.31%
Total ADC	8.57%	8.53%
ADC/FCR Ratio	102.02%	101.55%
Metric Status	Yellow	Yellow
Anticipated accrued liability payment period	25 years	24.4 years

SLRP Projections



SLRP Projection Results

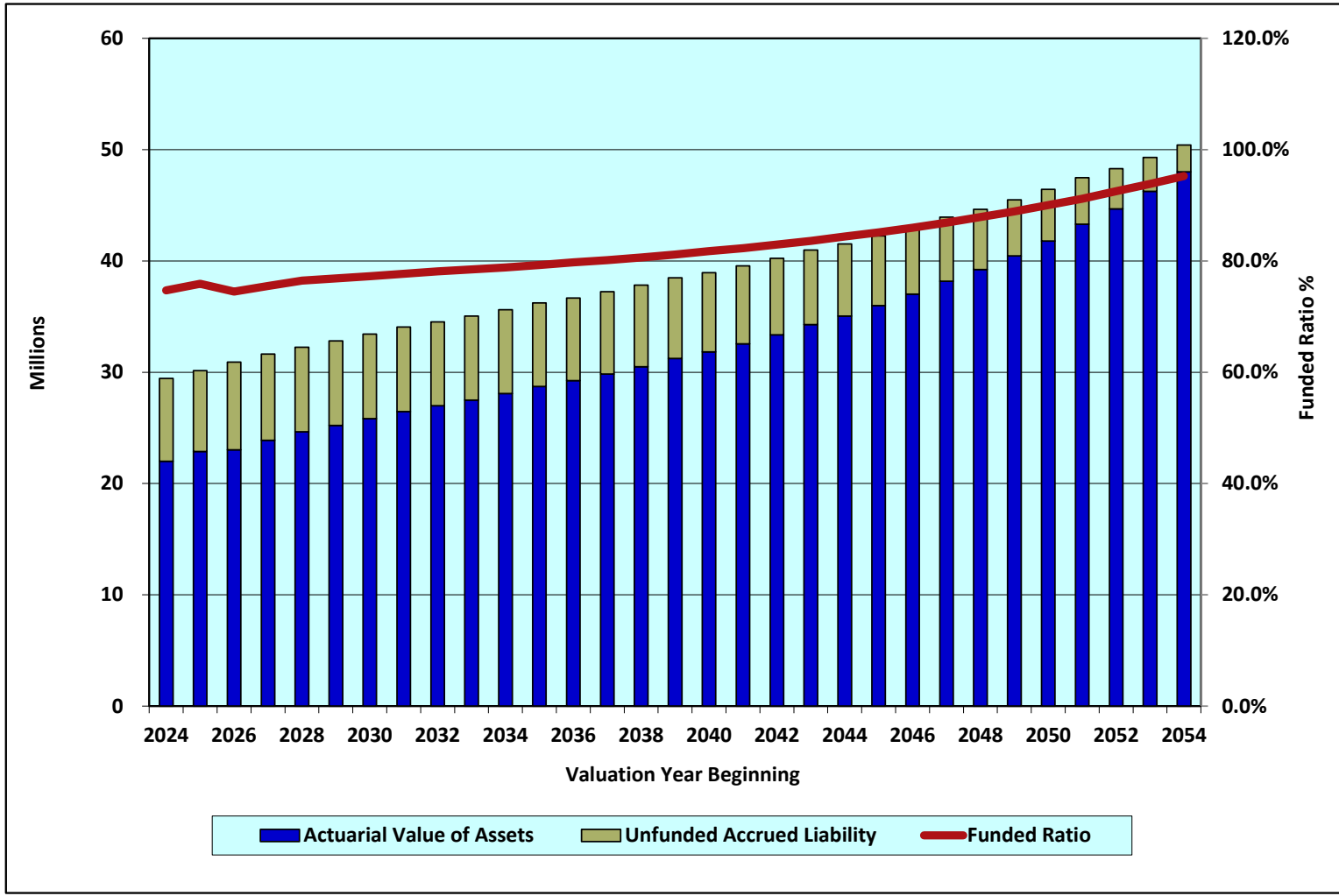
(\$ in thousands)

- Baseline Projection at 7.00% (Stable 8.40% Rate)

	2024	2029	2034	2044	2047	2054
Total Payroll	\$9,091	\$9,902	\$10,960	\$13,783	\$14,808	\$17,649
UAL	\$7,442	\$7,599	\$7,533	\$6,483	\$5,760	\$2,401
Normal Cost Rate	3.22%	3.77%	4.03%	4.29%	4.31%	4.21%
UAL Rate	5.18%	4.63%	4.37%	4.11%	4.09%	4.19%
FCR Rate	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%
Funded Ratio	74.7%	76.9%	78.9%	84.4%	86.9%	95.2%
Amortization Period	25 years	28 years	25 years	15 years	12 years	3 years
ADC	8.53%	9.52%	10.26%	12.19%	12.94%	6.87%
ADC Ratio	101.6%	113.3%	122.2%	145.1%	154.1%	81.8%
Cash Flow %	(4.0)%	(4.4)%	(4.6)%	(4.2)%	(4.1)%	(2.9)%

- Under baseline projection, the funded ratio is 86.9% in 2047

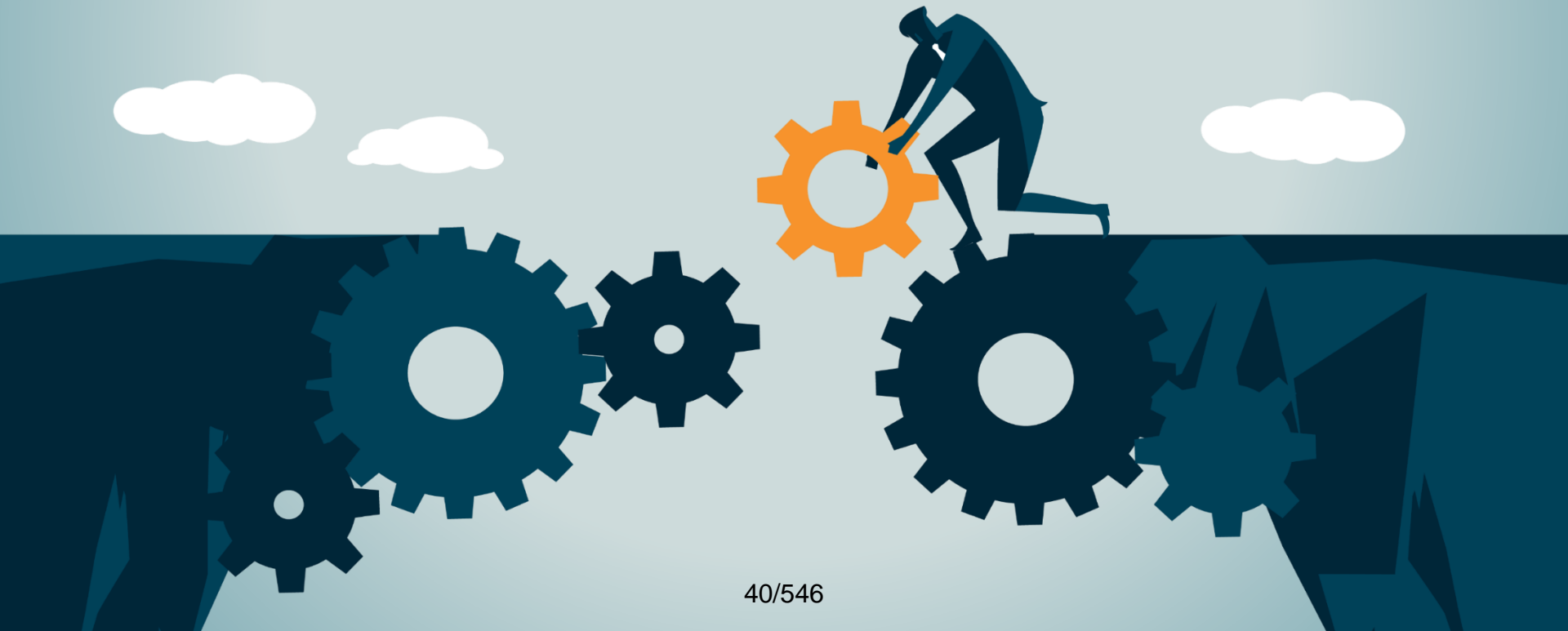
30 Year Projection of Funded Ratio on Actuarial Asset Value Based on June 30, 2024 Valuation Results - SLRP



Metric	2024 Baseline Projection (7.00%)	Status
Funding Ratio in 2047	86.9%	Yellow
Cash Flow as a Percentage of Assets	(5.0)%	Green
ADC/FCR Ratio from 2024 Valuation	101.6%	Yellow
ADC/FCR Ratio from 2025 Valuation	101.5%	Yellow

- As shown above, none of the metrics are in the “Red Status” for the valuations and projections.
- Therefore, we recommend to the PERS Board that the Fixed Contribution Rate (FCR) continue at a rate of 8.40% of annual compensation for SLRP at this time. However, if there is any negative experience in the near future, the Fixed Contribution Rate may need to be increased.

ASOP 51 – Risk Assessment



- Actuary is to identify risks that may affect the System's future financial condition
- Examples in ASOP 51 that are relevant for most public plans
 - **Investment risk**
 - potential that return will be different than expected
 - **Longevity risk**
 - potential that mortality experience will be different than expected
 - **Covered payroll risk**
 - potential that covered payroll will not increase as assumed (especially important if UAL is amortized as level percent of payroll)
 - **Active Population risk**
 - potential for number of active members to decline or plan closed to new entrants
 - **Contribution rate risk**
 - potential for contribution rates to be too high for the plan sponsor/employer to pay

• Projected Funded Ratios

Single Year Event	PERS	HSPRS	SLRP
Projection Year	2047	2047	2047
• 1.00% in 2024	42.7%	69.4%	73.9%
• 3.00% in 2024	46.4%	73.1%	78.2%
• 5.00% in 2024	50.0%	76.8%	82.6%
• 7.00% in 2024 (Baseline)	53.7%	80.5%	86.9%
• 9.00% in 2024	57.3%	84.2%	91.2%
• 11.00% in 2024	61.0%	87.9%	95.5%
• 13.00% in 2024	64.6%	91.5%	99.9%
• Simulate 2008 loss using Negative 15% in 2024	13.5%	40.0%	39.4%
Average Returns over next 10-Year Period (Simulated returns using mean and standard deviations from PERS' Investment Consultant's Capital Market Assumptions)			
• 6.00%	39.3%	65.5%	69.1%
• 7.00%	53.9%	80.7%	87.0%
• 8.00%	73.5%	100.4%	110.5%

- Projected Funded Ratios**

Active Membership Growth	PERS	HSPRS	SLRP
Projection Year	2047	2047	2047
• Increase 0.50% each year	59.1%	83.5%	N/A
• Increase 0.25% each year	56.4%	82.0%	N/A
• Static Population (Baseline Assumption)	53.7%	80.5%	78.4%
• Decrease 0.25% each year	51.0%	79.0%	N/A
• Decrease 0.50% each year	48.4%	77.6%	N/A

- Projected Funded Ratios**

Projection Year				2047	2047	2047
Scenario	Price Inflation	Discount Rate	Wage Inflation	PERS	HSPRS	SLRP
1 - Baseline	2.40%	7.00%	2.65%	53.7%	80.5%	86.9%
2	2.40%	6.75%	2.65%	46.2%	71.5%	77.2%
3	2.10%	6.75%	2.35%	45.0%	68.5%	74.2%

- Projected Funded Ratios**

Projected to:	2047	2047	2047
Change in Fixed Contribution Rate (FCR)	PERS	HSPRS	SLRP
• Baseline	65.5%	80.5%	86.9%
• 1.00% increase in FCR	70.9%	82.7%	100.0%
• 1.00% decrease in FCR	60.0%	78.3%	73.8%

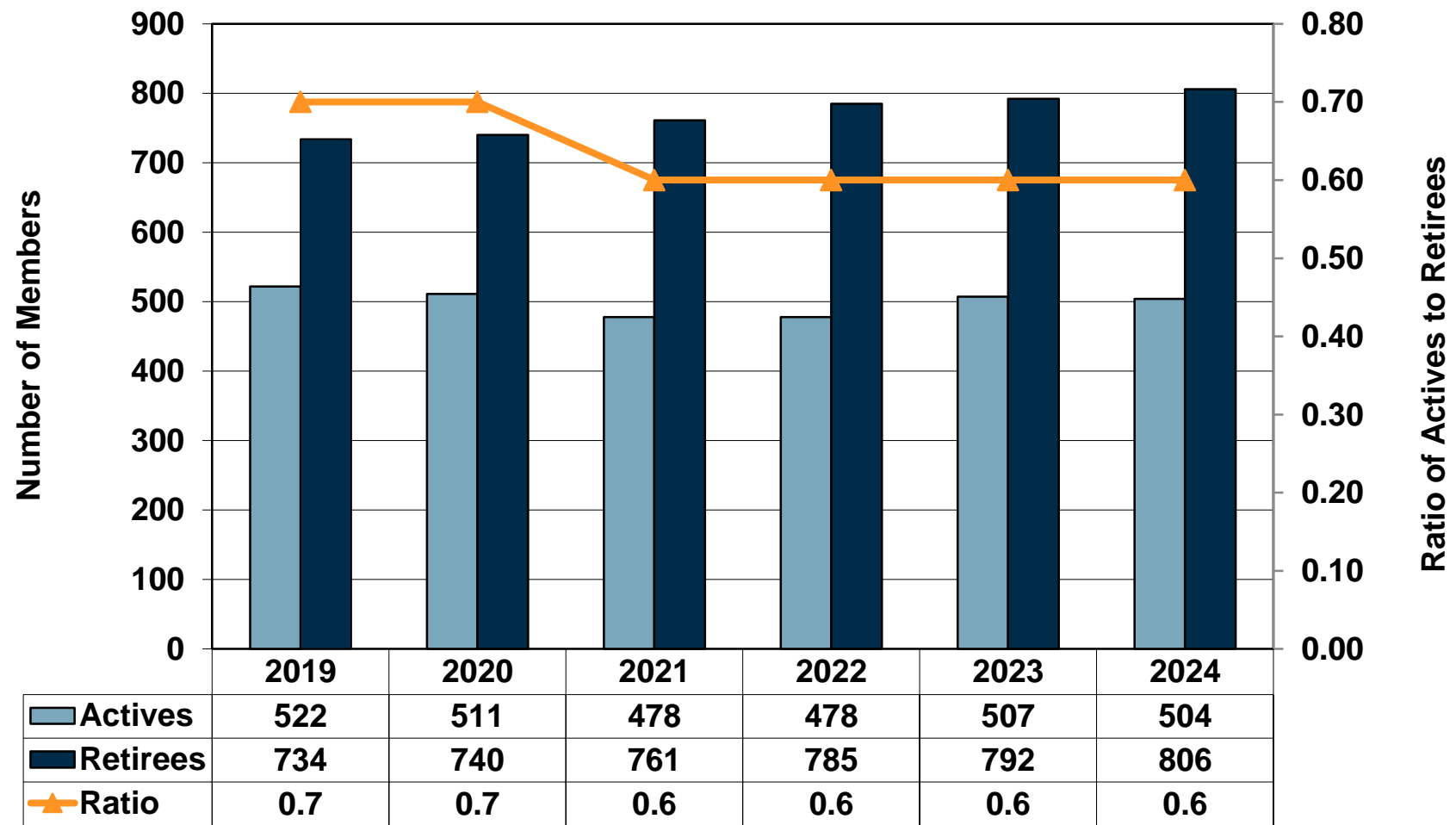
MRS Valuation Results

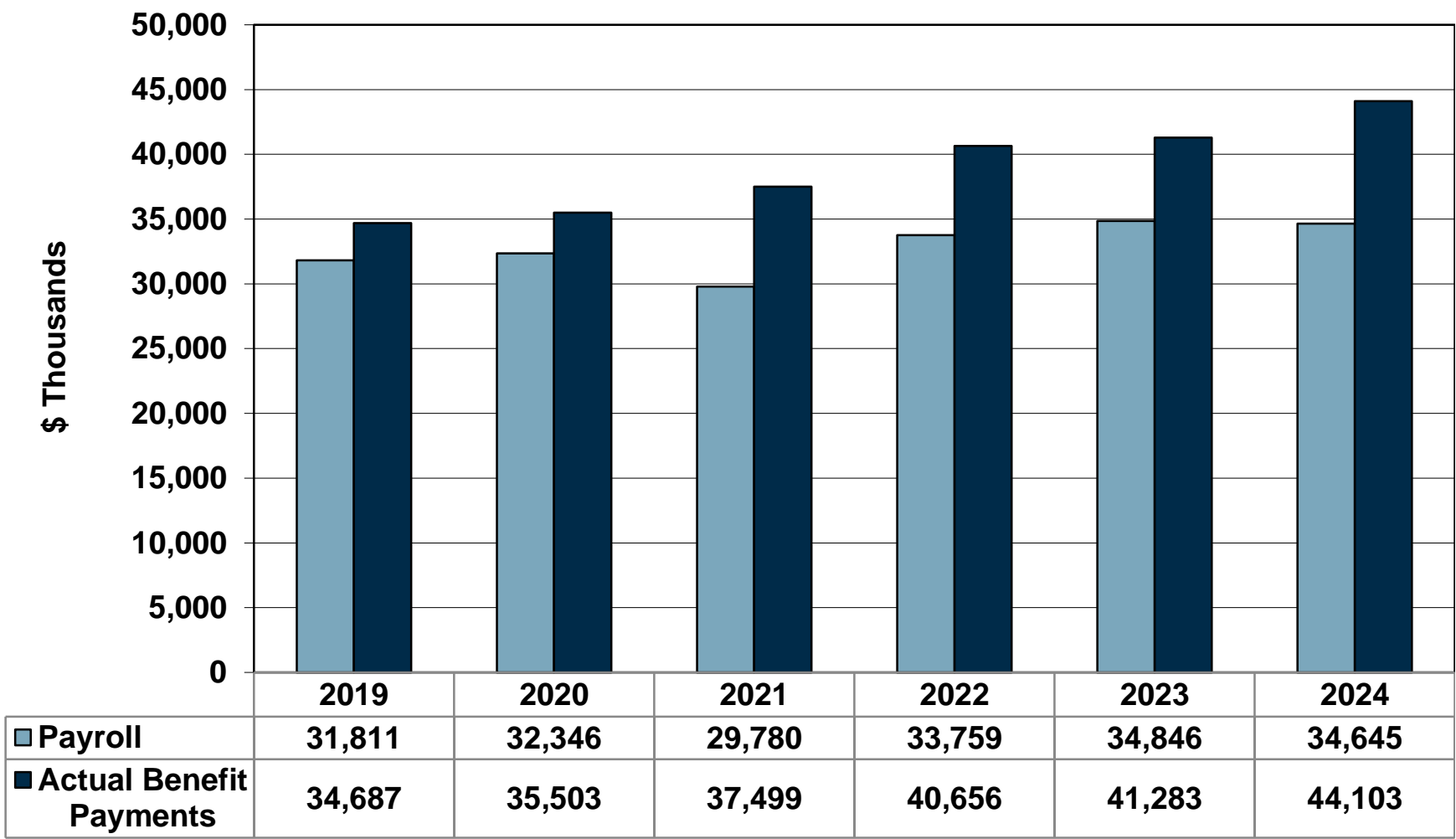


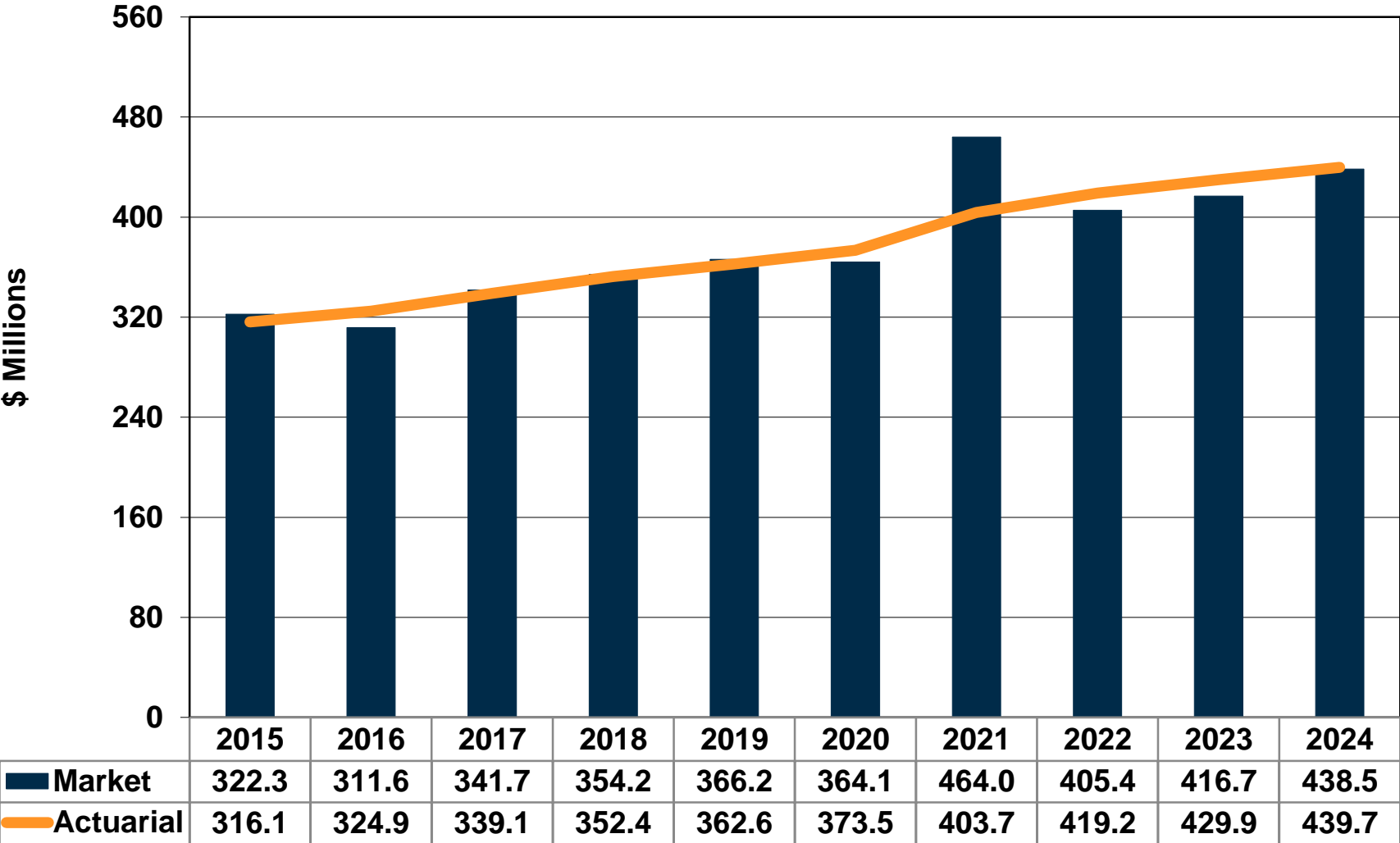
- Tupelo granted a 2% ad-hoc benefit increase for most retirees
- From last year to this year, assessed property values increased for fifteen municipalities and decreased for two municipalities
- Only one of the municipalities needs to increase its millage rate for fiscal year ending September 30, 2026, due to experience

Appendix



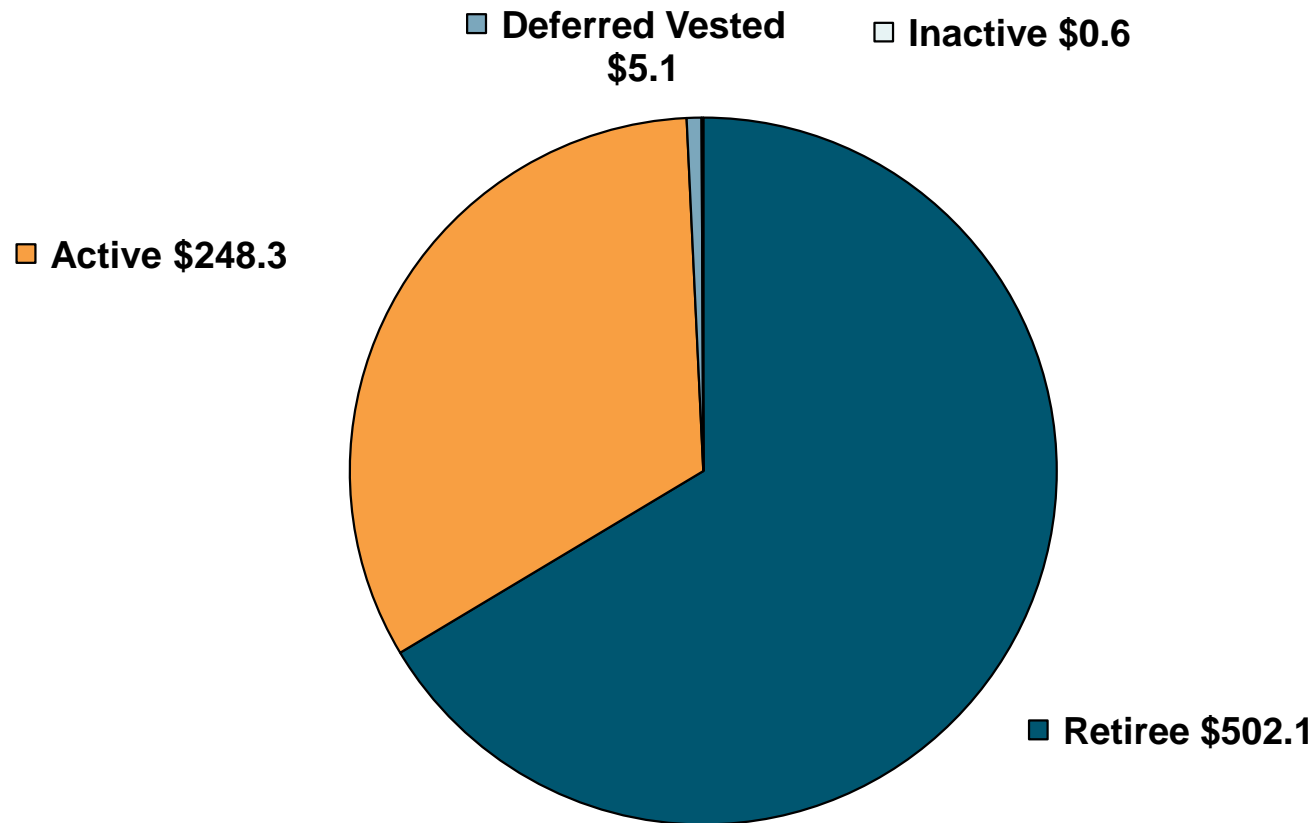




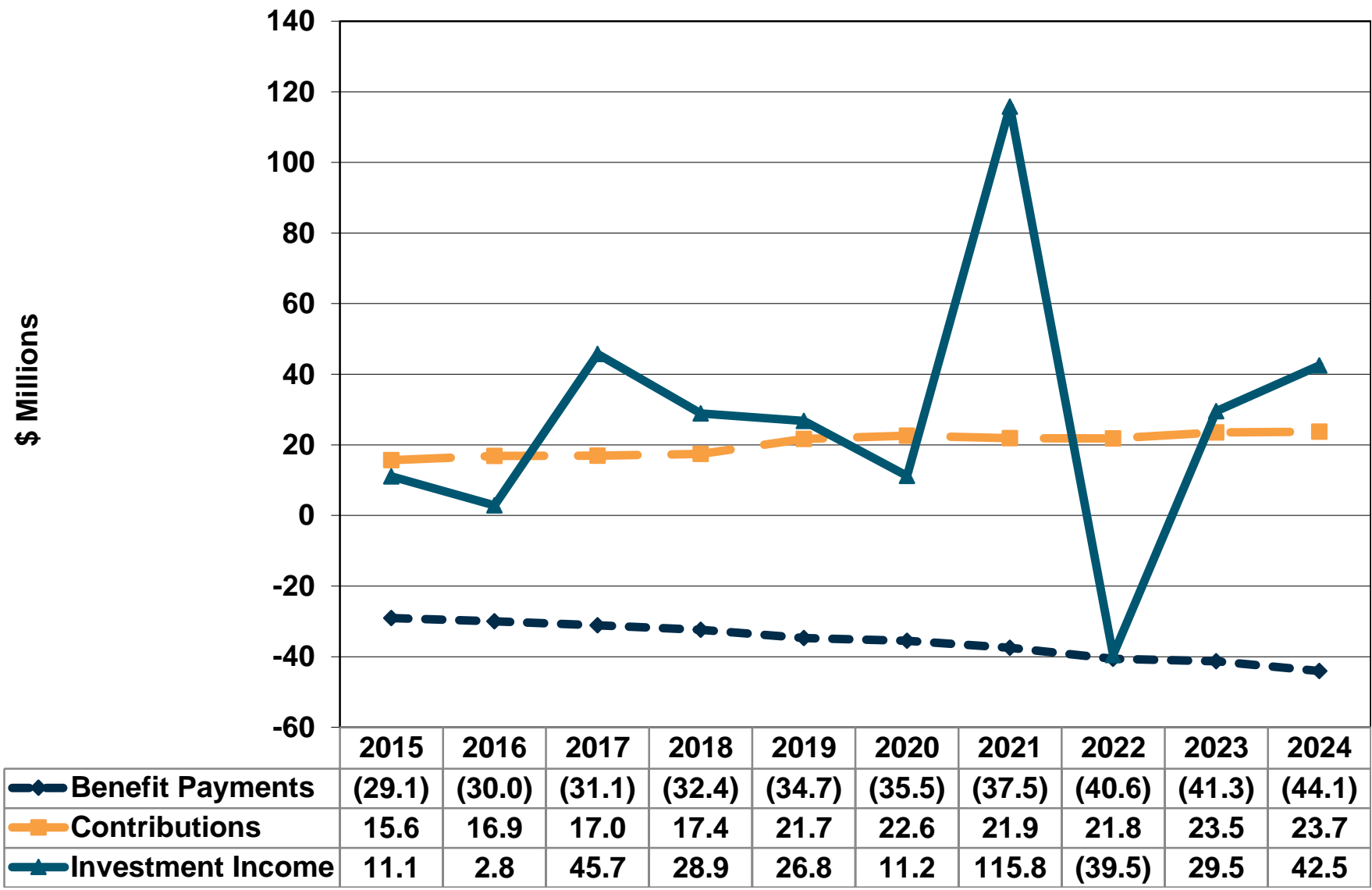


HSPRS Value of Future Benefits

(\$ millions)



Total - \$756.1



Previously Reported Period	30.6 years
Change due to:	
Normal amortization	(1.0)
Actuarial experience	0.9
MVR Fee Assumption change	0.4
Assumption Changes	0.0
Contribution experience	2.1
Computed Period	33.0 years

HSPRS Solvency Test

(\$ Millions)

Valuation Date	Aggregate Accrued Liabilities For				Portion Covered by Actuarial Value of Assets		
	Active Member Contributions	Retirees, Survivors and Inactives	Employer Portion for Active Members	Actuarial Value of Assets			
	(1)	(2)	(3)		(1)	(2)	(3)
6/30/2024	\$23.4	\$502.1	\$145.2	\$439.7	100%	82.9%	0.0%
6/30/2023	23.0	480.9	153.3	429.9	100%	84.6%	0.0%
6/30/2022	24.0	442.9	137.2	419.2	100%	89.2%	0.0%
6/30/2021	24.8	417.5	130.8	403.7	100%	90.8%	0.0%
6/30/2020	26.4	389.3	146.0	373.5	100%	89.2%	0.0%
6/30/2019	27.2	372.5	142.2	362.6	100%	90.0%	0.0%

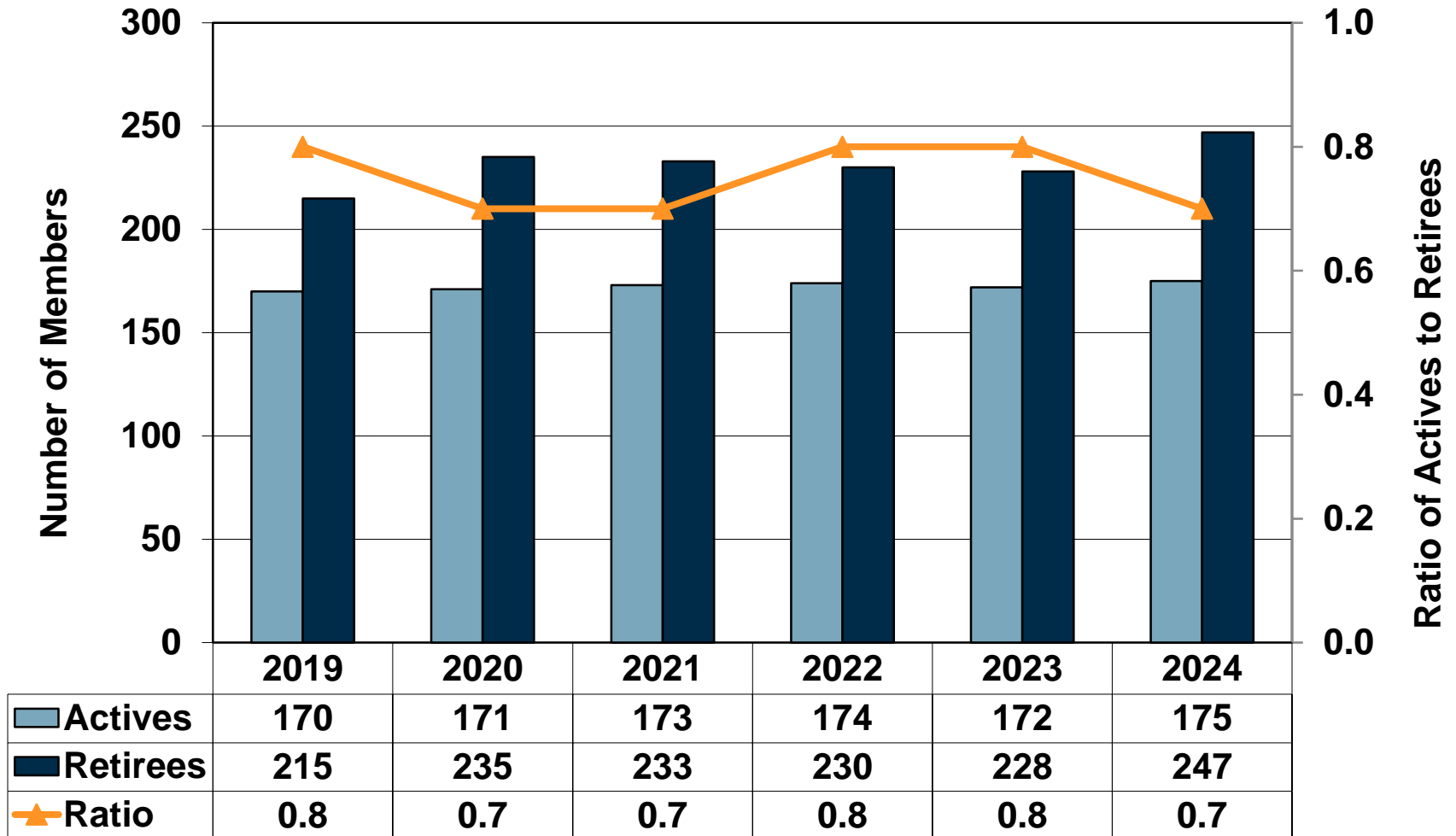
- Active Membership assumed to continue at a population of 504.

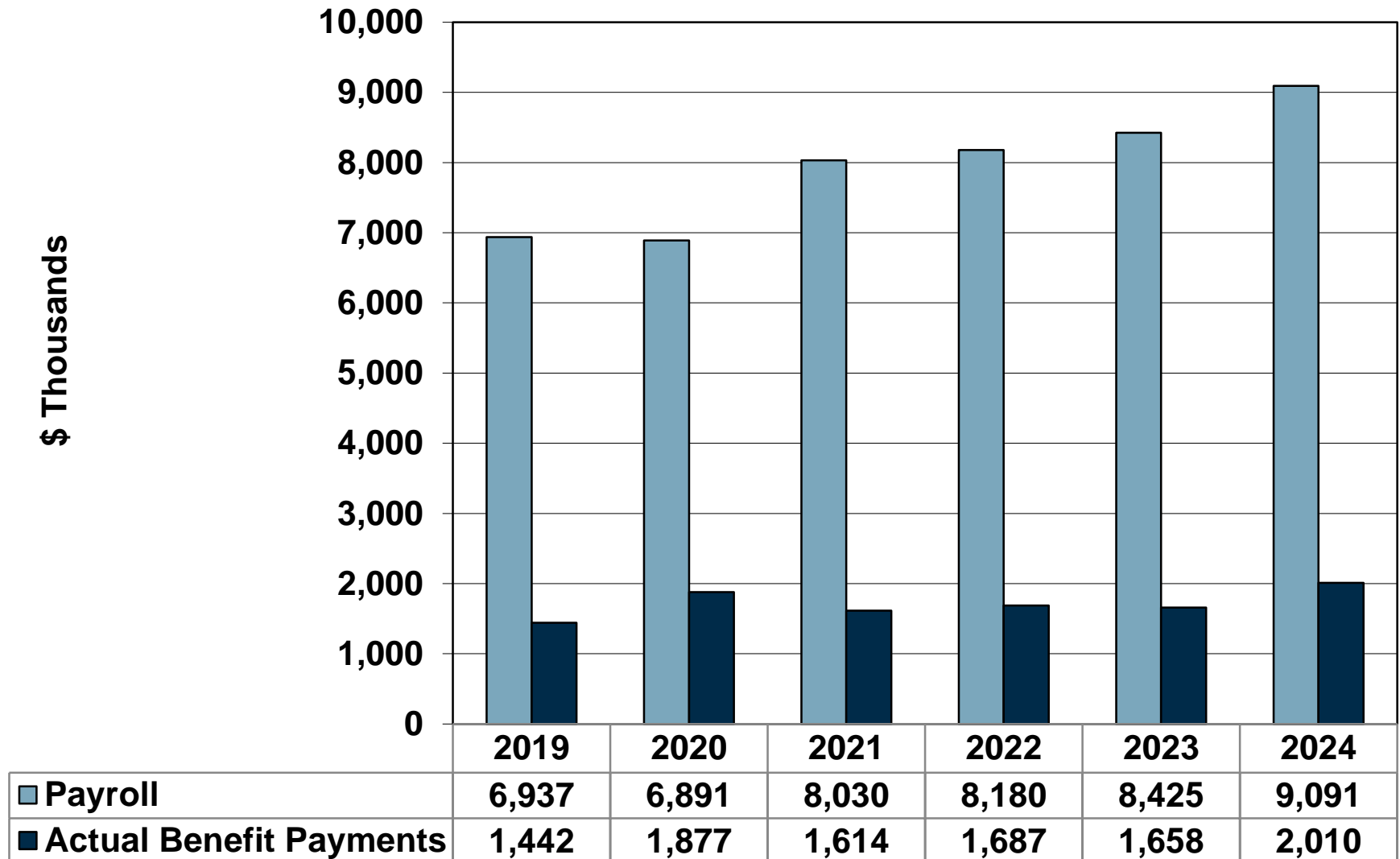
Member	2024	2029	2034	2044	2047	2054
Active – Existing Employees	504	372	260	106	65	9
Active – New Entrants	0	132	244	398	439	495
Retirees	612	693	783	926	949	1,035
Beneficiaries	182	196	210	207	207	207
Disableds	12	9	9	11	12	15
Vested Terms	41	35	47	62	67	72
Total	1,351	1,437	1,553	1,710	1,739	1,833

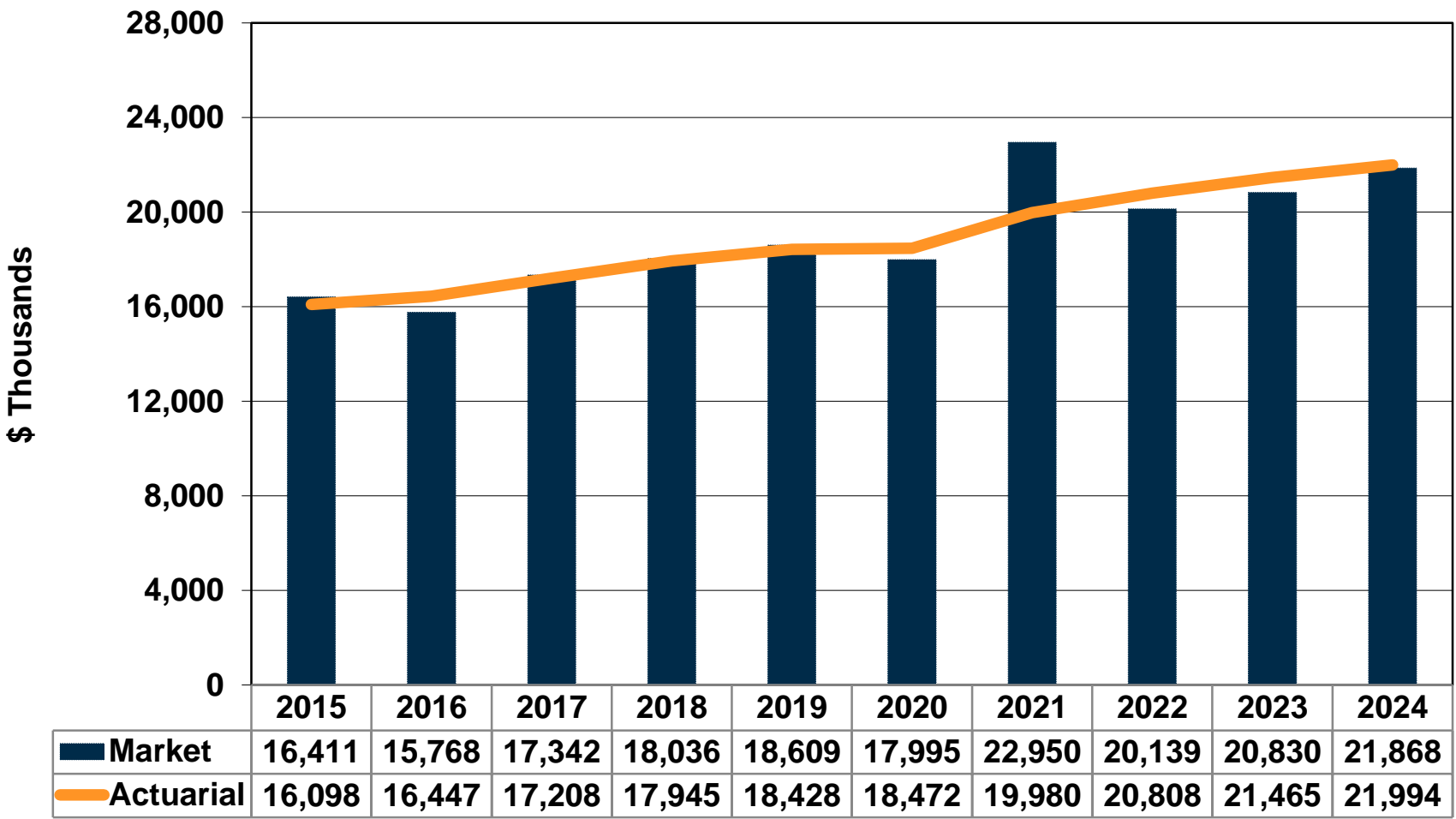
- Additional \$3.3 million assumed to be contributed annually throughout projection period due to SB 2659 and HB 1015.

- Alternative Results at 6.50% (Stable 49.08% Rate)

	2024	2029	2034	2044	2047	2054
Total Payroll	\$34,645	\$39,030	\$42,995	\$54,821	\$58,761	\$69,327
UAL	271,438	295,779	321,390	381,268	400,755	448,983
Normal Cost Rate	23.26%	23.90%	24.37%	24.78%	24.88%	25.17%
UAL Rate	25.82%	25.18%	24.71%	24.30%	24.20%	23.91%
Total Rate	49.08%	49.08%	49.08%	49.08%	49.08%	49.08%
Funded Ratio	61.8%	62.4%	62.6%	63.0%	63.4%	64.7%
Amortization Period	45 years	49 years	52 years	51 years	50 years	48 years
ADC	61.68%	69.82%	80.17%	109.30%	122.44%	73.42%
ADC Ratio	125.7%	142.3%	163.4%	222.7%	249.5%	149.6%
Cash Flow %	(4.1)%	(4.3)%	(4.7)%	(4.1)%	(4.0)%	(3.8)%

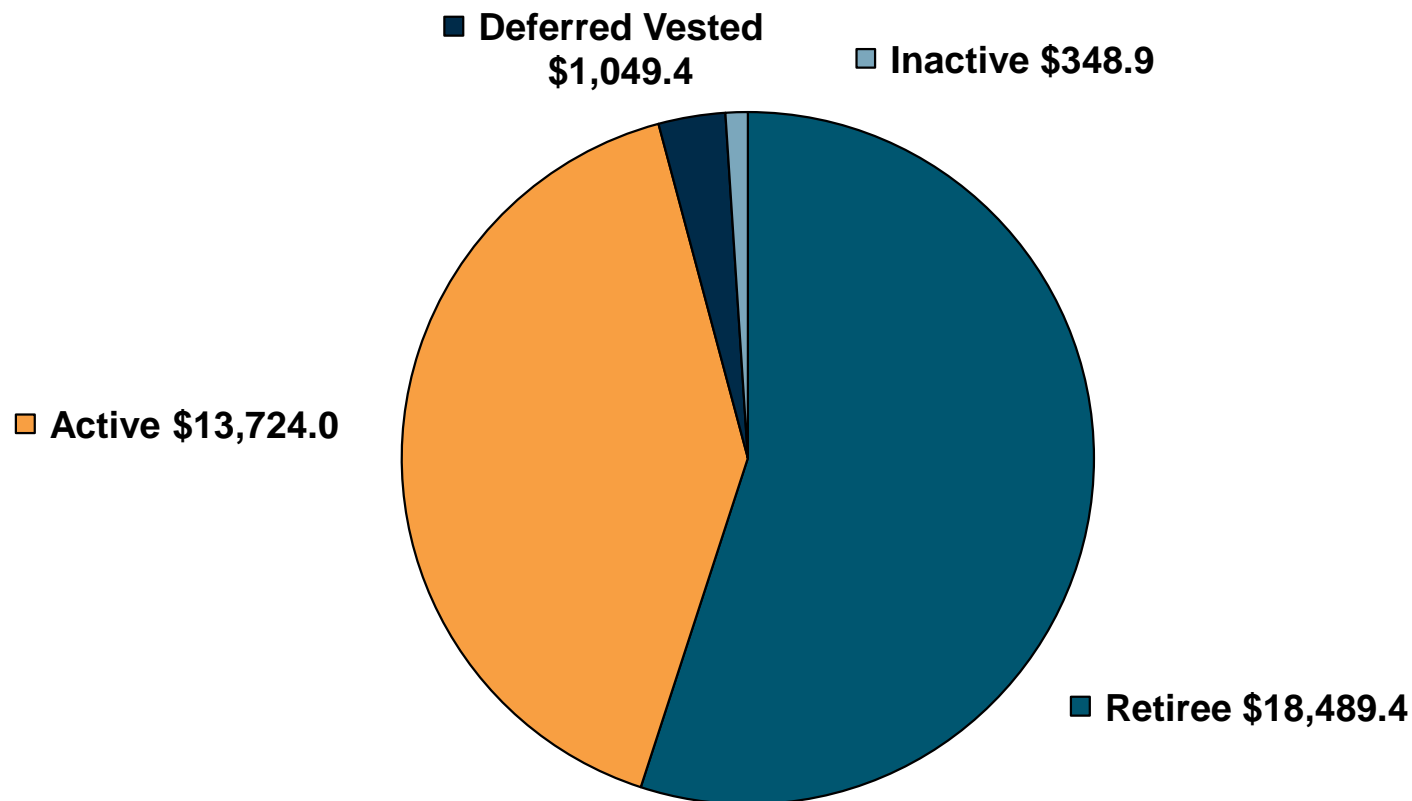




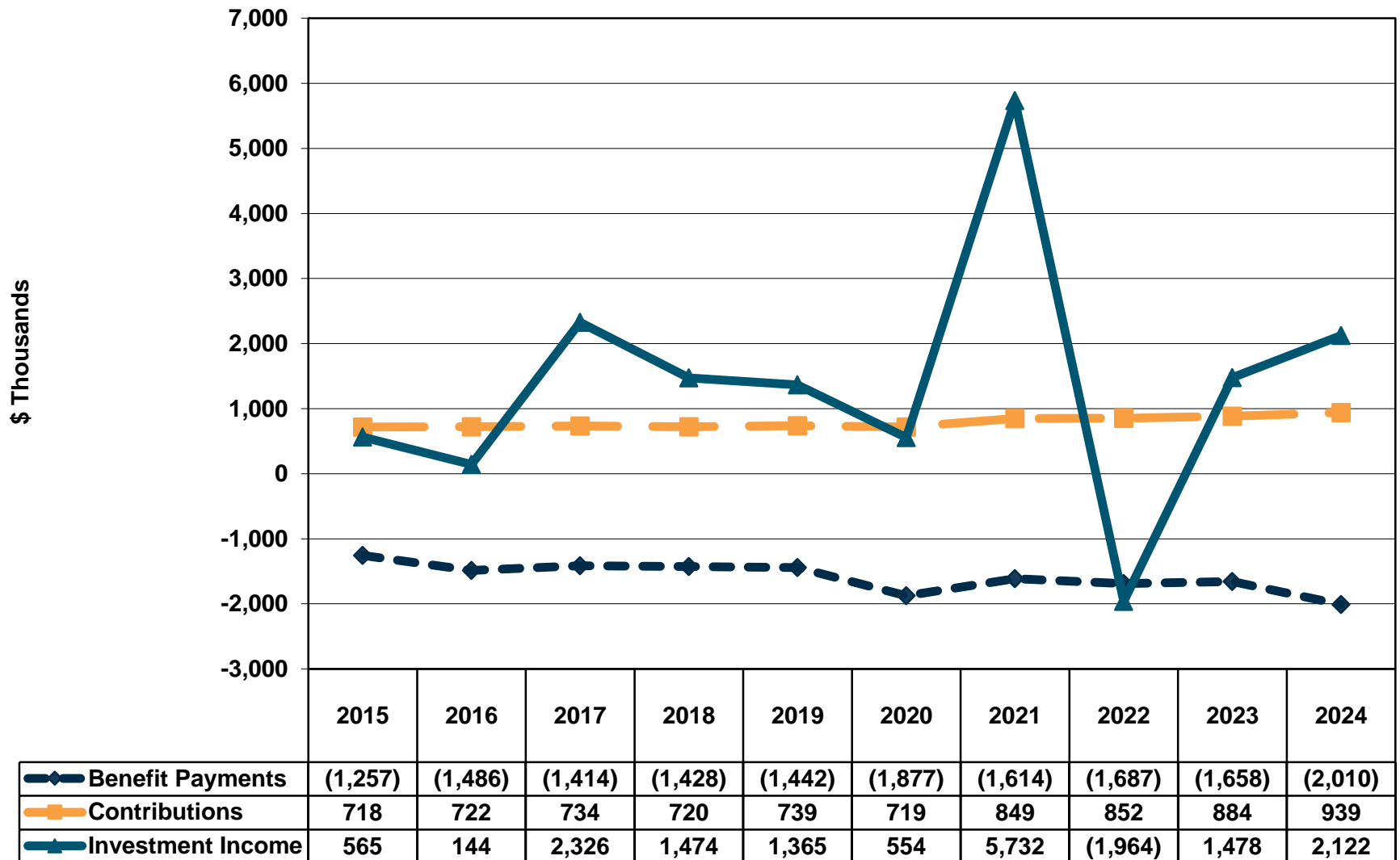


SLRP Value of Future Benefits

(\$ thousands)



Total - \$33,611.7



Previously Reported Period	26.5 years
Change due to:	
Normal amortization	(1.0)
Actuarial experience	1.6
Assumption changes	0.0
Plan amendments	0.0
Contribution experience	(1.6)
Computed Period	25.5 years

SLRP Solvency Test

(\$ Thousands)

Valuation Date	Aggregate Accrued Liabilities For			Actuarial Value of Assets	Portion Covered by Actuarial Value of Assets		
	Active Member Contributions	Retirees, Survivors and Inactives	Employer Portion for Active Members				
	(1)	(2)	(3)		(1)	(2)	(3)
6/30/2024	\$2,474	\$18,489	\$8,473	\$21,994	100%	100.0%	12.2%
6/30/2023	2,779	16,857	8,895	21,465	100%	100.0%	20.6%
6/30/2022	2,611	16,053	7,469	20,808	100%	100.0%	28.7%
6/30/2021	2,331	16,275	6,796	19,980	100%	100.0%	20.2%
6/30/2020	2,145	16,356	4,984	18,472	100%	99.8%	0.0%
6/30/2019	2,701	14,282	5,951	18,428	100%	100.0%	24.3%

- Active Membership assumed to continue at current maximum active population – 175.

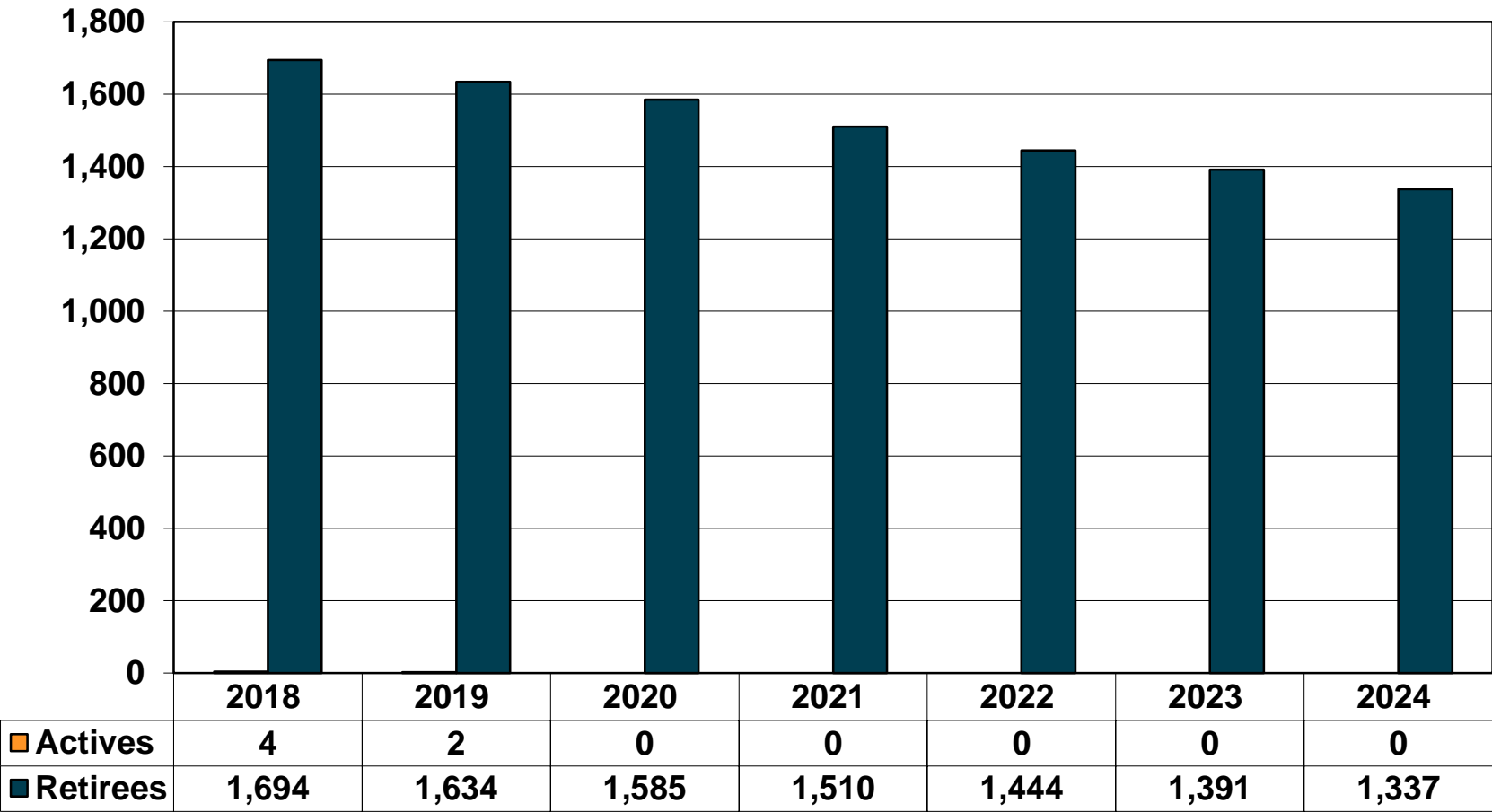
Member	2024	2029	2034	2044	2047	2054
Active – Existing Employees	175	112	71	18	15	5
Active – New Entrants	0	63	104	157	160	170
Retired/Deferred Vesteds	282	294	281	249	225	205
Total	457	469	456	424	400	380

- Alternative Projection at 6.50% (Stable 8.40% Rate)

	2024	2029	2034	2044	2047	2054
Total Payroll	\$9,091	\$9,902	\$10,960	\$13,783	\$14,808	\$17,649
UAL	\$8,964	\$9,861	\$10,872	\$13,556	\$14,577	\$17,008
Normal Cost Rate	3.88%	4.47%	4.75%	5.02%	5.05%	4.94%
UAL Rate	4.52%	3.93%	3.65%	3.38%	3.35%	3.46%
Total Rate	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%
Funding Ratio	71.0%	71.4%	70.9%	68.9%	68.4%	67.8%
Amortization Period	32 years	72 years	100 years	100 years	100 years	100 years
ADC	9.96%	11.55%	13.07%	17.43%	19.21%	12.57%
ADC Ratio	118.6%	137.5%	155.6%	207.5%	228.7%	149.7%
Cash Flow %	(4.0)%	(4.5)%	(4.9)%	(4.9)%	(5.0)%	(3.8)%

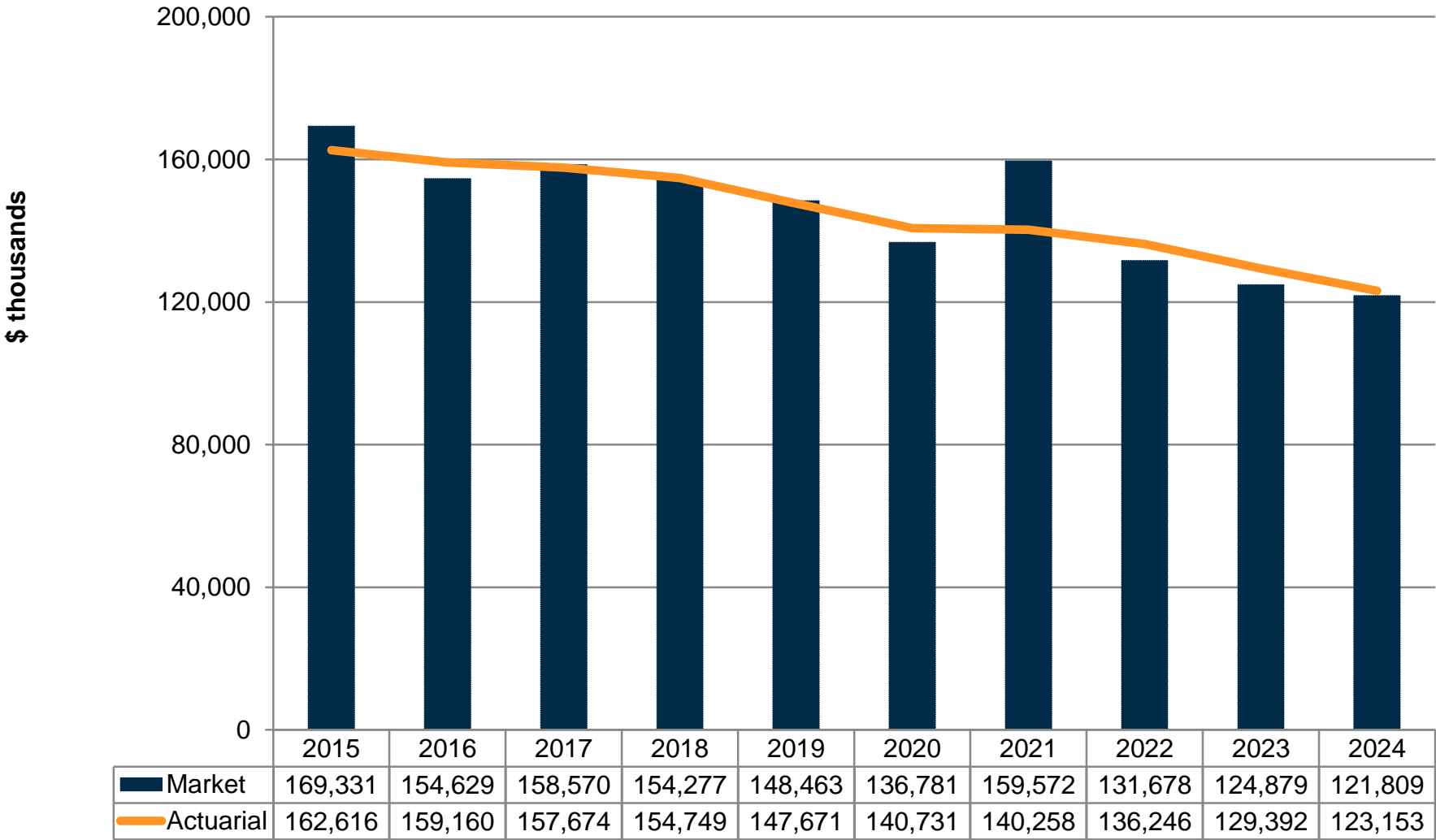
- The employer contribution rate (expressed as a millage rate tax applied to assessed property values) is established to generate an ultimate asset reserve level equal to a reasonable percentage of the next year's projected benefit payments.
 - Ultimately, a Pay-As-You-Go (PAYG) basis will be created once contribution levels get lower than expected benefit payments
- Maintain adequate asset levels to finance the benefits promised to members. Initially the target level will be no less than 100% and no more than 150% of next year's benefit payments.

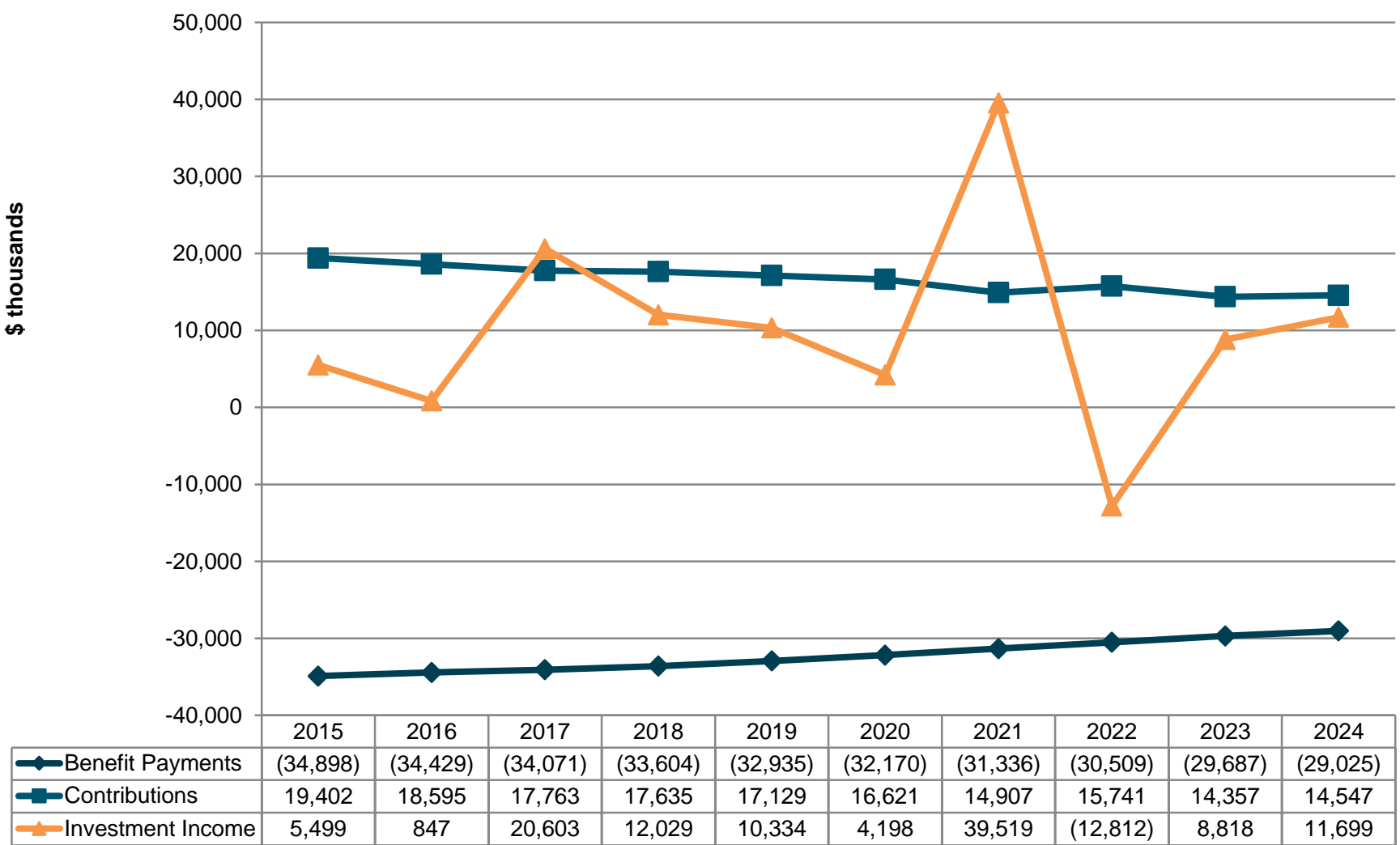
- Develop a pattern of contribution rates that will develop the required funds needed to meet the requirement of paying all benefits with little residual value.
- Assume a change to a more conservative asset portfolio – investment return assumption set at 5.50% (1.50% less than the assumption used by PERS).
- Assume no increase in assessed property values.
- Fund benefit improvements through increases in employer rates.



City	Retirees	Benefits
Biloxi	67	\$1,919,320
Clarksdale	42	545,924
Clinton	31	907,260
Columbus	61	1,017,500
Greenville	55	787,137
Greenwood	38	565,827
Gulfport	68	1,631,258
Hattiesburg	127	3,149,173
Jackson	445	9,865,804

City	Retirees	Benefits
Laurel	59	\$798,837
McComb	14	220,762
Meridian	119	2,028,970
Natchez	33	544,354
Pascagoula	48	1,085,849
Tupelo	67	1,449,888
Vicksburg	55	2,015,834
Yazoo	8	146,907
Total	1,337	\$28,680,604





MRS Assessed Property Values

City	Assessed Value 2022	Assessed Value 2023	One-Year Percent Increase	5yr Annual Average Increase
Biloxi	\$662,733,865	\$673,514,757	1.6%	3.6%
Clarksdale	83,042,644	84,397,955	1.6%	0.2%
Clinton	238,190,869	238,704,997	0.2%	2.4%
Columbus	219,835,360	219,188,566	(0.3)%	2.7%
Greenville	207,650,264	223,866,331	7.8%	(2.1) %
Greenwood	104,333,810	106,334,642	1.9%	2.7%
Gulfport	856,464,936	896,764,815	4.7%	3.5%
Hattiesburg	505,342,123	543,307,810	7.5%	0.0%
Jackson	1,240,485,705	1,253,350,551	1.0%	4.7%

City	Assessed Value 2022	Assessed Value 2023	One-Year Percent Increase	5yr Annual Average Increase
Laurel	\$213,686,120	\$226,039,433	5.8%	4.7%
McComb	105,338,858	110,059,087	4.5%	0.9%
Meridian	366,810,051	374,469,534	2.1%	1.3%
Natchez	278,349,768	258,346,030	(7.2)%	20.0%
Pascagoula	256,612,126	309,592,933	20.6%	7.9%
Tupelo	577,164,739	607,092,925	5.2%	3.9%
Vicksburg	351,588,059	533,298,230	51.7%	16.6%
Yazoo City	55,418,778	55,937,302	0.9%	0.5%

City	Certified for FYE 2025	Current for FYE 2025	Certified for FYE 2026	Year when City goes to PAYG
Biloxi	1.65	1.65	1.56	2041
Clarksdale	4.72	4.72	4.93	2032
Clinton	0.81	0.81	0.76	2057
Columbus	3.69	3.70	3.32	Currently
Greenville	2.24	2.24	2.01	2036
Greenwood	2.33	2.76	2.28	2039
Gulfport	0.81	0.91	0.76	2045
Hattiesburg	2.63	2.63	2.19	2047
Jackson	3.29	3.29	3.07	2039

City	Certified for FYE 2025	Current for FYE 2025	Certified for FYE 2026	Year when City goes to PAYG
Laurel	1.29	2.60	0.74	2047
McComb	1.67	1.67	1.28	2038
Meridian	2.20	2.20	2.01	2045
Natchez	1.25	1.25	1.17	2038
Pascagoula	1.22	1.22	0.91	2043
Tupelo	1.39	1.61	1.27	2037
Vicksburg	2.73	2.73	1.70	2039
Yazoo City	2.33	3.03	2.38	Currently

Mississippi Highway Safety Patrol Retirement System



Annual Valuation Report

Prepared as of June 30, 2024

December 7, 2024

Board of Trustees
Public Employees' Retirement System of Mississippi
429 Mississippi Street
Jackson, MS 39201-1005

Ladies and Gentlemen:

Presented in this report are the results of the annual actuarial valuation of the Mississippi Highway Safety Patrol Retirement System (HSPRS). The purpose of the valuation is to:

- Measure the System's funding progress as of the valuation date,
- To determine the unfunded actuarial accrued liability amortization period beginning July 1, 2024 using the Fixed Contribution Rate (FCR) of 49.08% of payroll,
- To determine the actuarially determined contribution (ADC) for the fiscal year beginning July 1, 2026 using the assumptions and methods in the Board's funding policy,
- To project the System's funding progress for the next thirty years and provide clear reporting and risk analysis of the funding metrics as outlined in the Board's funding policy using a "Signal Light" approach, and
- To assist the Board in determining whether an increase or decrease is needed in the Fixed Contribution Rate.

The results may not be applicable for other purposes. The date of the valuation was June 30, 2024.

The valuation was based upon data, furnished by the Executive Director and the PERS staff, concerning active, inactive and retired members along with pertinent financial information. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. The valuation results depend on the integrity of the data. If any of the information is inaccurate or incomplete, our results may be different and our calculations may need to be revised. The complete cooperation of the PERS staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the presentation of valuation results on page 1 and the projection results on page 6. Since none of the funding policy metrics are in the Red Status, we do not recommend an increase in the Fixed Contribution Rate (FCR) of 49.08% of annual compensation at this time. However, if there is any negative experience in the near future, the Fixed Contribution Rate may need to be increased.



No changes were made to the actuarial assumptions or plan provisions since the previous valuation.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board. We have reviewed the actuarial methods, including the asset valuation method, and continue to believe they are appropriate for the purpose of determining employer contribution levels.

In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and develop actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the system's funded status); and changes in plan provisions or applicable law. An analysis of the potential range of future measurements is provided in Section XI of this report.

This actuarial valuation was performed to determine the adequacy of the Board approved contribution rate to fund the plan. The asset values used to determine unfunded liabilities and funded ratios are not market values but less volatile market related values. A smoothing technique is applied to market values to determine the market related values. The unfunded liability amounts and funded ratios using the market value of assets would be different. The interest rate used for determining liabilities is based on the expected return on assets. Therefore, liability amounts in this report cannot be used to assess a settlement of the obligation.



To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the system, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the system.

Respectfully submitted,

A handwritten signature in blue ink that reads "Edward J. Koebel".

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

A handwritten signature in blue ink that reads "Ben Mobley".

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary



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SECTION I – EXECUTIVE SUMMARY

1. This report, prepared as of June 30, 2024, presents the results of the annual actuarial valuation of the System. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below. The current valuation and reported benefit amounts reflect any benefit increases granted to retirees as of July 1, 2024.

VALUATION DATE	June 30, 2024	June 30, 2023
Investment Return Assumption	7.00%	7.00%
Active members included in valuation		
Number	504	507
Annual compensation	\$ 34,644,780	\$ 34,845,681
Retirees		
Number	806	792
Annual allowances	\$ 40,445,454	\$ 38,778,092
Assets		
Market related actuarial value	\$ 439,688,000	\$ 429,909,000
Market value of assets (MVA)	\$ 438,476,000	\$ 416,724,000
Unfunded actuarial accrued liability (UAAL)	\$ 231,088,761	\$ 227,309,721
Funded Ratio based on actuarial value	65.5%	65.4%
Employer Fixed Contribution Rate (FCR)		
Normal Cost*	19.61%	19.36%
Accrued liability	<u>29.47</u>	<u>29.72</u>
Total	49.08%	49.08%
Payment period based on the FCR	33.0 years	30.6 years
Actuarially Determined Contribution (ADC) Rate		
Normal Cost*	19.61%	19.36%
Accrued liability	<u>33.48</u>	<u>32.26</u>
Total	53.09%	51.62%
Amortization Period for ADC	24.3 years	25.0 years
ADC Ratio to Fixed Contribution Rate	108.17%	105.18%
Unfunded actuarial accrued liability based on MVA	\$ 232,300,761	\$ 240,494,721
Funded Ratio based on market value	65.4%	63.4%

* Includes load for administrative expenses. See Section VI for more contribution rate detail.





SECTION I – EXECUTIVE SUMMARY

2. The valuation balance sheet showing the results and liabilities of the valuation is given in Section III.
3. Comments on the valuation results are provided in Section IV, comments on the experience and actuarial gains and losses during the valuation year are provided in Section V and the rates of contribution payable by employers are provided in Section VI and Section VII.
4. Due to Senate Bill No. 2659 enacted in 2004 and House Bill No. 1015 enacted April 25, 2013, additional contributions, classified as Motor Vehicle Replacement (MVR) fees are being made to the System and are expected to continue in the future. For the 2024 fiscal year, the total additional fees were \$3,293,000. We have lowered our expected contributions from these sources from \$3,400,000 to \$3,300,000 based on the average of actual monies received over the past three fiscal years and the expectation from these sources in the future. The employers are also required to contribute the employer contribution rate as determined based on the funding policy. The funding period of the Unfunded Actuarial Accrued Liability (UAAL) of 33.0 years shown on the previous page reflects the additional contributions from Senate Bill No. 2659 and House Bill No. 1015. Without these additional contributions, the funding period would have been 60.6 years on the current employer rate basis.
5. Schedule A of this report presents the development of the assets. The estimated investment return for the plan year ending June 30, 2024 on a market value of assets basis was 10.46% and on an actuarial value of assets basis was 7.28%. These can be compared to the assumed rate of return for the same period of 7.00%. The market value of assets basis return may be slightly different than what PERS reports as this estimated return is assuming cash flow as of the middle of the year.
6. Schedule B details the actuarial assumptions and methods employed. There have been no changes since the previous valuation.
7. Schedule C gives a summary of the benefit and contribution provisions of the Plan. There have been no changes since the previous valuation.
8. The funded ratio shown in the Summary of Principal Results is the ratio of actuarial value of assets to the actuarial accrued liability. The funded status is different based on the market value of assets. The funded ratio is an indication of progress in funding the promised benefits. Since the ratio is less than 100%, there is a need for additional contributions toward the payment of the unfunded accrued liability. In addition, this funded ratio does not have any relationship to measuring the sufficiency if the plan had to settle its liabilities.





SECTION I – EXECUTIVE SUMMARY

9. The employer contribution rate, or Fixed Contribution Rate (FCR), of 49.08% of annual compensation has been the contribution rate for employers since July 1, 2018. As shown on page 1 of the report, the amortization period to pay off the UAAL using the FCR of 49.08% is just over 30 years, which is a snapshot view of the UAAL as of the valuation date of June 30, 2024.
10. In addition, as shown on page 1 of the report, the Actuarially Determined Contribution (ADC) Rate for the 2024 valuation year is 53.09% of annual compensation and the ratio of the ADC to the FCR (53.09% to 49.08%) is calculated at 108.17% as of June 30, 2024. Per the Board's Funding Policy, which is provided in Schedule F, this actuarial metric is in the Yellow Status as the ratio is between 100% and 110%.
11. The projection results, shown beginning in Section IX, allow the Board to see a forecast of the System's funding progress over time, allow the Board to review the funding goals and benchmarks outlined in the funding policy, and provide the status of the metrics/targets in the Funding Policy that determines whether or not a contribution rate increase should be recommended. The objective of the current funding policy is to accumulate sufficient assets during a member's employment to fully finance the benefit the member receives throughout retirement. In order to reach that objective, some goals and benchmarks were established as follows:
 - Preservation of the defined benefit structure for providing lifetime benefits to the HSPRS' membership,
 - Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
 - Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution,
 - Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
 - Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of the policy using a "Signal Light" approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate.





SECTION I – EXECUTIVE SUMMARY

12. For HSPRS, if any one of the following metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report, the actuary shall determine and recommend to the Board an employer contribution rate increase to consider that is sufficient to get all three metrics back into the Green Signal Light status.
- Funded Ratio – defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100% funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 90% in 2047
Yellow	Funded Ratio between 70% and 90% in 2047
Red	Funded Ratio below 70% in 2047

- Cash flow as a percentage of assets – defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative 5.25% (-5.25%) during the projection period
Yellow	Net Cash Flow Percentage between negative 5.25% (-5.25%) and negative 7.00% (-7.00%) during the projection period
Red	Net Cash Flow Percentage below negative 7.00% (-7.00%) during the projection period





SECTION I – EXECUTIVE SUMMARY

- Actuarially Determined Contribution (ADC) – defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of the funding policy:
 1. Actuarial Cost Method
 2. Asset Smoothing Method
 3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by the Funding Policy will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate
Yellow	ADC ratio between 100% and 110% of fixed contribution rate
Red	ADC ratio above 110% of fixed contribution rate





SECTION I – EXECUTIVE SUMMARY

13. A summary of the estimated metrics from the projection results for the next five years and in the long-term are shown in the following two tables below. More details will be shown beginning in Section IX but as you can see from the first table below, based on current funding levels, the funded ratio and cash flow percentage is expected to remain relatively stable while the ADC/FCR ratio increases over the next five years.

Valuation Year	UAAL (\$ in Thousands)	Funded Ratio	Cash Flow %	ADC/FCR Ratio
2024	\$231,089	65.5%	(4.07)%	108.2%
2025	\$227,882	66.7%	(3.94)%	108.0%
2026	\$241,334	66.5%	(4.03)%	113.9%
2027	\$239,689	66.4%	(4.10)%	114.9%
2028	\$237,927	67.3%	(4.18)%	116.0%
2029	\$238,865	67.8%	(4.21)%	118.1%

Metrics	2024 Baseline Projection	Status
Funding Ratio in 2047	80.5%	Yellow
Cash Flow as a Percentage of Assets	(4.42)%	Green
ADC/FCR Ratio from 2024 Valuation	108.2%	Yellow
ADC/FCR Ratio from 2025 Valuation	108.0%	Yellow

As shown above, none of the metrics are in the “Red Status” for the valuation and baseline projections. Therefore, we recommend to the PERS Board that the Fixed Contribution Rate (FCR) continue at a rate of 49.08% of annual compensation for HSPRS at this time. However, as you can see from the last column in the first table, the ADC/FCR Ratio is expected to increase to more than 110% within the next 5 years. Therefore, an increase in the Fixed Contribution Rate may be needed soon, especially if there is negative experience. The Board should continue to review the Sensitivity Analysis section of this report during the fiscal year to understand the volatility that may occur in the projections if investment experience is more or less than expected going forward.

14. The table on the following page provides a ten-year history of some pertinent figures.





SECTION I – EXECUTIVE SUMMARY

Comparative Schedule

Active Members					Retired Lives				Valuation Results (\$ thousands)		
Valuation Date June 30	Number	Payroll (\$ in thousands)	Average Salary	% increase from previous year	Number	Active/Retired Ratio	Annual Benefits (\$ thousands)	Benefits as % of Payroll	Actuarial Accrued Liability	Valuation Assets	UAAL
2015	518	\$25,505	\$49,237	(4.6)%	724	0.7	\$28,076.5	110.1%	\$477,803	\$316,149	\$161,654
2016	484	27,380	56,571	14.9	724	0.7	28,782.0	105.1	494,101	324,894	169,207
2017	470	28,845	61,373	8.5	726	0.6	29,563.8	102.5	497,992	339,114	158,878
2018	511	29,555	57,838	(5.8)	725	0.7	30,614.5	103.6	527,428	352,415	175,013
2019	522	31,811	60,941	5.4	734	0.7	31,814.9	100.0	541,925	362,591	179,334
2020	511	32,346	63,299	3.9	740	0.7	33,344.1	103.1	561,662	373,511	188,151
2021	478	29,780	62,302	(1.6)	761	0.6	35,443.9	119.0	573,134	403,748	169,386
2022	478	33,759	70,625	13.4	785	0.6	37,420.2	110.8	604,084	419,219	184,865
2023	507	34,846	68,729	(2.7)	792	0.6	38,778.1	111.3	657,219	429,909	227,310
2024	504	34,645	68,740	0.0	806	0.6	40,445.5	116.7	670,777	439,688	231,089





SECTION II – MEMBERSHIP DATA

Data regarding the membership of the System for use as a basis for the valuation were furnished by the System's office. The following tables summarize the membership of the System as of June 30, 2024 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

Active Members

Employers	Number of Employers	Number	Payroll	Group Averages		
				Salary	Age	Benefit Service
State Agencies	1	504	\$ 34,644,780	\$68,740	39.7	10.8

Of the 504 active members, 337 are vested and 167 are non-vested.

Retired Lives

Type of Benefit Payment	No.	Annual Benefits	Group Averages	
			Benefit	Age
Retirement	612	\$34,920,898	\$57,060	67.9
Disability	12	363,244	30,270	62.3
Survivor	182	5,161,312	28,359	73.6
Total in HSPRS	806	\$40,445,454	\$50,180	69.1

Deferred Vested/Inactive Lives

Type of Member	No.	Annual Deferred Benefits	Outstanding Balance
Deferred Vested – Benefit Included	41	\$607,500	N/A
Inactive	35	N/A	\$395,082
Total in HSPRS	76	\$607,500	\$395,082

For the liability in this valuation, deferred vested participants with benefits provided are valued assuming a retirement age of 55 and for inactive members, account balances are multiplied by 1.50 to estimate liabilities and interest in the future.





SECTION III – VALUATION BALANCE SHEET

The following valuation balance sheet shows the assets and liabilities of the retirement system as of the current valuation date of June 30, 2024 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2023. The items shown in the balance sheet are present values actuarially determined as of the relevant valuation date. The development of the actuarial value of assets is presented in Schedule A.

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SECTION III – VALUATION BALANCE SHEET



VALUATION BALANCE SHEET SHOWING THE ASSETS AND LIABILITIES OF THE MISSISSIPPI HIGHWAY SAFETY PATROL RETIREMENT SYSTEM

	JUNE 30, 2024	JUNE 30, 2023
ASSETS		
Current actuarial value of assets:		
Annuity Savings Account	\$ 23,429,832	\$ 22,994,515
Annuity Reserve	55,646,623	52,715,398
Employers' Accumulation Account	<u>360,611,545</u>	<u>354,199,087</u>
Total current assets	\$ 439,688,000	\$ 429,909,000
Future member contributions to Annuity Savings Account	\$ 23,626,501	\$ 23,726,003
Prospective contributions to Employer's Accumulation Account		
Normal contributions	\$ 61,659,645	\$ 61,467,175
Unfunded actuarial accrued liability contributions	<u>231,088,761</u>	<u>227,309,721</u>
Total prospective contributions	<u>\$ 292,748,406</u>	<u>\$ 288,776,896</u>
Total assets	<u>\$ 756,062,907</u>	<u>\$ 742,411,899</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 502,105,082	\$ 480,925,045
Present value of benefits payable on account of inactive members for service rendered before the valuation date	5,675,555	11,683,975
Present value of benefits payable on account of active members	<u>\$ 248,282,270</u>	<u>\$ 249,802,879</u>
Total liabilities	<u>\$ 756,062,907</u>	<u>\$ 742,411,899</u>





SECTION III – VALUATION BALANCE SHEET

BREAKDOWN OF TOTAL AND ACTUARIAL ACCRUED LIABILITIES AS OF JUNE 30, 2024

	Total Liability	Actuarial Accrued Liability
Active Members		
Retirement	\$ 235,458,437	\$ 161,535,020
Death	3,986,918	281,908
Disability	919,434	99,918
Termination	<u>7,917,481</u>	<u>1,079,278</u>
Total	\$ 248,282,270	\$ 162,996,124
Retirees		
Retirement	\$ 452,142,543	\$ 452,142,543
Survivor	45,717,733	45,717,733
Disability	<u>4,244,806</u>	<u>4,244,806</u>
Total	\$ 502,105,082	\$ 502,105,082
Deferred Vested Members	5,082,932	5,082,932
Inactive Members	<u>592,623</u>	<u>592,623</u>
Total Actuarial Values	\$ 756,062,907	\$ 670,776,761
Actuarial Value of Assets		<u>439,688,000</u>
Unfunded Actuarial Accrued Liability		\$ 231,088,761

The total liability is the present value of future benefits for all current members as of the valuation date. The accrued liability is the present value of benefits that have been accrued as of the valuation date. Since all inactive members and retirees have accrued their full benefits, the total liability and accrued liability are the same. For actives, the difference between the total liability and the accrued liability is the present value of all future accruals.





SECTION IV – COMMENTS ON VALUATION

The valuation balance sheet gives the following information with respect to the funds of the System as of June 30, 2024.

Total Assets

The Annuity Savings Account is the fund to which are credited contributions made by members together with interest thereon. When a member retires, the amount of his or her accumulated contributions is transferred from the Annuity Savings Account to the Annuity Reserve. The Employer's Accumulation Account is the fund to which are credited employer contributions and investment income, and from which are paid all employer-provided benefits under the system. The assets credited to the Annuity Savings Account as of the valuation date, which represent the accumulated contributions of members to that date, amounted to \$23,429,832. The assets credited to the Annuity Reserve were \$55,646,623 and the assets credited to the Employer's Accumulation Account totaled \$360,611,545. Current actuarial assets as of the valuation date equaled the sum of these three funds, \$439,688,000. Future member contributions to the Annuity Savings Account were valued to be \$23,626,501. Prospective contributions to the Employer's Accumulation Account were calculated to be \$292,748,406 of which \$61,659,645 is attributable to service rendered after the valuation date (normal contributions) and \$231,088,761 is attributable to service rendered before the valuation date (unfunded actuarial accrued liability contributions).

Therefore, the balance sheet shows the present value of current and future assets of the System to be \$756,062,907 as of June 30, 2024.

Total Liabilities

The present value of benefits payable on account of presently retired members and beneficiaries totaled \$502,105,082 as of the valuation date. The present value of future benefit payments on behalf of active members amounted to \$248,282,270. In addition, the present value of benefits for inactive members, due to service rendered before the valuation date, was calculated to be \$5,675,555.

Therefore, the balance sheet shows the present value for all prospective benefit payments under the System to be \$756,062,907 as of June 30, 2024.

Section 25-11-7 of State law requires that active members contribute the current rate of 7.25% of annual compensation to the System.





SECTION IV – COMMENTS ON VALUATION

Section 25-11-123(c) requires that the State contribute a certain percentage of the annual compensation of members to cover the normal contributions and a certain percentage to cover the accrued liability contributions of the System. These individual contribution percentages are established in accordance with an actuarial valuation. Based on the funding policy adopted by the PERS Board in 2023, the PERS Board and the MHSPRS Administrative Board adopted an employer contribution rate of 49.08% of annual compensation effective July 1, 2018 and the amortization period is calculated on an open basis. The amortization period for the June 30, 2024 valuation is 33.0 years, compared to 30.6 years for the previous valuation. The primary reason for the increase in the amortization period is due to the contribution shortfall or difference between the Actuarially Determined Contribution (ADC) rate and the Fixed Contribution Rate (FCR).

There was a loss on the unfunded actuarial accrued liability for the fiscal year ending June 30, 2024 of approximately \$2,856.4 thousand (shown on the next page) which was due to contribution deficiency and turnover (retirements and withdrawals) from active service. These losses were offset by gains in investment experience and salary experience (increases in salaries less than expected).

See page 16 for a reconciliation of the amortization period. See Schedule E for a complete analysis of the Financial Experience.





SECTION V – DERIVATION OF EXPERIENCE GAINS & LOSSES

Actual experience will never (except by coincidence) match exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common. Details on the derivation of the experience gain/(loss) for the years ended June 30, 2024 and June 30, 2023 are shown below.

	<u>2024 Valuation</u> <u>\$ Thousands</u>	<u>2023 Valuation</u> <u>\$ Thousands</u>
(1) UAAL* as of beginning of year	\$ 227,309.7	\$ 184,865.2
(2) Total normal cost from last valuation	8,900.9	7,492.7
(3) Total contributions	23,684.0	23,458.0
(4) Interest Rate (Beginning of Year)	7.00%	7.55%
(5) Interest accrual: $[(1) + (2)] \times (4) - [(3) \times ((4) / 2)]$	<u>15,705.8</u>	<u>13,637.5</u>
(6) Expected UAAL before changes: (1) + (2) – (3) + (5)	\$ 228,232.4	\$ 182,537.3
(7) Change due to plan amendments	0.0	0.0
(8) Change due to actuarial assumptions or methods	<u>0.0</u>	<u>42,719.5</u>
(9) Expected UAAL after changes: (6) + (7) + (8)	\$ 228,232.4	\$ 225,256.8
(10) Actual UAAL as of end of year	\$ 231,088.8	\$ 227,309.7
(11) Gain/(loss): (9) – (10)	\$ (2,856.4)	\$ (2,052.9)
(12) Gain/(loss) as percent of actuarial accrued liabilities at start of year.	(0.4)%	(0.3)%

*Unfunded actuarial accrued liability.

<u>Valuation Date June 30</u>	<u>Actuarial Gain/(Loss) as a % of Beginning Accrued Liabilities</u>
2019	(0.6)%
2020	(1.9)
2021	3.8
2022	(0.7)
2023	(0.3)
2024	(0.4)





SECTION VI – FIXED CONTRIBUTION RATE (FCR)

1. The valuation balance sheet gives the basis for determining the percentage rates for contributions to be made by employers to the Retirement System. The following table shows the rates of contribution payable by employers as determined from the present valuation and a comparison to the previous valuation results.

Contribution for	2024 Valuation	2023 Valuation
Investment Return Assumption	7.00%	7.00%
Total Normal Cost:		
Service retirement benefits	24.54%	24.32%
Disability benefits	0.24	0.24
Survivor benefits	1.08	1.05
Total	25.86%	25.61%
Less Member Contributions:	7.25%	7.25%
Employer Normal Cost	18.61%	18.36%
Administrative Expense Load	1.00%	1.00%
Total Employer Normal Cost Rate	19.61%	19.36%
Unfunded Actuarial Accrued Liabilities (33.0 year level % of payroll amortization*)	29.47%	29.72%
Total Employer Fixed Contribution Rate (FCR)	49.08%	49.08%

* Amortization period a year ago was 30.6 years.

2. The current funding policy has set the employer contribution rate to 49.08% of payroll and kept the amortization period open-ended. Thirty-year projections are completed to determine if an increase or decrease in the employer contribution rate is warranted according to the metrics set forth in the funding policy. Please see Schedule F for the current funding policy.





SECTION VI – FIXED CONTRIBUTION RATE (FCR)

3. The components of the change in the computed unfunded actuarial accrued liability amortization period from 30.6 years to 33.0 years are as follows:

Previously Reported Period	30.6 years
Change due to:	
Normal amortization	(1.0)
Actuarial experience	0.9
MVR fee assumption change	0.4
Assumption changes	0.0
Contribution Shortfall/(Excess)	2.1
Computed Period	33.0 years





SECTION VI – FIXED CONTRIBUTION RATE (FCR)

The table below shows the development of the amortization period of 33.0 years (\$ in thousands):

Year	UAAL BOY	Amortization Payment	MVR Fees	UAAL EOY
1	\$231,089	\$10,654	\$3,300	\$232,915
2	232,915	10,936	3,300	234,579
3	234,579	11,226	3,300	236,063
4	236,063	11,524	3,300	237,344
5	237,344	11,829	3,300	238,402
6	238,402	12,143	3,300	239,212
7	239,212	12,464	3,300	239,749
8	239,749	12,795	3,300	239,984
9	239,984	13,134	3,300	239,888
10	239,888	13,482	3,300	239,427
11	239,427	13,839	3,300	238,568
12	238,568	14,206	3,300	237,272
13	237,272	14,582	3,300	235,499
14	235,499	14,969	3,300	233,205
15	233,205	15,365	3,300	230,343
16	230,343	15,773	3,300	226,863
17	226,863	16,190	3,300	222,710
18	222,710	16,620	3,300	217,827
19	217,827	17,060	3,300	212,149
20	212,149	17,512	3,300	205,610
21	205,610	17,976	3,300	198,136
22	198,136	18,452	3,300	189,651
23	189,651	18,941	3,300	180,070
24	180,070	19,443	3,300	169,302
25	169,302	19,959	3,300	157,252
26	157,252	20,488	3,300	143,816
27	143,816	21,030	3,300	128,882
28	128,882	21,588	3,300	112,330
29	112,330	22,160	3,300	94,032
30	94,032	22,747	3,300	73,851
31	73,851	23,350	3,300	51,639
32	51,639	23,969	3,300	27,236
33	27,236	24,604	3,300	473
34	473	25,256	3,300	(28,832)



SECTION VII – ACTUARIALLY DETERMINED CONTRIBUTION RATE (ADC)



- One of the metrics in the Funding Policy, as shown in Schedule F, is to calculate the Actuarially Determined Contribution (ADC) based on the principal elements of the Amortization Method disclosed in the Funding Policy. The ratio of the ADC to the Fixed Contribution Rate (ADC/FCR) as set by this Funding Policy will be tested with each valuation. The Funding Policy provides that the unfunded actuarial accrued liability as of June 30, 2023 (Transitional UAAL) will be amortized as a level percentage of payroll over a closed 25-year period. In each subsequent valuation, all benefit changes, assumption and method changes, and experience gains and/or losses that have occurred since the previous valuation will combine to determine a New Incremental UAAL. Each New Incremental UAAL will be amortized as a level percentage of payroll over a closed 25-year period from the date it is established.
- The following table shows the components of the total Unfunded Actuarial Accrued Liability (UAAL) and the derivation of the UAAL Contribution Rate in accordance with the funding policy as of the valuation date:

TOTAL UAAL AND UAAL CONTRIBUTION RATE

Date Established	Original UAAL Balance	Remaining UAAL Balance	Remaining Amortization Period	Amortization Payment*
June 30, 2023	\$227,309,721	\$227,907,671	24 years	\$15,196,657
June 30, 2024	3,181,090	<u>3,181,090</u>	25 years	<u>207,180</u>
Total		\$231,088,761		\$15,403,837
MVR Fee Reduction				\$(3,300,000)
Total Amortization Payment				\$12,103,837
Estimated Payroll				\$36,152,335
UAAL Amortization Contribution Rate				33.48%

* The amortization payment reflects the impact of the additional contributions from Senate Bill No. 2659 and House Bill No. 1015.



SECTION VII – ACTUARIALLY DETERMINED CONTRIBUTION RATE (ADC)



3. The calculation of Actuarial Determined Contribution (ADC) for the past two valuations is shown below:

Funding Policy ADC Metric Test		
Valuation Date June 30	2024	2023
Actuarially Determined Contribution (ADC) rate		
Normal Cost*	19.61%	19.36%
Accrued liability	<u>33.48</u>	<u>32.26</u>
Total	53.09%	51.62%
Fixed Contribution Rate (FCR)	49.08%	49.08%
Ratio of ADC to FCR	108.17%	105.18%
Funding Policy Metric Status	Yellow	Yellow
Anticipated accrued liability payment period	24.3 years	25 years

* Estimated budgeted administrative expenses are included in the normal cost rate

Since the Ratio of ADC to FCR is between 100% and 110% and the Metric Status is in the “Yellow Status” for the 2024 valuation, per the Funding Policy, we recommend no change in the Fixed Contribution Rate of 49.08% of annual compensation at this time. However, the ADC/FCR Ratio is approaching 110% and expected to increase to more than 110% within the next 5 years. Therefore, an increase in the Fixed Contribution Rate may be needed soon, especially if there is negative experience. The Board should continue to review the Sensitivity Analysis section of this report during the fiscal year to understand the volatility that may occur in the projections if investment experience is more or less than expected going forward.





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

1. The following supplemental disclosure information is provided for informational purposes only. One such item is a distribution of the number of employees by type of membership, as follows:

NUMBER OF ACTIVE AND RETIRED PARTICIPANTS AS OF JUNE 30, 2024

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	806
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	76
Active Participants	<u>504</u>
Total	1,386





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

2. Another such item is the schedule of funding progress as shown below. As can be seen in the table below, the funded ratio has remained in a narrow range over the previous 9 years with a decrease last year due to the assumption changes, including the change in the investment return assumption from 7.55% to 7.00%.

SCHEDULE OF FUNDING PROGRESS (\$ Thousands)

Plan Year Ended	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Funded Status (1)/(2)	(4) Unfunded AAL (2) – (1)	(5) Annual Covered Payroll	(6) Unfunded AAL as a Percentage of Covered Payroll (4)/(5)
06/30/2015#	\$316,149	\$477,803	66.2%	\$161,654	\$25,505	633.8%
06/30/2016	324,894	494,101	65.8	169,207	27,380	618.0
06/30/2017#	339,114	497,992	68.1	158,878	28,845	550.8
06/30/2018	352,415	527,428	66.8	175,013	29,555	592.2
06/30/2019#	362,591	541,925	66.9	179,334	31,811	563.7
06/30/2020	373,511	561,662	66.5	188,151	32,346	581.7
06/30/2021#	403,748	573,134	70.4	169,386	29,780	568.8
06/30/2022	419,219	604,084	69.4	184,865	33,759	547.6
06/30/2023#	429,909	657,219	65.4	227,310	34,846	652.3
06/30/2024	439,688	670,777	65.5	231,089	34,645	667.0

After change in actuarial assumptions.





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

3. Additional information as of the latest valuation that went into the calculation of the Actuarially Determined Contribution (ADC) are as follows:

Valuation date	6/30/2024
Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period on ADC Basis	24.3 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return (discount rate)*	7.00%
Projected salary increases*	3.50% - 5.00%
Cost-of-living adjustments	3.00% per annum

** Includes price inflation at 2.40%*





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

Solvency Tests (\$ in Thousands)

Valuation Date	Actuarial Accrued Liabilities for				Portions of Accrued Liabilities Covered by Assets		
	(1) Accumulated Employee Contributions Including Allocated Investment Earnings	(2) Retirees and Beneficiaries Currently Receiving Benefits	(3) Active and Inactive Members Employer Financed Portion	Net Assets Available for Benefits	(1)	(2)	(3)
6/30/2015	\$24,827	\$338,459	\$114,517	\$316,149	100.0%	86.1%	0.0%
6/30/2016	25,791	343,635	124,675	324,894	100.0	87.0	0.0
6/30/2017	26,922	349,850	121,219	339,114	100.0	89.2	0.0
6/30/2018	27,581	358,342	141,506	352,415	100.0	90.6	0.0
6/30/2019	27,244	372,526	142,156	362,591	100.0	90.0	0.0
6/30/2020	26,382	389,269	146,010	373,511	100.0	89.2	0.0
6/30/2021	24,844	417,468	130,821	403,748	100.0	90.8	0.0
6/30/2022	23,951	442,965	137,168	419,219	100.0	89.2	0.0
6/30/2023	22,995	480,925	153,300	429,909	100.0	84.6	0.0
6/30/2024	23,430	502,105	145,242	439,688	100.0	82.9	0.0

As can be seen from the table above, the HSPRS plan assets currently cover 100% of the active member contribution account balances as of the valuation date but only cover about 82.9% of the retiree liability. There remains zero assets to cover any employer financed active liabilities.



SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION



Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Active Members		Annual Average Pay	% Increase in Average Pay
		Number	Annual Payroll		
2015	1	518	\$25,504,676	\$49,237	(4.6)%
2016	1	484	27,380,162	56,571	14.9
2017	1	470	28,845,478	61,373	8.5
2018	1	511	29,555,411	57,838	(5.8)
2019	1	522	31,811,231	60,941	5.4
2020	1	511	32,345,730	63,299	3.9
2021	1	478	29,780,428	62,302	(1.6)
2022	1	478	33,758,750	70,625	13.4
2023	1	507	34,845,681	68,729	(2.7)
2024	1	504	34,644,780	68,740	0.0

Schedule of Number of Retirants Added To and Removed From Rolls Last Ten Fiscal Years

Item	Fiscal Year Ended June 30									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Beginning of Year	720	724	724	726	725	734	740	761	785	792
Added	22	26	22	17	28	21	39	35	26	29
Removed	(18)	(26)	(20)	(18)	(19)	(15)	(18)	(11)	(19)	(15)
End of Year	724	724	726	725	734	740	761	785	792	806

*See Schedule D for a breakdown by type of retirement.





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

**Schedule of Benefit Payments Added To and Removed From Rolls
Last Seven Fiscal Years**

Year Ending	2018	2019	2020	2021	2022	2023	2024
Beginning of Year	\$29,563,842	\$30,614,457	\$31,814,897	\$33,344,108	\$35,443,890	\$37,420,188	\$38,778,092
Added	787,728	1,186,864	1,202,084	2,196,435	2,117,341	1,372,960	1,758,088
Removed	(494,512)	(812,457)	(613,918)	(1,029,029)	(1,072,205)	(1,073,822)	(1,142,543)
Benefit increase due to annual COLA	757,399	826,033	941,045	932,376	931,161	1,058,766	1,051,817
Benefit increase due to plan amendments	0	0	0	0	0	0	0
End of Year	\$30,614,457	\$31,814,897	\$33,344,108	\$35,443,890	\$37,420,188	\$38,778,092	\$40,445,454





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

Schedule of Average Benefit Payments

	Years of Credited Service							TOTAL
	0-9	10-14	15-19	20-24	25	26-29	30	
July 1, 2023 to June 30, 2024								
Average Monthly Benefit		\$749.20	\$2,972.46	\$4,276.05	\$4,282.52	\$5,347.35	\$7,534.58	\$4,287.33
Average Final Salary		\$30,569.22	\$72,664.46	\$86,439.13	\$73,197.60	\$93,369.35	\$117,532.44	\$83,130.15
Number of Active Retirants		2	6	11	1	7	1	29
July 1, 2022 to June 30, 2023								
Average Monthly Benefit	\$957.08		\$2,656.24	\$3,894.76		\$4,182.44	\$5,379.02	\$3,854.25
Average Final Salary	\$56,835.36		\$66,853.44	\$55,733.13		\$70,713.58	\$99,199.52	\$64,061.35
Number of Active Retirants	1		2	12		10	1	26
July 1, 2021 to June 30, 2022								
Average Monthly Benefit			\$2,755.98	\$3,826.83	\$4,384.68	\$5,445.38	\$5,345.90	\$4,418.34
Average Final Salary			\$68,698.46	\$54,434.52	\$54,702.08	\$77,452.96	\$84,017.5	\$67,728.47
Number of Active Retirants			6	8	6	10	5	35
July 1, 2020 to June 30, 2021								
Average Monthly Benefit		\$2,073.24	\$2,071.18	\$3,751.11	\$5,041.93	\$4,935.28	\$4,757.01	\$4,693.24
Average Final Salary		\$63,446.28	\$85,505.28	\$46,027.48	\$61,917.84	\$70,663.19	\$24,044.20	\$58,435.91
Number of Active Retirants		1	2	10	3	12	3	39
July 1, 2019 to June 30, 2020								
Average Monthly Benefit		\$2,246.54	\$2,672.54	\$3,796.62	\$3,751.11		\$6,126.68	\$4,770.17
Average Final Salary		\$70,328.04	\$72,279.84	\$73,364.66	\$72,571.38		\$91,719.95	\$81,757.91
Number of Active Retirants		1	1	5	4		10	21





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

Schedule of Average Benefit Payments

Years of Credited Service									
	0-9	10-15	16-20	21-24	25	26-29	30	31+	TOTAL
July 1, 2018 to June 30, 2019									
Average Monthly Benefit		\$455.07	\$2,111.54	\$3,374.59	\$3,943.38	\$4,902.10	\$5,823.91	\$5,690.03	\$3,532.33
Average Final Salary		\$56,573.88	\$53,477.12	\$77,543.75	\$75,695.64	\$84,403.44	\$93,541.20	\$82,712.42	\$72,182.33
Number of Active Retirants		3	6	9	1	1	1	7	28
July 1, 2017 to June 30, 2018									
Average Monthly Benefit		\$1,307.49	\$2,490.53	\$3,100.20		\$3,562.34	\$4,826.30	\$5,100.57	\$3,976.96
Average Final Salary		\$31,379.76	\$68,832.18	\$60,334.20		\$68,125.68	\$77,928.36	\$75,940.20	\$68,584.98
Number of Active Retirants		1	2	4		1	2	7	17
July 1, 2016 to June 30, 2017									
Average Monthly Benefit	\$337.90	\$996.04	\$556.17	\$2,927.97	\$1,186.14	\$2,670.20	\$4,606.06	\$3,493.16	\$2,716.76
Average Final Salary	\$19,659.72	\$45,533.40	\$22,015.92	\$67,682.80	\$28,912.20	\$54,518.06	\$72,101.25	\$47,949.84	\$55,208.79
Number of Active Retirants	1	1	1	6	2	6	4	1	22
July 1, 2015 to June 30, 2016									
Average Monthly Benefit	\$314.65			\$2,078.23		\$3,012.97	\$1,729.45	\$5,059.27	\$2,672.66
Average Final Salary	\$53,305.68			\$45,947.58		\$37,841.45	\$50,692.08	\$51,223.20	\$43,534.73
Number of Active Retirants	3			6		13	1	3	26
July 1, 2014 to June 30, 2015									
Average Monthly Benefit			\$1,831.19	\$1,719.04	\$1,978.03	\$4,054.02		\$4,758.40	\$3,371.84
Average Final Salary			\$45,652.04	\$30,832.33	\$36,844.69	\$51,499.73		\$67,377.63	\$49,438.65
Number of Active Retirants			3	3	2	10		4	22





SECTION IX – PROJECTION RESULTS

Annual actuarial valuations are performed for HSPRS which re-measure the assets and liabilities and the adequacy of the contribution rate. Actuarial projections are also performed every year with sensitivity testing of several factors. HSPRS also has experience studies performed every two years to analyze the discrepancies between actuarial assumptions and actual experience and determine if the actuarial assumptions need to be changed. Annual actuarial valuations and projections and periodic experience studies are practical ways to monitor and reassess risk.

As mentioned earlier in the report, the intended purpose of the projection results is to help assess the Plan's funding progress and to provide information to decision makers to help ensure that the applicable pension liabilities and funding mechanisms are managed in a manner that promotes sustainability.

The projection process should be viewed as an enhancement to the actuarial valuation control cycle by providing additional evaluation metrics to assess the need for further, in-depth analysis of the risks to the Plan's sustainability. The actuarial valuation control cycle is a key component of managing a long-term liability whose ultimate value is based upon uncertain future events. As the ultimate value of future cash flows cannot be predicted with certainty, pension liabilities are managed in the short-term through the continuous monitoring of economic and demographic assumptions, with a keen eye on the identification, measurement, and management of risks.

The projection process, like other actuarial modeling, is not intended to provide absolute results. The intended purpose of the projection process is to identify anticipated trends and to compare various outcomes, under a given methodology, rather than predicting certain future events. The results produced by the projection process do not predict the financial condition of the Plan or the Plan's ability to pay benefits in the future and do not provide any guarantee of future financial soundness of the Plan. Because actual experience will not unfold exactly as expected, actual results can be expected to differ from the results presented herein. To the extent actual experience deviates significantly from the assumptions, results could be significantly better or significantly worse than the expected outcome indicated in this report.





SECTION IX – PROJECTION RESULTS

SPECIAL ASSUMPTIONS

In addition to the regular valuation assumptions used in performing the annual actuarial valuations of HSPRS, additional assumptions must be made that are unique to projections. The first of these is what, if any, change in the overall active membership will be anticipated. For this projection study, it was assumed that the number of active members would remain static over the 30-year projection period.

But since we assume active members will leave the system through termination, death, disability, or retirement, we need to make some assumptions as to the composition of new hires that will replace departing members in order to maintain the membership at a constant number. The new entrant profile we developed was based on the new hires in the last three years prior to the projection start date of June 30, 2024. The new entrant profile is summarized in the table below.

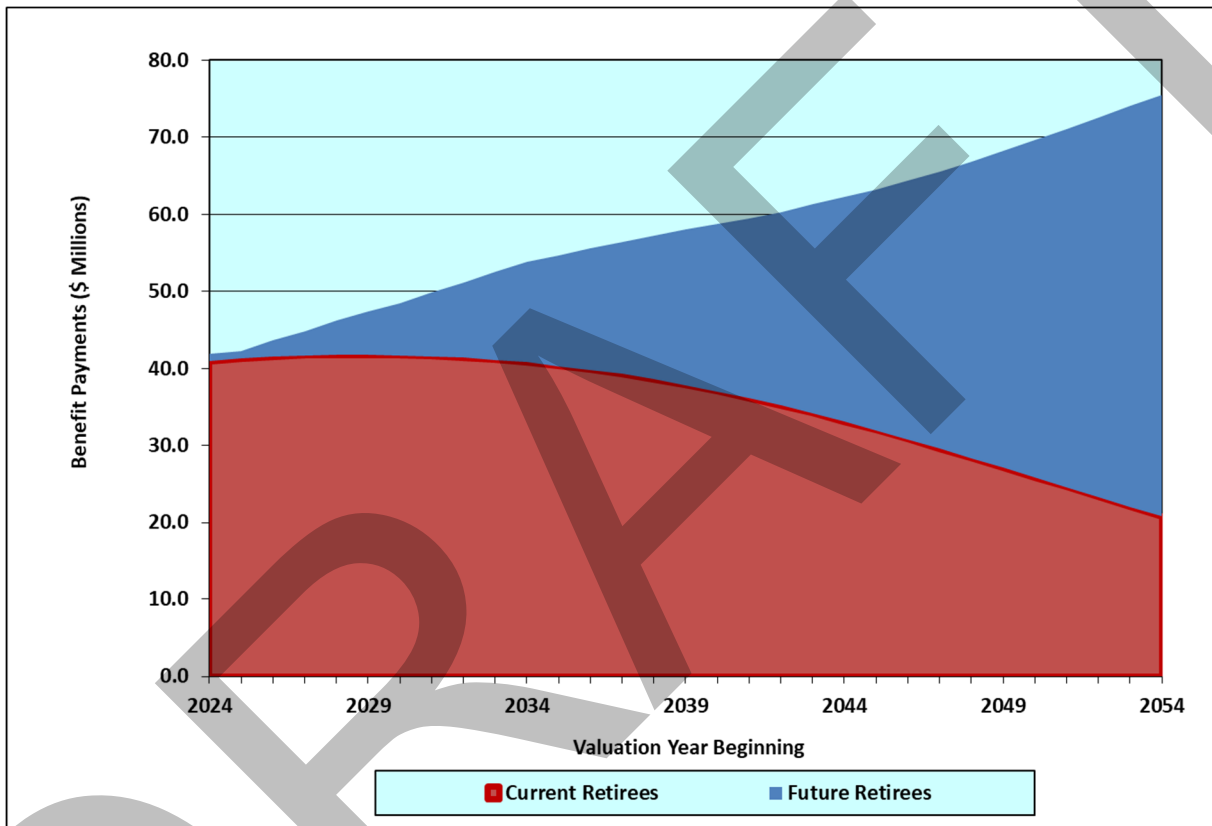
Age	Average Pay	Percent Male	Weight
22	\$52,000	100%	14%
25	\$52,000	93%	29%
28	\$52,000	93%	18%
32	\$52,000	88%	22%
37	\$52,000	100%	6%
43	\$52,000	90%	7%
49	\$52,000	100%	4%





SECTION IX – PROJECTION RESULTS

For the projection results presented in this section of the report, it was further assumed that the benefit structure as it exists on June 30, 2024 would remain in place for the following 30 years. The following graph shows the projection of benefit payments of HSPRS members. The red area of the graph represents the benefit payments for current retirees and the blue area represents the benefit payments for any future retirees. HSPRS currently pays approximately \$41 million in benefit payments to its retirees but over the 30-year period, that amount is expected to nearly double.





SECTION IX – PROJECTION RESULTS

FUTURE MEMBERSHIP

The following chart and graph show the headcounts of active participants and retired members over the projection period. The actives are broken down into those existing as of June 30, 2024 and those who are hired after June 30, 2024. For baseline projection purposes, we have continued the active membership at its current population of 504 active members over the projected period. In Section XI of this report, we provide some sensitivity analysis around this static assumption.

Member	2024	2029	2034	2044	2047	2054
Active – Existing Employees	504	372	260	106	65	9
Active – New Entrants	0	132	244	398	439	495
Retirees	612	693	783	926	949	1,035
Beneficiaries	182	196	210	207	207	207
Disableds	12	9	9	11	12	15
Vested Terminations	41	35	47	62	67	72
Total	1,351	1,437	1,553	1,710	1,739	1,833





SECTION IX – PROJECTION RESULTS

PROJECTION RESULTS

The baseline projection results shown below use the same actuarial assumptions as used the June 30, 2024 actuarial valuation report. Please note that contributions from SB 2659 and HB 1015 are assumed to continue to provide an additional \$3,300,000 annually throughout the projection period under all scenarios. These dollars are in addition to the employer contributions as a percentage of payroll shown below. In addition, the projection results using a different long-term investment return assumptions for future valuations (6.50%) is included.

Baseline Projection Results (7.00%) (\$ in Thousands)

	2024	2029	2034	2044	2047	2054
Total Payroll	\$34,645	\$39,030	\$42,995	\$54,821	\$58,761	\$69,327
UAL	231,089	238,865	240,941	219,857	201,740	124,763
Normal Cost Rate	19.61%	20.20%	20.61%	20.95%	21.03%	21.26%
UAL Rate	29.47%	28.88%	28.47%	28.13%	28.05%	27.82%
FCR Rate	49.08%	49.08%	49.08%	49.08%	49.08%	49.08%
Funded Ratio	65.5%	67.8%	70.3%	77.4%	80.5%	89.6%
Amortization Period	33 years	28 years	25 years	16 years	13 years	6 years
ADC	53.09%	57.97%	63.84%	79.61%	86.92%	41.45%
ADC Ratio	108.2%	118.1%	130.1%	162.3%	177.1%	84.4%
Cash Flow %	(4.1)%	(4.2)%	(4.4)%	(3.6)%	(3.3)%	(2.9)%

Projection Results Assuming 6.50% (Long-Term Investment Return) (\$ in Thousands)

	2024	2029	2034	2044	2047	2054
Total Payroll	\$34,645	\$39,030	\$42,995	\$54,821	\$58,761	\$69,327
UAL	271,438	295,779	321,390	381,268	400,755	448,983
Normal Cost Rate	23.26%	23.90%	24.37%	24.78%	24.88%	25.17%
UAL Rate	25.82%	25.18%	24.71%	24.30%	24.20%	23.91%
FCR Rate	49.08%	49.08%	49.08%	49.08%	49.08%	49.08%
Funded Ratio	61.8%	62.4%	62.6%	63.0%	63.4%	64.7%
Amortization Period	45 years	49 years	52 years	51 years	50 years	48 years
ADC	61.68%	69.82%	80.17%	109.30%	122.44%	73.42%
ADC Ratio	125.7%	142.3%	163.4%	222.7%	249.5%	149.6%
Cash Flow %	(4.1)%	(4.3)%	(4.7)%	(4.1)%	(4.0)%	(3.8)%





SECTION IX – PROJECTION RESULTS

The first graph that follows shows the projection of the Unfunded Accrued Liability (UAL), Actuarial Value of Assets and the Funded Ratio under the baseline valuation (assuming 7.00%) from the amounts shown in the baseline table on the previous page. As you can see from the graph, under the current assumptions, the funded ratio is expected to slightly increase each year during the projection period. However, it only reaches about 90% by the end of the projection period.

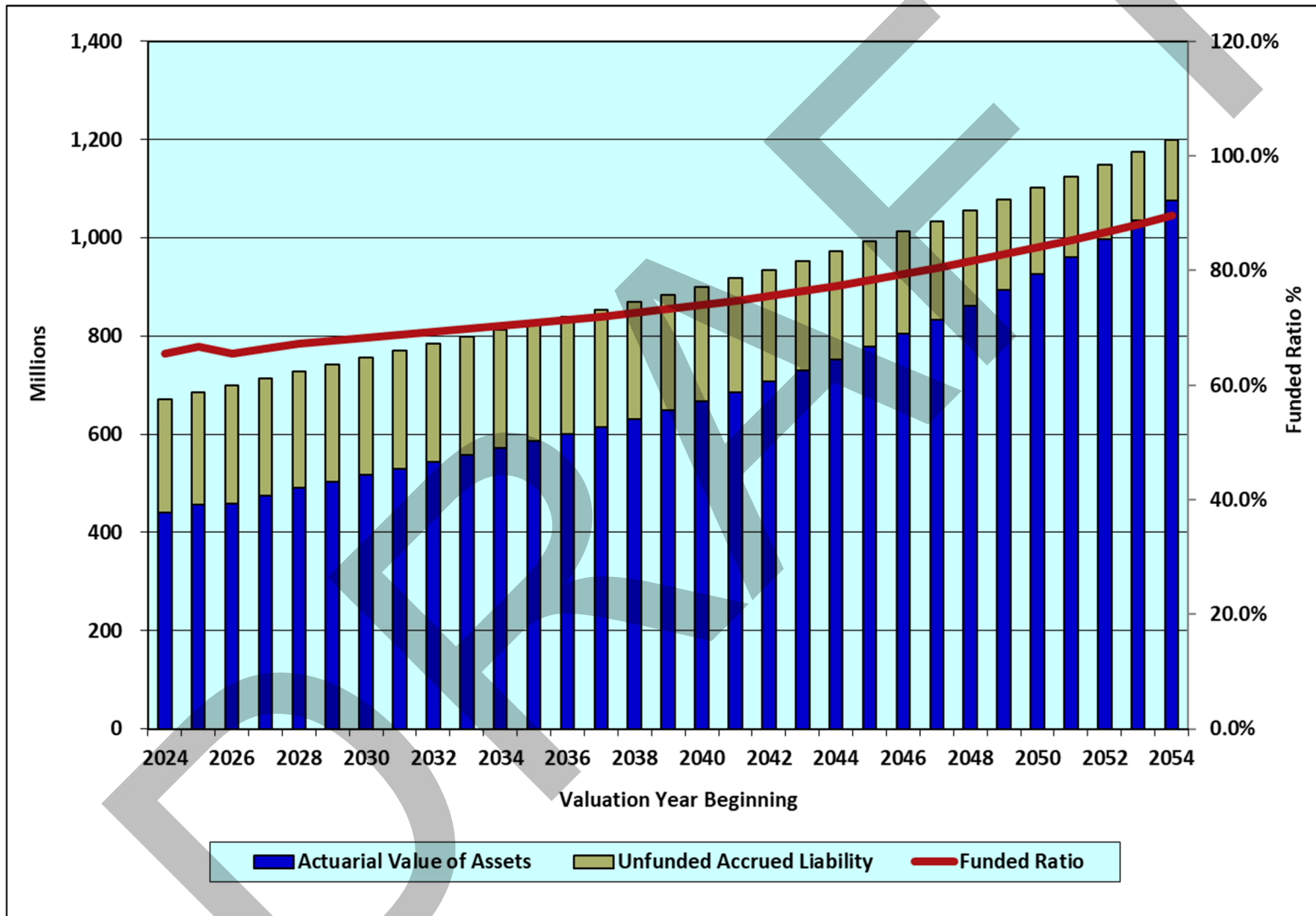
The second graph shows the projection of the calculated Actuarially Determined Contribution (ADC) based on the Board's Funding Policy and the current Fixed Contribution Rate (FCR) of 49.08% under the baseline valuation. As you can see from the graph, the ADC is expected to increase even further for the remaining projection period, as the valuation results continue to include contribution deficiency shortfalls due to the difference between the ADC and FCR. The drop in the ADC near the end of the projection period is a result of the initial 2023 UAL base of \$227 Million being paid off, based on the closed amortization period per the Board's Funding Policy.



SECTION IX – PROJECTION RESULTS

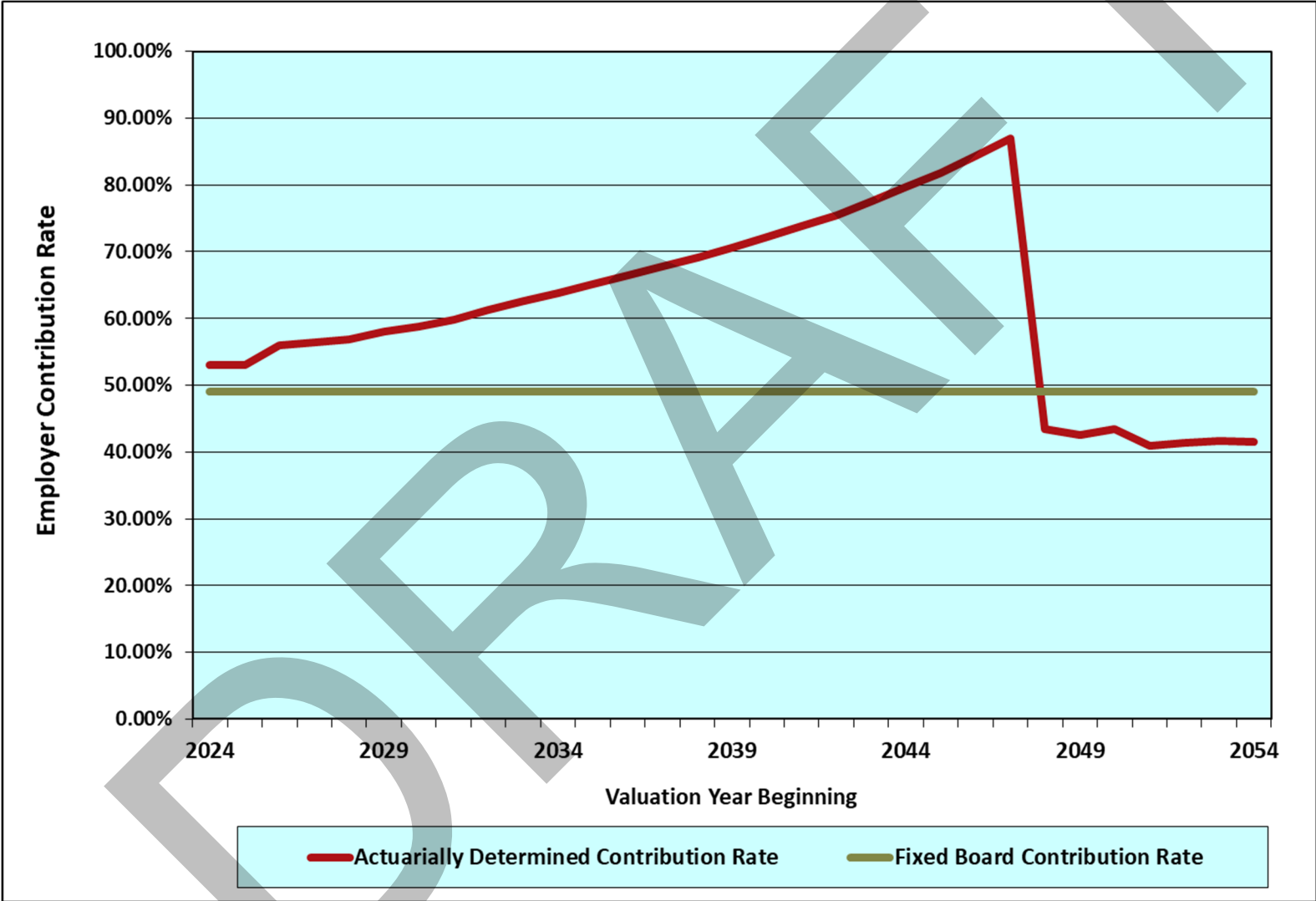


Mississippi PERS – HSPRS Plan
30 Year Projection of Funded Ratio on Actuarial Asset Value
Based on June 30, 2024 Valuation Results





Mississippi PERS – HSPRS Plan
30 Year Projection of Employer Contribution Rates
Based on June 30, 2024 Valuation Results





SECTION X – CASH FLOW PROJECTIONS

CASH FLOW PROJECTIONS

The funded ratio is the primary measure of funded status of a pension plan and, thereby, the most common measurement used for drawing conclusions on funding progress. The funded ratio is the ratio of the actuarial value of assets to the actuarial or accrued liability of the system as calculated by the funding method used in developing system contribution levels. When using the funded ratio in assessing trends over several valuations, we recommend that the basis for determining both the assets and liabilities in the ratio are taken into consideration and reasonable efforts are made to adjust the ratio to reflect these differences when they are known. On a consistent basis, an increasing funded ratio would typically indicate progress in meeting the obligations of the system. In most cases, other measures should also be considered in a trend assessment. These may include the trend in the length of the amortization period, the required contribution rate, percentage of required contributions funded, and the unfunded actuarial liability as a percentage of payroll. Focusing solely on any one measure as the indication of funding progress is an over-simplification of a complex and dynamic system.

Another of those additional metrics is an outlook on the cash flow as a percentage of assets for the System. Most retirement systems are funded with an advance-funding mechanism, meaning contributions and investment earnings are earned during a member's active lifetime in order to pay for the benefit payments during his retirement years. Many mature retirement systems, like HSPRS, have negative cash flow, where benefit payments paid out of the trust are more than the contributions being collected by employers and employees.

For the fiscal year ending June 30, 2025, we are projecting HSPRS to have a negative cash flow of approximately \$17.8 Million (benefit payments of \$41.9 Million and contributions of \$24.1 Million). With a market value of assets of \$438 Million as of June 30, 2023, the cash flow as a percentage of assets is estimated to be negative 4.07% for the 2025 fiscal year. While the market value of assets is assumed to earn 7.00% each year, the difference between the investment return assumption and the negative cash flow percentage is positive, meaning assets are projected to grow for the 2025 fiscal year. When assets do not earn a positive return enough to cover this negative cash flow percentage, assets are expected to decline for the year. If the negative cash flow percentage does not grow more than the assumed investment return assumption, the System's assets will continue to increase, and sustainability of the plan may be achieved.





SECTION X – CASH FLOW PROJECTIONS

The tables on the following pages demonstrate the open group projection of cash flow on (1), the baseline assumption, and then (2), a sensitivity analysis, using a one-year return of negative 5.00% for the fiscal year ending June 30, 2025. These results demonstrate the projection of this metric if HSPRS experiences one significant bad investment year in one of the next five years without a correction in the market. As can be seen from the table on page 38, the cash flow as a percentage of market value of assets does not at any point get less than negative 4.42% on the baseline assumptions, meaning that HSPRS assets should continue to increase as long as all baseline actuarial assumptions are met.

If there is a significant negative investment experience in one of the next five years (as seen on the table on page 39), the negative cash flow will be less than the baseline cash flow, however, HSPRS will not have a decrease in their assets at any point during the remaining projection period.

This metric will continue to be monitored as part of the funding policy under the baseline assumptions to ensure the continued growth of HSPRS assets during the projection period.





SECTION X – CASH FLOW PROJECTIONS

Mississippi PERS
30-year Open Group Projection of Cash Flow
HSPRS Plan
Based on June 30, 2024 Valuation Results

Projection of Cash Flow

Contribution Methodology:
Investment Return Methodology:

Employee and Employer Contributions
As Programmed

Valuation Year Beginning July 1	Expected Short-term Investment Return	Valuation Annual Payroll	Market Value of Assets July 1	Total Contributions	Projected Benefit Payments	Ratio of Cash Flow to MVA	Expected Investment Return	Net Cash Flow	Market Value of Assets June 30	Valuation Year Ending June 30
2024	7.00%	36,152,335	438,476,000	24,071,903	(41,930,754)	-4.07%	30,078,832	12,219,981	450,695,981	2025
2025	7.00%	36,905,419	450,695,981	24,504,599	(42,283,577)	-3.94%	30,936,979	13,158,001	463,853,982	2026
2026	7.00%	37,655,549	463,853,982	24,935,598	(43,611,418)	-4.03%	31,827,180	13,151,361	477,005,342	2027
2027	7.00%	38,340,570	477,005,342	25,329,188	(44,865,813)	-4.10%	32,718,157	13,181,532	490,186,874	2028
2028	7.00%	39,029,625	490,186,874	25,725,096	(46,200,945)	-4.18%	33,608,547	13,132,698	503,319,572	2029
2029	7.00%	39,752,538	503,319,572	26,140,457	(47,344,146)	-4.21%	34,502,793	13,299,104	516,618,675	2030
2030	7.00%	40,709,167	516,618,675	26,690,103	(48,426,761)	-4.21%	35,415,391	13,678,733	530,297,409	2031
2031	7.00%	41,584,889	530,297,409	27,193,263	(49,794,459)	-4.26%	36,343,156	13,741,960	544,039,369	2032
2032	7.00%	42,243,148	544,039,369	27,571,477	(51,184,313)	-4.34%	37,270,284	13,657,447	557,696,816	2033
2033	7.00%	42,994,666	557,696,816	28,003,273	(52,487,701)	-4.39%	38,196,316	13,711,888	571,408,704	2034
2034	7.00%	43,878,753	571,408,704	28,511,240	(53,784,451)	-4.42%	39,129,008	13,855,797	585,264,501	2035
2035	7.00%	44,820,329	585,264,501	29,052,237	(54,691,509)	-4.38%	40,086,318	14,447,046	599,711,547	2036
2036	7.00%	45,972,737	599,711,547	29,714,372	(55,631,237)	-4.32%	41,088,060	15,171,194	614,882,741	2037
2037	7.00%	47,091,081	614,882,741	30,356,934	(56,452,546)	-4.24%	42,143,893	16,048,281	630,931,022	2038
2038	7.00%	48,374,299	630,931,022	31,094,227	(57,268,828)	-4.15%	43,264,555	17,089,955	648,020,977	2039
2039	7.00%	49,571,183	648,020,977	31,781,916	(58,029,131)	-4.05%	44,458,353	18,211,138	666,232,115	2040
2040	7.00%	50,838,885	666,232,115	32,510,295	(58,749,983)	-3.94%	45,733,392	19,493,704	685,725,819	2041
2041	7.00%	52,184,564	685,725,819	33,283,476	(59,482,620)	-3.82%	47,099,346	20,900,203	706,626,021	2042
2042	7.00%	53,528,120	706,626,021	34,055,438	(60,296,129)	-3.71%	48,560,931	22,320,240	728,946,261	2043
2043	7.00%	54,820,952	728,946,261	34,798,255	(61,331,234)	-3.64%	50,113,290	23,580,312	752,526,572	2044
2044	7.00%	56,030,632	752,526,572	35,493,296	(62,222,201)	-3.55%	51,757,171	25,028,266	777,554,839	2045
2045	7.00%	57,433,998	777,554,839	36,299,622	(63,223,393)	-3.46%	53,502,444	26,578,673	804,133,512	2046
2046	7.00%	58,760,841	804,133,512	37,061,981	(64,390,871)	-3.40%	55,349,012	28,020,122	832,153,634	2047
2047	7.00%	60,072,853	832,153,634	37,815,819	(65,567,003)	-3.33%	57,295,890	29,544,706	861,698,340	2048
2048	7.00%	61,513,877	861,698,340	38,643,782	(66,790,613)	-3.27%	59,350,406	31,203,575	892,901,915	2049
2049	7.00%	62,937,876	892,901,915	39,461,964	(68,227,280)	-3.22%	61,513,376	32,748,060	925,649,975	2050
2050	7.00%	64,409,495	925,649,975	40,307,506	(69,565,974)	-3.16%	63,788,772	34,530,304	960,180,279	2051
2051	7.00%	66,019,923	960,180,279	41,232,803	(71,069,591)	-3.11%	66,185,994	36,349,206	996,529,485	2052
2052	7.00%	67,616,664	996,529,485	42,150,236	(72,546,969)	-3.05%	68,711,172	38,314,439	1,034,843,924	2053
2053	7.00%	69,327,460	1,034,843,924	43,133,201	(74,019,837)	-2.98%	71,376,326	40,489,690	1,075,333,614	2054
2054	7.00%	71,068,998	1,075,333,614	44,133,830	(75,526,610)	-2.92%	74,193,189	42,800,409	1,118,134,023	2055





SECTION X – CASH FLOW PROJECTIONS

Mississippi PERS 30-year Open Group Projection of Cash Flow HSPRS Plan Based on June 30, 2024 Valuation Results

Projection of Cash Flow

Contribution Methodology:
Investment Return Methodology:

Employee and Employer Contributions
As Programmed

Valuation Year Beginning July 1	Expected Short-term Investment Return	Valuation Annual Payroll	Market Value of Assets July 1	Total Contributions	Projected Benefit Payments	Ratio of Cash Flow to MVA	Expected Investment Return	Net Cash Flow	Market Value of Assets June 30	Valuation Year Ending June 30
2024	-5.00%	36,152,335	438,476,000	24,071,903	(41,930,754)	-4.07%	(21,471,604)	(39,330,455)	399,145,545	2025
2025	7.00%	36,905,419	399,145,545	24,504,599	(42,283,577)	-4.45%	27,328,448	9,549,470	408,695,015	2026
2026	7.00%	37,655,549	408,695,015	24,935,598	(43,611,418)	-4.57%	27,966,053	9,290,234	417,985,248	2027
2027	7.00%	38,340,570	417,985,248	25,329,188	(44,865,813)	-4.67%	28,586,750	9,050,125	427,035,373	2028
2028	7.00%	39,029,625	427,035,373	25,725,096	(46,200,945)	-4.79%	29,187,942	8,712,093	435,747,466	2029
2029	7.00%	39,752,538	435,747,466	26,140,457	(47,344,146)	-4.87%	29,772,745	8,569,056	444,316,521	2030
2030	7.00%	40,709,167	444,316,521	26,690,103	(48,426,761)	-4.89%	30,354,241	8,617,583	452,934,105	2031
2031	7.00%	41,584,889	452,934,105	27,193,263	(49,794,459)	-4.99%	30,927,724	8,326,528	461,260,633	2032
2032	7.00%	42,243,148	461,260,633	27,571,477	(51,184,313)	-5.12%	31,475,773	7,862,936	469,123,569	2033
2033	7.00%	42,994,666	469,123,569	28,003,273	(52,487,701)	-5.22%	31,996,189	7,511,761	476,635,330	2034
2034	7.00%	43,878,753	476,635,330	28,511,240	(53,784,451)	-5.30%	32,494,871	7,221,660	483,856,990	2035
2035	7.00%	44,820,329	483,856,990	29,052,237	(54,691,509)	-5.30%	32,987,792	7,348,520	491,205,510	2036
2036	7.00%	45,972,737	491,205,510	29,714,372	(55,631,237)	-5.28%	33,492,637	7,575,771	498,781,281	2037
2037	7.00%	47,091,081	498,781,281	30,356,934	(56,452,546)	-5.23%	34,016,791	7,921,179	506,702,460	2038
2038	7.00%	48,374,299	506,702,460	31,094,227	(57,268,828)	-5.17%	34,568,555	8,393,955	515,096,415	2039
2039	7.00%	49,571,183	515,096,415	31,781,916	(58,029,131)	-5.10%	35,153,634	8,906,419	524,002,834	2040
2040	7.00%	50,838,885	524,002,834	32,510,295	(58,749,983)	-5.01%	35,777,342	9,537,654	533,540,488	2041
2041	7.00%	52,184,564	533,540,488	33,283,476	(59,482,620)	-4.91%	36,446,373	10,247,230	543,787,717	2042
2042	7.00%	53,528,120	543,787,717	34,055,438	(60,296,129)	-4.83%	37,162,249	10,921,558	554,709,275	2043
2043	7.00%	54,820,952	554,709,275	34,798,255	(61,331,234)	-4.78%	37,916,701	11,383,723	566,092,997	2044
2044	7.00%	56,030,632	566,092,997	35,493,296	(62,222,201)	-4.72%	38,706,821	11,977,916	578,070,914	2045
2045	7.00%	57,433,998	578,070,914	36,299,622	(63,223,393)	-4.66%	39,538,570	12,614,799	590,685,713	2046
2046	7.00%	58,760,841	590,685,713	37,061,981	(64,390,871)	-4.63%	40,407,666	13,078,776	603,764,489	2047
2047	7.00%	60,072,853	603,764,489	37,815,819	(65,567,003)	-4.60%	41,308,650	13,557,466	617,321,955	2048
2048	7.00%	61,513,877	617,321,955	38,643,782	(66,790,613)	-4.56%	42,244,059	14,097,228	631,419,183	2049
2049	7.00%	62,937,876	631,419,183	39,461,964	(68,227,280)	-4.56%	43,209,585	14,444,269	645,863,452	2050
2050	7.00%	64,409,495	645,863,452	40,307,506	(69,565,974)	-4.53%	44,203,715	14,945,247	660,808,699	2051
2051	7.00%	66,019,923	660,808,699	41,232,803	(71,069,591)	-4.52%	45,229,983	15,393,195	676,201,894	2052
2052	7.00%	67,616,664	676,201,894	42,150,236	(72,546,969)	-4.50%	46,288,240	15,891,507	692,093,401	2053
2053	7.00%	69,327,460	692,093,401	43,133,201	(74,019,837)	-4.46%	47,383,789	16,497,153	708,590,554	2054
2054	7.00%	71,068,998	708,590,554	44,133,830	(75,526,610)	-4.43%	48,521,175	17,128,395	725,718,949	2055





SECTION XI – SENSITIVITY ANALYSIS

SENSITIVITY ANALYSIS

Measuring pension obligations and actuarially determined contributions requires the use of assumptions regarding future economic and demographic experience. Whenever assumptions are made about future events, there is risk that actual experience will differ from expected. Actuarial valuations include the risk that actual future measurements will deviate from expected future measurements due to actual experience that is different than the actuarial assumptions. The primary areas of risk in this actuarial valuation are.

- Investment Risk – the potential that actual investment returns will be different than expected.
- Longevity and Other Demographic Risks – the potential that mortality or other demographic experience will be different than expected.
- Interest Rate Risk – to the extent market rates of interest affect the expected return on assets, there is a risk of changing to the discount rate which determines the present value of liabilities and actuarial valuation results.
- Contribution Risk – the potential that actual contributions are different than the fixed contribution rates.
- Liquidation Risk - the potential that the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds.





SECTION XI – SENSITIVITY ANALYSIS

Investment Risk

In this section of the report, we will demonstrate the variability in achieving funding goals based on sensitivity around the three key variables listed above. Earlier in this section, we reviewed the projections if the long-term investment return assumption was lowered to rates below 7.00% (6.50%). In this section, we keep the long-term investment return assumption at 7.00% but review the sensitivity of short-term investment returns as a single year event (and then 7.00% for all years thereafter) and simulate the next 10-year periods of returns (and then 7.00% for all years thereafter).

Projected Funded Ratios in 2047

Single Year Event	2024 Valuation	2023 Valuation
• 1.00% for the next fiscal year	69.4%	67.5%
• 3.00% for the next fiscal year	73.1%	71.2%
• 5.00% for the next fiscal year	76.8%	74.9%
• 7.00% for the next fiscal year (Baseline)	80.5%	78.6%
• 9.00% for the next fiscal year	84.2%	82.3%
• 11.00% for the next fiscal year	87.9%	86.0%
• 13.00% for the next fiscal year	91.5%	89.7%
• Simulate 2008 loss using -15% for the next fiscal year	40.0%	38.0%
Average Returns over next 10-Year Period (Simulated returns using mean and standard deviations from PERS' Investment Consultant's Capital Market Assumptions)*	2024 Valuation	2023 Valuation
• 6.00%	65.5%	63.4%
• 7.00%	80.7%	78.8%
• 8.00%	100.4%	98.6%

* 6.00% Average Returns over the next 10-Year Period: 7.04%, 10.32%, 2.25%, 5.45%, 8.52%, 0.00%, 5.44%, 11.49%, -7.04%, 18.53%
 7.00% Average Returns over the next 10-Year Period: 3.61%, 20.67%, -0.02%, 11.58%, -4.84%, 8.13%, 18.10%, 2.04%, 0.83%, 12.67%
 8.00% Average Returns over the next 10 Year Period: 9.00%, 9.01%, 16.24%, 4.84%, 16.62%, 6.78%, -3.74%, 6.19%, 18.57%, -1.19%





SECTION XI – SENSITIVITY ANALYSIS

As can be seen from the projected funded ratios on the table above, the sensitivity of short-term investment returns does have a significant impact to the funding of HSPRS in the long-term, especially another repeat of the Great Recession of 2008. We believe it demonstrates the importance of these continued projection reports and the continued monitoring of this sensitivity analysis because short-term differences in investment returns can have a major impact on the projection of funded ratios.

Demographic Risk

While actual investment returns compared to that assumed is the most critical driver of funding, many other assumptions are used in the actuarial projections to review sensitivity, such as population growth and wage inflation. Variances in these other assumptions over the long-term may also have an impact on the funding of the Plan.

For HSPRS, there have been significant fluctuations in active membership since 2008. In the baseline projections we assume a static population of 504 active members. For sensitivity analysis, we have performed the projections assuming both a 0.25% and 0.50% increase and decrease each year around this static assumption. For HSPRS, a 0.50% decrease in active population each year of the projection results in the active population dropping to 433. In the table below, we review these alternatives to the static active membership growth:

Projected Funded Ratio in 2047

Active Membership Growth	2024 Valuation	2023 Valuation
• Increase 0.50% each year	83.5%	82.2%
• Increase 0.25% each year	82.0%	80.4%
• Static Population (Baseline Assumption)	80.5%	78.6%
• Decrease 0.25% each year	79.0%	76.9%
• Decrease 0.50% each year	77.6%	75.1%





SECTION XI – SENSITIVITY ANALYSIS

Assumption Risk

We also performed a sensitivity analysis for the wage inflation assumption. As a result of the experience study presented in April 2023, the Board kept the wage inflation assumption at 2.65%, which is 0.25% above the price inflation of 2.40%. Wage inflation is a major component of the underlying salary increase assumptions, as well as the amortization of the Unfunded Accrued Liability which is based on the level percent of payroll amortization methodology.

In the table below, the second scenario lowers the discount rate to 6.75% but does not change the price inflation or wage inflation. The third scenario lowers the price and wage inflation by 0.30% and lowers the discount rate to 6.75%.

Projected Funded Ratios in 2047

Scenario	Price Inflation	Discount Rate	Wage Inflation	2024 Valuation	2023 Valuation
1 - Baseline	2.40%	7.00%	2.65%	80.5%	78.6%
2	2.40%	6.75%	2.65%	71.5%	69.7%
3	2.10%	6.75%	2.35%	68.5%	68.9%





SECTION XI – SENSITIVITY ANALYSIS

Contribution Risk

To demonstrate the contribution risk of making the Fixed Contribution Rates (FCR) for HSPRS, we have calculated the projected funded ratios if the FCRs were 1% higher or 1% lower than the current rates for all future years.

Projected Funded Ratios in 2047

Change in Fixed Contribution Rate (FCR)	2024 Valuation	2023 Valuation
• Baseline	80.5%	78.6%
• 1.00% increase in FCR	82.7%	81.0%
• 1.00% decrease in FCR	78.3%	76.2%

Over a long projection period, gains and losses due to population growth and wage inflation assumptions will be relatively concentrated around the expected value of these assumptions. So, the impact of the sensitivity around these baseline assumptions is small when compared to the investment return assumption.





SECTION XI – SENSITIVITY ANALYSIS

Liquidation Risk

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we must now include a low-default-risk obligation measure of the Fund's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of this plan.

This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of June 30, 2024 and with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a low-default-risk obligation measure liability of approximately \$772,120,000.

This amount approximates the termination liability if the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds. This assurance of funded status and benefit security is typically more relevant for corporate plans than for governmental plans since governments rarely have the need or option to completely terminate a plan.





SECTION XII – PROJECTION SUMMARY

Utilizing the metrics based on the funding policy for HSPRS and with a fixed contribution rate as a percentage of annual compensation of 49.08% of payroll, the projection results for 2024 for HSPRS show that none of the funding policy metrics are in the Red Status. Therefore, we do not recommend an increase in the Fixed Contribution Rate (FCR) of 49.08% of annual compensation at this time. However, the ADC/FCR ratio is expected to increase to more than 110% within the next 5 years. Therefore, an increase in the Fixed Contribution Rate may be needed soon, especially if there is negative experience.

Metrics	2024 Baseline Projection	2024 Status
Funding Ratio in 2047	80.5%	Yellow
Cash Flow as a Percentage of Assets	(4.42)%	Green
ADC/FCR Ratio from 2024 Valuation	108.2%	Yellow
ADC/FCR Ratio from 2025 Valuation	108.0%	Yellow





SCHEDULE A – DEVELOPMENT OF ASSETS

(\$ thousands)

Valuation Date June 30:	2023	2024	2025	2026	2027	2028
A. Actuarial Value Beginning of Year	\$419,219	\$429,909				
B. Market Value End of Year	416,724	438,476				
C. Market Value Beginning of Year	405,372	416,724				
D. Cash Flow						
D1. Contributions	20,299	20,391				
D2. Other Revenue	3,159	3,293				
D3. Benefit Payments	(41,122)	(43,960)				
D4. Refunds	(161)	(143)				
D5. Administrative Expenses	(359)	(350)				
D6. Net	(18,184)	(20,769)				
E. Investment Income						
E1. Market Total: B.-C.-D6.	29,536	42,521				
E2. Assumed Rate	7.55%	7.00%				
E3. Amount for Immediate Recognition	29,919	28,444				
E4. Amount for Phased-In Recognition	(383)	14,077				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	(77)	2,815				
F2. First Prior Year	(14,937)	(77)	2,815			
F3. Second Prior Year	17,632	(14,937)	(77)	2,815		
F4. Third Prior Year	(3,334)	17,632	(14,937)	(77)	2,815	
F5. Fourth Prior Year	(329)	(3,329)	17,630	(14,938)	(75)	2,817
F6. Total Recognized Investment Gain	(1,045)	2,104	5,431	(12,200)	2,740	2,817
G. Actuarial Value End of Year: A + D6. + E3. + F6.	\$429,909	\$439,688				
H. Difference Between Market & Actuarial Values	\$(13,185)	\$(1,212)	\$(6,643)	\$5,557	\$2,817	\$0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.





SCHEDULE A – DEVELOPMENT OF ASSETS

Asset Summary June 30, 2024 (\$ in Thousands)		
	Market Value	Actuarial Value
(1) Assets at June 30, 2023	\$416,724	\$429,909
(2) Contributions and Misc. Revenue	23,684	23,684
(3) Investment Increment	42,521	30,548
(4) Benefit Payments	(43,960)	(43,960)
(5) Refunds	(143)	(143)
(6) Administrative Expenses	(350)	(350)
(7) Assets at June 30, 2024 (1)+(2)+(3)+(4)+(5)+(6)	\$438,476	\$439,688
(8) Net Investment Return [2 x (3)] / [(7) + (1) – (3)]	10.46%	7.28%





SCHEDULE B – ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation are based on the results of the experience investigation for the four-year period ending June 30, 2022, dated April 21, 2023, and adopted by the Board on August 22, 2023. The combined effect of the assumptions is expected to have no significant bias.

INTEREST RATE: 7.00% per annum, compounded annually (net of investment expenses only). The expected return on assets consists of 2.40% price inflation and 4.60% real rate of return.

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of separation from active service are as follows:

Age	Withdrawal		Death*		Disability	Service	Service Retirement**
	Less than 20 years of service	20 or more years of service	Males	Females	Duty and Non-Duty		
25	7.000%		0.0567%	0.0189%	0.0191%	5	7.5%
30	4.000		0.0630	0.0259	0.0259	10	7.5%
35	2.750	1.375%	0.0714	0.0350	0.0383	15	7.5%
40	2.000	1.000	0.0893	0.0483	0.0506	20	9.0%
45	2.000	1.000	0.1218	0.0665	0.0675	25	24.0%
50	2.000	1.000	0.1764	0.0917	0.1035	30	25.0%
55	0.000	0.000	0.2594	0.1274	0.1744	35	35.0%
60	0.000	0.000	0.3980	0.1757	0.2914	40+	100.0%

* Adjusted Base Rates.

** The annual rate of service retirement is 100% at age 63.

It is assumed that a member will be granted 1¼ years of service credit for unused leave at termination of employment. In addition, it is assumed that, on average, ½ year of service credit for peace-time military service will be granted to each member.





SCHEDULE B – ACTUARIAL ASSUMPTIONS AND METHODS

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

Service	Merit & Seniority	Annual Rates of	
		Base (Economy)	Increase Next Year
0-4	2.35%	2.65%	5.00%
5-7	2.10	2.65	4.75
8-13	1.60	2.65	4.25
14-20	1.35	2.65	4.00
21-24	1.10	2.65	3.75
25	0.85	2.65	3.50

DEATH AFTER RETIREMENT:

Service Retirees*

Membership Table

Adjustment to Rates

Projection Scale

PubS.H-2010(B)
Retiree

Male: 95% up to age 60, 110% for ages 61 to 75, and
101% for ages above 77
Female: 84% up to age 72, 100% for ages above 76

MP-2020

Contingent Annuitants*

Membership Table

Adjustment to Rates

Projection Scale

PubS.H-2010(B)
Contingent Annuitant

Male: 97% for all ages
Female: 110% for all ages

MP-2020

Disabled Retirees*

Membership Table

Adjustment to Rates

Projection Scale

PubG.H-2010
Disabled

Male: 134% for all ages
Female: 121% for all ages

MP-2020

* Please note that none of the recommended tables have any setbacks or setforwards.





SCHEDULE B – ACTUARIAL ASSUMPTIONS AND METHODS

Representative values of the assumed rates of death after retirement are as follows:

Rates of Death After Retirement*						
	Service Retirees		Contingent Annuitants		Disabled Retirees	
Age	Male	Female	Male	Female	Male	Female
45	0.2983%	0.0983%	0.7692%	0.5104%	1.4660%	1.1919%
50	0.4190%	0.1638%	0.8837%	0.6556%	2.2780%	1.7956%
55	0.5197%	0.2738%	1.0156%	0.7843%	2.9855%	2.1078%
60	0.7771%	0.4578%	1.2397%	1.0131%	3.6475%	2.4684%
65	1.3211%	0.7652%	1.6286%	1.4157%	4.5426%	2.9730%
70	2.1758%	1.2785%	2.4153%	1.9998%	5.8129%	3.8127%
75	3.8566%	2.3659%	3.7209%	3.0052%	7.6661%	5.2683%
80	6.2640%	4.2530%	5.7734%	4.7289%	10.8125%	7.7779%
85	11.0605%	7.3240%	9.2228%	7.8562%	15.7785%	11.9947%
90	17.6902%	12.6470%	14.6577%	13.4530%	22.7224%	17.5353%

*Adjusted Base Rates

PAYROLL GROWTH: 2.65% per annum, compounded annually.

ADMINISTRATIVE EXPENSES: 1.00% of payroll.

TIMING OF DECREMENT AND PAY INCREASES: Middle of Year.

ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.00%

MARRIAGE ASSUMPTION: 100% married with the husband three years older than his wife.

SURVIVING CHILD BENEFITS ASSUMPTION: A small load is applied for surviving children.

MAXIMUM COVERED EARNINGS ASSUMPTION GROWTH: 2.65%

MODIFIED CASH REFUND: Benefits were valued with a twelve-year certain period for retirees and five years certain for active members to estimate the value of the modified cash refund feature.





SCHEDULE B – ACTUARIAL ASSUMPTIONS AND METHODS

ASSET VALUATION METHOD: Actuarial value, as developed in Schedule A. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value.

AMORTIZATION METHOD FOR ACTUARIALLY DETERMINED CONTRIBUTION (ADC): Level Percentage of Payroll Method using closed amortization periods as follows:

- a. Existing UAAL on June 30, 2023 – 25 years.
- b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.

VALUATION METHOD: The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability, or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 7.00%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of HSPRS are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.

Under the entry age normal cost method, the actuarial present value of each member's projected benefits is allocated on a level basis over the member's compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial accrued liability. The unfunded actuarial accrued liability represents the difference between the actuarial accrued liability and the actuarial value of assets as of the valuation date. The unfunded actuarial accrued liability is calculated each year and reflects experience gains/losses. The accrued liability contribution amortizes the balance of the unfunded actuarial accrued liability over a period of years from the valuation date.





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The following summary presents the main benefit and contribution provisions of the System in effect June 30, 2024, as interpreted in preparing the actuarial valuation.

DEFINITIONS

Average Compensation	Average annual covered earnings of an employee during the four highest consecutive years of service.
Covered Earnings	Gross salary not in excess of the maximum amount on which contributions were required.
Fiscal Year	Year commencing on July 1 and ending June 30.
Credited Service	Service while a contributing member plus additional service as described below.
Unused Sick and Vacation Leave	Service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. A payment of up to 240 hours of leave may be used in the Average Compensation definition.
Additional Service	Additional service credit may be granted for service prior to July 1, 1958, active duty military service, and retroactive service





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The maximum covered earnings for employers and employees over the last ten years are as follows:

EMPLOYER AND EMPLOYEE RATES OF CONTRIBUTION AND MAXIMUM COVERED EARNINGS

Fiscal Date From	Fiscal Date To	Employer Rate	Employee Rate	Maximum Covered Earnings*
7/1/2013	6/30/2018	37.00%	7.25%	
7/1/2018	6/30/2024	49.08%	7.25%	

* Maximum covered earnings equal wages paid, not to exceed wages paid to the Commissioner of the Department of Public Safety (currently \$190,175).

Effective July 1, 2024, additional contributions from SB 2659 and HB 1015 are estimated to be \$3,300,000 combined.



SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS



BENEFITS

Superannuation Retirement

Condition for Retirement

A retirement allowance is payable to any member who retires and has attained age 55 and completed at least five years of membership service or has attained age 45 and completed at least 20 years of creditable service or has completed 25 years of creditable service regardless of age.

Any member who has attained age 63 shall be retired forthwith. Effective July 1, 2011, the Commissioner of Public Safety is authorized to allow a member who has attained age 63 to continue in active service. Such continued service may be authorized annually until the member attains age 65.

Amount of Allowance

The annual retirement allowance payable to a retired member is equal to:

1. A member's annuity which is the actuarial equivalent of the member's accumulated contributions at the time of his or her retirement, plus
2. An employer's annuity which, together with the member's annuity, is equal to 2-1/2% of his or her average compensation for each year of membership service, plus
3. A prior service annuity equal to 2-1/2% of average compensation for each year of prior service.

The aggregate amounts of (2) and (3) above shall not exceed 100% of average compensation, regardless of service, for retirements on or after January 1, 2000.





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The minimum allowance for both service and disability retirement based on the following table for each year of creditable service, reduced if necessary, as indicated below.

Service	Monthly Benefit
Less than 10 years	\$250
10-15 years	\$300
15 or more years	\$500

The annual retirement allowance payable to a member who retires under condition (a) above prior to age 55 is computed in accordance with the above formula except that the employer's annuity and prior service annuity are reduced actuarially based on mortality table and interest rate used in the valuation.

Deferred Vested

Condition for Vesting

Any member who withdraws from service prior to his or her attainment of age 55 but after having completed five or more years of creditable service is entitled to receive, in lieu of a refund of his or her accumulated contributions, a retirement allowance commencing at age 55.

Amount of Allowance

The annual retirement allowance payable at age 55 is equal to:

1. A member's annuity which is the actuarial equivalent of the member's accumulated contributions at the time of his or her retirement, plus
2. An employer's annuity which, together with the member's annuity, is equal to 2-1/2% of his or her average compensation for each year of membership service, plus
3. A prior service annuity equal to 2-1/2% of average compensation for each year of prior service.

The aggregate amounts of (2) and (3) above shall not exceed 100% of average compensation, regardless of service, for retirements on or after January 1, 2000; 85% for retirements prior to January 1, 2000.





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The minimum allowance for both service and disability retirement based on the following table for each year of creditable service, reduced if necessary as indicated below.

Service	Monthly Benefit
Less than 10 years	\$250
10-15 years	\$300
15 or more years	\$500

Disability Retirement

Non-Duty-Related

Non-duty related disability benefits are available to vested members under the age of 55. Vested members age 55 or older are not eligible for disability benefits but may apply for service retirement benefits. For purposes of disability benefits, average annual compensation is calculated using the last two years of salary before retirement.

Duty-Related

If the member becomes permanently disabled due to sickness or injury caused or sustained as a direct result of duty, they may be eligible for duty-related disability retirement. They are covered for this benefit from the first day of employment if they have not reached age 55, regardless of their years of service. Duty-related disability retirement benefits are calculated at either 50 percent of average compensation of the last two years of salary before retirement (this portion is not taxable) or the non-duty-related disability retirement amount, whichever provides the higher benefit.

Death Benefits

Non-Duty-Related

If the member is vested, their spouse and dependent children may be eligible to receive certain statutory benefits. Claims for non-duty-related death benefits are calculated at 2.5 percent of average compensation for each year of service credit, as calculated under Option 9, Maximum Benefit. Under this option, 50 percent of the accrued benefit is payable to the member's spouse until death, with 25 percent of the accrued benefit payable to one dependent child and 50 percent of the accrued benefit payable for two or more dependent children (under age 19 and never married or under age 23 if a full-time student and never married). Upon application and approval by the Medical Board, benefits to a physically or mentally disabled child may continue as long as the disability exists.





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

Duty-Related

Coverage for duty-related death benefits begins on the first day of employment and is available to the member's spouse and dependent children regardless of their vesting status. If they are vested, their spouse and dependent children may be eligible to receive benefits under either non-duty or duty-related death benefit provisions, whichever provided the higher benefit.

Claims for duty-related death benefits are calculated at 50 percent of average compensation, payable to the member's spouse until death, with 25 percent of average compensation payable to one dependent child and 50 percent of average compensation payable for two or more dependent children (under age 19 and never married or under age 23 if a full-time student and never married). Upon application and approval by the Medical Board, benefits to a physically or mentally disabled child may continue as long as the disability exists.

Death After Retirement

Upon the death of a highway patrolman who has retired for service or disability and who has not elected any other optional form of benefit, his widow or her widower is eligible for a benefit equal to 50% of his or her retirement allowance and each child (but not more than 2) who has not attained age 19 (23 if a full-time student) is eligible for a benefit equal to 25% of his or her retirement allowance. The benefit to the widow is payable for life and to children until they attain age 19 (23 if a full-time student) or for life if they are totally and permanently disabled.

Refund of Contributions

Upon a member's termination of employment for any reason before retirement, his or her accumulated contributions, together with regular interest thereon, are refunded. Upon the death of a member who is not eligible for any other death benefit, his or her accumulated contributions, together with regular interest thereon, are paid to his or her beneficiary.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by the Wall Street Journal on December 31 of each preceding year with a minimum rate of one percent and a maximum rate of five percent.





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

Normal Form of Benefit

For single retirees, the normal form of benefit is an allowance payable during the life of the member. For married retirees, the normal form of benefit is an allowance payable as described in Option 9 below. Upon death the benefits described above are payable.

Optional Benefits

A member upon retirement may elect to receive his allowance in one of the following forms which are computed to be actuarially equivalent to the applicable retirement allowance.

Option 1. Reduced allowance with the provision that if the pensioner dies before he receives the value of the member's annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.

Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.

Option 3. Upon his or her death, 50% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50% of his or her reduced retirement allowance to some other designated beneficiary.

Option 4. Upon his or her death, 75% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

Option 4A. Upon his or her death, 50% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner or his or her beneficiary for a specified number of years certain.



SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS



Option 4C. A member may elect any option with the added provision that the member shall receive, so far as possible, the same total amount annually (considering both HSPRS and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit. This option was only available to those who retired prior to July 1, 2004.

Option 9. Upon his or her death, spouse will receive 50% of the benefit member was receiving for life. Each dependent child (under age 19 and never married or under age 23 if a full-time student and never married) will receive 25% of the benefit member was receiving with a maximum of 50% for the support and care of two or more children. Any contribution and interest remaining after member death and after all monthly benefits due to spouse and children have been paid will be refunded to designated beneficiaries. If the member marries after retirement while receiving benefits under this option, they may apply to Pop-Down to Option 2 to provide 100% beneficiary protection to new spouse, or Pop-down to Option 4 or Option 4A for other beneficiary protections for the new spouse. PLSO is available with this option, if eligible.

A member who elects Option 2, Option 4, or Option 4A, at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the retired member divorces the designated beneficiary. A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4, or Option 4A to provide beneficiary protection to a new spouse if married after retirement.

A member who qualifies for an unreduced retirement allowance may select a partial lump-sum option at retirement. Under this option, the retiree has the option of taking a partial lump-sum distribution equal to either 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting this option may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4-C, the Social Security leveling provision. The benefit is then calculated using the new reduced maximum





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

Post-Retirement Adjustments In Allowances

benefit as a starting point in applying the appropriate option factors for the reduction.

The allowances of retired members are adjusted annually by an amount equal to (a) 3% of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 60*, plus (b) 3% compounded for each year thereafter beginning with the fiscal year in which the member turns age 60*.

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.

Those members who retired on or before July 1, 1999 received an ad hoc benefit increase in the amount of \$3.50 per month per each full fiscal year of retirement through June 30, 1999 plus \$1.00 per month for each year of credited service. The benefits were increased on July 1, 1999.

*this age will be reduced in five phases to age 55 if the actuary certifies that reducing the age will not result in the amortization period of the unfunded actuarial accrued liability exceeding 20 years.





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

RECONCILIATION OF DATA RECEIVED FROM PERS

Reconciliation of Data received from PERS	Active File			Pensioner File			Total
	Active	Inactives	Deferred Vested	Retirees	Disableds	Survivors	
From PERS	541	39	41	628	14	194	1,457
Refunded	(8)	(4)					(12)
Deceased				(16)	(2)	(10)	(28)
Retiree Deceased						(2)	(2)
Certain Period End							
Inactive							
Deferred Vested							
Duplicate*	(29)						(29)
Retired							
For Valuation	504	35	41	612	12	182	1,386

*Also included in Pensioner File

STATUS RECONCILIATION FROM 2023 TO 2024

Reconciliation of Data from Last Year to This Year	Actives	Retirees	Disableds	Survivors	Deferred Vested	Inactives	Total
As of June 30, 2023	507	600	13	179	45	34	1,378
Retirement	(17)	28			(11)		
Disabled	(1)		1				
Death with Survivor		(12)		15			3
Terminated Def Vested	(9)				15	(6)	
Inactives	(7)				(5)	12	
Return to Active Svc	2				(1)		1
Refunded					(2)	(5)	(7)
Death No Survivor		(4)	(2)	(10)			(16)
Benefit Ended				(2)			(2)
Removed/Cleanup							
New / Pick-up	29						29
As of June 30, 2024	504	612	12	182	41	35	1,386





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Retirants & Beneficiaries as of June 30, 2024 Tabulated by Year of Retirement

Valuation Year of Retirement Ending June 30	No.	Total Annual Benefits, excluding COLA	COLA	Total Annual Benefits	Average Monthly Total Benefit
2024	29	\$1,491,990	\$0	\$1,491,990	\$4,287
2023	35	1,561,893	13,532	1,575,425	3,751
2022	40	2,140,564	99,097	2,239,661	4,666
2021	29	1,517,661	119,576	1,637,237	4,705
2020	23	1,301,690	138,455	1,440,145	5,218
2019	26	1,172,818	163,611	1,336,429	4,283
2018	16	764,989	130,520	895,509	4,664
2017	18	802,918	156,147	959,065	4,440
2016	10	396,469	92,852	489,321	4,078
2015	15	703,343	192,091	895,434	4,975
2014	21	941,868	277,790	1,219,658	4,840
2013	16	644,831	211,380	856,211	4,459
2012	18	749,564	267,811	1,017,375	4,710
2011	20	883,693	353,558	1,237,251	5,155
2010	45	1,797,872	800,073	2,597,945	4,811
2009	29	1,232,432	578,669	1,811,101	5,204
2008	14	499,641	261,135	760,776	4,528
2007	20	671,391	354,442	1,025,833	4,274
2006	18	574,517	334,196	908,713	4,207
2005	18	576,778	359,729	936,507	4,336
2004	18	672,565	447,675	1,120,240	5,186
2003	9	198,337	133,018	331,355	3,068
2002	23	651,501	495,894	1,147,395	4,157
2001	20	584,165	460,888	1,045,053	4,354
2000	13	421,153	352,885	774,038	4,962
1999	14	400,097	356,838	756,935	4,506
1998	28	808,776	725,940	1,534,716	4,568
1997	26	655,771	631,766	1,287,537	4,127
1996	19	436,902	432,062	868,964	3,811
1995	15	372,059	397,154	769,213	4,273
1994	13	272,342	288,536	560,878	3,595
1993	17	325,355	365,308	690,663	3,386
1992	3	53,655	62,952	116,607	3,239
1991	4	35,948	29,575	65,523	1,365
1990	10	143,659	194,083	337,742	2,815
1989	0	0	0	0	0
1988	1	14,712	24,497	39,209	3,267
1987 and Prior	113	1,448,687	2,219,113	3,667,800	2,705
TOTAL	806	\$27,922,606	\$12,522,848	\$40,445,454	\$4,182





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Schedule of Retired Members by Type of Retirement

Benefits Payable June 30, 2024

Amount of Original Monthly Benefit	Number of Rets.	Ret Type 1*	Ret Type 2*	Ret Type 3*
\$1 – \$500	21	2		19
501 – 1,000	87	7	3	77
1,001 – 1,500	70	20	1	49
1,501 – 2,000	79	62	5	12
2,001 – 2,500	98	85	1	12
2,501 – 3,000	95	90	2	3
3,001 – 3,500	102	98		4
3,501 – 4,000	72	69		3
4,001 – 4,500	60	58		2
4,501 – 5,000	31	31		
Over 5,000	91	90		1
Totals	806	612	12	182

*Type of Retirement

1 – Retirement for Age & Service

2 – Disability Retirement

3 – Survivor Payment





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Schedule of Retired Members by Type of Option Benefits Payable June 30, 2024

Amount of Original Monthly Benefit	Number of Rets.	Life	Option 1	Option 2	Option 3	Option 4	Option 4A	Option 4B	Option 4C*	Option 9	PLSO* 1 Year	PLSO* 2 Years	PLSO* 3 Years
\$1 – \$500	17			2			1	1		13			
501 – 1,000	87	1		2	1		1	7	1	75		1	1
1,001 – 1,500	69			5			2	2	4	60	3		8
1,501 – 2,000	79	6		11	2		2	3	2	55	1	1	9
2,001 – 2,500	98	4		12				2	1	80	11	3	13
2,501 – 3,000	97	5		14	1		3	4	2	70	6	6	33
3,001 – 3,500	103	8	1	15		1	1	2		75	9	6	36
3,501 – 4,000	74	3		3	1	2	5	4		56	9	9	22
4,001 – 4,500	60		2	6			3	2		47	5	6	21
4,501 – 5,000	31			2						29	5	2	14
Over 5,000	91	1	1	1	1					87	10	9	25
Totals	806	28	4	73	6	3	18	27	10	647	59	43	182

Option Selected

- Life - Return of Contributions
- Opt. 1 - Return of Value of Member's Annuity
- Opt. 2 - 100% Survivorship
- Opt. 3 - 50%/50% Dual Survivorship
- Opt. 4 - 75% Survivorship
- Opt. 4A - 50% Survivorship
- Opt. 4B - Years Certain & Life
- Opt. 4C - Social Security Leveling*
- Opt. 9 - Maximum Benefit with Pop-Down Provision
- PLSO - Partial Lump Sum* (Reflects reduced monthly benefit)

*Included in other options





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Retirant and Beneficiary Information June 30, 2024 Tabulated by Attained Ages

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20					7	\$68,002	7	\$68,002
20 – 24								
25 – 29					1	\$13,043	1	\$13,043
30 – 34								
35 – 39					5	\$112,211	5	\$112,211
40 – 44			1	\$30,290	1	\$25,442	2	\$55,732
45 – 49	13	\$627,994	2	\$31,305	1	\$9,539	16	\$668,838
50 – 54	61	\$3,086,939			9	\$217,649	70	\$3,304,588
55 – 59	59	\$3,197,247	2	\$77,916	4	\$147,980	65	\$3,423,143
60 – 64	96	\$5,394,580	3	\$90,491	8	\$289,926	107	\$5,774,997
65 – 69	140	\$8,610,614			9	\$333,118	149	\$8,943,732
70 – 74	91	\$5,245,615	2	\$70,907	23	\$616,424	116	\$5,932,946
75 – 79	82	\$4,715,242	1	\$37,685	37	\$1,288,304	120	\$6,041,231
80 – 84	48	\$2,763,723	1	\$24,650	39	\$1,050,174	88	\$3,838,547
85 – 89	17	\$1,008,466			22	\$535,914	39	\$1,544,380
90 – 94	5	\$270,478			11	\$318,945	16	\$589,423
95					3	\$78,826	3	\$78,826
96					1	\$35,978	1	\$35,978
97								
98								
99								
100 & Over					1	\$19,837	1	\$19,837
Totals	612	\$34,920,898	12	\$363,244	182	\$5,161,312	806	\$40,445,454

Average Age: 69.1 years
Average Age at Retirement: 50.4 years





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Total Active Member Data as of June 30, 2024 Tabulated by Attained Ages and Years of Service

Attained Age	Completed Years of Service									Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Over	No.	Payroll
Under 25	13	10								23	\$ 1,176,588
25 to 29	9	67	14							90	5,137,835
30 to 34	7	29	31	2						69	3,985,154
35 to 39	1	17	31	13	9					71	4,615,289
40 to 44	1	5	18	16	47	2				89	6,519,253
45 to 49		5	8	3	31	26	2			75	5,899,626
50 to 54		3	6	3	19	15	13	1		60	4,952,244
55 to 59			2		3	9	6	1	1	22	1,897,901
60 to 64						2	2	1		5	460,890
65 to 69											0
70 & Over											0
Total Count	31	136	110	37	109	54	23	3	1	504	\$ 34,644,780

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 39.7 years
Service: 10.8 years
Annual Pay: \$68,740





SCHEDULE E – ANALYSIS OF FINANCIAL EXPERIENCE

Gains & Losses in Accrued Liabilities Resulting from Difference Between Assumed Experience & Actual Experience (\$ Thousands)

Type of Activity	\$ Gain (or Loss) For Year Ending 6/30/2024	\$ Gain (or Loss) For Year Ending 6/30/2023
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (885.6)	\$ (427.3)
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	92.1	59.5
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	148.9	112.6
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(778.3)	770.3
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	756.6	1,386.4
New Members / Rehires. Additional unfunded actuarial accrued liability will produce a loss.	(19.5)	(382.6)
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	1,181.3	(2,090.6)
Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	6.4	1,136.6
Other. Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc.	<u>(3,358.3)</u>	<u>(2,617.8)</u>
Gain (or Loss) During Year From Financial Experience	\$ (2,856.4)	\$ (2,052.9)
Non-Recurring Items. Adjustments for plan amendments, software changes, assumption changes, or method changes.	<u>0.0</u>	<u>(42,719.5)</u>
Composite Gain (or Loss) During Year	<u>\$ (2,856.4)</u>	<u>\$ (44,772.4)</u>





SCHEDULE F – FUNDING POLICY OF HSPRS

The purpose of the funding policy is to state the overall funding goals and objectives for the Mississippi Highway Safety Patrol Retirement System (HSPRS), and to document both the metrics that will be used to measure progress toward achieving those goals, and the methods and assumptions employed to develop the metrics. The employer contribution rate for HSPRS will be set based on the metrics, assumptions and methods outlined in Section II and III of this policy.

I. Funding Goals and Objectives

The objective in requiring employer and member contributions to HSPRS is to accumulate sufficient assets during a member's employment to fully finance the benefits the member will receive in retirement. In meeting this objective, HSPRS will strive to meet the following goals:

- Preservation of the defined benefit structure for providing lifetime benefits to the HSPRS membership,
- Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a “Signal Light” approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate, and
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution.

II. Metrics

To track progress in achieving the outlined funding goals and objectives and to assist the Board in making a determination whether an increase or decrease in the employer contribution rate for HSPRS should be considered, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. As part of the annual valuation and projection reports, each metric will be calculated and assigned a “Signal Light” with the following definitions:

Status	Definition
Green	Plan passes metric and HSPRS' funding goals, and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric and HSPRS must consider contribution increases





SCHEDULE F – FUNDING POLICY OF HSPRS

If any one of the metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report, the actuary will determine and recommend to the Board an employer contribution rate increase to consider that is sufficient enough to get all three metrics back into the Green Signal Light status. The employer contribution rate increase would be effective beginning July 1st, 18 months following the completion of the projection report (e.g., if the projection report in 2024 deems an increase to be considered, then it would be effective for July 1, 2026).

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 90% in 2047
Yellow	Funded Ratio between 70% and 90% in 2047
Red	Funded Ratio below 70% in 2047

- **Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative 5.25% (-5.25%) during the projection period
Yellow	Net Cash Flow Percentage between negative 5.25% (-5.25%) and negative 7.00% (-7.00%) during the projection period
Red	Net Cash Flow Percentage below negative 7.00% (-7.00%) during the projection period





SCHEDULE F – FUNDING POLICY OF HSPRS

- **Actuarially Determined Contribution (ADC)** – ADC is defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of this funding policy:
 1. Actuarial Cost Method
 2. Asset Smoothing Method
 3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation and not during the projection report. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by this Funding Policy will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate at valuation date
Yellow	ADC ratio between 100% and 110% of fixed contribution rate at valuation date
Red	ADC ratio above 110% of fixed contribution rate at valuation date

If all of the metrics are in the Green Signal Light status in conjunction with the annual valuation report and the projection report and the following additional criteria is met for two consecutive valuation and projection cycles, the actuary may recommend to the Board an employer contribution rate decrease to consider. The additional criteria is based on the actuary's long-term investment return assumption recommended by the actuary in the most recent experience study and is as follows:

- Funded Ratio in 2047 is above 110%,
- Cash Flow as a percentage of assets is above negative 3.5% during the projection period, and
- ADC Ratio is below 90% for all years of the projection period.





SCHEDULE F – FUNDING POLICY OF HSPRS

III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and HSPRS' Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method (EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).
- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.
- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC metric, the following amortization method assumptions are used:
 - I. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.
 - II. The amortization payment will be determined on a level percentage of pay basis.
 - III. The length of the amortization periods will be as follows:
 - a. Existing UAAL on June 30, 2023 – 25 years.
 - b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.
 - IV. If any future annual actuarial valuation indicates that HSPRS has a negative UAAL, the ADC shall be set equal to the Normal Cost.
- **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS' Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, 2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, 2022). The long-term investment return assumption adopted by the PERS' Board in conjunction with the experience investigation is 7.00 percent.





SCHEDULE F – FUNDING POLICY OF HSPRS

IV. Governance Policy/Process

Below is a list of specific actuarial and funding related studies, the frequency at which they should be commissioned by the Board and additional responsibilities related to each:

- **Actuarial Valuation (performed annually)** – The Board is responsible for the review of HSPRS' annual actuarial valuation report, which provides the annual funded ratio and the calculation of the ADC.
- **Projection Report (performed annually)** – The Board is responsible for the review of HSPRS' 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.
- **Experience Analysis (performed every two years on a rolling four-year)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, review of the results of the study, and approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.
- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by a new actuarial firm to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.
- **Funding Policy Review (performed at least annually)** – The Board is responsible for the periodic review of this policy, but at least annually following the Projection Report and biennially following the Experience Analysis.

V. Glossary of Funding Policy Terms

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Actuarial Determined Contribution (ADC):** The potential payment to the plan as determined by the actuary using a contribution allocation procedure that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long term. The ADC may or may not be the amount actually paid by the plan sponsor or other contributing entity.
- **Asset Values:**
 - **Actuarial Value of Assets (AVA):** The AVA is the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.
 - **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.





SCHEDULE F – FUNDING POLICY OF HSPRS

- **Entry Age Normal Actuarial Cost Method (EAN):** The EAN actuarial cost method is a funding method that calculates the normal cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.
- **Funded Ratio:** The funded ratio is the ratio of the plan assets to the plan's actuarial accrued liabilities.
 - **Actuarial Value Funded Ratio:** is the ratio of the AVA to the AAL.
- **Normal Cost:** The normal cost is the cost allocated under the actuarial cost method to each year of active member service.
- **Present Value of Benefits (PVB) or total cost:** The PVB is the value at a particular point in time of all projected future benefit payments for current plan members. The future benefit payments and the value of those payments are determined using actuarial assumptions regarding future events. Examples of these assumptions are estimates of retirement and termination patterns, salary increases, investment returns, etc.
- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
- **Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.
- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. HSPRS' annual valuation date is June 30.





SCHEDULE G – HISTORY OF HSPRS PLAN PROVISIONS

Since 1958, the benefit structure of the Highway Safety Patrol Retirement System (HSPRS) of Mississippi has undergone significant changes as noted in the table below.

Fiscal Year Beginning	Benefit Modifications
July 1, 1958	<ul style="list-style-type: none"> Mississippi Highway Safety Patrol Retirement System created.
July 1, 1966	<ul style="list-style-type: none"> Removed limit of \$200 per month for disability retirement payments. Eliminated reduction in retirement benefits resulting from Social Security payments. Provided same survivor benefits to disability retiree's beneficiaries as those provided for service retiree's beneficiaries.
July 1, 1974	<ul style="list-style-type: none"> Authorized military service credit (not to exceed 4 years maximum unless proof furnished member was retained by causes beyond his control).
July 1, 1975	<ul style="list-style-type: none"> Provided additional benefit payments (13th Checks) to retired patrolmen. Authorized payment of benefits to spouses and families of patrolmen who die after serving minimum period or who are killed in line of duty.
July 1, 1976	<ul style="list-style-type: none"> Provided benefits to widows of highway patrolmen who were killed in line of duty prior to enactment of highway patrol retirement system.
July 1, 1977	<ul style="list-style-type: none"> Provided that a highway patrolman who reenters service with the highway safety patrol may receive retirement credit for prior years upon repayment of amount refunded and interest from date of refund to repayment.
July 1, 1979	<ul style="list-style-type: none"> Provided guaranty of benefits and maximum retirement allowance in the highway safety patrol retirement system.
July 1, 1980	<ul style="list-style-type: none"> Provided a minimum service and disability retirement benefit for members of MHSPRS. Provided any member who served in maritime service during periods of hostility in WWII shall be allowed credit for maritime service. Provided all members who served in armed forces during war or military conflict or in maritime service during periods of hostility in WWII shall be allowed credit regardless of when they retired.
July 1, 1982	<ul style="list-style-type: none"> Provided employer pickup of member contributions. Increases additional payment (13th check) to 1/2 of annual percentage change of CPI not to exceed 2 1/2%.
July 1, 1984	<ul style="list-style-type: none"> Provided that unused leave shall be treated as creditable service under MHSPRS.
July 1, 1985	<ul style="list-style-type: none"> Increased 13th check to an amount equal to 2 1/2% of annual percentage change in CPI for years thru 6-30-85; and for subsequent years 100% of annual percentage change in CPI not to exceed 2 1/2%; provided an additional amount could be paid in increments of 1/4 of 1% to a maximum of 1 1/2% provided there were sufficient gains in excess of accrued liability.
July 1, 1986	<ul style="list-style-type: none"> Reduced to 5 years the required years to qualify to retire at age 55. Provided full retirement with 30 years creditable service regardless of age.





SCHEDULE G – HISTORY OF HSPRS PLAN PROVISIONS

Fiscal Year Beginning	Benefit Modifications
	<ul style="list-style-type: none">• Reduced the number of years which determine average compensation to 4 highest consecutive years.• 3% reduction in retirement allowance shall apply to the lesser of: each year of age below age 55 or each year less 30 years of creditable service.• Provided retirement allowance shall not exceed 85% of average compensation.• Provided mandatory retirement and termination of membership at age 60.• Provided no monthly benefit payment may be made for a period of time in excess of that allowed by federal law.• Provided an ad hoc increase of 3% to retirees who retired prior to July 1, 1986, and average compensation was based on 5 consecutive years of earned compensation instead of 4.• Provided that a retiree may elect by an irrevocable agreement to receive additional payment (13th check) in equal installments not to exceed 6 months.• Amended section 25-13-13 on death benefits to conform to section 25-13-11 allowing 5-year vesting by deleting 10-year requirement.• Provided a one-time early retirement for any member who had at least 20 years of creditable service; exempted early service retirement allowance from the 3% reduction if member is below age 55; allowance was based on current fiscal year's salary.
July 1, 1989	<ul style="list-style-type: none">• Provided survivor benefits from day one of employment to a spouse and/or dependent children of a member who is either killed in the line of performance of duty or dies as a direct result.
July 1, 1990	<ul style="list-style-type: none">• Amended section 25-13-11 to reduce from 30 to 25 numbers of years required for full retirement regardless of age.• Provided a 10% ad hoc increase in annual retirement allowance to retired members and beneficiaries with minimum benefits of \$500.00 if retired with 15 or more years of service credit; \$300.00 per month if retired with 10 or more but less than 15 years credit; \$250.00 per month to anyone with less than 10 years credit; beneficiaries to receive a minimum of \$250.00 per month.• Established options for service and disability retirees retiring 7-1-90 or later.• Provided an active member qualified for retirement may pre-select an option.• Provided option selection will take precedence over automatic survivor benefits.
July 1, 1991	<ul style="list-style-type: none">• Allowed sworn agents of MS Bureau of Narcotics, who were employed by such bureau prior to December 1, 1990, regardless of age, may be employed as enforcement officers, if they meet all other qualifications. Those employed retain all compensatory, personal, and sick leave accrued.• Provided cost-of-living payment (13th check) shall be cumulative to conform to PERS law.• Provided regular interest shall be credited annually to member's employee contribution account.





SCHEDULE G – HISTORY OF HSPRS PLAN PROVISIONS

Fiscal Year Beginning	Benefit Modifications
July 1, 1992	<ul style="list-style-type: none">• Provided benefits to dependent children to age 23 if they remain in school.
July 1, 1997	<ul style="list-style-type: none">• Allowed retired Highway Patrolmen to irrevocably elect to have COLA (13th check) paid in twelve (12) equal installments.
July 1, 1999	<ul style="list-style-type: none">• Provide that if the member and beneficiary die before having received in benefits an amount equal to the total of the contributions and accrued interest of the member at the time of death, that the balance will be refunded to the designated beneficiary or by statutory succession.• Provided that payment of death benefits shall be in accordance with the statutory provisions set forth as of the date of death of the member.• Authorized a retiree who retired before or after July 1, 1999, to be eligible for the same “pop-up” and “pop-down” provisions of PERS; and recalculates the benefits of those retirees who selected Option 5 “pop-up” protection.• Authorized an ad hoc benefit adjustment to each member of the Mississippi Highway Safety Patrol Retirement System (MHSPRS) retired on or before July 1, 1999, in the amount of \$3.50 per month for each full fiscal year of retirement through June 30, 1999, plus \$1.00 per month for each year of service credit used in the calculation of benefits.• Removed from consideration in the base COLA the requirement that the Consumer Price Index (CPI) have increased by at least 2 ½%.• Provided that a prorated portion of the annual adjustment will be paid to the beneficiary or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but who dies between July 1 and December 1 in those cases where no more monthly benefits will be paid after the member's or beneficiary's death. This prorated portion will be equal to the amount that such recipient would have received had he or she elected to receive the annual adjustment for the year on a monthly basis.
July 1, 2000	<ul style="list-style-type: none">• Deleted the maximum option where no additional benefits are payable after death. The statute retains Option 9, which provides a maximum option with a 50% survivor benefit with no reduction in the member's retirement allowance.• Provided for a new retirement option that would allow a member who is eligible for an <u>unreduced retirement benefit</u> to select a partial lump-sum option at retirement.• Allowed the Cost of Living Adjustment to be calculated on <u>all</u> full fiscal years in retirement, not just the years since the retirant's last retirement.• Provided for the same service credit for active duty, as is allowed in PERS and is no longer limited to active duty service during times of conflict. This amendment applies to all persons who have retired from the Highway Patrol and who qualify for such credit, whether they retired before or after July 1, 2000. This provision, however, did not require any back payments.





SCHEDULE G – HISTORY OF HSPRS PLAN PROVISIONS

Fiscal Year Beginning	Benefit Modifications
	<ul style="list-style-type: none">Changed the maximum limitation on the retirement benefit from 85% of the average compensation regardless of the years of service to 100% of the average compensation.
July 1, 2002	<ul style="list-style-type: none">Provided that Option 4-C, Social Security Leveling Option, will no longer be available to members retiring on or after July 1, 2004.Provided that any member who has five years of service (reduced from 10 years) may apply for a regular non-duty related disability retirement allowance.Provided for a compounded COLA, based on 3% of the retirement allowance for each full fiscal year in retirement with the 3% compounding beginning at age 60; to further provide that the age at which the compounding begins will be reduced gradually to age 55 as such can be accomplished without causing the unfunded accrued liability amortization period to exceed 20 years; to further provide that a pro-rated share of the lump-sum COLA will be paid if a benefit terminates before December 1 of the fiscal year. Also, allows the Board to grant a change in the manner the COLA is paid if a hardship is shown.
July 1, 2004	<ul style="list-style-type: none">Conformed the MHSPRS COLA section (except for the age of compounding) to the provisions in PERS.Eliminated the re-marriage penalty which terminates a spouse's benefit, currently provided in subsections (1) and (3), upon his/her remarriage. This amendment also allows those spouses whose benefits have been previously terminated to apply to have the benefits reinstated prospectively.
July 1, 2008	<ul style="list-style-type: none">Allowed a retroactive effective date (up to 3 months) for retirees who revert from Option 2 or Option 4A to the maximum option following the death of the named beneficiary.
July 1, 2011	<ul style="list-style-type: none">Option 4, a 75% joint and survivor annuity, made available to members who retire on or after July 1, 2011For members hired on or after July 1, 2011, the mandatory retirement age was increased from age 60 to age 63.
July 1, 2016	<ul style="list-style-type: none">The interest rate on employee contributions shall be calculated based on the money market rate as published by the Wall Street Journal on December 31 of each preceding year with a minimum rate of one percent and a maximum rate of five percent.The early retirement formula shall be reduced by an actuarially determined percentage or factor (rather than a fixed 3%) for each year of age below 55 or for each year of service below 25, whichever is less.



Supplemental Legislative Retirement Plan of Mississippi



Annual Valuation Report

Prepared as of June 30, 2024

December 5, 2024

Board of Trustees
Public Employees' Retirement System of Mississippi
429 Mississippi Street
Jackson, MS 39201-1005

Ladies and Gentlemen:

Presented in this report are the results of the annual actuarial valuation of the Supplemental Legislative Retirement Plan of Mississippi (SLRP). The purpose of the valuation is to:

- Measure the System's funding progress as of the valuation date,
- To determine the unfunded actuarial accrued liability amortization period beginning July 1, 2024 using the Fixed Contribution Rate (FCR) of 8.40% of payroll,
- To determine the actuarially determined contribution (ADC) for the fiscal year beginning July 1, 2026 using the assumptions and methods in the Board's Funding Policy,
- To project the System's funding progress for the next thirty years and provide clear reporting and risk analysis of the funding metrics as outlined in the Board's funding policy using a "Signal Light" approach, and
- To assist the Board in determining whether an increase or decrease is needed in the Fixed Contribution Rate.

The results may not be applicable for other purposes. The date of the valuation was June 30, 2024.

The valuation was based upon data, furnished by the Executive Director and the PERS staff, concerning active, inactive and retired members along with pertinent financial information. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. The valuation results depend on the integrity of the data. If any of the information is inaccurate or incomplete, our results may be different and our calculations may need to be revised. The complete cooperation of the PERS staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the presentation of valuation results on page 1 and the projection results on page 5. Since none of the funding policy metrics are in the Red Status, we do not recommend an increase in the Fixed Contribution Rate (FCR) of 8.40% of annual compensation at this time. However, if there is any negative experience in the near future, the Fixed Contribution Rate may need to be increased.

No changes were made to the actuarial assumptions or plan provisions since the previous valuation.



The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board. We have reviewed the actuarial methods, including the asset valuation method, and continue to believe they are appropriate for the purpose of determining employer contribution levels.

In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and develop actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the system's funded status); and changes in plan provisions or applicable law. An analysis of the potential range of future measurements is provided in Section XI of this report.

This actuarial valuation was performed to determine the adequacy of the Board approved contribution rate to fund the plan. The asset values used to determine unfunded liabilities and funded ratios are not market values but less volatile market related values. A smoothing technique is applied to market values to determine the market related values. The unfunded liability amounts and funded ratios using the market value of assets would be different. The interest rate used for determining liabilities is based on the expected return on assets. Therefore, liability amounts in this report cannot be used to assess a settlement of the obligation.



Board of Trustees
December 5, 2024
Page 3

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the system, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the system.

Respectfully submitted,

A handwritten signature in blue ink that reads "Edward J. Koebel".

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

A handwritten signature in blue ink that reads "Ben Mobley".

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary



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SECTION I – EXECUTIVE SUMMARY

1. This report, prepared as of June 30, 2024, presents the results of the annual actuarial valuation of the Plan. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below. The current valuation and reported benefit amounts reflect any benefit increases granted to retirees as of July 1, 2024.

VALUATION DATE	June 30, 2024	June 30, 2023
Investment Return Assumption	7.00%	7.00%
Active members included in valuation		
Number	175	172
Annual compensation	\$ 9,090,777	\$ 8,425,049
Retirees		
Number	247	228
Annual allowances	\$ 1,779,151	\$ 1,633,116
Assets		
Market related actuarial value	\$ 21,994,000	\$ 21,465,000
Market value of assets (MVA)	\$ 21,868,000	\$ 20,830,000
Unfunded actuarial accrued liability (UAAL)	\$ 7,441,768	\$ 7,065,466
Funded Ratio based on actuarial value	74.7%	75.2%
Employer Fixed Contribution Rate (FCR)		
Normal Cost*	3.22%	3.21%
Accrued liability	<u>5.18</u>	<u>5.19</u>
Total	8.40%	8.40%
Payment period based on the FCR	25.5 years	26.5 years
Actuarially Determined Contribution (ADC) Rate		
Normal Cost*	3.22%	3.21%
Accrued liability	<u>5.31</u>	<u>5.36</u>
Total	8.53%	8.57%
Amortization Period for ADC	24.4 years	25.0 years
ADC Ratio to Fixed Contribution Rate	101.55%	102.02%
Unfunded actuarial accrued liability based on MVA	\$ 7,567,768	\$ 7,700,466
Funded Ratio based on market value	74.3%	73.0%

* Includes load for administrative expenses. See Section VI for more contribution rate detail.





SECTION I – EXECUTIVE SUMMARY

2. The valuation balance sheet showing the results and liabilities of the valuation is given in Section III.
3. Comments on the valuation results are provided in Section IV, comments on the experience and actuarial gains and losses during the valuation year are provided in Section V and the rates of contribution payable by employers are provided in Section VI and Section VII.
4. Schedule A of this report presents the development of the assets. The estimated investment return for the plan year ending June 30, 2024 on a market value of assets basis was 10.46% and on actuarial value of assets basis was 7.71%. These can be compared to the assumed rate of return for the same period of 7.00%. The market value of assets basis return may be slightly different than what PERS reports as this estimated return is assuming cash flow as of the middle of the year.
5. Schedule B details the actuarial assumptions and methods employed. There have been no changes since the previous valuation.
6. Schedule C gives a summary of the benefit and contribution provisions of the plan. There have been no changes since the previous valuation.
7. The funded ratio shown in the Summary of Principal Results is the ratio of actuarial value of assets to the actuarial accrued liability. The funded status is different based on the market value of assets. The funded ratio is an indication of progress in funding the promised benefits. Since the ratio is less than 100%, there is a need for additional contributions toward the payment of the unfunded accrued liability. In addition, this funded ratio does not have any relationship to measuring the sufficiency if the plan had to settle its liabilities.
8. The Fixed Contribution Rate (FCR) was increased to 8.40% of annual compensation beginning July 1, 2024. As shown on page 1 of the report, the amortization period to pay off the Unfunded Actuarial Accrued Liability (UAAL) using the FCR of 8.40% is 25.5 years, which is a snapshot view of the UAAL as of the valuation date of June 30, 2024.
9. In addition, as shown on page 1 of the report, the Actuarially Determined Contribution (ADC) Rate for the 2024 valuation year is 8.53% of annual compensation and the ratio of the ADC to the FCR (8.53% to 8.40%) is calculated at 101.55% as of June 30, 2024. Per the Board's Funding Policy, which is provided in Schedule F, this actuarial metric is in the Yellow Status as the ratio is between 100% and 110%.





SECTION I – EXECUTIVE SUMMARY

10. The projection results, shown beginning in Section IX, allow the Board to see a forecast of the System's funding progress over time, allow the Board to review the funding goals and benchmarks outlined in the funding policy, and provide the status of the metrics/targets in the Funding Policy that determines whether or not a contribution rate increase should be recommended. The objective of the current funding policy is to accumulate sufficient assets during a member's employment to fully finance the benefit the member receives throughout retirement. In order to reach that objective, some goals and benchmarks were established as follows:
- Preservation of the defined benefit structure for providing lifetime benefits to the SLRP membership,
 - Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
 - Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution,
 - Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
 - Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of the policy using a "Signal Light" approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate.
11. For SLRP, if any one of the following metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report, the actuary shall determine and recommend to the Board an employer contribution rate increase to consider that is sufficient to get all three metrics back into the Green Signal Light status.
- **Funded Ratio** – defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100% funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 90% in 2047
Yellow	Funded Ratio between 70% and 90% in 2047
Red	Funded Ratio below 70% in 2047



SECTION I – EXECUTIVE SUMMARY

- Cash flow as a percentage of assets – defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative 5.25% (-5.25%) during the projection period
Yellow	Net Cash Flow Percentage between negative 5.25% (-5.25%) and negative 7.00% (-7.00%) during the projection period
Red	Net Cash Flow Percentage below negative 7.00% (-7.00%) during the projection period

- Actuarially Determined Contribution (ADC) – defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of the funding policy:
 1. Actuarial Cost Method
 2. Asset Smoothing Method
 3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by the Funding Policy will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate
Yellow	ADC ratio between 100% and 110% of fixed contribution rate
Red	ADC ratio above 110% of fixed contribution rate





SECTION I – EXECUTIVE SUMMARY

12. A summary of the estimated metrics from the projection results for the next five years and in the long-term are shown in the following two tables below. More details will be shown beginning in Section IX but as you can see from the first table below, the funded ratio and cash flow percentage remain relatively stable while the ADC/FCR ratio increases over the next five years.

Valuation Year	UAAL (\$ in Thousands)	Funded Ratio	Cash Flow %	ADC/FCR Ratio
2024	\$7,442	74.7%	(4.0)%	101.6%
2025	\$7,273	75.9%	(3.5)%	101.5%
2026	\$7,890	74.5%	(3.7)%	107.1%
2027	\$7,754	75.5%	(4.2)%	108.8%
2028	\$7,587	76.5%	(4.5)%	112.4%
2029	\$7,599	76.8%	(4.4)%	113.6%

Metrics	2024 Baseline Projection	2024 Status
Funding Ratio in 2047	86.9%	Yellow
Cash Flow as a Percentage of Assets	(5.04)%	Green
ADC/FCR Ratio from 2024 Valuation	101.6%	Yellow
ADC/FCR Ratio from 2025 Valuation	101.5%	Yellow

As shown above, none of the metrics are in the “Red Status” for the valuation and projections. Therefore, we recommend to the PERS Board that the Fixed Contribution Rate (FCR) continue at a rate of 8.40% of annual compensation for SLRP at this time. However, if there is any negative experience in the near future, the Fixed Contribution Rate may need to be increased. The Board should continue to review the Sensitivity Analysis section of this report during the fiscal year to understand the volatility that may occur in the projections if investment experience is more or less than expected going forward.

13. The table on the following page provides a ten-year history of some pertinent figures.





SECTION I – EXECUTIVE SUMMARY

Comparative Schedule

Valuation Date June 30	Active Members				Retired Lives				Valuation Results (\$ thousands)		
	Number	Payroll (\$ in thousands)	Average Salary	% increase from previous year	Number	Active/ Retired Ratio	Annual Benefits (\$ thousands)	Benefits as % of Payroll	Actuarial Accrued Liability	Valuation Assets	UAAL
2015	174	\$6,861	\$39,432	(0.3)%	185	0.9	\$1,133.6	16.5%	\$21,213	\$16,098	\$5,115
2016	171	6,862	40,130	1.8	207	0.8	1,277.8	18.6	21,259	16,447	4,812
2017	174	6,928	39,817	(0.8)	205	0.8	1,279.5	18.5	21,849	17,208	4,641
2018	174	6,833	39,270	(1.4)	207	0.8	1,304.5	19.1	22,319	17,945	4,374
2019	170	6,937	40,806	3.9	215	0.8	1,372.9	19.8	22,934	18,428	4,506
2020	171	6,891	40,297	(1.2)	235	0.7	1,565.7	22.7	23,485	18,472	5,013
2021	173	8,030	46,414	15.2	233	0.7	1,596.8	19.9	25,402	19,980	5,422
2022	174	8,180	47,010	1.3	230	0.8	1,614.2	19.7	26,133	20,808	5,325
2023	172	8,425	48,983	4.2	228	0.8	1,633.1	19.4	28,530	21,465	7,065
2024	175	9,091	51,947	6.1	247	0.7	1,779.2	19.6	29,436	21,994	7,442





SECTION II – MEMBERSHIP DATA

Data regarding the membership of the Plan for use as a basis for the valuation were furnished by the Plan's office. The following tables summarize the membership of the Plan as of June 30, 2024 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

Active Members

Employers	Number of Employers	Number	Payroll	Group Averages		
				Salary	Age	Benefit Service*
State Agencies	4	175	\$ 9,090,777	\$51,947	55.7	9.8

* Eligibility service is 14.5 years.

Of the 175 active members, 103 are vested and 72 are non-vested.

Retired Lives

Type of Benefit Payment	No.	Annual Benefits	Group Averages	
			Benefit	Age
Retirement	191	\$1,404,372	\$7,353	74.4
Disability	1	9,369	9,369	69.5
Survivor	55	365,410	6,644	71.6
Total in SLRP	247	\$1,779,151	\$7,203	73.7

Deferred Vested/Inactive Lives

Type of Member	No.	Annual Deferred Benefits	Outstanding Balance
Deferred Vested – Benefit Included	35	\$112,444	N/A
Inactive	30	N/A	\$348,899
Total in SLRP	65	\$112,444	\$348,899

For the liability in this valuation, deferred vested participants with benefits provided are valued assuming a retirement age of 60 and for inactive members, account balances are multiplied by two to estimate liabilities and interest in the future.





SECTION III – VALUATION BALANCE SHEET

The following valuation balance sheet shows the assets and liabilities of the retirement plan as of the current valuation date of June 30, 2024 and, for comparison purposes, as of the immediately preceding valuation date of June 30, 2023. The items shown in the balance sheet are present values actuarially determined as of the relevant valuation date. The development of the actuarial value of assets is presented in Schedule A.

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SECTION III – VALUATION BALANCE SHEET

VALUATION BALANCE SHEET SHOWING THE ASSETS AND LIABILITIES OF THE SUPPLEMENTAL LEGISLATIVE RETIREMENT PLAN OF MISSISSIPPI

	JUNE 30, 2024	JUNE 30, 2023
ASSETS		
Current actuarial value of assets:		
Annuity Savings Account	\$ 2,473,636	\$ 2,779,013
Annuity Reserve	4,574,371	4,043,564
Employers' Accumulation Account	<u>14,945,993</u>	<u>14,642,423</u>
Total current assets	\$ 21,994,000	\$ 21,465,000
Future member contributions to Annuity Savings Account	\$ 2,019,366	\$ 1,552,383
Prospective contributions to Employer's Accumulation Account		
Normal contributions	\$ 2,156,562	\$ 1,627,961
Unfunded actuarial accrued liability contributions	<u>7,441,768</u>	<u>7,065,466</u>
Total prospective contributions	<u>\$ 9,598,330</u>	<u>\$ 8,693,427</u>
Total assets	<u>\$ 33,611,696</u>	<u>\$ 31,710,810</u>
LIABILITIES		
Present value of benefits payable on account of present retired members and beneficiaries	\$ 18,489,360	\$ 16,856,675
Present value of benefits payable on account of inactive members for service rendered before the valuation date	1,398,320	1,289,096
Present value of benefits payable on account of active members	<u>\$ 13,724,016</u>	<u>\$ 13,565,039</u>
Total liabilities	<u>\$ 33,611,696</u>	<u>\$ 31,710,810</u>





SECTION III – VALUATION BALANCE SHEET

BREAKDOWN OF TOTAL AND ACTUARIAL ACCRUED LIABILITIES AS OF JUNE 30, 2024

	Total Liability	Actuarial Accrued Liability
Active Members		
Retirement	\$ 11,348,488	\$ 8,609,729
Death	632,649	442,288
Disability	170,024	60,038
Termination	<u>1,572,855</u>	<u>436,033</u>
Total	\$ 13,724,016	\$ 9,548,088
Retirees		
Retirement	\$ 15,139,994	\$ 15,139,994
Survivor	3,273,002	3,273,002
Disability	<u>76,364</u>	<u>76,364</u>
Total	\$ 18,489,360	\$ 18,489,360
Deferred Vested Members	1,049,421	1,049,421
Inactive Members	<u>348,899</u>	<u>348,899</u>
Total Actuarial Values	\$ 33,611,696	\$ 29,435,768
Actuarial Value of Assets		<u>21,994,000</u>
Unfunded Actuarial Accrued Liability		\$ 7,441,768

The total liability is the present value of future benefits for all current members as of the valuation date. The accrued liability is the present value of benefits that have been accrued as of the valuation date. Since all inactive members and retirees have accrued their full benefits, the total liability and accrued liability are the same. For actives, the difference between the total liability and the accrued liability is the present value of all future accruals.





SECTION IV – COMMENTS ON VALUATION

The valuation balance sheet gives the following information with respect to the funds of the Plan as of June 30, 2024.

Total Assets

The Annuity Savings Account is the fund to which are credited contributions made by members together with interest thereon. When a member retires, the amount of his or her accumulated contributions is transferred from the Annuity Savings Account to the Annuity Reserve. The Employer's Accumulation Account is the fund to which are credited employer contributions and investment income, and from which are paid all employer-provided benefits under the plan. The assets credited to the Annuity Savings Account as of the valuation date, which represent the accumulated contributions of members to that date, amounted to \$2,473,636. The assets credited to the Annuity Reserve were \$4,574,371 and the assets credited to the Employer's Accumulation Account totaled \$14,945,993. Current actuarial assets as of the valuation date equaled the sum of these three funds, \$21,994,000. Future member contributions to the Annuity Savings Account were valued to be \$2,019,366. Prospective contributions to the Employer's Accumulation Account were calculated to be \$9,598,330 of which \$2,156,562 is attributable to service rendered after the valuation date (normal contributions) and \$7,441,768 is attributable to service rendered before the valuation date (unfunded actuarial accrued liability contributions).

Therefore, the balance sheet shows the present value of current and future assets of the Plan to be \$33,611,696 as of June 30, 2024.

Total Liabilities

The present value of benefits payable on account of presently retired members and beneficiaries totaled \$18,489,360 as of the valuation date. The present value of future benefit payments on behalf of active members amounted to \$13,724,016. In addition, the present value of benefits for inactive members, due to service rendered before the valuation date, was calculated to be \$1,398,320.

Therefore, the balance sheet shows the present value for all prospective benefit payments under the Plan to be \$33,611,696 as of June 30, 2024.

Section 25-11-307(1) of State law requires that active members contribute 3.00% of annual compensation to the Plan.





SECTION IV – COMMENTS ON VALUATION

Section 25-11-307(2) requires that the State contribute a certain percentage of the annual compensation of members to cover the normal contributions and a certain percentage to cover the accrued liability contributions of the Plan. These individual contribution percentages are established in accordance with an actuarial valuation. Based on the funding policy adopted by the Board in 2023, the employer rate was set at 8.40% of annual compensation beginning July 1, 2024 and the amortization period is calculated on an open basis. Therefore, the amortization period for the June 30, 2024 valuation is 25.5 years, compared to 26.5 years for the previous valuation.

There was a loss on the unfunded actuarial accrued liability for the fiscal year ending June 30, 2024 of approximately \$381.0 thousand (shown on the next page) which was primarily due greater than expected salary increases for the year, mortality experience (less deaths than assumed) offset by gains due to less retirements than expected during the year.

See page 15 for a reconciliation of the amortization period. See Schedule E for a complete analysis of the Financial Experience.





SECTION V – DERIVATION OF EXPERIENCE GAINS & LOSSES

Actual experience will never (except by coincidence) match exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common. Details on the derivation of the experience gain/(loss) for the years ended June 30, 2024 and June 30, 2023 are shown below.

	2024 Valuation \$ Thousands	2023 Valuation \$ Thousands
(1) UAAL* as of beginning of year	\$ 7,065.5	\$ 5,325.0
(2) Total normal cost from last valuation	441.7	423.2
(3) Total contributions	939.0	884.0
(4) Interest Rate (Beginning of Year)	7.00%	7.55%
(5) Interest accrual: [[(1) + (2)] x (4)] - [(3) x ((4) / 2)]	<u>492.6</u>	<u>400.6</u>
(6) Expected UAAL before changes: (1) + (2) – (3) + (5)	\$ 7,060.8	\$ 5,264.8
(7) Change due to plan amendments	0.0	0.0
(8) Change due to actuarial assumptions or methods	<u>0.0</u>	<u>1,573.3</u>
(9) Expected UAAL after changes: (6) + (7) + (8)	\$ 7,060.8	\$ 6,838.1
(10) Actual UAAL as of end of year	\$ 7,441.8	\$ 7,065.5
(11) Gain/(loss): (9) – (10)	\$ (381.0)	\$ (227.4)
(12) Gain/(loss) as percent of actuarial accrued liabilities at start of year.	(1.3)%	(0.9)%

*Unfunded actuarial accrued liability.

Valuation Date June 30	Actuarial Gain/(Loss) as a % of Beginning Accrued Liabilities
2019	(0.2)%
2020	(2.0)
2021	(0.4)
2022	0.6
2023	(0.9)
2024	(1.3)





SECTION VI – FIXED CONTRIBUTION RATE (FCR)

1. The valuation balance sheet gives the basis for determining the percentage rates for contributions to be made by employers to the Retirement Plan. The following table shows the rates of contribution payable by employers as determined from the present valuation for the fiscal year and a comparison to the previous valuation results.

Contribution for	2024 Valuation	2023 Valuation
Investment Return Assumption	7.00%	7.00%
Total Normal Cost:		
Service retirement benefits	5.62%	5.60%
Disability benefits	0.15%	0.15%
Survivor benefits	0.30%	0.31%
Total	6.07%	6.06%
Less Member Contributions:	3.00%	3.00%
Employer Normal Cost	3.07%	3.06%
Administrative Expense Load	0.15%	0.15%
Total Employer Normal Cost Rate	3.22%	3.21%
Unfunded Actuarial Accrued Liabilities (25.5 year level % of payroll amortization*)	5.18%	5.19%
Total Employer Fixed Contribution Rate (FCR)	8.40%	8.40%

*Amortization period a year ago was 26.5 years.

2. The current funding policy has set the employer contribution rate to 8.40% of payroll and kept the amortization period open-ended. Thirty-year projections are completed to determine if an increase or decrease in the employer contribution rate is warranted according to the metrics set forth in the funding policy. Please see Schedule F for the current funding policy.





SECTION VI – FIXED CONTRIBUTION RATE (FCR)

3. The components of the change in the computed unfunded actuarial accrued liability amortization period from 26.5 years to 25.5 years are as follows:

Previously Reported Period	26.5 years
Change due to:	
Normal amortization	(1.0)
Actuarial experience	1.6
Net Assumption changes/FCR Change	0.0
Plan amendments	0.0
Contribution Shortfall/(Excess)	(1.6)
Computed Period	25.5 years





SECTION VII – ACTUARIALLY DETERMINED CONTRIBUTION RATE (ADC)

1. One of the metrics in the Funding Policy, as shown in Schedule F, is to calculate the Actuarially Determined Contribution (ADC) based on the principal elements of the Amortization Method disclosed in the Funding Policy. The ratio of the ADC to the Fixed Contribution Rate (ADC/FCR) as set by this Funding Policy will be tested with each valuation. The Funding Policy provides that the unfunded actuarial accrued liability as of June 30, 2023 (Transitional UAAL) will be amortized as a level percentage of payroll over a closed 25-year period. In each subsequent valuation, all benefit changes, assumption and method changes, and experience gains and/or losses that have occurred since the previous valuation will combine to determine a New Incremental UAAL. Each New Incremental UAAL will be amortized as a level percentage of payroll over a closed 25-year period from the date it is established.
2. The following table shows the components of the total Unfunded Actuarial Accrued Liability (UAAL) and the derivation of the UAAL Contribution Rate in accordance with the funding policy as of the valuation date:

TOTAL UAAL AND UAAL CONTRIBUTION RATE

Date Established	Original UAAL Balance	Remaining UAAL Balance	Remaining Amortization Period	Amortization Payment
June 30, 2023	\$7,065,466	\$7,084,052	24 years	\$472,357
June 30, 2024	\$357,716	\$357,716	25 years	\$23,298
Total		\$7,441,768		\$495,655
Estimated Payroll				\$9,331,683
UAAL Amortization Contribution Rate				5.31%





SECTION VII – ACTUARIALLY DETERMINED CONTRIBUTION RATE (ADC)

3. The calculation of Actuarial Determined Contribution (ADC) for the past two valuations is shown below:

Funding Policy ADC Metric Test		
Valuation Date June 30	2024	2023
Actuarially Determined Contribution (ADC) rate		
Normal Cost*	3.22%	3.21%
Accrued liability	<u>5.31</u>	<u>5.36</u>
Total	8.53%	8.57%
Fixed Contribution Rate (FCR)	8.40%	8.40%
Ratio of ADC to FCR	101.55%	102.02%
Funding Policy Metric Status	Yellow	Yellow
Anticipated accrued liability payment period	24.4 years	25.0 years

* Estimated budgeted administrative expenses are included in the normal cost rate

Since the Ratio of ADC to FCR is between 100% and 110% and the Metric Status is in the “Yellow Status” for the 2024 valuation, per the Funding Policy, we recommend no change in the Fixed Contribution Rate of 8.40% of annual compensation at this time. However, if there is any negative experience in the near future, the Fixed Contribution Rate may need to be increased. The Board should continue to review the Sensitivity Analysis section of this report during the fiscal year to understand the volatility that may occur in the projections if investment experience is less than expected going forward.





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

1. The following supplemental disclosure information is provided for informational purposes only. One such item is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ACTIVE AND RETIRED PARTICIPANTS
AS OF JUNE 30, 2024**

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	247
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	65
Active Participants	<u>175</u>
Total	487





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

2. Another such item is the schedule of funding progress as shown below. As can be seen in column 3 of the table below, the funded ratio has remained in a narrow range since 2017 with a decrease last year due to the assumption changes, including the change in the investment return assumption from 7.55% to 7.00%. In addition, the UAAL as a percentage of payroll, shown in column 6, has increased this valuation.

SCHEDULE OF FUNDING PROGRESS

Plan Year Ended	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Funded Ratio (1)/(2)	(4) Unfunded AAL (2) – (1)	(5) Annual Covered Payroll	(6) Unfunded AAL as a Percentage of Covered Payroll (4)/(5)
06/30/2015#	\$16,098,000	\$21,213,446	75.9%	\$5,115,446	\$6,861,166	74.6%
06/30/2016	16,447,000	21,258,800	77.4	4,811,800	6,862,262	70.1
06/30/2017#	17,208,000	21,848,868	78.8	4,640,868	6,928,085	67.0
06/30/2018	17,945,000	22,318,685	80.4	4,373,685	6,832,961	64.0
06/30/2019#	18,428,000	22,933,853	80.4	4,505,853	6,937,075	65.0
06/30/2020	18,472,000	23,484,818	78.7	5,012,818	6,890,817	72.7
06/30/2021#	19,980,000	25,402,264	78.7	5,422,264	8,029,670	67.5
06/30/2022	20,808,000	26,133,030	79.6	5,325,030	8,179,673	65.1
06/30/2023#	21,465,000	28,530,466	75.2	7,065,466	8,425,049	83.9
06/30/2024	21,994,000	29,435,768	74.7	7,441,768	9,090,777	81.9

After change in actuarial assumptions.





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

3. Additional information as of the latest valuation that went into the calculation of the Actuarially Determined Contribution (ADC) are as follows:

Valuation date	6/30/2024
Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period on ADC basis	24.4 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return (discount rate)*	7.00%
Projected salary increases*	2.65%
Cost-of-living adjustments	3.00% per annum

* Includes price inflation at 2.40%





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

Solvency Tests (\$ in Thousands)

Valuation Date	Actuarial Accrued Liabilities for				Portions of Accrued Liabilities Covered by Assets		
	(1) Accumulated Employee Contributions Including Allocated Investment Earnings	(2) Retirees and Beneficiaries Currently Receiving Benefits	(3) Active and Inactive Members Employer Financed Portion	Net Assets Available for Benefits	(1)	(2)	(3)
6/30/2015	\$2,862	\$12,329	\$6,023	\$16,098	100.0%	100.0%	15.1%
6/30/2016	2,485	13,758	5,016	16,447	100.0	100.0	4.1
6/30/2017	2,636	13,799	5,414	17,208	100.0	100.0	14.3
6/30/2018	2,693	13,840	5,786	17,945	100.0	100.0	24.4
6/30/2019	2,701	14,282	5,951	18,428	100.0	100.0	24.3
6/30/2020	2,145	16,356	4,983	18,472	100.0	99.8	0.0
6/30/2021	2,331	16,275	6,796	19,980	100.0	100.0	20.2
6/30/2022	2,611	16,053	7,469	20,808	100.0	100.0	28.7
6/30/2023	2,779	16,857	8,895	21,465	100.0	100.0	20.6
6/30/2024	2,474	18,489	8,473	21,994	100.0	100.0	12.2

As can be seen from the table above, the SLRP plan assets currently cover 100% of the active member contribution account balances and 100% of the retiree liability as of the valuation date. However, the remaining assets only cover a small percentage of the employer financed active liabilities.





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Number	Active Members		% Increase in Average Pay
			Annual Payroll	Annual Average Pay	
2015	5	174	\$6,861,166	\$39,432	(0.3)%
2016	5	171	6,862,262	40,130	1.8
2017	5	174	6,928,085	39,817	(0.8)
2018	5	174	6,832,961	39,270	(1.4)
2019	5	170	6,937,075	40,806	3.9
2020	5	171	6,890,817	40,297	(1.2)
2021	5	173	8,029,670	46,414	15.2
2022	4	174	8,179,673	47,010	1.3
2023	4	172	8,425,049	48,983	4.2
2024	4	175	9,090,777	51,947	6.1

Schedule of Number of Retirants Added To and Removed From Rolls* Last Ten Fiscal Years

Item	Fiscal Year Ended June 30									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Beginning of Year	187	185	207	205	207	215	235	233	230	228
Added	8	28	6	6	11	24	3	1	9	28
Removed	(10)	(6)	(8)	(4)	(3)	(4)	(5)	(4)	(11)	(9)
End of Year	185	207	205	207	215	235	233	230	228	247

*See Schedule D for a breakdown by type of retirement.





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

**Schedule of Annual Benefit Payments Added To and Removed From Rolls
Last Seven Fiscal Years**

Year Ending	2018	2019	2020	2021	2022	2023	2024
Beginning of Year	\$1,279,471	\$1,304,548	\$1,372,878	\$1,565,656	\$1,596,810	\$1,614,217	\$1,633,116
Added	34,983	72,406	216,379	14,393	2,970	66,878	150,895
Removed	(42,480)	(43,651)	(64,124)	(26,951)	(34,377)	(84,837)	(57,548)
Benefit increase due to annual COLA	32,574	39,575	40,523	43,712	48,814	36,858	52,688
Benefit increase due to plan amendments	0	0	0	0	0	0	0
End of Year	\$1,304,548	\$1,372,878	\$1,565,656	\$1,596,810	\$1,614,217	\$1,633,116	\$1,779,151





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

Schedule of Average Benefit Payments

		Years of Credited Service							TOTAL	
		0-9	10-14	15-19	20-24	25	26-29	30		31+
July 1, 2023 to June 30, 2024										
Average Monthly Benefit		\$198.42	\$287.32	\$463.58	\$565.48		\$973.07		\$1,039.15	\$449.09
Average Final Salary		\$35,937.36	\$31,089.75	\$20,301.36	\$35,957.26		\$46,679.04		\$47,126.32	\$35,196.03
Number of Active Retirants		8	7	2	7		1		3	28
July 1, 2022 to June 30, 2023										
Average Monthly Benefit		\$435.87	\$232.89	\$639.34	\$1,103.21				\$926.91	\$619.24
Average Final Salary		\$39,251.46	\$35,025.72	\$46,070.28	\$58,191.24				\$45,845.00	\$43,397.35
Number of Active Retirants		2	2	2	1				2	9
July 1, 2021 to June 30, 2022										
Average Monthly Benefit		\$123.42								\$123.42
Average Final Salary		\$31,733.04								\$31,733.04
Number of Active Retirants		1								1
July 1, 2020 to June 30, 2021										
Average Monthly Benefit		\$192.21					\$815.03			\$399.82
Average Final Salary		\$32,588.76					\$44,865.25			\$36,680.92
Number of Active Retirants		2					1			3
July 1, 2019 to June 30, 2020										
Average Monthly Benefit		\$244.53	\$334.26	\$551.15	\$799.36		\$969.20		\$713.07	\$657.06
Average Final Salary		\$36,523.16	\$40,009.26	\$32,107.39	\$39,043.63		\$34,675.32		\$42,094.84	\$37,017.34
Number of Active Retirants		3	2	5	7		4		3	24





SECTION VIII – SUPPLEMENTAL DISCLOSURE INFORMATION

Schedule of Average Benefit Payments

	Years of Credited Service							TOTAL
	0-9	10-15	16-20	21-24	25	26-29	30	
July 1, 2018 to June 30, 2019								
Average Monthly Benefit	\$169.43	\$372.79	\$636.97	\$742.14		\$738.58		\$548.53
Average Final Salary	\$24,872.76	\$42,782.28	\$42,042.72	\$42,479.52		\$40,654.56		\$38,076.62
Number of Active Retirants	3	2	1	2		1		11
July 1, 2017 to June 30, 2018								
Average Monthly Benefit	\$33.20		\$538.18	\$512.85				\$485.87
Average Final Salary	\$20,839.50		\$40,100.76	\$41,549.28				\$27,732.60
Number of Active Retirants	2		1	2				6
July 1, 2016 to June 30, 2017								
Average Monthly Benefit	\$180.95		\$609.42	\$452.29	\$732.45			\$434.72
Average Final Salary	\$29,821.02		\$37,791.24	\$28,377.72	\$40,932.00			\$32,520.12
Number of Active Retirants	2		1	2	1			6
July 1, 2015 to June 30, 2016								
Average Monthly Benefit	\$249.59	\$349.70	\$486.61	\$654.27	\$522.12			\$527.40
Average Final Salary	\$36,599.58	\$39,877.51	\$35,210.67	\$39,774.39	\$41,482.12		\$1,200.33	\$38,850.14
Number of Active Retirants	6	6	4	7	2		3	28
July 1, 2014 to June 30, 2015								
Average Monthly Benefit	\$163.64	\$739.53	\$720.77		\$578.67			\$607.33
Average Final Salary	\$18,636.25	\$68,228.41	\$37,911.50		\$34,790.50		\$1,032.05	\$40,911.48
Number of Active Retirants	2	2	2		1		1	8





SECTION IX – PROJECTION RESULTS

Annual actuarial valuations are performed for SLRP which re-measure the assets and liabilities and the adequacy of the contribution rate. Actuarial projections are also performed every year with sensitivity testing of several factors. SLRP also has experience studies performed every two years to analyze the discrepancies between actuarial assumptions and actual experience and determine if the actuarial assumptions need to be changed. Annual actuarial valuations and projections and periodic experience studies are practical ways to monitor and reassess risk.

As mentioned earlier in the report, the intended purpose of the projection results is to help assess the Plan's funding progress and to provide information to decision makers to help ensure that the applicable pension liabilities and funding mechanisms are managed in a manner that promotes sustainability.

The projection process should be viewed as an enhancement to the actuarial valuation control cycle by providing additional evaluation metrics to assess the need for further, in-depth analysis of the risks to the Plan's sustainability. The actuarial valuation control cycle is a key component of managing a long-term liability whose ultimate value is based upon uncertain future events. As the ultimate value of future cash flows cannot be predicted with certainty, pension liabilities are managed in the short-term through the continuous monitoring of economic and demographic assumptions, with a keen eye on the identification, measurement, and management of risks.

The projection process, like other actuarial modeling, is not intended to provide absolute results. The intended purpose of the projection process is to identify anticipated trends and to compare various outcomes, under a given methodology, rather than predicting certain future events. The results produced by the projection process do not predict the financial condition of the Plan or the Plan's ability to pay benefits in the future and do not provide any guarantee of future financial soundness of the Plan. Because actual experience will not unfold exactly as expected, actual results can be expected to differ from the results presented herein. To the extent actual experience deviates significantly from the assumptions, results could be significantly better or significantly worse than the expected outcome indicated in this report.





SECTION IX – PROJECTION RESULTS

SPECIAL ASSUMPTIONS

In addition to the regular valuation assumptions used in performing the annual actuarial valuations of SLRP, additional assumptions must be made that are unique to projections. The first of these is what, if any, change in the overall active membership will be anticipated. For this projection study, it was assumed that the number of active members would remain static over the 30-year projection period.

Since we assume active members will leave the system through termination, death, disability, or retirement, we need to make some assumptions as to the composition of new hires that will replace departing members in order to maintain the membership at a constant number. The new entrant profile we developed was based on the new hires over the 4-year period prior to the projection start date of June 30, 2024.

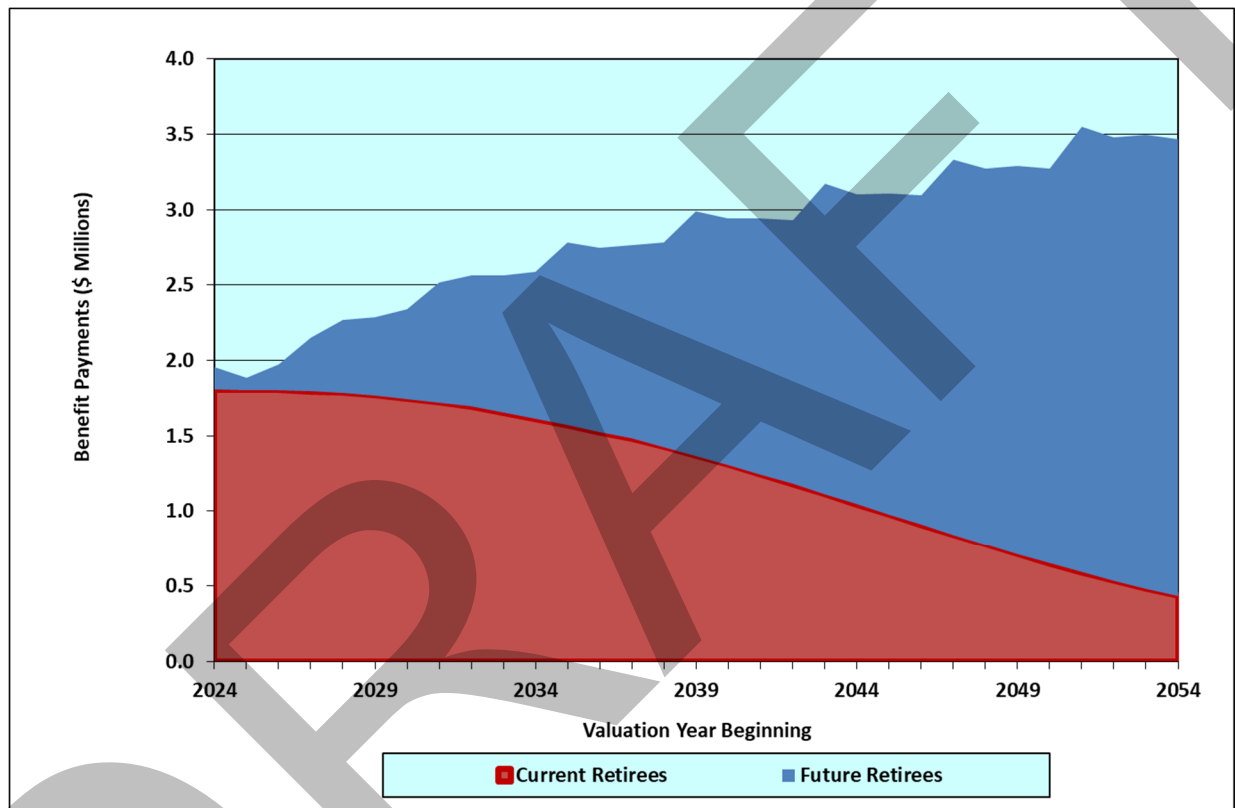
It is important to note that an eligibility service load of 2.50 years was included in the new entrant profile as the census data shows more and more active members in SLRP are entering the Plan with service from the PERS plan. The new entrant profile is summarized in the table below.

Age	Average Pay	Percent Male	Weight
30	\$46,000	80%	15%
39	\$47,000	80%	15%
45	\$47,000	80%	25%
52	\$49,000	80%	15%
57	\$46,000	80%	19%
67	\$49,000	80%	11%



SECTION IX – PROJECTION RESULTS

For the projection results presented in this section of the report, it was further assumed that the benefit structure as it exists on June 30, 2024 would remain in place for the following 30 years. The following graph shows the projection of benefit payments of SLRP members. The red area of the graph represents the benefit payments for current retirees and the blue area represents the benefit payments for any future retirees. The jagged outline of this blue area is a result of our assumption that most retirements occur every 4 years (after an election year). SLRP currently pays approximately \$1.8 million in benefit payments to its retirees but over the 30-year period, that amount is expected to nearly double.





SECTION IX – PROJECTION RESULTS

FUTURE MEMBERSHIP

The following chart and graph show the headcounts of active participants and retired members over the projection period. The actives are broken down into those existing as of June 30, 2024 and those who are hired after June 30, 2024. We have assumed the active membership will continue at the current maximum population of 175 active members over the projected period. As can be seen from the chart below, the retiree and deferred vested headcount begins to drop as retiree deaths outnumber new retirees.

Member	2024	2029	2034	2044	2047	2054
Active – Existing Employees	175	112	71	18	15	5
Active – New Entrants	0	63	104	157	160	170
Retired/Deferred Vesteds	282	294	281	249	225	205
Total	457	469	456	424	400	380





SECTION IX – PROJECTION RESULTS

PROJECTION RESULTS

The baseline projection results shown below use the same actuarial assumptions as used in the June 30, 2024 actuarial valuation report. In addition, the projection results using a different long-term investment return assumptions for future valuations (6.50%) is included below.

Baseline Projection Results (7.00%) (\$ in Thousands)

	2024	2029	2034	2044	2047	2054
Total Payroll	\$9,091	\$9,902	\$10,960	\$13,783	\$14,808	\$17,649
UAAL	\$7,442	\$7,599	\$7,533	\$6,483	\$5,760	\$2,401
Normal Cost Rate	3.22%	3.77%	4.03%	4.29%	4.31%	4.21%
UAAL Rate	5.18%	4.63%	4.37%	4.11%	4.09%	4.19%
FCR Rate	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%
Funded Ratio	74.7%	76.9%	78.9%	84.4%	86.9%	95.2%
Amortization Period	25 years	28 years	25 years	15 years	12 years	3 years
ADC	8.53%	9.52%	10.26%	12.19%	12.94%	6.87%
ADC Ratio	101.6%	113.3%	122.2%	145.1%	154.1%	81.8%
Cash Flow %	(4.0)%	(4.4)%	(4.6)%	(4.2)%	(4.1)%	(2.9)%

Projection Results Assuming 6.50% Long-Term Investment Return (\$ in Thousands)

	2024	2029	2034	2044	2047	2054
Total Payroll	\$9,091	\$9,902	\$10,960	\$13,783	\$14,808	\$17,649
UAAL	\$8,964	\$9,861	\$10,872	\$13,556	\$14,577	\$17,008
Normal Cost Rate	3.88%	4.47%	4.75%	5.02%	5.05%	4.94%
UAAL Rate	4.52%	3.93%	3.65%	3.38%	3.35%	3.46%
FCR Rate	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%
Funded Ratio	71.0%	71.4%	70.9%	68.9%	68.4%	67.8%
Amortization Period	32 years	72 years	100 years	100 years	100 years	100 years
ADC	9.96%	11.55%	13.07%	17.43%	19.21%	12.57%
ADC Ratio	118.6%	137.5%	155.6%	207.5%	228.7%	149.7%
Cash Flow %	(4.0)%	(4.5)%	(4.9)%	(4.9)%	(5.0)%	(3.8)%





SECTION IX – PROJECTION RESULTS

The first graph that follows shows the projection of the Unfunded Accrued Liability (UAL), Actuarial Value of Assets and the Funded Ratio under the baseline valuation (assuming 7.00%) from the amounts shown in the baseline table on the previous page. As you can see from the graph, under the current assumptions, the funded ratio is expected to increase steadily over the entire projection period.

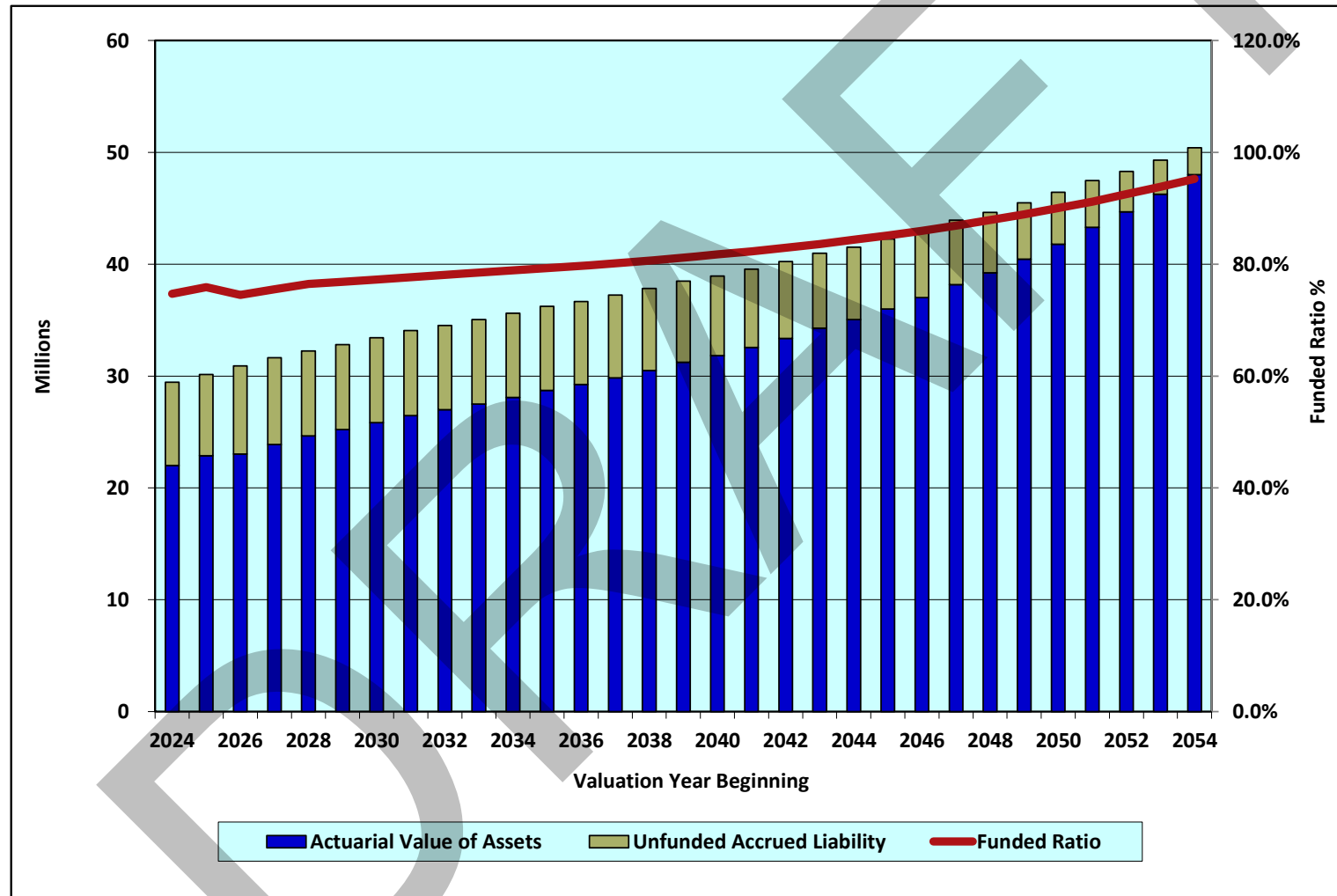
The second graph shows the projection of the calculated Actuarially Determined Contribution (ADC) based on the Board's Funding Policy and the current Fixed Contribution Rate (FCR) of 8.40% under the baseline valuation. As you can see from the graph, the ADC is expected to increase over the next five years as the investment losses from the past valuations are fully recognized. After this initial period, the ADC is then expected to increase even further for the remaining projection period, as the valuation results continue to include contribution deficiency shortfalls due to the difference between the ADC and FCR. The drop in the ADC near the end of the projection period is a result of the initial 2023 UAL base of \$7.1 Million being paid off, based on the closed amortization period per the Board's Funding Policy.





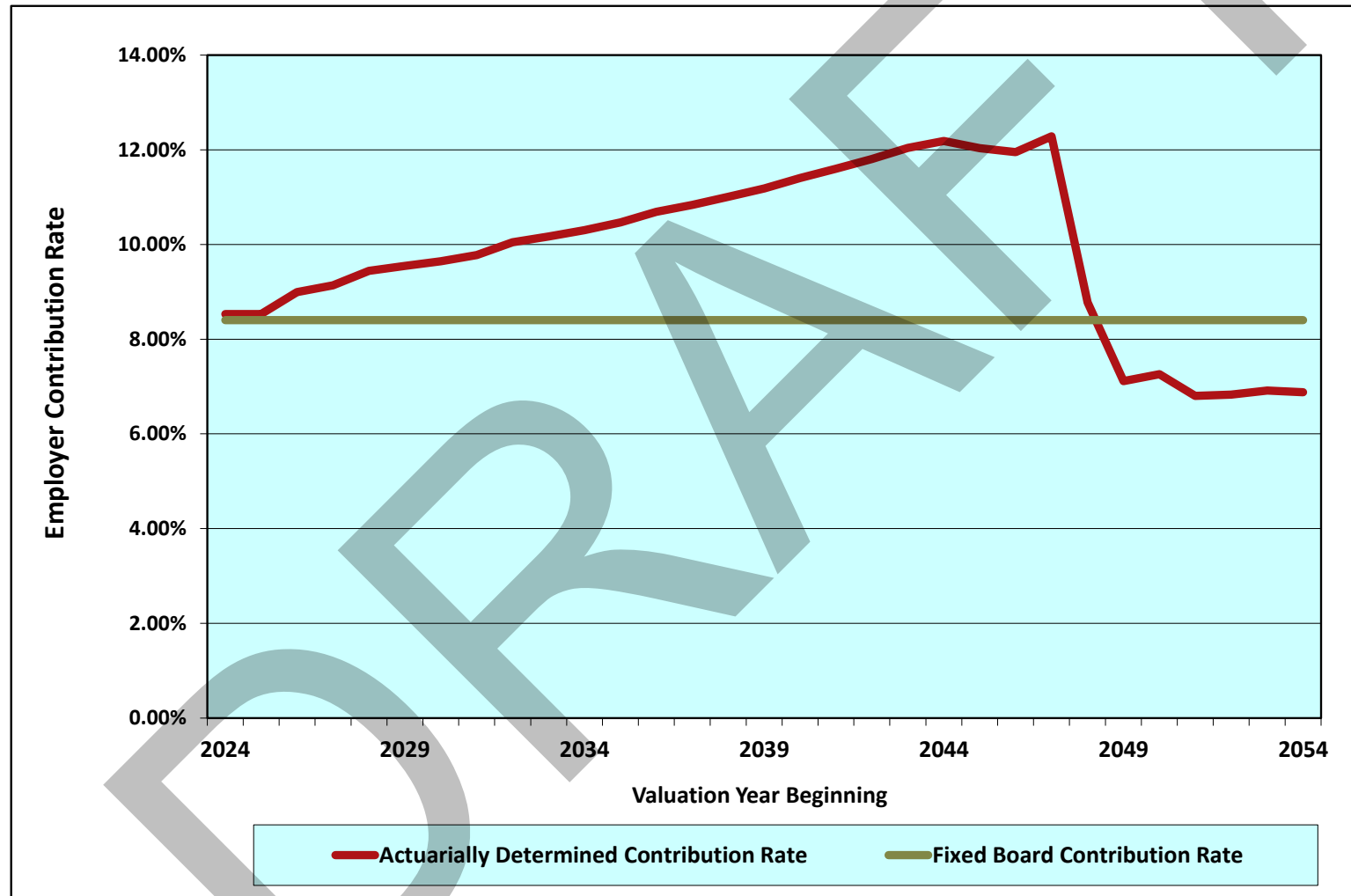
SECTION IX – PROJECTION RESULTS

Mississippi PERS – SLRP Plan
30 Year Projection of Funded Ratio on Actuarial Asset Value
Based on June 30, 2024 Valuation Results



SECTION IX – PROJECTION RESULTS

**Mississippi PERS – SLRP Plan
30 Year Projection of the Employer Contribution Rates
Based on June 30, 2024 Valuation Results**





SECTION X – CASH FLOW PROJECTIONS

CASH FLOW PROJECTIONS

The funded ratio is the primary measure of funded status of a pension plan and, thereby, the most common measurement used for drawing conclusions on funding progress. The funded ratio is the ratio of the actuarial value of assets to the actuarial or accrued liability of the system as calculated by the funding method used in developing system contribution levels. When using the funded ratio in assessing trends over several valuations, we recommend that the basis for determining both the assets and liabilities in the ratio are taken into consideration and reasonable efforts are made to adjust the ratio to reflect these differences when they are known. On a consistent basis, an increasing funded ratio would typically indicate progress in meeting the obligations of the system. In most cases, other measures should also be considered in a trend assessment. These may include the trend in the length of the amortization period, the required contribution rate, percentage of required contributions funded, and the unfunded actuarial liability as a percentage of payroll. Focusing solely on any one measure as the indication of funding progress is an over-simplification of a complex and dynamic system.

Another of those additional metrics is an outlook on the cash flow as a percentage of assets for the System. Most retirement systems are funded with an advance-funding mechanism, meaning contributions and investment earnings are earned during a member's active lifetime in order to pay for the benefit payments during his retirement years. Many mature retirement systems, like SLRP, have negative cash flow, where benefit payments paid out of the trust are more than the contributions being collected by employers and employees.





SECTION X – CASH FLOW PROJECTIONS

For the fiscal year ending June 30, 2025, we are projecting SLRP to have a negative cash flow of approximately \$0.9 Million (benefit payments of \$2.0 Million and contributions of \$1.1 Million). With a market value of assets of \$21.9 Million as of June 30, 2024, the cash flow as a percentage of assets is estimated to be negative 4.00% for the 2025 fiscal year. While the market value of assets is assumed to earn 7.00% each year, the difference between the investment return assumption and the negative cash flow percentage is positive, meaning assets are projected to grow for the 2025 fiscal year. When assets do not earn a positive return enough to cover this negative cash flow percentage, assets are expected to decline for the year. If the negative cash flow percentage does not grow more than the assumed investment return assumption, the System's assets will continue to increase, and sustainability of the plan may be achieved.

The tables on the following pages demonstrate the open group projection of cash flow on the baseline assumption and then a sensitivity analysis, using a one-year return of negative 5.00% for the fiscal year ending June 30, 2025. These results demonstrate the projection of this metric if SLRP experiences one significant bad investment year in one of the next five years without a correction in the market. As can be seen from the table on page 36, the cash flow as a percentage of market value of assets does not at any point get less than negative 5.04% on the baseline assumptions, meaning that SLRP assets should continue to increase as long as all baseline actuarial assumptions are met.

However, if there is a significant negative investment experience in one of the next five years (as seen on the table on page 37), the negative cash flow will be almost as much as the investment experience of the Plan and while the SLRP assets will continue to grow it will not be at the same levels for most of the projection period.

This metric will continue to be monitored as part of the funding policy under the baseline assumptions to ensure the continued growth of SLRP assets during the projection period.





SECTION X – CASH FLOW PROJECTIONS

Mississippi PERS 30-year Open Group Projection of Cash Flow SLRP Plan Based on June 30, 2024 Valuation Results

Projection of Cash Flow

Contribution Methodology:
Investment Return Methodology:

Employee and Employer Contributions
As Programmed

Valuation Year Beginning July 1	Expected Short-term Investment Return	Valuation Annual Payroll	Market Value of Assets July 1	Total Contributions	Projected Benefit Payments	Ratio of Cash Flow to MVA	Expected Investment Return	Net Cash Flow	Market Value of Assets June 30	Valuation Year Ending June 30
2024	7.00%	9,331,683	21,868,000	1,082,289	(1,956,507)	-4.00%	1,500,680	626,462	22,494,462	2025
2025	7.00%	9,519,645	22,494,462	1,104,088	(1,888,216)	-3.49%	1,547,632	763,505	23,257,966	2026
2026	7.00%	9,735,113	23,257,966	1,129,078	(1,976,953)	-3.65%	1,598,884	751,010	24,008,976	2027
2027	7.00%	9,922,956	24,008,976	1,150,864	(2,150,797)	-4.16%	1,646,223	646,290	24,655,266	2028
2028	7.00%	9,901,862	24,655,266	1,148,418	(2,267,577)	-4.54%	1,687,361	568,202	25,223,468	2029
2029	7.00%	10,134,758	25,223,468	1,175,429	(2,288,930)	-4.41%	1,727,329	613,828	25,837,296	2030
2030	7.00%	10,366,492	25,837,296	1,202,306	(2,343,136)	-4.42%	1,769,357	628,527	26,465,822	2031
2031	7.00%	10,605,201	26,465,822	1,229,991	(2,518,666)	-4.87%	1,808,267	519,592	26,985,415	2032
2032	7.00%	10,701,911	26,985,415	1,241,208	(2,567,108)	-4.91%	1,843,357	517,456	27,502,871	2033
2033	7.00%	10,960,270	27,502,871	1,271,172	(2,566,887)	-4.71%	1,880,618	584,903	28,087,774	2034
2034	7.00%	11,229,260	28,087,774	1,302,370	(2,585,915)	-4.57%	1,921,980	638,435	28,726,209	2035
2035	7.00%	11,501,679	28,726,209	1,333,965	(2,780,614)	-5.04%	1,961,058	514,408	29,240,618	2036
2036	7.00%	11,670,873	29,240,618	1,353,588	(2,747,860)	-4.77%	1,998,869	604,597	29,845,214	2037
2037	7.00%	11,963,465	29,845,214	1,387,523	(2,768,249)	-4.63%	2,041,657	660,931	30,506,145	2038
2038	7.00%	12,254,677	30,506,145	1,421,297	(2,781,170)	-4.46%	2,088,640	728,768	31,234,913	2039
2039	7.00%	12,557,964	31,234,913	1,456,473	(2,987,206)	-4.90%	2,133,774	603,041	31,837,954	2040
2040	7.00%	12,788,498	31,837,954	1,483,210	(2,945,392)	-4.59%	2,178,346	716,164	32,554,118	2041
2041	7.00%	13,112,432	32,554,118	1,520,780	(2,941,723)	-4.36%	2,229,896	808,953	33,363,071	2042
2042	7.00%	13,442,873	33,363,071	1,559,104	(2,932,954)	-4.12%	2,288,144	914,295	34,277,366	2043
2043	7.00%	13,782,786	34,277,366	1,598,528	(3,170,438)	-4.59%	2,345,329	773,418	35,050,784	2044
2044	7.00%	14,075,431	35,050,784	1,632,468	(3,104,035)	-4.20%	2,402,921	931,354	35,982,138	2045
2045	7.00%	14,438,929	35,982,138	1,674,627	(3,106,159)	-3.98%	2,469,493	1,037,961	37,020,100	2046
2046	7.00%	14,807,982	37,020,100	1,717,430	(3,096,856)	-3.73%	2,543,944	1,164,517	38,184,617	2047
2047	7.00%	15,185,374	38,184,617	1,761,200	(3,330,821)	-4.11%	2,618,916	1,049,295	39,233,912	2048
2048	7.00%	15,544,229	39,233,912	1,802,820	(3,274,351)	-3.75%	2,695,741	1,224,210	40,458,122	2049
2049	7.00%	15,948,660	40,458,122	1,849,726	(3,290,599)	-3.56%	2,782,491	1,341,618	41,799,739	2050
2050	7.00%	16,357,514	41,799,739	1,897,144	(3,271,404)	-3.29%	2,878,696	1,504,437	43,304,176	2051
2051	7.00%	16,781,955	43,304,176	1,946,371	(3,552,421)	-3.71%	2,976,031	1,369,982	44,674,157	2052
2052	7.00%	17,201,748	44,674,157	1,995,059	(3,477,033)	-3.32%	3,076,199	1,594,224	46,268,382	2053
2053	7.00%	17,648,603	46,268,382	2,046,885	(3,497,361)	-3.13%	3,188,879	1,738,403	48,006,785	2054
2054	7.00%	18,107,383	48,006,785	2,100,094	(3,470,960)	-2.86%	3,313,306	1,942,440	49,949,225	2055





SECTION X – CASH FLOW PROJECTIONS

Mississippi PERS 30-year Open Group Projection of Cash Flow SLRP Plan Based on June 30, 2024 Valuation Results

Projection of Cash Flow

Contribution Methodology:
Investment Return Methodology:

Employee and Employer Contributions
As Programmed

Valuation Year Beginning July 1	Expected Short-term Investment Return	Valuation Annual Payroll	Market Value of Assets July 1	Total Contributions	Projected Benefit Payments	Ratio of Cash Flow to MVA	Expected Investment Return	Net Cash Flow	Market Value of Assets June 30	Valuation Year Ending June 30
2024	-5.00%	9,331,683	21,868,000	1,082,289	(1,956,507)	-4.00%	(1,071,264)	(1,945,482)	19,922,518	2025
2025	7.00%	9,519,645	19,922,518	1,104,088	(1,888,216)	-3.94%	1,367,596	583,469	20,505,986	2026
2026	7.00%	9,735,113	20,505,986	1,129,078	(1,976,953)	-4.13%	1,406,245	558,371	21,064,357	2027
2027	7.00%	9,922,956	21,064,357	1,150,864	(2,150,797)	-4.75%	1,440,099	440,166	21,504,523	2028
2028	7.00%	9,901,862	21,504,523	1,148,418	(2,267,577)	-5.20%	1,466,809	347,650	21,852,173	2029
2029	7.00%	10,134,758	21,852,173	1,175,429	(2,288,930)	-5.10%	1,491,339	377,838	22,230,011	2030
2030	7.00%	10,366,492	22,230,011	1,202,306	(2,343,136)	-5.13%	1,516,847	376,017	22,606,027	2031
2031	7.00%	10,605,201	22,606,027	1,229,991	(2,518,666)	-5.70%	1,538,081	249,406	22,855,434	2032
2032	7.00%	10,701,911	22,855,434	1,241,208	(2,567,108)	-5.80%	1,554,259	228,358	23,083,792	2033
2033	7.00%	10,960,270	23,083,792	1,271,172	(2,566,887)	-5.61%	1,571,282	275,567	23,359,359	2034
2034	7.00%	11,229,260	23,359,359	1,302,370	(2,585,915)	-5.49%	1,590,991	307,446	23,666,805	2035
2035	7.00%	11,501,679	23,666,805	1,333,965	(2,780,614)	-6.11%	1,606,900	160,250	23,827,056	2036
2036	7.00%	11,670,873	23,827,056	1,353,588	(2,747,860)	-5.85%	1,619,920	225,648	24,052,703	2037
2037	7.00%	11,963,465	24,052,703	1,387,523	(2,768,249)	-5.74%	1,636,181	255,455	24,308,158	2038
2038	7.00%	12,254,677	24,308,158	1,421,297	(2,781,170)	-5.59%	1,654,781	294,909	24,603,067	2039
2039	7.00%	12,557,964	24,603,067	1,456,473	(2,987,206)	-6.22%	1,669,545	138,812	24,741,879	2040
2040	7.00%	12,788,498	24,741,879	1,483,210	(2,945,392)	-5.91%	1,681,621	219,439	24,961,318	2041
2041	7.00%	13,112,432	24,961,318	1,520,780	(2,941,723)	-5.69%	1,698,400	277,457	25,238,775	2042
2042	7.00%	13,442,873	25,238,775	1,559,104	(2,932,954)	-5.44%	1,719,443	345,594	25,584,369	2043
2043	7.00%	13,782,786	25,584,369	1,598,528	(3,170,438)	-6.14%	1,736,819	164,908	25,749,277	2044
2044	7.00%	14,075,431	25,749,277	1,632,468	(3,104,035)	-5.71%	1,751,816	280,249	26,029,526	2045
2045	7.00%	14,438,929	26,029,526	1,674,627	(3,106,159)	-5.50%	1,772,811	341,279	26,370,806	2046
2046	7.00%	14,807,982	26,370,806	1,717,430	(3,096,856)	-5.23%	1,798,493	419,066	26,789,872	2047
2047	7.00%	15,185,374	26,789,872	1,761,200	(3,330,821)	-5.86%	1,821,283	251,662	27,041,534	2048
2048	7.00%	15,544,229	27,041,534	1,802,820	(3,274,351)	-5.44%	1,842,275	370,744	27,412,278	2049
2049	7.00%	15,948,660	27,412,278	1,849,726	(3,290,599)	-5.26%	1,869,282	428,409	27,840,686	2050
2050	7.00%	16,357,514	27,840,686	1,897,144	(3,271,404)	-4.94%	1,901,562	527,303	28,367,989	2051
2051	7.00%	16,781,955	28,367,989	1,946,371	(3,552,421)	-5.66%	1,930,498	324,449	28,692,437	2052
2052	7.00%	17,201,748	28,692,437	1,995,059	(3,477,033)	-5.17%	1,957,479	475,504	29,167,942	2053
2053	7.00%	17,648,603	29,167,942	2,046,885	(3,497,361)	-4.97%	1,991,848	541,372	29,709,314	2054
2054	7.00%	18,107,383	29,709,314	2,100,094	(3,470,960)	-4.61%	2,032,483	661,617	30,370,931	2055





SECTION XI – SENSITIVITY ANALYSIS

SENSITIVITY ANALYSIS

Measuring pension obligations and actuarially determined contributions requires the use of assumptions regarding future economic and demographic experience. Whenever assumptions are made about future events, there is risk that actual experience will differ from expected. Actuarial valuations include the risk that actual future measurements will deviate from expected future measurements due to actual experience that is different than the actuarial assumptions. The primary areas of risk in this actuarial valuation are.

- Investment Risk – the potential that actual investment returns will be different than expected.
- Longevity and Other Demographic Risks – the potential that mortality or other demographic experience will be different than expected.
- Interest Rate Risk – to the extent market rates of interest affect the expected return on assets, there is a risk of change to the discount rate which determines the present value of liabilities and actuarial valuation results.
- Contribution Risk – the potential that actual contributions are different than the fixed contribution rates.
- Liquidation Risk – the potential that the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds.





SECTION XI – SENSITIVITY ANALYSIS

Investment Risk

In this section of the report, we will demonstrate the variability in achieving funding goals based on sensitivity around the three key variables listed above. Earlier in this section, we reviewed the projections if the long-term investment return assumption was lowered to rates below 7.00% (6.50%). In this section, we keep the long-term investment return assumption at 7.00% but review the sensitivity of short-term investment returns as a single year event (and then 7.00% for all years thereafter) and simulate the next 10-year periods of return (and then 7.00% for all years thereafter).

Projected Funded Ratio in 2047

Single Year Event	2024 Valuation	2023 Valuation
• 1.00% for the next fiscal year	73.9%	64.3%
• 3.00% for the next fiscal year	78.2%	69.0%
• 5.00% for the next fiscal year	82.6%	73.7%
• 7.00% for the next fiscal year (Baseline)	86.9%	78.4%
• 9.00% for the next fiscal year	91.2%	83.1%
• 11.00% for the next fiscal year	95.5%	87.8%
• 13.00% for the next fiscal year	99.9%	92.5%
• Simulate 2008 loss using -15% for the next fiscal year	39.4%	26.8%
Average Returns over next 10-Year Period (Simulated returns using mean and standard deviations from PERS' Investment Consultant's Capital Market Assumptions)*	2024 Valuation	2023 Valuation
• 6.00%	69.1%	59.7%
• 7.00%	87.0%	78.6%
• 8.00%	110.5%	104.0%

** 6.00% Average Returns over the next 10-Year Period: 7.04%, 10.32%, 2.25%, 5.45%, 8.52%, 0.00%, 5.44%, 11.49%, -7.04%, 18.53%
 7.00% Average Returns over the next 10-Year Period: 3.61%, 20.67%, -0.02%, 11.58%, -4.84%, 8.13%, 18.10%, 2.04%, 0.83%, 12.67%
 8.00% Average Returns over the next 10 Year Period: 9.00%, 9.01%, 16.24%, 4.84%, 16.62%, 6.78%, -3.74%, 6.19%, 18.57%, -1.19%

As can be seen from the projected funded ratios on the table above, the sensitivity of short-term investment returns does have a significant impact to the funding of SLRP in the long-term, especially another repeat of the Great Recession of 2008. We believe it demonstrates the importance of these continued projection reports and the continued monitoring of this sensitivity analysis because short-term differences in investment returns can have a major impact on the projection of funded ratios.





SECTION XI – SENSITIVITY ANALYSIS

Demographic Risk

While actual investment returns compared to that assumed is the most critical driver of funding, many other assumptions are used in the actuarial projections to review sensitivity, such as population growth and wage inflation. Variances in these other assumptions over the long-term may also have an impact on the funding of the Plan.

Since SLRP has a set number of active legislative members and should remain static over the projection period, we have not reviewed the sensitivity around this assumption.

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SECTION XI – SENSITIVITY ANALYSIS

Assumption Risk

We also performed a sensitivity analysis for the wage inflation assumption. As a result of the experience study presented in April 2023, the Board kept the wage inflation assumption at 2.65%, which is 0.25% above the price inflation of 2.40%. Wage inflation is a major component of the underlying salary increase assumptions, as well as the amortization of the Unfunded Accrued Liability which is based on the level percent of payroll amortization methodology.

In the table below, the second scenario lowers the discount rate to 6.75% but does not change the price inflation or wage inflation. The third scenario lowers the price and wage inflation by 0.30% and lowers the discount rate to 6.75%.

Projected Funded Ratio in 2047

Scenario	Price Inflation	Discount Rate	Wage Inflation	2024 Valuation	2023 Valuation
1 - Baseline	2.40%	7.00%	2.65%	86.9%	78.4%
2	2.40%	6.75%	2.65%	77.2%	68.5%
3	2.10%	6.75%	2.35%	74.2%	64.4%





SECTION XI – SENSITIVITY ANALYSIS

Contribution Risk

To demonstrate the contribution risk of making the Fixed Contribution Rates (FCR) for SLRP, we have calculated the projected funded ratio if the FCRs were 1% higher or 1% lower than the current rates for all future years.

Projected Funded Ratio in 2047

Change in Fixed Contribution Rate (FCR)	2024 Valuation	2023 Valuation
• Baseline	86.9%	78.4%
• 1.00% increase in FCR	100.0%	92.5%
• 1.00% decrease in FCR	73.8%	64.2%

Over a long projection period, gains and losses due to population growth and wage inflation assumptions will be relatively concentrated around the expected value of these assumptions. So, the impact of the sensitivity around these baseline assumptions is small when compared to the investment return assumption.





SECTION XI – SENSITIVITY ANALYSIS

Liquidation Risk

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we must now include a low-default-risk obligation measure of the Fund's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of this plan.

This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of June 30, 2024 and with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a low-default-risk obligation measure liability of approximately \$31,809,000.

This amount approximates the termination liability if the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds. This assurance of funded status and benefit security is typically more relevant for corporate plans than for governmental plans since governments rarely have the need or option to completely terminate a plan.





SECTION XII – PROJECTION SUMMARY

Utilizing the metrics based on the funding policy for SLRP and with a fixed contribution rate as a percentage of annual compensation of 8.40% of payroll, the projection results for 2024 for SLRP show that two of the three funding policy metrics are in the Yellow Status, therefore, we do not recommend an increase in the Fixed Contribution Rate (FCR) of 8.40% of annual compensation at this time. However, if there is any negative experience in the near future, the Fixed Contribution Rate may need to be increased.

Metrics	2024 Baseline Projection	2024 Status
Funding Ratio in 2047	86.9%	Yellow
Cash Flow as a Percentage of Assets	(5.04)%	Green
ADC/FCR Ratio from 2023 Valuation	101.6%	Yellow
ADC/FCR Ratio from 2024 Valuation	101.5%	Yellow





SCHEDULE A – DEVELOPMENT OF ASSETS

		(\$ thousands)					
Valuation Date June 30:		2023	2024	2025	2026	2027	2028
A.	Actuarial Value Beginning of Year	\$20,808	\$21,465				
B.	Market Value End of Year	20,830	21,868				
C.	Market Value Beginning of Year	20,139	20,830				
D.	Cash Flow						
D1.	Contributions	884	939				
D2.	Other Revenue	0	0				
D3.	Benefit Payments	(1,658)	(2,010)				
D4.	Refunds	0	0				
D5.	Administrative Expenses	(13)	(13)				
D6.	Net	(787)	(1,084)				
E.	Investment Income						
E1.	Market Total: B.-C.-D6.	1,478	2,122				
E2.	Assumed Rate	7.55%	7.00%				
E3.	Amount for Immediate Recognition	1,491	1,532				
E4.	Amount for Phased-In Recognition	(13)	590				
F.	Phased-In Recognition of Investment Income						
F1.	Current Year: 0.20*E4.	(3)	118				
F2.	First Prior Year	(733)	(3)	118			
F3.	Second Prior Year	873	(733)	(3)	118		
F4.	Third Prior Year	(169)	873	(733)	(3)	118	
F5.	Fourth Prior Year	(15)	(174)	875	(733)	(1)	118
F6.	Total Recognized Investment Gain	(47)	81	257	(618)	117	118
G.	Actuarial Value End of Year: A. + D6. + E3. + F6.	\$21,465	\$21,994				
H.	Difference Between Market & Actuarial Values	\$(635)	\$(126)	\$(383)	\$235	\$118	\$0

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.





SCHEDULE A – DEVELOPMENT OF ASSETS

Asset Summary June 30, 2024 (\$ in Thousands)		
	Market Value	Actuarial Value
(1) Assets as of June 30, 2023	\$20,830	\$21,465
(2) Contributions and Misc. Revenue	939	939
(3) Investment Increment	2,122	1,613
(4) Benefit Payments	(2,010)	(2,010)
(5) Refunds	0	0
(6) Administrative Expenses	(13)	(13)
(7) Assets as of June 30, 2024 (1)+(2)+(3)+(4)+(5)+(6)	\$21,868	\$21,994
(8) Net Investment Return* [2 x (3)] / [(7) + (1) – (3)]	10.46%	7.71%

* Calculated assuming middle of year cash flow experience.





SCHEDULE B – ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation are based on the results of the experience investigation for the four-year period ending June 30, 2022, dated April 21, 2023, and adopted by the Board on August 22, 2023. The combined effect of the assumptions is expected to have no significant bias.

INTEREST RATE: 7.00% per annum, compounded annually (net of investment expenses only). The expected return on assets consists of 2.40% price inflation and 4.60% real rate of return.

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed rates of separation from active service are as follows:

Age	Annual Rate of		
	Male	Female	Disability**
20	0.0483%	0.0126%	0.020%
25	0.0567	0.0189	0.025
30	0.0630	0.0259	0.035
35	0.0714	0.0350	0.055
40	0.0893	0.0483	0.085
45	0.1218	0.0665	0.115
50	0.1764	0.0917	0.150
55	0.2594	0.1274	0.175
60	0.3980	0.1757	0.200
65	0.6353	0.2429	0.000
70	1.1655	0.4739	0.000
75	2.1389	0.9247	0.000

* Adjusted Base rates.

** 93% are presumed to be non-duty related, and 7% are assumed to be duty related.

WITHDRAWAL AND VESTING: 15% in an election year, 2% in a non-election year.

SERVICE RETIREMENT: 30% in an election year, 3.5% in a non-election year. All members are assumed to retire no later than age 80.

It is assumed that a member will be granted 2.5 years of service credit for unused leave at termination of employment.

SALARY INCREASES: 2.65% per annum, for all ages.





SCHEDULE B – ACTUARIAL ASSUMPTIONS AND METHODS

DEATH AFTER RETIREMENT:

Service Retirees*

<u>Membership Table</u>	<u>Adjustment to Rates</u>	<u>Projection Scale</u>
PubS.H-2010(B) Retiree	Male: 95% up to age 60, 110% for ages 61 to 75, and 101% for ages above 77 Female: 84% up to age 72, 100% for ages above 76	MP-2020

Contingent Annuitants*

<u>Membership Table</u>	<u>Adjustment to Rates</u>	<u>Projection Scale</u>
PubS.H-2010(B) Contingent Annuitant	Male: 97% for all ages Female: 110% for all ages	MP-2020

Disabled Retirees*

<u>Membership Table</u>	<u>Adjustment to Rates</u>	<u>Projection Scale</u>
PubG.H-2010 Disabled	Male: 134% for all ages Female: 121% for all ages	MP-2020

* Please note that none of the recommended tables have any setbacks or setforwards.

Representative values of the assumed rates of death after retirement are as follows:

Age	Rates of Death After Retirement*					
	Service Retirees		Contingent Annuitants		Disabled Retirees	
	Male	Female	Male	Female	Male	Female
45	0.2983%	0.0983%	0.7692%	0.5104%	1.4660%	1.1919%
50	0.4190%	0.1638%	0.8837%	0.6556%	2.2780%	1.7956%
55	0.5197%	0.2738%	1.0156%	0.7843%	2.9855%	2.1078%
60	0.7771%	0.4578%	1.2397%	1.0131%	3.6475%	2.4684%
65	1.3211%	0.7652%	1.6286%	1.4157%	4.5426%	2.9730%
70	2.1758%	1.2785%	2.4153%	1.9998%	5.8129%	3.8127%
75	3.8566%	2.3659%	3.7209%	3.0052%	7.6661%	5.2683%
80	6.2640%	4.2530%	5.7734%	4.7289%	10.8125%	7.7779%
85	11.0605%	7.3240%	9.2228%	7.8562%	15.7785%	11.9947%
90	17.6902%	12.6470%	14.6577%	13.4530%	22.7224%	17.5353%

* Adjusted Base Rates





SCHEDULE B – ACTUARIAL ASSUMPTIONS AND METHODS

PAYROLL GROWTH: 2.65% per annum, compounded annually.

ADMINISTRATIVE EXPENSES: 0.15% of payroll.

TIMING OF DECREMENTS AND PAY INCREASES: Middle of Year.

ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.00%

MARRIAGE ASSUMPTION: 85% married with the husband three years older than his wife.

MAXIMUM COVERED EARNINGS ASSUMPTION GROWTH: 2.65%

MODIFIED CASH REFUND: Benefits were valued with a six-year certain period for retirees and a five year certain period for active members to estimate the value of the modified cash refund feature.

ASSET VALUATION METHOD: Actuarial value, as developed in Schedule A. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value.

AMORTIZATION METHOD FOR ACTUARIALLY DETERMINED CONTRIBUTION (ADC): Level Percentage of Payroll Method using closed amortization periods as follows:

- a. Existing UAAL on June 30, 2023 – 25 years.
- b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.





SCHEDULE B – ACTUARIAL ASSUMPTIONS AND METHODS

VALUATION METHOD: The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability, or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 7.00%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of SLRP are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.

Under the entry age normal cost method, the actuarial present value of each member's projected benefits is allocated on a level basis over the member's compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial accrued liability. The unfunded actuarial accrued liability represents the difference between the actuarial accrued liability and the actuarial value of assets as of the valuation date. The unfunded actuarial accrued liability is calculated each year and reflects experience gains/losses. The accrued liability contribution amortizes the balance of the unfunded actuarial accrued liability over a period of years from the valuation date.





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The following summary presents the main benefit and contribution provisions of the Plan in effect June 30, 2024 as interpreted in preparing the actuarial valuation.

DEFINITIONS

Average Compensation	<p>Average annual covered earnings of an employee during the four highest years of service. To determine the four highest years, PERS considers these scenarios:</p> <ul style="list-style-type: none">• Four highest fiscal years of earned compensation;• Four highest calendar years of earned compensation;• Combination of four highest fiscal and calendar years of earned compensation that do not overlap; or• Final 48 months of earned compensation prior to termination of employment.
Covered Earnings	<p>Gross salary not in excess of the maximum amount on which contributions were required.</p>
Fiscal Year	<p>Year commencing on July 1 and ending June 30.</p>
Eligibility Service	<p>Service while a contributing member of PERS plus additional service as described below. (OLD: Eligibility service” is all service in PERS, including that credited for SLRP service.)</p>
Credited Service	<p>Service while a contributing member of SLRP plus additional service as described below. (OLD: “Creditable service” includes only SLRP service.)</p>
Unused Sick and Vacation Leave	<p>Service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. A payment of up to 240 hours of leave may be used the Average Compensation definition.</p>
Additional Service	<p>Additional service credit may be granted for service prior to July 1, 1989, including active duty military service.</p>
Attribution	<p>Attribution period for the normal cost is based on entry into PERS even for members who first participated in SLRP at a later age than PERS.</p>





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The maximum covered earnings for employers and employees over the last ten years are as follows:

EMPLOYER AND EMPLOYEE RATES OF CONTRIBUTION AND MAXIMUM COVERED EARNINGS

Fiscal Date From	Fiscal Date To	Employer Rate	Employee Rate	Maximum Covered Earnings
7/1/2014	6/30/2015	7.40%	3.00%	\$260,000
7/1/2015	6/30/2017	7.40	3.00	\$265,000
7/1/2017	6/30/2018	7.40	3.00	\$270,000
7/1/2018	6/30/2019	7.40	3.00	\$275,000
7/1/2019	6/30/2020	7.40	3.00	\$280,000
7/1/2020	6/30/2021	7.40	3.00	\$285,000
7/1/2021	6/30/2022	7.40	3.00	\$290,000
7/1/2022	6/30/2023	7.40	3.00	\$305,000
7/1/2023	6/30/2024	7.40	3.00	\$330,000
7/1/2024	6/30/2025	8.40	3.00	\$345,000





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

BENEFITS

Superannuation Retirement

Condition for Retirement

- (a) A retirement allowance is paid upon the request of any member who retires and has attained age 60 and completed at least eight years* of membership service under PERS. A retirement allowance may also be paid upon the completion of at least 25 years of creditable service under PERS for members hired prior to July 1, 2011, or upon the completion of 30 years of creditable service for members hired on or after July 1, 2011.
- (b) Any member who withdraws from service prior to his or her attainment of age 60 and who has completed at least eight years* of membership service under PERS is entitled to receive, in lieu of a refund of his or her accumulated contributions, a retirement allowance commencing at age 60.

Amount of Allowance

The annual retirement allowance payable to a member who retires under condition (a) above is equal to:

1. A member's annuity which is the actuarial equivalent of the member's accumulated contributions at the time of his or her retirement, plus
2. An employer's annuity which, together with the member's annuity, is equal to 1% of his or her average compensation for each of the first 25 years of creditable service plus 1.25% for each year of creditable service over 25 years.

The minimum allowance is \$60 per year of creditable service.





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

Disability Retirement

Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled, as determined by the Board of Trustees, and has accumulated eight or more years* of membership service under PERS.

* four years for those who entered PERS before July 1, 2007.

Amount of Allowance

For those who were active members prior to July 1, 1992, and did not elect the benefit structure outlined below, the annual disability retirement allowance payable is equal to a superannuation retirement allowance if the member has attained age 60, otherwise it is equal to a superannuation retirement allowance calculated as follows:

1. A member's annuity equal to the actuarial equivalent of his or her accumulated contributions at the time of retirement, plus
2. An employer's annuity equal to the amount that would have been payable had the member continued in service to age 60.

For those who become active members after June 30, 1992, and for those who were active members prior to July 1, 1992, who so elected, the following benefits are payable:

1. A temporary allowance equal to the greater of (a) 40% of average compensation plus 10% for each dependent child up to a maximum of 2, or (b) the member's accrued allowance. This temporary allowance is paid for a period of time based on the member's age at disability, as follows:





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

<u>Age at Disability</u>	<u>Duration</u>
60 and earlier	to age 65
61	to age 66
62	to age 66
63	to age 67
64	to age 67
65	to age 68
66	to age 68
67	to age 69
68	to age 70
69 and later	one year

For those hired prior to July 1, 2011, the minimum allowance is \$60 per year of service credit.

2. A deferred allowance commencing when the temporary allowance ceases equal to the greater of (a) the allowance the member would have received based on service to the termination age of the temporary allowance, but not more than 20% of average compensation, or (b) the member’s accrued allowance.

For those hired prior to July 1, 2011, the minimum allowance is \$60 per year of service credit.

Effective July 1, 2004, a temporary benefit can be paid out of a member’s accumulated contribution balance while the member is awaiting a determination for eligibility for disability benefits. Future disability payments, if any, would be offset by advanced payments made from the member’s accumulated contributions.





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

Accidental Disability Retirement

Condition for Retirement	A retirement allowance is paid to a member who is totally and permanently disabled in the line of performance of duty.
Amount of Allowance	The annual accidental disability retirement allowance is equal to the allowance payable on disability retirement but not less than 25% of average compensation. There is no minimum benefit.

Accidental Death Benefit

Condition for Benefit	A retirement allowance is paid to a spouse and/or dependent children upon the death of an active member in the line of performance of duty.
Amount of Allowance	The annual retirement allowance is equal to 25% of average compensation payable to the spouse and 12-1/2% of average compensation payable to one dependent child or 25% to two or more children until age 19 (23 if a full time student). There is no minimum benefit.

Ordinary Death Benefit

Condition for Benefit	Upon the death of a member who has completed at least eight years* of membership service, a benefit is payable, in lieu of a refund of the member's accumulated contributions, to his or her spouse, if said spouse has been married to the member for not less than one year. * four years for those who entered the system before July 1, 2007.
Amount of Allowance	The annual retirement allowance payable to the lawful spouse of a vested member who dies is equal to the greater of (i) the allowance that would have been payable had the member retired and elected Option 2, reduced by an actuarially determined factor based on the number of years the member lacked in qualifying for unreduced benefits, or (ii) a lifetime benefit equal to 20% of the deceased





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

member's average compensation, but not less than \$25 per month.

In addition, a benefit is payable to dependent children until age 19 (23 if a full time student). The benefit is equal to the greater of 5% of average compensation or \$25 per month for each dependent child up to 3.

Return of Contributions

Upon the withdrawal of a member without a retirement benefit, his or her contributions are returned to him or her, together with accumulated regular interest thereon.

Upon the death of a member before retirement, his or her contributions, together with the full accumulated regular interest thereon, are paid to his or her designated beneficiary, if any, otherwise, to his or her estate provided no other survivor benefits are payable.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by the Wall Street Journal on December 31 of each preceding year with a minimum rate of one percent and a maximum rate of five percent.

Normal Form of Benefit

The normal form of benefit is an allowance payable during the life of the member with the provision that upon his or her death the excess of his or her total contributions at the time of retirement over the total retirement annuity paid to him or her will be paid to his or her designated beneficiary.

Optional Benefits

A member upon retirement may elect to receive his or her allowance in one of the following forms which are computed to be actuarially equivalent to the applicable retirement allowance.

Option 1. Reduced allowance with the provision that if the pensioner dies before he receives the value of the member's annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.

Option 3. Upon his or her death, 50% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50% of his or her reduced retirement allowance to some other designated beneficiary.

Option 4. Upon his or her death, 75% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

Option 4A. Upon his or her death, 50% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner or his or her beneficiary for a specified number of years certain.

Option 4C. A member may elect any option with the added provision that the member shall receive, so far as possible, the same total amount annually (considering both SLRP and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit. This option was only available to those who retired prior to July 1, 2004.

A member who elects Option 2, Option 4 or Option 4A at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the member divorces the designated beneficiary.

A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4





SCHEDULE C – MAIN BENEFIT AND CONTRIBUTION PROVISIONS

or Option 4A to provide beneficiary protection to a new spouse if married at retirement.

A member who has at least 28 years of creditable service* under PERS can select a partial lump-sum option at retirement. Under this option, the retiree has the option of taking a partial lump-sum distribution equal to either 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting the partial lump-sum option may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4-C, the Social Security leveling provision. The benefit is then calculated using the new reduced maximum benefit as a starting point in applying the appropriate option factors for the reduction.

*or at least age 63 with four years of membership service for those who entered PERS before July 1, 2007.

Post-Retirement Adjustments In Allowances

The allowances of retired members are adjusted annually by an amount equal to (a) 3% of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 55, plus (b) 3% compounded for each year thereafter beginning with the fiscal year in which the member turns age 55*.

*Age 60 for members hired on or after July 1, 2011.

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

RECONCILIATION OF DATA RECEIVED FROM PERS

Reconciliation of Data received from PERS	Active File			Pensioner File			Total
	Active	Inactive	Deferred Vested	Retirees	Disableds	Survivors	
From PERS	198	30	35	196	1	58	518
Return to Active							
Refunded	(2)						(2)
Deceased				(5)		(2)	(7)
Deceased with Beneficiary						1	1
Certain Period End						(2)	(2)
Inactive							
Deferred Vested							
Duplicate*							
Retired	(21)						(21)
For Valuation	175	30	35	191	1	55	487

*Also included in Pensioner File

STATUS RECONCILIATION FROM 2023 TO 2024

	Actives	Retirees	Disableds	Survivors	Deferred Vested	Inactive	Total
As of June 30, 2023	172	176	1	51	33	27	460
Retirement	(16)	20			(3)	(1)	
Disabled							
Death with Survivor	(1)	(5)		8			2
Terminated Vested	(8)				8		
Terminated Non-Vested	(3)				(3)	6	
Rehired							
Refunded						(2)	(2)
Death No Survivor				(2)			(2)
Benefit Ended				(2)			(2)
Removed/Cleanup							
New	31						31
As of June 30, 2024	175	191	1	55	35	30	487





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Retirants & Beneficiaries as of June 30, 2024 Tabulated by Year of Retirement

Valuation Year of Retirement Ending June 30	No.	Total Annual Benefits, excluding COLA	COLA	Total Annual Benefits	Average Monthly Total Benefit
2024	21	\$149,140	\$0	\$149,140	\$592
2023	6	41,080	263	41,343	574
2022	5	22,930	6,674	29,604	493
2021	4	18,153	908	19,061	397
2020	26	210,542	24,406	234,948	753
2019	7	41,467	5,450	46,917	559
2018	6	30,647	5,427	36,074	501
2017	6	32,976	6,849	39,825	553
2016	25	151,912	34,133	186,045	620
2015	5	35,146	9,216	44,362	739
2014	5	21,980	7,193	29,173	486
2013	15	59,095	20,227	79,322	441
2012	27	169,351	65,291	234,642	724
2011	3	5,193	2,324	7,517	209
2010	4	18,656	8,669	27,325	569
2009	5	25,467	13,055	38,522	642
2008	13	57,861	31,672	89,533	574
2007	1	4,417	2,671	7,088	591
2006	6	21,944	14,605	36,549	508
2005	5	15,970	11,056	27,026	450
2004	11	54,731	41,213	95,944	727
2003	0	0	0	0	0
2002	3	9,092	7,944	17,036	473
2001	7	22,011	20,801	42,812	510
2000	9	30,034	25,872	55,906	518
1999	3	13,512	13,519	27,031	751
1998	1	1,097	1,200	2,297	191
1997	3	9,560	10,351	19,911	553
1996	2	4,441	5,424	9,865	411
1995	1	1,058	1,363	2,421	202
1994	0	0	0	0	0
1993	4	12,530	16,501	29,031	605
1992	7	27,202	39,836	67,038	798
1991	0	0	0	0	0
1990	1	2,203	3,640	5,843	487
TOTAL	247	\$1,321,398	\$457,753	\$1,779,151	\$600





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Schedule of Retired Members by Type of Retirement

Benefits Payable June 30, 2024

Amount of Original Monthly Benefit	Number of Rets.	Ret Type 1*	Ret Type 2*	Ret Type 3*
\$1 – \$100	13	10		3
101 – 200	49	34		15
201 – 300	34	30		4
301 – 400	41	31		10
401 – 500	24	17	1	6
501 – 600	21	11		10
601 – 700	19	17		2
701 – 800	15	12		3
801 – 900	8	7		1
901 – 1,000	9	9		
Over 1,000	14	13		1
Totals	247	191	1	55

*Type of Retirement

- 1 – Retirement for Age & Service
- 2 – Disability Retirement
- 3 – Survivor Payment





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Schedule of Retired Members by Type of Option Benefits Payable June 30, 2024

Amount of Original Monthly Benefit	Number of Rets.	Life	Option 1	Option 2	Option 3	Option 4	Option 4A	Option 4B	Option 4C*	PLSO* 1 Year	PLSO* 2 Years	PLSO* 3 Years
\$1 – \$100	13	7		4				1	1			
101 – 200	49	22	1	18	5	2		1		3		6
201 – 300	34	17	1	11	1	1	1	2		1		2
301 – 400	41	24		12			1	4		2		6
401 – 500	24	11	1	8	1			3			2	4
501 – 600	21	6		6	3		2	4			1	10
601 – 700	19	10		8			1				2	3
701 – 800	15	7		7		1			1	1		3
801 – 900	8	4		2		1	1					3
901 – 1,000	9	2	1	3		1		2			1	2
Over 1,000	14	8		4		1	1			2	1	3
Totals	247	118	4	83	10	7	7	17	1	9	8	42

Option Selected

- Life - Return of Contributions
- Opt. 1 - Return of Value of Member's Annuity
- Opt. 2 - 100% Survivorship
- Opt. 3 - 50%/50% Dual Survivorship
- Opt. 4 - 75% Survivorship
- Opt. 4A - 50% Survivorship
- Opt. 4B - Years Certain & Life
- Opt. 4C - Social Security Leveling*
- Opt. 5 - Pop-Up
- PLSO - Partial Lump Sum* (Reflects reduced monthly benefit)

*Included in other options





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Retirant and Beneficiary Information June 30, 2024 Tabulated by Attained Ages

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20								
20 – 24								
25 – 29					1	\$1,751	1	\$1,751
30 – 34								
35 – 39					2	\$9,404	2	\$9,404
40 – 44					1	\$7,845	1	\$7,845
45 – 49	1	\$2,074			1	\$1,386	2	\$3,460
50 – 54					2	\$5,498	2	\$5,498
55 – 59	6	\$32,312			6	\$35,626	12	\$67,938
60 – 64	20	\$124,966			1	\$8,854	21	\$133,820
65 – 69	35	\$257,130	1	\$9,369	4	\$31,292	40	\$297,791
70 – 74	41	\$290,537			12	\$77,093	53	\$367,630
75 – 79	43	\$324,078			4	\$36,498	47	\$360,576
80 – 84	23	\$182,150			11	\$89,611	34	\$271,761
85 – 89	16	\$131,952			9	\$51,278	25	\$183,230
90 – 94	5	\$33,352			1	\$9,274	6	\$42,626
95	1	\$25,821					1	\$25,821
96								
97								
98								
99								
100 & Over								
Totals	191	\$1,404,372	1	\$9,369	55	\$365,410	247	\$1,779,151

Average Age: 73.7 years
Average Age at Retirement: 61.4 years





SCHEDULE D – DETAILED TABULATIONS OF THE DATA

Total Active Member Data as of June 30, 2024 Tabulated by Attained Ages and Years of Service

Attained Age	Completed Years of Service									Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Over	No.	Payroll
Under 25											\$ -
25 to 29	2									2	106,748
30 to 34		2	2	1						5	248,303
35 to 39	9	2	2							13	649,249
40 to 44	3	5	2	2						12	601,010
45 to 49	6	9	8	3	1	1				28	1,430,398
50 to 54	5	2	7	9	1	2				26	1,401,943
55 to 59	2	5	7	7	2	2				25	1,291,386
60 to 64	2	7	5	6	2	2				24	1,230,089
65 to 69	1	4	2	1	2	2		3		15	776,167
70 & Over	1	2	2	6	5	1	1	4	3	25	1,355,484
Total Count	31	38	37	35	13	10	1	7	3	175	\$ 9,090,777

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 55.7 years
Benefit Service: 9.8 years
Eligibility Service: 14.5 years
Annual Pay: \$51,947





SCHEDULE E – ANALYSIS OF FINANCIAL EXPERIENCE

Gains & Losses in Accrued Liabilities Resulting from Difference Between Assumed Experience & Actual Experience (\$ Thousands)

Type of Activity	\$ Gain (or Loss) For Year Ending 6/30/2024	\$ Gain (or Loss) For Year Ending 6/30/2023
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ 277.4	\$ 19.8
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	7.6	11.1
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	8.0	3.7
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	26.0	29.2
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	(278.0)	(169.5)
New Members. Additional unfunded actuarial accrued liability will produce a loss.	(303.9)	0
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	33.0	(97.0)
Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	(77.1)	21.5
Other. Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc.	<u>(74.0)</u>	<u>(46.2)</u>
Gain (or Loss) During Year From Financial Experience	\$ (381.0)	\$ (227.4)
Non-Recurring Items. Adjustments for plan amendments, software changes, assumption changes, or method changes.	<u>0.0</u>	<u>(1,573.3)</u>
Composite Gain (or Loss) During Year	<u>\$ (381.0)</u>	<u>\$ (1,800.7)</u>





SCHEDULE F – FUNDING POLICY OF SLRP

The purpose of the funding policy is to state the overall funding goals and objectives for the Supplemental Legislative Retirement Plan of Mississippi (SLRP), and to document both the metrics that will be used to measure progress toward achieving those goals, and the methods and assumptions employed to develop the metrics. The employer contribution rate for SLRP will be set based on the metrics, assumptions and methods outlined in Section II and III of this policy.

I. Funding Goals and Objectives

The objective in requiring employer and member contributions to SLRP is to accumulate sufficient assets during a member's employment to fully finance the benefits the member will receive in retirement. In meeting this objective, SLRP will strive to meet the following goals:

- Preservation of the defined benefit structure for providing lifetime benefits to the SLRP membership,
- Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a “Signal Light” approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate, and
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution.

II. Metrics

To track progress in achieving the outlined funding goals and objectives and to assist the Board in making a determination whether an increase or decrease in the employer contribution rate for SLRP should be considered, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. As part of the annual valuation and projection reports, each metric will be calculated and assigned a “Signal Light” with the following definitions:

Status	Definition
Green	Plan passes metric and SLRP funding goals, and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric and SLRP must consider contribution increases





SCHEDULE F – FUNDING POLICY OF SLRP

If any one of the metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report, the actuary will determine and recommend to the Board an employer contribution rate increase to consider that is sufficient enough to get all three metrics back into the Green Signal Light status. The employer contribution rate increase would be effective beginning July 1st, 18 months following the completion of the projection report (e.g., if the projection report in 2024 deems an increase to be considered, then it would be effective for July 1, 2026).

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 90% in 2047
Yellow	Funded Ratio between 70% and 90% in 2047
Red	Funded Ratio below 70% in 2047

- **Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative 5.25% (-5.25%) during the projection period
Yellow	Net Cash Flow Percentage between negative 5.25% (-5.25%) and negative 7.00% (-7.00%) during the projection period
Red	Net Cash Flow Percentage below negative 7.00% (-7.00%) during the projection period





SCHEDULE F – FUNDING POLICY OF SLRP

- **Actuarially Determined Contribution (ADC)** – ADC is defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of this funding policy:
 1. Actuarial Cost Method
 2. Asset Smoothing Method
 3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation and not during the projection report. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by this Funding Policy will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate at valuation date
Yellow	ADC ratio between 100% and 110% of fixed contribution rate at valuation date
Red	ADC ratio above 110% of fixed contribution rate at valuation date

If all of the metrics are in the Green Signal Light status in conjunction with the annual valuation report and the projection report and the following additional criteria is met for two consecutive valuation and projection cycles, the actuary may recommend to the Board an employer contribution rate decrease to consider. The additional criteria is based on the actuary's long-term investment return assumption recommended by the actuary in the most recent experience study and is as follows:

- Funded Ratio in 2047 is above 110%,
- Cash Flow as a percentage of assets is above negative 3.5% during the projection period, and
- ADC Ratio is below 90% for all years of the projection period.

III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and SLRP's Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method





SCHEDULE F – FUNDING POLICY OF SLRP

(EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).

- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.
- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC metric, the following amortization method assumptions are used:
 - I. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.
 - II. The amortization payment will be determined on a level percentage of pay basis.
 - III. The length of the amortization periods will be as follows:
 - a. Existing UAAL on June 30, 2023 – 25 years.
 - b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.
 - IV. If any future annual actuarial valuation indicates that SLRP has a negative UAAL, the ADC shall be set equal to the Normal Cost.
- **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS' Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, 2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, 2022). The long-term investment return assumption adopted by the PERS' Board in conjunction with the experience investigation is 7.00 percent.

IV. Governance Policy/Process

Below is a list of specific actuarial and funding related studies, the frequency at which they should be commissioned by the Board and additional responsibilities related to each:

- **Actuarial Valuation (performed annually)** – The Board is responsible for the review of SLRP's annual actuarial valuation report, which provides the annual funded ratio and the calculation of the ADC.





SCHEDULE F – FUNDING POLICY OF SLRP

- **Projection Report (performed annually)** – The Board is responsible for the review of SLRP's 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.
- **Experience Analysis (performed every two years on a rolling four-year)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, review of the results of the study, and approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.
- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by a new actuarial firm to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.
- **Funding Policy Review (performed at least annually)** – The Board is responsible for the periodic review of this policy, but at least annually following the Projection Report and biennially following the Experience Analysis.

V. Glossary of Funding Policy Terms

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Actuarial Determined Contribution (ADC):** The potential payment to the plan as determined by the actuary using a contribution allocation procedure that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long term. The ADC may or may not be the amount actually paid by the plan sponsor or other contributing entity.
- **Asset Values:**
 - **Actuarial Value of Assets (AVA):** The AVA is the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.
 - **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.





SCHEDULE F – FUNDING POLICY OF SLRP

- **Entry Age Normal Actuarial Cost Method (EAN):** The EAN actuarial cost method is a funding method that calculates the normal cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.
- **Funded Ratio:** The funded ratio is the ratio of the plan assets to the plan's actuarial accrued liabilities.
 - **Actuarial Value Funded Ratio:** is the ratio of the AVA to the AAL.
- **Normal Cost:** The normal cost is the cost allocated under the actuarial cost method to each year of active member service.
- **Present Value of Benefits (PVB) or total cost:** The PVB is the value at a particular point in time of all projected future benefit payments for current plan members. The future benefit payments and the value of those payments are determined using actuarial assumptions regarding future events. Examples of these assumptions are estimates of retirement and termination patterns, salary increases, investment returns, etc.
- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
- **Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.
- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. SLRP's annual valuation date is June 30.



Mississippi Municipal Retirement Systems

Actuarial Valuation Report

Prepared as of June 30, 2024

December 7, 2024

Board of Trustees
Mississippi Municipal Retirement Systems
429 Mississippi Street
Jackson, MS 39201-1005

Ladies and Gentlemen:

Presented in this report are the results of the annual actuarial valuation covering the participation of 17 municipalities in the Mississippi Municipal Retirement Systems (MRS). MRS is a closed, defined benefit pension plan that was closed to new members beginning July 1, 1987. The purpose of the valuation is to measure the Systems' funding progress and to certify the employer contribution rates (millage rates) necessary for the period beginning October 1, 2025. The results may not be applicable for other purposes.

The date of the valuation was June 30, 2024.

The valuation was based upon data, furnished by the Executive Director and the PERS staff, concerning retired members along with pertinent financial information. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. The valuation results depend on the integrity of the data. If any of the information is inaccurate or incomplete, our results may be different and our calculations may need to be revised. The complete cooperation of the PERS staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the presentation of certified millage rates on page 5 and the comments on page 7. The calculations of these millage rates are based on the funding policy which generates an ultimate asset reserve level equal to projected benefit payments.

Since the previous valuation, there have been no changes to assumptions but there was a change made to the benefit provisions. The City of Tupelo granted a 2% ad-hoc benefit increase for members who were retired for at least one full fiscal year as of September 30, 2023.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board. We have reviewed the actuarial methods, including the asset valuation method, and continue to believe they are appropriate for the purpose of determining employer contribution levels.



In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and develop actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

This actuarial valuation was performed to determine the adequacy of statutory contributions to fund the plan. The asset values used to determine unfunded liabilities and funded ratios are not market values but less volatile market related values. A smoothing technique is applied to market values to determine the market related values. The unfunded liability amounts and funded ratios using the market value of assets would be different. The interest rate used for determining liabilities is based on the expected return on assets. Therefore, liability amounts in this report cannot be used to assess a settlement of the obligation.

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the system, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the System.

Respectfully submitted,

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary



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SECTION I – SUMMARY OF PRINCIPAL RESULTS



1. This report, prepared as of June 30, 2024, presents the results of the annual actuarial valuation of the 17 Systems. For convenience of reference, the principal aggregate results of the valuation and a comparison with the preceding year's results are summarized below. The current valuation reflects any amendments to the Systems effective through July 1, 2024. Please note that the Plan has only retired members remaining.

VALUATION DATE	June 30, 2024	June 30, 2023
Retirees		
Number	1,337	1,391
Annual allowances	\$ 28,680,604	\$ 29,355,805
Accrued Liability	\$ 252,227,061	\$ 264,337,047
Assets		
Market related actuarial value	\$ 123,152,648	\$ 129,391,882
Market value	\$ 121,808,924	\$ 124,878,975
Unfunded Accrued Liability	\$ 129,074,413	\$ 134,945,165
Aggregate Funded Ratio	48.83%	48.95%

2. Rates of contribution payable by employers are given in Section III and comments on the valuation results are given in Section IV.



SECTION I – SUMMARY OF PRINCIPAL RESULTS



3. The current funding policy was adopted by the Board in February 2011. In this funding policy, an employer contribution rate, expressed as a millage rate tax applied to assessed property values, is established for each municipality that will generate an ultimate asset reserve level equal to a reasonable percentage (initially 100% - 150%) of the next year's projected benefit payment. At that point, employer contributions are set equal to the fiscal year's projected benefit payments (basically on a pay-as-you-go basis) and adjusted as necessary to maintain the assets at the established reserve level. This calculation is performed using projected cash flow analysis using the current market value of assets as of the valuation date, a 5.50% assumption on investment earnings and an assumption that assessed property values will remain level over time. The 5.50% assumption is 1.50% less than the assumption used by the Public Employees Retirement System of Mississippi (PERS). As MRS is closed to new members, we are assuming a more conservative assumption even though assets are commingled with PERS' assets. Schedule H of this report shows the projected cash flow of each municipality, including the certified millage rates, based on the funding policy.
4. Schedule A of this report presents the development of the actuarial value of assets. The estimated investment return for the plan year ending June 30, 2024 on a market value of assets basis was 9.96% and on an actuarial value of assets basis was 6.99%. These can be compared to the assumed rate of return for the same period of 7.00%. The market value of assets basis return may be slightly different than what PERS reports as this estimated return is assuming cash flow as of the middle of the year.
5. Schedule B details the actuarial assumptions and methods employed. Since the previous valuation, there have been no assumption changes.
6. Schedule C details the summary of benefit and contribution provisions of the Plan. Since the previous valuation, the following change was made to the benefit provisions:
 - The City of Tupelo granted a 2% ad-hoc benefit increase for members who were retired for at least one full fiscal year as of September 30, 2023.
7. The table on the following page provides a ten-year history of some pertinent figures.



SECTION I – SUMMARY OF PRINCIPAL RESULTS



Mississippi Municipal Retirement Systems Comparative Schedule

Valuation Date June 30	Active Members				Retired Lives			Valuation Results (\$ thousands)		
	Number	Payroll (\$ in thousands)	Average Salary	% increase from previous year	Number	Annual Benefits (\$ in thousands)	Benefits as % of Payroll	Accrued Liability	Valuation Assets	Unfunded Accrued Liability
2015	11	\$579	\$52,661	1.4%	1,849	\$34,478.4	5,954.8%	\$341,525	\$162,616	\$178,909
2016	8	419	52,375	(0.5)	1,798	34,088.4	8,135.7	330,663	159,160	171,503
2017	6	321	53,541	2.2	1,754	33,751.5	10,514.5	321,747	157,674	164,073
2018	4	200	49,936	(6.7)	1,694	32,997.7	16,498.9	307,456	154,749	152,707
2019	2	95	47,436	(5.0)	1,634	32,423.3	34,129.8	296,006	147,671	148,335
2020	0	0	0	N/A	1,585	31,819.4	N/A	286,436	140,731	145,705
2021	0	0	0	N/A	1,510	30,845.5	N/A	274,426	140,258	134,168
2022	0	0	0	N/A	1,444	29,977.6	N/A	265,490	136,246	129,244
2023	0	0	0	N/A	1,391	29,355.8	N/A	264,337	129,392	134,945
2024	0	0	0	N/A	1,337	28,680.6	N/A	252,227	123,153	129,074



SECTION II – MEMBERSHIP DATA



Data regarding the membership of the Systems for use as a basis for the valuation were furnished by the PERS office. There are no more remaining active members in the closed System. However, there is still a total of 1,337 retirees, disability retirees and survivors collecting benefits from the System as of the valuation date. The following table summarizes the retirement membership of the system as of June 30, 2024 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

Retired Lives

Employers	Retirement	Disability	Survivor	Total	Annual Benefit
Biloxi	31	4	32	67	\$1,919,320
Clarksdale	22	1	19	42	545,924
Clinton	26	0	5	31	907,260
Columbus	31	2	28	61	1,017,500
Greenville	28	0	27	55	787,137
Greenwood	20	0	18	38	565,827
Gulfport	36	5	27	68	1,631,258
Hattiesburg	81	4	42	127	3,149,173
Jackson	231	3	211	445	9,865,804
Laurel	32	1	26	59	798,837
McComb	8	0	6	14	220,762
Meridian	71	1	47	119	2,028,970
Natchez	19	2	12	33	544,354
Pascagoula	26	2	20	48	1,085,849
Tupelo	39	0	28	67	1,449,888
Vicksburg	21	2	32	55	2,015,834
Yazoo City	6	0	2	8	146,907
Total in MRS	728	27	582	1,337	\$28,680,604



SECTION III – COMPUTED EMPLOYER CONTRIBUTION RATE



Mississippi Municipal Retirement Systems Computed Employer Contribution Rates¹ As of June 30, 2024 for the 2026 Fiscal Year End

Municipality	Certified Rate for Fiscal Year Ending 9/30/2025	Current Millage Rate for Fiscal Year Ending 9/30/2025	Calculated Rate for Fiscal Year Ending 9/30/2026	Certified Rate ² for Fiscal Year Ending 9/30/2026
Biloxi	1.65	1.65	1.56	1.56
Clarksdale	4.72	4.72	4.93	4.93
Clinton	0.81	0.81	0.76	0.76
Columbus	3.69	3.70	3.32	3.32
Greenville	2.24	2.24	2.01	2.01
Greenwood	2.33	2.76	2.28	2.28
Gulfport	0.81	0.91	0.76	0.76
Hattiesburg	2.63	2.63	2.19	2.19
Jackson	3.29	3.29	3.07	3.07
Laurel	1.29	2.60	0.74	0.74
McComb	1.67	1.67	1.28	1.28
Meridian	2.20	2.20	2.01	2.01
Natchez	1.25	1.25	1.17	1.17
Pascagoula	1.22	1.22	0.91	0.91
Tupelo	1.39	1.61	1.27	1.27
Vicksburg	2.73	2.73	1.70	1.70
Yazoo City	2.33	3.03	2.38	2.38

¹ Millage rates applied to assessed property

² Calculated using cash flow projections and 5.50% investment return assumption (see Schedule H)

The Systems are funded through taxes levied on assessed properties located in the Municipalities.



SECTION III – COMPUTED EMPLOYER CONTRIBUTION RATE



Since the millage rates are developed assuming 0% annual growth in assessed property values in the future, the following table provides the recent history of assessed values as a guide to the appropriateness of that assumption.

Mississippi Municipal Retirement Systems Total Assessed Property Values Last Five Fiscal Years

Municipality	2019	2020	2021	2022	2023	Average % Increase
Biloxi	\$585,246,074	\$593,305,051	\$639,344,542	\$662,733,865	\$673,514,757	3.6%
Clarksdale	83,760,178	82,849,209	84,031,457	83,042,644	84,397,955	0.2
Clinton	216,824,192	215,400,746	219,766,379	238,190,869	238,704,997	2.4
Columbus	207,384,299	207,520,472	212,207,682	219,835,360	219,188,566	1.4
Greenville	201,216,099	205,375,459	203,364,186	207,650,264	223,866,331	2.7
Greenwood	115,862,323	106,864,240	108,802,717	104,333,810	106,334,642	(2.1)
Gulfport	805,811,344	816,814,675	842,676,090	856,464,936	896,764,815	2.7
Hattiesburg	473,044,936	482,280,326	493,705,826	505,342,123	543,307,810	3.5
Jackson	1,252,499,510	1,251,727,960	1,240,883,060	1,240,485,705	1,253,350,551	0.0
Laurel	188,151,450	197,898,826	209,600,233	213,686,120	226,039,433	4.7
McComb	106,190,926	102,885,698	104,961,127	105,338,858	110,059,087	0.9
Meridian	355,154,627	365,967,586	356,225,680	366,810,051	374,469,534	1.3
Natchez	124,775,441	133,225,319	199,737,420	278,349,768	258,346,030	20.0
Pascagoula	228,725,988	227,131,210	244,627,789	256,612,126	309,592,933	7.9
Tupelo	520,896,796	545,794,918	557,017,501	577,164,739	607,092,925	3.9
Vicksburg	288,172,230	308,408,615	310,753,836	351,588,059	533,298,230	16.6
Yazoo City	54,792,825	55,250,160	54,418,371	55,418,778	55,937,302	0.5





1. Based on the Board's funding policy, the millage rates established by the municipalities must be set at a level which will ensure actuarial soundness of the Systems. As can be seen from the table on page 5, the current millage rate for the fiscal year ending September 30, 2025 for one of the municipalities is less than the certified rate for the fiscal year ending September 30, 2026 under the funding policy. **Therefore, Clarksdale needs to increase their millage rate to the certified millage rate for the fiscal year ending September 30, 2026.**
2. As shown in the analysis of experience on pages 31 and 32, the System had an actuarial gain for the year. The gain was primarily due to more retiree deaths than expected.
3. From 2022 to 2023, the value of assessed property increased for fifteen and decreased for two of the seventeen municipalities. Under the funding policy, the value of assessed property is assumed to remain level. In general, if assessed property values grow, it contributes to a decrease in the millage rate.



SECTION V – SUPPLEMENTAL DISCLOSURE INFORMATION



1. The following supplemental disclosure information is provided for informational purposes only. One such item is a distribution of the number of employees by type of membership, as follows:

NUMBER OF ACTIVE AND RETIRED PARTICIPANTS AS OF JUNE 30, 2024

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	1,337
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	0
Inactive Participants	0
Active Participants	<u>0</u>
Total	1,337



SECTION V – SUPPLEMENTAL DISCLOSURE INFORMATION



2. The actuarial accrued liability is as follows:

ACTUARIAL ACCRUED LIABILITY

Municipality	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Funded Ratio
Biloxi	\$19,429,989	\$7,869,787	\$11,560,202	40.50%
Clarksdale	4,527,413	797,808	3,729,605	17.62%
Clinton	10,114,494	8,687,059	1,427,435	85.89%
Columbus	8,288,511	1,493,976	6,794,535	18.02%
Greenville	6,436,435	1,962,176	4,474,259	30.49%
Greenwood	4,651,497	2,155,229	2,496,268	46.33%
Gulfport	15,998,336	8,266,052	7,732,284	51.67%
Hattiesburg	31,192,620	17,785,618	13,407,002	57.02%
Jackson	78,994,527	38,998,519	39,996,008	49.37%
Laurel	7,020,628	4,857,055	2,163,573	69.18%
McComb	2,042,656	558,735	1,483,921	27.35%
Meridian	19,298,693	10,887,238	8,411,455	56.41%
Natchez	4,788,468	1,469,975	3,318,493	30.70%
Pascagoula	9,090,976	6,193,111	2,897,865	68.12%
Tupelo	12,025,942	4,005,144	8,020,798	33.30%
Vicksburg	16,904,432	6,937,768	9,966,664	41.04%
Yazoo City	1,421,444	227,397	1,194,047	16.00%
Totals	\$252,227,061	\$123,152,648	\$129,074,413	48.83%

During the year ended June 30, 2024, the Systems experienced a net decrease of \$12,109,986 in the actuarial accrued liability.



SECTION V – SUPPLEMENTAL DISCLOSURE INFORMATION



3. Another such item is the schedule of funding progress as shown below. As can be seen in column 3 of the table below, the aggregate funded ratio has begun to slowly improve in recent years expect it was slightly lower last year due to the change in the investment return assumption.

SCHEDULE OF FUNDING PROGRESS (\$ Thousands)

Plan Year Ended	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Aggregate Funded Ratio (1)/(2)	(4) Unfunded AAL (2) – (1)	(5) Annual Covered Payroll	(6) Unfunded AAL as a Percentage of Covered Payroll (4)/(5)
06/30/15	\$162,616	\$341,525	47.6%	\$178,909	\$579	30,899.7%
06/30/16	159,160	330,663	48.1	171,503	419	40,931.5
06/30/17	157,674	321,747	49.0	164,073	321	51,113.1
06/30/18	154,749	307,457	50.3	152,707	200	76,354.0
06/30/19	147,671	296,006	49.9	148,335	95	156,142.1
06/30/20	140,731	286,436	49.1	145,705	N/A	N/A
06/30/21	140,258	274,426	51.1	134,168	N/A	N/A
06/30/22	136,246	265,490	51.3	129,244	N/A	N/A
06/30/23	129,392	264,337	49.0	134,945	N/A	N/A
06/30/24	123,153	252,227	49.0	129,074	N/A	N/A

Numbers shown above reflect all changes in benefit provisions, actuarial assumptions, and/or actuarial methods, if any.





History of Funding Progress

Municipality	Actuarial Value of Assets as Percentage of AAL									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Biloxi	39.55%	40.41%	41.27%	44.17%	44.50%	42.30%	40.53%	41.54%	40.34%	40.50%
Clarksdale	26.51	27.32	26.80	26.10	22.74	20.74	20.67	21.00	19.57	17.62
Clinton	82.74	84.38	87.19	87.20	87.00	87.03	88.91	89.59	87.16	85.89
Columbus	10.54	9.82	9.49	9.76	10.09	11.35	13.52	15.39	16.16	18.02
Greenville	36.64	35.56	35.41	34.58	34.19	32.93	36.11	35.98	32.13	30.49
Greenwood	38.27	39.47	40.56	41.40	41.18	40.60	44.29	45.79	48.47	46.33
Gulfport	47.63	47.01	47.60	48.56	49.64	46.86	43.86	53.33	51.81	51.67
Hattiesburg	58.53	58.29	58.68	59.86	58.67	58.27	60.15	56.92	56.59	57.02
Jackson	51.49	50.95	51.24	52.25	51.17	49.89	52.98	53.98	50.64	49.37
Laurel	36.20	40.17	40.07	43.23	45.54	48.56	58.44	60.68	60.11	69.18
McComb	25.49	25.94	27.40	30.28	31.83	32.85	42.60	36.73	27.18	27.35
Meridian	42.40	48.51	55.76	59.84	62.08	61.95	65.46	58.79	55.51	56.41
Natchez	29.61	30.24	29.45	27.79	30.54	29.98	30.87	29.81	20.85	30.70
Pascagoula	59.64	60.57	62.75	66.07	67.89	68.11	68.31	69.37	68.26	68.12
Tupelo	44.31	43.82	43.26	42.41	39.79	37.49	37.82	36.59	33.88	33.30
Vicksburg	53.82	53.77	53.02	53.64	49.63	50.22	50.84	48.74	43.25	41.04
Yazoo City	20.20	18.42	17.25	19.12	17.49	16.95	10.04	14.13	13.20	16.00



SECTION V – SUPPLEMENTAL DISCLOSURE INFORMATION



4. In determining the Actuarially Determined Employer Contribution (ADEC) for GASB purposes, the contribution is based on the anticipated employer contributions as calculated using the current funding policy. The ADEC for the plan year ending June 30, 2024 was determined in the 2022 valuation and is the contribution amount for each municipality shown in Schedule H of the 2022 valuation report.

Contributions Required and Contributions Made

Municipality	Actuarially Determined Employer Contribution	Actual 2023 – 2024 Contribution*	Percentage Contributed
Biloxi	\$1,102,869	\$1,142,721	103.6%
Clarksdale	399,780	379,582	94.9
Clinton	157,682	2,460	1.6
Columbus	1,126,292	1,020,546	90.6
Greenville	433,166	459,831	106.2
Greenwood	306,824	246,328	80.3
Gulfport	777,369	787,405	101.3
Hattiesburg	1,187,363	1,082,123	91.1
Jackson	3,753,671	4,093,817	109.1
Laurel	351,604	550,722	156.6
McComb	149,307	126,036	84.4
Meridian	823,772	939,266	114.0
Natchez	360,027	944,598	262.4
Pascagoula	320,462	361,870	112.9
Tupelo	817,423	956,077	117.0
Vicksburg	815,729	977,584	119.8
Yazoo City	170,330	185,124	108.7
Total	\$ 13,053,670	\$ 14,256,090	109.2%

* Net of administrative expenses.





Schedule of Employer Contributions*

Fiscal Year 10/1-9/30	Valuation date	Actuarially Determined Employer Contribution	Percentage Contributed
2016-17	6/30/2016	\$17,693,519	100.2%
2017-18	6/30/2017	17,393,028	101.2
2018-19	6/30/2018	16,694,899	102.5
2019-20	6/30/2019	16,777,608	99.0
2020-21	6/30/2020	17,118,242	87.1
2021-22	6/30/2020	14,825,865	104.0
2022-23	6/30/2021	12,191,674	115.4
2023-24	6/30/2022	13,053,670	109.2
2024-25	6/30/2023	13,427,492	N/A
2025-26	6/30/2024	12,826,335	N/A

* Methodology for ADEC determination was changed to match cash flow projections that calculate the certified millage rates beginning with the fiscal year ending in 2022.





Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Active Members			
		Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
6/30/15	17	11	\$579,267	\$52,661	1.4%
6/30/16	17	8	419,000	52,375	(0.5)
6/30/17	17	6	321,243	53,541	2.2
6/30/18	17	4	199,742	49,936	(6.7)
6/30/19	17	2	94,871	47,436	(5.0)
6/30/20	17	0	0	0	N/A
6/30/21	17	0	0	0	N/A
6/30/22	17	0	0	0	N/A
6/30/23	17	0	0	0	N/A
6/30/24	17	0	0	0	N/A

Schedule of Retirants Added to and Removed From Rolls Last Ten Fiscal Years

Item	Fiscal Year Ended September 30									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Beginning of Year	1,890	1,849	1,798	1,754	1,694	1,634	1,585	1,510	1,444	1,391
Added	40	46	34	36	37	34	34	31	30	35
Removed	(81)	(97)	(78)	(96)	(97)	(83)	(109)	(97)	(83)	(89)
End of Year	1,849	1,798	1,754	1,694	1,634	1,585	1,510	1,444	1,391	1,337

*See Schedule D for a breakdown by type of retirement.



SECTION V – SUPPLEMENTAL DISCLOSURE INFORMATION



Schedule of Benefit Payments Added to and Removed From Rolls Last Six Fiscal Years

Year Ending	2019	2020	2021	2022	2023	2024
Beginning of Year	\$32,997,690	\$32,423,308	\$31,819,367	\$30,845,547	\$29,977,629	\$29,355,805
Added	736,820	654,407	633,039	613,357	588,260	763,328
Removed	(1,441,224)	(1,386,860)	(1,724,751)	(1,612,065)	(1,433,618)	(1,634,784)
Benefit increase due to annual COLA	130,022	128,512	117,892	130,790	223,534	196,255
Benefit increase due to plan amendments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
End of Year	\$32,423,308	\$31,819,367	\$30,845,547	\$29,977,629	\$29,355,805	\$28,680,604



SECTION VI – RISK ASSESSMENT



Measuring pension obligations and actuarially determined contributions requires the use of assumptions regarding future economic and demographic experience. Whenever assumptions are made about future events, there is risk that actual experience will differ from expected. Actuarial valuations include the risk that actual future measurements will deviate from expected future measurements due to actual experience that is different than the actuarial assumptions. The primary areas of risk in this actuarial valuation are.

- Investment Risk – the potential that actual investment returns will be different than expected.
- Longevity Risks – the potential that mortality will be different than expected.
- Contribution Risk – The potential that actual contributions are different than the actuarially determined contribution rates based on different assessed property rates

The table on the next page shows the sensitivity that the millage rates could have each year based on the risk measures listed above.



SECTION VI – RISK ASSESSMENT



Municipality	Baseline Millage Rate for Fiscal Year Ending 9/30/2026	Investment Risk (4.5% Returns) Millage Rate for Fiscal Year Ending 9/30/2026	Longevity Risk (10% Reduction in Mortality Rates) Millage Rate for Fiscal Year Ending 9/30/2026	Contribution Risk (Assessed Property Drops 5%) Millage Rate for Fiscal Year Ending 9/30/2026
Biloxi	1.56	1.63	1.62	1.64
Clarksdale	4.93	5.02	5.01	5.19
Clinton	0.76	0.97	0.82	0.80
Columbus	3.32	3.37	3.38	3.48
Greenville	2.01	2.07	2.08	2.12
Greenwood	2.28	2.40	2.40	2.40
Gulfport	0.76	0.81	0.79	0.80
Hattiesburg	2.19	2.37	2.30	2.31
Jackson	3.07	3.24	3.26	3.24
Laurel	0.74	0.86	0.82	0.78
McComb	1.28	1.31	1.31	1.34
Meridian	2.01	2.16	2.16	2.11
Natchez	1.17	1.20	1.21	1.23
Pascagoula	0.91	1.01	1.00	0.96
Tupelo	1.27	1.31	1.31	1.33
Vicksburg	1.70	1.77	1.80	1.79
Yazoo City	2.38	2.41	2.41	2.51

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we include a low-default-risk obligation measure of the System's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of the plan. This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities.

We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of June 30, 2024 and with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a liability of \$286.8 million. This amount approximates the termination liability if the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds. This assurance of funded status and benefit security is typically more relevant for corporate plans than for governmental plans since governments rarely have the need or option to completely terminate a plan.



SCHEDULE A – DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS



	6/30/2023	6/30/2024	6/30/2025	6/30/2026	6/30/2027	6/30/2028
A. Actuarial Value Beginning of Year	\$136,245,810	\$129,391,882				
B. Market Value End of Year	124,878,975	121,808,924				
C. Market Value Beginning of Year	131,677,650	124,878,975				
D. Cash Flow						
D1. Contributions	14,356,849	14,547,031				
D2. Other Revenue	0	0				
D3. Benefit Payments	(29,686,570)	(29,024,807)				
D4. Administrative Expenses	(287,137)	(290,941)				
D5. Net	(15,616,858)	(14,768,717)				
E. Investment Income						
E1. Market Total: B.-C.-D5.	8,818,183	11,698,666				
E2. Assumed Rate	7.55%	7.00%				
E3. Amount for Immediate Recognition	9,352,126	8,224,623				
E4. Amount for Phased-In Recognition	(533,943)	3,474,043				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	(106,789)	694,809	0	0	0	0
F2. First Prior Year	(4,858,005)	(106,789)	694,809	0	0	0
F3. Second Prior Year	5,913,409	(4,858,005)	(106,789)	694,809	0	0
F4. Third Prior Year	(1,338,564)	5,913,409	(4,858,005)	(106,789)	694,809	0
F5. Fourth Prior Year	<u>(199,247)</u>	<u>(1,338,564)</u>	<u>5,913,409</u>	<u>(4,858,005)</u>	<u>(106,789)</u>	<u>694,809</u>
F6. Total Recognized Investment Gain	(589,196)	304,860	1,643,424	(4,269,985)	588,020	694,809
G. Adjustment:	0	0				
H. Actuarial Value End of Year:						
A.+D5.+E3.+F6.+G.	\$129,391,882	\$123,152,648				
I. Difference Between Market & Actuarial Values	(4,512,907)	(1,343,724)	(2,987,148)	1,282,837	694,817	8

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.



SCHEDULE B – STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS



The assumptions and methods used in the valuation are based on the results of the experience investigation for the four-year period ending June 30, 2022, dated April 21, 2023, and adopted by the Board on August 22, 2023. The combined effect of the assumptions is expected to have no significant bias.

INTEREST RATE: 7.00% per annum, compounded annually (net after investment expenses) for liabilities.

5.50% per annum, compounded annually (net after investment expenses) for employer contribution rate determination.

PRICE INFLATION: 2.40% per annum, compounded annually.

ASSESSED PROPERTY: For the purposes of developing employer contribution rates, assessed property values are assumed to have 0% future annual growth.

ASSET VALUATION METHOD: Actuarial value, as developed in Schedule A. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value. Actuarial assets were allocated to individual cities in the same proportion that their market value of assets was to the total market value of assets for all cities.



SCHEDULE B – STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS



DEATH AFTER RETIREMENT:

Service Retirees*

Membership Table

PubS.H-2010(B) Retiree

Adjustment to Rates

Male: 95% up to age 60, 110% for ages 61 to 75, and 101% for ages above 77
Female: 84% up to age 72, 100% for ages above 76

Projection Scale

MP-2020

Contingent Annuitants*

Membership Table

PubS.H-2010(B)
Contingent Annuitant

Adjustment to Rates

Male: 97% for all ages
Female: 110% for all ages

Projection Scale

MP-2020

Disabled Retirees*

Membership Table

PubG.H-2010 Disabled

Adjustment to Rates

Male: 134% for all ages
Female: 121% for all ages

Projection Scale

MP-2020

* Please note that none of the recommended tables have any setbacks or setforwards.

Representative values of the assumed rates of death after retirement are as follows:

AGE	Rates of Death After Retirement*					
	Service Retirees		Contingent Annuitants		Disabled Retirees	
	Male	Female	Male	Female	Male	Female
45	0.2983%	0.0983%	0.7692%	0.5104%	1.4660%	1.1919%
50	0.4190%	0.1638%	0.8837%	0.6556%	2.2780%	1.7956%
55	0.5197%	0.2738%	1.0156%	0.7843%	2.9855%	2.1078%
60	0.7771%	0.4578%	1.2397%	1.0131%	3.6475%	2.4684%
65	1.3211%	0.7652%	1.6286%	1.4157%	4.5426%	2.9730%
70	2.1758%	1.2785%	2.4153%	1.9998%	5.8129%	3.8127%
75	3.8566%	2.3659%	3.7209%	3.0052%	7.6661%	5.2683%
80	6.2640%	4.2530%	5.7734%	4.7289%	10.8125%	7.7779%
85	11.0605%	7.3240%	9.2228%	7.8562%	15.7785%	11.9947%
90	17.6902%	12.6470%	14.6577%	13.4530%	22.7224%	17.5353%

*Adjusted Base Rates



SCHEDULE C – SUMMARY OF BENEFIT PROVISIONS EVALUATED



The following summary presents the main provisions of the Systems in effect June 30, 2024, as interpreted in preparing the actuarial valuation. As used in the summary, “average compensation” means the average compensation of a member during the six month period prior to receipt of an allowance.

BENEFITS

Service Retirement

Condition for Retirement

A retirement allowance is payable to any member who retires and has completed at least 20 years of creditable service, regardless of age.

Any general employee member who has attained age 70 and any fireman or policeman who has attained age 65 shall be retired forthwith.

Amount of Allowance

The annual retirement allowance payable to a retired member is equal to:

1. 50% of average compensation, plus
2. 1.7% of average compensation for each year of credited service over 20.

The aggregate amount of (1) and (2) above shall not exceed 66-2/3% (87% for Clinton) of average compensation, regardless of service.

Disability Retirement

Condition for Retirement

A retirement allowance is payable to any member who is not eligible for a service retirement benefit but who becomes totally and permanently disabled, either physically or mentally, regardless of creditable service, if the disability is due to causes in the performance of duty. If the disability is not in the performance of duty, the member must have completed at least 5 years of creditable service to be eligible for retirement.





Amount of Allowance

The annual disability retirement allowance payable is equal to 50% of his salary at the time of retirement if the disability is due to causes in the performance of duty.

If the disability is not in the performance of duty, the allowance is equal to 2.5% times credited service, not in excess of 20, times his salary at the time of retirement for firemen and policemen, and average compensation for general employees.

Death Benefit

Conditions for Benefit

A benefit is payable upon the death of a member under the following conditions:

- (a) the member has retired,
- (b) the member is eligible to retire,
- (c) the death is in the line of duty, or
- (d) the death is not in the line of duty but occurs after the member has 5 years of credited service.

The benefit is payable to the surviving spouse until remarriage and to children under age 18, to dependent children through age 23 when full time students, and to dependent children of any age if handicapped. For Clarksdale, Columbus, Gulfport, Hattiesburg, Jackson, McComb, Meridian, Vicksburg and Yazoo City, benefits payable to spouses do not cease upon remarriage.

Amount of Benefit

The annual benefit payable under all conditions in the case of firemen and policemen and under other than condition (c) in the case of general employees is equal to 2.5% of average compensation for each year of credited service up to 20 and 1.7% of average compensation for each year over 20, with a maximum benefit of 66-2/3% (87% for Clinton) of average compensation.





Return of Contributions

For general employee members under condition (c), the annual benefit payable is equal to 50% of salary at the time of death.

Upon a member's termination of employment for any reason before retirement, his accumulated contributions are refunded. Upon the death of a member who is not eligible for any other death benefit, his accumulated contributions are paid to his beneficiary.

Minimum Allowances

The minimum monthly allowance paid to members from the following municipalities, for all retirement and death benefits, are:

Biloxi:	\$600
Columbus:	\$500
Gulfport:	\$500
Hattiesburg:	\$750
Jackson:	\$500
Meridian:	\$600
Tupelo:	\$750
Vicksburg:	\$1,515

Post-Retirement Adjustments In Allowances

The allowances of certain retired members are adjusted annually by a cost-of-living adjustment (COLA) on the basis of the annual percentage change in each fiscal year of the Consumer Price Index.

Those adjustments are limited as follows:

Biloxi: 3% per year for each full fiscal year of retirement after June 30, 2000 for all retirees and beneficiaries with the COLA being compounded beginning with the state fiscal year in which the retired member turns age 55. This is in addition to the previously granted maximum of 3% per year (not to exceed 9%) for all members who retired on or before December 31, 1995.

Clarksdale: Maximum of 2-1/2% per year for all retirees and beneficiaries.





Clinton: Maximum of 2-1/2% per year (not to exceed 10%) for service retirements only.

Columbus: Maximum of 2-1/2% per year (not to exceed 25%) for all retirees and beneficiaries.

Greenville: Maximum of 2-1/2% per year (not to exceed 25%) for all retirees and beneficiaries.

Gulfport: Maximum of 3% per year (not to exceed 27%) for each fiscal year of retirement after June 30, 2002 for all retirees and beneficiaries. This is in addition to the previously granted COLA of 2% per year (not to exceed 6%) for those retired before July 1, 2001. All Gulfport retirees and beneficiaries who were receiving a retirement allowance as of June 30, 2002 were granted a monthly ad-hoc benefit increase of \$2 per month for each year of service plus \$2 per month for each full fiscal year retired.

Hattiesburg: 2-1/2% per year for all retirees and beneficiaries (not to exceed 32%).

Jackson: Maximum aggregate increase of 19.5% for service and disability retirements only.

Laurel: 2% per year, compounded annually (maximum of 3 years) for each fiscal year of retirement after June 30, 2002 for all retirees and beneficiaries. COLA increases begin at the later of age 60 or after one full fiscal year of retirement.

McComb: Maximum of 2-1/2% per year for all retirees and beneficiaries (not to exceed 10%).

Meridian: All retirees and beneficiaries who were receiving a retirement allowance as of June 30, 1999 were granted a 3.9% ad-hoc benefit increase. 2% per year for all retirees beginning in fiscal year 2022.





Pascagoula: Maximum of 2-1/2% per year for all retirees and beneficiaries (not to exceed 15%).

Tupelo: All retirees and beneficiaries received an increase of 5% in allowances effective December 1, 1991. Additional 3% ad-hoc benefit increases were granted to members who were retired for at least one full fiscal year as of September 30, 1995, as of September 30, 1997, as of September 30, 1998, and as of September 30, 2000.

Furthermore, a 2% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 1999 and a 2.34% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2001.

Furthermore, a 2% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2010.

Furthermore, a 2% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2014.

Furthermore, a 3% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2015.

Furthermore, a 3% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2016.

Furthermore, a 2% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2017.

Furthermore, a 3% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2018.

Furthermore, a 3% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2019.

Furthermore, a 1% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2020.

Furthermore, a 1% ad-hoc benefit increase was granted to members who were retired for at least one





full fiscal year as of September 30, 2021. Furthermore, a 3% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2022. Furthermore, a 2% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2023.

Vicksburg: 3% per year for all retirees and beneficiaries.

Yazoo City: Maximum of 2-1/2% per year (not to exceed 25%) for all retirees and beneficiaries.

Post-retirement adjustments are included in System liabilities for future increases for Biloxi, Clinton, Columbus, Greenville, Gulfport, Hattiesburg, Jackson, Laurel, McComb, Meridian, Pascagoula, Vicksburg, and Yazoo City.





RECONCILIATION OF DATA RECEIVED FROM PERS

Reconciliation of Data received from PERS	Pensioner File			Total
	Retirees	Disableds	Survivors	
From PERS	775	33	613	1,421
Refunded				
Deceased	(49)	(6)	(32)	(87)
Retired				
Added	2		1	3
For Valuation	728	27	582	1,337

STATUS RECONCILIATION FROM 2023 TO 2024

	Retirees	Disability	Survivor	Total
As of June 30, 2023	779	34	578	1,391
Death with Survivors	(31)	(2)	35	2
Deaths with no Survivors	(20)	(5)	(31)	(56)
Benefits Expired				
Data Corrections				
As of June 30, 2024	728	27	582	1,337





Retirants & Beneficiaries as of June 30, 2024 Tabulated by Year of Retirement

Year of Retirement	No.	Annual Benefits excluding COLA	COLA	Total Annual Benefits	Average Monthly Benefit
2020	2	\$ 72,566	2,461	\$ 75,027	\$ 3,126
2019	3	97,605	7,387	104,992	2,916
2018	1	43,396	0	43,396	3,616
2017	2	80,083	5,842	85,925	3,580
2016	4	153,667	15,002	168,669	3,514
2015	1	25,335	0	25,335	2,111
2014	3	111,086	15,013	126,099	3,503
2013	8	349,766	61,218	410,984	4,281
2012	4	164,423	44,345	208,768	4,349
2011	0	0	0	0	0
2010	5	156,183	44,160	200,343	3,339
2009	3	79,418	6,048	85,466	2,374
2008	5	135,030	19,835	154,865	2,581
2007	7	224,464	71,309	295,773	3,521
2006	14	373,810	74,905	448,715	2,671
2005	26	680,230	132,619	812,849	2,605
2004	19	445,272	99,760	545,032	2,390
2003	29	761,136	199,042	960,178	2,759
2002	40	1,117,226	297,135	1,414,361	2,947
2001	22	635,046	147,735	782,781	2,965
2000	31	792,897	217,708	1,010,605	2,717
1999	33	804,157	204,150	1,008,307	2,546
1998	36	861,114	191,880	1,052,994	2,437
1997	47	1,037,194	198,333	1,235,527	2,191
1996	47	907,785	160,307	1,068,092	1,894
1995	92	1,608,080	261,238	1,869,318	1,693
1994	117	2,037,541	422,490	2,460,031	1,752
1993	86	1,465,701	316,804	1,782,505	1,727
1992	71	1,214,676	248,370	1,463,046	1,717
1991	65	1,119,259	192,504	1,311,763	1,682
1990	51	777,825	115,934	893,759	1,460
1989	39	551,124	130,292	681,416	1,456
1988 & Prior	424	4,656,096	1,237,587	5,893,683	1,158
Totals	1,337	\$ 23,539,191	\$ 5,141,413	\$ 28,680,604	\$ 1,788





Schedule of Retired Members by Type of Benefit Benefits Payable June 30, 2024

Amount of Monthly Benefit	Number of Rets.	Ret. Type 1*	Ret. Type 2*	Ret. Type 3*
\$1 - \$500	22	2	1	19
501 - 1,000	225	65	11	149
1,001 - 1,500	339	170	13	156
1,501 - 2,000	305	190	0	115
2,001 - 2,500	187	125	0	62
2,501 - 3,000	144	91	2	51
3,001 - 3,500	57	40	0	17
Over 3,500	58	45	0	13
Totals	1,337	728	27	582

*Type of Retirement

- 1 – Retirement for Age & Service
- 2 – Disability Retirement
- 3 – Survivor Payment



SCHEDULE D – DETAILED TABULATIONS OF DATA



Retirant and Beneficiary Information June 30, 2024 Tabulated by Attained Ages

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 45								
45 – 49					1	\$22,130	1	\$22,130
50 – 54					1	35,633	1	35,633
55 – 59					3	46,709	3	46,709
60 – 64	26	\$768,696			12	261,123	38	1,029,819
65 – 69	40	1,262,644			33	706,025	73	1,968,669
70 – 74	199	5,223,834	7	\$110,682	76	1,582,133	282	6,916,649
75 – 79	213	5,002,848	7	87,762	140	2,700,030	360	7,790,640
80 – 84	121	2,776,651	7	70,281	147	2,719,626	275	5,566,558
85 – 89	87	1,664,877	5	83,180	99	1,710,886	191	3,458,943
90 – 94	35	694,878	1	9,001	57	928,437	93	1,632,316
95	3	54,461			4	49,282	7	103,743
96	1	11,812			4	35,215	5	47,027
97	2	25,403			1	5,064	3	30,467
98					1	7,794	1	7,794
99	1	2,826					1	2,826
100 & Over					3	20,681	3	20,681
Totals	728	\$17,488,930	27	\$360,906	582	\$10,830,768	1,337	\$28,680,604



SCHEDULE E – ANALYSIS OF FINANCIAL EXPERIENCE



Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common. Detail on the derivation of the experience gain/(loss) for the year ended June 30, 2024 is shown below.

		\$ Thousands
(1)	UAAL * as of beginning of year	\$ 134,945.2
(2)	Total normal cost from last valuation	0.0
(3)	Total contributions**	14,256.1
(4)	Interest accrual: $\{[(1) + (2)] \times .07\} - [(3) \times .03441]$	<u>8,955.6</u>
(5)	Expected UAAL before changes: (1) + (2) – (3) + (4)	\$ 129,644.7
(6)	Change due to plan amendments	235.8
(7)	Change due to new actuarial assumptions or methods	<u>0.0</u>
(8)	Expected UAAL after changes: (5) + (6) + (7)	\$ 129,880.5
(9)	Actual UAAL as of end of year	\$ 129,074.4
(10)	Gain/(loss): (8) – (9)	\$ 806.1

*Unfunded actuarial accrued liability.

**Net of administrative expenses.





Gains & Losses in Liabilities Resulting from Differences Between Assumed Experience & Actual Experience (\$ Thousands)

Type of Activity	\$ Gain (or Loss) For Year Ending 6/30/2024	\$ Gain (or Loss) For Year Ending 6/30/2023
Investment Income. If there is greater investment income than assumed, there is a gain. If less income, a loss.	\$ (19.8)	\$ (944.8)
Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	1,106.0	942.6
Other. Miscellaneous gains and losses resulting from data adjustments, software programming, COLAs, etc.	<u>(280.1)</u>	<u>(199.3)</u>
Gain (or Loss) During Year From Financial Experience	\$ 806.1	\$ (201.5)
Non-Recurring Items. Adjustments for plan amendments, assumption changes, or method changes.	<u>(235.8)</u>	<u>(10,332.6)</u>
Composite Gain (or Loss) During Year	\$ 570.3	\$ (10,534.1)





Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability”.

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method”.

Actuarial Equivalent. A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss). A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost”. Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability”.

Valuation Assets. The value of current plan assets recognized for valuation purposes. Generally based on a market-related smoothing method.





Regular actuarial valuations measure the Retirement System's present financial position and contributions adequacy by calculating and financing the liabilities created by the present benefit program. This process involves discounting to present values the future benefit payments on behalf of present active and retired members and their survivors. However, valuations do not produce information regarding future changes in the makeup of the covered group or the amounts of benefits to be paid or investment income to be received – actuarial projections do.

Whereas valuations provide a snapshot of the retirement system as of a given date, projections provide a moving picture. Projected active and retired groups are developed from year to year by the application of assumptions regarding pre-retirement withdrawal from service, retirement, deaths and disabilities. Projected information regarding the retired life group leads to assumed future benefit payout. Combining future benefit payments with assumed contributions and expected investment earnings produces the net cash flow of the System each year, and thus end of year asset levels.

Projections are used for many purposes. Among them are (i) developing cash flow patterns for investment policy and asset mix consideration, (ii) exploring the effect of alternative assumptions about future experience, (iii) analyzing the impact on system funding progress of changes in the workforce, and (iv) examining the potential effect of changes in benefits on system financial activity.

Projection results are useful in demonstrating changing relationships among key elements affecting system financial activity. For example: how benefits payable and system assets will grow in future decades. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. For instance, cash flow projected to occur 10 years in the future will not be exact (except by coincidence), but understanding the changed relationships between future benefit payout and future investment income can be very useful.





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Mississippi Municipal Retirement Systems
City of Biloxi

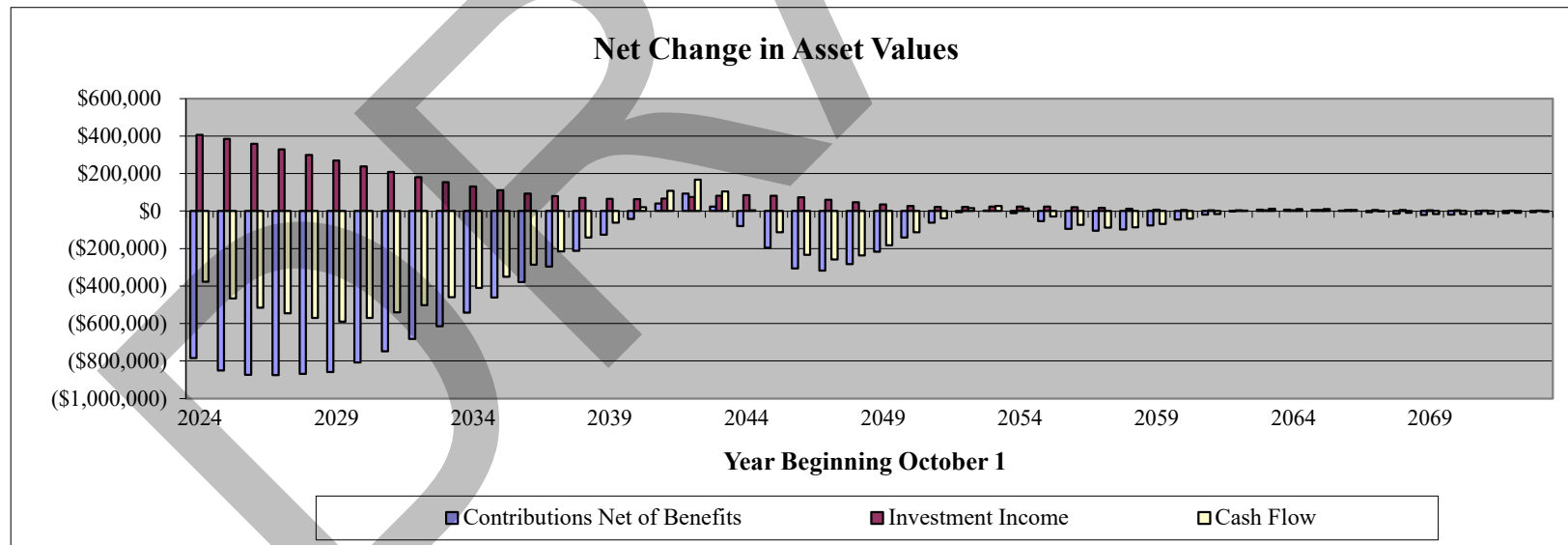
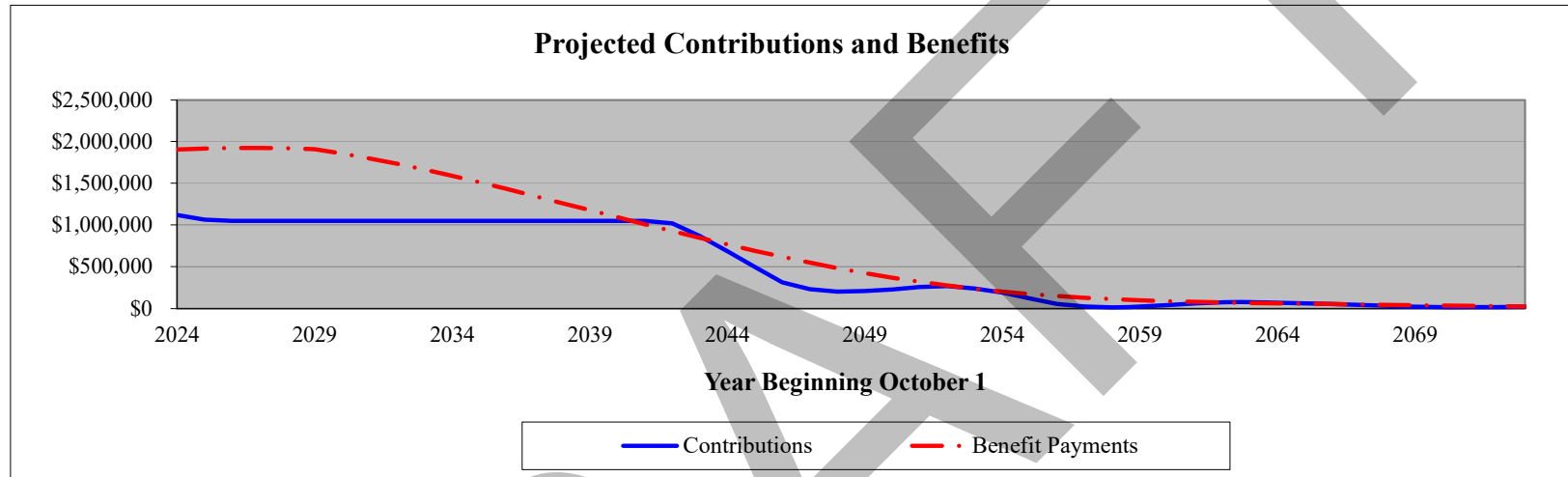
Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

Year Beginning July 1	Value of Assessed Property	MVA Balance July 1	Millage Rate	Contributions	Benefit Payments	Investment Income	Cash Flow	MVA Balance June 30	Year Ending June 30
2024	\$673,514,757	\$7,783,920	0.00156	\$1,120,107	\$1,904,579	\$406,831	(\$377,641)	\$7,406,279	2025
2025	673,514,757	7,406,279	0.00156	1,065,837	1,916,956	384,253	(466,866)	6,939,413	2026
2026	673,514,757	6,939,413	0.00156	1,050,683	1,924,649	357,955	(516,011)	6,423,402	2027
2027	673,514,757	6,423,402	0.00156	1,050,683	1,925,167	329,561	(544,923)	5,878,479	2028
2028	673,514,757	5,878,479	0.00156	1,050,683	1,920,159	299,726	(569,750)	5,308,729	2029
2029	673,514,757	5,308,729	0.00156	1,050,683	1,909,214	268,686	(589,845)	4,718,883	2030
2030	673,514,757	4,718,883	0.00156	1,050,683	1,857,706	237,642	(569,381)	4,149,502	2031
2031	673,514,757	4,149,502	0.00156	1,050,683	1,798,404	207,936	(539,785)	3,609,718	2032
2032	673,514,757	3,609,718	0.00156	1,050,683	1,733,723	180,002	(503,038)	3,106,680	2033
2033	673,514,757	3,106,680	0.00156	1,050,683	1,665,057	154,198	(460,176)	2,646,504	2034
2038	673,514,757	1,382,764	0.00156	1,050,683	1,262,352	70,309	(141,360)	1,241,404	2039
2043	673,514,757	1,474,665	0.00126	869,697	846,735	81,730	104,692	1,579,357	2044
2048	673,514,757	978,314	0.00072	201,317	484,268	46,130	(236,821)	741,493	2049
2053	673,514,757	422,548	0.00035	237,891	234,989	23,319	26,221	448,769	2054
2058	673,514,757	270,522	0.00017	12,906	112,005	12,190	(86,909)	183,614	2059
2063	673,514,757	60,795	0.00010	73,605	65,648	3,560	11,517	72,312	2064
2068	673,514,757	98,048	0.00006	29,433	43,247	5,018	(8,796)	89,252	2069
2073	673,514,757	34,107	0.00004	19,800	25,275	1,727	(3,748)	30,360	2074



Mississippi Municipal Retirement Systems City of Biloxi

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Clarksdale

Cash Flow Projection

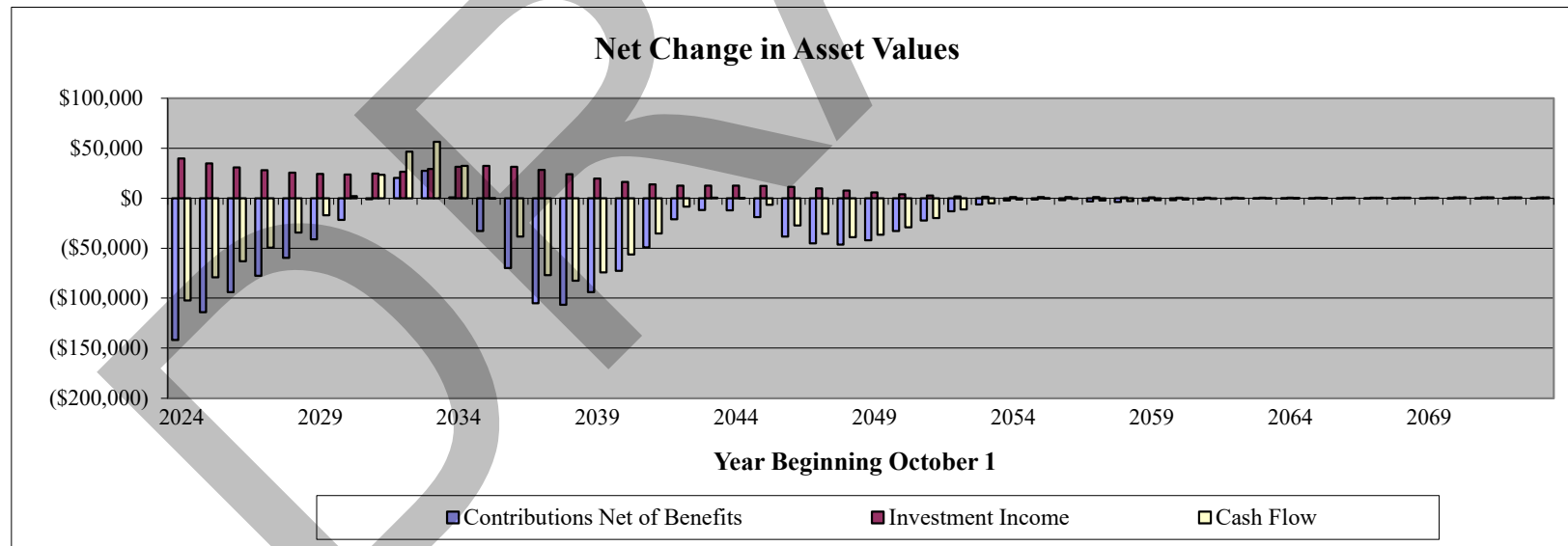
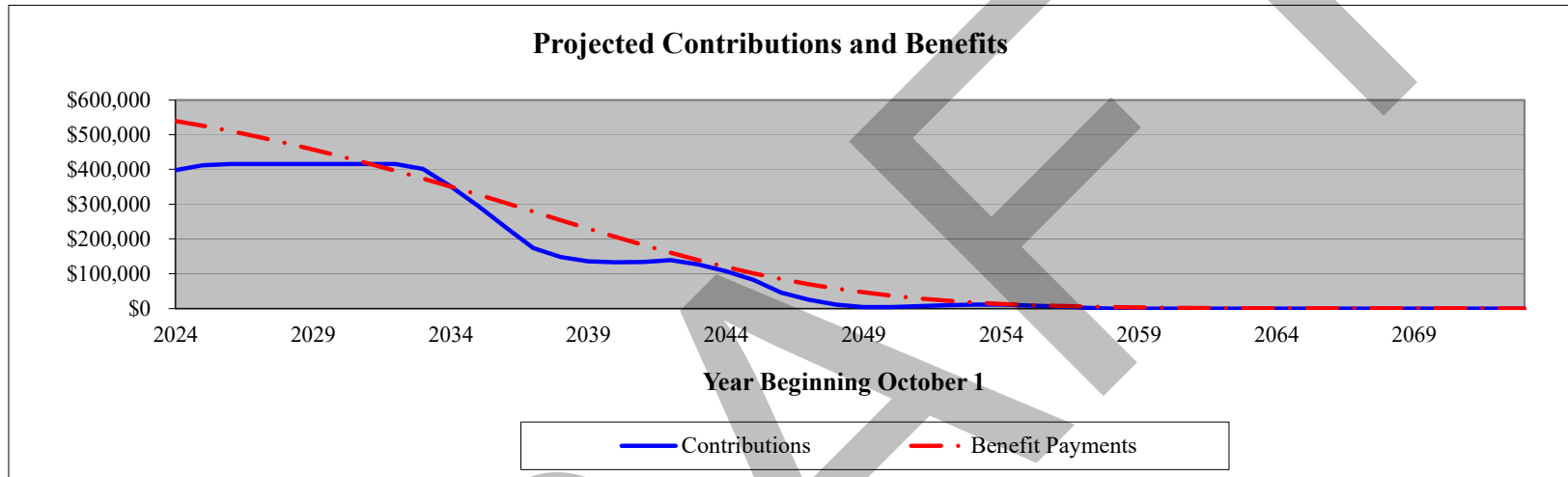
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$84,397,955	\$789,104	0.00493	\$397,797	\$539,725	\$39,550	(\$102,378)	\$686,725	2025
2025	84,397,955	686,725	0.00493	411,651	525,590	34,679	(79,260)	607,465	2026
2026	84,397,955	607,465	0.00493	416,082	510,168	30,858	(63,228)	544,237	2027
2027	84,397,955	544,237	0.00493	416,082	493,587	27,830	(49,675)	494,563	2028
2028	84,397,955	494,563	0.00493	416,082	475,939	25,577	(34,280)	460,282	2029
2029	84,397,955	460,282	0.00493	416,082	457,300	24,197	(17,021)	443,262	2030
2030	84,397,955	443,262	0.00493	416,082	437,718	23,792	2,156	445,417	2031
2031	84,397,955	445,417	0.00493	416,082	417,225	24,467	23,324	468,742	2032
2032	84,397,955	468,742	0.00469	416,082	395,852	26,330	46,561	515,302	2033
2033	84,397,955	515,302	0.00443	400,909	373,652	29,081	56,338	571,641	2034
2038	84,397,955	488,035	0.00301	147,478	254,045	23,951	(82,616)	405,419	2039
2043	84,397,955	230,980	0.00164	126,815	138,813	12,378	380	231,360	2044
2048	84,397,955	162,289	0.00068	10,587	57,155	7,662	(38,906)	123,383	2049
2053	84,397,955	26,650	0.00020	10,841	17,072	1,297	(4,934)	21,716	2054
2058	84,397,955	16,988	0.00004	0	3,753	832	(2,921)	14,066	2059
2063	84,397,955	9,725	0.00001	0	587	519	(68)	9,656	2064
2068	84,397,955	10,981	0.00000	0	50	603	553	11,535	2069
2073	84,397,955	14,228	0.00000	0	2	783	781	15,010	2074



Mississippi Municipal Retirement Systems City of Clarksdale

50 Year Cash Flow Projection Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems
City of Clinton**

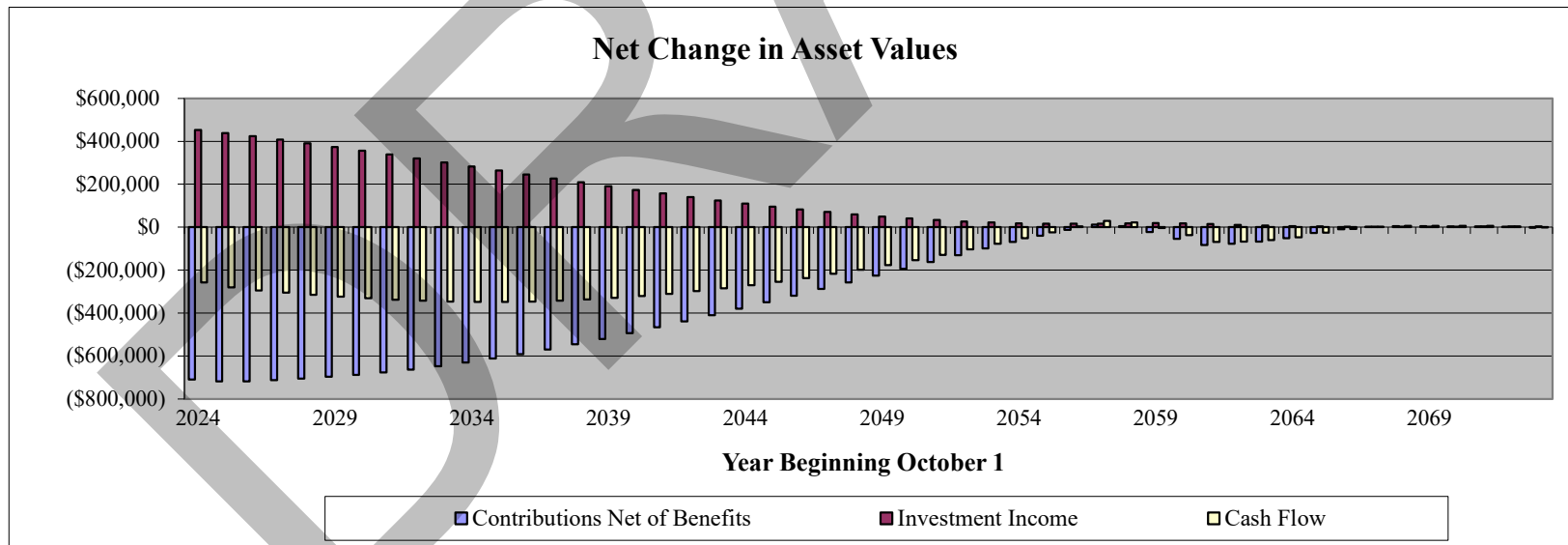
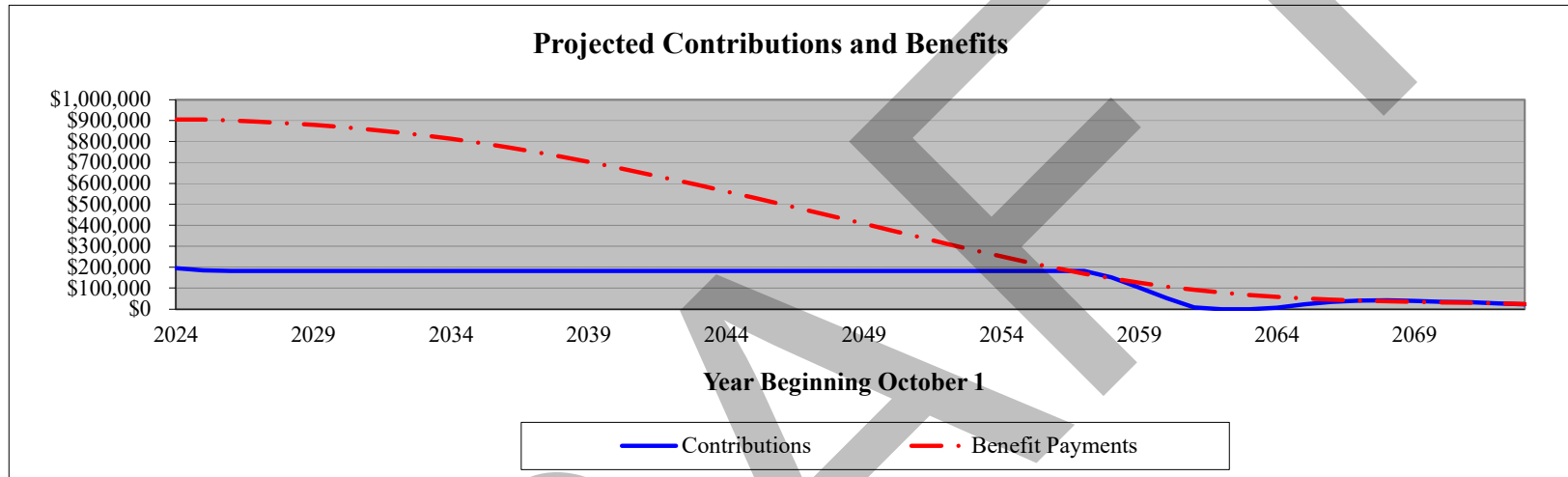
**Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments**

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$238,704,997	\$8,592,275	0.00076	\$195,033	\$905,722	\$453,293	(\$257,396)	\$8,334,879	2025
2025	238,704,997	8,334,879	0.00076	184,400	903,921	438,896	(280,625)	8,054,254	2026
2026	238,704,997	8,054,254	0.00076	181,416	900,064	423,486	(295,162)	7,759,092	2027
2027	238,704,997	7,759,092	0.00076	181,416	894,313	407,408	(305,489)	7,453,603	2028
2028	238,704,997	7,453,603	0.00076	181,416	887,370	390,794	(315,160)	7,138,444	2029
2029	238,704,997	7,138,444	0.00076	181,416	879,086	373,685	(323,985)	6,814,458	2030
2030	238,704,997	6,814,458	0.00076	181,416	869,312	356,131	(331,765)	6,482,693	2031
2031	238,704,997	6,482,693	0.00076	181,416	857,915	338,193	(338,306)	6,144,387	2032
2032	238,704,997	6,144,387	0.00076	181,416	844,779	319,943	(343,420)	5,800,967	2033
2033	238,704,997	5,800,967	0.00076	181,416	829,821	301,461	(346,944)	5,454,023	2034
2038	238,704,997	4,066,578	0.00076	181,416	727,755	208,839	(337,500)	3,729,078	2039
2043	238,704,997	2,468,741	0.00076	181,416	591,211	124,662	(285,133)	2,183,608	2044
2048	238,704,997	1,203,870	0.00076	181,416	438,602	59,235	(197,951)	1,005,919	2049
2053	238,704,997	442,559	0.00076	181,416	281,008	21,639	(77,953)	364,607	2054
2058	238,704,997	320,085	0.00061	150,440	145,945	17,727	22,222	342,307	2059
2063	238,704,997	164,178	0.00028	0	66,938	7,214	(59,724)	104,453	2064
2068	238,704,997	23,967	0.00016	41,859	37,126	1,447	6,180	30,148	2069
2073	238,704,997	49,428	0.00010	22,068	24,854	2,643	(143)	49,285	2074



Mississippi Municipal Retirement Systems
City of Clinton

50 Year Cash Flow Projection
Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Columbus

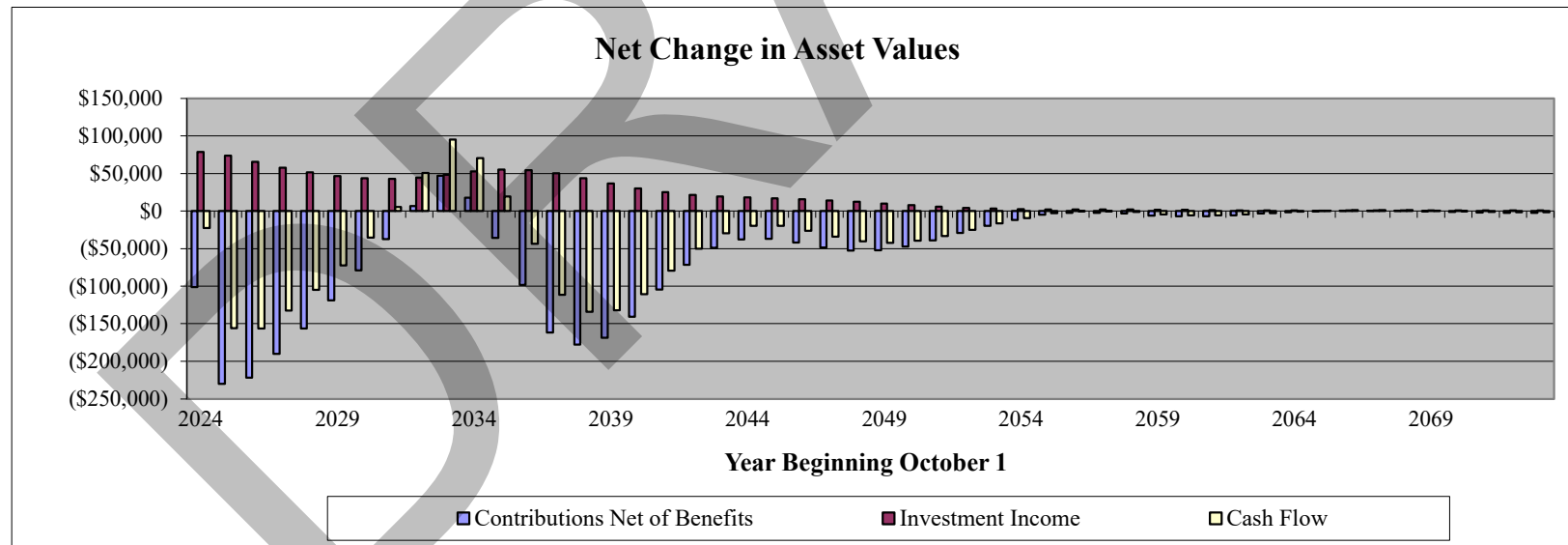
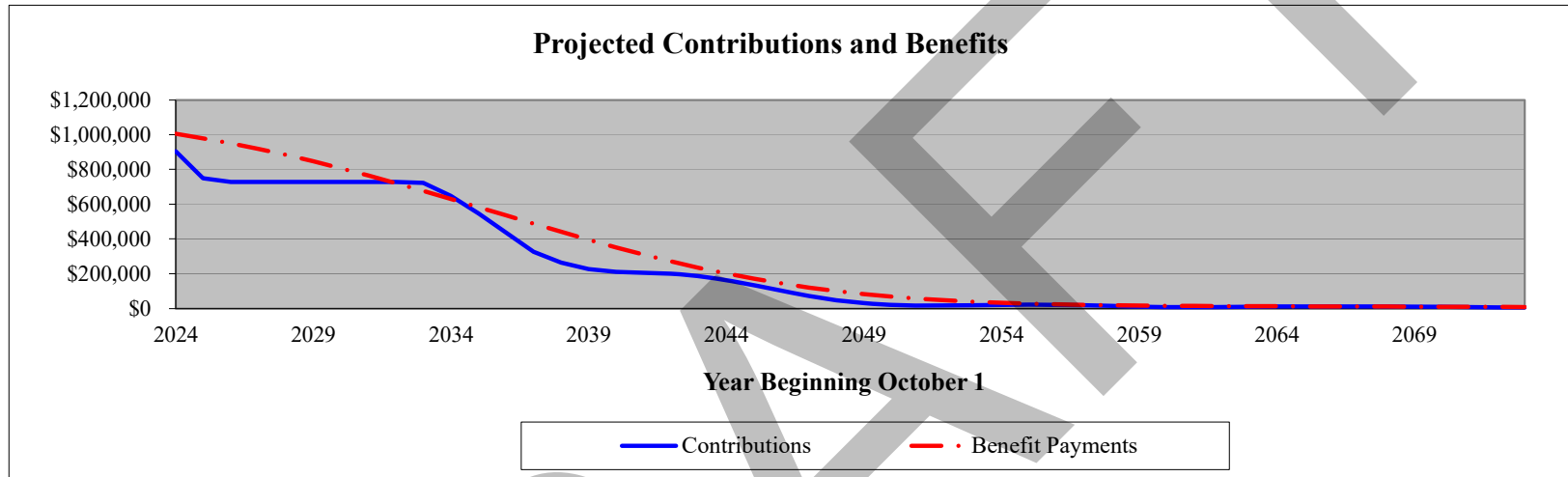
Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

Year Beginning July 1	Value of Assessed Property	MVA Balance July 1	Millage Rate	Contributions	Benefit Payments	Investment Income	Cash Flow	MVA Balance June 30	Year Ending June 30
2024	\$219,188,566	\$1,477,676	0.00332	\$903,927	\$1,005,213	\$78,524	(\$22,762)	\$1,454,913	2025
2025	219,188,566	1,454,913	0.00332	748,529	978,483	73,781	(156,173)	1,298,740	2026
2026	219,188,566	1,298,740	0.00332	727,706	949,433	65,415	(156,312)	1,142,428	2027
2027	219,188,566	1,142,428	0.00332	727,706	917,960	57,672	(132,582)	1,009,847	2028
2028	219,188,566	1,009,847	0.00332	727,706	883,945	51,302	(104,937)	904,910	2029
2029	219,188,566	904,910	0.00332	727,706	846,516	46,546	(72,264)	832,645	2030
2030	219,188,566	832,645	0.00332	727,706	806,796	43,650	(35,440)	797,206	2031
2031	219,188,566	797,206	0.00332	727,706	764,961	42,836	5,581	802,787	2032
2032	219,188,566	802,787	0.00329	727,706	721,263	44,328	50,771	853,558	2033
2033	219,188,566	853,558	0.00308	722,874	676,017	48,217	95,074	948,632	2034
2038	219,188,566	883,493	0.00201	263,203	441,037	43,767	(134,067)	749,426	2039
2043	219,188,566	376,730	0.00107	185,234	234,090	19,395	(29,461)	347,268	2044
2048	219,188,566	247,420	0.00046	47,300	99,828	12,183	(40,345)	207,075	2049
2053	219,188,566	66,809	0.00017	18,636	38,335	3,140	(16,559)	50,249	2054
2058	219,188,566	36,899	0.00008	14,951	18,171	1,942	(1,278)	35,621	2059
2063	219,188,566	15,300	0.00006	9,171	12,610	748	(2,691)	12,609	2064
2068	219,188,566	14,394	0.00005	10,990	10,553	804	1,241	15,635	2069
2073	219,188,566	13,268	0.00004	6,225	8,651	664	(1,762)	11,505	2074



Mississippi Municipal Retirement Systems City of Columbus

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Greenville

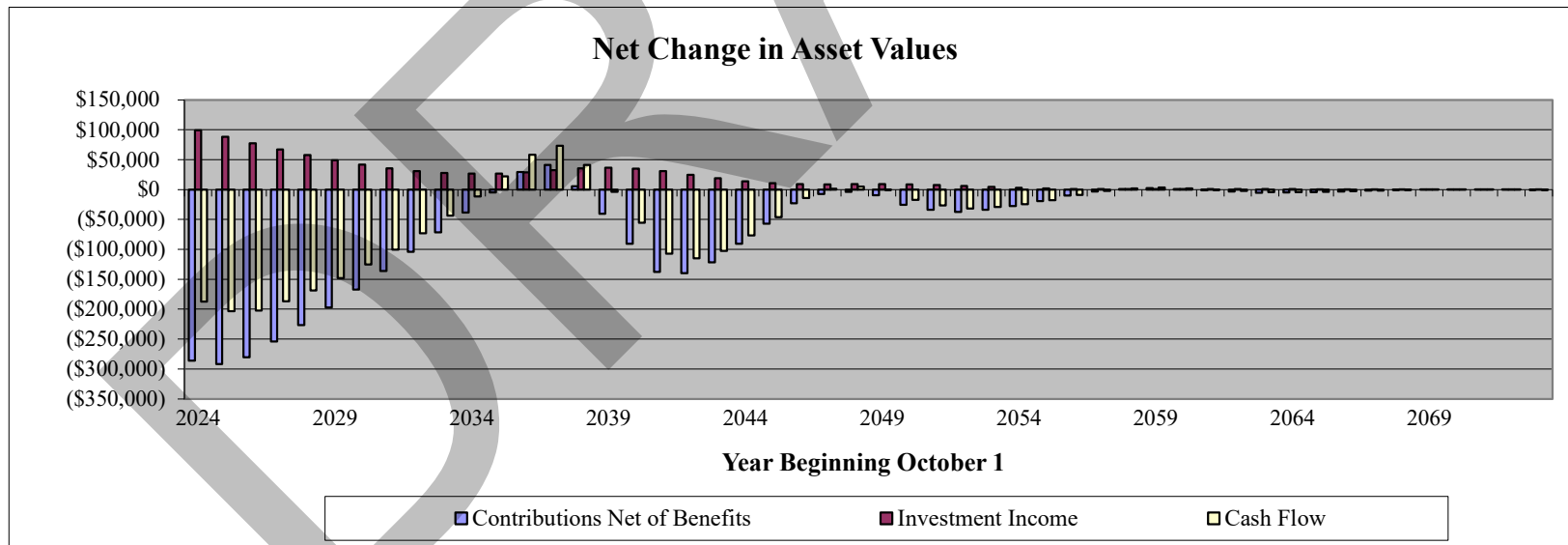
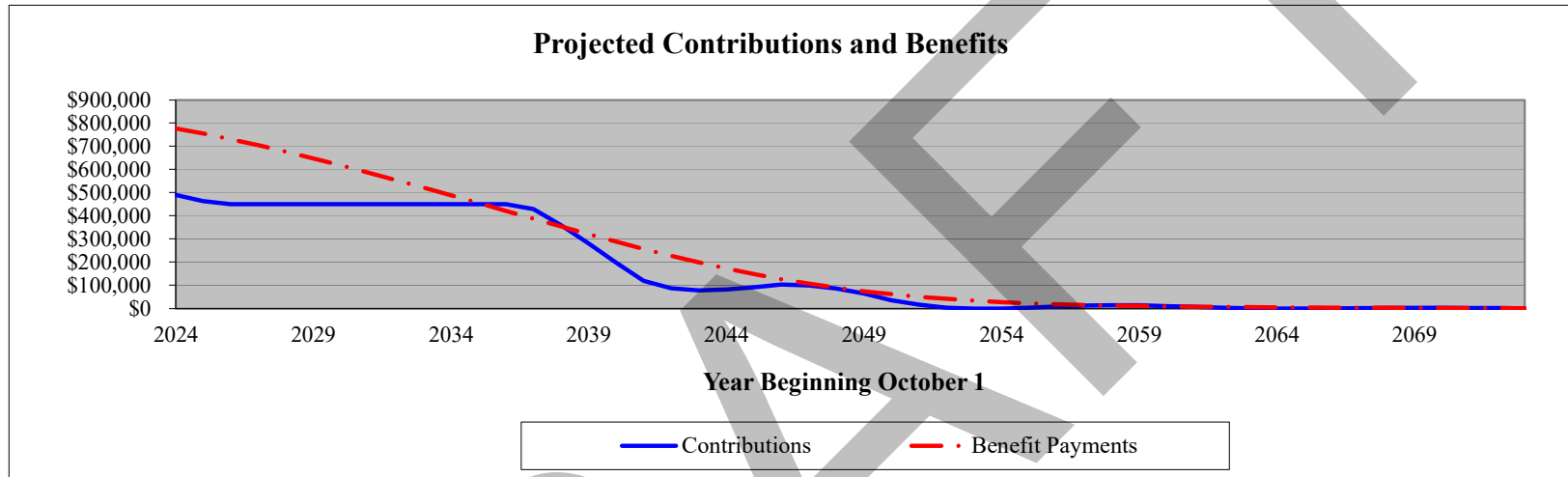
Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$223,866,331	\$1,940,767	0.00201	\$490,822	\$777,199	\$98,972	(\$187,405)	\$1,753,362	2025
2025	223,866,331	1,753,362	0.00201	462,844	754,638	88,518	(203,276)	1,550,086	2026
2026	223,866,331	1,550,086	0.00201	449,971	730,219	77,651	(202,597)	1,347,489	2027
2027	223,866,331	1,347,489	0.00201	449,971	704,088	67,217	(186,900)	1,160,589	2028
2028	223,866,331	1,160,589	0.00201	449,971	676,423	57,688	(168,764)	991,825	2029
2029	223,866,331	991,825	0.00201	449,971	647,407	49,194	(148,242)	843,583	2030
2030	223,866,331	843,583	0.00201	449,971	617,221	41,859	(125,391)	718,193	2031
2031	223,866,331	718,193	0.00201	449,971	586,044	35,809	(100,264)	617,929	2032
2032	223,866,331	617,929	0.00201	449,971	554,045	31,162	(72,912)	545,017	2033
2033	223,866,331	545,017	0.00201	449,971	521,375	28,039	(43,365)	501,652	2034
2038	223,866,331	643,855	0.00158	359,188	353,487	35,567	41,268	685,123	2039
2043	223,866,331	403,742	0.00089	77,261	198,887	18,906	(102,720)	301,022	2044
2048	223,866,331	165,612	0.00040	85,341	89,289	9,002	5,055	170,666	2049
2053	223,866,331	95,490	0.00015	0	33,537	4,342	(29,195)	66,296	2054
2058	223,866,331	13,360	0.00006	13,515	12,586	760	1,689	15,049	2059
2063	223,866,331	18,448	0.00003	577	5,621	878	(4,166)	14,282	2064
2068	223,866,331	2,023	0.00001	2,179	2,642	99	(364)	1,659	2069
2073	223,866,331	3,224	0.00000	598	921	169	(154)	3,070	2074



Mississippi Municipal Retirement Systems City of Greenville

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Greenwood

Cash Flow Projection

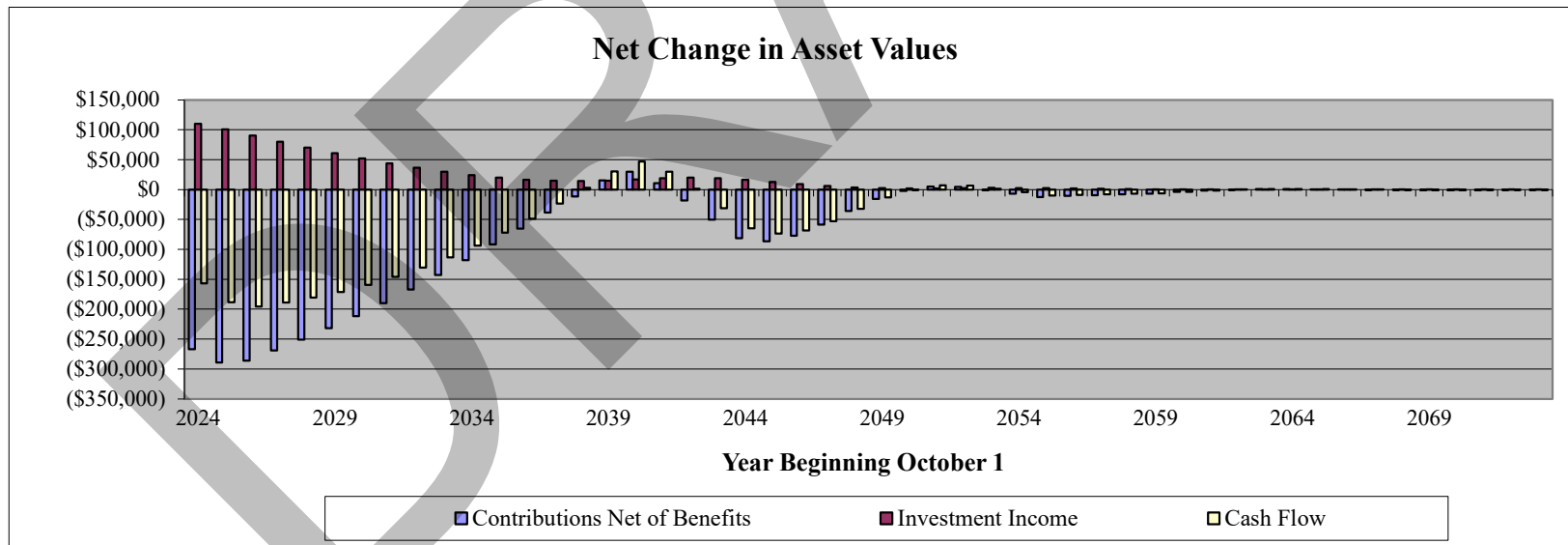
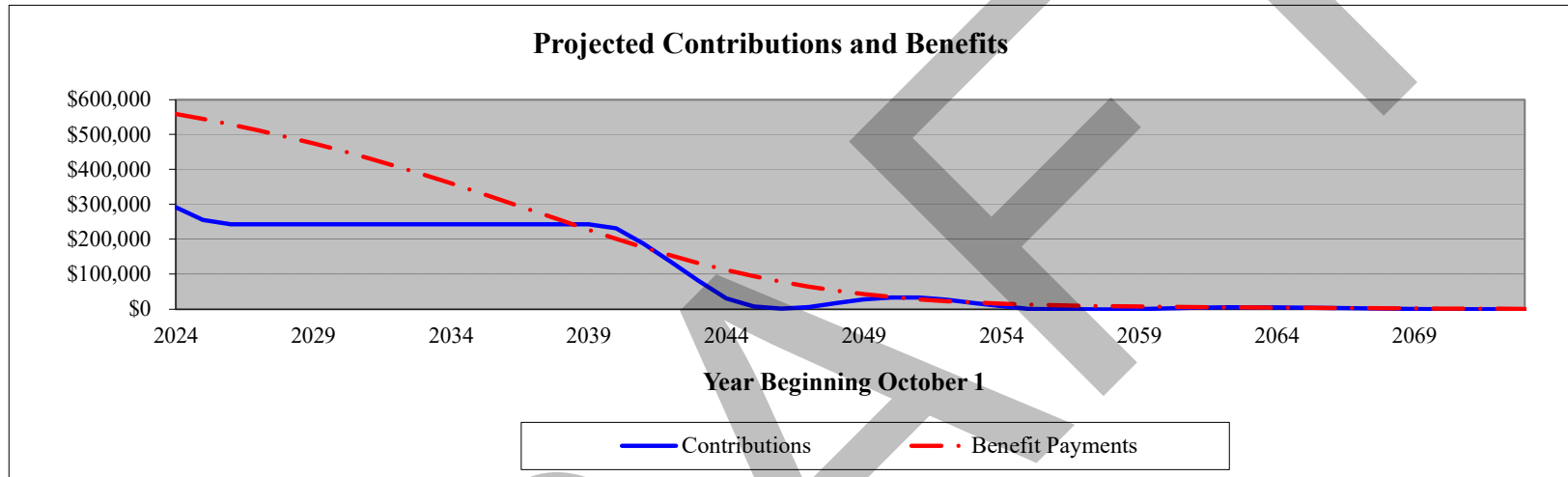
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$106,334,642	\$2,131,713	0.00228	\$292,103	\$559,211	\$109,997	(\$157,111)	\$1,974,602	2025
2025	106,334,642	1,974,602	0.00228	255,203	544,336	100,758	(188,375)	1,786,226	2026
2026	106,334,642	1,786,226	0.00228	242,443	528,484	90,482	(195,559)	1,590,667	2027
2027	106,334,642	1,590,667	0.00228	242,443	511,596	80,184	(188,969)	1,401,698	2028
2028	106,334,642	1,401,698	0.00228	242,443	493,609	70,279	(180,887)	1,220,812	2029
2029	106,334,642	1,220,812	0.00228	242,443	474,453	60,850	(171,160)	1,049,651	2030
2030	106,334,642	1,049,651	0.00228	242,443	454,069	51,989	(159,637)	890,015	2031
2031	106,334,642	890,015	0.00228	242,443	432,423	43,796	(146,184)	743,831	2032
2032	106,334,642	743,831	0.00228	242,443	409,530	36,377	(130,710)	613,121	2033
2033	106,334,642	613,121	0.00228	242,443	385,456	29,841	(113,172)	499,949	2034
2038	106,334,642	262,034	0.00228	242,443	253,815	14,103	2,731	264,766	2039
2043	106,334,642	373,000	0.00124	80,860	131,399	19,144	(31,395)	341,604	2044
2048	106,334,642	82,350	0.00049	16,608	52,557	3,554	(32,395)	49,954	2049
2053	106,334,642	50,719	0.00017	17,342	18,510	2,758	1,590	52,309	2054
2058	106,334,642	21,167	0.00008	0	7,984	948	(7,036)	14,131	2059
2063	106,334,642	2,634	0.00004	5,048	4,335	164	877	3,510	2064
2068	106,334,642	5,980	0.00002	1,326	2,030	310	(394)	5,585	2069
2073	106,334,642	1,963	0.00001	0	590	92	(498)	1,465	2074



Mississippi Municipal Retirement Systems City of Greenwood

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Gulfport

Cash Flow Projection

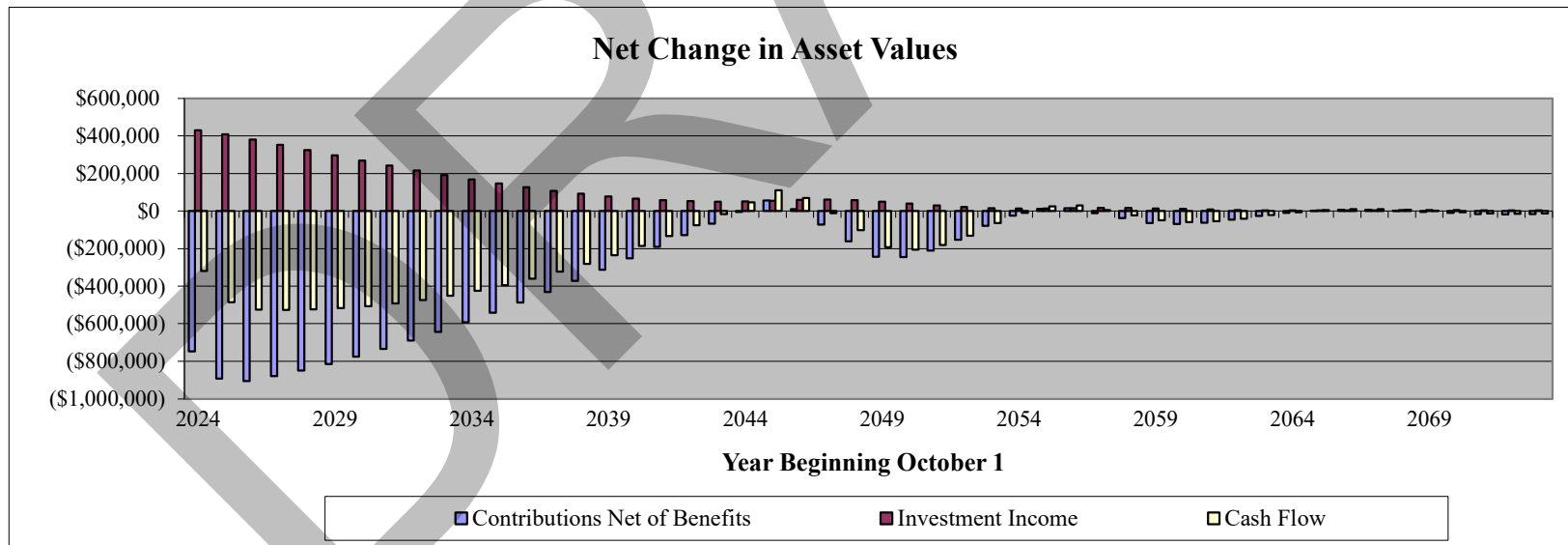
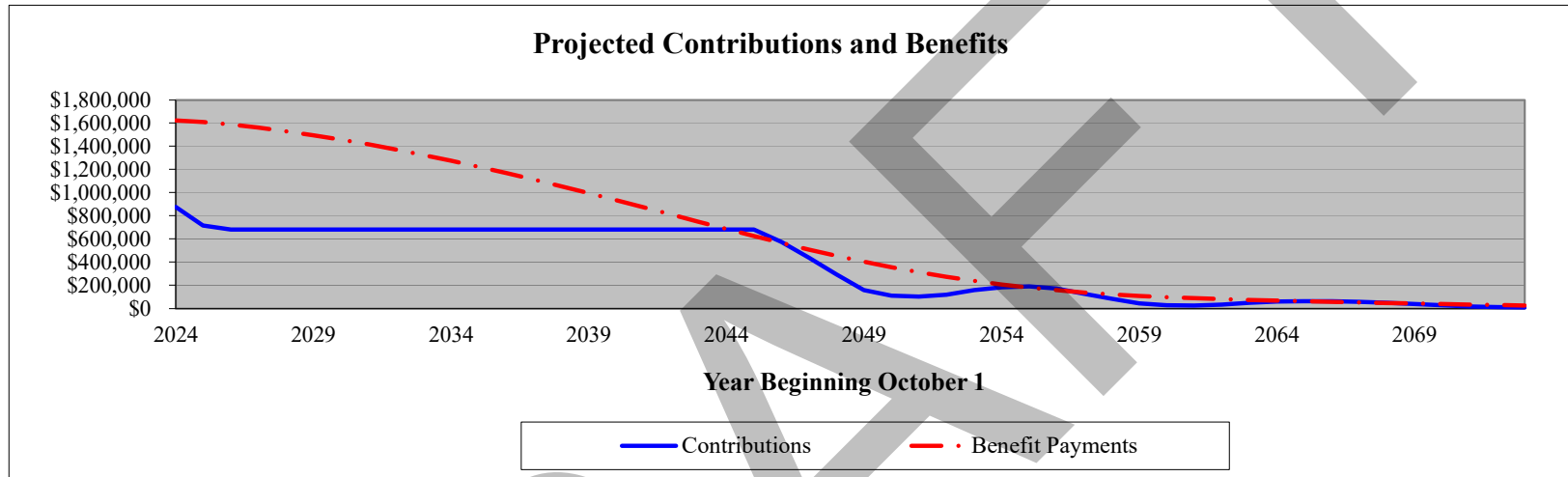
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$896,764,815	\$8,175,861	0.00076	\$875,405	\$1,623,466	\$429,376	(\$318,685)	\$7,857,176	2025
2025	896,764,815	7,857,176	0.00076	715,170	1,607,968	407,921	(484,877)	7,372,299	2026
2026	896,764,815	7,372,299	0.00076	681,541	1,587,558	380,894	(525,123)	6,847,176	2027
2027	896,764,815	6,847,176	0.00076	681,541	1,561,356	352,724	(527,091)	6,320,085	2028
2028	896,764,815	6,320,085	0.00076	681,541	1,530,412	324,573	(524,298)	5,795,787	2029
2029	896,764,815	5,795,787	0.00076	681,541	1,495,744	296,677	(517,526)	5,278,260	2030
2030	896,764,815	5,278,260	0.00076	681,541	1,457,579	269,249	(506,789)	4,771,471	2031
2031	896,764,815	4,771,471	0.00076	681,541	1,416,172	242,499	(492,132)	4,279,339	2032
2032	896,764,815	4,279,339	0.00076	681,541	1,371,778	216,636	(473,601)	3,805,738	2033
2033	896,764,815	3,805,738	0.00076	681,541	1,324,626	191,867	(451,218)	3,354,520	2034
2038	896,764,815	1,851,113	0.00076	681,541	1,054,223	91,700	(280,982)	1,570,131	2039
2043	896,764,815	939,662	0.00076	681,541	748,172	49,874	(16,757)	922,905	2044
2048	896,764,815	1,137,572	0.00051	293,652	454,233	58,210	(102,371)	1,035,201	2049
2053	896,764,815	323,560	0.00026	157,421	237,031	15,636	(63,974)	259,586	2054
2058	896,764,815	310,203	0.00014	83,772	121,992	16,024	(22,196)	288,007	2059
2063	896,764,815	83,698	0.00008	47,717	73,340	3,908	(21,715)	61,984	2064
2068	896,764,815	81,012	0.00005	48,561	46,964	4,499	6,096	87,108	2069
2073	896,764,815	54,620	0.00003	10,595	26,312	2,578	(13,139)	41,481	2074



**Mississippi Municipal Retirement Systems
City of Gulfport**

**50 Year Cash Flow Projection
Based on Valuation Assumptions**





Mississippi Municipal Retirement Systems
City of Hattiesburg

Cash Flow Projection

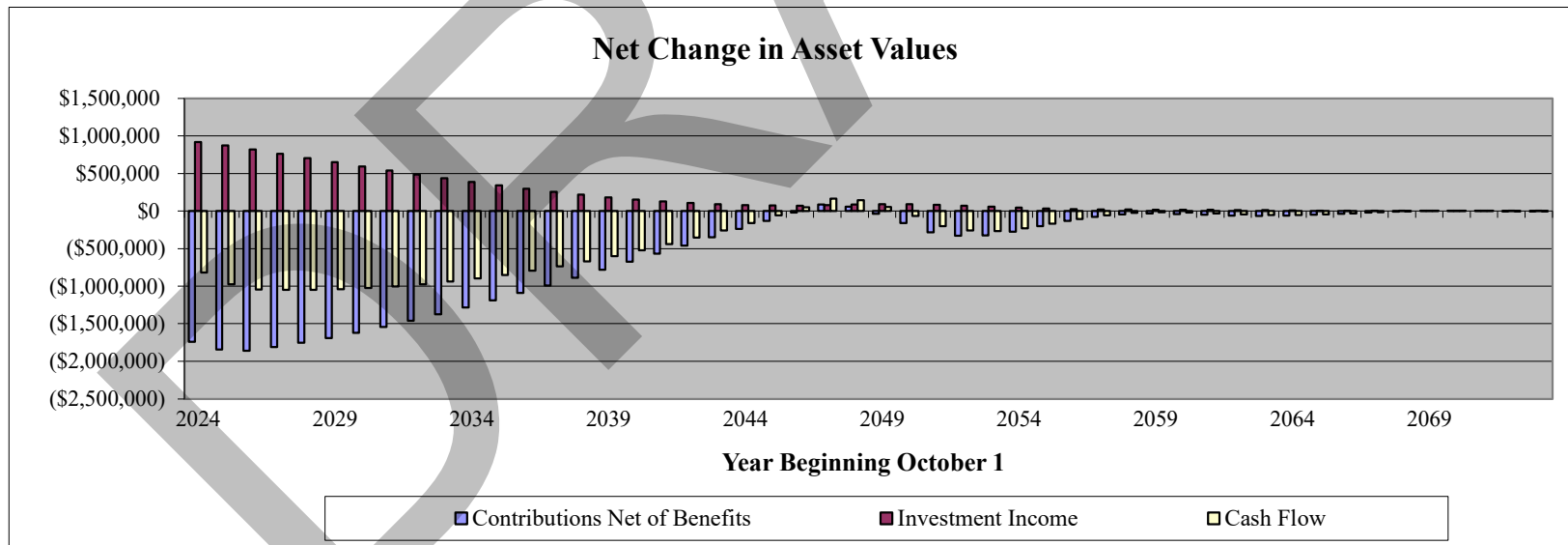
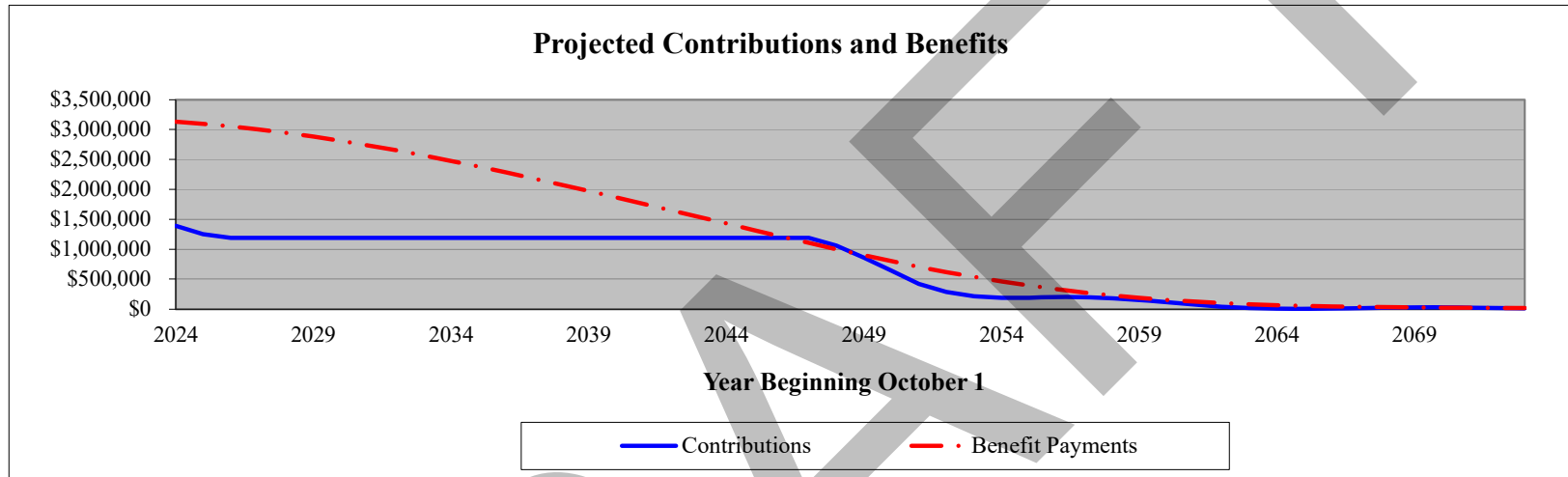
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$543,307,810	\$17,591,558	0.00219	\$1,391,304	\$3,131,940	\$920,309	(\$820,327)	\$16,771,231	2025
2025	543,307,810	16,771,231	0.00219	1,249,608	3,095,667	872,331	(973,728)	15,797,503	2026
2026	543,307,810	15,797,503	0.00219	1,189,844	3,052,337	818,330	(1,044,163)	14,753,341	2027
2027	543,307,810	14,753,341	0.00219	1,189,844	3,001,714	762,274	(1,049,596)	13,703,745	2028
2028	543,307,810	13,703,745	0.00219	1,189,844	2,943,970	706,113	(1,048,013)	12,655,732	2029
2029	543,307,810	12,655,732	0.00219	1,189,844	2,880,098	650,205	(1,040,049)	11,615,683	2030
2030	543,307,810	11,615,683	0.00219	1,189,844	2,810,166	594,900	(1,025,422)	10,590,262	2031
2031	543,307,810	10,590,262	0.00219	1,189,844	2,733,995	540,569	(1,003,582)	9,586,679	2032
2032	543,307,810	9,586,679	0.00219	1,189,844	2,652,625	487,579	(975,202)	8,611,477	2033
2033	543,307,810	8,611,477	0.00219	1,189,844	2,566,332	436,284	(940,204)	7,671,274	2034
2038	543,307,810	4,390,192	0.00219	1,189,844	2,078,266	217,356	(671,066)	3,719,126	2039
2043	543,307,810	1,801,444	0.00219	1,189,844	1,539,443	89,594	(260,005)	1,541,440	2044
2048	543,307,810	1,536,346	0.00184	1,058,485	999,326	86,104	145,263	1,681,609	2049
2053	543,307,810	1,209,521	0.00099	212,069	535,771	57,741	(265,961)	943,561	2054
2058	543,307,810	381,060	0.00042	182,798	227,872	19,735	(25,339)	355,721	2059
2063	543,307,810	237,093	0.00015	15,659	80,839	11,272	(53,908)	183,184	2064
2068	543,307,810	34,841	0.00006	23,617	30,879	1,719	(5,543)	29,298	2069
2073	543,307,810	41,152	0.00003	10,988	16,874	2,104	(3,782)	37,370	2074



Mississippi Municipal Retirement Systems City of Hattiesburg

50 Year Cash Flow Projection Based on Valuation Assumptions



**Mississippi Municipal Retirement Systems
City of Jackson**



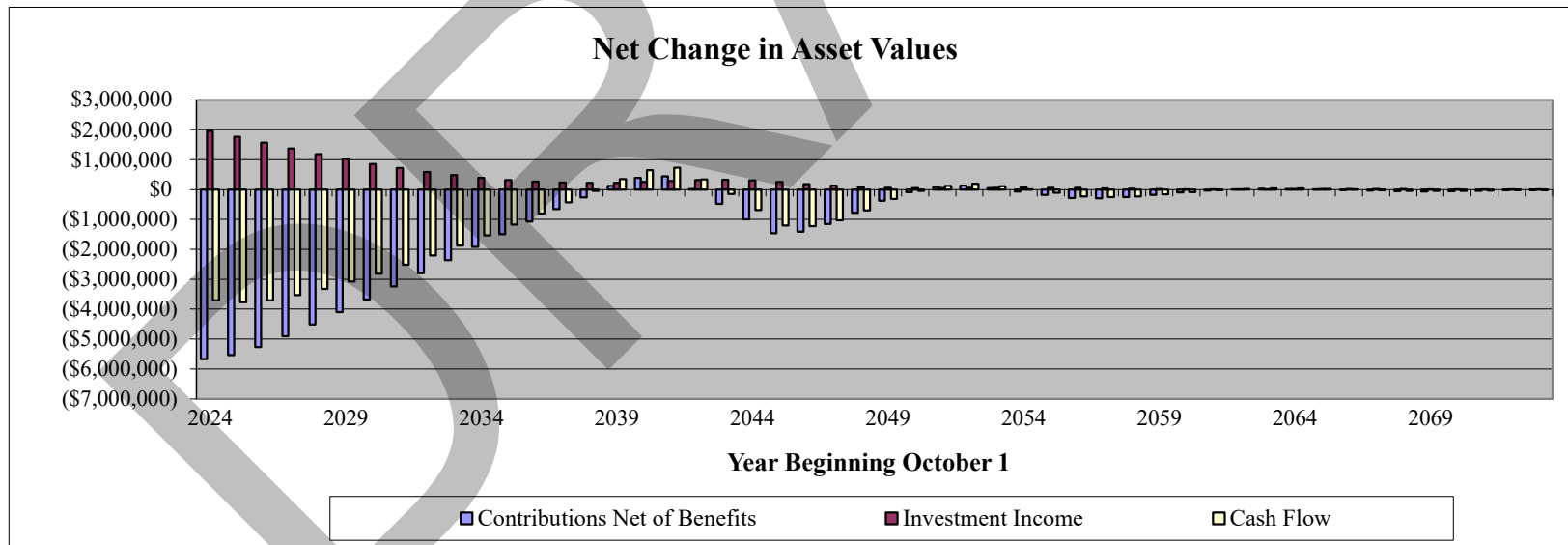
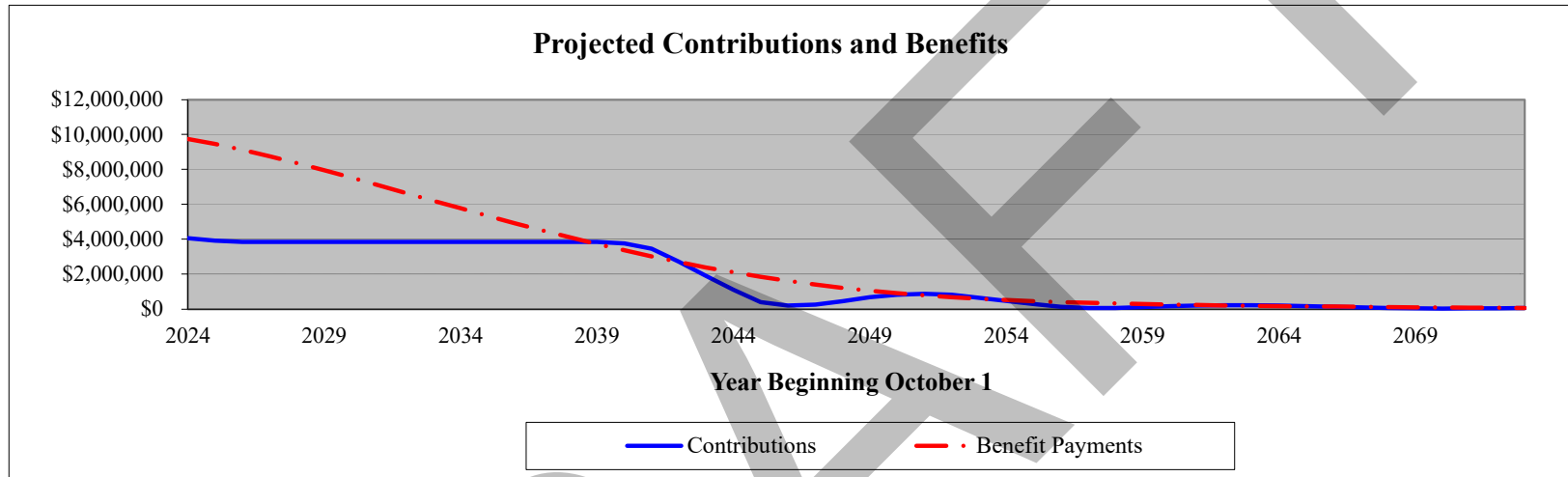
**Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments**

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$1,253,350,551	\$38,573,004	0.00307	\$4,069,525	\$9,741,349	\$1,967,628	(\$3,704,196)	\$34,868,809	2025
2025	1,253,350,551	34,868,809	0.00307	3,916,720	9,450,056	1,767,654	(3,765,682)	31,103,126	2026
2026	1,253,350,551	31,103,126	0.00307	3,847,786	9,117,125	1,567,705	(3,701,634)	27,401,492	2027
2027	1,253,350,551	27,401,492	0.00307	3,847,786	8,751,265	1,374,041	(3,529,438)	23,872,053	2028
2028	1,253,350,551	23,872,053	0.00307	3,847,786	8,359,231	1,190,559	(3,320,886)	20,551,168	2029
2029	1,253,350,551	20,551,168	0.00307	3,847,786	7,947,217	1,019,089	(3,080,342)	17,470,826	2030
2030	1,253,350,551	17,470,826	0.00307	3,847,786	7,520,952	861,235	(2,811,931)	14,658,894	2031
2031	1,253,350,551	14,658,894	0.00307	3,847,786	7,085,640	718,390	(2,519,464)	12,139,431	2032
2032	1,253,350,551	12,139,431	0.00307	3,847,786	6,645,919	591,750	(2,206,383)	9,933,048	2033
2033	1,253,350,551	9,933,048	0.00307	3,847,786	6,205,875	482,338	(1,875,751)	8,057,297	2034
2038	1,253,350,551	4,126,560	0.00307	3,847,786	4,108,375	219,891	(40,698)	4,085,862	2039
2043	1,253,350,551	6,157,569	0.00190	1,907,249	2,383,852	325,735	(150,868)	6,006,700	2044
2048	1,253,350,551	1,867,333	0.00097	439,265	1,215,505	81,642	(694,598)	1,172,734	2049
2053	1,253,350,551	1,131,387	0.00047	641,056	593,032	63,529	111,553	1,242,940	2054
2058	1,253,350,551	662,142	0.00025	62,333	316,868	29,512	(225,023)	437,119	2059
2063	1,253,350,551	191,287	0.00015	213,065	187,389	11,217	36,893	228,180	2064
2068	1,253,350,551	268,331	0.00009	53,266	109,806	13,224	(43,316)	225,015	2069
2073	1,253,350,551	79,155	0.00005	50,837	57,944	4,161	(2,946)	76,209	2074



Mississippi Municipal Retirement Systems City of Jackson

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Laurel

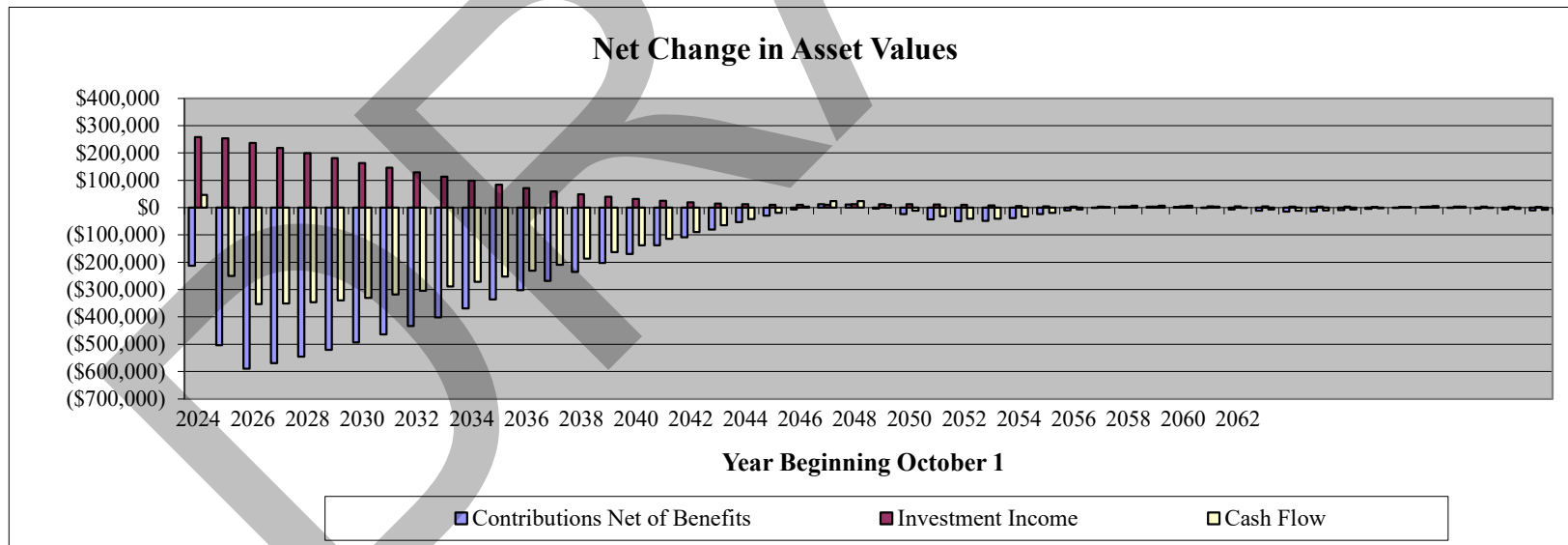
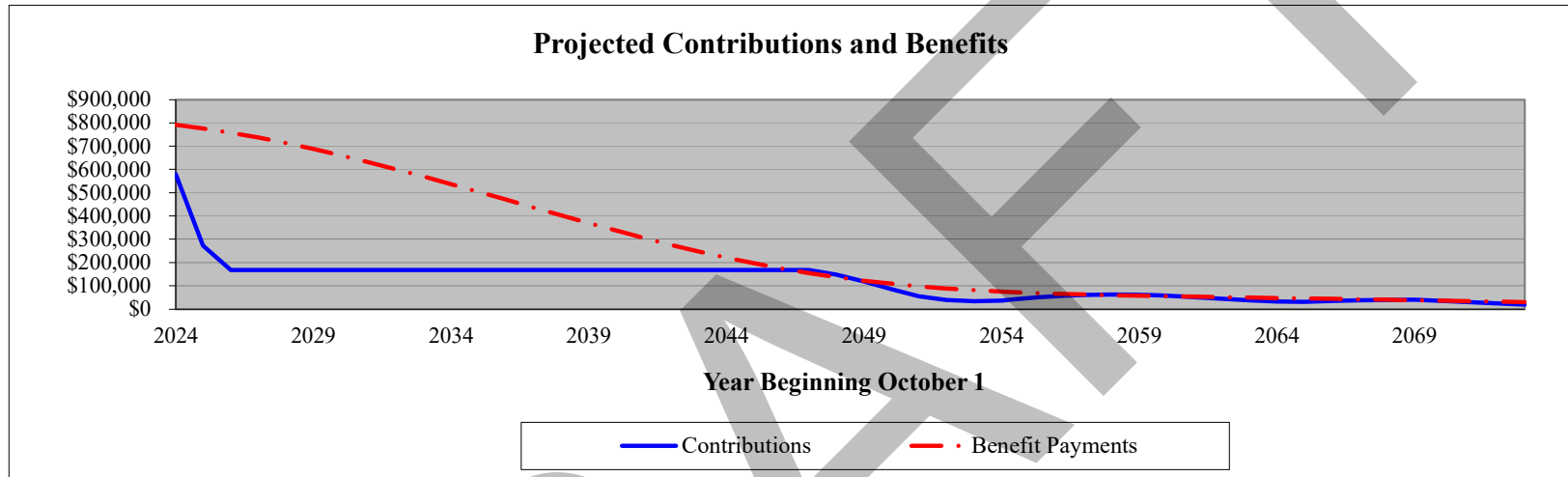
Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

Year Beginning July 1	Value of Assessed Property	MVA Balance July 1	Millage Rate	Contributions	Benefit Payments	Investment Income	Cash Flow	MVA Balance June 30	Year Ending June 30
2024	\$226,039,433	\$4,804,059	0.00074	\$579,673	\$792,034	\$258,462	\$46,101	\$4,850,161	2025
2025	226,039,433	4,850,161	0.00074	272,378	776,056	253,093	(250,585)	4,599,576	2026
2026	226,039,433	4,599,576	0.00074	167,269	757,591	236,960	(353,362)	4,246,214	2027
2027	226,039,433	4,246,214	0.00074	167,269	736,679	218,093	(351,317)	3,894,897	2028
2028	226,039,433	3,894,897	0.00074	167,269	713,427	199,401	(346,757)	3,548,141	2029
2029	226,039,433	3,548,141	0.00074	167,269	688,003	181,019	(339,715)	3,208,426	2030
2030	226,039,433	3,208,426	0.00074	167,269	660,629	163,078	(330,282)	2,878,144	2031
2031	226,039,433	2,878,144	0.00074	167,269	631,557	145,701	(318,587)	2,559,557	2032
2032	226,039,433	2,559,557	0.00074	167,269	601,051	129,006	(304,776)	2,254,781	2033
2033	226,039,433	2,254,781	0.00074	167,269	569,373	113,103	(289,001)	1,965,780	2034
2038	226,039,433	1,001,170	0.00074	167,269	402,503	48,682	(186,552)	814,618	2039
2043	226,039,433	310,359	0.00074	167,269	247,237	14,900	(65,068)	245,291	2044
2048	226,039,433	211,600	0.00061	148,340	136,994	11,946	23,292	234,892	2049
2053	226,039,433	161,333	0.00036	32,893	80,990	7,568	(40,529)	120,804	2054
2058	226,039,433	63,602	0.00026	63,061	59,379	3,598	7,280	70,882	2059
2063	226,039,433	86,577	0.00022	38,063	49,148	4,461	(6,624)	79,953	2064
2068	226,039,433	49,874	0.00018	39,262	39,722	2,731	2,271	52,145	2069
2073	226,039,433	56,246	0.00013	19,041	29,513	2,809	(7,663)	48,583	2074



Mississippi Municipal Retirement Systems City of Laurel

50 Year Cash Flow Projection Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems
City of McComb**

Cash Flow Projection

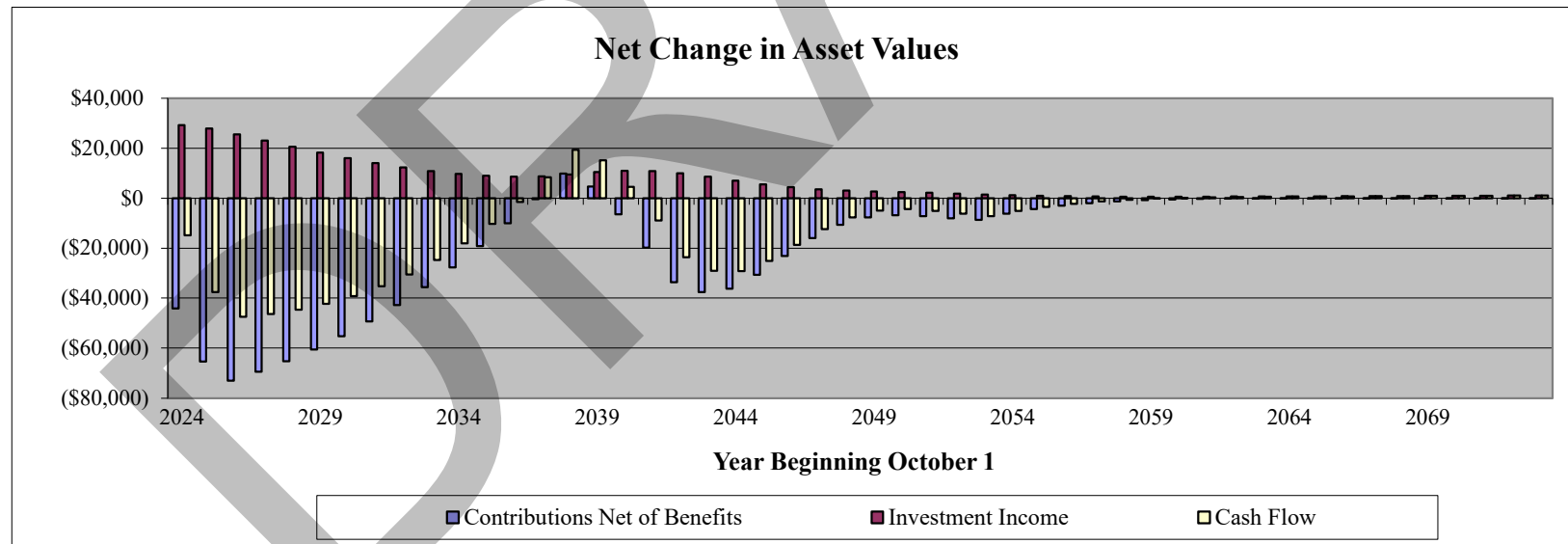
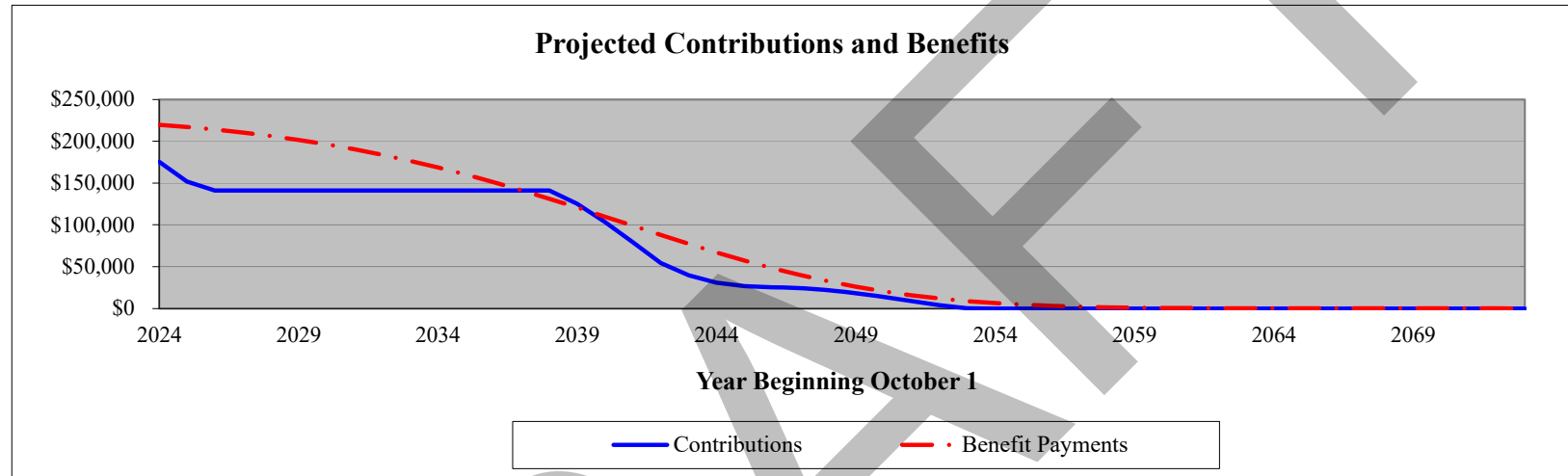
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$110,059,087	\$552,638	0.00128	\$175,508	\$219,639	\$29,198	(\$14,933)	\$537,706	2025
2025	110,059,087	537,706	0.00128	151,606	216,983	27,800	(37,577)	500,129	2026
2026	110,059,087	500,129	0.00128	140,876	213,877	25,526	(47,475)	452,654	2027
2027	110,059,087	452,654	0.00128	140,876	210,276	23,013	(46,387)	406,266	2028
2028	110,059,087	406,266	0.00128	140,876	206,141	20,574	(44,691)	361,576	2029
2029	110,059,087	361,576	0.00128	140,876	201,440	18,243	(42,321)	319,255	2030
2030	110,059,087	319,255	0.00128	140,876	196,147	16,059	(39,212)	280,043	2031
2031	110,059,087	280,043	0.00128	140,876	190,238	14,063	(35,299)	244,744	2032
2032	110,059,087	244,744	0.00128	140,876	183,687	12,299	(30,512)	214,232	2033
2033	110,059,087	214,232	0.00128	140,876	176,479	10,817	(24,786)	189,447	2034
2038	110,059,087	168,000	0.00119	140,876	131,061	9,506	19,321	187,321	2039
2043	110,059,087	174,264	0.00070	39,634	77,229	8,564	(29,031)	145,233	2044
2048	110,059,087	59,680	0.00030	21,830	32,472	2,994	(7,648)	52,032	2049
2053	110,059,087	31,238	0.00008	32	8,680	1,483	(7,165)	24,073	2054
2058	110,059,087	12,002	0.00001	0	1,294	625	(669)	11,333	2059
2063	110,059,087	11,980	0.00000	0	97	656	559	12,539	2064
2068	110,059,087	15,415	0.00000	0	3	848	845	16,259	2069
2073	110,059,087	20,138	0.00000	0	0	1,108	1,108	21,246	2074



Mississippi Municipal Retirement Systems City of McComb

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Meridian

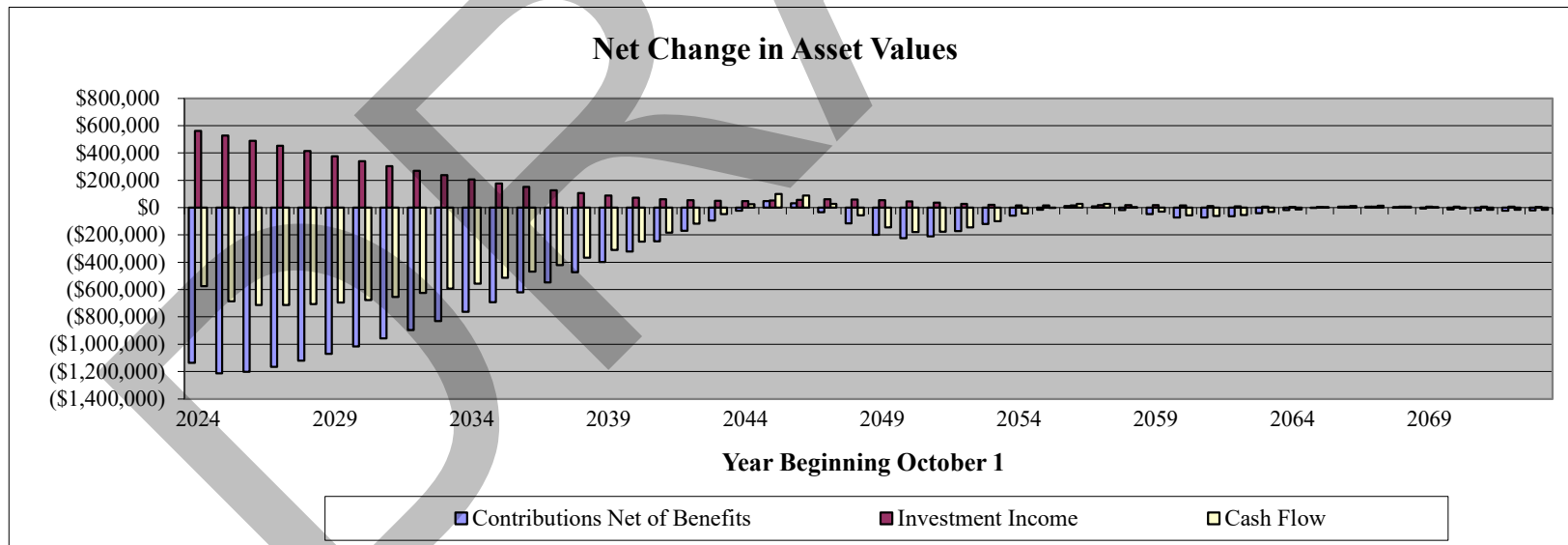
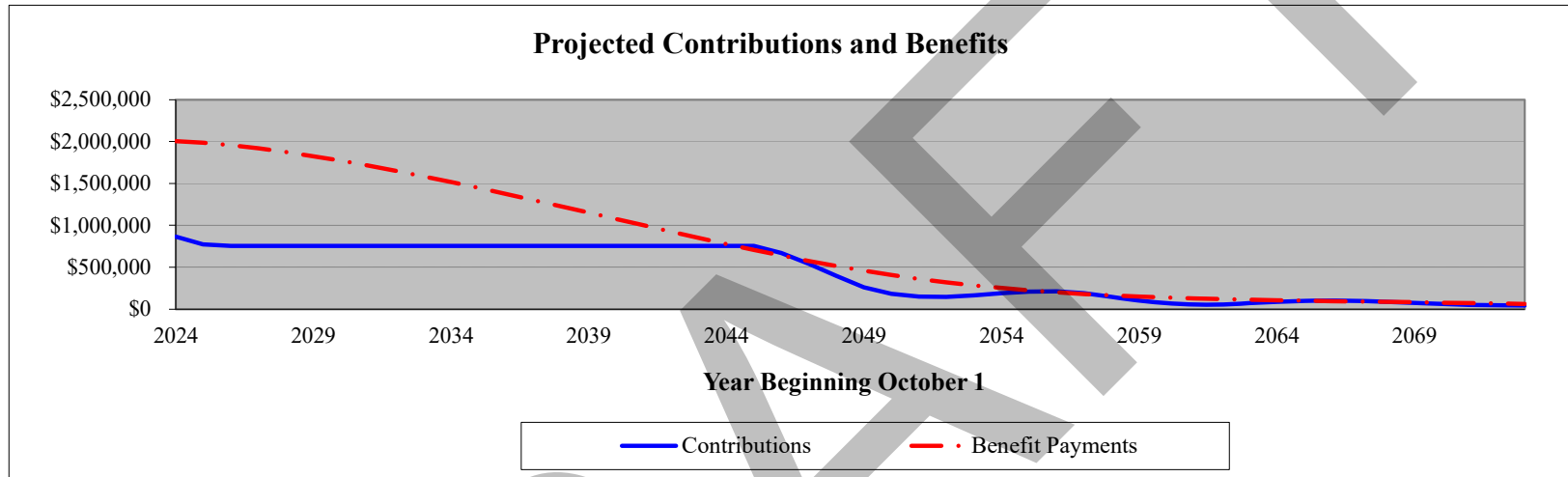
Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

Year Beginning July 1	Value of Assessed Property	MVA Balance July 1	Millage Rate	Contributions	Benefit Payments	Investment Income	Cash Flow	MVA Balance June 30	Year Ending June 30
2024	\$374,469,534	\$10,768,447	0.00201	\$866,389	\$2,003,804	\$561,404	(\$576,011)	\$10,192,436	2025
2025	374,469,534	10,192,436	0.00201	770,471	1,984,083	527,656	(685,956)	9,506,480	2026
2026	374,469,534	9,506,480	0.00201	752,684	1,955,124	490,232	(712,208)	8,794,272	2027
2027	374,469,534	8,794,272	0.00201	752,684	1,918,097	452,065	(713,348)	8,080,924	2028
2028	374,469,534	8,080,924	0.00201	752,684	1,874,143	414,023	(707,436)	7,373,488	2029
2029	374,469,534	7,373,488	0.00201	752,684	1,824,329	376,466	(695,179)	6,678,309	2030
2030	374,469,534	6,678,309	0.00201	752,684	1,769,592	339,716	(677,192)	6,001,117	2031
2031	374,469,534	6,001,117	0.00201	752,684	1,710,723	304,068	(653,971)	5,347,146	2032
2032	374,469,534	5,347,146	0.00201	752,684	1,648,387	269,791	(625,912)	4,721,233	2033
2033	374,469,534	4,721,233	0.00201	752,684	1,583,117	237,137	(593,296)	4,127,937	2034
2038	374,469,534	2,166,989	0.00201	752,684	1,225,646	106,352	(366,610)	1,800,379	2039
2043	374,469,534	941,607	0.00201	752,684	848,617	49,186	(46,747)	894,860	2044
2048	374,469,534	1,135,096	0.00137	396,734	512,990	59,276	(56,980)	1,078,116	2049
2053	374,469,534	433,616	0.00075	162,500	282,331	20,598	(99,233)	334,383	2054
2058	374,469,534	344,815	0.00044	144,487	162,936	18,464	15	344,829	2059
2063	374,469,534	145,343	0.00030	72,456	112,031	6,920	(32,655)	112,688	2064
2068	374,469,534	127,969	0.00023	85,785	85,130	7,056	7,711	135,680	2069
2073	374,469,534	98,608	0.00016	41,948	61,675	4,888	(14,839)	83,770	2074



Mississippi Municipal Retirement Systems City of Meridian

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Natchez

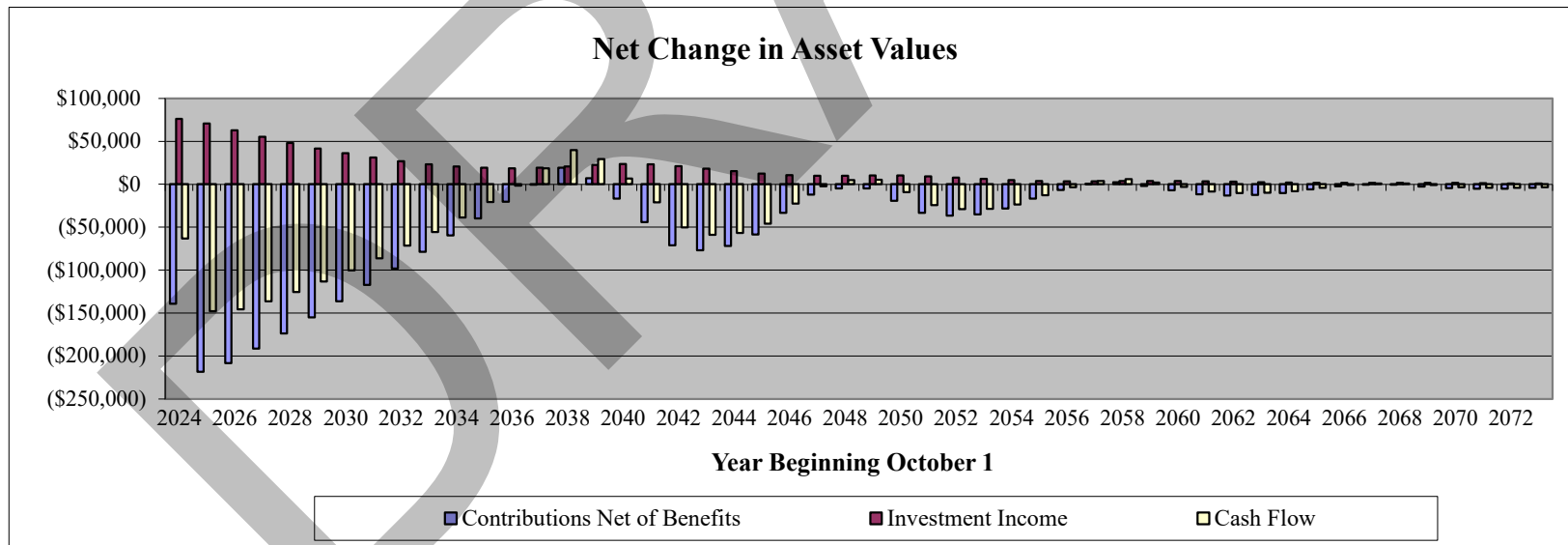
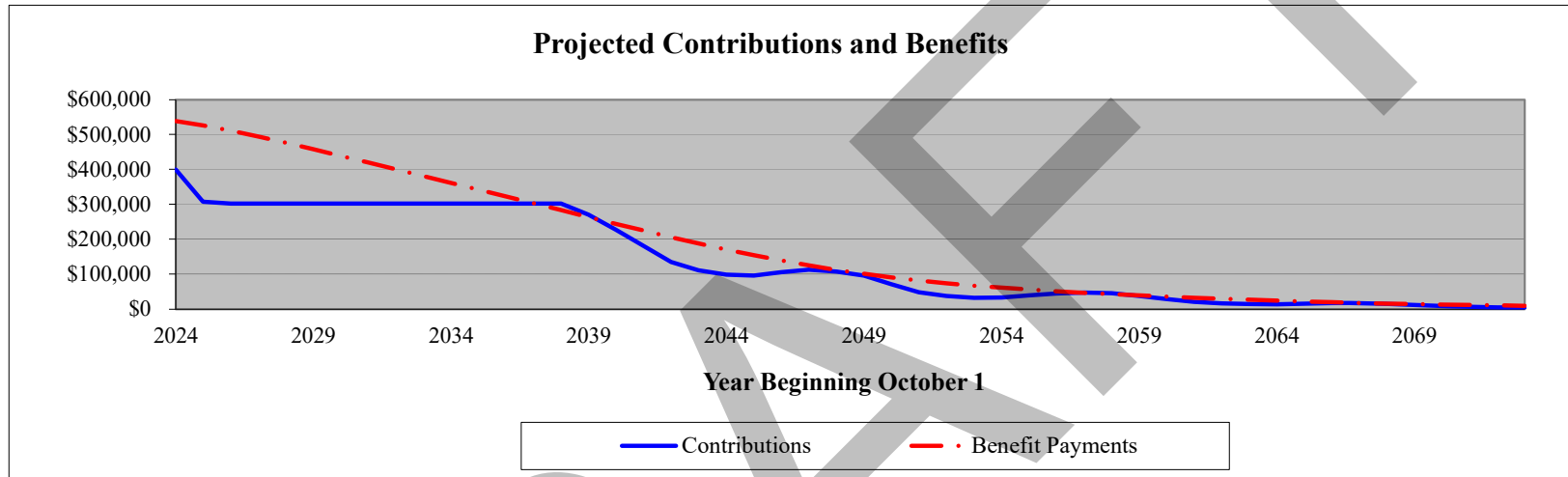
Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

Year Beginning July 1	Value of Assessed Property	MVA Balance July 1	Millage Rate	Contributions	Benefit Payments	Investment Income	Cash Flow	MVA Balance June 30	Year Ending June 30
2024	\$258,346,030	\$1,453,936	0.00117	\$399,467	\$538,927	\$76,183	(\$63,277)	\$1,390,659	2025
2025	258,346,030	1,390,659	0.00117	307,432	525,904	70,559	(147,913)	1,242,745	2026
2026	258,346,030	1,242,745	0.00117	302,265	510,641	62,697	(145,679)	1,097,066	2027
2027	258,346,030	1,097,066	0.00117	302,265	493,822	55,141	(136,416)	960,650	2028
2028	258,346,030	960,650	0.00117	302,265	475,980	48,123	(125,592)	835,058	2029
2029	258,346,030	835,058	0.00117	302,265	457,513	41,716	(113,532)	721,527	2030
2030	258,346,030	721,527	0.00117	302,265	438,686	35,983	(100,438)	621,089	2031
2031	258,346,030	621,089	0.00117	302,265	419,654	30,975	(86,414)	534,675	2032
2032	258,346,030	534,675	0.00117	302,265	400,492	26,742	(71,485)	463,190	2033
2033	258,346,030	463,190	0.00117	302,265	381,199	23,334	(55,600)	407,590	2034
2038	258,346,030	364,763	0.00110	302,265	283,159	20,580	39,686	404,449	2039
2043	258,346,030	368,885	0.00073	110,578	187,699	18,196	(58,925)	309,959	2044
2048	258,346,030	182,103	0.00043	107,207	112,156	9,881	4,932	187,034	2049
2053	258,346,030	129,804	0.00026	31,959	66,998	6,189	(28,850)	100,954	2054
2058	258,346,030	64,863	0.00017	44,990	42,744	3,628	5,874	70,738	2059
2063	258,346,030	50,665	0.00010	13,977	26,547	2,446	(10,124)	40,541	2064
2068	258,346,030	27,742	0.00006	15,040	15,541	1,512	1,011	28,752	2069
2073	258,346,030	15,904	0.00004	5,278	9,592	758	(3,556)	12,349	2074



Mississippi Municipal Retirement Systems City of Natchez

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Pascagoula

Cash Flow Projection

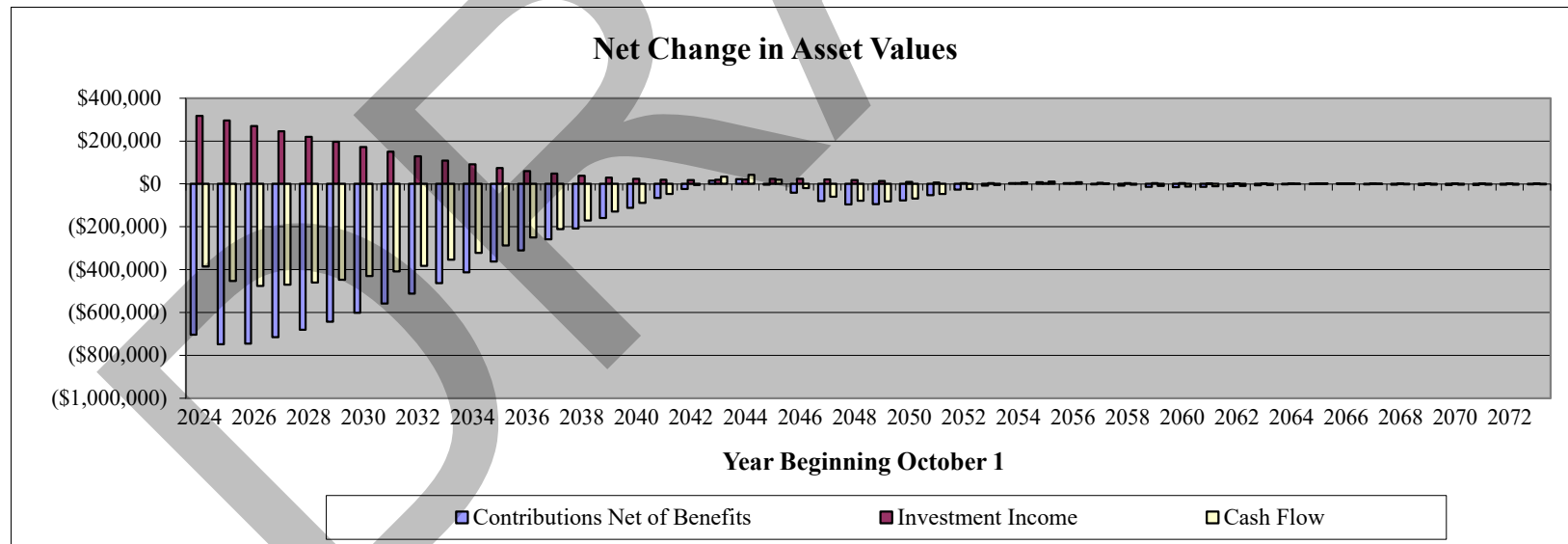
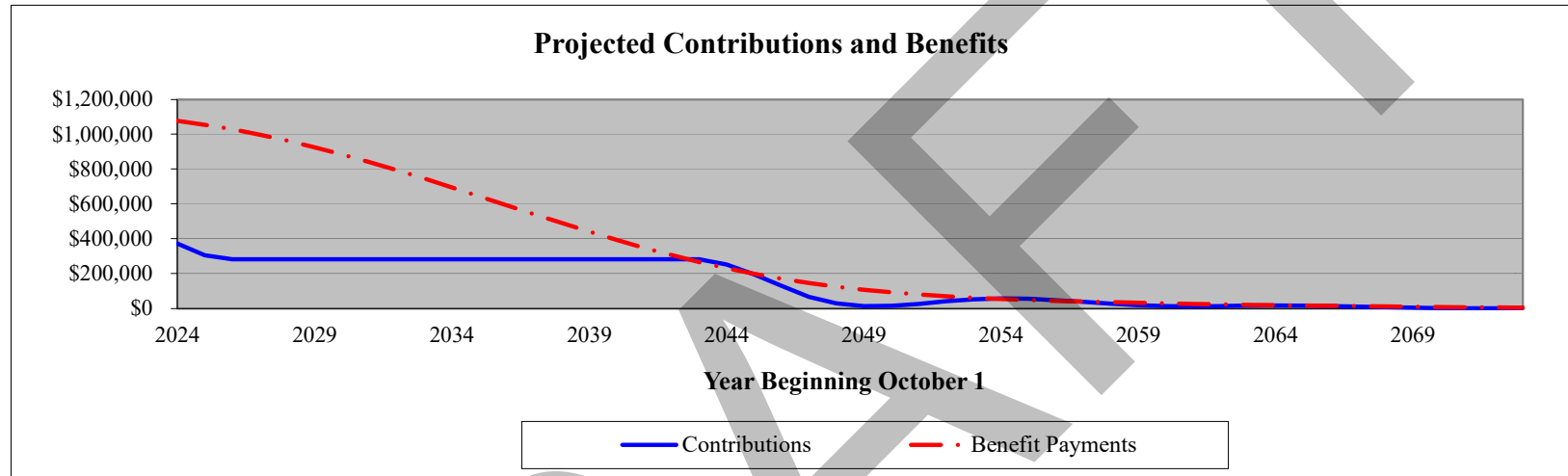
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$309,592,933	\$6,125,538	0.00091	\$372,450	\$1,076,661	\$317,798	(\$386,413)	\$5,739,125	2025
2025	309,592,933	5,739,125	0.00091	305,723	1,054,564	295,334	(453,507)	5,285,617	2026
2026	309,592,933	5,285,617	0.00091	281,730	1,028,106	270,458	(475,918)	4,809,700	2027
2027	309,592,933	4,809,700	0.00091	281,730	997,546	245,112	(470,704)	4,338,996	2028
2028	309,592,933	4,338,996	0.00091	281,730	963,156	220,156	(461,270)	3,877,725	2029
2029	309,592,933	3,877,725	0.00091	281,730	925,220	195,816	(447,674)	3,430,051	2030
2030	309,592,933	3,430,051	0.00091	281,730	884,055	172,311	(430,014)	3,000,037	2031
2031	309,592,933	3,000,037	0.00091	281,730	840,018	149,855	(408,433)	2,591,604	2032
2032	309,592,933	2,591,604	0.00091	281,730	793,508	128,653	(383,125)	2,208,479	2033
2033	309,592,933	2,208,479	0.00091	281,730	744,967	108,898	(354,339)	1,854,140	2034
2038	309,592,933	781,870	0.00091	281,730	490,291	37,344	(171,217)	610,652	2039
2043	309,592,933	340,181	0.00086	281,730	266,670	19,119	34,179	374,360	2044
2048	309,592,933	356,838	0.00040	29,091	124,856	17,028	(78,737)	278,101	2049
2053	309,592,933	56,443	0.00020	52,508	60,712	2,882	(5,322)	51,121	2054
2058	309,592,933	76,760	0.00011	27,274	35,245	4,006	(3,965)	72,795	2059
2063	309,592,933	29,998	0.00007	14,453	20,624	1,482	(4,689)	25,309	2064
2068	309,592,933	26,574	0.00003	6,116	10,332	1,347	(2,869)	23,705	2069
2073	309,592,933	7,495	0.00001	1,350	3,947	342	(2,255)	5,240	2074



Mississippi Municipal Retirement Systems City of Pascagoula

50 Year Cash Flow Projection Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems
City of Tupelo**

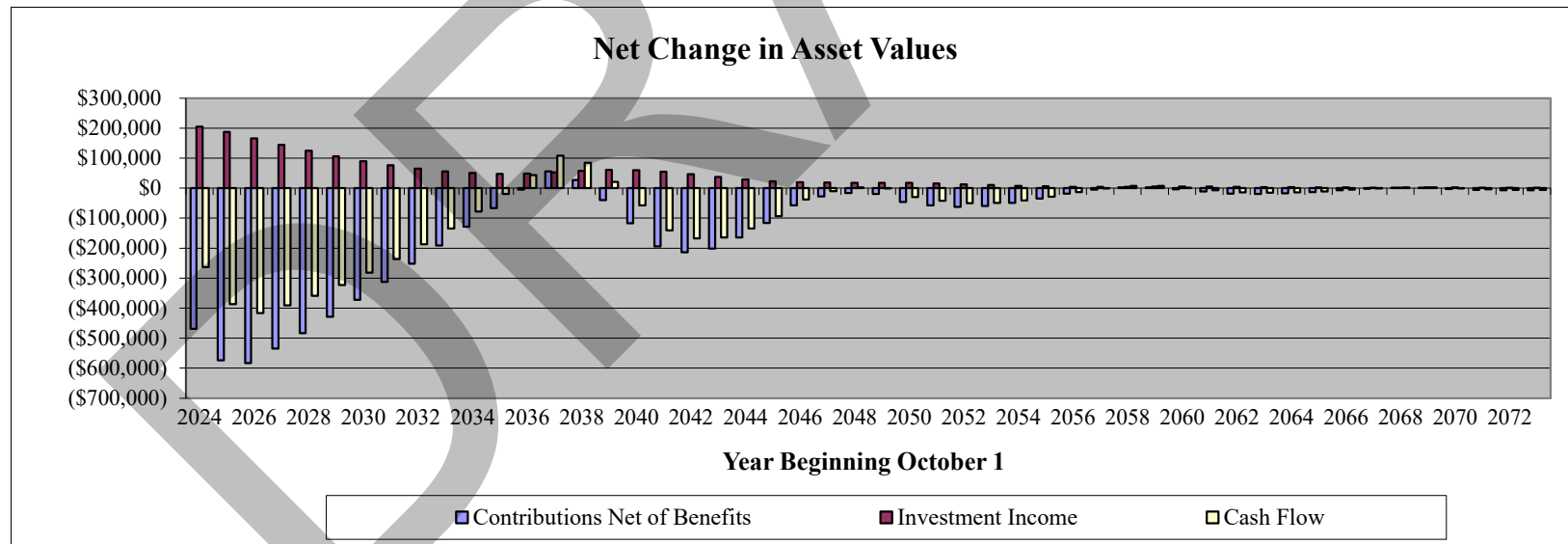
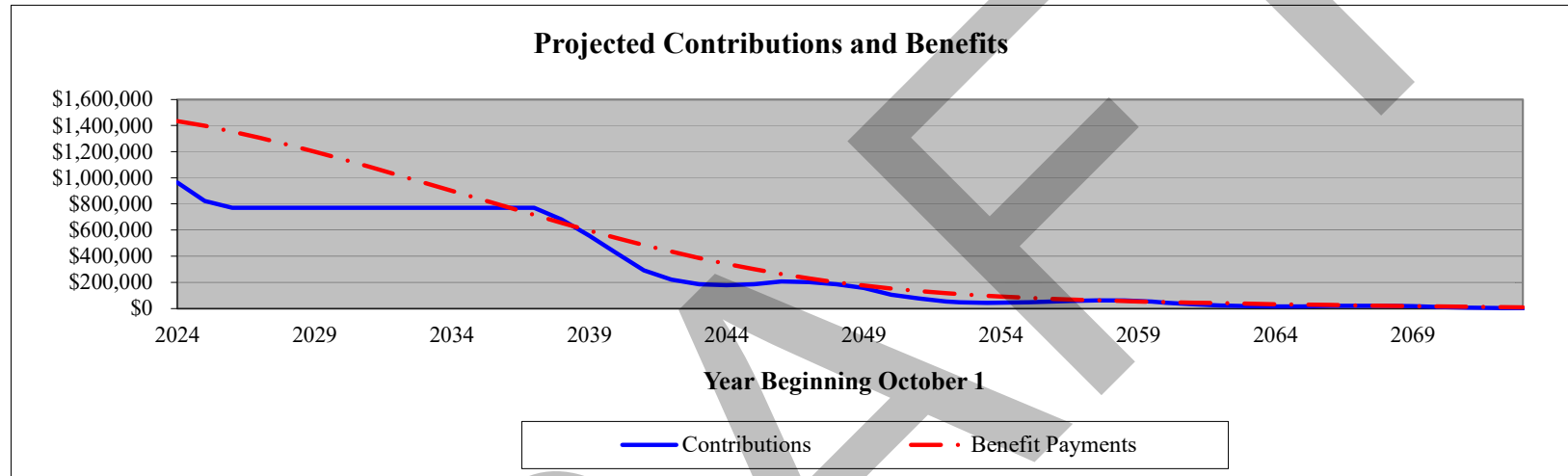
**Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments**

Year Beginning July 1	Value of Assessed Property	MVA Balance July 1	Millage Rate	Contributions	Benefit Payments	Investment Income	Cash Flow	MVA Balance June 30	Year Ending June 30
2024	\$607,092,925	\$3,961,444	0.00127	\$965,374	\$1,434,062	\$205,163	(\$263,525)	\$3,697,919	2025
2025	607,092,925	3,697,919	0.00127	822,611	1,396,800	187,807	(386,382)	3,311,538	2026
2026	607,092,925	3,311,538	0.00127	771,008	1,353,975	166,318	(416,649)	2,894,889	2027
2027	607,092,925	2,894,889	0.00127	771,008	1,306,419	144,692	(390,719)	2,504,170	2028
2028	607,092,925	2,504,170	0.00127	771,008	1,254,939	124,599	(359,332)	2,144,838	2029
2029	607,092,925	2,144,838	0.00127	771,008	1,200,269	106,319	(322,942)	1,821,896	2030
2030	607,092,925	1,821,896	0.00127	771,008	1,143,071	90,109	(281,954)	1,539,942	2031
2031	607,092,925	1,539,942	0.00127	771,008	1,083,937	76,206	(236,723)	1,303,218	2032
2032	607,092,925	1,303,218	0.00127	771,008	1,023,393	64,829	(187,556)	1,115,662	2033
2033	607,092,925	1,115,662	0.00127	771,008	961,907	56,182	(134,717)	980,946	2034
2038	607,092,925	1,035,711	0.00108	681,259	654,765	57,683	84,177	1,119,888	2039
2043	607,092,925	775,238	0.00064	184,372	385,559	37,180	(164,007)	611,232	2044
2048	607,092,925	336,021	0.00033	184,063	199,962	18,050	2,151	338,172	2049
2053	607,092,925	215,421	0.00017	42,723	102,589	10,224	(49,642)	165,779	2054
2058	607,092,925	81,803	0.00010	61,374	58,747	4,570	7,197	89,000	2059
2063	607,092,925	77,152	0.00006	16,502	35,967	3,715	(15,750)	61,402	2064
2068	607,092,925	30,849	0.00003	19,475	19,348	1,700	1,827	32,676	2069
2073	607,092,925	23,955	0.00001	0	7,312	1,119	(6,193)	17,761	2074



Mississippi Municipal Retirement Systems City of Tupelo

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Vicksburg

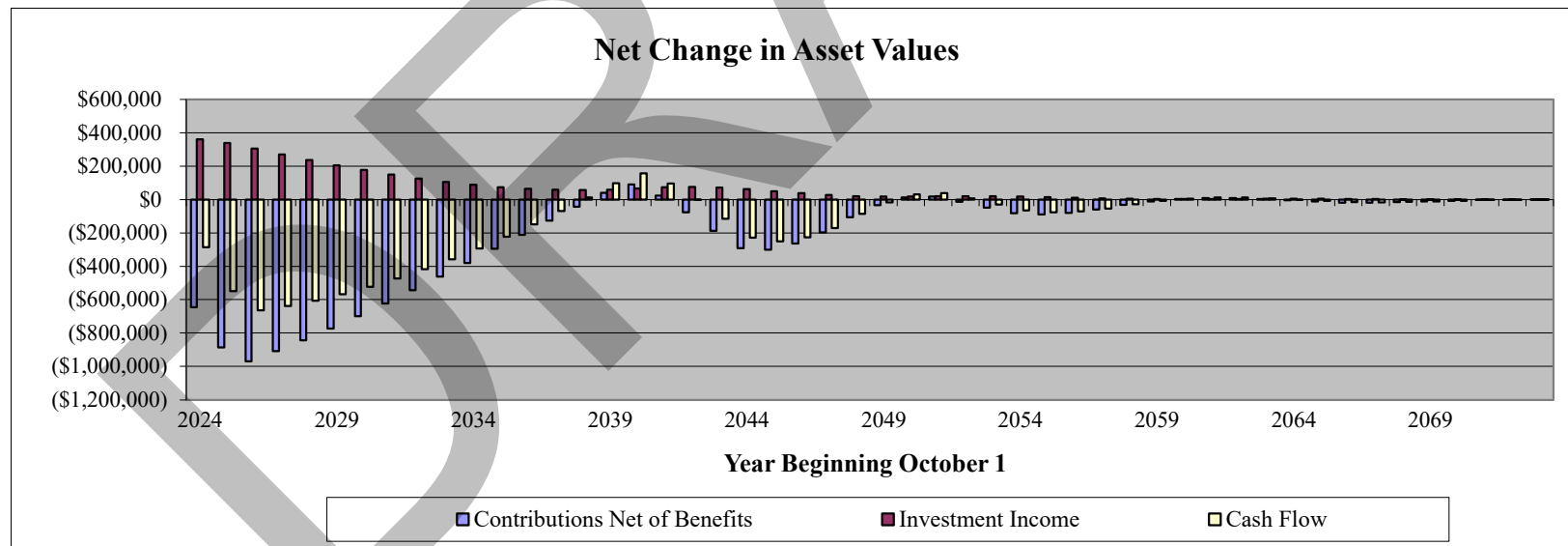
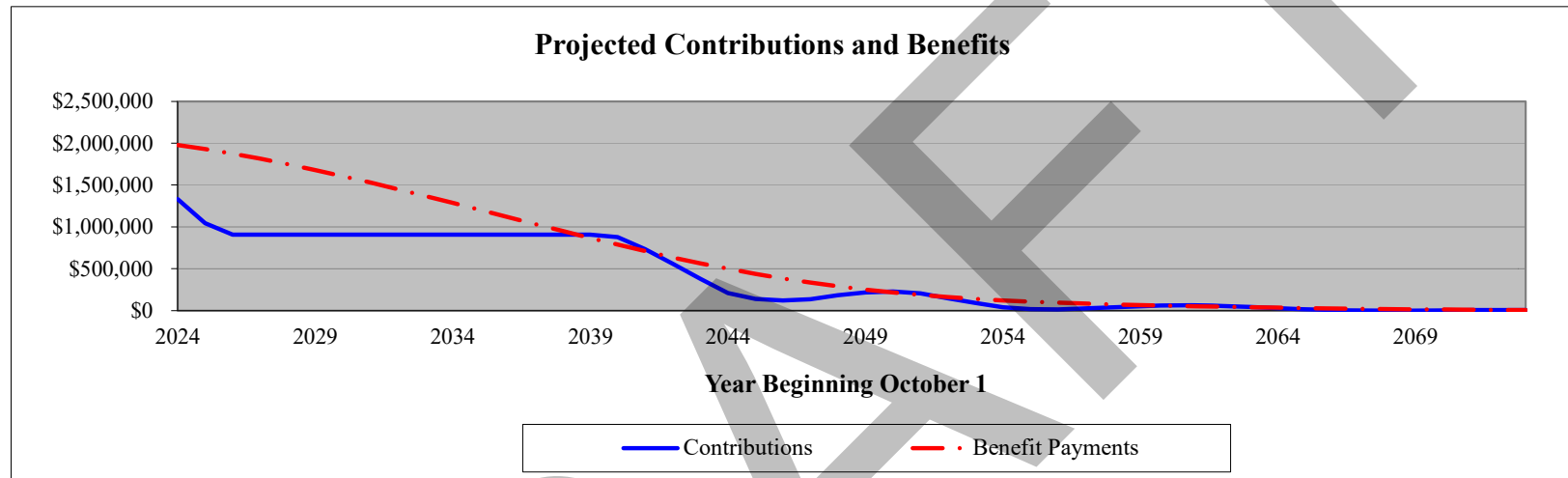
Cash Flow Projection
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$533,298,230	\$6,862,070	0.00170	\$1,333,645	\$1,980,006	\$359,877	(\$286,484)	\$6,575,586	2025
2025	533,298,230	6,575,586	0.00170	1,043,931	1,931,057	337,588	(549,538)	6,026,048	2026
2026	533,298,230	6,026,048	0.00170	906,607	1,875,918	305,133	(664,178)	5,361,869	2027
2027	533,298,230	5,361,869	0.00170	906,607	1,815,237	270,250	(638,380)	4,723,489	2028
2028	533,298,230	4,723,489	0.00170	906,607	1,749,684	236,918	(606,159)	4,117,330	2029
2029	533,298,230	4,117,330	0.00170	906,607	1,679,893	205,472	(567,814)	3,549,516	2030
2030	533,298,230	3,549,516	0.00170	906,607	1,606,440	176,236	(523,597)	3,025,919	2031
2031	533,298,230	3,025,919	0.00170	906,607	1,529,872	149,515	(473,750)	2,552,169	2032
2032	533,298,230	2,552,169	0.00170	906,607	1,450,725	125,606	(418,512)	2,133,657	2033
2033	533,298,230	2,133,657	0.00170	906,607	1,369,521	104,791	(358,123)	1,775,534	2034
2038	533,298,230	1,042,205	0.00170	906,607	950,028	56,143	12,722	1,054,928	2039
2043	533,298,230	1,402,651	0.00106	377,224	564,246	72,072	(114,950)	1,287,701	2044
2048	533,298,230	412,181	0.00054	182,068	287,573	19,807	(85,698)	326,483	2049
2053	533,298,230	383,116	0.00026	89,272	138,558	19,734	(29,552)	353,564	2054
2058	533,298,230	86,415	0.00013	38,907	71,799	3,860	(29,032)	57,383	2059
2063	533,298,230	76,574	0.00007	40,090	37,847	4,272	6,515	83,088	2064
2068	533,298,230	43,303	0.00003	0	15,853	1,952	(13,901)	29,401	2069
2073	533,298,230	7,501	0.00001	4,730	4,142	428	1,016	8,516	2074



Mississippi Municipal Retirement Systems City of Vicksburg

50 Year Cash Flow Projection Based on Valuation Assumptions





Mississippi Municipal Retirement Systems
City of Yazoo City

Cash Flow Projection

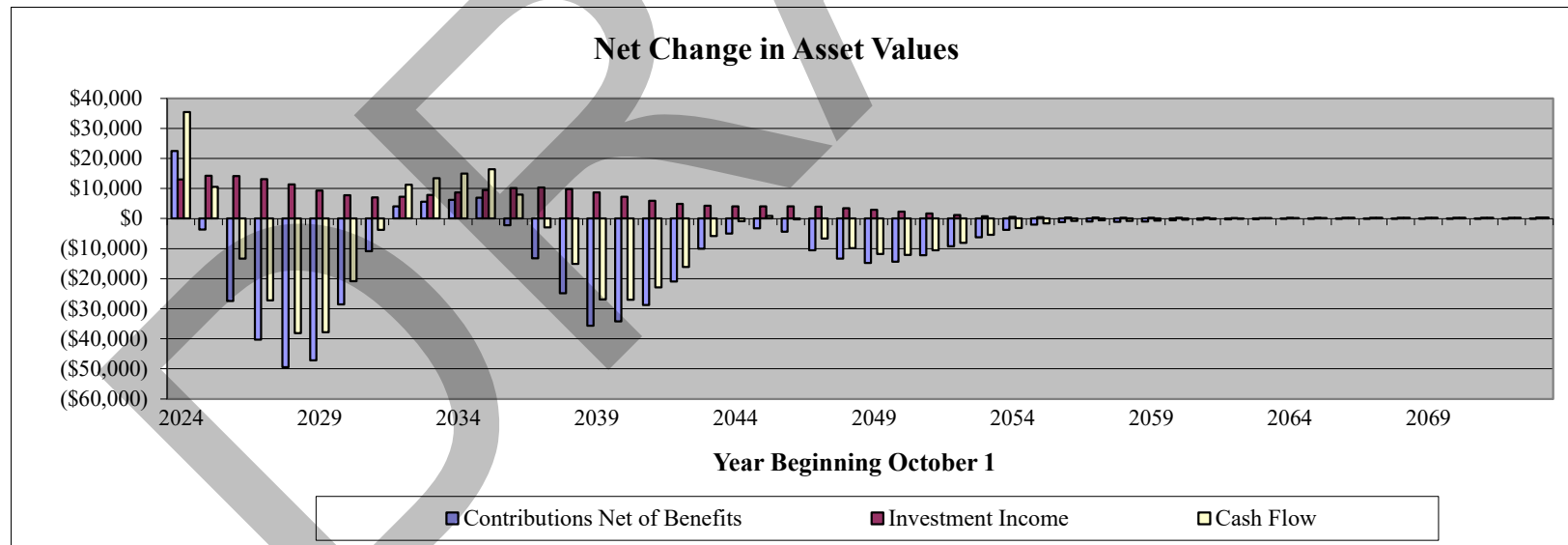
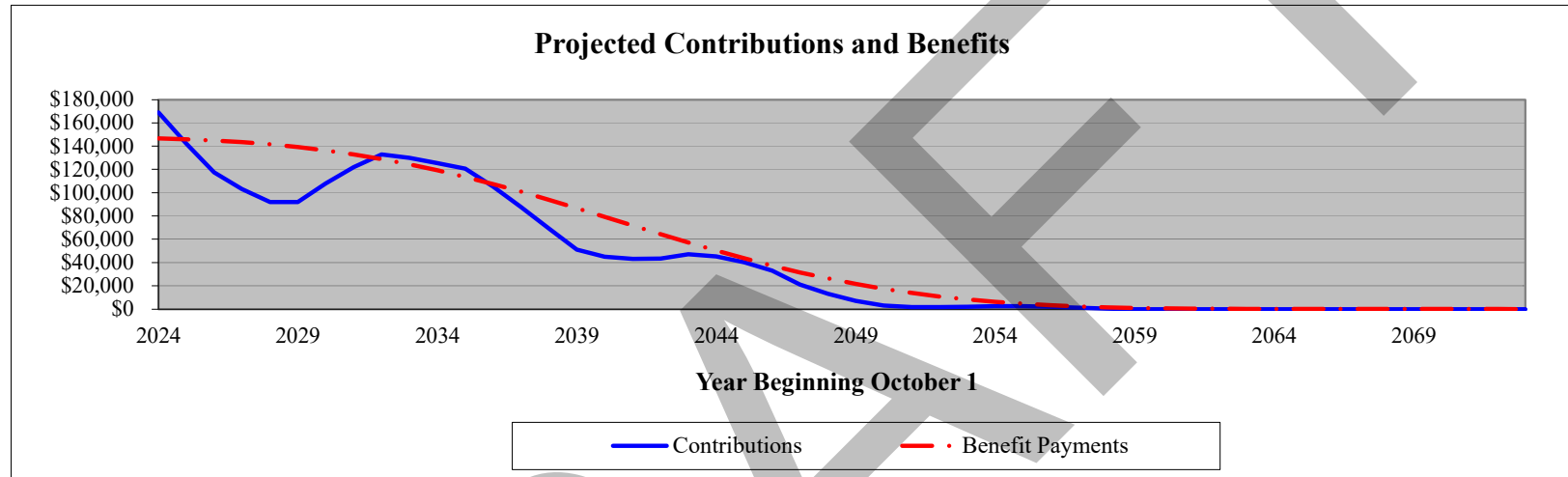
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 5.50% on Investments

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2024	\$55,937,302	\$224,916	0.00238	\$169,097	\$146,645	\$12,980	\$35,432	\$260,348	2025
2025	55,937,302	260,348	0.00238	142,221	145,927	14,219	10,513	270,860	2026
2026	55,937,302	270,860	0.00238	117,381	144,863	14,152	(13,330)	257,530	2027
2027	55,937,302	257,530	0.00238	103,116	143,411	13,071	(27,224)	230,307	2028
2028	55,937,302	230,307	0.00238	92,019	141,527	11,324	(38,184)	192,123	2029
2029	55,937,302	192,123	0.00238	92,019	139,171	9,287	(37,865)	154,258	2030
2030	55,937,302	154,258	0.00238	107,769	136,304	7,710	(20,825)	133,432	2031
2031	55,937,302	133,432	0.00238	122,034	132,891	7,044	(3,813)	129,620	2032
2032	55,937,302	129,620	0.00230	132,951	128,909	7,239	11,281	140,901	2033
2033	55,937,302	140,901	0.00222	129,904	124,352	7,900	13,452	154,352	2034
2038	55,937,302	190,659	0.00168	69,019	93,909	9,811	(15,079)	175,580	2039
2043	55,937,302	82,586	0.00102	47,096	57,161	4,269	(5,796)	76,790	2044
2048	55,937,302	69,702	0.00047	12,953	26,274	3,472	(9,849)	59,853	2049
2053	55,937,302	17,323	0.00015	1,981	8,219	784	(5,454)	11,870	2054
2058	55,937,302	5,663	0.00003	391	1,477	282	(804)	4,859	2059
2063	55,937,302	3,529	0.00000	0	127	191	64	3,593	2064
2068	55,937,302	4,294	0.00000	0	5	236	231	4,525	2069
2073	55,937,302	5,601	0.00000	0	0	308	308	5,909	2074



**Mississippi Municipal Retirement Systems
City of Yazoo City**

**50 Year Cash Flow Projection
Based on Valuation Assumptions**



Funding Policy for PERS

The purpose of this funding policy is to state the overall funding goals and objectives for the Public Employees' Retirement System of Mississippi (PERS) and to document both the metrics that will be used to measure progress toward achieving those goals and the methods and assumptions employed to develop those metrics.

The employer contribution rate recommended by the Board for PERS will be based on the actuarially determined contribution (ADC) as reflected by the annual valuation report using the assumptions and methods outlined in this policy.

I. Funding Goals and Objectives

The objective in requiring employer and member contributions to PERS is to accumulate sufficient assets during a member's employment to fully finance the benefits the member will receive in retirement. In meeting this objective, PERS will strive to meet the following goals:

- Preserve the defined benefit structure for providing lifetime benefits to the PERS membership and eligible beneficiaries;
- Develop a pattern of contribution rates expressed as a percentage of employer payroll and measured by valuations prepared in accordance with applicable state laws and the principles of practice prescribed by the Actuarial Standards Board;
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100 percent funded;
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a "Signal Light" approach to assist the Board in determining the status of the plan;
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, § 272A, of the Mississippi Constitution.

II. Metrics

To track progress in achieving the outlined funding goals and objectives, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. As part of the annual valuation and projection report, each metric will be calculated and assigned a “Signal Light” with the following definitions:

Status	Definition
Green	Plan passes metric and PERS’ funding goals and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric

Employer contribution rate increases recommended by the Board would be suggested to be effective for the July 1st which occurs 18 months following the completion of the projection report (e.g., if the projection report in 2024 deems an increase to be considered then it would be effective for July 1, 2026).

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio.

The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 80% in 2047
Yellow	Funded Ratio between 65% and 80% in 2047
Red	Funded Ratio below 65% in 2047

- **Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning-year market value of assets. This percentage will fluctuate from year to year, so the Signal Light testing of the net cash flow percentage will be tested over the entire

projection period.

The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative 5.25% (-5.25%) during the projection period
Yellow	Net Cash Flow Percentage between negative 5.25% (-5.25%) and negative 7.00% (-7.00%) during the projection period
Red	Net Cash Flow Percentage below negative 7.00% (-7.00%) during the projection period

III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and the PERS' Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method (EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).
- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.
- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC, the following amortization method assumptions are used:
 - I. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.

- II. The amortization payment will be determined on a level percentage of pay basis.
 - III. The length of the amortization periods will be as follows:
 - a. Existing UAAL on June 30, 2018 – 30 years.
 - b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.
 - IV. If any future annual actuarial valuation indicates that PERS has a negative UAAL, the ADC shall be set equal to the Normal Cost.
- **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, 2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, 2022). The long-term investment return assumption adopted by the PERS Board in conjunction with the experience investigation is 7.00 percent.

IV. Governance Policy/Process

Below is a list of specific actuarial and funding related studies, the frequency at which they should be commissioned by the Board and additional responsibilities related to each:

- **Actuarial Valuation (performed annually)** – The Board is responsible for the review of PERS' annual actuarial valuation report, which provides the annual funded ratio and the calculation of the ADC.
- **Projection Report (performed annually)** – The Board is responsible for the review of PERS' 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.
- **Experience Analysis (performed every two years on a rolling four-year)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, reviewing the results of the study, and approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.
- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by an independent actuarial firm to provide a

critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.

- **Additional Independent Actuarial Assessments** – When the Board recommends an increase to the employer contribution rate, the recommendation will be accompanied by at least two independent actuarial assessments in accordance with state law. Future annual valuations and separate periodic actuarial audits may suffice for this purpose.
- **Funding Policy Review (in conjunction with relevant reports)** – The Board is responsible for the review of this policy in conjunction with the annual valuation and projection report and biennially with the experience study. Other periodic reviews during the year should be conducted as warranted.

V. Glossary of Funding Policy Terms

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Actuarial Determined Contribution (ADC):** The potential payment to the plan as determined by the actuary using a contribution allocation procedure that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long term. The ADC may or may not be the amount actually paid by the plan sponsor or other contributing entity.
- **Asset Values:**
 - **Actuarial Value of Assets (AVA):** The AVA is the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.
 - **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.
- **Entry Age Normal Actuarial Cost Method (EAN):** The EAN actuarial cost method is a funding method that calculates the normal cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.

- **Funded Ratio:** The funded ratio is the ratio of the plan assets to the plan's actuarial accrued liabilities.
 - **Actuarial Value Funded Ratio:** The actuarial value funded ratio is the ratio of the AVA to the AAL.
- **Normal Cost:** The normal cost is the cost allocated under the actuarial cost method to each year of active member service.
- **Present Value of Benefits (PVB) or total cost:** The PVB is the value at a particular point in time of all projected future benefit payments for current plan members. The future benefit payments and the value of those payments are determined using actuarial assumptions regarding future events. Examples of these assumptions are estimates of retirement and termination patterns, salary increases, investment returns, etc.
- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
- **Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.
- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. PERS' annual valuation date is June 30.

Source: § 25-11-119(8) and (9) | **Effective/Revised:** 10/24/2006, 10/23/2012, 4/22/2014, 2/28/2017, 6/26/2018, 10/22/2019, 08/24/2021, 02/23/2022, 4/24/2024, 12/18/2024

Funding Policy for PERS

The purpose of ~~the~~ this funding policy is to state the overall funding goals and objectives for the Public Employees' Retirement System of Mississippi (PERS), and to document both the metrics that will be used to measure progress toward achieving those goals, and the methods and assumptions employed to develop ~~the~~ those metrics.

The employer contribution rate recommended by the Board for PERS will be based on the actuarial¹ determined contribution (ADC) as reflected by the annual valuation report using the assumptions and methods outlined in this policy. ~~set based on the metrics, assumptions and methods outlined in Section II and III of this policy.~~

I. Funding Goals and Objectives

The objective in requiring employer and member contributions to PERS is to accumulate sufficient assets during a member's employment to fully finance the benefits the member will receive in retirement. In meeting this objective, PERS will strive to meet the following goals:

- Preservation ~~of~~ the defined benefit structure for providing lifetime benefits to the PERS membership and eligible beneficiaries;
- ~~To~~ Develop a pattern of contribution rates expressed as a percentage of employer payroll and measured by valuations prepared in accordance with applicable State laws and the principles of practice prescribed by the Actuarial Standards Board;
- ~~Contribution rate stability as a percentage of payroll (Fixed Contribution Rate—FCR);~~
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% percent funded;
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a “Signal Light” approach to assist the Board in determining the status of the plan; ~~whether increases or decreases are needed in the employer contribution rate, and~~
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, §§ 272A, of the Mississippi Constitution.

II. Metrics

To track progress in achieving the outlined funding goals and objectives ~~and to assist the Board in making a determination whether an increase or decrease in the employer contribution rate for PERS should be considered~~, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. ~~As part of the annual valuation and projection reports~~, each metric will be calculated and assigned a “Signal Light” with the following definitions:

Status	Definition
Green	Plan passes metric and PERS' funding goals and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric and PERS must consider contribution increases

~~If any one of the metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report, the actuary will determine and recommend to the Board an employer contribution rate increase to consider that is sufficient enough to get all three metrics back into the Green Signal Light status. The Employer contribution rate increases recommended by the Board would be suggested to be effective for the the July 1st which occursst, 18 months following the completion of the projection report (e.g., if the projection report in 2024 deems an increase to be considered, then it would be effective for July 1, 2026).~~

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. ~~One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio.~~

The Board sets the Signal Light definition as follows:

Status	Definition
--------	------------

Green	Funded Ratio above 80% in 2047
Yellow	Funded Ratio between 65% and 80% in 2047
Red	Funded Ratio below 65% in 2047

- **Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of ~~beginning~~ beginning-year market value of assets. ~~Over the projection period, I~~ this percentage will fluctuate from year to year, ~~so for the~~ Signal Light testing, ~~of~~ the net cash flow percentage will be tested over the entire projection period ~~will be tested~~.

The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative 5.25% (-5.25%) during the projection period
Yellow	Net Cash Flow Percentage between negative 5.25% (-5.25%) and negative 7.00% (-7.00%) during the projection period
Red	Net Cash Flow Percentage below negative 7.00% (-7.00%) during the projection period

- ~~Actuarially Determined Contribution (ADC)~~ — ADC is defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of this funding policy:

- ~~1. Actuarial Cost Method~~
- ~~2. Asset Smoothing Method~~
3. Amortization Method

~~The calculation of the ADC will be determined during the actuarial valuation and not during the projection report. The ratio of the ADC to the fixed contribution rate~~

~~(ADC/FCR) as set by this Funding Policy will be tested.~~

~~The Board sets the Signal Light definition as follows:~~

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate at valuation date
Yellow	ADC ratio between 100% and 110% of fixed contribution rate at valuation date
Red	ADC ratio above 110% of fixed contribution rate at valuation date

III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and the PERS' Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method (EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).
- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.
- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC ~~metric~~, the following amortization method assumptions are used:
 - I. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.

- II. The amortization payment will be determined on a level percentage of pay basis.
- III. The length of the amortization periods will be as follows:
 - a. Existing UAAL on June 30, 2018 – 30 years.
 - b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.
- IV. If any future annual actuarial valuation indicates that PERS has a negative UAAL, the ADC shall be set equal to the Normal Cost.

• **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS' Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, 2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, 2022). The long-term investment return assumption adopted by the PERS' Board in conjunction with the experience investigation is 7.00 percent.

•

IV. Governance Policy/Process

Below is a list of specific actuarial and funding related studies, the frequency at which they should be commissioned by the Board and additional responsibilities related to each:

• **Actuarial Valuation (performed annually)** – The Board is responsible for the review of PERS' annual actuarial valuation report, which provides the annual funded ratio and the calculation of the ADC.

•

• **Projection Report (performed annually)** – The Board is responsible for the review of PERS' 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.

•

• **Experience Analysis (performed every two years on a rolling four-year)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, reviewing ~~ing~~ of the results of the study, and approving the actuarial

assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.

- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by an independent-new actuarial firm to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.
- **Additional Independent Actuarial Assessments** – When the Board recommends an increase to the employer contribution rate, the recommendation will be accompanied by at least two independent actuarial assessments in accordance with state law. Future annual valuations and separate periodic actuarial audits may suffice for this purpose.
- **Funding Policy Review (~~periodically~~in conjunction with relevant reportsformed at least annually)** – The Board is responsible for the ~~periodic~~review of this policy in conjunction with the annual valuation and projection report and bienn-~~but at least annually with following the Valuation and Projection Report and biennially with following the Experience experience Analysisstudy. Other periodic reviews during the year should be conducted as warranted.~~

V. Glossary of Funding Policy Terms

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Actuarial Determined Contribution (ADC):** The potential payment to the plan as determined by the actuary using a contribution allocation procedure that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long term. -The ADC may or may not be the amount actually paid by the plan sponsor or other contributing entity.
- **Asset Values:**

- **Actuarial Value of Assets (AVA):** The AVA is the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.
- **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.
- **Entry Age Normal Actuarial Cost Method (EAN):** The EAN actuarial cost method is a funding method that calculates the normal cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.
- **Funded Ratio:** The funded ratio is the ratio of the plan assets to the plan's actuarial accrued liabilities.
 - **Actuarial Value Funded Ratio:** [The actuarial value funded ratio](#) is the ratio of the AVA to the AAL.
- **Normal Cost:** The normal cost is the cost allocated under the actuarial cost method to each year of active member service.
- **Present Value of Benefits (PVB) or total cost:** The PVB is the value at a particular point in time of all projected future benefit payments for current plan members. -The future benefit payments and the value of those payments are determined using actuarial assumptions regarding future events. Examples of these assumptions are estimates of retirement and termination patterns, salary increases, investment returns, etc.
- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
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- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. PERS' annual valuation date is June 30.

Source: § 25-11-119(8) and (9) | **Effective/Revised:** 10/24/2006, 10/23/2012, 4/22/2014, 2/28/2017, 6/26/2018, 10/22/2019, 08/24/2021, 02/23/2022, 4/24/2024, [12/18/2024](#)

Title 27: Personnel

Part 210: PERS, Regulations for Retirement Plans Administered by the Board of Trustees

Chapter 66: Investment and Pension Advisory Committee

100 Purpose

The purpose of this regulation is to establish the Investment and Pension Advisory Committee of the Public Employees' Retirement System of Mississippi by the Board of Trustees for the purpose of providing information and recommendations to the Board relative to the investments or other similar areas of the Public Employees' Retirement System of Mississippi and other systems administered by the Board.

101 Membership on the Investments and Pension Advisory Committee

The Committee shall consist of three members, who are not retirees or members of a system administered by the Public Employees' Retirement System of Mississippi. Each member shall have at least 10 years of experience in finance, investments, actuarial science, money management, pension administration, or other executive leadership commensurate with an appointment to the committee. Each committee member must act as a fiduciary in their advisory capacity to the Board of Trustees and shall be compensated \$1,000 annually per contractual terms.

Based on one recommendation each from the Governor, Lieutenant Governor, and the Speaker of the House, the Executive Director shall form the Committee with the approval of the Board of Trustees. Terms of office shall be for a period of four (4) years. Service for a portion of an unexpired term shall not count as a full term. The initial appointments for the committee shall be effective July 1, 2025, and run through the end of the current legislative term. Future appointments to the committee shall run parallel with each 4-year election cycle.

102 Selection of Committee Officers

The Committee shall elect by a majority vote a Chairperson who will serve for a term of one year and shall be eligible for reelection to that position.

103 Committee Meetings

All meetings shall be at the call of the Chair and should be at least annually. Two members present shall constitute a quorum for the transaction of business for the

Committee. Committee members shall be reimbursed for mileage required to attend official committee meetings in accordance with the Public Employees' Retirement System Travel Policies.

104 Committee Reports to the Board of Trustees

The Committee shall make oral or written reports, recommendations, or suggestions to the Board of Trustees on an as needed basis, at least annually, and will coordinate its activities through the Executive Director or his or her designee.

105 Filling a vacancy on the Committee

Any vacancy on the committee shall be declared to the Executive Director at the occurrence of such vacancy. The vacancy shall be filled in a manner similar to the regular appointments outlined in section 101 of this regulation for the unexpired portion of the term of office.

History: Adopted December 18, 2024.



2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT

A Component Unit of the State of Mississippi | Fiscal Year Ended June 30



2024 Annual Comprehensive Financial Report

A Blended Component Unit of the State of Mississippi
Fiscal Year Ended June 30

PREPARED BY:

The Office of Administrative Services
Public Employees' Retirement System of Mississippi

PERS Building
429 Mississippi Street
Jackson, MS
39201-1005





In Memory of Frank Ready
PERS Executive Director, 1996 - 2005

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Introduction



Providing Benefits for Life

Board of Trustees
Public Employees' Retirement System
429 Mississippi Street
Jackson, MS 39201-1005

December 18, 2024

To the Board of Trustees and Members of PERS:

It is my pleasure to present the 2024 Annual Comprehensive Financial Report (ACFR) of the Public Employees' Retirement System. We take our role to heart as a fiduciary for this System and remain vigilant and resourceful in honoring the commitment to our membership. I join with the PERS team as we dedicate ourselves to serving our teachers, first responders, healthcare workers, and many other public servants who make up the membership of our System.

This ACFR is a presentation of the financial results of the System as of June 30, 2024. We believe this information is useful for transparency and perspective over the long term. We trust you and other members will find this ACFR helpful in understanding your retirement system.

PROFILE OF THE SYSTEM

The System was established to provide retirement benefits for all state and public education employees, officers of the Mississippi Highway Safety Patrol, elected members of the State Legislature, the President of the Senate, and other public employees of participating employers. Plans administered by the System include: The Public Employees' Retirement System of Mississippi (PERS), which was established by legislation in 1952; the Mississippi Highway Safety Patrol Retirement System (MHSPRS), established in 1958; the Supplemental Legislative Retirement Plan (SLRP), established in 1989; and the Municipal Retirement Systems (MRS), which came under the System's administration in 1987. As of June 30, 2024, the System's defined benefit plans served a total of 368,333 members, including 120,711 retirees and beneficiaries. There are 877 participating employers from across the state. Primary sources of funding for the System include employer contributions, member contributions, and investment income. Retirement benefits paid during the fiscal year totaled \$3.5 billion. Employers contributed \$1.4 billion during the fiscal year, while members of the System contributed a total of \$686 million. Additionally, a one-time contribution of \$110 million was made to PERS by the State. As of June 30, 2024, net position restricted for pension benefits totaled \$34.0 billion.

H. Ray Higgins, Jr. <i>Executive Director</i>	<i>Board of Trustees:</i>	Kelly Breland <i>State Employees, Chair</i>	Bill Benson <i>County Employees, Vice Chair</i>	Kimberly Hanna <i>Municipal Employees</i>	George Dale <i>Retirees</i>	Chris Graham <i>Gubernatorial Appointee</i>
		Randy D. McCoy <i>Retirees</i>	David McRae <i>State Treasurer</i>	Brian Rutledge <i>Institutions of Higher Learning Employees</i>	Jay Smith <i>Public Schools Community/Jr. Colleges</i>	Terrance Yarbrough <i>State Employees</i>

Public Employees' Retirement System of Mississippi
429 Mississippi Street, Jackson, MS 39201-1005 601.359.3589 800.444.PERS www.pers.ms.gov

The System is administered by a 10-member Board of Trustees that includes: The State Treasurer; one gubernatorial appointee who is a member of PERS; two state employees; two PERS retirees; and one representative each from public schools and community colleges, state universities, municipalities, and counties. Apart from the State Treasurer and the gubernatorial appointee, all members are elected to staggered six-year terms by the constituents they represent. The Board of Trustees is responsible for the general administration and proper operation of the System. The executive director is designated by the Board to lead and conduct all business for the System. The Public Employees' Retirement System of Mississippi operates under legislative mandate with respect to administrative budgets, human resources, and purchasing guidelines. The System is considered a blended component unit of the State of Mississippi for financial reporting purposes and, as such, the financial statements contained in this report are included in the State of Mississippi's Annual Comprehensive Financial Report.

Annual budgets are legally adopted for the administrative expenditure portion of the System's operations and are funded by earnings of the System. A budget request is approved by the Board of Trustees and submitted to the State Legislature, which legally enacts the budget in the form of an appropriation bill during the subsequent legislative session. Changes may be made in budget categories, consistent with legislative authority. A more detailed discussion of the budgetary process is presented in the Financial Section of this ACFR on page 34.

FINANCIAL INFORMATION

Our staff issues an ACFR within six months of the close of each fiscal year. The report contains basic financial statements presented in conformity with generally accepted accounting principles and audited in accordance with generally accepted auditing standards, as well as standards applicable to financial audits contained in government auditing standards.

The 2024 independent audit was conducted by Eide Bailly LLP, a firm of licensed certified public accountants. The Independent Auditors' Report is presented in the Financial Section on pages 17 through 19.

This ACFR consists of management's representations concerning the finances of the System. Consequently, management assumes full responsibility for the completeness and reliability of all information presented in this report. A framework of internal controls is designed to establish reasonable assurance that assets are safeguarded, transactions are accurately executed, and financial statements are fairly presented in accordance with generally accepted accounting principles. The concept of reasonable assurance recognizes that the cost of a control should not appreciably exceed the benefits likely to be derived and that the analysis of costs and benefits requires estimates and professional judgments by management. To aid in the management of an internal control framework, the System maintains policies and procedures, and adheres to certain statutory requirements. Both external and internal audit processes include assessments of controls and associated recommendations for improvements. Management's Discussion and Analysis (MD&A) immediately follows the Independent Auditors' Report and provides a narrative introduction, overview, and analysis of the basic financial statements. MD&A complements, and should be read in conjunction with, this letter of transmittal.

INVESTMENT INFORMATION

The Board of Trustees continues to focus on an investing approach that emphasizes a diversified portfolio of securities invested over a long-time horizon, which moderates the effects of a changing economic environment. The portfolio is broadly diversified among cash equivalents, equities, debt securities, real estate, and private equity with additional variation through domestic and international investing. Our asset allocation policy is tactically balanced to provide an expected level of return while minimizing risk, which over time will fund the liabilities of the System, given an adequate contribution rate expressed as a percentage of payroll. This year the System posted a gross rate of return on investments of 10.78 percent as measured on June 30, 2024.

Callan LLC is employed by the Board of Trustees as the System's investment consultant. Services include calculating investment returns for both the total fund and for each of the investment managers retained to invest the System's assets. All returns are calculated using a time-weighted rate of return methodology based on portfolio fair values determined by the System's custodial bank. Additional information regarding the System's investment holdings and performance may be found in the Financial and Investment Sections of this report.

FUNDING INFORMATION

The information in this year's ACFR is based on the actuarial valuation reports as of June 30, 2023, which were presented to and approved by the PERS Board in December 2023. The PERS valuation was based on certain changes in assumptions, as approved by the Board in August 2023, including various demographic assumptions and a decrease in the assumed investment rate of return from 7.55 percent to 7.00 percent. These changes partially explain a decline in the funded ratio from 61.3 percent to 56.1 percent. More detail specific to the PERS plan and funding, as well as for MHSPRS, SLRP, and MRS, is provided in the footnotes to the financial statements and in the actuarial sections of this report. More actuarial information may be found on our website, www.pers.ms.gov.

AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the System for its annual comprehensive financial report for the fiscal year ended June 30, 2023. The Certificate of Achievement is a prestigious national award, recognizing conformance with the highest standards for preparation of state and local government financial reports.

To be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized annual comprehensive financial report with contents that conform to program standards. Such financial reports must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of only one year. The System has received a Certificate of Achievement for the last 37 consecutive years. We believe our current report continues to conform to the Certificate of Achievement Program's requirements, and we are submitting it to GFOA for evaluation.

The Public Employees' Retirement System of Mississippi's submission of a Popular Annual Financial Report to the GFOA resulted in an Award for Outstanding Achievement in Popular Annual Financial Reporting for the fiscal year ended June 30, 2023. To receive an Award for Outstanding Achievement in Popular Annual Financial Reporting, a government unit must publish a popular annual financial report with contents that conform to program standards of creativity, presentation, understandability, and reader appeal. An Award for Outstanding Achievement in Popular Annual Financial Reporting is valid for a period of one year. The Public Employees' Retirement System of Mississippi has received a Popular Award certificate for the last 20 consecutive fiscal years. We believe our current report continues to conform to the Popular Annual Financial Reporting requirements, and we are submitting it to GFOA for consideration this year.

The Public Employees' Retirement System received the Public Pension Coordinating Council's (PPCC) Recognition Award for Administration 2024 in recognition of meeting professional standards for plan design and administration. The PPCC is a national confederation of state retirement associations whose standards are widely recognized benchmarks for public pension systems in the areas of plan design, funding, actuarial, and financial audits, as well as member communications.

CONCLUSION

This report is a product of the combined efforts of the System's staff and advisors functioning under the Board's leadership and is intended to provide extensive and reliable information as a basis for making management decisions, determining compliance with legal provisions, and determining responsible stewardship for the assets contributed by the System's members and employers. It is available via our website, www.pers.ms.gov. I hope all stakeholders of the System will find this report informative and useful.

My deepest thanks go to the PERS Board, our team of staff professionals, the advisors, and others who have worked so diligently as we partner together in the enduring commitment to serve the members and retirees of the Public Employees' Retirement System.

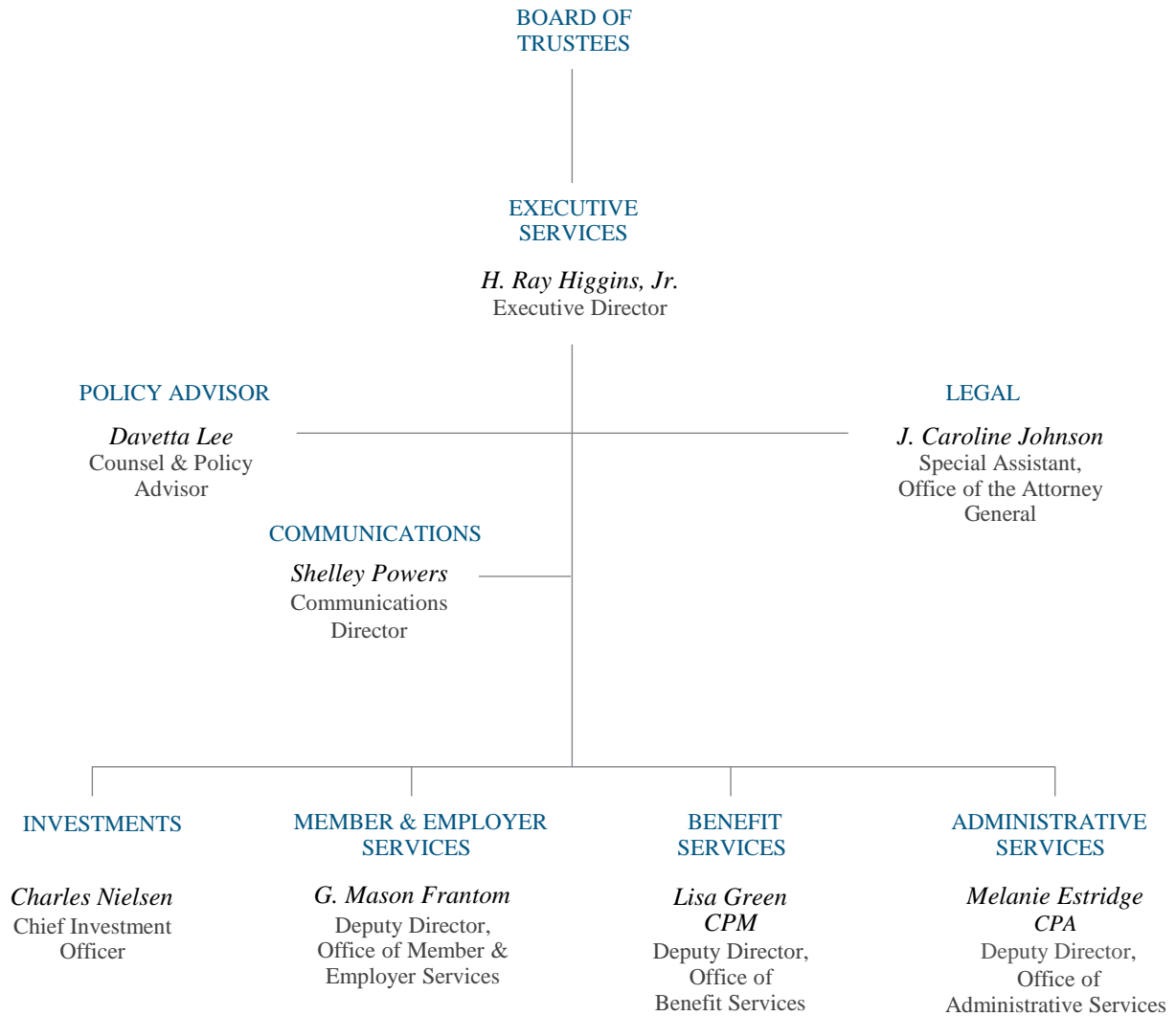
I remain humbled and honored to serve as your executive director, and I look forward to working together in the future.



H. Ray Higgins, Jr.
Executive Director



Organizational Chart



2024 Board of Trustees

The Board of Trustees of the Public Employees' Retirement System of Mississippi (PERS) is responsible for designating the System's executive director and for establishing the policies for administration of the trust. The Board also works to carry out the intent and purposes of the state Legislature by establishing rules and regulations for the administration of PERS and the transaction of its business.

CHAIR **Kimberly Hanna** *Elected by Municipal Employees*

Term of Service: January 2021 - December 2026

VICE CHAIR **Kelly Breland** *Elected by State Employees*

Term of Service: January 2019 - December 2024

Bill Benson *Elected by County Employees*

Term of Service: January 2022 - December 2027

George Dale *Elected by Retirees*

Term of Service: May 2023 - April 2029



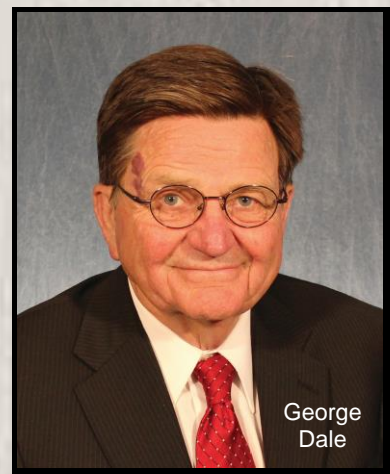
Chair
Kimberly
Hanna



Vice Chair
Kelly
Breland



Bill
Benson



George
Dale

Chris Graham *Gubernatorial Appointee*

Term of Service: April 2021 - April 2024

Chris Howard *Elected by State Employees*

Term of Service: July 2020 - June 2026, Retired April 2024

Randy McCoy, Ed.D. *Elected by Retirees*

Term of Service: July 2019 - June 2025

David McRae *State Treasurer*

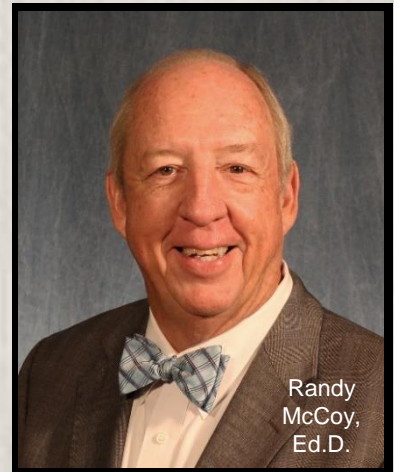
Term of Service: January 2020 – January 2024

Brian Rutledge, Ph.D. *Elected by Institutions of Higher Learning Employees*

Term of Service: January 2023 - December 2028

Jay Smith, Ph.D. *Elected by Public School and Community/Junior College Employees*

Term of Service: May 2022 - April 2028



Outside Professional Services

ACTUARY

CavMac

AUDITOR

Eide Bailly LLP

INVESTMENT FUNDS CUSTODIAN

Bank of New York Mellon

INVESTMENT MANAGEMENT CONSULTANT

Callan, LLC

INVESTMENT MANAGERS

EQUITY MANAGERS

Acadian Asset Management, LLC
Arrowstreet Capital, LP
Artisan Partners, LP
Baillie Gifford & Company
Dimensional Fund Advisors, Inc.
Eagle Capital Management, LLC
Epoch Investment Partners, Inc.
Fisher Investments
Harding Loevner, LP
Lazard Asset Management, LLC
LSV Asset Management
Marathon Asset Management, LP
Northern Trust Asset Management
Principal Global Investors, LLC
Riverbridge Partners, LLC
Victory Capital Management, Inc.
Wellington Management Company, LLP

FIXED INCOME MANAGERS

AllianceBernstein, LP
Loomis Sayles & Company, LP
Manulife Investment Management
Northern Trust Investments, Inc.
Pacific Investment Management Company
Prudential Financial, Inc.
Sit Investment Associates
Wellington Management Company, LLP

PRIVATE CREDIT MANAGERS

Blue Owl Capital
GCM Grosvenor Diversified Partners, LP

PRIVATE EQUITY MANAGERS

GCM Grosvenor Diversified Partners, LP
Pathway Capital Management, LLC

REAL ESTATE MANAGERS

AEW Capital Management, LP
CenterSquare Investment Management
Cohen & Steers, Inc.
Heitman, LLC
Invesco, LP
J.P. Morgan Investment Management, Inc.
Manulife Investment Management
Principal Global Investors, LLC
T.A. Associates Realty
TPG Angelo Gordon
UBS Realty Investors, LLC
Westbrook Partners

LEGAL COUNSEL

Office of the Attorney General
Caroline Johnson, Special Assistant

Ice Miller

Chapman & Cutler, LLP

*Additional information on investment professional fees can be found on pages 60 and 82.
Information on commissions is also found on page 82.*



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Public Employees' Retirement System of Mississippi

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2023

Christopher P. Morill

Executive Director/CEO



Public Pension Coordinating Council

***Recognition Award for Administration
2024***

Presented to

Public Employees' Retirement System of Mississippi

In recognition of meeting professional standards for
plan administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

A handwritten signature in black ink that reads 'Alan H. Winkle'.

Alan H. Winkle
Program Administrator

A dark blue oval shape with a subtle drop shadow, centered on a white background. The word "Financial" is written in white, sans-serif font inside the oval.

Financial

Financial



Independent Auditor's Report

To the Board of Trustees
Public Employees' Retirement System of Mississippi
Jackson, Mississippi

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the Public Employees' Retirement System of Mississippi (the System) as of and for the year ended June 30, 2024, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective fiduciary net position of the Public Employees' Retirement System of Mississippi, as of June 30, 2024, and the respective changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

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Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 the System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 20-26 and the required supplementary information on pages 51-58 be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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 GAAS, 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.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The additional supplementary information including the Schedule of Administrative Expenses and Depreciation, Schedule of Investment Managers' Fees, Investment Global Out-of-Pocket-Fees, and Professional Service Fees, and Schedule of Net Position Restricted for Pension Benefits – MRS Plans (Supplementary Information) is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The 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 GAAS. In our opinion, the accompanying financial information listed as supplemental schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the introductory, investment, actuarial and statistical sections, but does not include the basic financial statements and our auditor's report thereon. Our opinion on the basic financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 6, 2024 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, 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 the 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 System's internal control over financial reporting and compliance.

The signature is written in a cursive, handwritten style. It appears to read "Eric Bailly LLP".

Boise, Idaho
December 6, 2024

Management's Discussion & Analysis

[unaudited]

This section presents management's discussion and analysis of the Public Employees' Retirement System of Mississippi's (System) financial position and performance for the year ended June 30, 2024. This section is presented as a narrative overview and analysis in conjunction with the Letter of Transmittal included in the Introductory Section, the financial statements, and other information presented in the Financial Section of this *Annual Comprehensive Financial Report*.

The System is responsible for administering retirement benefits for all state and public education employees, sworn officers of the Mississippi Highway Safety Patrol, other public employees whose employers have elected to participate, and elected members of the State Legislature, as well as the President of the Senate. The System is comprised of four defined benefit pension plans: the Public Employees' Retirement System of Mississippi (PERS), the Mississippi Highway Safety Patrol Retirement System (MHSPRS), the Supplemental Legislative Retirement Plan (SLRP), and the Municipal Retirement Systems (MRS). Throughout this discussion and analysis, units of measure (i.e., billions, millions, and thousands) are approximate, being rounded up or down to the nearest tenth of the respective unit value.

The System also oversees two other plans: the Mississippi Government Employees' Deferred Compensation Plan & Trust (MDC) which is a voluntary supplemental retirement savings plan, and the Optional Retirement Plan (ORP), which is offered as an alternative to PERS to certain employees of the state's institutions of higher learning. As explained in Note 1 to the basic financial statements, MDC and ORP are not part of the System's reporting entity.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System's financial reporting, which is comprised of the following components:

1. Basic financial statements;
2. Notes to the basic financial statements;
3. Required supplementary information; and
4. Other supplementary schedules.

Collectively, this information presents the net position restricted for pension benefits for each of the funds administered by the System as of June 30, 2024. This financial information also summarizes changes in net position restricted for pension benefits for the year then ended. The information in each of these components is briefly summarized as follows:

1. BASIC FINANCIAL STATEMENTS

The June 30, 2024, financial statements are presented for the fiduciary funds administered by the System. Fiduciary funds are used to account for resources held for the benefit of parties outside of the System. Fiduciary funds include the PERS, MHSPRS, SLRP, and MRS pension trust funds. A Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Net Position are presented for the fiduciary funds as of and for the year ended June 30, 2024. These financial statements reflect the resources available to pay benefits to members, including retirees and beneficiaries, as of year end, as well as the changes in those resources during the year.

2. NOTES TO THE BASIC FINANCIAL STATEMENTS

The notes to the financial statements provide additional information essential to a full understanding of the data provided in the basic financial statements. Information in the notes to the basic financial statements is described as follows:

- » Note 1 provides a general description of the System, as well as a concise description of each of the funds administered by the System. Information regarding employer and member participation in the pension plans administered by the System also is provided.
- » Note 2 provides a summary of significant accounting policies, including the basis of accounting, management's use of estimates, and other significant accounting policies.
- » Note 3 describes investments, including investing authority and policies, fair value measurement, investment risk discussion, and additional information about cash, derivatives, and securities lending.

- » Note 4 provides a summary of the capital assets and right-to-use assets of the System, including depreciation and amortization and net holding amounts.
- » Note 5 provides information about the net pension liability of employers in the defined benefit plans administered by the System.
- » Note 6 provides information about contributions to the defined benefit plans administered by the System.
- » Note 7 provides information about System employees as members of PERS.
- » Note 8 provides information about postemployment benefits other than pensions.

3. REQUIRED SUPPLEMENTARY INFORMATION

The required supplementary information consists of this management's discussion and analysis, schedules of changes in the net pension liability and related ratios, schedule of employer contributions, schedule of investment returns, and related notes concerning accounting and financial reporting information for the defined benefit pension plans administered by the System. Also included are the schedule of proportionate share of the net Other Post Employee Benefits (OPEB) liability and the schedule of employer contributions for OPEB and related notes.

4. OTHER SUPPLEMENTARY SCHEDULES

Other schedules include detailed information on administrative expenses incurred by the System, investment and other professional service expenses incurred, as well as the net positions for the individual municipal retirement plans.

Financial Highlights

The combined net position of all the defined benefit plans administered by the System increased by \$1.8 billion, or 5.7 percent. This increase was primarily the result of the fiscal year 2024 investment performance.

The defined benefit plan's 2024 rate of return on investments was 10.78 percent, compared to the prior fiscal year's 7.76 percent rate of return. Domestic, global, and international equity portfolios returned 21.63 percent, 20.73 percent, and 12.57 percent, respectively, while the return on fixed income debt securities was 4.93 percent. The rate of return on real estate investments was (8.43) percent, and the rate of return on the private equity portfolio was 4.64 percent. The three-month return on the private credit portfolio was 1.79 percent as of fiscal year end.

The PERS, MHSPRS, and SLRP defined benefit plans administered by the System had a Net Pension Liability of \$26.0 billion, \$228.6 million, and \$5.9 million, respectively. The ratios of fiduciary net position to total pension liability were 56.3 percent, 65.7 percent, and 78.6 percent, respectively.

The PERS defined benefit plan received a \$110 million one-time additional contribution from the state of Mississippi during last session.

Fiduciary Net Position—Defined Benefit Plans
As of June 30, 2024 & June 30, 2023

[in thousands]

	PERS		MHSPRS		SLRP	
	2024	2023	2024	2023	2024	2023
<i>Assets:</i>						
Cash, Cash Equivalents, Receivables, & Other Assets	\$1,833,062	\$1,502,180	\$20,448	\$18,271	\$1,007	\$895
Investments at Fair Value	32,897,620	31,278,285	434,983	413,828	21,722	20,709
Invested Securities Lending Collateral	2,013,872	2,004,724	26,628	26,524	1,330	1,327
Capital Assets, net	13,960	14,387	-	-	-	-
Total Assets	36,758,514	34,799,576	482,059	458,623	24,059	22,931
Deferred Outflows of Resources	215	140	-	-	-	-
<i>Liabilities:</i>						
Investment Accounts & Other Payables	1,297,010	1,199,592	16,985	15,732	863	793
Obligations Under Securities Lending	2,011,586	1,977,771	26,598	26,167	1,328	1,309
Total Liabilities	3,308,596	3,177,363	43,583	41,899	2,191	2,102
Deferred Inflows of Resources	290	370	-	-	-	-
Net Position Restricted for Pension Benefits	\$33,449,843	\$31,621,983	\$438,476	\$416,724	\$21,868	\$20,829

	MRS		Total Defined Benefit Pension Plan		Total Percent Change
	2024	2023	2024	2023	
<i>Assets:</i>					
Cash, Cash Equivalents, & Receivables	\$6,538	\$5,813	\$1,861,055	\$1,527,159	21.86%
Investments at Fair Value	119,677	123,684	33,474,002	31,836,506	5.14
Invested Securities Lending Collateral	7,326	7,927	2,049,156	2,040,502	0.42
Capital Assets, net	-	-	13,960	14,387	(2.97)
Total Assets	133,541	137,424	37,398,173	35,418,554	5.59
Deferred Outflows of Resources	-	-	215	140	53.57
<i>Liabilities:</i>					
Investment Accounts & Other Payables	4,725	4,724	1,319,583	1,220,841	8.09
Obligations Under Securities Lending	7,318	7,821	2,046,830	2,013,068	1.68
Total Liabilities	12,043	12,545	3,366,413	3,233,909	4.10
Deferred Inflows of Resources	-	-	290	370	(21.62)
Net Position Restricted for Pension Benefits	\$121,498	\$124,879	\$34,031,685	\$32,184,415	5.74%

Changes in Fiduciary Net Position—Defined Benefit Plans
For the Years Ended June 30, 2024 & June 30, 2023

[in thousands]

	PERS		MHSPRS		SLRP	
	2024	2023	2024	2023	2024	2023
<i>Additions:</i>						
Contributions	\$2,138,748	\$1,965,549	\$23,684	\$23,458	\$939	\$884
Investment Income	3,219,564	2,234,354	42,521	29,536	2,123	1,477
Other Additions	314	12	-	-	-	-
Total Additions:	5,358,626	4,199,915	66,205	52,994	3,062	2,361
<i>Deductions:</i>						
Pension Benefits	3,394,102	3,237,085	43,960	41,122	2,000	1,653
Refunds to Terminated Employees	118,413	115,517	143	161	10	5
Administrative Expenses	18,251	16,446	350	359	13	13
Total Deductions	3,530,766	3,369,048	44,453	41,642	2,023	1,671
Net Increase/(Decrease)	1,827,860	830,867	21,752	11,352	1,039	690
Net Position, Beginning of Year	31,621,983	30,791,116	416,724	405,372	20,829	20,139
Net Positions Restricted for Pension Benefits	\$33,449,843	\$31,621,983	\$438,476	\$416,724	\$21,868	\$20,829

	MRS		Total Defined Benefit Pension Plan		Total Percent Change
	2024	2023	2024	2023	
<i>Additions:</i>					
Contributions	\$14,230	\$14,357	\$2,177,601	\$2,004,248	8.65%
Investment Income	11,699	8,818	3,275,907	2,274,185	44.05
Other Additions	-	-	314	12	2,516.67
Total Additions:	25,929	23,175	5,453,822	4,278,445	27.47
<i>Deductions:</i>					
Pension Benefits	29,025	29,686	3,469,087	3,309,546	4.82
Refunds to Terminated Employees	-	-	118,566	115,683	2.49
Administrative Expenses	285	287	18,899	17,105	10.49
Total Deductions	29,310	29,973	3,606,552	3,442,334	4.77
Net Increase/(Decrease)	(3,381)	(6,798)	1,847,270	836,111	120.94
Net Position, Beginning of Year	124,879	131,677	32,184,415	31,348,304	2.67
Net Positions Restricted for Pension Benefits	\$121,498	\$124,879	\$34,031,685	\$32,184,415	5.74%

Analysis of Individual Systems

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

PERS is a defined benefit cost-sharing plan that provides retirement benefits to all eligible state of Mississippi public employees, public education employees, other public employees whose employers have elected to participate, elected members of the state Legislature, and President of the Senate. Benefits of the plan are funded by member and employer contributions and earnings on investments. Net position restricted for pension benefits at June 30, 2024, amounted to \$33.4 billion, an increase of \$1.8 billion or 5.7 percent compared to the prior fiscal year end.

Additions to PERS' net position include employer and member contributions of \$2.0 billion, additional state contribution of \$110 million, and net investment income of \$3.2 billion. While contributions were consistent with the prior year, net investment income increased by \$1.0 billion due to market performance.

Deductions from PERS' net position restricted for pension benefits include retirement and beneficiary benefits, refunds to terminated employees, and administrative expenses. For the 2024 fiscal year, benefit payments amounted to \$3.4 billion, an increase of \$157 million or 4.9 percent over the prior fiscal year. The increase is due to an increase in the number of benefit recipients, higher initial benefits to new retirees, and increased cost-of-living adjustments. This increase in benefit payments is consistent with recent trends. The cost of administering the System for fiscal year 2024, including depreciation and amortization expense, amounted to \$18.3 million for an increase compared to the prior fiscal year of \$1.8 million. Administrative expenses accounted for 0.52 percent of total deductions.

At June 30, 2024, PERS employers' total pension liability was \$59.4 billion. The plan fiduciary net position was \$33.4 billion, resulting in a net pension liability of \$26.0 billion. The plan fiduciary net position as a percentage of the total pension liability was 56.3 percent using Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans*, measurements.

MISSISSIPPI HIGHWAY SAFETY PATROL RETIREMENT SYSTEM

MHSPRS provides retirement benefits to sworn officers of the Mississippi Highway Safety Patrol. Benefits of the plan are funded by member and employer contributions and by earnings on investments. MHSPRS' net position restricted for pension benefits at June 30, 2024, amounted to \$438.5 million, an increase of \$21.8 million or 5.2 percent compared to the prior fiscal year end.

Additions to MHSPRS' net position restricted for pension benefits include employer and member contributions and investment income. For the 2024 fiscal year, employer and member contributions combined were \$23.7 million, an increase of \$226 thousand. Motor vehicle fees of \$2.8 million and driver's license reinstatement fees of \$452.0 thousand were included in 2024 employer contributions. For the fiscal year ended June 30, 2024, there was net investment income of \$42.5 million, an increase in investment earnings of \$13.0 million from the prior year due to market performance.

Deductions from MHSPRS' net position restricted for pension benefits primarily include retirement and beneficiary benefits. For the 2024 fiscal year, benefit payments amounted to \$44.0 million, an increase of \$2.8 million or 6.9 percent over the prior fiscal year. For the 2024 fiscal year, MHSPRS transferred \$350.0 thousand to PERS to offset the cost of administration.

At June 30, 2024, MHSPRS employers' total pension liability was \$667.1 million. The plan fiduciary net position was \$438.5 million, resulting in a net pension liability of \$228.6 million. The plan fiduciary net position as a percentage of the total pension liability was 65.7 percent using GASB Statement No. 67 measurements.

SUPPLEMENTAL LEGISLATIVE RETIREMENT PLAN

SLRP provides supplemental retirement benefits to all elected members of the state Legislature and President of the Senate. Benefits of the plan are funded by member and employer contributions and by earnings on investments. The plan's net position restricted for pension benefits at June 30, 2024, amounted to \$21.9 million, an increase of \$1.0 million or 5.0 percent from the prior fiscal year.

Additions to SLRP's net position restricted for pension benefits include employer and member contributions and investment income. For the 2024 fiscal year, employer and member contributions were \$939.0 thousand, an increase of \$55.0 thousand or 6.2 percent from those of the prior fiscal year. SLRP had a net investment gain for the 2024 fiscal year of \$2.1 million for an increase of \$646.0 thousand from the prior year, due to market performance.

Deductions from SLRP's net position restricted for pension benefits primarily include retirement and beneficiary benefits. For the 2024 fiscal year, benefit payments amounted to \$2.0 million. For the 2024 fiscal year, SLRP transferred \$13.0 thousand to PERS to offset the cost of administration.

At June 30, 2024, the SLRP employers' total pension liability was \$27.8 million. The plan fiduciary net position was \$21.9 million, resulting in a net pension liability of \$5.9 million. The plan fiduciary net position as a percentage of the total pension liability was 78.6 percent using GASB Statement No. 67 measurements.

MUNICIPAL RETIREMENT SYSTEMS

Two municipal retirement plans, and 17 fire and police disability and relief plans comprise MRS. All plans are closed to new members and all active employees were retired as of June 30, 2020. The separate plans provide retirement benefits to municipal employees, fire fighters, and police officers. Financial positions of the MRS plans are aggregated for financial reporting purposes. Individual plan information is included with the specific municipality's annual financial report. Benefits of MRS are funded by employer contributions and by earnings on investments. The aggregated plan's net position restricted for pension benefits at June 30, 2024, amounted to \$121.5 million, a decrease of \$3.4 million or 2.7 percent from \$124.9 million for the prior fiscal year.

Additions to the MRS net position restricted for pension benefits consist of employer contributions and investment income. For the 2024 fiscal year, employer contributions of \$14.2 million were \$127 thousand or 0.9 percent less than contributions of \$14.4 million received the prior fiscal year. MRS employer contributions are funded through taxes levied on assessed properties. The number of retirees will continue to decline and lead to lower contributions and benefits in future years. MRS recognized net investment income of \$11.7 million for the 2024 fiscal year due to market performance compared with a net investment income of \$8.8 million for the prior fiscal year.

Deductions from MRS' net position restricted for pension benefits include retirement and beneficiary benefits and administrative fees. For the 2024 fiscal year, benefit payments amounted to \$29.0 million, a decrease of \$661 thousand and 2.2 percent from the prior fiscal year. For the 2024 fiscal year, MRS transferred \$285.0 thousand to PERS to offset the cost of administration, compared to \$287.0 thousand transferred for the prior fiscal year.

Under the provisions of GASB Statement No. 67, agent multiple employer plans such as MRS apply the measurements and recognition of net pension liability at the individual plan level for each municipal and fire and police retirement plan administered. Therefore, aggregate information for MRS related to the net pension liability has not been presented.

Financial Analysis of the Systems: Defined Benefit Plans

INVESTMENTS

The investment assets of the defined benefit plans administered by the System are combined in a commingled investment pool as authorized by state statute. Each plan owns an equity position in the pool and receives a proportionate investment allocation of income or loss from the pool in accordance with its respective ownership percentage. Therefore, the rate of return on investments is approximately the same for each of the plans. In the following pages of the financial section, each plan's allocated share of the total investment pool is shown in the Statement of Fiduciary Net Position. Investment gains or losses are reported in the Statement of Changes in Fiduciary Net Position.

TOTAL SYSTEM INVESTMENTS

At June 30, 2024 the System's total investments, before securities lending activities, approximated \$33.5 billion, an increase of \$1.6 billion from the prior fiscal year. The combined investment portfolio experienced a return of 10.78 percent compared with a median large public benchmark return of 10.23 percent. The Investment Section includes comparisons of the System's investment results to benchmarks over time.

SHORT-TERM SECURITIES

At June 30, 2024, the System held \$1.1 billion in short-term investments, an increase of \$513.6 million from the prior year holdings. Short-term investments returned 5.70 percent for the year.

EQUITY SECURITIES

At June 30, 2024, the System held \$19.2 billion in domestic, global, and international equity securities, an increase of \$752.3 million over the prior fiscal year. Domestic and global equity securities had returns of 21.63 percent and 20.73 percent, respectively. The System's custom benchmark return for domestic equity securities was 21.15 percent while the global securities custom benchmark posted a return of 18.40 percent. International equity securities returned 12.57 percent while the return for the international custom benchmark was 11.64 percent.

DEBT SECURITIES

At June 30, 2024, the System held \$6.6 billion in debt securities, an increase of \$597.3 million from the prior fiscal year. Debt securities returned 4.93 percent compared with the System's custom benchmark return of 3.67 percent.

REAL ESTATE

The real estate asset class includes investments through limited partnerships in core commingled funds, value-added funds, and timber. The System also invests in Real Estate Investment Trusts (REITs), which are exchange-traded securities that provide indirect exposure to real estate properties and real estate management companies. At June 30, 2024, combined holdings totaled \$2.9 billion, a decrease of \$193.2 million from the prior fiscal year. The System experienced a return of (8.43) percent on total real estate holdings compared to the benchmark return of (5.53) percent.

PRIVATE EQUITY

The private equity asset class, totaling \$3.7 billion, posted a return of 4.64 percent. Private equities are investments in operating companies, typically accessed through limited partnerships, that provide a differentiated return stream and diversification. This asset class is generally managed for long-term gains, where returns and asset value take time to develop. The System's benchmark return was 5.05 percent.

PRIVATE CREDIT

The private credit asset class was funded during the third quarter of the fiscal year, and the System held \$43.2 million at June 30, 2024. Private credit funds consist of combined capital that invest in loans to private companies and are typically structured as limited partnerships. The System experienced a return of 1.79 percent compared to the benchmark return of 1.97 percent.

SECURITIES LENDING

The System earns additional income by lending investment securities to broker-dealers. This is done on a pooled basis by the System's custodial bank, Bank of New York Mellon (BNYM). The broker-dealers provide collateral to BNYM for the temporary use of the borrowed securities. BNYM invests cash collateral in debt securities to earn interest. For the 2024 fiscal year, net securities lending income to the System amounted to \$13.7 million, a decrease of \$1.8 million from the prior fiscal year.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the finances of the System. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

Public Employees' Retirement System of Mississippi Accounting Department
429 Mississippi Street
Jackson, MS 39201-1005

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Statement of Fiduciary Net Position
As of June 30, 2024

[in thousands]

	PERS	MHSPRS	SLRP	MRS	Total Defined Benefit Pension Plans
ASSETS					
Cash & Cash Equivalents	\$996,032	\$11,972	\$598	\$3,294	\$1,011,896
<i>Receivables:</i>					
Employer	67,971	271	-	985	69,227
Member	37,060	-	-	-	37,060
Investment Sales & Other	466,264	6,165	308	1,696	474,433
Interest & Dividends	154,157	2,038	101	561	156,857
Other Assets & Receivables	111,578	2	-	2	111,582
Total Receivables	837,030	8,476	409	3,244	849,159
<i>Investments, at Fair Value:</i>					
Short-term Investments	1,099,808	14,542	726	4,001	1,119,077
Long-term Debt Securities	6,440,712	85,161	4,253	23,430	6,553,556
Equity Securities	18,825,700	248,920	12,430	68,485	19,155,535
Private Credit	42,483	562	28	155	43,228
Private Equity	3,664,810	48,457	2,420	13,332	3,729,019
Real Estate Investments	2,824,107	37,341	1,865	10,274	2,873,587
Total Investments before Lending Activities	32,897,620	434,983	21,722	119,677	33,474,002
<i>Securities Lending:</i>					
Short-term Investments	996,542	13,177	658	3,625	1,014,002
Long-term Debt Securities	1,017,330	13,451	672	3,701	1,035,154
Total Securities Lending	2,013,872	26,628	1,330	7,326	2,049,156
Total Investments	34,911,492	461,611	23,052	127,003	35,523,158
Capital Assets, at Cost, Net of Accumulated Depreciation and Amortization	13,960	-	-	-	13,960
Total Assets	36,758,514	482,059	24,059	133,541	37,398,173
DEFERRED OUTFLOWS OF RESOURCES					
Postemployment Benefits	215	-	-	-	215
LIABILITIES					
Investment Purchases & Other	1,282,365	16,956	847	4,665	1,304,833
Accounts Payable & Accrued Expenses	12,916	29	16	60	13,021
Obligations Under Securities Lending	2,011,586	26,598	1,328	7,318	2,046,830
Lease & Software Obligation	1,033	-	-	-	1,033
Net Other Postemployment Benefits	696	-	-	-	696
Total Liabilities	3,308,596	43,583	2,191	12,043	3,366,413
DEFERRED INFLOWS OF RESOURCES					
Other Postemployment Benefits	290	-	-	-	290
NET POSITION RESTRICTED FOR PENSION BENEFITS	\$33,449,843	\$438,476	\$21,868	\$121,498	\$34,031,685

The accompanying notes are an integral part of these basic financial statements.

Statement of Changes in Fiduciary Net Position
For the Year Ended June 30, 2024

[in thousands]

	PERS	MHSPRS	SLRP	MRS	Total Defined Benefit Pension Plans
ADDITIONS					
<i>Contributions:</i>					
Employer	\$1,345,811	\$21,059	\$668	\$14,230	\$1,381,768
Member	682,937	2,625	271	-	685,833
Additional State Contribution	110,000	-	-	-	110,000
Total Contributions	2,138,748	23,684	939	14,230	2,177,601
<i>Net Investment Income:</i>					
Net Appreciation in Fair Value	2,601,301	34,395	1,718	9,463	2,646,877
Interest & Dividends	708,719	9,321	465	2,565	721,070
Total Before Lending Activities	3,310,020	43,716	2,183	12,028	3,367,947
<i>Securities Lending:</i>					
Net Appreciation in Fair Value	5,498	73	4	20	5,595
Interest	124,689	1,649	82	454	126,874
Program Fees	(116,721)	(1,543)	(77)	(425)	(118,766)
Net Income from Securities Lending	13,466	179	9	49	13,703
Managers' Fees & Trading Costs	(103,922)	(1,374)	(69)	(378)	(105,743)
Net Investment Income	3,219,564	42,521	2,123	11,699	3,275,907
Other Additions	314	-	-	-	314
Total Additions	5,358,626	66,205	3,062	25,929	5,453,822
DEDUCTIONS					
Pension Benefits	3,394,102	43,960	2,000	29,025	3,469,087
Refunds to Terminated Employees	118,413	143	10	-	118,566
Totals	3,512,515	44,103	2,010	29,025	3,587,653
Administrative Expense	18,251	350	13	285	18,899
Total Deductions	3,530,766	44,453	2,023	29,310	3,606,552
Net Increase/(Decrease)	1,827,860	21,752	1,039	(3,381)	1,847,270
NET POSITION RESTRICTED FOR PENSION BENEFITS					
Beginning	31,621,983	416,724	20,829	124,879	32,184,415
Ending	\$33,449,843	\$438,476	\$21,868	\$121,498	\$34,031,685

The accompanying notes are an integral part of these basic financial statements.

Notes to Basic Financial Statements

June 30, 2024

Note 1: Plan Description

GENERAL

The System is the administrator of four defined benefit trust funds as listed below. Although each of the defined benefit pension trust funds is a legally separate plan, the funds are included in the System's reporting entity due to their financial relationships and because the governing boards are substantially identical.

Plan Name	Type of Plan
PERS	Cost-sharing multiple-employer defined benefit pension plan
MHSPRS	Single-employer defined benefit pension plan
SLRP	Single-employer defined benefit pension plan
MRS *	Agent multiple-employer defined benefit pension plan

* Closed to New Members

The System's purpose is to provide pension benefits for all state and public education employees, sworn officers of the Mississippi Highway Safety Patrol, other public employees whose employers have elected to participate in the System, and elected members of the state Legislature and the President of the Senate. The System is administered by a ten-member Board of Trustees (Board) that includes the state Treasurer; one gubernatorial appointee who is a member of PERS; two state employees; two PERS retirees; and one representative each from public schools and community colleges, state universities, municipalities, and counties. With the exception of the state Treasurer and the gubernatorial appointee, all members are elected to staggered six-year terms by the constituents they represent.

The System also oversees the MDC and the ORP; however, these plans are not part of the System's reporting entity. The System has contracted with a third-party to administer the MDC plan. MDC is a savings plan organized in accordance with IRC § 457 and is established or may be amended under Miss. Code Ann. § 25-14-1 et seq. Eligible participants are any persons - whether appointed, elected, or under contract - providing services for the state, state agencies, counties, municipalities, or other political subdivisions for which compensation is paid. The plan permits participants to defer a portion of their income. Membership of ORP is composed of eligible teachers and administrators of institutions of higher learning appointed or employed on or after July 1, 1990, who elect to participate in ORP and reject membership in PERS. Title 25, Article 11 of the Mississippi Code states that the Board of the System will provide for administration of the ORP program. MDC and ORP participants direct the investment of their funds among investment managers and vendors. Benefits payable to participants of MDC and ORP are not obligations of the state of Mississippi. Such benefits and other rights of participants or their beneficiaries are the liability of the managers and vendors and are governed solely by the terms of the agreements issued by them. Financial information and activity associated with these plans have been appropriately excluded from this report.

MEMBERSHIP AND BENEFIT PROVISIONS

PERS - Membership in PERS is a condition of employment granted upon hiring for qualifying employees and officials of the state of Mississippi (the State), state universities, community and junior colleges, and teachers and employees of the public-school districts. For those persons employed by political subdivisions and instrumentalities of the State, membership is contingent upon approval of the entity's participation in PERS by the Board. If approved, membership for the entity's employees is a condition of employment and eligibility is granted to those who qualify upon hiring. Members and employers are statutorily required to contribute certain percentages of salaries and wages as specified by the Board. A member who terminates employment from all covered employers and who is not eligible to receive monthly retirement benefits may request a full refund of his or her accumulated member contributions plus interest. Upon withdrawal of contributions, a member forfeits service credit represented by those contributions.

Participating members who are vested and retire at or after age 60 or those who retire regardless of age with at least 30 years of creditable service (25 years of creditable service for employees who became members of PERS before July 1, 2011) are entitled, upon application, to an annual retirement allowance payable monthly for life in an amount equal to 2.0 percent of their average compensation for each year of creditable service up to and including 30 years (25 years for those who became members of PERS before July 1, 2011), plus 2.5 percent for each additional year of creditable service. For those who became members on or after July 1, 2011, there is an actuarial reduction in the benefit for each year of creditable service below 30 years or the number of years in age that the member is below 65, whichever is less. Average compensation is the average of the employee's earnings during the four highest compensated years of creditable service. A member may elect a reduced retirement allowance payable for life with the provision that, after death, a beneficiary receives benefits for life or for a specified number of years. Benefits vest upon completion of eight years of membership service (four years of membership service for those who became members of PERS before July 1, 2007). PERS also provides certain death and disability benefits. In the event of death prior to retirement of any member whose spouse and/or children are not entitled to a retirement allowance, the deceased member's accumulated contributions and interest are paid to the designated beneficiary.

A Cost-of-Living Adjustment (COLA) payment is made to eligible retirees and beneficiaries. The COLA is equal to 3.0 percent of the annual retirement allowance for each full fiscal year of retirement up to the year in which the retired member reaches age 60 (55 for those who became members of PERS before July 1, 2011), with 3.0 percent compounded for each fiscal year thereafter. For the year ended June 30, 2024, the total COLA payments for PERS were \$952,896,000.

Plan provisions and contribution rates are established by Miss. Code Ann. § 25-11-1 et seq., (1972, as amended) and may be amended only by the Mississippi Legislature.

MHSPRS - Membership in MHSPRS is a condition of employment granted upon hiring for all officers of the Mississippi Highway Safety Patrol who have completed a course of instruction in an authorized highway patrol training school on general law enforcement and who serve as sworn officers of the highway patrol in the enforcement of the laws of the State. Members and employers are statutorily required to contribute certain percentages of salaries and wages as specified by the Administrative Board of MHSPRS. Participating members who withdraw from service at or after age 55 with at least five years of membership service, or after reaching age 45 with at least 20 years of creditable service, or with 25 years of service at any age, are entitled, upon application, to an annual retirement allowance payable monthly for life in an amount equal to 2.5 percent of average compensation during the four highest consecutive years of earnings, with an actuarial reduction in the benefit for each year below age 55 or for each year under 25 years of service, whichever is less. MHSPRS also provides certain death and disability benefits. In the event of death prior to retirement of any member whose spouse and/or children are not entitled to a retirement allowance, the deceased member's accumulated contributions and interest are paid to the designated beneficiary. A member who terminates employment from the highway patrol and who is not eligible to receive monthly retirement benefits may request a full refund of his or her accumulated employee contributions plus interest. Upon withdrawal of contributions, a member forfeits service credit represented by those contributions.

A COLA payment is made to eligible retirees and beneficiaries. The COLA is equal to 3.0 percent of the annual retirement allowance for each full fiscal year of retirement up to the year in which the retired member reaches age 60, with 3.0 percent compounded for each fiscal year thereafter. For the year ended June 30, 2024, the total COLA payments for MHSPRS were \$12,834,000.

Plan provisions and the Administrative Board's authority to determine contribution rates for MHSPRS are established by Miss. Code Ann. § 25-13-1 et seq., (1972, as amended) and may be amended only by the Mississippi Legislature.

SLRP - Membership in SLRP is composed of all elected members of the state Legislature and the President of the Senate. This plan is designed to supplement the provisions of PERS. Members and employers are statutorily required to contribute certain percentages of salaries and wages as specified by the Board.

The retirement allowance is 50.0 percent of an amount equal to the retirement allowance payable by PERS, determined by creditable service as an elected senator or representative in the state Legislature or as President of the Senate. Benefits vest upon completion of the requisite number of membership service years in PERS. SLRP also provides certain death and disability benefits. In the event of death prior to retirement of any member whose spouse and/or children are not entitled to a retirement allowance, the deceased member's accumulated contributions and interest are paid to the designated beneficiary. A member who terminates legislative employment and who is not eligible to receive monthly retirement benefits may request a full refund of his or her accumulated employee contributions plus interest. Upon withdrawal of contributions, a member forfeits service credit represented by those contributions.

Retirees and beneficiaries of SLRP may receive COLAs calculated identically to PERS retirees and beneficiaries. For the year ended June 30, 2024, the total COLAs for SLRP were \$469,000.

Plan provisions and the Board's authority to determine contribution rates for SLRP are established by Miss. Code Ann. § 25-11-301 et seq., (1972, as amended) and may be amended only by the Mississippi Legislature.

MRS - Membership in the two general municipal employee plans and the 17 fire and police disability and relief systems under MRS was granted to all municipal employees, fire fighters, and police officers who were not already members of PERS and who were hired prior to July 1, 1976. Two fire and police plans elected to extend the eligibility period for membership to July 1, 1987. All MRS plans were closed to new members by July 1, 1987.

Eligible employees hired after July 1, 1987, automatically become members of PERS. Members covered by MRS were required to contribute varying amounts of their salary, depending on the actuarial soundness of their respective plans. Each employer contributes the remaining amounts necessary to finance participation of its own employees in MRS.

Regardless of age, participating employees who retired with at least 20 years of membership service are entitled to an annual retirement allowance payable monthly for life in an amount equal to 50.0 percent of their average monthly compensation and to an additional 1.7 percent for each year of creditable service beyond 20 years, not to exceed 66.67 percent of average monthly compensation, except as may otherwise be provided through local and private legislation. Average monthly compensation for the MRS plans is the monthly average for the last six months of service. Certain participating employers provide a minimum monthly retirement allowance.

The retirees and beneficiaries of MRS plans with provisions for COLAs who are receiving a retirement allowance on July 1 of each fiscal year may be entitled to a COLA. This payment is equal to the annual percentage change of the Consumer Price Index (CPI) but not to exceed 2.5 percent of the annual retirement allowance for each full fiscal year of retirement. Certain MRS plans may adopt a COLA other than one linked to the change in the CPI. These additional payments will be made only when funded by the employers. For the year ended June 30, 2024, the total COLAs for MRS plans were \$5,198,000.

Plan provisions are established by Miss. Code Ann. § 21-29-1 et seq., Articles 1, 3, 5 and 7, (1972, as amended) and annual local and private legislation. Statutes may be amended only by the Mississippi Legislature.

Summary of Participating Employers and Members

	PERS	MHSPRS	SLRP	MRS	TOTAL
<i>Employers:</i>					
State Agencies	108	1	1	-	110
State Universities	9	-	-	-	9
Public Schools	140	-	-	-	140
Community/Junior Colleges	15	-	-	-	15
Counties	82	-	-	-	82
Municipalities	244	-	-	17	261
Other Political Subdivisions	260	-	-	-	260
Total Employers	858	1	1	17	877
<i>Members:</i>					
Active Vested	73,402	337	103	-	73,842
Active Non-vested	72,434	167	72	-	72,673
Total Active Members	145,836	504	175	-	146,515
Inactive Vested	17,155	41	35	-	17,231
Inactive Non-vested	83,811	35	30	-	83,876
Total Inactive Members	100,966	76	65	-	101,107
Retirees & Beneficiaries	118,321	806	247	1,337	120,711
Total Retired/Inactive Members	219,287	882	312	1,337	221,818
Total Members	365,123	1,386	487	1,337	368,333
<i>Active Members by Employer:</i>					
State Agencies	25,333	504	175	-	26,012
State Universities	17,318	-	-	-	17,318
Public Schools	60,549	-	-	-	60,549
Community/Junior Colleges	5,836	-	-	-	5,836
Counties	14,795	-	-	-	14,795
Municipalities	15,410	-	-	-	15,410
Other Political Subdivisions	6,595	-	-	-	6,595
Total Active Members	145,836	504	175	-	146,515

Note 2: Summary of Significant Accounting Policies

FINANCIAL REPORTING ENTITY

The System is considered a blended component unit of the state of Mississippi reporting entity in accordance with Governmental Accounting Standards Board (GASB) requirements. Public employees of the state and its political subdivisions are provided pension benefits by the System, and administration expenses of the System are subject to legislative budget controls.

BASIS OF ACCOUNTING

PERS, MHSPRS, MRS and SLRP use the accrual basis of accounting and the economic resources measurement focus as contained in generally accepted accounting principles established by the GASB (GAAP). Member and employer contributions are recognized as revenue when due pursuant to legal requirements; investment income is recognized when earned. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Other expenses are recognized when incurred.

INVESTMENTS

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Corporate bonds are valued based on yields currently available on comparable securities from issuers of similar credit ratings. Mortgage securities are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. Short-term investments are reported at fair value when published prices are available or at cost plus accrued interest, which approximates fair value. The fair value of commingled real estate funds is based on independent appraisals, while REITS traded on a national or international exchange are valued at the last reported sales price at current exchange rates. For individual investments where no readily ascertainable fair value exists, the System, in consultation with its investment advisors and custodial bank, has determined the fair values based on cash flows and prices for similar investments. Security transactions are accounted for on a trade-date basis.

CAPITAL ASSETS

Capital assets used for administering the plans are carried at historical cost. Depreciation is provided using the straight-line method. The System's policy is to capitalize all acquisitions of furniture and equipment with a unit cost of \$5,000 or more and software with a cost of \$1,000,000 or more. The following schedule summarizes estimated useful lives by asset classification:

Asset Classification	Estimated Useful Life
Building	40 Years
Improvements	20 Years
Furniture & Equipment	5-15 Years
Computer Equipment	3 Years
Vehicles	3-10 Years
Software	5 Years

Equipment leases and software subscriptions with aggregate payments over the life of the contract in excess of \$100,000 are capitalized as right-to-use assets. The assets are amortized over the life of the lease or subscription period.

ACCUMULATED PERSONAL LEAVE AND MAJOR MEDICAL LEAVE

Miss. Code Ann. § 25-3-97, (1972, as amended) authorizes a lump sum payment for a maximum of 30 days of accrued personal leave upon termination of employment. No payment is authorized for accrued major medical leave unless the employee presents medical evidence that his or her physical condition is such that he or she no longer has the capacity to work in state government. Accumulated personal leave (including fringe benefits) of employees directly related to the administration of the System is paid from the pension trust funds and is accrued in the financial statements when earned, up to a maximum of 30 days per employee. The System does not accrue accumulated major medical leave since it is not probable that the compensation will be paid and since the leave vests only upon termination for medical disability.

USE OF ESTIMATES IN THE PREPARATION OF FINANCIAL STATEMENTS

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and the reported amounts of additions to and deductions from net position. Actual results could differ from those estimates.

OTHER POSTEMPLOYMENT BENEFITS (OPEB)

The net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB and OPEB expense have been measured using the same basis as the State Life and Health Insurance Plan's fiduciary net position. For the purposes of determining the OPEB fiduciary net position, benefit payments are recognized when due and payable in accordance with benefit terms. The OPEB Plan reports investments at fair value.

ANNUAL BUDGET

Annual budgets are legally adopted for the administrative expenditure portion of the System's operations and are funded by earnings of the System. A budget request is approved by the Board and submitted to the state Legislature, which legally enacts the budget in the form of an appropriation bill during the subsequent legislative session. Changes may be made in budget categories consistent with legislative authority.

Note 3: Cash, Cash Equivalents, and Investments

CASH AND CASH EQUIVALENTS

For cash deposits and cash equivalents, custodial credit risk is the risk that, in the event of a bank failure, the government's deposits may not be returned to it. Miss. Code Ann. § 25-11-121 (1972, as amended) provides that funds may be deposited in any institution insured by the Federal Deposit Insurance Corporation (FDIC) that maintains a facility that takes deposits in the State or in a custodial bank. As of June 30, 2024, deposits totaling \$134,044,000 were covered by FDIC.

The System's Board of Trustees determines the degree of collateralization necessary for both foreign and domestic demand deposits in addition to that which is guaranteed by FDIC. Deposits of the System must, where possible, be safeguarded and guaranteed by the posting of bonds, notes, and other securities as collateral by the depository. Where possible, the types of collateral securing deposits are limited to securities in which the System itself may invest. The Board has formally adopted a short-term investment policy that requires the fair value of securities guaranteeing deposits be equal to 100.0 percent of the funds on deposit at all times.

At June 30, 2024, the System's custodial bank held \$877,852,000 in cash equivalents in the highly liquid BNYM Government Short-Term Investment Fund (GSTIF). GSTIF is a custodial bank-sponsored commingled fund invested in short-term domestic government securities and repurchase agreements. Cash equivalents are created through daily sweeps of excess cash held in investment manager accounts and the internally managed administrative account used by the System to maintain appropriate liquidity for meeting short-term cash obligations.

INVESTMENTS

Investment assets for all systems are pooled and invested in equity securities, debt securities, real estate, and private equity. These investments are accounted for as part of the PERS pension trust fund and then allocated to MHSPRS, MRS, and SLRP based on their proportionate share.

For the fiscal year ending June 30, 2024, the annual money-weighted rate of return on the System's investments was 10.37 percent. A money-weighted rate of return expresses investment performance, net of investment expense, and considers the effect of timing of transactions that increase the amount of pension plan investments, such as contributions, and those that decrease the amount of pension plan investments, such as benefit payments.

Investment Policies – As stated in Miss. Code Ann. § 25-11-121, (1972, as amended) the System is authorized to invest in the following:

- » Corporate bonds and taxable municipal bonds, corporate short-term obligations of corporations or of wholly owned subsidiaries of corporations, whose short-term obligations are rated A-2 or better by S&P, rated P-2 or better by Moody's Investment Service, F-2 or better by Fitch Ratings, Ltd., or the equivalent of these ratings if assigned by another United States Securities and Exchange Commission designated Nationally Recognized Statistical Rating Organization;
- » Agency and nonagency residential and commercial mortgage-backed securities and collateralized mortgage obligations;
- » Asset-backed securities;
- » Bank loans;
- » Convertible bonds;
- » Bonds of the Tennessee Valley Authority;
- » Bonds, notes, certificates and other valid obligations of the United States and other valid obligations of any federal instrumentality that issues securities under authority of an act of Congress and are exempt from registration with the Securities and Exchange Commission;
- » Bonds, notes, debentures, and other securities issued by any federal instrumentality and fully guaranteed by the United States;
- » Interest-bearing revenue bonds or notes that are general obligations of any state in the United States or of any city or county therein;

- » Bonds of established non-United States companies and foreign government securities. The Board may take requisite action to effectuate or hedge transactions or invest in currency through foreign or domestic banks, including the purchase and sale, transfer, exchange, or otherwise disposal of, and generally deal in foreign exchange through the use of foreign currency, interbank forward contracts, futures contracts, options contracts, swaps and other related derivative instruments, notwithstanding any other provisions of the statute to the contrary;
- » Shares of stocks, common and/or preferred, of corporations created by or existing under the laws of the United States or any state, district or territory thereof and shares of stocks, common and/or preferred, and convertible securities of non-United States companies; provided: (1) the maximum investments in stocks shall not exceed 80 percent of the total book value of the total investment fund of the System; (2) the stock of such corporation shall be listed on a national stock exchange or be traded in the over-the-counter market; (3) the outstanding shares of such corporation shall have a total fair value of not less than \$50,000,000; (4) the amount of investment in any one corporation shall not exceed 3 percent of the book value of the assets of the System; and (5) the shares of any one corporation owned by the system shall not exceed 5 percent of that corporation's outstanding stock. The Board may take requisite action utilizing foreign currency as an investment vehicle, or to effectuate or hedge transactions for shares of stocks and convertible securities of non-United States companies through foreign or domestic banks, including the purchase and sale, transfer, exchange, or otherwise disposal of, and generally deal in foreign exchange through the use of foreign currency, interbank forward contracts, futures contracts, options contracts, swaps and other related derivative instruments, notwithstanding any other provisions of this article to the contrary;
- » Covered call and put options on securities traded on one or more of the regulated exchanges;
- » Pooled or commingled funds managed by a corporate trustee or by a Securities and Exchange Commission registered investment advisory firm retained as an investment manager by the Board, and shares of investment companies and unit investment trusts registered under the Investment Company Act of 1940, where such pooled or commingled funds or shares are comprised of common or preferred stocks, bonds, money market instruments or other investments authorized under this section. Such investment in commingled funds or shares shall be held in trust; provided that the total book value of investments under this paragraph shall at no time exceed 5 percent of the total book value of all investments of the system. Any investment manager approved by the Board shall invest such commingled funds or shares as a fiduciary;
- » Pooled or commingled real estate funds or real estate securities managed by a corporate trustee or by a Securities and Exchange Commission registered investment advisory firm retained as an investment manager by the Board. Such investment in commingled funds or shares shall be held in trust; provided that the total book value of investments under this paragraph shall at no time exceed 10 percent of the total book value of all investments of the System. Any investment manager approved by the Board shall invest such commingled funds or shares as a fiduciary. The 10 percent limitation in this paragraph shall not be subject to the 5 percent limitation in the previous paragraph; and
- » Types of investments not specifically authorized by this subsection if the investments are in the form of a separate account managed by a Securities and Exchange Commission registered investment advisory firm retained as an investment manager by the Board, or a limited partnership or commingled fund approved by the Board provided that the total book value of investments under this paragraph shall at no time exceed 20 percent of the total book value of all investments of the System. Any person or entity who exercises any discretionary authority or discretionary control respecting management of the separate account, limited partnership or commingled fund, or who exercises any authority or control respecting management or disposition of the assets of the separate account, limited partnership or commingled fund, shall exercise such authority or control as a fiduciary.

The statute requires that investments of the System be managed solely for the interest of the System with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent 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 sums, including diversifying the investments of the System so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so.

The PERS Board has adopted a policy that further restricts all short-term investments to be of corporations with long-term debt rated A or better by S&P or Moody's.

In accordance with the System's investment policy, the System's investment consultant conducts periodic asset allocation studies that include consideration of projected future liabilities of the System, expected risk, return and correlations for various asset classes and the System's statutory investment restrictions. An asset allocation study is performed every five years, or more frequently should significant liability changes occur. A strategic long-term asset allocation is adopted by the Board in conjunction with the study. The Investment Committee of the Board evaluates the actual investment allocation quarterly and may propose periodic adjustments to the System's strategic long-term asset allocation based on the investment consultant's recommendations, market conditions, and internal investment analysis.

The following table shows the Board approved asset allocation policy applicable for fiscal year 2024:

Asset Class	Target Allocation
Domestic Equities	25.0%
International Equities	20.0
Global Equities	12.0
Total Equities	57.0%
Debt Securities	18.0
Real Estate	10.0
Private Equity	10.0
Private Infrastructure	2.0
Private Credit	2.0
Cash & Equivalents	1.0

Fair Value Measurements – Fair value is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on valuation inputs. Highest priority is given to unadjusted quoted prices in active markets and relies on observable inputs when available. The lowest level results from unobservable inputs. The three levels of the fair value hierarchy are as follows:

- » Level 1 – Unadjusted quoted prices for identical instruments traded on an active exchange;
- » Level 2 – Quoted prices in active markets for similar instruments, quoted prices for identical or similar instruments in markets not active, and model-derived valuations in which all significant inputs are observable; and
- » Level 3 – Valuations derived from valuation techniques in which significant inputs are unobservable.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The System's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset.

The System's equity and debt securities in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Included in Level 1 equities are real estate investment trusts (REITs), exchange-traded securities that provide indirect exposure to real estate properties and real estate management companies.

Securities classified in Level 2 of the fair value hierarchy are valued using a proprietary pricing source. The primary proprietary source uses continuous evaluations throughout the trading day based on factors such as dealer quotes and trades, trade execution data and transaction reporting services. Market sources, relative credit information, observed market movements and sector news are integrated and incorporated into evaluation pricing applications and models.

Commercial and residential mortgage-backed securities classified in Level 3 are valued using discounted cash flow techniques. Collateralized debt obligations classified in Level 3 are valued using a proprietary model that monitors structured product markets, interest rate movements, new issue information and other pertinent data. Evaluations of tranches (non-volatile and volatile) are based on market modeling, trading, and pricing conventions. New issue features are analyzed on data such as pricing speed, spread, and volatility. Information is also solicited from outside sources including secondary dealers, portfolio managers, and research analysts.

The System has the following fair value measurements as of June 30, 2024 [in thousands]:

	Amounts	Level 1	Level 2	Level 3
<i>Equity Securities:</i>				
Domestic Stock	\$11,398,075	\$11,398,075	\$-	\$-
Foreign Stock	8,067,178	8,067,178	-	-
Total Equity Securities	19,465,253	19,465,253	-	-
<i>Debt Securities:</i>				
Commercial Paper	718,516	-	718,516	-
Repurchase Agreements	397,008	-	397,008	-
US Government Agency Obligations	68,815	-	68,815	-
US Treasury Obligations	1,348,428	1,348,428	-	-
Collateralized Mortgage Obligations	730,505	-	727,819	2,686
Domestic Corporate Bonds	1,628,698	-	1,582,232	46,466
Non-Domestic Corporate Bonds	1,173,510	-	1,173,510	-
Mortgage Pass-Throughs	1,162,766	-	1,162,766	-
State & Local Obligations	118,709	-	118,709	-
Asset-Backed Securities	749,635	-	749,635	-
Yankee/Global Bonds	38,624	-	38,624	-
Sovereign Governments Debt	1,084,657	-	1,084,657	-
Total Debt Securities	9,219,871	1,348,428	7,822,291	49,152
Total Investments by Fair Value Level	28,685,124	20,813,681	7,822,291	49,152
<i>Investments Measured at NAV:</i>				
Total Real Estate*	2,563,869	* REITS, exchange traded investments, are reported in equity securities for this presentation, REITS totaled \$309.7 million.		
Private Equity Funds	3,729,019			
Private Credit Funds	43,228			
Total Investments Measured at NAV	6,336,116	**Total investments do not include the \$2.0 billion of Obligations under Securities Lending.		
Total Investments Measured at Fair Value	35,021,240			
International Currency	501,918			
Total Investments**	\$35,523,158			
<i>Investments Derivative Instruments:</i>				
Foreign Exchange Contracts (Liabilities)	1,393,918			
Total Investment Derivative Instruments	\$1,393,918			

As of June 30, 2024, the System had real estate, private equity, and private credit investments legally structured as limited partnerships. The System was one of the limited partners within each fund, with the investment managers serving as the general partners.

Real estate funds include open-end and closed-end limited partnerships that invest primarily in domestic commercial real estate. The fair values of these commingled investment funds are calculated using the net asset value (NAV) per share and the number of shares owned by the System. Fair values of the underlying properties are based on the most recent independent appraisal values. Valuations are conducted at least annually by independent appraisal firms who are members of the Appraisal Institute. The governing document for each open-end real estate fund provides investors the ability to request the redemption of all or part of their investment.

A redemption request is funded by the sale of underlying real estate investments held by the open-end fund. Closed-end real estate funds have a finite life and do not contain provisions for limited partner redemptions on demand. Typically, real estate investments must be made within the first three to four years of the partnership's lifespan and liquidated by the end of the 10th year. As underlying real estate investments are sold over the life of the closed-end fund, pro-rata distributions of the proceeds are made to each partner.

The System's private equity investments consist of two fund-of-funds limited partnerships that invest in multiple private equity funds. Private equity funds invest primarily in non-public companies whose prices are not quoted on an exchange, are typically illiquid in nature, and cannot be redeemed on demand. It is probable that the private equity underlying investments will be sold at an amount different from the NAV per share of the System's ownership interest in partner's capital. Fair values of underlying investments have been determined using recent observable transaction information for similar investments and non-binding bids received from potential buyers of the investments of each partnership. The System's ownership agreements allow pro-rata distributions from liquidation of the assets. Based on the terms of each limited partnership, all partnership assets should be liquidated over the 10- to 12-year life of the partnerships. Each private equity fund's general partner has full discretion for the disposition of each partnership investment, including determining the most appropriate timing for the sale, determining the best exit strategy, identifying buyers and approving sale transactions of partnership investments.

In fiscal year 2024, the System added two private credit investment managers, which are intended to diversify the overall portfolio, provide yield enhancement, and contribute to the absolute return of the investment program. Private credit funds are pools of actively managed capital that invest primarily in loans to private companies, seeking to generate income. The System's private credit funds are limited partnerships that consist of direct lending funds, opportunistic credit funds, and asset-backed credit funds. The underlying assets of these partnerships are generally illiquid with redemption requests granted periodically. The fair values of the partnerships holding these funds have been determined using the NAV per share of the underlying investments. Based on the terms of each limited partnership, all partnership assets should be liquidated within three to five years once fully funded.

Investments Measured at NAV [in thousands]:

	Fair Value	Unfunded Commitments	Redemption Eligibility	Redemption Notice Period
<i>Real Estate Funds:</i>				
Core – Open End	\$1,974,899	\$-	Quarterly	45-90 Days
Value Added – Closed End	552,222	359,066	N/A	N/A
Timber	36,748	-	N/A	N/A
Total Real Estate	2,563,869	359,066		
<i>Private Equity Funds:</i>				
Diversified	3,729,019	1,342,274	N/A	N/A
Total Private Equity	3,729,019	1,342,274		
<i>Private Credit Funds:</i>				
Diversified	43,228	457,221	N/A	N/A
Total Private Credit	43,228	457,221		
Total Investments Measured at NAV	\$6,336,116	\$2,158,561		

The average life of a fund is 10 to 12 years.

Investment Commitments - As part of the limited partnership agreements, the System agrees to potentially invest up to the committed amounts during the stated fund investment period.

As of June 30, 2024, the System had the following outstanding investment commitments [in thousands]:

	Committed Capital	Capital Contributed Net of Recallable Distributions & Released Commitments	Unfunded Commitments
Real Estate	\$1,350,000	\$990,934	\$359,066
Private Equity	5,512,928	4,170,654	1,342,274
Private Credit	500,000	42,779	457,221
Totals	\$7,362,928	\$5,204,367	\$2,158,561

Credit Risk - Credit risk is the risk that an issuer or other counterparty will not fulfill its obligation to the holder of the investment. The System follows the statute as previously discussed as its policy for limiting exposure to credit risk. The System's exposure to credit risk as of June 30, 2024, was as follows [in thousands]:

Investment Type	Quality Ratings at Fair Value					
	Aaa/AAA	Aa/AA	A/A	Baa/BBB	Ba/BB	B/B
Asset-Backed Securities	\$634,965	\$18,444	\$60,111	\$29,421	\$3,104	\$864
Collateralized Mortgage Obligations	320,385	330,302	9,351	30,793	19,420	2,045
Commercial Paper	-	270,506	448,010	-	-	-
Corporate Bonds	104,669	499,962	772,456	1,035,672	268,035	102,183
Mortgage Pass-Throughs	-	1,015,126	-	-	-	-
Repurchase Agreements	-	-	120	-	-	-
Sovereign Governments Debt	58,678	190,481	189,556	268,596	208,424	68,598
State & Local Obligations	26,649	59,655	30,732	1,673	-	-
US Government Agency Obligations	-	68,815	-	-	-	-
Yankee/Global Bonds	17,362	8,618	12,052	592	-	-
Totals *	\$1,162,708	\$2,461,909	\$1,522,388	\$1,366,747	\$498,983	\$173,690

Investment Type	Caa/CCC	Ca/CC	C/C	D/D	NR**	Total
Asset-Backed Securities	\$2,717	\$1	\$8	\$-	\$-	\$749,635
Collateralized Mortgage Obligations	1,785	598	631	-	15,195	730,505
Commercial Paper	-	-	-	-	-	718,516
Corporate Bonds	9,147	2,045	876	-	7,163	2,802,208
Mortgage Pass-Throughs	-	-	-	-	-	1,015,126
Repurchase Agreements	-	-	-	-	396,888	397,008
Sovereign Governments Debt	74,988	7,720	1,195	7,855	8,566	1,084,657
State & Local Obligations	-	-	-	-	-	118,709
US Government Agency Obligations	-	-	-	-	-	68,815
Yankee/Global Bonds	-	-	-	-	-	38,624
Totals *	\$88,637	\$10,364	\$2,710	\$7,855	\$427,812	\$7,723,803

*In accordance with GASB guidelines, totals exclude US Treasury obligations and GNMA mortgage pass-throughs due to their explicit guarantee by the US Government.

Short-term US Treasury Obligations	\$389,062
US Treasury Obligations	959,366
GNMA Mortgage Pass-Throughs	147,640
Total	\$1,496,068

**Not publicly rated.

Custodial Credit Risk - 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 investment 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. Miss. Code Ann. § 25-11-121, (1972, as amended) requires that all investments be clearly marked as to ownership, and to the extent possible, shall be registered in the name of the System.

Of the defined benefit pension funds' \$35.5 billion in investments, including securities lending, at June 30, 2024, \$2.3 billion were exposed to custodial credit risk. These are cash collateral reinvestment securities held in the name of the custodian who acquired them as lending agent/counterparty, and the securities on loan for securities collateral that is held in the name of the lending agent.

	Fair Value (in thousands)
Securities Purchased with Cash Collateral	\$2,049,156
Securities Lent for Non-Cash Collateral	285,365
Total Subject to Custodial Credit Risk	\$2,334,521

Interest Rate Risk - Interest rate risk is the risk that changes in interest rates on securities will adversely affect the fair value of an investment. As of June 30, 2024, the System had the following debt security investments and maturities:

	Fair Value [in thousands]	Investment Maturities [in years]			
		Less Than 1	1-5	6-10	More Than 10
Asset-Backed Securities	\$749,635	\$565,886	\$81,826	\$25,972	\$75,951
Collateralized Mortgage Obligations	730,505	323,290	3,746	4,290	399,179
Commercial Paper	718,516	718,516	-	-	-
Corporate Bonds	2,802,208	645,962	1,222,393	532,909	400,944
Mortgage Pass-Throughs	1,162,766	1	207	4,888	1,157,670
Repurchase Agreements	397,008	397,008	-	-	-
Sovereign Governments Debt	1,084,657	47,821	291,326	414,112	331,398
State & Local Obligations	118,709	6,443	64,510	4,945	42,811
US Government Agency Obligations	68,815	44,730	16,199	3,356	4,530
US Treasury Obligations	1,348,428	410,923	93,152	371,494	472,859
Yankee/Global Bonds	38,624	12,052	15,505	10,475	592
Totals	\$9,219,871	\$3,172,632	\$1,788,864	\$1,372,441	\$2,885,934

The System's investment policy does not limit investment maturities as a means of managing its exposure to potential fair value losses arising from future changes in interest rates. Market or interest rate risk is the greatest risk faced by an investor in the debt securities market. The price of a debt security typically moves in the opposite direction of the change in interest rates. Asset-backed securities, collateralized mortgage obligations, and mortgage pass-throughs are examples of investments whose fair values may be highly sensitive to interest rate changes. These securities are reported at fair value in the Statement of Fiduciary Net Position.

Asset-backed securities (ABS) are bonds or notes backed by loan paper or accounts receivable and are originated by banks, credit card companies, or other credit providers. The originator of the loan or accounts receivable paper sells it to a specially created trust, which repackages it as securities. Asset-backed securities have been structured as pass-throughs and as structures with multiple bond classes. Of the \$749.6 million in ABS that the System held as of June 30, 2024, \$32.2 million are highly sensitive to changes in interest rates. System policy prohibits ABS with leveraged structures or residual interests.

Collateralized mortgage obligations (CMOs) are bonds 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 the CMO's established payment order. Some CMO tranches have more stable cash flows relative to changes in interest rates while others are significantly more 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 that make up the collateral pool. A reduction in interest payments causes a decline in cash flows and a decline in the fair value of the CMO security. Rising interest rates may cause an increase in interest payments and an increase in the fair value of the security. As of June 30, 2024, the System held \$730.5 million in CMOs and of this amount, \$24.2 million were in tranches highly sensitive to future changes in interest rates. CMOs include Interest-Only (IO) and Principal-Only (PO) strips, which are mortgage obligations separated into their interest and principal components. During periods of declining interest rates, these securities are highly sensitive to prepayments by mortgagors. As of June 30, 2024, the System held only IO strips valued at \$11.1 million. The System's derivatives policy limits IO and PO strips to 3.0 percent of the investment portfolio and prohibits CMO residuals.

As of June 30, 2024, the System had invested \$1.2 billion in mortgage pass-through securities issued by the Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, and Government National Mortgage Association. These investments are moderately sensitive to changes in interest rates because they are backed by mortgage loans and subject to prepayment risk.

Foreign Currency Risk - Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. The System's asset allocation policy does not limit foreign currency-denominated investments of the System. The Investment Committee of the Board evaluates the actual investment asset allocation quarterly, in accordance with its target asset allocation policy. Based on current market conditions, the Board adjusts the allocation as necessary.

The System's exposure to foreign currency risk at June 30, 2024, was as follows [in thousands]:

	Cash & Equivalents	Equities & REITS	Debt Securities	Total Fair Value	Percent
<i>Currency</i>					
Argentina Peso	\$112	\$-	\$-	\$112	-%
Australian Dollar	(69,090)	261,938	68,523	261,371	3.55
Brazil Real	(6,510)	112,751	28,324	134,565	1.83
Canadian Dollar	(75,678)	423,756	72,457	420,535	5.72
Chilean Peso	1,781	7,316	-	9,097	0.12
Chinese Yuan Renminbi	(16,819)	155,890	7,633	146,704	2.00
Colombian Peso	(8,412)	-	12,050	3,638	0.05
Czech Koruna	(5,282)	515	1,538	(3,229)	(0.04)
Danish Krone	(2,064)	202,489	4,022	204,447	2.78
Egyptian Pound	8	-	-	8	-
Euro Currency Unit	(462,410)	1,554,659	472,475	1,564,724	21.26
Hong Kong Dollar	1,186	528,607	-	529,793	7.21
Hungarian Forint	(6,697)	25,902	7,889	27,094	0.37
Indian Rupee	(1,579)	186,578	15,126	200,125	2.72
Indonesian Rupiah	(7,961)	59,274	13,876	65,189	0.89
Israel Shekel	410	17,495	352	18,257	0.25
Japanese Yen	(47,554)	1,206,586	48,398	1,207,430	16.42
Kuwaiti Dinar	632	11	-	643	0.01
Malaysian Ringgit	147	10,980	-	11,127	0.15
Mexican New Peso	(6,094)	65,025	21,332	80,263	1.09
New Taiwan Dollar	(6,522)	377,717	-	371,195	5.05
New Zealand Dollar	(4,099)	5,896	6,234	8,031	0.11
Norwegian Krone	1,292	34,416	-	35,708	0.49
Pakistan Rupee	-	5,560	-	5,560	0.08
Peruvian Nuevo Sol	(4,471)	-	4,553	82	-
Philippines Peso	36	190	-	226	-
Polish Zloty	(324)	8,632	7,965	16,273	0.22
Pound Sterling	(150,667)	830,584	157,253	837,170	11.39
Qatari Riyal	125	2,314	-	2,439	0.03
Russian Ruble	82	4,019	-	4,101	0.06
Saudi Arabia Riyal	157	23,746	-	23,903	0.33
Singapore Dollar	(5,260)	71,524	-	66,264	0.90
South African Rand	8,030	95,135	727	103,892	1.41
South Korean Won	(29,681)	293,231	23,008	286,558	3.90
Swedish Krona	(5,638)	237,796	3,799	235,957	3.21
Swiss Franc	7,026	372,293	-	379,319	5.16
Thailand Baht	(143)	24,083	-	23,940	0.33
Turkish Lira	3,952	37,545	2,073	43,570	0.59
UAE Dirham	334	5,400	-	5,734	0.08
Uruguayan Peso	(1,631)	-	22,176	20,545	0.28
Total	(\$899,276)	\$7,249,853	\$1,001,783	\$7,352,360	100.00%

Derivative Instruments - At June 30, 2024, the System held derivative instruments for currency conversions related to pending foreign exchange contracts. The System's derivatives policy limits foreign currency forwards to no more than 100.0 percent of the amount needed to settle pending trades.

At June 30, 2024, the counterparties of the foreign currency forwards primarily had short-term credit ratings of A as rated by the nationally recognized statistical rating organizations. The System's general policy requires that the counterparty has a long-term credit rating of A or better and a short-term credit rating of A-1/P-1, at a minimum. More specifically, the policy requires that all over-the-counter derivatives be rated AA or better by the nationally recognized statistical rating organizations.

The foreign currency forwards are presented in the foreign currency risk table.

The following table presents the investment derivative instruments outstanding at June 30, 2024 [in thousands]:

	Changes in Fair Value		Fair Value at June 30, 2024		
	Notional Units	Classification	Amount	Classification	Amount
<i>Currency</i>					
Australian Dollar	(\$106,552)	Investment Income	(\$430)	Investment	\$430
Brazilian Real	(40,788)	Investment Income	344	Investment	(344)
Canadian Dollar	(86,994)	Investment Income	(74)	Investment	74
Chilean Peso	1,745,629	Investment Income	(104)	Investment	104
Chinese Yuan Renminbi	(120,747)	Investment Income	(215)	Investment	215
Colombian Peso	(36,228,039)	Investment Income	151	Investment	(151)
Czech Koruna	(124,526)	Investment Income	(61)	Investment	61
Danish Krone	(26,674)	Investment Income	66	Investment	(66)
Euro Currency Unit	(453,699)	Investment Income	4,190	Investment	(4,190)
Hungarian Forint	(2,477,956)	Investment Income	23	Investment	(23)
Indian Rupee	(283,387)	Investment Income	41	Investment	(41)
Indonesian Rupiah	(135,995,145)	Investment Income	16	Investment	(16)
Israel Shekel	(1,091)	Investment Income	4	Investment	(4)
Japanese Yen	(12,888,109)	Investment Income	3,852	Investment	(3,852)
Malaysian Ringgit	18	Investment Income	-	Investment	-
Mexican Peso	(126,041)	Investment Income	(1,161)	Investment	1,161
New Taiwan Dollar	(219,904)	Investment Income	38	Investment	(38)
New Zealand Dollar	(11,904)	Investment Income	-	Investment	-
Norwegian Krone	1,494	Investment Income	(2)	Investment	2
Peruvian Sol	(17,136)	Investment Income	121	Investment	(121)
Polish Zloty	(1,591)	Investment Income	113	Investment	(113)
Pound Sterling	(99,670)	Investment Income	1,029	Investment	(1,029)
Singapore Dollar	(8,137)	Investment Income	57	Investment	(57)
South African Rand	142,329	Investment Income	(45)	Investment	45
South Korean Won	(40,720,305)	Investment Income	113	Investment	(113)
Swedish Krona	(77,795)	Investment Income	(183)	Investment	183
Swiss Franc	(6,052)	Investment Income	(192)	Investment	192
Thailand Baht	(8,545)	Investment Income	-	Investment	-
Turkish Lira	132,937	Investment Income	72	Investment	(72)
Uruguayan Peso	(64,334)	Investment Income	2	Investment	(2)
<i>TBA Securities</i>					
U.S. Dollar	\$141,669	Investment Income	(\$100)	Debt Securities	\$125,466

Securities Lending Transactions - The Board has authorized the System to participate in a securities lending program. The System has contracted with its custodian to lend securities to authorized broker-dealers subject to the receipt of acceptable collateral. The types of securities on loan at June 30, 2024, were US government and agency obligations, corporate bonds, REITs, and equities. The contractual agreement with the custodian provides indemnification in the event the borrower fails to return the securities lent or fails to pay the System income distributions by the securities' issuers while the securities are on loan.

Collateral may be in the form of either cash or other securities. All cash collateral is to be in US dollars. For cash collateralized loans, in the case of loaned securities denominated in US dollars or whose primary trading market is located in the US, or sovereign debt issued by foreign governments denominated in US dollars, the amount of cash collateral required is 102.0 percent of the fair value of the loaned securities. In the case of loan securities which are not denominated in US dollars or whose primary trading market is not located in the US, the cash collateral required is 105.0 percent of the fair value of loaned securities. Higher values may be applicable dependent on the jurisdiction in which such loaned securities are customarily traded.

Loans of securities for non-cash collateral denominated in US dollars or whose primary trading market is located in the US require 102.0 percent collateral from the borrowers. In the case of loaned securities which are not denominated in US dollars or whose primary trading market is not located in the US, 105.0 percent collateral is required. The System cannot pledge, lend, or sell the securities received as collateral unless the borrower defaults. Securities non-cash collateral as of June 30, 2024, includes debt securities in accordance with current guidelines. Authorized non-cash securities collateral includes "US Collateral" or "Foreign Collateral", as defined in Sections V(e) and (f) of US Department of Labor Prohibited Transaction Exemption 2006-16. As with cash collateral, the borrower must provide additional collateral to correct any deficiency. Securities held as collateral and the corresponding obligation to return the collateral to the borrower are netted in obligations under securities lending on the Statement of Fiduciary Net Position.

The custodian, as agent for the System, is authorized to reinvest cash collateral received in any investment instrument allowed by the securities lending agreement. The maturities of the loans of securities generally do not match the maturities of the investments purchased with cash collateral. All securities loans can be terminated on demand by either the System or the borrower. At June 30, 2024, the average term of these loans was two days. At June 30, 2024, cash collateral was invested in commercial paper, repurchase agreements, corporate bonds, and asset-backed securities. The weighted average effective duration and weighted average maturity of cash collateral investments were five days.

The following table presents the fair values of the securities on loan and the value of the collateral pledges at June 30, 2024 [in thousands]:

	Fair Value Securities Lent*	Collateral Received
<i>Lent for Cash Collateral:</i>		
Equity Securities	\$1,271,386	\$1,305,656
Debt Securities	681,708	700,394
REITS	39,887	40,780
Subtotal	1,992,981	2,046,830
<i>Lent for Non-Cash Collateral:</i>		
Equity Securities	114,317	121,527
Debt Securities	170,120	185,999
REITS	928	954
Subtotal	285,365	308,480
Total Securities Lent	\$2,278,346	\$2,355,310

** The fair values of the underlying securities loaned for cash and securities collateral include accrued income and expenses.*

The fair value of securities purchased with cash collateral as of June 30, 2024, are presented by type below [in thousands]:

Securities Purchased with Cash Collateral	Fair Value
Commercial Paper	\$717,021
Repurchase Agreements	251,136
Corporate Bonds	590,731
Asset-Backed Securities	490,268
Total	\$2,049,156

The following table details the net income from securities lending for the year ended June 30, 2024 [in thousands]:

	PERS	MHSPRS	MRS	SLRP	TOTAL
Change in Fair Value	\$5,498	\$73	\$20	\$4	\$5,595
Interest Income	124,689	1,649	454	82	126,874
Income From Securities Lending	130,187	1,722	474	86	132,469
<i>Less:</i>					
Interest Expense	114,689	1,516	418	76	116,699
Bank Fees	2,032	27	7	1	2,067
Expenses From Securities Lending	116,721	1,543	425	77	118,766
Net Income From Securities Lending	\$13,466	\$179	\$49	\$9	\$13,703

At June 30, 2024, securities lending total assets with related accrued interest were \$2,059,760,000, and total liabilities with accrued expenses are \$2,055,807,000. The difference of \$3,953,000 is due to the collateral investment fund's change in fair value, agent lender fees, and earnings receivable until the final distribution takes place the following month.

Commission Recapture Program - The Board has authorized the System to participate in a commission recapture program. This program allows the System to recapture a portion of the commissions paid to broker-dealers with which the System has entered into an agreement. Recaptures for the fiscal year ended June 30, 2024, were \$198,000.

Note 4: Capital Assets

Capital asset activity for the year ended June 30, 2024, was as follows [in thousands]:

Description	Beginning Balance	Increases	Decreases	Ending Balance
Capital Assets Not Being Depreciated or Amortized:				
Land	\$508	\$-	\$-	\$508
Construction in Progress	1,209	-	-	1,209
Total Capital Assets Not Being Depreciated or Amortized	1,717	-	-	1,717
Capital Assets Being Depreciated or Amortized:				
Building	18,817	-	-	18,817
Furniture & Equipment	2,480	816	-	3,296
Right-to-Use Asset	2,387	-	-	2,387
Software	20,417	-	-	20,417
Total Capital Assets Being Depreciated or Amortized	44,101	816		44,917
<i>Less Accumulated Depreciation and Amortization:</i>				
Building	8,369	329	-	8,698
Furniture & Equipment	2,090	157	-	2,247
Right-to-Use Asset	555	757	-	1,312
Software	20,417	-	-	20,417
Total Accumulated Depreciation and Amortization	31,431	1,243	-	32,674
Total Capital Assets Being Depreciated or Amortized, Net	12,670	(427)	-	12,243
Net Capital Assets	\$14,387	\$(427)	\$-	\$13,960

Right-to-use assets consist of leased equipment and subscription-based software. The intangible right-to-use assets and related liabilities are recorded under GASB Statement No. 87, *Leases*, and GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*. The average rate of the State's outstanding general obligation bonds, 3.81 percent, was used to arrive at the present value of payments over the life of the agreements. The present value of each agreement was used to record the intangible asset, which will be amortized over the life of the agreement. Of the right-to-use assets included in capital assets, equipment leases account for \$233,000 and software subscriptions account for \$2,154,000. Accumulated amortization of the right-to-use assets include \$129,000 for equipment and \$1,183,000 for software subscriptions. Remaining lease and software subscription obligations associated with right-to-use assets are as follows [in thousands]:

Year Ended June 30	Equipment Lease		Software Subscription	
	Principal	Interest	Principal	Interest
2025	48	3	715	60
2026	50	2	208	22
2027	12	-	-	-
Total Lease & Software Subscription Obligation Payable	\$110	\$5	\$923	\$82

Note 5: Net Pension Liability of Employers

The following tables present the components of the liability of the employers, or net pension liability, to plan members for benefits provided through the System's cost-sharing and single employer defined benefit pension plans at June 30, 2024 [in thousands].

	PERS	MHSPRS	SLRP
Total Pension Liability	\$59,417,269	\$667,102	\$27,807
<i>Less:</i> Plan Fiduciary Net Position	33,449,843	438,476	21,868
Plan Net Pension Liability	25,967,426	228,626	5,939
Ratio of Fiduciary Net Position to Total Pension Liability	56.30%	65.73%	78.64%

SIGNIFICANT ASSUMPTIONS AND OTHER INPUTS

An actuarial survey of the mortality, service, withdrawals, compensation experience of members, and valuation of assets and liabilities is performed annually to determine the actuarial soundness of the System. To validate that the assumptions recommended by the actuary are, in aggregate, reasonably related to actual experience, the System requests the actuary to conduct an experience investigation every other year.

The total pension liability was determined by an actuarial valuation as of June 30, 2023, which was based on the results of an actuarial experience study for the four-year period ending June 30, 2022. The June 30, 2023, total pension liability was then rolled forward to the June 30, 2024, measurement date. Actuarial assumptions based on the actuarial experience study for the four-year period ending June 30, 2022, were adopted by the Board in August 2023 and incorporated in the calculation of the total pension liability as of June 30, 2024. The roll forward techniques are applied to the liabilities before and after the assumption changes then compared as of June 30, 2024, to reflect the assumption gain and loss for the year. The following actuarial assumptions apply to all periods included in the measurement.

	PERS	MHSPRS	SLRP
Investment Rate of Return*	7.00%	7.00%	7.00%
Inflation	2.40%	2.40%	2.40%
Salary Increases	2.65 -17.90%	3.50-5.00%	2.65%

* Including inflation and net of pension plan investment expense.

Assumptions for post-retirement mortality are based on the PubS.H-2010(B) Retiree Table. Male rates are adjusted by 95.0 percent for ages less than 60 then scaled up to 110.0 percent for ages 61 to 75 and 101.0 percent for ages above 77. Females are adjusted by 84.0 percent for ages less than 72 then scaled up to 100.0 percent for ages above 76. The PubG.H-2010 Disabled Retiree Table is used for disabled retirees, adjusted to 134.0 percent of male rates and 121.0 percent of female rates for all ages. The PubS.H-2010(B) Contingent Annuitant Table is used for contingent annuitants, adjusted to 97.0 percent of male rates and 110.0 percent of female rates for all ages. The projection scale MP-2020 is used to project future improvements in life expectancy generationally.

The long-term expected rate of return on the PERS, MHSPRS and SLRP investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected nominal returns, net of the plans' investment expense, and the assumed rate of inflation) were 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 rate of return by the target asset allocation percentage and by adding expected inflation. The actuarial assumptions used for target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Domestic Equity	25.0%	5.15%
International Equity	20.0	5.00
Global Equity	12.0	5.15
Debt Securities	18.0	2.75
Real Estate	10.0	3.50
Private Equity	10.0	6.25
Private Infrastructure	2.0	3.85
Private Credit	2.0	4.90
Cash Equivalents	1.0	0.50
Total	100.0%	N/A

DISCOUNT RATE

The discount rate used to measure the total pension liabilities for PERS, MHSPRS and SLRP was 7.00 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at current contribution rates and that employer contributions for PERS, MHSPRS and SLRP will be made at rates set by the Mississippi Legislature. Based on those assumptions, each plan'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 investments was applied to all periods of projected benefit payments to determine each plan's total pension liability.

SENSITIVITY OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

The following table presents the net pension liability of PERS, MHSPRS and SLRP, calculated using the discount rate of 7.00 percent, as well as what the plans' net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00 percent) or one percentage point higher (8.00 percent) than the current rate [in thousands]:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
PERS	\$33,657,563	\$25,967,426	\$19,673,631
MHSPRS	\$313,732	\$228,626	\$158,663
SLRP	\$8,753	\$5,939	\$3,537

Note 6: Contribution Requirements

Policies for PERS, MHSPRS, and SLRP provide for employer and member contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are adequate to accumulate sufficient assets to pay benefits when due. Contribution rates for PERS, MHSPRS, and SLRP are established in accordance with actuarial contribution requirements determined through actuarial valuations and adopted by the Board with respect to PERS and SLRP or the MHSPRS Administrative Board. Required contribution rates are expressed as a level percentage of covered payroll and are actuarially determined using an individual entry age normal actuarial method.

Contribution policies for MRS provide for a property tax to be levied within each municipality. An actuarial valuation is performed annually, as of June 30, to determine the necessary rates. Mississippi statutes limit any increase in the property tax levy for employer pension contributions to one-half mill per year. All members of the MRS plan have retired, therefore there are no member contributions to the plan.

CONTRIBUTION RATES

	Contribution Rates as a Percentage of Covered Payroll	
	Member	Employer
PERS	9.00%	17.40%
MHSPRS	7.25%	49.08%
SLRP	3.00%	7.40%
MRS	-%	0.84-5.38 mills*

* Based on assessed property values.

Employer contributions for MHSPRS are augmented by certain additional fees, estimated to be \$3,400,000 annually. These amounts vary based on the level of activity. The amount collected for the year ending June 30, 2024, was \$2,841,000 for motor vehicle fees and \$452,000 for driver's license reinstatement fees.

Administration of the System is financed from investment earnings. In addition, employers of MHSPRS, SLRP, and MRS contribute an administrative fee to the System equal to 2.0 percent of the plan's respective employer contributions. As of June 30, 2024, administrative fees were \$350,000 from MHSPRS, \$13,000 from SLRP, and \$285,000 from MRS. ORP contributes administrative fees of 2.6 percent of covered wages for a total of \$13,481,000.

Member contributions and accumulated interest are credited to the annuity savings reserve account. Upon retirement, the balance in the member's account is transferred to the annuity reserve account. The employer's accumulation reserve is the account to which contributions made by employers and investment income are credited, and from which employer-provided benefits under the plan are paid.

Note 7: Retirement Plan of System Employees

PERS employees are members of the System. Salaries and wages for PERS employees for the year ended June 30, 2024, were \$8,424,000 and employer contributions to the system were \$1,449,000. Contributions made were 100.0 percent of required contributions. PERS contributions represent less than 1.0 percent of total contributions required for all participating employers.

Note 8: Other Postemployment Benefits

PLAN DESCRIPTION

The State and School Employees' Health Insurance Management Board administers the state's self-insured medical plan and life insurance program established by Miss. Code Ann. § 25-15-3 (1972, as amended), which may be amended only by the state Legislature. State law mandates that all state, public education, library, junior and community college, and retiring employees be offered health and life benefit coverage through the State and School Employees' Life and Health Insurance Plan (Plan).

BENEFITS PROVIDED

The Plan provides other postemployment benefits (OPEB) as a cost-sharing multiple-employer defined benefit OPEB plan. Benefits of the Plan consist of an implicit rate subsidy, which is essentially the difference between the average cost of providing healthcare benefits to retirees under age 65 and the average cost of providing healthcare benefits to all participants when premiums paid by retirees are not age-adjusted.

The Plan offers a base option and a select option for health benefits for non-Medicare participants. The Plan includes a separate level for Medicare eligible retirees, Medicare eligible surviving spouses, and Medicare eligible dependents of retirees and surviving spouses.

CONTRIBUTIONS

Employees' premiums are funded primarily by their employers. Retirees must pay their own premiums, as do active employees for spouse and dependent medical coverage. Pursuant to the authority granted by Mississippi statute, the Plan's Management Board has the authority to establish and change premium rates for the participants, employers, and the other contributing parties. If it is determined actuarially that premiums paid by participating retirees adversely affect the overall cost of the Plan to the State, a premium surcharge may be imposed on participating retired employees under the age of Medicare eligibility. For those initially employed on or after January 1, 2006, a premium surcharge may be imposed in an amount determined actuarially to cover the full cost of insurance, while the surcharge for those employed before that date may not exceed 15.0 percent.

OPEB LIABILITY, OPEB EXPENSE, DEFERRED OUTFLOWS OF RESOURCES RELATED TO OPEB, AND DEFERRED INFLOWS OF RESOURCES RELATED TO OPEB

At June 30, 2024, the System reported a liability of \$696,000 for its proportionate share of the net OPEB liability. The liability was measured as of June 30, 2023, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of that date. The System's portion of the OPEB liability was based on a projection of the long-term share of contributions to the OPEB plan relative to the projected contributions of all participating employers, actuarially determined. At the measurement date, the System's proportion was 0.13 percent, which is consistent with the prior year.

For the year ended June 30, 2024, the System recognized an OPEB expense offset of (\$88,000). At June 30, 2024, the System reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources [in thousands]:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	\$114	\$196
Changes in Proportion	6	42
Changes in Assumptions	62	52
Contributions Subsequent to the Measurement Date	33	-
Total	\$215	\$290

Contributions subsequent to the measurement date of \$33,000 will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2025. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense (expense offset) as follows [in thousands]:

Year Ended June 30	Net Outflows & Inflows of Resources
2024	(\$ 35)
2025	(42)
2026	(33)
2027	(10)
2028	6
Thereafter	6
Total	(\$108)

ACTUARIAL ASSUMPTIONS

The collective total OPEB liability was determined by an actuarial valuation as of June 30, 2023, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation Rate	2.40%
Salary Increases, Including Wage Inflation	2.65% - 17.90%
Cost Method	Entry age
Municipal bond index rate: Measurement Date	3.66%
Prior Measurement Date	3.37%
Year FNP is projected to be depleted: Measurement Date	2023
Prior Measurement Date	2022
Single Equivalent Interest Rate*: Measurement Date	3.66%
Prior Measurement Date	2.37%
Health Care Cost Trends, Pre-Medicare Claims	6.5% for 2024 decreasing to an ultimate rate of 4.5% by 2029

* Including inflation and net of pension plan investment expense.

Mortality rates for service retirees were based on the PubS.H-2010(B) Retiree Table with male rates adjusted to 95.0 percent of male rates up to age 60, 110.0 percent for ages 61 to 75, and 101.0 percent for ages above 77, and female rates adjusted to 84.0 percent of the female rates up to age 72 and 100.0 percent for ages above 76. Mortality rates for disability retirees were based on the PubG.H-2010 Disabled Table adjusted 134.0 percent for males and 121.0 percent for females. Mortality rates for Contingent Annuityants were based on the PubS.H-2010(B) Contingent Annuityant Table, adjusted 97.0 percent for males and 110.0 percent for females. Projection scale MP-2020 will be used to project future improvements in life expectancy generationally.

The demographic actuarial assumptions used in the June 30, 2023 valuation were based on the results of the last actuarial experience study dated April 21, 2023. The remaining actuarial assumptions (e.g., initial per capita costs, healthcare cost trends, rate of plan participation, rates of plan election, etc.) used in the June 30, 2023 valuation were based on a review of recent plan experience done concurrently with the June 30, 2023 valuation.

CHANGES IN ACTUARIAL ASSUMPTIONS & METHODS

The discount rate was changed from 3.37 percent to 3.66 percent for the current measurement date.

DISCOUNT RATE

The discount rate used to measure the total OPEB liability was 3.66 percent. As of June 30, 2024, the balance of the trust is \$1,068,000 with a long-term rate of return of 4.5 percent. The discount rate determination uses a municipal bond rate to the extent the trust is projected to run out of money before all benefits are paid. The balance of the trust is projected to be depleted immediately, therefore the rate used for the single equivalent interest rate is equal to the monthly average of the Bond Buyers General Obligation 20-year Municipal Bond Index Rate.

SENSITIVITY OF SYSTEM'S PROPORTIONATE SHARE OF THE COLLECTIVE OPEB LIABILITY TO CHANGES IN THE DISCOUNT RATE

The following table presents the System's proportionate share of the net OPEB liability using the discount rate of 3.66 percent, as well as what the System's proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (2.66 percent) or one percentage point higher (4.66 percent) than the current rate [in thousands].

	1% Decrease (2.66%)	Current Discount (3.66%)	1% Increase (4.66%)
System Proportionate Share of Net OPEB Liability	\$762	\$696	\$638

SENSITIVITY OF SYSTEM'S PROPORTIONATE SHARE OF THE COLLECTIVE OPEB LIABILITY TO CHANGES IN THE HEALTHCARE COST TREND RATE

The following table presents the System's proportionate share of the net OPEB liability using the healthcare trend rate of 6.50 percent decreasing to 4.50 percent by 2029, as well as what the System's proportionate share of the net OPEB liability would be if it were calculated using a healthcare trend that is one percentage point lower (5.50 percent decreasing to 3.50 percent) or one percentage point higher (7.50 percent decreasing to 5.50 percent) than the current rate [in thousands].

	1% Decrease (5.50% Decreasing to 3.5%)	Current Discount Rate (6.50% Decreasing to 4.5%)	1% Increase (7.50% Decreasing to 5.5%)
System Proportionate Share of Net OPEB Liability	\$648	\$696	\$749

The audited financial report for the Plan can be found at knowyourbenefits.dfa.ms.gov.

Required Supplementary Information

June 30, 2024

Schedule of Changes in the Net Pension Liability & Related Ratios

Year Ended June 30, 2024

[in thousands] [unaudited]

Changes in the Net Pension Liability	PERS									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total Pension Liability:										
Service Cost	\$834,060	\$694,726	\$758,601	\$719,623	\$712,354	\$696,445	\$702,559	\$754,552	\$734,545	\$673,626
Interest	3,851,193	3,752,233	3,651,875	3,536,951	3,433,801	3,330,054	3,239,471	3,154,382	3,032,131	2,867,679
Difference Between Actual & Expected Experience	1,471,228	672,606	222,910	181,270	224,426	-	21,361	(172,476)	413,494	325,351
Assumption Changes	-	3,631,586	-	1,469,257	-	231,354	-	24,141	(66,606)	1,821,236
Benefit Payments	(3,394,102)	(3,237,085)	(3,134,859)	(2,995,255)	(2,878,073)	(2,747,397)	(2,609,415)	(2,477,914)	(2,367,709)	(2,219,240)
Refunds to Terminated Employees	(118,413)	(115,517)	(120,807)	(101,044)	(104,851)	(108,042)	(124,306)	(113,707)	(112,926)	(119,356)
Net Change in Total Pension Liability	2,643,966	5,398,549	1,377,720	2,810,802	1,387,657	1,402,414	1,229,670	1,168,978	1,632,929	3,349,296
Total Pension Liability - Beginning	56,773,303	51,374,754	49,997,034	47,186,232	45,798,575	44,396,161	43,166,491	41,997,513	40,364,584	37,015,288
Total Pension Liability - Ending (A)	\$59,417,269	\$56,773,303	\$51,374,754	\$49,997,034	\$47,186,232	\$45,798,575	\$44,396,161	\$43,166,491	\$41,997,513	\$40,364,584
Plan Fiduciary Net Position:										
Contributions - Employer	\$1,455,811	\$1,303,563	\$1,211,004	\$1,169,679	\$1,171,805	\$1,038,108	\$1,018,163	\$1,019,084	\$1,021,261	\$996,478
Contributions - Member	682,937	661,986	615,421	594,876	594,711	580,941	570,807	570,066	572,574	557,909
Net Investment Income/(Loss)	3,219,564	2,234,354	(2,980,325)	8,736,632	856,935	1,701,321	2,385,913	3,436,144	130,900	827,666
Pension Benefits	(3,394,102)	(3,237,085)	(3,134,859)	(2,995,255)	(2,878,073)	(2,747,397)	(2,609,415)	(2,477,914)	(2,367,709)	(2,219,240)
Refunds to Terminated Employees	(118,413)	(115,517)	(120,807)	(101,044)	(104,851)	(108,042)	(124,306)	(113,707)	(112,926)	(119,356)
Administrative Expenses	(18,251)	(16,446)	(15,925)	(15,691)	(19,757)	(16,905)	(16,264)	(17,056)	(15,166)	(13,523)
Other	314	12	10	6	22	(4,614)	(4,805)	(8,536)	(474)	(497)
Net Change in Fiduciary Net Position	1,827,860	830,867	(4,425,481)	7,389,203	(379,208)	443,412	1,220,093	2,408,081	(771,540)	29,437
Plan Fiduciary Net Position - Beginning	31,621,983	30,791,116	35,216,597	27,827,394	28,206,602	27,763,190	26,543,097	24,135,016	24,906,556	24,877,119
Plan Fiduciary Net Position - Ending (B)	33,449,843	31,621,983	30,791,116	35,216,597	27,827,394	28,206,602	27,763,190	26,543,097	24,135,016	24,906,556
Net Pension Liability-Ending (A-B)	\$25,967,426	\$25,151,320	\$20,583,638	\$14,780,437	\$19,358,838	\$17,591,973	\$16,632,971	\$16,623,394	\$17,862,497	\$15,458,028
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	56.30%	55.70%	59.93%	70.44%	58.97%	61.59%	62.54%	61.49%	57.47%	61.70%
Covered Payroll	\$7,245,824	\$7,065,419	\$6,454,276	\$6,246,077	\$6,287,441	\$6,144,916	\$5,999,231	\$6,038,229	\$6,022,533	\$5,904,827
Net Pension Liability as a Percentage of Covered Payroll	358.38%	355.98%	318.91%	236.64%	307.90%	286.29%	277.25%	275.30%	296.59%	261.79%

See notes to Required Supplementary Information.

Schedule of Changes in the Net Pension Liability & Related Ratios
Year Ended June 30, 2024

[in thousands] [unaudited]

Changes in the Net Pension Liability	MHSPRS									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
<i>Total Pension Liability:</i>										
Service Cost	\$9,524	\$7,333	\$7,711	\$8,235	\$8,104	\$7,372	\$7,205	\$7,328	\$6,858	\$6,361
Interest	44,587	42,378	41,965	41,571	40,624	39,532	37,338	37,086	35,869	34,503
Changes of Benefit Terms	-	15,058	-	-	-	-	-	-	-	-
Difference Between Actual & Expected Experience	(1,917)	9,498	(3,244)	7,018	(7)	-	17,311	(5,780)	3,536	1,013
Assumption Changes	-	44,102	-	1,677	-	2,286	-	(3,598)	-	19,176
Benefit Payments	(43,960)	(41,122)	(40,522)	(37,433)	(35,455)	(34,671)	(32,315)	(31,001)	(29,913)	(28,909)
Refunds to Terminated Employees	(143)	(161)	(135)	(67)	(48)	(16)	(103)	(144)	(52)	(163)
Net Change in Total Pension Liability	8,091	77,086	5,775	21,001	13,218	14,503	29,436	3,891	16,298	31,981
Total Pension Liability - Beginning	659,011	581,925	576,150	555,149	541,931	527,428	497,992	494,101	477,803	445,822
Total Pension Liability - Ending (A)	\$667,102	\$659,011	\$581,925	\$576,150	\$555,149	\$541,931	\$527,428	\$497,992	\$494,101	\$477,803
<i>Plan Fiduciary Net Position:</i>										
Contributions - Employer	\$21,059	\$20,837	\$19,476	\$19,563	\$20,144	\$19,375	\$15,128	\$14,809	\$14,755	\$13,695
Contributions - Member	2,625	2,621	2,356	2,378	2,428	2,340	2,271	2,147	2,128	1,938
Net Investment Income/(Loss)	42,521	29,536	(39,468)	115,761	11,196	25,280	27,719	44,499	1,704	10,812
Pension Benefits	(43,960)	(41,122)	(40,522)	(37,433)	(35,455)	(34,671)	(32,315)	(31,001)	(29,913)	(28,909)
Refunds to Terminated Employees	(143)	(161)	(135)	(67)	(48)	(16)	(103)	(144)	(52)	(163)
Administrative Expenses	(350)	(359)	(319)	(320)	(328)	(312)	(250)	(203)	(217)	(198)
Other	-	-	-	-	-	-	-	-	-	-
Net Change in Fiduciary Net Position	21,752	11,352	(58,612)	99,882	(2,063)	11,996	12,450	30,107	(11,595)	(2,825)
Plan Fiduciary Net Position - Beginning	416,724	405,372	463,984	364,102	366,165	354,169	341,719	311,612	323,207	326,032
Plan Fiduciary Net Position - Ending (B)	438,476	416,724	405,372	463,984	364,102	366,165	354,169	341,719	311,612	323,207
Net Pension Liability - Ending (A-B)	\$228,626	\$242,287	\$176,553	\$112,166	\$191,047	\$175,766	\$173,259	\$156,273	\$182,489	\$154,596
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	65.73%	63.23%	69.66%	80.53%	65.59%	67.57%	67.15%	68.62%	63.07%	67.64%
Covered Payroll	\$34,664	\$34,846	\$30,895	\$29,780	\$32,346	\$31,811	\$29,555	\$28,845	\$27,380	\$25,505
Net Pension Liability as a Percentage of Covered Payroll	659.55%	695.31%	571.46%	376.65%	590.64%	552.53%	586.23%	541.77%	666.50%	606.14%

See notes to Required Supplementary Information.

Schedule of Changes in the Net Pension Liability & Related Ratios
Year Ended June 30, 2024

[in thousands] [unaudited]

Changes in the Net Pension Liability	SLRP									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
<i>Total Pension Liability:</i>										
Service Cost	\$683	\$676	\$714	\$594	\$589	\$590	\$431	\$433	\$420	\$406
Interest	1,833	1,818	1,693	1,673	1,638	1,595	1,557	1,593	1,586	1,569
Difference Between Actual & Expected Experience	116	(22)	920	(133)	(37)	-	(58)	(204)	(468)	(333)
Assumption Changes	-	1,458	-	364	-	31	-	(868)	(6)	588
Benefit Payments	(2,000)	(1,653)	(1,687)	(1,608)	(1,857)	(1,442)	(1,410)	(1,397)	(1,454)	(1,220)
Refunds to Terminated Employees	(10)	(5)	-	(5)	(20)	-	(18)	(17)	(32)	(37)
Net Change in Total Pension Liability	622	2,272	1,640	885	313	774	502	(460)	46	973
Total Pension Liability - Beginning	27,185	24,913	23,273	22,388	22,075	21,301	20,799	21,259	21,213	20,240
Total Pension Liability - Ending (A)	\$27,807	\$27,185	\$24,913	\$23,273	\$22,388	\$22,075	\$21,301	\$20,799	\$21,259	\$21,213
<i>Plan Fiduciary Net Position:</i>										
Contributions - Employer	\$668	\$629	\$607	\$604	\$512	\$525	\$513	\$522	\$514	\$511
Contributions - Member	271	255	245	245	207	214	207	212	208	207
Net Investment Income/(Loss)	2,123	1,477	(1,964)	5,732	554	1,287	1,412	2,264	86	552
Pension Benefits	(2,000)	(1,653)	(1,687)	(1,608)	(1,857)	(1,442)	(1,410)	(1,397)	(1,454)	(1,220)
Refunds to Terminated Employees	(10)	(5)	-	(5)	(20)	-	(18)	(17)	(32)	(37)
Administrative Expenses	(13)	(13)	(13)	(12)	(10)	(11)	(10)	(10)	(10)	(10)
Other	-	-	-	-	-	-	-	-	-	-
Net Change in Fiduciary Net Position	1,039	690	(2,812)	4,956	(614)	573	694	1,574	(688)	3
Plan Fiduciary Net Position - Beginning	20,829	20,139	22,951	17,995	18,609	18,036	17,342	15,768	16,456	16,453
Plan Fiduciary Net Position - Ending (B)	21,868	20,829	20,139	22,951	17,995	18,609	18,036	17,342	15,768	16,456
Net Pension Liability-Ending (A-B)	\$5,939	\$6,356	\$4,774	\$322	\$4,393	\$3,466	\$3,265	\$3,457	\$5,491	\$4,757
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	78.64%	76.62%	80.84%	98.62%	80.38%	84.30%	84.67%	83.38%	74.17%	77.58%
Covered Payroll	\$9,091	\$8,425	\$8,180	\$8,030	\$6,891	\$6,937	\$6,833	\$6,928	\$6,862	\$6,861
Net Pension Liability as a Percentage of Covered Payroll	65.33%	75.43%	58.35%	4.01%	63.75%	49.96%	47.78%	49.90%	80.02%	69.33%

See notes to Required Supplementary Information.

Schedule of Employer Contributions

Last 10 Fiscal Years

[in thousands] [unaudited]

	2024	2023	2022	2021	2020
<i>Public Employees' Retirement System</i>					
Actuarially Determined Employer Contribution	\$1,573,793	\$1,518,359	\$1,257,938	\$1,184,881	\$1,107,847*
Actual Employer Contribution	1,455,811	1,303,563	1,211,004	1,169,679	1,171,805
Annual Contribution Deficiency (Excess)	117,982	214,796	46,934	15,202	(63,958)
Covered Payroll	7,245,824	7,065,419	6,454,276	6,246,077	6,287,441
Actual Contributions as a Percentage of Covered Payroll	20.09%	18.45%	18.76%	18.73%	18.64%
<i>MS Highway Safety Patrol Retirement System</i>					
Contractually Required Employer Contribution	\$20,413	\$20,302	\$18,663	\$18,160	\$19,594
Actual Employer Contribution	21,059	20,837	19,476	19,563	20,144
Annual Contribution Deficiency (Excess)	(646)	(535)	(813)	(1,403)	(550)
Covered Payroll	34,664	34,846	30,895	29,780	32,346
Actual Contributions as a Percentage of Covered Payroll	60.75%	59.80%	63.04%	65.69%	62.28%
<i>Supplemental Legislative Retirement System</i>					
Contractually Required Employer Contribution	\$672	\$623	\$605	\$594	\$510
Actual Employer Contribution	668	629	607	604	512
Annual Contribution Deficiency (Excess)	4	(6)	(2)	(10)	(2)
Covered Payroll	9,091	8,425	8,180	8,030	6,891
Actual Contributions as a Percentage of Covered Payroll	7.35%	7.47%	7.42%	7.52%	7.43%
	2019	2018	2017	2016	2015
<i>Public Employees' Retirement System</i>					
Contractually Required Employer Contribution	\$967,824	\$944,879	\$ 951,021	\$948,549	\$930,010
Actual Employer Contribution	1,038,108	1,018,163	1,019,084	1,021,261	996,478
Annual Contribution Deficiency (Excess)	(70,284)	(73,284)	(68,063)	(72,712)	(66,468)
Covered Payroll	6,144,916	5,999,231	6,038,229	6,022,533	5,904,827
Actual Contributions as a Percentage of Covered Payroll	16.89%	16.97%	16.88%	16.96%	16.88%
<i>MS Highway Safety Patrol Retirement System</i>					
Contractually Required Employer Contribution	\$19,383	\$14,430	\$14,431	\$14,025	\$13,226
Actual Employer Contribution	19,375	15,128	14,809	14,755	13,695
Annual Contribution Deficiency (Excess)	8	(698)	(378)	(730)	(469)
Covered Payroll	31,811	29,555	28,845	27,380	25,505
Actual Contributions as a Percentage of Covered Payroll	60.91%	51.19%	51.34%	53.89%	53.70%
<i>Supplemental Legislative Retirement System</i>					
Contractually Required Employer Contribution	\$513	\$506	\$513	\$508	\$508
Actual Employer Contribution	525	513	522	514	511
Annual Contribution Deficiency (Excess)	(12)	(7)	(9)	(6)	(3)
Covered Payroll	6,937	6,833	6,928	6,862	6,861
Actual Contributions as a Percentage of Covered Payroll	7.57%	7.51%	7.53%	7.49%	7.45%

*Beginning with fiscal year 2020 reporting, PERS calculation of Employer Contributions changed from Contractually Required to Actuarially Determined.

There are no nonemployer contributing entities in the plan reporting entity. See notes to Required Supplementary Information.

Schedule of Investment Returns

Last 10 Fiscal Years

[unaudited]

	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Annual Money-weighted Rate of Return, Net of Investment Expense	10.37%	7.36%	(8.56)%	32.35%	3.06%	6.27%	9.17%	14.53%	0.69%	3.05%

Schedule of Proportionate Share of the Net OPEB Liability

[in thousands] [unaudited]

	2024	2023	2022	2021	2020	2019	2018
<i>State Life & Health Insurance OPEB Plan</i>							
System's Proportion of the Net OPEB Liability	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%
System's Proportionate Share of the Net OPEB Liability	\$696	\$628	\$848	\$1,042	\$1,130	\$1,013	\$1,031
System's Covered-Employee Payroll*	\$7,087	\$6,565	\$6,487	\$7,295	\$7,648	\$7,431	\$6,810
System's Proportionate Share of the Net OPEB Liability as a Percentage of its Covered-Employee Payroll	9.82%	9.57%	13.07%	14.28%	14.77%	13.63%	15.14%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	0.19%	0.21%	0.16%	0.13%	0.13%	0.13%	-%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available. See notes to Required Supplementary Information.

Schedule of Employer Contributions for OPEB

[in thousands] [unaudited]

	2024	2023	2022	2021	2020	2019	2018
<i>State Life & Health Insurance OPEB Plan</i>							
Actuarially Required Contribution	\$33	\$31	\$26	\$30	\$41	\$45	\$44
Contributions in Relation to Contractually Required Contribution	\$33	\$31	\$26	\$30	\$41	\$45	\$44
Contribution Deficiency (Excess)	-	-	-	-	-	-	-
System's Covered-Employee Payroll*	\$7,492	\$7,087	\$6,565	\$6,487	\$7,295	\$7,648	\$7,431
Actual Contributions as a Percentage of Covered-Employee Payroll	0.44%	0.44%	0.40%	0.46%	0.56%	0.59%	0.59%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available. See notes to Required Supplementary Information.

* The OPEB plan is not based on a measure of pay.

Notes to Required Supplementary Schedules

June 30, 2024

Note 1: Schedule of Changes in the Net Pension Liability & Related Ratios

The total pension liabilities presented in these schedules were provided by the System's actuarial consultants, Cavanaugh Macdonald Consulting, LLC. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position for PERS, MHSPRS and SLRP.

Plan requirements may be affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, or other significant factors.

ACTUARIAL ASSUMPTIONS

The total pension liability for the year ended June 30, 2024, is based on the June 30, 2023, actuarial valuation, rolled forward to the June 30, 2024, measurement date. Roll forward procedures include incorporating changes in assumptions from the experience study for the four-year period ended June 30, 2022, and the revised investment rate of return in the calculation of the total pension liability. The assumptions and methods used for the actuarial valuation were recommended by the actuary and adopted by the board.

Changes in assumptions

- » The investment rate of return was reduced from 8.00 percent to 7.75 percent in fiscal year 2015, 7.55 percent in 2021, and to 7.00 percent in 2023.
- » Price inflation was reduced from 3.50 percent to 3.00 percent in fiscal year 2015, 2.75 percent in 2019, and to 2.40 percent in 2021.
- » The wage inflation assumption was reduced from 3.75 percent to 3.25 percent in fiscal year 2017, 3.00 percent in 2019, and to 2.65 percent in fiscal year 2021.
- » The percentage of active member disabilities assumed to be in the line of duty was increased in 2017 from 6.00 percent to 7.00 percent. The assumed rate was increased again in 2019 to 9.00 percent and to 12.00 percent in 2021.
- » The percentage of active member deaths assumed to be in the line of duty was decreased in 2021 from 6.00 percent to 4.00 percent.
- » Administrative expenses were increased from 0.25 to 0.28 percent of payroll in fiscal year 2021 and decreased to 0.26 percent in 2023.
- » Assumed rates of salary increase were adjusted in 2015, 2017, 2019, 2021, and 2023 to more closely reflect actual and anticipated experience.
- » The percentage of participants assumed to receive a deferred benefit upon attaining the eligibility requirements for retirement was increased from 60.0 percent to 65.0 percent in 2023.
- » For married members, the number of years that a male is assumed to be older than his spouse was changed from 3 years to 2 years in 2023.
- » The assumed amount of unused sick leave at retirement was increased from 0.50 years to 0.55 years in 2023.
- » The assumed average number of years of military service that participants will have at retirement decreased from 0.25 years to 0.20 years in 2023.
- » The assumed rate of interest credited to employee contributions was changed from 3.50 percent to 2.00 percent in 2016.
- » Withdrawal rates, pre-retirement mortality rates, disability rates, and service retirement rates were adjusted to more closely reflect actual experience in 2015, 2017, 2019, 2021, and 2023.
- » In 2015, the mortality table for retired life mortality was changed from the RP-2000 Mortality Table to the RP-2014 Healthy Annuitant Blue Collar Table projected to 2016 using Scale BB.

In 2017, the expectation of retired life mortality was changed to the RP-2014 Healthy Annuitant Blue Collar Mortality Table projected with Scale BB to 2022.

In 2019, the expectation of retired life mortality was changed to the PubS.H-2010(B) Retiree Table with male rates adjusted to 112.0 percent of male rates from ages 18 to 75 scaled down to 105.0 percent for ages 80 to 119, and female rates adjusted to 85.0 percent of the female rates from ages 18 to 65 scaled up to 102.0 percent for ages 75 to 119. Projection scale MP-2018 will be used to project future improvements in life expectancy generationally.

In 2021, the adjustments to the PubS.H-2010(B) Retiree Table were changed for males to 95.0 percent of male rates up to age 60, 110.0 percent for ages 61 to 75, and scaled up to 101.0 percent for ages above 77. Adjustments for females were changed to 84.0 percent of female rates up to age 72 scaled up to 100.0 percent for ages above 76. Projection scale MP-2020 will be used to project future improvements in life expectancy generationally. Additionally, an allowance was added for contingent annuitants using the same table adjusted for males to 97.0 percent and females to 110.0 percent for all ages.

- » The expectation of disabled mortality was changed from the RP-2000 Disabled Mortality Table to the RP-2014 Disabled Retiree Table in 2015. Small adjustments were also made to the mortality table in 2017. In 2019 the expectation of disabled mortality was changed to the PubT.H-2010 Disabled Retiree Table for disabled retirees, with male rates adjusted to 137.0 percent and female rates adjusted to 115.0 percent. Projection scale MP-2018 will be used to project future improvements in life expectancy generationally. The expectation of disabled mortality was changed to PubG.H-2010 Disabled Table for disabled retirees with males adjusted to 134.0 percent of males rates and females adjusted to 121.0 percent of female rates with projection scale MP-2020 used to project future improvements in life expectancy generationally.

Notes to Required Supplementary Schedules

June 30, 2024

CHANGES IN BENEFIT PROVISIONS

In fiscal year 2016, the interest rate on employee contributions was changed to the money market rate as published by the Wall Street Journal on December 31 of each preceding year with a minimum rate of 1.0 percent and a maximum rate of 5.0 percent.

Note 2: Schedule of Employer Contributions

The required employer contributions and amount of those contributions actually made are presented in this 10-year schedule.

» PERS

In fiscal year 2014, the Board implemented a revised funding policy aimed at stabilizing the employer contribution rate, which was set at 15.75 percent. At its June 26, 2018, meeting, the Board voted to increase the employer contribution rate from 15.75 percent to 17.40 percent effective July 1, 2019.

» MHSPRS

Effective July 1, 2018, the employer contribution rate was increased by the MHSPRS Administrative Board from 37.00 percent to 49.08 percent. Motor vehicle and driver's license reinstatement fees augment employer contributions. The amount of fees vary each year depending on activity, with \$3.3 million collected for fiscal year 2024.

» SLRP

The employer contribution rate is 7.40 percent. The employee contribution rate has remained at 3.00 percent since plan inception. SLRP is a small plan with a relatively fixed number of members.

The information presented in the required supplementary schedules was used in the actuarial valuation for purposes of determining the required employer contribution rates. The employer contribution rates were calculated as of June 30, 2022, two years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contribution rates reported in the schedule:

	PERS	MHSPR	SLRP
Actuarial Cost Method	Entry age	Entry age	Entry age
Amortization Method	Level percentage of payroll, closed	Level percentage of payroll, open	Level percentage of payroll, open
Remaining Amortization Period	25.6 years	19.9 years	21.9 years
Asset Valuation Method	5-year Smoothed Fair Value	5-year Smoothed Fair Value	5-year Smoothed Fair Value
<i>Actuarial Assumptions:</i>			
Investment Rate of Return*	7.55%	7.55%	7.55%
Salary Increase	2.65-17.90%	3.00-8.56%	2.65%
Inflation	2.40%	2.40%	2.40%

* Including inflation and net of pension plan investment expense.

Note 3: Investment Returns

SCHEDULE OF INVESTMENT RETURNS

The annual money-weighted rate of return on investments is calculated as the internal rate of return on plan investments, net of plan investment expense. A money-weighted rate of return expresses investment performance, net of plan investment expense, adjusted for the changing amounts actually invested. The investment assets of the defined benefit plans administered by the System are combined in a comingled investment pool. Each plan owns an equity position in the pool in accordance with its ownership percentage. The annual money-weighted rate of return is, therefore, approximately the same for PERS, MHSPRS, SLRP, and MRS.

Note 4: Net OPEB Liability

SCHEDULE OF PROPORTIONATE SHARE OF THE NET OPEB LIABILITY

This schedule presents historical trend information about the System's proportionate share of the net OPEB liability for its employees who participate in the Plan. The net OPEB liability is measured as the total OPEB liability less the amount of fiduciary net position of the Plan. Only seven fiscal years information is available; therefore, trend information will be accumulated to display a ten-year presentation.

SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR OPEB

The required contributions and percentage of those contributions actually made are presented in the schedule. Only seven fiscal years information is available; therefore, trend information will be accumulated to display a ten-year presentation.

CHANGES IN ACTUARIAL ASSUMPTIONS AND METHODS:

The discount rate was changed from 3.56 percent to 3.89 percent in 2018, to 3.50 percent in 2019, to 2.19 percent in 2020, to 2.13 percent in 2021, to 3.37 percent in 2022, and to 3.66 percent for the current measurement date.

CHANGES IN BENEFIT TERMS:

Changes to benefit terms impact the total OPEB liability. The schedule of monthly retiree contributions was increased as of January 1, 2021, 2022, 2023, and 2024. In addition, the deductibles and coinsurance maximums were increased for the Select coverage and coinsurance maximums were increased for the Base coverage beginning January 1, 2021. The in-network medical deductible was increased for the Select coverage beginning January 1, 2022, and again beginning January 1, 2023. The medical deductible was increased for the Base Family coverage beginning January 1, 2024.

METHODS & ASSUMPTIONS USED IN CALCULATIONS OF ACTUARIALLY DETERMINED CONTRIBUTIONS:

The actuarially determined contribution rates, as a percentage of payroll, used to determine the actuarially determined contribution amounts in the schedule of employer contributions are calculated as of the most recent valuation date. The following actuarial methods and assumptions (from the June 30, 2022 actuarial valuation) were used to determine contribution rates reported in that schedule for the year ending June 30, 2023:

Actuarial Cost Method	Entry age
Amortization Method	Level dollar
Amortization Period	30 years, open
Asset Valuation Method	Fair value of assets
Inflation	2.75%
Salary Increases, Including Wage Inflation	3.00% to 18.25%
Initial health care cost trend rates: Medicare Supplement Claims – Pre Medicare	7.00%
Ultimate health care cost trend rates: Medicare Supplement Claims – Pre Medicare	4.50%
Year of ultimate trend rates: Medicare Supplement Claims – Pre Medicare	2029
Investment rate of return*	3.37%

* Including inflation and net of investment expense.

Schedule 1
Schedule of Administrative Expenses & Depreciation
For the Year Ended June 30, 2024

[in thousands]

Administrative Expense	Amount
<i>Personal Services:</i>	
Salaries & Wages	\$8,424
Employee Benefits	2,876
Employee Travel	59
Total Personal Services	11,359
<i>Contractual Services:</i>	
Employee Training	57
Communications, Transportation, & Utilities	271
Rentals	81
Repair & Maintenance	190
Professional Services (See Schedule 2)	1,738
Other Fees & Services	1,190
Memberships, Subscriptions, & Insurance	203
Data Processing	2,223
Bank Charges	149
Total Contractual Services	6,102
<i>Commodities:</i>	
Office Equipment, Supplies & Parts	172
Printing, Binding & Padding	9
Other Supplies & Materials	14
Total Commodities	195
<i>Depreciation and Amortization:</i>	
Building	329
Furniture & Equipment	157
Right-to-Use Asset	757
Total Depreciation and Amortization	1,243
Total Administrative Expenses & Depreciation & Amortization	\$18,899

[in thousands]

	Amount
<i>Investment Managers' Fees:</i>	
Prudential Financial, Inc.	\$1,535
Riverbridge Partners, LLC	2,312
Sit Investment Associates, Inc.	570
T.A. Associates Realty - Fund XI	108
T.A. Associates Realty - Fund XII	1,554
T.A. Associates Realty - Fund XIII	1,166
TPG Angelo Gordon - Fund III	7
TPG Angelo Gordon - Fund IV	397
TPG Angelo Gordon - Fund X	723
TPG Angelo Gordon - Fund XI	1,002
UBS Realty Investors, LLC - TPF	1,878
UBS Realty Investors, LLC – TPG	2,194
Victory Capital Management, Inc.	2,578
Wellington Management Company, LLP - Emerging Markets Debt	3,137
Wellington Management Company, LLP - SC Equity	2,141
Westbrook Partners - Fund X	278
Westbrook Partners - Fund XI	1,104
Private Credit Manager: GCM Grosvenor Diversified Partners, LP	94
Private Equity Managers: GCM Grosvenor Diversified Partners, LP & Pathway Capital Management, LLC	14,322
Total Investment Managers' Fees	\$105,004
Bank of New York Mellon - Global Out-of-Pocket Fees	739
Total Investment Managers' Fees & Global Out-of-Pocket Fees*	\$105,743
<i>Securities Lending Fees:</i>	
Bank of New York Mellon	\$2,067
<i>Professional Service Fees:</i>	
Actuary - Cavanaugh MacDonald Consulting, LLC	\$311
Audit and Tax - Eide Bailly, LLP	347
Investment Management Consultant – Callan, LLC; FactSet Research Systems, Inc.	640
Legal - Outside - Chapman & Cutler, LLP; Ice Miller, LLP	157
Medical Fees - Clinics Labs	148
Accounting Consultants – ANM Consulting, LLC; Harper, Rains, Knight & Company, P.A.	114
Architect & Preplanning	21
Total Professional Service Fees	\$1,738

* Fees are subject to estimation.

Schedule 3
Schedule of Net Position Restricted for
Pension Benefits – MRS Plans
June 30, 2024

[in thousands]

	<u>Amounts</u>
Biloxi Municipal	\$2,033
Biloxi Fire & Police	5,750
Clarksdale Fire & Police	789
Clinton Fire & Police	8,592
Columbus Fire & Police	1,478
Greenville Fire & Police	1,941
Greenwood Fire & Police	2,132
Gulfport Fire & Police	8,176
Hattiesburg Fire & Police	17,592
Jackson Fire & Police	38,573
Laurel Fire & Police	4,804
McComb Fire & Police	427
Meridian Municipal	3,160
Meridian Fire & Police	7,608
Natchez Fire & Police	1,454
Pascagoula Fire & Police	6,126
Tupelo Fire & Police	3,961
Vicksburg Fire & Police	6,862
Yazoo City Fire & Police	40
Total Net Position Restricted for Pension Benefits – MRS Plans	\$121,498

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Investment



Providing Benefits for Life

September 30, 2024

Dear Members,

Surprising strength and growth, those are the terms that came to mind, especially in stock markets across the globe as fiscal year 2024 came to an end. The main concerns during the year were interest rates, inflation, elections, and geopolitics. All valid concerns, but not enough to hold back another strong year for public equities. The S&P 500 rose 24.6% during the year, led by big tech stocks, particularly those aligned with investor enthusiasm for artificial intelligence. The MSCI World Ex-US and Emerging Markets indices returned 11.6% and 12.5%, respectively. Performance in fixed income markets, due to rate uncertainty, was more varied depending on duration and willingness to take corporate credit risk. The grey clouds that had been hanging over private equity since 2023 started to show signs of breaking as our managers began to express improved conditions for deal making, which should turn into greater opportunities for value creation. Real estate throughout the year continued to seek stability after the rapid interest rate increases of 2022. Funding to private credit was made in the year and is off to a great start.

Investment results for the year ending June 30, 2024:

- The portfolio returned 10.78%, underperforming the System's policy benchmark return of 11.27%.
- Longer term, the portfolio had 3-, 5-, and 10-year returns of 2.97%, 8.41%, and 7.73%, respectively.
- The 1-year return of 10.78% was in the 27th percentile of the System's peer group comprised of public pension plans with assets greater than \$10 billion.
- Assets of the System totaled \$33.7 billion.
- The System ranked as the 73rd largest pension and retirement savings plan in the country.

As of June 30, 2024, the System's portfolio asset allocation was in line with its strategic target allocation. Overweight allocations to Private Equity (+1.7%), Fixed Income (+0.8%), and Global Equity (+0.2%) were offset by underweight allocations to Domestic Equity (-1.5%) and Real Estate (-1.3%).

The first quarter of the fiscal year started largely the same way the previous fiscal year ended – with gains. The market advance was fueled by solid economic data and a decline in many measures of inflation, which gave the impression of a reduced near-term risk of a recession. Things dynamically changed on the first day of August, however; markets now had to embrace a less-accommodative-than-expected Fed as expectations for six rate cuts diminished to hope for just one, and one of the largest debt rating agencies downgraded U.S. sovereign debt citing the Federal Government's out of control spending. The combination of these started a rapid rise in treasury yields. The yield on the 10-year Treasury rose from 4.05% on August 1 to almost 4.6% by the end of September. These rising bond yields were the main driver of the reversal in global equity performance, both domestic and international indices posting losses.

Global markets recovered sharply during the second quarter of the fiscal year. Both the public fixed income and public equities markets witnessed impressive gains for the quarter. The turnaround took place in November, when markets changed direction, prompted by the Federal Reserve signaling that the cycle of rate hiking may be finished. In fact, November was the best performing month for the portfolio returning nearly 6% in just that month. With the change in messaging from the Federal Reserve, bond yields dropped 100 basis points, giving fixed income markets one of the best periods of performance in over 40 years. Sparked by the

decline in bond yields (and also by the continued run in AI related tech companies), equities also experienced a sharp rally.

Public real estate, as measured by the NAREIT Global REIT Composite Index, posted signs of recovery with gains of 15.6% for the quarter. However, private real estate returns did not show signs of recovery yet (private real estate tends to lag public in performance reporting), posting a fifth straight negative quarter, with the NCREIF ODCE posting a 4.83% loss for the three months ended December 31. The negative return is due mainly to asset depreciation from the effect of higher interest rates putting pressure on valuations following historically high returns prior to 2022.

The second half of the fiscal year stunned the marketplace with the economy remaining relatively strong, even in the face of the Fed continuing to raise rates. Inflation showed that it was slowing, the breadth of the U.S. Markets, at least briefly, broadened out, and stocks rose on incredible optimism that the economy was on course for a soft landing. In the final half of the year the S&P 500 lead with a gain of 15.25%, and international stocks (as measured by the MSCI All Country World ex U.S.) gained 5.7%. U. S. large cap tech stocks and companies with high cash flow margins tended to outperform.

Fixed income returns were mixed, as expectations for immediate rate cuts were quashed by the Federal reserve. The Bloomberg Barclays US Corp High Yield gained 2.58%, but the US Treasury and Bloomberg Barclays US Aggregate Bond Index's declined .86% and .71%, respectively.

Private equity deal flow activity spiked late in the final quarter of the year, in fact it was the most active since 2022, when deals began to go silent. While deal counts aren't back to where they were in 2021, this new activity has given the PERS Private Equity allocation in the portfolio a very healthy year-over-year return of 4.64%.

The last 6 months of the fiscal year real estate was a mixed bag. Income producing properties generated positive returns, but this was not enough to overcome the negative appreciation that almost all property sectors and regions experienced due to write downs. Public real estate, as measured by the NAREIT Global REIT Composite Index, was down 2.88%, continuing its bumpy ride since the rate hikes began in 2022. Private real estate returns fared worse, posting their seventh-straight negative quarter, with the NCREIF ODCE posting a loss of 2.84% for the six months ended June 30. Many of our asset managers are eyeing the real estate markets with guarded optimism that valuations have nearly bottomed out, central banks may be nearing a pivot to lowering rates, and a recovery will be gradual rather than steep.

Investment returns for the year were strong with the total portfolio returning just under 11% for the year. PERS continues to provide superior relative returns exceeding the returns of nearly 3 quarters of the funds in the Callan peer universe of Public Funds greater than \$10 billion.

The Investment Team remains focused on the investment horizon, and continuously preparing for investment challenges ahead, to provide a System that is both sound and secure for current and future members.

Respectfully,



Charles R. Nielsen III
Chief Investment Officer

September 30, 2024

Members of the Board:

Callan LLC is pleased to present the Public Employees' Retirement System of Mississippi (PERS) results for the fiscal year ended June 30, 2024. The most widely predicted recession in recent history did not materialize in 2023. Instead, markets defied the early pessimism, and most asset classes and sectors (energy being an exception) posted robust gains for the calendar year 2023. As we entered 2024, the outlook continued to improve, but raging wars weighed heavily on investors' minds and government dysfunction and uncertainty over the lasting impact of sharply higher rates cast shadows on the economic picture. The path of short-term interest rates was likely downward, but the pace and timing were uncertain.

This fiscal year's well-publicized mantra—higher for longer—conjures up images of a tightrope, an apt descriptor of the Federal Reserve's current challenge. The economy has been resilient in the face of sharply rising rates, and while inflation has come down, it remains above the Fed's 2% target. The Fed must carefully balance the risks of too-high inflation with the impact of sharply higher rates on the economy while analyzing the ever-changing economic landscape.

The June meeting of the Federal Open Market Committee (FOMC) yielded no surprises for the market when the Fed Funds rate was kept on hold at 5.25% – 5.50%. Stubborn inflation and resilient economic data were the twin motivators for the Fed's decision to delay rate cuts.

Real GDP grew at an annual rate of 1.6% in 1Q24, down from the 3.4% pace in 4Q23. Consumer spending, which comprises about two-thirds of GDP, slowed from 3.3% in 4Q23 to 1.5% in 1Q24 as higher rates and declining savings took a toll. Growth modestly picked up in 2Q24 with GDP coming in at a brisk 3.0%, with consumer spending and business investment once again fueling the climb.

- U.S. equity markets finished fiscal year 2024 in positive territory and helped to recover losses after sharp drawdowns in 2022. The S&P 500 Index hit 31 record highs over the first six months of 2024 gaining 15.3% for the period and 24.5% for the fiscal year. Tech-centric stocks, namely the "Magnificent 7," were the clear winners as exuberance over artificial intelligence continues.
- Overseas markets were positive for the year but continue to lag domestic markets. The MSCI ACWI ex-U.S. IMI (Net) Index, a broad benchmark reflecting developed and emerging markets outside of the U.S., climbed 11.6% for the fiscal year.
- The Bloomberg U.S. Aggregate Bond Index, a widely-used gauge of the investment grade domestic U.S. bond market, ended the fiscal year in positive territory (+2.7%). Bond yields rose modestly in 2024 as expectations dwindled for aggressive rate cuts amid stubbornly high inflation. Interest rates have been volatile as the markets assess when and how swiftly the Fed will begin easing. The yield curve remained inverted at quarter-end.
- Private real estate, as measured by the NCREIF Property Index, was negative for the second consecutive year after over a decade long positive streak. In fiscal year 2024, the NCREIF Property Index returned -5.5% hurt yet again by office property.

For the fiscal year ended June 30, 2024, the System's investments produced a return of 10.8% versus 11.3% for the policy benchmark. Total Assets stood at \$33.7 billion at the end of the fiscal period, up from \$32.0 billion at the beginning of the period.

Over the trailing five-, ten-, and fifteen-year periods, PERS exceeded its policy benchmark with annualized returns of 8.4%, 7.7%, and 9.8%, respectively. Long-term returns remain very competitive when measured against the policy benchmark as well as other large public retirement systems.

The Public Employees' Retirement System of Mississippi (PERS) maintains an appropriately diversified investment approach, designed to maximize return with an acceptable risk level. Callan supports the System's ongoing efforts to enhance the investment program and its continued due diligence activities.

Sincerely,



John P. Jackson, CFA
Senior Vice President
Callan LLC



Alexander W. Ford
Senior Vice President
Callan LLC

Defined Benefit Plans — Report on Investments

Fiscal Year 2024

The System is committed to ensuring secure retirement benefits are available for its current and future retirees through the prudent investment of its assets.

The Board is responsible for directing the investment program in accordance with the laws of the State.

Facing each year's unique investment challenges and opportunities, the Board, the Executive Director, and investment staff remain clearly focused on the fundamental principle that investing for the future of our membership is a long-term commitment, and the prudent management of the System's assets demands constant attention and specialized expertise. The Board is committed to maintaining a well-diversified portfolio designed to minimize risks and maximize returns over the long term. The goal of the investment program is to ensure adequate funding is available to meet all current and future pension obligations. As fiduciaries, the Board, the Executive Director, and the investment staff rely on the following principles to guide them in making investment related decisions.

Investment Policy Summary

INVESTMENT OBJECTIVES

The primary objective of the investment program is to ensure that the System meets its financial responsibility to provide stable benefits for its members. As such, the investment program strives to:

- » achieve a long-term annual rate of return that meets or exceeds actuarial assumed rate of return on investments;
- » protect the investment portfolio from severe extended declines in asset value during periods of adverse market conditions by prudent diversification of assets;
- » provide adequate liquidity to meet all benefit payments and other cash requirements; and
- » maintain a total portfolio risk profile that is controlled through diversification by asset class, investment approach, and by individual investments within each asset class.

INVESTMENT CONSTRAINTS

- » Laws and Regulations - The specific types of investments in which the System is authorized to invest are enumerated in Section 25-11-121 of the Mississippi Code, Annotated (1972, as amended).
- » Time Horizon - Acknowledging the impact of annual investment returns on the actuarial evaluation, the System views the appropriate investment time horizon for a public pension plan to be thirty (30) years.
- » Liquidity Requirements - Annual liquidity requirements must be considered when designing the portfolio structure.

RISK CONTROLS

The System's greatest risk is that plan assets will not support liabilities over the long term. To help mitigate this concern and evaluate the funded status of the System, the Board conducts annual actuarial valuations and projection reports, as well as periodic experience studies. Additionally, at least every five years, an independent external audit of the actuary is conducted to ensure the assumptions and calculation methods used are appropriate for properly computing the liabilities of the System.

STRATEGIC OBJECTIVE

The Board's strategic investment objectives are to maximize total return on assets, preserve principal, and to attain competitive investment results. By achieving the strategic objectives, the Board seeks to be able to provide adequate benefits and maintain stable contribution rates.

IMPLEMENTATION

The strategic asset allocation is the primary tool for reaching the investment objectives. The asset allocation decision is based on an evaluation of both expected returns and risk levels for the allowable asset classes. In making the asset allocation decision, the Board must strike a balance between the desired level of risk and return. The result of the asset allocation decision should be a well-diversified portfolio that reflects both the Board's desired level of return and the Board's risk tolerance level for the portfolio.

REBALANCING

The Board's investment policy includes a provision for rebalancing the asset allocation any time the current allocation is not in alignment with the long-term target. The investment staff is responsible for implementing the rebalancing activity as contained in the policy.

ROLES AND RESPONSIBILITIES

Board of Trustees

The Systems' investment activities are governed by the ten-member Board of Trustees who are responsible for directing the investment program in accordance with the laws of the State. As fiduciaries of a pension fund, the board members rely heavily on the executive director, the investment staff, consultants, actuaries, and other contracted service providers to assist them in this process.

The Board is responsible for:

- » approval of long-term risk tolerance and asset allocation decisions;
- » approval of all formal investment policies;
- » approval of the investment structure within the asset allocation policy structure;
- » retention and termination of external managers, consultants, and custodial banks; and
- » periodically approving the System's Investment Policy Statement.

Information and recommendations related to investment program activities and policies are provided to the Board by the investment staff and consultant to aid the decision-making process.

Executive Director

The Board employs the Executive Director who is responsible for, among other duties, broad oversight of the investment function, including ensuring the System has in place the appropriate resources, training opportunities, and compensation structures to attract and retain a competent and qualified investment staff.

Investment Staff

The Chief Investment Officer (CIO), as head of the investment staff, is charged with maintaining the integrity of the investment program. This responsibility includes working directly with the Executive Director and Board on the development of investment policy, asset allocation decisions, portfolio structure, investment manager/consultant selection and termination, and custodian selection. The CIO is charged with providing advice and recommendations on all investment related matters and to make all necessary information available to the Executive Director and Board to assist them in making prudent investment decisions.

The investment staff discharges their duties solely in the interest of the members and benefit recipients of the System. These duties include implementation of and adherence to the Board's investment policies. Primary responsibilities are:

- » monitoring investment managers' compliance with the guidelines established in their Investment Management Agreements (IMA);
- » meeting and/or communicating with external managers regularly to review investment strategies and results;
- » managing the short-term account assets to ensure monthly benefit payrolls are funded;
- » recommending investment program enhancements; and
- » implementing the adopted rebalancing policy.

Investment Consultant

The investment consultant is charged with assisting the investment staff in providing advice and recommendations to the Executive Director and Board on all investment matters and to discharge their investment duties solely in the interest of the System's members and benefit recipients, assisting in the System's prudent management and oversight of investments.

The consultant attends all investment related meetings of the Board and provides an independent perspective on investment goals, structure, performance, and managers. The consultant reviews asset allocation, manager structure and performance, and makes recommendations to the Board as appropriate. The consultant assists in the manager search process and in keeping the Board informed as to changes within the pension and investment communities that could affect the System.

Investment Managers

External investment managers are retained for their skill and expertise within a specialized part of the System’s portfolio. Investment managers are charged with managing the assets in compliance with the policies, guidelines, and objectives included in their IMAs with the System.

Investment managers construct and manage investment portfolios, which are consistent with the investment philosophy and disciplines for which they were hired. All investment managers provide periodic reporting as directed by the investment staff.

Each investment manager acts as a fiduciary to the System. Further, each manager is responsible for achieving best execution in all trades including foreign exchange transactions. Trades must meet the test of best execution as defined under Section 28(e) of the Securities and Exchange Act of 1934.

Custodial Bank

The custodial bank is responsible for settling all security trades as authorized by the investment managers. The custodial bank maintains accurate records of all transactions related to investment activity and serves as trustee of all assets within its control. It is responsible for capturing and recording all monies due to the System from investment activities and investment income. The custodial bank is also responsible for all securities lending activities, income collection, and record keeping.

PORTFOLIO REVIEW AND EVALUATION

Periodically, the Board reviews and evaluates reports on the investment performance of the System’s portfolio. These reviews also include the performance of each investment manager portfolio and at the total fund level. Performance reports are generated by the investment consultant and include performance data, asset allocation, and peer group comparison information. The Board places greater emphasis on long-term rather than short-term results.

The Board recognizes that though its investments are subject to short-term volatility, it is critical that a long-term investment focus be maintained. This prevents ad hoc revisions to its philosophy and policies in reaction to either speculation or short-term market fluctuations.

To maintain this long-term view, the Board utilizes the following formal review schedule:

Formal Review Agenda Item	Review Schedule
Total Fund Performance	Quarterly
Broad Asset Allocation	At least every five years
Manager Structure	At least every three years
Investment Policy	Periodically

Standard of Care

The standard of care which governs members of the Board is the prudent person standard. This standard requires fiduciaries to discharge their duties solely in the interests of participants and their beneficiaries with such care, skill, prudence, and diligence as a person acting in like circumstances would exercise in the conduct of an enterprise of similar character and with similar aims.

Ethics and Conflicts of Interest

As it pertains to ethics and conflicts of interest, it is understood that:

- » all Board members are fund fiduciaries with a duty of loyalty and responsibility to observe the exclusive benefit rule;
- » all members of the Board, Executive Director, and investment staff will disclose any conflict of interest related to investments;
- » all investment managers, consultants, and custodial banks shall be required to disclose all third-party relationships, which in any way involve payment of fees, shared fees, or any “soft dollar” exchanges not otherwise disclosed; and
- » upon request, each investment manager and consultant will disclose its ethics policy to the Board.

Investment Management Fees

Investment management fees are closely monitored by the investment staff for reasonableness. Comparative fee information is obtained from various sources including the investment consultant and other annual fee surveys in which the System participates. Fees paid to each external investment management firm are presented to the Board periodically.

Proxy Voting

The Board charges its investment managers with the responsibility of voting proxies on the System's behalf and in its best interest. It is the intent of the Board to have proxies voted in a manner solely to protect the interest of its participants. As a rule, proxies should be voted in such a manner as to avoid activity which would:

- » be detrimental to the long-term interests of the System's holdings;
- » excessively insulate present management from take-over or stockholder rejection;
- » reduce investment liquidity; and
- » reduce shareholder interests.

Proxies are to be voted and submitted in adequate time for the proxy to be received by the appropriate corporate official. A record of the proxy voting positions taken by each investment manager should be reported to the investment staff by the 30th calendar day following the end of each quarter.

Securities Lending

Lending securities to qualified borrowers enables the System to realize incremental income on assets currently in the portfolio. This represents an opportunity to increase the return on the fund by reinvesting the income generated.

The custodial bank, as lending agent for the System, is responsible for the lending and cash collateral reinvestment activities. All loans will have an initial collateral margin of 102.00 percent for loaned securities denominated in US dollars or whose primary trading market is located in the US, or sovereign debt issued by foreign governments denominated in US dollars and 105.00 percent for loaned securities which are not in denominations of US dollars or whose primary trading market is not located in the US, with the potential of higher values dependent on the jurisdiction in which such loaned securities are customarily traded.

Manager Watch List or Termination Guidelines

Managers may be placed on a Watch List for either qualitative or quantitative factors.

Qualitative Factors - Qualitative factors that may be grounds for being placed on a Watch List or terminated include, but are not limited to the following:

- » violation of investment guidelines;
- » deviation from stated investment style;
- » turnover of key personnel;
- » change in ownership;
- » litigation; and
- » failure to disclose significant information including potential conflicts of interest, regulatory agency investigations and/or sanctions, and any other such pertinent occurrences.

The Board can place a manager on the Watch List at any time based on qualitative factors. Watch List status, based on qualitative factors, mandates closer monitoring of the manager's organization. The Board will notify the manager of its decision to place the firm on a Watch List. At the end of six months the Board will reevaluate and decide what action, if any, to take.

Quantitative Factors

Quantitative factors pertain primarily to performance. The performance of the Plan's investment managers is reviewed by the Board on a continuing basis. Below are some of the factors to be considered in determining the appropriateness of placing an investment manager on a Watch List.

<u>Performance Test</u>	<u>Benchmark</u>	<u>Fail Criteria</u>
Test 1 – Performance relative to market index, for 4 consecutive quarters of rolling 3-year period returns	Annualized performance relative to the agreed upon market index or appropriate benchmark	Managers fail if they underperform their index or benchmark over 4 quarters of rolling 3-year periods
Test 2 – Performance relative to a peer group for 4 consecutive quarters of rolling 3-year period returns	Performance compared to that of an appropriate peer group	Managers fail if their performance is below the 50th percentile over 4 quarters of rolling 3-year periods

The Board will notify a manager of its decision to place them on a Watch List. The investment manager will be informed that failure to show steady improvement in performance could result in termination or a reduction of the assets managed for the System. The Board, at its discretion, can place an investment manager on a Watch List, or terminate an investment manager at any time with a 30-day notice.

Strategic Asset Allocation Policy

The primary method utilized in achieving the investment return objectives is the allocation of assets. The Board adopts an asset allocation policy as the framework to ensure the assets are invested in a prudently managed and well diversified portfolio designed to meet the established return targets. To assist the Board in this decision, the System's investment consultant conducts periodic asset/liability allocation studies that include consideration of projected future liabilities, expected risk, return, correlations for various asset classes, and the System's statutory investment restrictions.

In August 2022, to allow for further portfolio diversification opportunities, the Board approved a modification to the system's investment policy to reallocate the asset mix, primarily to allow up to 2% investment in each of the categories of private credit and private infrastructure while also increasing the private equity allocation from 8% to 10% (with corresponding reductions in public equity and fixed income). A multi-year implementation strategy has been undertaken, beginning with the private credit category, which will be accomplished through a fund-of-one investment strategy. Until these strategies are implemented, performance will be measured utilizing the Board-approved investment allocation prior to these changes and the associated benchmarks, as set forth below.

Strategic Asset Allocation	Targets	Rebalancing Ranges
Public Equities	57%	±5%
Private Equity	10%	±5%
Real Estate	10%	±5%
*Private Infrastructure	2%	±2%
Fixed Income	18%	±5%
**Private Credit	2%	±2%
***Cash Equivalents	1%	±1%

* The Domestic Equity asset class and Private Infrastructure policy weights are adjusted each month such that the Private Infrastructure weight is set equal to the invested capital, up to the Long-Term Target of 2%. The uninvested capital is allocated to Domestic Equity. This process reflects the practical implementation of non-publicly traded investments.

** The Fixed Income asset class and Private Credit policy weights are adjusted each month such that the Private Credit weight is set equal to the invested capital, up to the Long-Term Target of 2%. The uninvested capital is allocated to Fixed Income. This process reflects the practical implementation of non-publicly traded investments.

*** Cash equivalents will consist of the assets in the short-term account used for benefit payments. Target may exceed the max when necessary to meet the current obligations of the system for a period of ninety (90) days as enumerated in Section 25-11-121 of the Mississippi Code, Annotated (1972, as amended).

The current long-term performance measurement for each asset class is as follows:

Asset Class	Benchmark
Public Equities	44% Russell 3000 Index, 36% MSCI ACWI ex US IMI Index, and 20% MSCI ACWI IMI
Private Equity	Cambridge Global Private Equity
Fixed Income	Bloomberg Barclays US Aggregate Index
Real Estate	NCREIF Property Index
Private Credit	S&P LSTA 100/ Bloomberg High 2% Yield 50/50 +1%
Cash Equivalents	30-day U.S. T-bills
Total Fund Policy	27.0% Russell 3000 Index, 20.0% MSCI ACWI ex US IMI, 20.0% Bloomberg Aggregate, 12.0% MSCI ACWI IMI, 10.0% NCREIF Total Index, 10.0% Cambridge Global Private Equity, 1.0% FTSE 1 Mo T-Bill and 0.0% Private Credit Benchmark.

Investment Summary

As of June 30, 2024, the System's portfolio value as reported by the investment consultant totaled \$33.73 billion. This represents an increase of almost \$1.7 billion compared to fiscal year 2023. As is common in mature pension plans, the System's annual distributions again surpassed contributions made by employees and employers. For fiscal year 2024, contributions totaled \$2.2 billion, while the System paid out approximately \$3.6 billion to members and beneficiaries.

ASSET ALLOCATION

The asset allocation at year end, excluding investments purchased with securities lending cash collateral, was in line with its strategic target allocation as shown above. Overweight allocations to Private Equity (+1.7%), Fixed Income (+.8%), and Global Equity (+0.2%) were offset by underweight allocations to Domestic Equity (-1.5%) and Real Estate (-1.3%).

It is important to note that the asset allocation decision for a public pension system is unique to the individual plan and is based on that plan's specific liability requirements, as well as any statutory investment restrictions under which the investment program must operate. As a result, the System's allocation could be somewhat different than that of other public pension plans. From time to time, these differences can result in significant differences in investment returns.

SECURITIES LENDING

The System's securities lending program is managed by its custodial bank, BNY Mellon. This program generates ancillary income by lending securities from the System's portfolio to securities dealers in return for a premium payment on loans collateralized by securities and earnings generated by the investment of cash collateral. All loans are secured by the receipt of collateral valued at 102.00 or 105.00 percent of the value of the loaned security. In fiscal year 2024, the securities lending program generated almost \$11.7 million* in additional revenue for the investment program.

* \$11.7 million were the earnings distributed for the fiscal year; \$13.7 million was the reported net income as required by Governmental Accounting Standards Board Statement No. 28.

Portfolio Performance

All returns for periods greater than one year are annualized.

Callan LLC services include calculating investment returns both for the total fund and for each of the investment managers retained to invest the System's assets and comparing those results to certain performance benchmarks. Actual returns are calculated by Callan using a time-weighted rate of return methodology based on portfolio fair values determined by the System's custodial bank.

For fiscal year 2024, the combined investment portfolio experienced a gross return of 10.78 percent which outperformed the peer-universe median 10.23 percent return by 0.55 percent and ranked in the 27th percentile of the funds in the Callan Public Very Large Defined Benefit (DB) universe. The System's three-year total return of 2.97 percent and the five-year return of 8.41 percent outpaced its policy benchmark of 2.83 percent and 7.76 percent, respectively, maintaining strong rankings in the peer universe. For the 10 years ended June 30, 2024, the portfolio returned 7.73 percent, outperforming the Target Policy benchmark return of 7.26 percent, performing better than 3 quarters of the System's peers.

The System's portfolio structure is designed to achieve success over the long term. Challenges are always present, in whatever form they come, and the effects they have on the global financial markets are seldom the same. This underlines the value of the System's Asset Allocation Policy, as demonstrated by the 30-year return of 8.12 percent relative to the policy benchmark return of 7.82 percent.

PUBLIC EQUITY

Globally, fiscal year 2024 was another strong year for equity markets, with domestic equity performance leading the way. Domestic benchmarks like the Russell 300, Russell 1000 Growth, and S&P 500 posted returns of 23.10, 33.50, and 24.60 percent, respectively. Domestic equity returned 21.63 percent underperforming the Russell 3000 return of 23.13 percent. Global Equity returned 20.73 percent outperforming the MSCI ACWI IMI return of 18.40 percent. International Equity returned 12.57 percent outperforming the MSCI ACWI ex-US IMI return of 11.57 percent.

For the fiscal year, the public equity returned 18.21 percent, placing it in the 50th percentile for the Callan Public Plan global equity universe for the year. The 3-year public equity return of 4.34 percent underperformed the benchmark return of 4.57 percent. The 5-year return of 10.56 percent outperformed the benchmark by approximately 20 basis points and 10-year return of 8.72 percent outperformed by approximately 55 basis points on an annualized basis.

As of June 30, the System had allocated 25.50 percent of the total portfolio to domestic equity, 12.20 percent to global equity, and 20 percent to international equity. Within the domestic equity portfolio 73.10 percent was invested in large-capitalization (cap), 19.00 percent in mid-cap, and 7.30 percent in small-cap stock.

The total public equity was divided into approximately 59.00 percent active and 41.00 percent passive as of the end of the fiscal year.

PUBLIC FIXED INCOME

The US Treasury yield curve remained inverted throughout the fiscal year, with short-term rates higher than long-term rates. Since the short-end of the yield curve has trended higher, this provided the opportunity for the Plan to add a Short-Duration strategy to the Public Fixed Income portfolio. This is a new allocation which will help provide yield while also planning for future cash flows.

Additional changes made to the Public Fixed Income portfolio included eliminating the passive Core Public Fixed Income portfolio which closely tracked the performance of the Bloomberg US Aggregate Index. As a result of these changes, at the close of the fiscal year, the Public Fixed Income portfolio employed actively managed Core, Core-Plus, Global, Emerging Market, and Short-Duration strategies.

The total Public Fixed Income portfolio's positive 4.93 percent return for the year outperformed the Bloomberg Aggregate Index performance by 230 basis points. This placed PERS of Mississippi's Public Fixed Income portfolio firmly in top quartile performance, relative to the Plan's peers.

For the three-year and five-year periods ended June 30, 2024, Public Fixed Income portfolio returns were negative 2.05 and positive .77 percent (annualized), respectively, outperforming the Index by 97 basis points and 100 basis points (annualized) for the same periods. The ten-year performance for the fixed income portfolio was 2.38 percent, while the Bloomberg US Aggregate Index returned 1.35 percent, annualized. PERS of Mississippi ended the year with 20.84 percent of the Plan invested in Public Fixed Income securities. Of this, the underlying allocations consisted of 18.89 percent in Core US mandates, 32.58 percent Core-Plus, 21.75 percent in mostly USD-hedged Global strategies, 10.09 percent in Emerging Market debt, and 16.69 percent in a Short-Duration strategy.

PRIVATE CREDIT

During the fiscal year, two Private Credit managers were selected to provide the System exposure to a market that is not readily served in traditional fixed income investments. The overall benefit to the Plan is to provide portfolio diversification and complement the Public Fixed Income portfolio.

Portfolio diversification is achieved by lending to organizations that would not normally have access to traditional public markets due to size or other factors. Given the general characteristics of non-publicly traded bonds, Private Credit allows for income generation with lower volatility than public credit markets.

The allocations to these two Private Credit managers will be deployed over time, with an expectation that these managers will oversee \$500 million in Private Credit, which is about 1.48 percent of the overall portfolio, based on the June 30, 2024, valuation. Due to the timing of the initial funding (second half of FY) and the relatively low balance of funds deployed thus far (about 0.13 percent of the overall portfolio), the return on this portion of the portfolio was positive, although not statistically significant.

REAL ESTATE

On June 30, the real estate investment program consisted of domestic and global private investments in core, core plus, and value-added real estate funds, timber, as well as public REITs. After several years of outperforming the policy benchmark for the system's real estate portfolio, real estate had its second negative year in a row due to rising interest rates and falling valuations. As the 2024 fiscal year closed out, the anticipation of falling interest rates, a floor on asset valuations, and a rise in transaction volume bring confidence to a return to positive returns and outperformance of the benchmark.

The total real estate portfolio returned negative 8.43 percent for the fiscal year, underperforming its custom benchmark return of negative 6.40 percent by 203 basis points. The longer-term five-year and ten-year portfolio returns of 3.10 and 6.17 percent were right in line with the policy benchmark at 3.20 and 5.98 percent respective returns.

The core and core plus portfolio saw a significant number of transactions during the year to bring the portfolio more in line with the ODCE benchmark in both sector and geographic diversification. The core and core plus real estate portfolio returned negative 10.18 percent for the year, thereby outperforming the benchmark NFI-ODCE Equal Weighted Net Index return of negative 10.32 percent. Core and core plus real estate has realized a five-year return of 1.99 percent, while the Index returned 2.58 percent for the same period. The seven-year and ten-year returns of 3.21 and 5.38 also slightly underperformed the relative benchmark returns.

At the end of the fiscal year, the System's value-added real estate portfolio consisted of 21 limited partnerships representing broad diversification both geographically and in sector opportunities. The value-add portfolio posted a negative 8.44 return, trailing the NCREIF Property Index benchmark return of negative 5.53 percent. For the three-year return, the value-add portfolio returned 4.39 percent, outperforming the 2.33 percent benchmark return by 206 basis points. For longer periods, the program posted five-year and seven-year gains of 7.99 and 11.12 percent returns, respectively, both exceeding their benchmark by over 400 basis points, with the ten-year return ranking in the top decile relative to peers.

The System's timber portfolio returned negative 10.88 percent for the fiscal year, while NCREIF Timberland Index returns for the same period were 9.84 percent. With the single remaining asset in the timber portfolio being in New Zealand, primary contributing factors to the underperformance were currency exchange rates as well as lingering economic effects in China and Southeast Asia's construction market. The portfolio's five-, seven-, and ten-year returns of 4.87, 5.58, and 5.84 percent were just under their respective 7.18, 5.89, and 5.89 percent returns of the NCREIF Timberlands Index.

The public REIT portfolio, comprised of both US and non-US REIT investments, returned a positive 7.79 percent for the fiscal year, outperforming the NAREIT benchmark by 82 basis points. The REIT portfolio has consistently outperformed the benchmark since inception of the program. The portfolio's five-year, seven-year, and ten-year returns of 4.12, 5.57, and 5.97 percent all significantly outperformed the relative benchmark.

PRIVATE EQUITY PORTFOLIO

The System's private equity program consists of seven separate fund-of-funds limited partnership commitment series investing in buyouts, venture capital/growth, and special situation opportunities. For fiscal year 2024, the System's private equity investments returned 4.64 percent for the fiscal year, underperforming the 5.05 percent return of the benchmark (Cambridge Global Private Equity). Over the longer term, the private equity program realized returns of 8.27, 15.82, and 15.73 percent for the three-year, five-year, and ten-year periods, respectively, significantly outperforming the relative benchmark returns of 1.45, 10.91, and 12.44* percent for the same periods. Additionally, the portfolio ranked in the top decile among peers for the 5- and 10-year time periods.

** Prior to 2013 the private equity benchmark was the S&P 500 Index plus 5 percent, and prior to 2024 the private equity benchmark was the S&P 500 Index plus 3 percent.*

SHORT-TERM CASH

Cash flows generated by employee and employer contributions to the System and from ancillary income-generating activities, including securities lending and the System's commission recapture program, are invested by the System's investment staff. These assets are used to fund monthly benefits, refunds, and annual Cost-of-Living-Adjustment (COLA) payments. As interest rates at the short end of the yield curve increased throughout the fiscal year, the return on the short-term investment program was 5.70 percent. The cash portion of the accounts managed by external investment managers is invested in interest-earning cash equivalents. All short-term investments are made in accordance with state law and policies set by the Board.

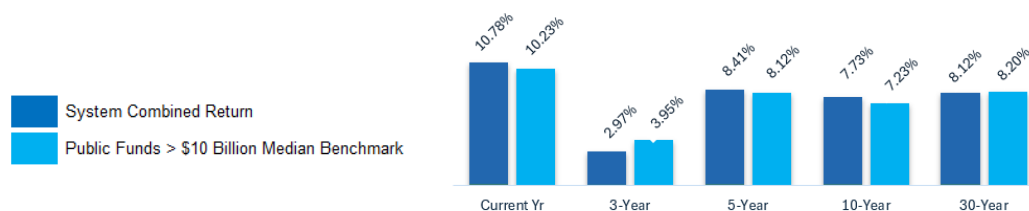
Defined Benefit Plans
Asset Allocation, Target Asset Allocation
For Fiscal Year Ended June 30, 2024

	Asset Allocation at Fair Value	Long-Term Target Asset Allocation
Equity Securities	57.7%	57.0%
Fixed Income	20.8	18.0
Real Estate	8.7	10.0
Private Equity	11.7	10.0
Private Credit	0.1	2.0
Private Infrastructure	0.0	2.0
Cash & Equivalents	1.0	1.0

Defined Benefit Plans:
Performance Summary
For Fiscal Year Ended June 30, 2024

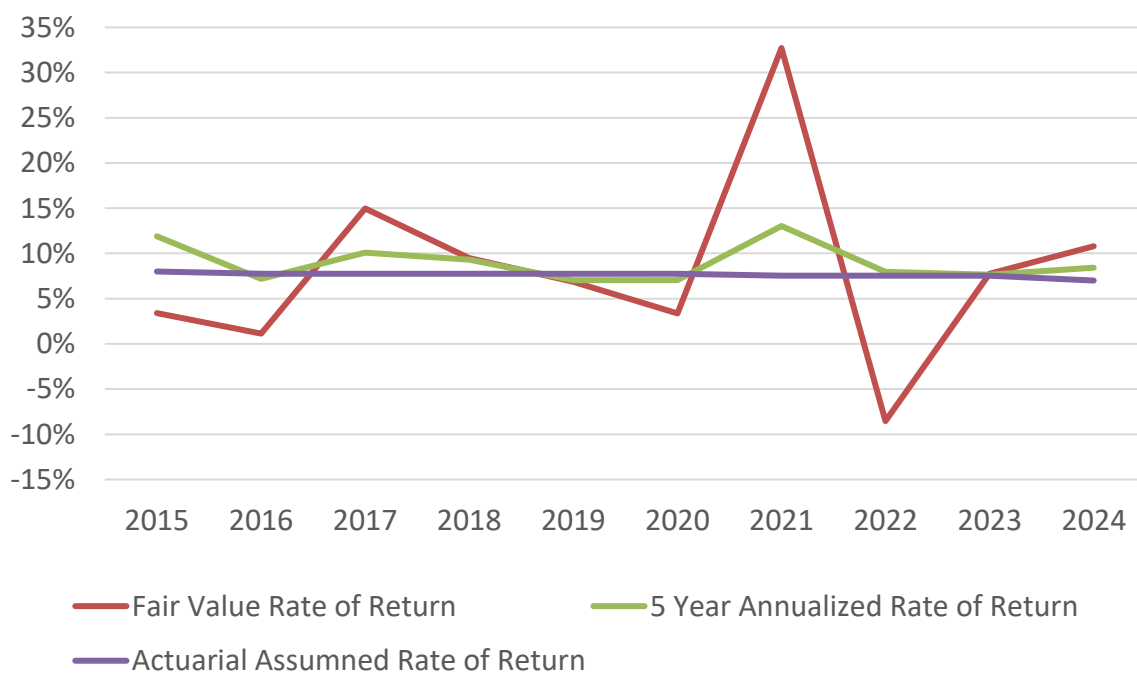
	Annualized				
	Current	3-year	5-year	10-year	30-year
<i>Total Fund:</i>					
System Combined Return*	10.78%	2.97%	8.41%	7.73%	8.12%
Public Funds Policy Benchmark	11.27	2.83	7.76	7.26	7.82
Public Funds > \$10 Billion Median Benchmark	10.23	3.95	8.12	7.23	8.20
<i>Total Equity Securities:</i>					
Total Equity Managers Composite*	18.21	4.34	10.56	8.72	9.21
MSCI ACWI IMI Benchmark	18.40	4.70	10.36	8.17	7.48
Total Equity Custom Benchmark	17.95	4.57	10.31	8.44	-
<i>Domestic Equity:</i>					
Domestic Equity Managers Composite*	21.63	7.59	13.83	11.66	10.78
Russell 3000 Index	23.13	8.05	14.14	12.15	10.67
Domestic Equity Custom Benchmark	21.15	7.52	13.31	11.54	10.48
<i>International Equity:</i>					
International Equity Managers Composite*	12.57	0.15	6.55	4.66	5.87
International Equity Benchmark	11.57	0.19	5.62	3.92	5.15
International Equity Custom Benchmark	11.64	(0.10)	5.48	3.95	-
<i>Global Equity:</i>					
Global Equity Managers Composite*	20.73	4.62	10.40	9.13	-
Global Equity Benchmark	18.40	4.70	10.36	8.18	-
<i>Fixed Income Securities:</i>					
Fixed Income Managers Composite*	4.93	(2.05)	0.77	2.38	5.25
Bloomberg Aggregate Index	2.63	(3.02)	(0.23)	1.35	4.53
Fixed Income Custom Benchmark	3.67	(2.59)	(0.04)	1.61	-
<i>Real Estate:</i>					
Commingled Funds and REITS Composite*	(8.43)	0.44	3.10	6.17	-
Real Estate Custom Benchmark	(6.40)	2.01	3.20	5.98	-
<i>Private Equity:</i>					
Private Equity Composite*	4.64	8.27	15.82	15.73	-
Private Equity Benchmark	5.05	1.45	10.91	12.44	-
<i>Private Credit:</i>					
Private Credit Composite*	1.79	-	-	-	-
Private Credit Benchmark	1.97	-	-	-	-

* Calculations for the System are prepared using a time-weighted rate of return methodology based upon fair values.



Defined Benefit Plans:
Total Pension Investment Rates of Return
Last 10 Fiscal Years
[in thousands]

Fiscal Year	Investments Before Lending Activities	Fair Value Rates of Return	Five-Year Rates of Return	Actuarial Assumed Rates of Return
2015	24,735,121	3.40	11.89	8.00
2016	23,938,414	1.15	7.18	7.75
2017	26,592,048	14.96	10.08	7.75
2018	28,280,303	9.48	9.32	7.75
2019	28,226,443	6.87	7.06	7.75
2020	27,956,585	3.35	7.05	7.75
2021	35,265,335	32.71	13.03	7.55
2022	30,980,078	(8.54)	7.97	7.55
2023	31,836,506	7.76	7.63	7.55
2024	33,474,002	10.78	8.41	7.00



Defined Benefit Plans:
Net Investment Income by Source
Last 10 Fiscal Years
[in thousands]

Fiscal Year	Bond Interest Income	Dividend Income	Short-term Income	Realized Gain on Investments	Appreciation (Depreciation) in Fair Value of Investments
2015	183,456	365,567	8,045	1,450,502	(1,087,742)
2016	177,516	346,655	14,723	574,260	(909,931)
2017	173,692	351,444	14,411	1,136,714	1,900,834
2018	181,409	368,696	19,638	1,907,081	38,573
2019	195,358	380,435	29,032	957,634	260,730
2020	185,298	356,415	19,798	921,453	(525,979)
2021	170,610	355,288	8,714	2,954,584	5,508,267
2022	187,209	446,840	8,400	1,794,709	(5,369,210)
2023	213,321	458,895	45,201	(103,506)	1,746,301
2024	251,094	411,192	58,784	1,424,965	1,221,912

Fiscal Year	Net Income from Securities Lending	Total Income/(Loss)	Manager* and Trading Fees	Net Income from Investments
2015	13,778	933,606	(88,884)	844,722
2016	19,429	222,652	(89,116)	133,536
2017	22,333	3,599,428	(95,916)	3,503,512
2018	17,151	2,532,548	(105,462)	2,427,086
2019	15,535	1,838,724	(104,675)	1,734,049
2020	15,438	972,423	(99,541)	872,882
2021	10,665	9,008,128	(110,484)	8,897,644
2022	3,941	(2,928,111)	(106,458)	(3,034,569)
2023	15,529	2,375,741	(101,556)	2,274,185
2024	13,703	3,381,650	(105,743)	3,275,907

* Manager fees are subject to estimation.

Defined Benefit Plans:
Non-US Investments by Country
Fair Value at June 30, 2024

Angola	0.04%	Ghana	0.05%	Oman	0.15%
Argentina	0.09%	Greece	0.17%	Pakistan	0.09%
Australia	5.39%	Guatemala	0.16%	Panama	0.21%
Austria	0.39%	Guernsey CI	0.03%	Paraguay	0.02%
Azerbaijan	0.07%	Hong Kong	1.24%	Peru	0.21%
Bahrain	0.03%	Hungary	0.72%	Poland	0.25%
Belgium	0.35%	India	2.21%	Portugal	0.23%
Benin	0.03%	Indonesia	0.83%	Puerto Rico	0.04%
Bermuda	0.64%	Ireland	2.79%	Qatar	0.03%
Brazil	1.98%	Isle of Man	0.03%	Romania	0.36%
British Virgin Islands	0.08%	Israel	0.69%	Saudi Arabia	0.39%
Bulgaria	0.16%	Italy	1.66%	Senegal	0.06%
Canada	8.21%	Japan	11.47%	Serbia	0.12%
Cayman Islands	1.44%	Jersey CI	0.23%	Singapore	0.70%
Chile	0.51%	Jordan	0.15%	Slovakia	0.01%
China	4.80%	Kazakhstan	0.01%	Slovenia	0.04%
Colombia	0.44%	Kenya	0.01%	South Africa	0.99%
Costa Rica	0.15%	Liberia	0.04%	South Korea	2.80%
Cote d'Ivoire	0.07%	Luxembourg	1.15%	Spain	2.26%
Croatia	0.01%	Macau	0.03%	Sri Lanka	0.02%
Curacao	0.18%	Macedonia	0.05%	Supranational Geographic Focus	0.24%
Czech Republic	0.04%	Malaysia	0.11%	Sweden	2.94%
Denmark	1.94%	Marshall Islands	0.16%	Switzerland	4.91%
Dominican Republic	0.29%	Mauritius	0.10%	Taiwan	3.71%
Ecuador	0.08%	Mexico	1.45%	Thailand	0.26%
Egypt	0.25%	Mongolia	0.06%	Turkey	0.43%
El Salvador	0.04%	Morocco	0.11%	Ukraine	0.06%
Finland	0.35%	Netherlands	4.40%	United Arab Emirates	0.19%
France	5.47%	New Zealand	0.23%	United Kingdom	9.84%
Gabon	0.08%	Nigeria	0.12%	Uruguay	0.26%
Germany	3.57%	Norway	0.51%	Venezuela	0.04%

Defined Benefit Plans:
Equity Portfolio

Equity Portfolio Summary

Total Equity
Securities:
\$19,155,534,553

Total Number of Shares
of Equity Securities Held:
6,433,840,004

Total Number of Issues of
Equity Securities Held:
5,277

Ten Largest Equity Holdings

	Shares	Fair Value
Microsoft Corporation	1,350,970	\$603,816,042
Apple Inc.	2,248,661	473,612,980
Amazon.com, Inc.	2,351,106	454,351,235
Nvidia Corporation	3,649,462	450,854,535
Meta Platforms, Inc.	634,404	319,879,185
Alphabet Inc-Class A	1,275,163	232,270,940
Alphabet Inc-Class C	1,241,721	227,756,466
Taiwan Semiconductor Manufacturing Co.	6,580,173	195,935,671
Broadcom Inc.	99,521	159,783,951
UnitedHealth Group Incorporated	291,553	148,476,281
Totals	19,722,734	\$3,266,737,286

A complete list of portfolio holdings is available
upon written request.

Defined Benefit Plans:
Private Equity Portfolio

Private Equity Portfolio Summary

Total Private Equity Investments:
\$3,729,018,824

Private Equity Portfolio by Industry Type
Fair Value at June 30, 2024

Private Equity Portfolio By Strategy
June 30, 2024

Strategy	Percent
Buyouts	66.76%
Special Situations	18.45
Venture Capital	14.79
Total	100.00%

Industry	Percent
Technology	30.44%
Industrials	17.19
Health Care	14.06
Financial	11.88
Consumer Discretionary	11.84
Communication Services	4.41
Materials	3.40
Consumer Staples	3.12
Energy	2.05
Real Estate	1.19
Utilities	0.35
Other/Miscellaneous	0.07
Totals	100.00%

Defined Benefit Plans:
Bond Portfolio

Bond Portfolio Summary		
Total Bond Investments: \$7,588,710,423	Total Par of Bond Investments Held: 327,386,105,269	Total Number of Bond Issues Held: 3,801

Ten Largest Long-term Corporate Bond Holdings

	PAR	Fair Value
United Kingdom Government	36,400,000	\$46,537,533
Loomis Sayles Senior Loan Fund	46,466,250	46,466,250
New York Life Global Funding	45,175,000	45,338,049
UBS AG London	42,638,000	42,643,117
Australia & New Zealand Banking Group Ltd.	33,761,000	33,830,477
Commonwealth Bank of Australia	27,730,000	27,803,349
Australia & New Zealand Banking Group Ltd.	25,800,000	25,911,781
New York Life Global Funding	24,900,000	24,963,361
Caterpillar Financial Services	23,818,000	23,879,410
Toyota Motor Credit Corporation	22,400,000	22,477,749
Totals	329,088,250	\$339,851,076

A complete list of portfolio holdings is available upon written request.

Defined Benefit Plans:
Private Credit Portfolio

Private Credit Portfolio Summary	
Total Private Credit Investments:	\$43,227,818

Two Private Credit managers were added during the second half of FY2024. The allocation to these managers is being deployed over time and full allocation is not currently available. The Private Credit target allocation ranges per strategy type will be as follows:

Strategy	Asset Class
Direct Lending	60% - 40%
Strategic Lending	60% - 40%
Total	100.00%

Defined Benefit Plans:
Real Estate Investment Portfolio

Real Estate Investment Portfolio Summary		
Total Real Estate Investments:	Total Number of Shares* of Real Estate Investments Held:	Total Number of Issues of REITs Held:
\$2,873,586,533	631,347,153	104

* Includes units of commingled funds and shares of REITs.

Portfolio Distribution by Property Type
Fair Value at June 30, 2024

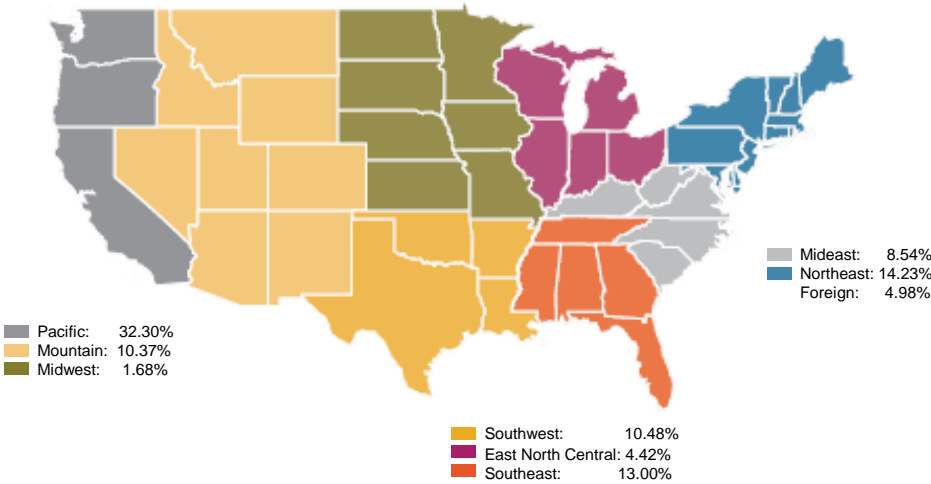
Property Type	Fair Value
Apartments	13.66%
Health Care	2.88
Hotels	1.15
Industrial	31.78
Office	12.65
Residential	19.19
Retail	9.66
Self-Storage	2.19
Timber	1.28
Other	5.56
Totals	100.00%

Ten Largest REIT Holdings

	Shares	Fair Value
Prologis, Inc.	221,724	\$24,901,822
Welltower, Inc.	186,203	19,411,663
Equinix, Inc.	25,138	19,019,411
Digital Realty Trust, Inc.	99,993	15,203,936
UDR, Inc.	298,707	12,291,793
Invitation Homes, Inc.	339,874	12,198,078
Simon Property Group, Inc.	78,807	11,962,903
Realty Income Corporation	217,389	11,482,487
Extra Space Storage, Inc.	69,653	10,824,773
Public Storage	30,676	8,823,951
Totals	1,568,164	\$146,120,817

A complete list of portfolio holdings is available upon written request

Portfolio Distribution By Geographic Location
Fair Value at June 30, 2024



Defined Benefit Plans:
Portfolio Detail Illustrated by Investment Manager
At June 30, 2024

Investment Manager	Fund Type	Date Initiated	Fair Value Percent of Total Portfolio*
<i>Equity Securities:</i>			
Northern Trust Asset Management	Passive Large Cap (S&P 500 Index)	July 1985	17.14%
Northern Trust Asset Management	MSCI World Ex-US	April 2022	6.97
Acadian Asset Management, LLC	Global	July 2005	3.14
Harding Loevner, LP	Global	February 2012	3.10
Epoch Investment Partners, Inc.	Global	February 2012	3.08
LSV Asset Management	Global	August 2022	2.99
Eagle Capital Management	Large Cap	January 2005	2.58
Marathon Asset Management, LP	ACWI Ex-US	May 2016	2.54
Baillie Gifford & Company	ACWI Ex-US	August 2014	2.22
Lazard Asset Management, LLC	Emerging Markets	April 1998	2.22
Fisher Investments	Emerging Markets	April 2016	2.10
Arrowstreet Capital, LP	ACWI Ex-US	June 2013	2.04
Victory Capital Management, Inc.	Domestic Mid Cap Value	September 2022	1.66
Artisan Partners, LP	Domestic Mid Cap Growth	September 2002	1.51
Principal Global Investors, LLC	International Small Cap	September 2018	1.04
Wellington Management Company, LLP	Domestic Small Cap Core	July 2002	1.01
Dimensional Fund Advisors, Inc.	Small Cap Value	July 2002	1.00
Northern Trust Asset Management	International Small Cap	June 2024	0.97
Riverbridge Partners, LLC	Small Cap Growth	November 2013	0.94
Subtotal			58.25%
<i>Fixed Income Securities:</i>			
Sit Investment Associates	Short Duration	September 2023	3.51%
Prudential Financial, Inc.	Core Plus	January 2012	3.46
Loomis Sayles & Company, LP	Core Plus	August 2009	3.37
AllianceBernstein, LP	Global	February 2013	2.28
Pacific Investment Management Company	Global	February 2013	2.27
Wellington Management Company, LLP	Emerging Market	May 2010	2.08
Pacific Investment Management Company	Core	August 1983	1.99
Manulife Investment Management	Core	March 2017	1.98
Subtotal			20.94%

* Includes cash and cash equivalents.

Defined Benefit Plans:
Portfolio Detail Illustrated by Investment Manager
[continued]

Investment Manager	Fund Type	Date Initiated	Fair Value Percent of Total Portfolio*
<i>Real Estate:</i>			
Principal Global Investors, LLC	Core	June 2003	2.57%
J.P. Morgan Investment Management, Inc.	Core	July 2012	1.20
UBS Realty Investors, LLC	Core	June 2003	1.11
UBS Realty Investors, LLC	Core Plus	January 2011	0.67
CenterSquare Investment Management	Domestic REITs	June 2017	0.63
Invesco, LP	Core	July 2022	0.50
Cohen & Steers, Inc.	Global REITs	October 2010	0.31
T.A. Associates Realty	Fund XII – value added	March 2020	0.28
AEW Capital Management, LP	Fund IX – value added	April 2020	0.20
Heitman, LLC	Fund V – value added	December 2020	0.18
Invesco, LP	Fund V – value added	February 2019	0.17
Westbrook Partners	Fund XI – value added	March 2021	0.17
TPG Angelo Gordon	Fund X – value added	July 2018	0.15
T.A. Associates Realty	Fund XIII – value added	November 2023	0.14
Manulife Investment Management	Timber	March 2008	0.12
Invesco, LP	Fund VI – value added	September 2022	0.11
Heitman, LLC	Fund IV – value added	September 2017	0.10
TPG Angelo Gordon	Fund XI – value added	March 2023	0.06
TPG Angelo Gordon	Fund IV – value added	August 2015	0.05
AEW Capital Management, LP	Fund VIII – value added	January 2024	0.05
Westbrook Partners	Fund X – value added	July 2016	0.04
T.A. Associates Realty	Fund XI – value added	April 2016	0.03
AEW Capital Management, LP	Fund VII – value added	June 2013	0.01
Invesco, LP	Fund IV – value added	April 2015	0.01
Subtotal			8.86%
<i>Private Credit:</i>			
GCM Grosvenor Diversified Partners, LP	Series 2023 Diversified	February 2024	0.07
Blue Owl Capital	Series 2023 Diversified	March 2024	0.06
Subtotal			0.13
<i>Private Equity:</i>			
Pathway Capital Management, LLC	Series 2016 Diversified	July 2016	4.07%
Pathway Capital Management, LLC	Series 2013 Diversified	April 2013	2.03
GCM Grosvenor Diversified Partners, LP	Series 2014 Diversified	February 2014	2.02
GCM Grosvenor Diversified Partners, LP	Series 2018 Diversified	July 2018	1.46
Pathway Capital Management, LLC	Series 2021 Diversified	May 2021	1.06
Pathway Capital Management, LLC	Series 2008 Diversified	December 2008	0.72
GCM Grosvenor Diversified Partners, LP	Series 2009 Diversified	June 2009	0.46
Subtotal			11.82%
Total			100.00%

* Includes cash and cash equivalents.

Note: AEW Capital Management LP Fund VI, Angelo Gordon & Company Fund III, and Heitman LLC Fund IIII are not shown due to small residual balances.

In addition to the cash equivalent portfolio managed in-house, 35 firms managed 61 different investment portfolios for the System at year end.

Defined Benefit Plans:
Investment Fees & Commissions
For the Year Ended June 30, 2024

	Assets Under Management	Fees*
<i>Investment Managers:</i>		
Equity Securities	\$19,374,581,140	\$52,423,272
Fixed Income Securities	6,961,086,819	12,745,321
Real Estate	2,949,807,082	25,419,626
Private Equity	3,929,766,055	14,321,329
Private Credit	43,227,818	93,990
Totals	\$33,258,468,914	\$105,003,538
<i>Other Investment Service Fees:</i>		
Securities Lending Agent/Cash Management Fees	\$2,067,442	
Investment Consultant Fees	639,886	
Custodial & Global Out-of-Pocket Expenses	738,780	
Totals	\$3,446,108	

* Management fees are subject to estimation.

Defined Benefit Plans:
Brokerage Commissions Paid*
For the Year Ended June 30, 2024

	Number of Shares Traded	Commissions	Commissions Per Share
<i>Brokerage Firm, Including Subsidiaries:</i>			
Merrill Lynch & Company	81,177,509	\$460,574	\$0.006
J.P. Morgan Securities	115,019,062	290,784	0.003
Citigroup, Inc.	84,662,425	268,211	0.003
Jefferies & Company, Inc.	44,771,065	266,813	0.006
UBS AG	54,824,010	259,353	0.005
Morgan Stanley & Company	90,372,026	242,476	0.003
Capital Institutional Services, Inc.	7,089,811	235,589	0.033
Crédit Lyonnais SA	137,143,976	200,408	0.001
Goldman Sachs & Company	45,414,069	181,051	0.004
BNP Paribas S.A.	62,275,734	155,934	0.003
Instinet, Inc.	93,895,905	143,787	0.002
HSBC Securities, Inc.	97,100,878	111,742	0.001
Barclays Capital	10,128,332	106,441	0.011
Bank of New York Mellon	10,069,438	79,387	0.008
Oddo BHF	766,518	62,062	0.081
Robert W. Baird & Company	1,523,962	60,643	0.040
Macquarie Securities	39,126,956	58,673	0.001
Mizuho Financial Group, Inc.	2,110,655	55,319	0.026
Sanford C. Bernstein Company, LLC	4,488,288	54,819	0.012
Others (less than \$50,000)	196,843,900	783,320	0.004
Commission Recapture Income	n/a	(198,382)	-
Totals	1,178,804,519	\$3,879,004	\$0.003

* Approximate figures provided by Bank of New York Mellon.

Defined Benefit Plans:
Investment Summary
For the Year Ended June 30, 2024

[in thousands]

	July 1, 2023 Beginning Fair Value *	Purchases	Sales & Maturities	Increase (Decrease) in Fair Value	June 30, 2024 Ending Fair Value **	Percent of Total Fair Value
Equities	\$18,403,168	\$5,362,995	\$5,904,718	\$1,294,090	\$19,155,535	53.93%
Fixed Income	6,460,170	10,365,645	9,479,774	242,669	7,588,710	21.36
Private Credit	-	42,919	157	466	43,228	0.12
Private Equity	3,804,797	231,263	303,986	(3,055)	3,729,019	10.50
Real Estate	3,066,766	340,936	214,321	(319,794)	2,873,587	8.09
Short-term Investments	2,142,107	52,336,577	52,356,647	11,042	2,133,079	6.00
Totals	\$33,877,008	\$68,680,335	\$68,259,603	\$1,225,418	\$35,523,158	100.00%

* Includes investment securities on loan to broker-dealers with a fair value of \$2,223,806. It also includes the securities purchased with the cash collateral received in the lending program with a fair value of \$2,040,502. As of June 30, 2023, 6.56 percent of the total fair value of investments were on loan to broker-dealers. To arrive at the beginning net asset value of investments of \$32.0 billion, the fair value total must be adjusted by (\$1.9) billion, which represents the fair value of cash, sweep investments, accrued interest and dividends, net receivables and payables for pending trades, and the securities lending obligations.

** Includes investment securities on loan to broker-dealers with a fair value of \$2,278,346. It also includes the securities purchased with the cash collateral received in the lending program with a fair value of \$2,049,156. As of June 30, 2024, 6.41 percent of the total fair value of investments were on loan to broker-dealers. To arrive at the ending net asset value of investments of \$35.5 billion, the fair value total must be adjusted by (\$1.8) billion, which represents the fair value of cash, sweep investments, accrued interest and dividends, net receivables and payables for pending trades, and the securities lending obligations.

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Actuarial



November 1, 2024

Board of Trustees
Public Employees' Retirement System
of Mississippi
429 Mississippi Street
Jackson, MS 39201-1005

Dear Board Members:

The basic financial objective of the Public Employees' Retirement System of Mississippi (PERS) is to establish and receive contributions which:

- (1) When expressed in terms of the percents of active member payroll will remain approximately level from generation to generation of Mississippi citizens, and which
- (2) When combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of PERS.

In addition, PERS maintains a funding policy that was revised in 2023. In order to meet the objectives listed above, the System will strive to meet the following funding goals:

- (1) To maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being approximately 100% funded;
- (2) Require clear reporting and risk analysis of metrics used by the actuary;
- (3) Provide contribution stability as a percentage of payroll.

In order to measure progress toward this fundamental objective and funding policy, PERS has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution requirements that provide for the current cost and level percent of payroll amortization of unfunded actuarial accrued liability over a reasonable period. The Board adopted a new funding policy which sets the funding goals, objectives, and metrics for possible changes in the contribution rate for future valuations.

The latest completed actuarial valuation was based upon data and assumptions as of June 30, 2023. The actuary recommended in this valuation that the current contribution rates of 17.40% of payroll for employers be increased beginning July 1, 2024. The Board has adopted a phased-in approach that will increase the employer contribution by 2 percent each state fiscal year beginning July 1, 2024, and thereafter until the rate reaches the amount recommended by the actuary and approved by the Board. However, during the 2024 legislative session, the legislature canceled the Board's approach and introduced its own schedule of lower contribution increases. Active members will continue to contribute 9.00% of payroll. There are 145,985 active members as of June 30, 2023.

The total pension liabilities (TPL) for the Governmental Accounting Standards Board Statement No. 67 (GASB 67) are based on the June 30, 2023 actuarial valuation and are rolled forward using actuarial techniques to the measurement date of June 30, 2024. The actuarial assumptions used for the purposes of determining the TPL as of June 30, 2024 were based on the results of an actuarial experience study for the period July 1, 2018 to June 30, 2022.



Board of Trustees
November 1, 2024
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The actuarial valuation is based upon financial and participant data, which is prepared by the retirement system staff, assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death, and disability among PERS members and their beneficiaries. The data are reviewed by us for internal and year to year consistency as well as general reasonableness prior to its use in the actuarial valuation. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions used in the 2024 GASB 67 report were adopted by the Board of Trustees and were based upon actual experience of PERS during the years 2018 to 2022. Assets are valued according to a market related method that recognizes 20% of the previously unrecognized and unanticipated gains and losses. The actuarial cost method used in valuation and financial disclosure reports is the Entry Age Normal cost method. The Entry Age Normal cost method is the most, commonly used cost method by public plans, and it develops a normal cost rate that tends to be stable and less volatile. The assumptions, methods, and funding policy utilized in this valuation and disclosure reports, in our opinion, are consistent and meet the parameters established by the Actuarial Standards of Practice.

The current benefit structure is outlined in the Actuarial Section. There were no changes in the benefit structure since the last valuation.

The following supporting schedules in the Actuarial Section are prepared by Cavanaugh Macdonald Consulting, LLC:

- Summary of Actuarial Assumptions & Methods
- Summary of Main System Provisions as Interpreted for Valuation Purposes
- Valuation Assets & Funding Progress
- Schedules of Funding Progress – Last 10 Fiscal Years
- Solvency Tests
- Analysis of Financial Experience
- Schedule of Active Member Valuation Data
- Schedule of Retirants Added to and Removed from Rolls

We also provided the Schedule of Changes in Net Pension Liability and related ratios, as well as the Schedule of Employer Contributions in the Financial Section.

Based upon the valuation results, annual projection forecasting and the presumption that future contributions will be made at the necessary level to ensure adequate funding and to meet accounting standards, it is our opinion that the Public Employees' Retirement System of Mississippi continues in sound condition in accordance with the actuarial principles of level percent of payroll financing, however, more funding above the legislative adopted statutory contributions is recommended.

Respectfully submitted,

Edward J. Koebel, FCA, EA, MAAA
Chief Executive Officer



November 1, 2024

Board of Trustees
Public Employees' Retirement System
of Mississippi
429 Mississippi Street
Jackson, MS 39201-1005

Dear Board Members:

The basic financial objective of the Mississippi Highway Safety Patrol Retirement System (HSPRS) is to establish and receive contributions which:

- (1) When expressed in terms of the percents of active member payroll will remain approximately level from generation to generation of Mississippi citizens, and which
- (2) When combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of HSPRS.

In addition, HSPRS maintains a funding policy that was revised in 2023. In order to meet the objectives listed above, the System will strive to meet the following funding goals:

- (1) To maintain an increasing ratio of system assets to accrued liabilities and reach a 100 percent minimum funded ratio in 2047;
- (2) To maintain adequate asset levels to finance the benefits promised to members;
- (3) To develop a pattern of stable contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, with a minimum employer contribution equal to the normal cost determined under the Entry Age Normal funding method.

In order to measure progress toward this fundamental objective, HSPRS has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution requirements that provide for the current cost and level percent of payroll amortization of unfunded actuarial accrued liability over a reasonable period.

The latest completed actuarial valuation was based upon data and assumptions as of June 30, 2023. This valuation indicates that contribution rates of 49.08% of payroll for employers and 7.25% of payroll for active members, along with anticipated contributions as provided by Senate Bill No. 2659 (effective July 1, 2004) and House Bill No. 1015 (effective July 1, 2013), for benefits then in effect, meet the basic financial objective and the goals of the funding policy as listed above. There are 507 active members as of June 30, 2023.

The total pension liabilities (TPL) for the Governmental Accounting Standards Board Statement No. 67 (GASB 67) are based on the June 30, 2023 actuarial valuation and are rolled forward using actuarial techniques to the measurement date of June 30, 2024. The actuarial assumptions used for the purposes of determining the TPL as of June 30, 2024 were based on the results of an actuarial experience study for the period July 1, 2018 to June 30, 2022.



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The actuarial valuation is based upon financial and participant data, which is prepared by the retirement system staff, assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death, and disability among HSPRS members and their beneficiaries. The data are reviewed by us for internal and year to year consistency as well as general reasonableness prior to its use in the actuarial valuation. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions used in the 2024 GASB 67 report were adopted by the Board of Trustees and were based upon actual experience of HSPRS during the years 2018 to 2022. Assets are valued according to a market related method that recognizes 20% of the previously unrecognized and unanticipated gains and losses. The actuarial cost method used in valuation and financial disclosure reports is the Entry Age Normal cost method. The Entry Age Normal cost method is the most, commonly used cost method by public plans, and it develops a normal cost rate that tends to be stable and less volatile. The assumptions, methods, and funding policy utilized in this valuation and disclosure reports, in our opinion, are consistent and meet the parameters established by the Actuarial Standards of Practice.

The current benefit structure is outlined in the Actuarial Section. There were no changes in the benefit structure since the last valuation.

The following supporting schedules in the Actuarial Section are prepared by Cavanaugh Macdonald Consulting, LLC:

- Summary of Actuarial Assumptions & Methods
- Summary of Main System Provisions as Interpreted for Valuation Purposes
- Valuation Assets & Funding Progress
- Schedules of Funding Progress – Last 10 Fiscal Years
- Solvency Tests
- Analysis of Financial Experience
- Schedule of Active Member Valuation Data
- Schedule of Retirants Added to and Removed from Rolls

We also provided the Schedule of Changes in Net Pension Liability and related ratios, as well as the Schedule of Employer Contributions in the Financial Section.

Based upon the valuation results, annual projection forecasting and the presumption that future contributions will be made at the necessary level to ensure adequate funding and to meet accounting standards, it is our opinion that the Mississippi Highway Safety Patrol Retirement System continues in sound condition in accordance with the actuarial principles of level percent of payroll financing.

Respectfully submitted,

Edward J. Koebel, FCA, EA, MAAA
Chief Executive Officer



November 1, 2024

Board of Trustees
Public Employees' Retirement System
of Mississippi
429 Mississippi Street
Jackson, MS 39201-1005

Dear Board Members:

The basic financial objective of the Mississippi Supplemental Legislative Retirement Plan (SLRP) is to establish and receive contributions which:

- (1) When expressed in terms of the percents of active member payroll will remain approximately level from generation to generation of Mississippi citizens, and which
- (2) When combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of SLRP.

In addition, SLRP maintains a funding policy that was revised in 2023. In order to meet the objectives listed above, the System will strive to meet the following funding goals:

- (1) To maintain an increasing ratio of system assets to accrued liabilities and reach a 100 percent minimum funded ratio in 2047;
- (2) To maintain adequate asset levels to finance the benefits promised to members;
- (3) To develop a pattern of stable contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, with a minimum employer contribution equal to the normal cost determined under the Entry Age Normal funding method.

In order to measure progress toward this fundamental objective and funding policy, SLRP has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the current cost and level percent of payroll amortization of unfunded actuarial accrued liability over a reasonable period.

The latest completed actuarial valuation was based upon data and assumptions as of June 30, 2023. This valuation indicates that contribution rates of 8.40% of payroll for employers and 3.00% of payroll for active members, for benefits then in effect, meet the basic financial objective and the goals of the funding policy as listed above. There are 172 active members as of June 30, 2023.

The total pension liabilities (TPL) for the Governmental Accounting Standards Board Statement No. 67 (GASB 67) are based on the June 30, 2023 actuarial valuation and are rolled forward using actuarial techniques to the measurement date of June 30, 2024. The actuarial assumptions used for the purposes of determining the TPL as of June 30, 2024 were based on the results of an actuarial experience study for the period July 1, 2018 to June 30, 2022.



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The actuarial valuation is based upon financial and participant data, which is prepared by the retirement system staff, assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death, and disability among SLRP members and their beneficiaries. The data are reviewed by us for internal and year to year consistency as well as general reasonableness prior to its use in the actuarial valuation. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions used in the 2024 GASB 67 report were adopted by the Board of Trustees and were based upon actual experience of SLRP during the years 2018 to 2022. Assets are valued according to a market related method that recognizes 20% of the previously unrecognized and unanticipated gains and losses. The actuarial cost method used in valuation and financial disclosure reports is the Entry Age Normal cost method. The Entry Age Normal cost method is the most, commonly used cost method by public plans, and it develops a normal cost rate that tends to be stable and less volatile. The assumptions, methods, and funding policy utilized in this valuation and disclosure reports, in our opinion, are consistent and meet the parameters established by the Actuarial Standards of Practice.

The current benefit structure is outlined in the Actuarial Section. There were no changes in the benefit structure since the last valuation.

The following supporting schedules in the Actuarial Section are prepared by Cavanaugh Macdonald Consulting, LLC:

- Summary of Actuarial Assumptions & Methods
- Summary of Main System Provisions as Interpreted for Valuation Purposes
- Valuation Assets & Funding Progress
- Schedules of Funding Progress – Last 10 Fiscal Years
- Solvency Tests
- Analysis of Financial Experience
- Schedule of Active Member Valuation Data
- Schedule of Retirants Added to and Removed from Rolls

We also provided the Schedule of Changes in Net Pension Liability and related ratios, as well as the Schedule of Employer Contributions in the Financial Section.

Based upon the valuation results, annual projection forecasting and the presumption that future contributions will be made at the necessary level to ensure adequate funding and to meet accounting standards, it is our opinion that the Mississippi Supplemental Legislative Retirement Plan continues in sound condition in accordance with the actuarial principles of level percent of payroll financing.

Respectfully submitted,

Edward J. Koebel, FCA, EA, MAAA
Chief Executive Officer



November 1, 2024

Board of Trustees
Public Employees' Retirement System
of Mississippi
429 Mississippi Street
Jackson, MS 39201-1005

Dear Board Members:

The basic financial objective of the Municipal Retirement System of Mississippi (MRS) is to establish and receive contributions (expressed as a tax on assessed property valuations) which:

- (1) Will be in amounts sufficient, but not more than necessary, to maintain the actuarially soundness of the Funds for all future years (the tax may be increased but not by more than one-half mill per year), and which
- (2) When combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of MRS.

In addition, MRS maintains a funding policy that was revised in 2011. In this funding policy, contributions are extended past 2020 and an employer contribution rate, expressed as a millage rate tax applied to assessed property values, is established beginning in the 2011-2012 fiscal year that will generate an ultimate reserve level equal to a reasonable percentage (initially 100% - 150%) of the next year's projected benefit payment. At that point, employer contributions will be set equal to the fiscal year's projected benefit payments and adjusted as necessary to maintain the assets at the established reserve level.

In order to measure progress toward this fundamental objective, MRS has an annual actuarial valuation performed. The valuation (i) measures present financial position, and (ii) establishes contribution rates that provide for the sustainability of each municipality to ensure all benefit payments are made to the remaining retirees and beneficiaries.

The latest completed actuarial valuations were based upon data and assumptions as of June 30, 2023. These valuations indicate that the current contribution rates, for benefits then in effect, meet the basic financial objective. There were no remaining active members as of June 30, 2023.

The total pension liabilities (TPL) for the Governmental Accounting Standards Board Statement No. 68 (GASB 68) are based on the June 30, 2023 actuarial valuation and are rolled forward using actuarial techniques to the measurement date of June 30, 2024. The actuarial assumptions used for the purposes of determining the TPL as of June 30, 2024 were based on the results of an actuarial experience study for the period July 1, 2018 to June 30, 2022.



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November 1, 2024
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The actuarial valuation is based upon financial and participant data, which is prepared by the retirement system staff, assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death, and disability among MRS members and their beneficiaries. The data are reviewed by us for internal and year to year consistency as well as general reasonableness prior to its use in the actuarial valuation. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions were adopted by the Board of Trustees and were based upon actual experience of MRS during the years 2018 to 2022. Assets are valued according to a market related method that recognizes 20% of the previously unrecognized and unanticipated gains and losses. The actuarial cost method used in valuation and financial disclosure reports is the Entry Age Normal cost method. The Entry Age Normal cost method is the most commonly used cost method by public plans, and it develops a normal cost rate that tends to be stable and less volatile. The assumptions, methods, and funding policy utilized in this valuation and disclosure reports, in our opinion, are consistent and meet the parameters established by the Actuarial Standards of Practice.

The current benefit structure is outlined in the Actuarial Section.

The following supporting schedules in the Actuarial Section are prepared by Cavanaugh Macdonald Consulting, LLC:

- Summary of Actuarial Assumptions & Methods
- Summary of Main System Provisions as Interpreted for Valuation Purposes
- Valuation Assets & Funding Progress
- Schedules of Funding Progress – Last 10 Fiscal Years
- Solvency Tests
- Analysis of Financial Experience
- Schedule of Retirants Added to and Removed from Rolls

We also provided the Schedule of Changes in Net Pension Liability and related ratios, as well as the Schedule of Employer Contributions in the Financial Section.

Based upon the valuation results annual projection forecasting and the presumption that future contributions will be made at the necessary level to ensure adequate funding and to meet accounting standards, it is our opinion that the Municipal Retirement Systems of Mississippi continue in sound condition in accordance with the actuarial principles and requirements of State law.

Respectfully submitted,

Edward J. Koebel, FCA, EA, MAAA
Chief Executive Officer

Summary of Actuarial Assumptions & Methods

This section presents actuarial information for each of the four defined benefit plans on a funding basis. A description of the plans can be found in Note 1 of the Financial Section. The PERS Board of Trustees and the MHSPRS Administrative Board are responsible for establishing and maintaining the funding policies. All plans use the Entry Age Actuarial Cost Method for both funding and financial reporting purposes. This continues a long-standing practice for all plans and provides a point of consistency between the funding provisions and the GASB 67 requirements.

Actuarial valuations are performed annually to measure the funding progress of the plans and the total pension liabilities used for accounting purposes. Total pension liabilities are based on the June 30, 2023, valuation rolled forward to the June 30, 2024, measurement date. The net pension liability is equal to the rolled forward total pension liability less the plan's fiduciary net position as of the measurement date.

To validate that the assumptions used to determine the total pension liability are reasonably related to experience, the System requests the actuary to conduct an experience investigation every other year on a rolling four-year period. The investigation considers mortality, retirement, withdrawals and compensation of members, and economic forecasts for inflation and investment rate of return. June 30, 2023, actuarial valuations were prepared using actuarial assumptions adopted by the Board in August 2023 based on the experience investigation for the four-year period ending June 30, 2022.

Actuarial valuations of funding progress are prepared using current contribution rates. Significant methods and assumptions used in the valuations as of the June 30, 2023, valuation date were as follows:

	PERS	MHSPRS	SLRP	MRS
<i>Actuarial Methods:</i>				
Actuarial cost Method	Entry age	Entry age	Entry age	Entry age
Amortization Method	Level percent open	Level percent open	Level percent open	Level dollar closed
Remaining Amortization Period	32.2 years	30.6 years	26.5 years	****
Asset Valuation Method	5-year Smoothed Fair Value	5-year Smoothed Fair Value	5-year Smoothed Fair Value	5-year Smoothed Fair Value
<i>Actuarial Assumptions:</i>				
Investment Rate of Return	7.00%	7.00%	7.00%	7.00%
Salary Increase	2.65-17.90%	3.50-5.00%	2.65%	****
Increase in Benefits after Retirement	3.00%*	3.00%**	3.00%*	Various***

* Calculated 3.0 percent simple interest to age 55, or to age 60 if hired after June 30, 2011, compounded each year thereafter.

** Calculated 3.0 percent simple interest to age 60, compounded each year thereafter.

*** Varies depending on municipality.

**** All MRS active employees were retired as of June 30, 2020.

Public Employees' Retirement System of Mississippi: Statement of Actuarial Assumptions & Methods

Assumptions used in the June 30, 2023, actuarial valuation were adopted by the Board when the *Experience Investigation for the Four-Year Period Ending June 30, 2022*, was adopted August 22, 2023. Following are the assumptions adopted by the Board for this program.

INTEREST RATE: 7.00 percent per annum, compounded annually (net of investment expense only). The expected return on assets consists of 2.40 percent price inflation and 4.60 percent real rate of return.

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

Service	Annual Rates of Salary Increases		
	Merit & Seniority	Base (Economy)	Increase Next Year
0	15.25%	2.65%	17.90%
1	5.25	2.65	7.90
2	2.75	2.65	5.40
3	1.75	2.65	4.40
4	1.25	2.65	3.90
5-7	0.75	2.65	3.40
8-27	0.25	2.65	2.90
28 & over	-	2.65	2.65

ADMINISTRATIVE EXPENSES: 0.26 percent of payroll.

TIMING OF DECREMENTS AND PAY INCREASES: Middle of year.

ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.0 percent.

MARRIAGE ASSUMPTION: 85.0 percent married with the husband two years older than wife.

UNUSED SICK LEAVE: 0.55 years at retirement.

MILITARY SERVICE: 0.20 years at retirement.

DEFERRED VESTED: Benefits are assumed to commence at age 60 for Tiers 1, 2, and 3 and at age 65 for Tier 4.

ASSET VALUATION METHOD: Fair value five-year smoothing is the method used for asset valuation. The actuarial value of assets recognizes a portion of the difference between the fair value of assets and the expected fair value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20.0 percent of the difference between fair value and expected fair value.

VALUATION METHOD: The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability, or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (7.00 percent for the June 30, 2023, valuation). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of PERS are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.

Under the entry age normal cost method, the actuarial present value of each member's projected benefits is allocated on a level basis over the member's compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial liability. The unfunded actuarial liability represents the difference between the actuarial liability and the actuarial value of assets as of the valuation date. The unfunded actuarial liability is calculated each year and reflects experience gains/losses. The accrued liability contribution amortizes the balance of the unfunded actuarial accrued liability over a period of years from the valuation date.

DEATH AFTER RETIREMENT: The table for post-retirement mortality used in evaluating allowances to be paid is the PubS.H-2010(B) Retiree Table with males adjusted by 95.0 percent for ages less than 60 then scaled up to 110.0 percent for ages 61 to 75 and 101.0 percent for ages above 77. Females are adjusted by 84.0 percent for ages less than 72 then scaled up to 100.0 percent for ages above 76. The PubS.H-2010(B) Contingent Annuitant Table is used for

contingent annuitants with the following adjustments: 97.0 percent of male rates at all ages and 110.0 percent of female rates at all ages. The PubG.H-2010 Disabled Retiree Table is used for disabled retirees with the following adjustments: 134.0 percent of male rates at all ages and 121.0 percent of female rates at all ages. The projection scale MP-2020 is used to project future improvements in life expectancy generationally.

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of separation from active service are as follows:

Age	Annual Rates of Service Retirements			
	Male		Female	
	Under 25 Years of Service*	25 Years of Service & Over*	Under 25 Years of Service*	25 Years of Service & Over*
45	-%	28.00%	-%	21.00%
50	-	20.00	-	16.50
55	-	20.00	-	20.75
60	11.50	19.50	13.25	21.50
62	20.00	29.00	18.75	32.25
65	26.50	33.00	30.00	40.00
70	21.25	26.00	24.50	30.00
75	22.00	22.00	24.00	25.00
80	100.00	100.00	100.00	100.00

*For Tier 4 members, 30 years of service.

Age	Annual Rates of Withdrawals											
	Years of Service											
	0		5		10		15		20		24	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	42.00 %	45.00 %	13.00 %	12.50 %	- %	- %	- %	- %	- %	- %	- %	-
25	35.00	37.00	13.00	12.50	6.50	7.00	-	-	-	-	-	-
30	35.00	35.00	12.50	12.50	6.50	7.00	3.75	4.00	-	-	-	-
35	35.00	30.00	12.50	12.00	6.50	6.00	3.75	4.00	3.25	3.50	-	-
40	35.00	28.00	10.00	9.50	6.00	6.00	3.75	4.00	3.25	3.50	3.25	3.50
45	32.00	27.50	9.50	9.50	6.00	6.00	3.75	4.00	3.25	3.50	3.25	3.50
50	27.00	27.50	9.00	9.50	5.75	6.00	3.75	4.00	3.25	3.50	3.25	3.50
53+	25.00	25.00	9.00	9.50	5.75	6.00	3.75	4.00	3.25	3.50	3.25	3.50

Age	Annual Rates of			
	Death*		Disability	
	Male	Female	Male	Female
20	0.05%	0.01%	0.01%	0.01%
25	0.06	0.02	0.01	0.01
30	0.06	0.03	0.02	0.02
35	0.07	0.04	0.02	0.02
40	0.09	0.05	0.07	0.05
45	0.12	0.07	0.15	0.07
50	0.18	0.09	0.23	0.15
55	0.26	0.13	0.36	0.28
60	0.40	0.18	0.27	0.25
65	0.64	0.24	0.24	0.22
70	1.17	0.47	0.24	0.15
75	2.14	0.92	0.24	0.15
79	3.48	1.58	0.24	0.15

*Adjusted Base Rates

Mississippi Highway Safety Patrol Retirement System: Statement of Actuarial Assumptions & Methods

Assumptions used in the June 30, 2023, actuarial valuation were adopted by the MHSPRS Advisory Board when the *Experience Investigation for the Four-Year Period Ending June 30, 2022*, was adopted August 22, 2023. Following are the assumptions adopted by the PERS Board for this program.

INTEREST RATE: 7.00 percent per annum, compounded annually (net of investment expenses only). The expected return on assets consists of 2.40 percent price inflation and 4.60 percent real rate of return.

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

Service	Annual Rates of		
	Merit & Seniority	Base (Economy)	Increase Next Year
0-4	2.35%	2.65%	5.00%
5-7	2.10	2.65	4.75
8-13	1.60	2.65	4.25
14-20	1.35	2.65	4.00
21-24	1.10	2.65	3.75
25	0.85	2.65	3.50

ADMINISTRATIVE EXPENSES: 1.00 percent of payroll.

TIMING OF DECREMENT AND PAY INCREASES: Middle of year.

ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.0 percent.

MARRIAGE ASSUMPTION: 100.0 percent married with the husband three years older than wife.

ASSET VALUATION METHOD: Fair value five-year smoothing is the method used for asset valuation. The actuarial value of assets recognizes a portion of the difference between the fair value of assets and the expected fair value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20.0 percent of the difference between fair value and expected fair value.

VALUATION METHOD: The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability, or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (7.00 percent for the June 30, 2023, valuation). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of MHSPRS are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.

Under the entry age normal cost method, the actuarial present value of each member's projected benefits is allocated on a level basis over the member's compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial liability. The unfunded actuarial liability represents the difference between the actuarial liability and the actuarial value of assets as of the valuation date. The unfunded actuarial liability is calculated each year and reflects experience gains/losses. The accrued liability contribution amortizes the balance of the unfunded actuarial accrued liability over a period of years from the valuation date.

DEATH AFTER RETIREMENT: The table for post-retirement mortality used in evaluating allowances to be paid is the PubS.H-2010(B) Retiree Table with males adjusted by 95.0 percent for ages less than 60 then scaled up to 110.0 percent for ages 61 to 75 and 101.0 percent for ages above 77. Females are adjusted by 84.0 percent for ages less than 72 then scaled up to 100.0 percent for ages above 76. The PubS.H-2010(B) Contingent Annuitant Table is used for contingent annuitants with the following adjustments: 97.0 percent of male rates at all ages and 110.0 percent of female rates at all ages. The PubG.H-2010 Disabled Retiree Table is used for disabled retirees with the following adjustments: 134.0 percent of male rates at all ages and 121.0 percent of female rates at all ages. The projection scale MP-2020 is used to project future improvements in life expectancy generationally.

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of separation from active service are as follows:

Service Retirement

Years of Service	Annual Rates of Service Retirement*
5	7.50%
10	7.50
15	7.50
20	9.00
25	24.00
30	25.00
35	35.00
40+	100.00

* The annual rate of service retirement is 100.0 percent at age 63.

It is assumed that a member will be granted one and three-quarter years of service credit for unused leave at termination of employment. In addition, it is assumed that, on average, one quarter year of service credit for peace-time military service will be granted to each member.

Withdrawal, Death, and Disability

Age	Annual Rates of				
	Withdrawal		Death*		Disability
	Less than 20 years of Service	20 or more Years of Service	Males	Females	Duty and Non-Duty
25	7.00%	-%	0.06%	0.02%	0.02%
30	4.00	-	0.06	0.03	0.03
35	2.75	1.38	0.07	0.04	0.04
40	2.00	1.00	0.09	0.05	0.05
45	2.00	1.00	0.12	0.07	0.07
50	2.00	1.00	0.18	0.09	0.10
55	-	-	0.26	0.13	0.17
60	-	-	0.40	0.18	0.29

*Adjusted Base Rates.

Supplemental Legislative Retirement Plan: Statement of Actuarial Assumptions & Methods

Assumptions used in the June 30, 2023, actuarial valuation were adopted by the PERS Board of Trustees when the *Experience Investigation for the Four-Year Period Ending June 30, 2022*, was adopted August 22, 2023. Following are the assumptions adopted by the PERS Board for this program.

INTEREST RATE: 7.00 percent per annum, compounded annually (net of investment expenses only). The expected return on assets consists of 2.40 percent price inflation and 4.60 percent rate of return.

PAYROLL GROWTH: 2.65 percent per annum, compounded annually.

ADMINISTRATIVE EXPENSES: 0.15 percent of payroll.

TIMING OF DECREMENTS AND PAY INCREASES: Middle of year.

ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.0 percent.

MARRIAGE ASSUMPTION: 85.0 percent married with the husband three years older than wife.

ASSET VALUATION METHOD: Fair value five-year smoothing is the method used for asset valuation. The actuarial value of assets recognizes a portion of the difference between the fair value of assets and the expected fair value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20.0 percent of the difference between fair value and expected fair value.

VALUATION METHOD: The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability, or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (7.00 percent for the June 30, 2023, valuation). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of SLRP are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.

Under the entry age normal cost method, the actuarial present value of each member's projected benefits is allocated on a level basis over the member's compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial liability. The unfunded actuarial liability represents the difference between the actuarial liability and the actuarial value of assets as of the valuation date. The unfunded actuarial liability is calculated each year and reflects experience gains/losses. The accrued liability contribution amortizes the balance of the unfunded actuarial accrued liability over a period of years from the valuation date.

DEATH AFTER RETIREMENT: The table for post-retirement mortality used in evaluating allowances to be paid is the PubS.H-2010(B) Retiree Table with males adjusted by 95.0 percent for ages less than 60 then scaled up to 110.0 percent for ages 61 to 75 and 101.0 percent for ages above 77. Females are adjusted by 84.0 percent for ages less than 72 then scaled up to 100.0 percent for ages above 76. The PubS.H-2010(B) Contingent Annuitant Table is used for contingent annuitants with the following adjustments: 97.0 percent of male rates at all ages and 110.0 percent of female rates at all ages. The PubG.H-2010 Disabled Retiree Table is used for disabled retirees with the following adjustments: 134.0 percent of male rates at all ages and 121.0 percent of female rates at all ages. The projection scale MP-2020 is used to project future improvements in life expectancy generationally.

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed rates of separation from active service are as follows:

Service Retirement

30.0 percent in an election year, 3.5 percent in a non-election year. All members are assumed to retire no later than age 80. It is assumed that a member will be granted 2.5 years of service credit for unused leave at termination of employment.

Withdrawal

15.0 percent in an election year, 2.0 percent in a non-election year.

Death and Disability

Age	Annual Rates of		
	Death*		Disability**
	Male	Female	
20	0.05%	0.01%	0.02%
25	0.06	0.02	0.03
30	0.06	0.03	0.04
35	0.07	0.04	0.06
40	0.09	0.05	0.09
45	0.12	0.07	0.12
50	0.18	0.09	0.15
55	0.26	0.13	0.18
60	0.40	0.18	0.20
65	0.64	0.24	-
70	1.17	0.47	-
75	2.14	0.92	-

* Adjusted Base Rates.

** 93.0 percent are presumed to be non-duty related, and 7.0 percent are assumed to be duty related.

Municipal Retirement Systems: Statement of Actuarial Assumptions & Methods

Assumptions used in the June 30, 2023, actuarial valuation were adopted by the PERS Board of Trustees when the *Experience Investigation for the Four-Year Period Ending June 30, 2022*, was adopted on August 22, 2023. Following are the assumptions adopted by the PERS Board for this program.

INTEREST RATE: 7.00 percent per annum, compounded annually (net after investment expenses) for prior funding policy rate determination and GASB disclosure. For current funding policy rate determination, 5.50 percent per annum, compounded annually (net after investment expenses).

VALUATION METHOD: Unfunded employer liabilities are based on no assumed growth in assessed property values, certified municipal millage rates and 5.50% assumed investment return.

ASSESSED PROPERTY VALUE RATE OF INCREASE: No increase, assessed value will remain level over time (used in determining the millage rate under both the prior and current funding policy).

ASSET VALUATION METHOD: Fair value five-year smoothing is the method used for asset valuation. The actuarial value of assets recognizes a portion of the difference between the fair value of assets and the expected fair value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20.0 percent of the difference between fair value and expected fair value. Actuarial assets were allocated to individual cities in the same proportion that their fair value of assets was to the total fair value of assets for all cities.

DEATH AFTER RETIREMENT: The table for post-retirement mortality used in evaluating allowances to be paid is the PubS.H-2010(B) Retiree Table with males adjusted by 95.0 percent for ages less than 60 then scaled up to 110.0 percent for ages 61 to 75 and 101.0 percent for ages above 77. Females are adjusted by 84.0 percent for ages less than 72 then scaled up to 100.0 percent for ages above 76. The PubS.H-2010(B) Contingent Annuitant Table is used for contingent annuitants with the following adjustments: 97.0 percent of male rates at all ages and 110.0 percent of female rates at all ages. The PubG.H-2010 Disabled Retiree Table is used for disabled retirees with the following adjustments: 134.0 percent of male rates at all ages and 121.0 percent of female rates at all ages. The projection scale MP-2020 is used to project future improvements in life expectancy generationally.

Public Employees' Retirement System: Summary of Main System Provisions as Interpreted for Valuation Purposes

SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The following summary presents the main benefit and contribution provisions of the plan in effect June 30, 2023, as interpreted in preparing the actuarial valuation and as of June 30, 2024, in determining the rollforward of the total pension liability to the measurement date. As used in the summary, "average compensation" means the average annual covered earnings of an employee during the four highest years of service.

To determine the member's four highest years, PERS considers these scenarios:

- » Four highest fiscal years of earned compensation;
- » Four highest calendar years of earned compensation;
- » Combination of the four highest fiscal and calendar years of earned compensation that do not overlap; or
- » Final 48 months of earned compensation prior to termination of employment.

"Covered earnings" means gross salary not in excess of the maximum amount on which contributions were required. "Fiscal year" means a year commencing July 1 and ending June 30. "Credited service" means service while a contributing member plus additional service as described below. "Unused sick and vacation leave" means service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. A payment of up to 240 hours leave may be used in the average compensation definition. "Additional service" means additional service credit may be granted for service prior to February 1, 1953, active-duty military service, out-of-state service, professional leave, and non-covered and retroactive service.

The maximum covered earnings and associated contribution rates for employers and members covering the last 10 years are as follows:

Fiscal Date From	Fiscal Date To	Employer Rate	Member Rate	Maximum Covered Earnings
7/1/2014	6/30/2015	15.75	9.00	260,000
7/1/2015	6/30/2017	15.75	9.00	265,000
7/1/2017	6/30/2018	15.75	9.00	270,000
7/1/2018	6/30/2019	15.75	9.00	275,000
7/1/2019	6/30/2020	17.40	9.00	280,000
7/1/2020	6/30/2021	17.40	9.00	285,000
7/1/2021	6/30/2022	17.40	9.00	290,000
7/1/2022	6/30/2023	17.40	9.00	305,000
7/1/2023	6/30/2024	17.40	9.00	330,000

Benefits

SUPERANNUATION RETIREMENT

Condition for Retirement

- a) A retirement allowance is paid upon the request of any member who retires and has attained age 60 and completed at least eight years* of membership service. A retirement allowance may also be paid upon the completion of 25 years of creditable service for members hired prior to July 1, 2011, or upon the completion of 30 years of creditable service for members hired on or after July 1, 2011.
- b) Any member who withdraws from service prior to his or her attainment of age 60 and who has completed at least eight years* of membership service is entitled to receive, in lieu of a refund of his or her accumulated contributions, a retirement allowance commencing at age 60.

**Four years for those who entered the System before July 1, 2007.*

Amount of Allowance

The annual retirement allowance payable to a member who retires is equal to:

1. A member's annuity which is the actuarial equivalent of the member's accumulated contributions at the time of his or her retirement, plus
2. For a member hired prior to July 1, 2011, an employer's annuity which, together with the member's annuity, is equal to 2.0 percent of his or her average compensation for each of the first 25 years of creditable service plus 2.5 percent for each year of creditable service over 25 years.
3. For a member hired on or after July 1, 2011, an employer's annuity which, together with the member's annuity, is equal to 2.0 percent of his or her average compensation for each of the first 30 years of creditable service plus 2.5 percent for each year of creditable service over 30 years. An actuarial reduction will be made for each year of creditable service below 30 or for each year of age below 65, whichever is less.

For members hired prior to July 1, 2011, the minimum allowance is \$120 for each year of creditable service.

EARLY RETIREMENT

Condition for Retirement

For members hired on or after July 1, 2011, an actuarially reduced retirement allowance is paid upon the request of any member who retires with less than 30 years of creditable service.

Amount of Allowance

The annual actuarially reduced retirement allowance is equal to the benefit in the previous section but reduced for each year of creditable service below 30 or for each year in age below age 65, whichever is less.

DISABILITY RETIREMENT

Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled, as determined by the Board of Trustees, and who has accumulated eight or more years* of membership service.

**Four years for those who entered the System before July 1, 2007.*

Amount of Allowance

For those who were active members prior to July 1, 1992, and did not elect the benefit structure outlined below, the annual disability retirement allowance payable is equal to a superannuation retirement allowance if the member has attained age 60; otherwise, it is equal to a superannuation retirement allowance calculated as follows:

1. A member's annuity equal to the actuarial equivalent of his or her accumulated contributions at the time of retirement, plus
2. An employer's annuity equal to the amount that would have been payable had the member continued in service to age 60.

For those who became active members after June 30, 1992, and for those who were active members prior to July 1, 1992, who so elected, the following benefits are payable:

- 1. A temporary allowance equal to the greater of (a) 40.0 percent of average compensation plus 10.0 percent for each dependent child up to a maximum of two, or (b) the member's accrued allowance. This temporary allowance is paid for a period of time based on the member's age at disability, as follows:

Age At Disability	Duration
60 & earlier	to age 65
61	to age 66
62	to age 66
63	to age 67
64	to age 67
65	to age 68
66	to age 68
67	to age 69
68	to age 70
69 & later	one year

For members hired prior to July 1, 2011, the minimum allowance is \$120 per year of creditable service.

- 2. A deferred allowance commencing when the temporary allowance ceases equal to the greater of (a) the allowance the member would have received based on service to the termination age of the temporary allowance, but not more than 40.0 percent of average compensation, or (b) the member's accrued allowance.

For members hired prior to July 1, 2011, the minimum allowance is \$120 per year of creditable service.

Effective July 1, 2004, a temporary benefit can be paid out of a member's accumulated contribution balance while the member is awaiting a determination for eligibility for disability benefits. Future disability payments, if any, would be offset by advanced payments made from the member's accumulated contributions.

ACCIDENTAL DISABILITY RETIREMENT

Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled in the line of performance of duty.

Amount of Allowance

The annual accidental disability retirement allowance is equal to the allowance payable on disability retirement but not less than 50.0 percent of average compensation. There is no minimum benefit.

ACCIDENTAL DEATH BENEFIT

Condition for Benefit

A retirement allowance is paid to a spouse and/or dependent children upon the death of an active member in the line of performance of duty.

Amount of Allowance

The annual retirement allowance is equal to 50.0 percent of average compensation payable to the spouse and 25.0 percent of average compensation payable to one dependent child or 50.0 percent to two or more children until age 19 (23 if a full-time student). There is no minimum benefit.

ORDINARY DEATH BENEFIT

Condition for Benefit

Upon the death of a member who has completed at least eight years* of membership service, a benefit is payable (in lieu of a refund of the member's accumulated contributions) to his or her spouse, if said spouse has been married to the member for not less than one year.

* Four years for those who entered the System before July 1, 2007.

Amount of Allowance

The annual retirement allowance payable to the lawful spouse of a vested member who dies is equal to the greater of:

1. The allowance that would have been payable had the member retired and elected Option 2, reduced by an actuarially determined factor based on the number of years the member lacked in qualifying for unreduced retirement benefits, or
2. A lifetime benefit equal to 20.0 percent of the deceased member's average compensation, but not less than \$50 per month.

In addition, a benefit is payable to dependent children until age 19 (23 if a full-time student). The benefit is equal to the greater of 10.0 percent of average compensation or \$50 per month for each dependent child up to three.

RETURN OF CONTRIBUTIONS

Upon the withdrawal of a member without a retirement benefit, his or her contributions are returned to him or her, together with accumulated regular interest thereon.

Upon the death of a member before retirement, his or her contributions, together with the full accumulated regular interest thereon, are paid to his or her designated beneficiary, if any, otherwise, to his or her estate provided no other survivor benefits are payable.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by *The Wall Street Journal* on December 31 of each preceding year with a minimum rate of 1.0 percent and a maximum rate of 5.0 percent.

NORMAL FORM OF BENEFIT

The normal form of benefit (modified cash refund) is an allowance payable during the life of the member with the provision that upon his or her death the excess of his or her total contributions at the time of retirement over the total retirement annuity paid to him or her will be paid to his or her designated beneficiary.

OPTIONAL BENEFITS

Upon retirement, if they do not select the normal form of benefit, a member may elect to receive his or her allowance in one of the following forms, which are computed to be actuarially equivalent to the applicable retirement allowance.

- Option 1. Reduced allowance with the provision that if the pensioner dies before he or she receives the value of his or her annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.
- Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.
- Option 3. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50.0 percent of his or her reduced retirement allowance to some other designated beneficiary.
- Option 4. Upon his or her death, 75.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4A. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner or his or her beneficiary for a specified number of years certain.
- Option 4C. A member may elect any option with the added provision that he or she shall receive, so far as possible, the same total amount annually (considering both PERS and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit. This option was only available to those who retired prior to July 1, 2004.

A member who elects Option 2, Option 4, or Option 4A at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the retired member divorces the designated beneficiary. A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4, or Option 4A to provide beneficiary protection to a new spouse if married after retirement.

A member hired prior to July 1, 2011, and who has at least 28 years of creditable service* or a member hired on or after July 1, 2011, who has at least 33 years of creditable service may select the Partial-Lump-Sum Option (PLSO) at retirement. Under this option, the retiree has the option of taking a partial-lump-sum distribution equal to 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting the PLSO may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4C, the Social Security- leveling provision. The benefit is then calculated using the new reduced maximum benefit as a starting point in applying the appropriate option factors for the reduction.

** Or at least age 63 with four years of membership service for those who entered the System before July 1, 2007.*

POST-RETIREMENT ADJUSTMENTS IN ALLOWANCES

The allowances of retired members are adjusted annually by an amount equal to:

- a) 3.0 percent of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 55*, plus
- b.) 3.0 percent compounded for each year thereafter beginning with the fiscal year in which the member turns age 55*.

** Age 60 for members hired on or after July 1, 2011.*

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.

CONTRIBUTIONS

Members contribute 9.0 percent of compensation. The Board sets employer contribution rates for PERS, as per Mississippi statute. The adequacy of these rates is checked annually by actuarial valuation. Refer to Note 6 of the basic financial statements for additional information.

Mississippi Highway Safety Patrol Retirement System:
Summary of Main System Provisions as Interpreted for Valuation Purposes

SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The following summary presents the main benefit and contribution provisions of the plan in effect June 30, 2023, as interpreted in preparing the actuarial valuation and as of June 30, 2024, in determining the rollforward of the total pension liability as of the measurement date. As used in the summary, “average compensation” means the average annual covered earnings of an employee during the four highest consecutive years of service. “Covered earnings” means gross salary not in excess of the maximum amount on which contributions were required. “Fiscal year” means a year commencing on July 1 and ending June 30. “Credited service” means service while a contributing member plus additional service as described below. “Unused sick and vacation leave” means service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. A payment of up to 240 hours leave may be used in the average compensation definition. “Additional service” means additional service credit may be granted for service prior to July 1, 1958, active-duty military service, and retroactive service.

The maximum covered earnings and associated contribution rates for employers and members covering the last 10 years are as follows:

Date From	Date To	Employer Rate	Member Rate	Maximum Covered Earnings*
7/1/2014	6/30/2018	37.00%	7.25%	\$ -
7/1/2018	6/30/2024	49.08	7.25	-

* Maximum covered earnings equal wages paid, not to exceed wages paid to the Commissioner of the Department of Public Safety (currently \$175,664).

Effective July 1, 2023, additional contributions from Senate Bill No. 2659 and House Bill No. 1015 are estimated to be \$3,400,000 combined.

Benefits

SUPERANNUATION RETIREMENT

Condition for Retirement

- a) A retirement allowance is payable to any member who retires and has attained age 55 and completed at least five years of membership service, or has attained age 45 and completed at least 20 years of creditable service, or has completed 25 years of creditable service regardless of age. Any member who has attained age 63 shall be retired forthwith.
- b) Any member who withdraws from service prior to his or her attainment of age 55 but after having completed five or more years of creditable service is entitled to receive, in lieu of a refund of his or her accumulated contributions, a retirement allowance commencing at age 55.

Amount of Allowance

The annual retirement allowance payable to a retired member is equal to:

- 1. A member’s annuity which is the actuarial equivalent of the member’s accumulated contributions at the time of his or her retirement; plus
- 2. An employer’s annuity which, together with the member’s annuity, is equal to 2.5 percent of his or her average compensation for each year of membership service; plus
- 3. A prior service annuity equal to 2.5 percent of average compensation for each year of prior service.

The aggregate amounts of (2) and (3) above shall not exceed 100.0 percent of average compensation, regardless of service, for retirements on or after January 1, 2000.

The minimum allowance for both service and disability retirement is based on the following table for each year of creditable service, reduced, if necessary, as indicated below.

Years of Service	Monthly Benefit
Less than 10	\$250
10-15	300
15 or more	500

The annual retirement allowance payable to a member who retires under condition (a) above prior to age 55 is computed in accordance with the above formula except that the employer's annuity and prior service annuity are reduced actuarially based on the mortality table and interest rate used in the valuation.

DISABILITY RETIREMENT

Non-duty related disability benefits are available to vested members under the age of 55. Vested members age 55 or older are not eligible for disability benefits but may apply for service retirement benefits. For purposes of disability benefits, average annual compensation is calculated using the last two years of salary before retirement.

If a member becomes permanently disabled due to sickness or injury caused or sustained as a direct result of duty, he or she may be eligible for duty-related disability retirement. He or she is covered for this benefit from the first day of employment if he or she has not reached age 55, regardless of his or her years of service. Duty-related disability retirement benefits are calculated at either 50.0 percent of average compensation of the last two years of salary before retirement (this portion is not taxable) or the non-duty-related disability retirement amount, whichever provides the higher benefit.

DEATH PRIOR TO RETIREMENT

If a member is vested, the spouse and dependent children may be eligible to receive certain statutory benefits. Claims for non-duty-related death benefits are calculated at 2.5 percent of average compensation for each year of service credit, as calculated under Option 9, Maximum Benefit. Under this option, 50.0 percent of the accrued benefit is payable to the spouse until death, with 25.0 percent of the accrued benefit payable to one dependent child and 50.0 percent of the accrued benefit payable for two or more dependent children (under age 19 and never married or under age 23 if a full-time student and never married). Upon application and approval by the Medical Board, benefits to a physically or mentally disabled child may continue as long as the disability exists.

Coverage for duty-related death benefits begins on the first day of employment and is available to the spouse and dependent children regardless of the member's vesting status. If the member is vested, the spouse and dependent children may be eligible to receive benefits under either non-duty or duty-related death benefit provisions, whichever provided the higher benefit.

Claims for duty-related death benefits are calculated at 50.0 percent of average compensation, payable to the spouse until death, with 25.0 percent of average compensation payable to one dependent child and 50.0 percent of average compensation payable for two or more dependent children (under age 19 and never married or under age 23 if a full-time student and never married). Upon application and approval by the Medical Board, benefits to a physically or mentally disabled child may continue as long as the disability exists.

DEATH AFTER RETIREMENT

Upon the death of a highway patrol officer who has retired for service or disability and who has not elected any other optional form of benefit, his widow or her widower is eligible for a benefit equal to 50.0 percent of his or her retirement allowance and each child (but not more than two) who has not attained age 19 (23 if a full-time student) is eligible for a benefit equal to 25.0 percent of his or her retirement allowance. The benefit to the widow or widower is payable for life and to children until they attain age 19 (23 if a full-time student) or for life if they are totally and permanently disabled.

REFUND OF CONTRIBUTIONS

Upon a member's termination of employment for any reason before retirement, his or her accumulated contributions, together with regular interest thereon, are refunded. Upon the death of a member who is not eligible for any other death benefit, his or her accumulated contributions, together with regular interest thereon, are paid to his or her beneficiary.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by *The Wall Street Journal* on December 31 of each preceding year with a minimum rate of 1.0 percent and a maximum rate of 5.0 percent.

NORMAL FORM OF BENEFIT

The normal form of benefit is an allowance payable during the life of the member. Upon death the benefits described above are payable.

OPTIONAL BENEFITS

A member upon retirement may elect to receive his or her allowance in one of the following forms, which are computed to be actuarially equivalent to the applicable retirement allowance.

- Option 1. Reduced allowance with the provision that, if the pensioner dies before he or she receives the value of his or her annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.
- Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.
- Option 3. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50.0 percent of his or her reduced retirement allowance to some other designated beneficiary.
- Option 4. Upon his or her death, 75.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4A. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner or his or her beneficiary for a specified number of years certain.
- Option 4C. A member may elect any option with the added provision that he or she shall receive, so far as possible, the same total amount annually (considering both MHSPRS and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit. This option was only available to those who retired prior to July 1, 2004.
- Option 9. Upon his or her death, the spouse will receive 50.0 percent of the benefit the member was receiving for life. Each dependent child (under age 19 and never married or under age 23 if a full-time student and never married) will receive 25.0 percent of the benefit the member was receiving with a maximum of 50.0 percent for the support and care of two or more children. Any contribution and interest remaining after the member's death and after all monthly benefits due to the spouse and children have been paid will be refunded to designated beneficiaries. If the member marries after retirement while receiving benefits under this option, he or she may apply to Pop-Down to Option 2 to provide 100.0 percent beneficiary protection to the new spouse, or Pop-Down to Option 4 or Option 4A for other beneficiary protections for the new spouse. PLSO is available with this option, if eligible.

A member who elects Option 2, Option 4, or Option 4A at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the retired member divorces the designated beneficiary. A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4, or Option 4A to provide beneficiary protection to a new spouse if married after retirement.

A member who qualifies for an unreduced retirement allowance may select the PLSO at retirement. Under this option, the retiree has the option of taking a partial-lump-sum distribution equal to 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting this option may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4C, the Social Security-leveling provision. The benefit is then calculated using the new reduced maximum benefit as a starting point in applying the appropriate option factors for the reduction.

POST-RETIREMENT ADJUSTMENTS IN ALLOWANCES

The allowances of retired members are adjusted annually by an amount equal to:

- a) 3.0 percent of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 60*, plus
- b) 3.0 percent compounded for each year thereafter beginning with the fiscal year in which the member turns age 60*.

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.

Those members who retired on or before July 1, 1999, received an ad hoc benefit increase in the amount of \$3.50 per month for each full fiscal year of retirement through June 30, 1999, plus \$1 per month for each year of credited service. The benefits were increased July 1, 1999.

** This age will be reduced in five phases to age 55 if the actuary certifies that reducing the age will not result in the amortization period of the unfunded accrued liability exceeding 20 years.*

CONTRIBUTIONS

Members contribute 7.25 percent of compensation, and the employer contributes 49.08 percent of compensation. Funds from SB2659 and HB1015 are also provided.

Supplemental Legislative Retirement Plan: Summary of Main System Provisions as Interpreted for Valuation Purposes

SUMMARY OF MAIN BENEFIT AND CONTRIBUTION PROVISIONS

The following summary presents the main benefit and contribution provisions of the plan in effect June 30, 2023, as interpreted in preparing the actuarial valuation and as of June 30, 2024, in determining the rollforward of the total pension liability to the measurement date. As used in the summary, "average compensation" means the average annual covered earnings of an employee during the four highest years of service.

To determine the member's four highest years, PERS considers these scenarios:

- » Four highest fiscal years of earned compensation;
- » Four highest calendar years of earned compensation;
- » Combination of four highest fiscal and calendar years of earned compensation that do not overlap; or
- » Final 48 months of earned compensation prior to termination of employment.

"Covered earnings" means gross salary not in excess of the maximum amount on which contributions were required. "Fiscal year" means a year commencing July 1 and ending June 30. "Eligibility service" means service while a contributing member of PERS plus additional service as described below. "Credited Service" means service while a contributing member of SLRP plus additional service as described below. "Unused sick and vacation leave" means service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. A payment of up to 240 hours of leave may be used in the average compensation definition. "Additional service" means additional service credit may be granted for service prior to July 1, 1989, including active-duty military service. "Attribution" means a period for the normal cost is based on entry into PERS even for members who first participated in SLRP at a later age than PERS.

The maximum covered earnings and associated contribution rates for employers and members covering the last 10 years are as follows:

Date From	Date To	Employer Rate	Member Rate	Maximum Covered Earnings
7/1/2014	6/30/2015	7.40	3.00	260,000
7/1/2015	6/30/2017	7.40	3.00	265,000
7/1/2017	6/30/2018	7.40	3.00	270,000
7/1/2018	6/30/2019	7.40	3.00	275,000
7/1/2019	6/30/2020	7.40	3.00	280,000
7/1/2020	6/30/2021	7.40	3.00	285,000
7/1/2021	6/30/2022	7.40	3.00	290,000
7/1/2022	6/30/2023	7.40	3.00	305,000
7/1/2023	6/30/2024	7.40	3.00	330,000

Benefits

SUPERANNUATION RETIREMENT

Condition for Retirement

- a) A retirement allowance is paid upon the request of any member who retires and has attained age 60 and completed at least eight years* of membership service under PERS. A retirement allowance may also be paid upon the completion of at least 25 years of creditable service under PERS for members hired prior to July 1, 2011, or upon the completion of 30 years of creditable service for members hired on or after July 1, 2011.

- b) Any member who withdraws from service prior to his or her attainment of age 60 and who has completed at least eight years* of membership service under PERS is entitled to receive (in lieu of a refund of his or her accumulated contributions) a retirement allowance commencing at age 60.

**Four years for those who entered the System before July 1, 2007.*

Amount of Allowance

The annual retirement allowance payable to a member who retires under condition a) above is equal to:

1. A member's annuity which is the actuarial equivalent of his or her accumulated contributions at the time of his or her retirement, plus
2. An employer's annuity which, together with the member's annuity, is equal to 1.0 percent of his or her average compensation for each of the first 25 years of creditable service plus 1.25 percent for each year of creditable service over 25 years.

The minimum allowance is \$60 per year of creditable service.

DISABILITY RETIREMENT

Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled, as determined by the Board and has accumulated eight or more years* of membership service.

** Four years for those who entered the System before July 1, 2007.*

Amount of Allowance

For those who were active members prior to July 1, 1992, and did not elect the benefit structure outlined below, the annual disability retirement allowance payable is equal to a superannuation retirement allowance if the member has attained age 60, otherwise it is equal to a superannuation retirement allowance calculated as follows:

1. A member's annuity equal to the actuarial equivalent of his or her accumulated contributions at the time of retirement, plus
2. An employer's annuity equal to the amount that would have been payable had the member continued in service to age 60.

For those who became active members after June 30, 1992, and for those who were active members prior to July 1, 1992, who so elected, the following benefits are payable:

1. A temporary allowance equal to the greater of (a) 40.0 percent of average compensation plus 10.0 percent for each dependent child up to a maximum of two, or (b) the member's accrued allowance. This temporary allowance is paid for a period of time based on the member's age at disability, as follows:

Age At Disability	Duration
60 & earlier	to age 65
61	to age 66
62	to age 66
63	to age 67
64	to age 67
65	to age 68
66	to age 68
67	to age 69
68	to age 70
69 & later	one year

For those hired prior to July 1, 2011, the minimum allowance is \$60 per year of service credit.

2. A deferred allowance commencing when the temporary allowance ceases equal to the greater of:
 - (a) the allowance the member would have received based on service to the termination age of the temporary allowance, but not more than 20.0 percent of average compensation, or
 - (b) the member's accrued allowance.

For those hired prior to July 1, 2011, the minimum allowance is \$60 per year of service credit.

Effective July 1, 2004, a temporary benefit can be paid out of a member's accumulated contribution balance while the member is awaiting a determination for eligibility for disability benefits. Future disability payments, if any, would be offset by advanced payments made from the member's accumulated contributions.

ACCIDENTAL DISABILITY RETIREMENT

Condition for Retirement

A retirement allowance is paid to a member who is totally and permanently disabled in the performance of duty.

Amount of Allowance

The annual accidental disability retirement allowance is equal to the allowance payable on disability retirement but not less than 25.0 percent of average compensation. There is no minimum benefit.

ACCIDENTAL DEATH BENEFIT

Condition for Benefit

A retirement allowance is paid to a spouse and/or dependent children upon the death of an active member in the line of performance of duty.

Amount of Allowance

The annual retirement allowance is equal to 25.0 percent of average compensation payable to the spouse and 12.5 percent of average compensation payable to one dependent child or 25.0 percent to two or more children until age 19 (23 if a full-time student). There is no minimum benefit.

ORDINARY DEATH BENEFIT

Condition for Benefit

Upon the death of a member who has completed at least eight years* of membership service, a benefit is payable (in lieu of a refund of the member's accumulated contributions) to his or her spouse, if said spouse has been married to the member for not less than one year.

* Four years for those who entered the System before July 1, 2007.

Amount of Allowance

The annual retirement allowance payable to the lawful spouse of a vested member who dies is equal to the greater of:

1. The allowance that would have been payable had the member retired and elected Option 2, reduced by an actuarially determined factor based on the number of years the member lacked in qualifying for unreduced benefits, or
2. A lifetime benefit equal to 20.0 percent of the deceased member's average compensation, but not less than \$25 per month.

In addition, a benefit is payable to dependent children until age 19 (23 if a full-time student). The benefit is equal to the greater of 5.0 percent of average compensation or \$25 per month for each dependent child up to three.

RETURN OF CONTRIBUTIONS

Upon the withdrawal of a member without a retirement benefit, his or her contributions are returned to him or her, together with accumulated regular interest thereon.

Upon the death of a member before retirement, his or her contributions, together with the full accumulated regular interest thereon, are paid to his or her designated beneficiary, if any, otherwise, to his or her estate provided no other survivor benefits are payable.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by *The Wall Street Journal* on December 31 of each preceding year with a minimum rate of 1.0 percent and a maximum rate of 5.0 percent.

NORMAL FORM OF BENEFIT

The normal form of benefit is an allowance payable during the life of the member with the provision that, upon his or her death, the excess of his or her total contributions at the time of retirement over the total retirement annuity paid to him or her will be paid to his or her designated beneficiary.

OPTIONAL BENEFIT

Upon retirement, if they do not select the normal form of benefit, a member may elect to receive his or her allowance in one of the following forms, which are computed to be actuarially equivalent to the applicable retirement allowance:

- Option 1. Reduced allowance with the provision that if the pensioner dies before he or she receives the value of the member's annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.
- Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.
- Option 3. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50.0 percent of his or her reduced retirement allowance to some other designated beneficiary.
- Option 4. Upon his or her death, 75.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4A. Upon his or her death, 50.0 percent of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.
- Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner, or his or her beneficiary for a specified number of years certain.
- Option 4C. A member may elect any option with the added provision that the member shall receive, so far as possible, the same total amount annually (considering both SLRP and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit. This option was only available to those who retired prior to July 1, 2004.

A member who elects Option 2, Option 4, or Option 4A at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the member divorces the designated beneficiary.

A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4, or Option 4A to provide beneficiary protection to a new spouse if married at retirement.

A member who has at least 28 years of creditable service* under PERS may select a PLSO at retirement. Under this option, the retiree has the option of taking a partial lump-sum distribution equal to 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting the PLSO may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4C, the Social Security-leveling provision. The benefit is then calculated using the new reduced maximum benefit as a starting point in applying the appropriate option factors for the reduction.

**Or at least age 63 with four years of membership service for those who entered PERS before July 1, 2007.*

POST-RETIREMENT ADJUSTMENTS IN ALLOWANCES

The allowances of retired members are adjusted annually by an amount equal to:

- a) 3.0 percent of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 55, plus
- b) 3.0 percent compounded for each year thereafter beginning with the fiscal year in which the member turns age 55*.
** Age 60 for members hired on or after July 1, 2011.*

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.

CONTRIBUTIONS

Members currently contribute 3.0 percent of covered earnings. The employer contributes 7.4 percent of covered earnings.

Municipal Retirement Systems: Summary of Main System Provisions as Interpreted for Valuation Purposes

SUMMARY OF BENEFIT PROVISIONS EVALUATED

The following summary presents the main provisions of the plans in effect June 30, 2023, as interpreted in preparing the actuarial valuation. As used in the summary, "average compensation" means the average compensation of a member during the six-month period prior to receipt of an allowance.

Benefits

SERVICE RETIREMENT

Condition for Retirement

A retirement allowance is payable to any member who retires and has completed at least 20 years of creditable service, regardless of age.

Any general employee member who has attained age 70 and any firefighter or police officer who has attained age 65 shall be retired forthwith.

Amount of Allowance

The annual retirement allowance payable to a retired member is equal to:

1. 50.0 percent of average compensation, plus
2. 1.7 percent of average compensation for each year of credited service over 20.

The aggregate amount of (1) and (2) above shall not exceed 66.67 percent (87.0 percent for the city of Clinton) of average compensation, regardless of service.

DISABILITY RETIREMENT

Condition for Retirement

A retirement allowance is payable to any member who is not eligible for a service retirement benefit but who becomes totally and permanently disabled, either physically or mentally, regardless of creditable service, if the disability is due to causes in the performance of duty. If the disability is not due to causes in the performance of duty, the member must have completed at least five years of creditable service to be eligible for retirement.

Amount of Allowance

The annual disability retirement allowance payable is equal to 50.0 percent of his or her salary at the time of retirement, if the disability is due to causes in the performance of duty.

If the disability is not due to causes in the performance of duty, the allowance is equal to 2.5 percent times credited service, not in excess of 20, times his or her salary at the time of retirement for firefighters and police officers, and average compensation for general employees.

DEATH BENEFIT

Condition for Benefits

A benefit is payable upon the death of a member under the following conditions:

- a) The member has retired;
- b) The member is eligible to retire;
- c) The death is in the line of duty; or
- d) The death is not in the line of duty but occurs after the member has five years of credited service.

The benefit is payable to the surviving spouse until remarriage and to children under age 18, to dependent children through age 23 when full-time students, and to dependent children of any age if handicapped. For the cities of Clarksdale, Columbus, Gulfport, Hattiesburg, Jackson, McComb, Meridian, Vicksburg, and Yazoo City, benefits payable to spouses do not cease upon remarriage.

Amount of Benefits

The annual benefit payable, under all conditions in the case of firefighters and police officers and under other than condition (c) in the case of general employees is equal to 2.5 percent of average compensation for each year of credited service up to 20 and 1.7 percent of average compensation for each year over 20, with a maximum benefit of 66.67 percent (87.0 percent for the city of Clinton) of average compensation.

For general employee members under condition (c), the annual benefit payable is equal to 50.0 percent of salary at the time of death.

MINIMUM ALLOWANCES

The minimum monthly allowance paid to members from the following municipalities, for all retirement and death benefits, are:

Biloxi	\$600
Columbus	500
Gulfport	500
Hattiesburg	750
Jackson	500
Meridian	600
Tupelo	750
Vicksburg	1,515

POST-RETIREMENT ADJUSTMENTS IN ALLOWANCES

The allowances of certain retired members are adjusted annually by a COLA on the basis of the annual percentage change in each fiscal year of the Consumer Price Index.

Those cities' adjustments are limited as follows:

- Biloxi: 3.0 percent per year for each full fiscal year of retirement after June 30, 2000, for all retirees and beneficiaries with the COLA being compounded beginning with the state fiscal year in which the retired member turns age 55. This is in addition to the previously granted maximum of 3.0 percent per year (not to exceed 9.0 percent) for all members who retired on or before December 31, 1995.
- Clarksdale: Maximum of 2.5 percent per year for all retirees and beneficiaries
- Clinton: Maximum of 2.5 percent per year (not to exceed 10.0 percent) for service retirements only.
- Columbus: Maximum of 2.5 percent per year (not to exceed 25.0 percent) for all retirees and beneficiaries.
- Greenville: Maximum of 2.5 percent per year (not to exceed 25.0 percent) for all retirees and beneficiaries.
- Gulfport: Maximum of 3.0 percent per year (not to exceed 27.0 percent) for each fiscal year of retirement after June 30, 2002, for all retirees and beneficiaries. This is in addition to the previously granted COLA of 2.0 percent per year (not to exceed 6.0 percent) for those retiring before July 1, 2001. All Gulfport retirees and beneficiaries who were receiving a retirement allowance as of June 30, 2002, were granted a monthly ad hoc benefit increase of \$2 per month for each year of service plus \$2 per month for each full fiscal year retired.
- Hattiesburg: 2.5 percent per year for all retirees and beneficiaries (not to exceed 32.0 percent).
- Jackson: Maximum aggregate increase of 19.5 percent for service and disability retirements only.
- Laurel: 2.0 percent per year, compounded annually (maximum of three years) for each fiscal year of retirement after June 30, 2002, for all retirees and beneficiaries. COLA increases begin at the later of age 60 or after one full fiscal year of retirement.
- McComb: Maximum of 2.5 percent per year for all retirees and beneficiaries (not to exceed 10.0 percent).
- Meridian: All Meridian retirees and beneficiaries who were receiving a retirement allowance as of June 30, 1999, were granted a 3.9 percent ad hoc benefit increase. Beginning in fiscal year 2022, all retirees and beneficiaries were granted a 2.0 percent increase per year.
- Pascagoula: Maximum of 2.5 percent per year for all retirees and beneficiaries (not to exceed 15.0 percent).

Tupelo: All Tupelo retirees and beneficiaries received an increase of 5.0 percent in allowances effective December 1, 1991. Additionally, ad hoc increases were granted as follows, provided the member had been retired for at least one full fiscal year.

09/30/1995	3.00%
09/30/1997	3.00
09/30/1998	3.00
09/30/1999	2.00
09/30/2000	3.00
09/30/2001	2.34
09/30/2010	2.00
09/30/2014	2.00
09/30/2015	3.00
09/30/2016	3.00
09/30/2017	2.00
09/30/2018	3.00
09/30/2019	3.00
09/30/2020	1.00
09/30/2021	1.00%
09/30/2022	3.00

Vicksburg: 3.0 percent per year for all retirees and beneficiaries.

Yazoo City: Maximum of 2.5 percent per year (not to exceed 25.0 percent) for all retirees and beneficiaries.

Post-retirement adjustments are included in System liabilities for future increases for the cities of Biloxi, Clinton, Columbus, Greenville, Gulfport, Hattiesburg, Jackson, Laurel, McComb, Meridian, Pascagoula, Vicksburg, and Yazoo City.

CONTRIBUTIONS

Funding policies established by Mississippi statutes provide the rates of employer contributions for MRS. The adequacy of these rates are checked annually by actuarial valuation. The following table provides a comparison of employer required contributions to actual contributions received for MRS [dollars in thousands]:

Fiscal Year 7/1 - 6/30	Valuation Date 6/30	Annual Required Contribution (A)	Actual Contribution** (B)	Difference (B-A)	Percentage Contributed
2015-16	2015	18,034	18,542	508	102.80
2016-17	2016	17,694	17,731	37	100.20
2017-18	2017	17,393	17,610	217	101.20
2018-19	2018	16,695	17,114	419	102.50
2019-20	2019	16,778	16,614	164	99.00
2020-21	2020	17,118	14,907	2,211	87.10
2021-22	2020*	14,826	15,426	600	104.00
2022-23	2021	12,192	14,070	1,878	115.40
2023-24	2022	13,054	-	-	N/A
2024-25	2023	13,427	-	-	N/A

* Methodology for the annual required contribution was changed to match cash flow projections that calculate the certified millage rates beginning with the fiscal year ending 6/30/2022.

** Actual contribution information not yet available for the most recent two years.

Changes in Plan Provisions

The Mississippi Legislature ended its 2024 legislative session with no changes to the Mississippi Code of 1972 plan provisions of the Public Employees' Retirement System of Mississippi.

Asset Valuation & Funding Progress

ACTUARIAL ASSET VALUATION

As of June 30, 2024, valuation assets and funding progress of the System are based on the June 30, 2023, actuarial valuation. Funding of the actuarial accrued liability is intended to help users assess each plan's funding status on a going-concern basis and assess progress being made in accumulating sufficient assets to pay benefits when due. Actuarial values of assets for PERS, MHSPRS, SLRP, and MRS are based on a smoothed fair-value basis that recognizes 20.0 percent of the unrecognized and unanticipated gains and losses. The actuarial valuation of assets recognizes assumed investment income fully each year. Differences between actual and assumed investment income are recognized in equal increments over a five-year period beginning with the current year.

The following table presents the actuarial change in asset valuation for the year ended June 30, 2023 [in thousands]:

	PERS	MHSPRS	SLRP	MRS	TOTAL
Asset Valuation as of June 30, 2022	\$31,873,200	\$419,218	\$20,808	\$136,246	\$32,449,472
Contributions and Other Revenue	1,965,549	23,458	884	14,357	2,004,248
Benefit Payments and Refunds	(3,352,602)	(41,283)	(1,658)	(29,687)	(3,425,230)
Administrative Expenses	(16,446)	(359)	(13)	(287)	(17,105)
Net	30,469,701	401,034	20,021	120,629	31,011,385
Expected Total Investment Return for 2023 (7.55%) *	2,271,747	29,919	1,491	9,352	2,312,509
5-year smoothing of gains and losses	(135,458)	(1,044)	(47)	(589)	(137,138)
Asset Valuation as of June 30, 2023	\$32,605,990	\$429,909	\$21,465	\$129,392	\$33,186,756

* Net of investment expenses.

REMAINING AMORTIZATION PERIOD

The components of the change in the computed unfunded actuarial accrued liability amortization period are presented in the following table. The plans that comprise MRS are closed and have a funding policy that provides for property tax to be sufficiently levied within limits established by Mississippi statutes to provide for a declining amortization period for each municipality.

Actual remaining amortization periods as of June 30, 2023, were as follows:

	PERS	MHSPRS	SLRP
Previously Reported Period	48.8 years	19.9 years	21.9 years
<i>Change Due To:</i>			
Normal Amortization	(1.0)	(1.0)	(1.0)
Actuarial Experience	(3.4)	0.3	(0.7)
Assumption Method Changes	(12.3)	12.0	7.7
Plan Amendments	-	-	-
Additional Assumed Contributions	-	-	-
Contribution Experience	0.1	(0.6)	(1.4)
Computed Period	32.2 years	30.6 years	26.5 years

For PERS, the primary reason for the decrease in the amortization period was due to the change in the Fixed Contribution Rate to 22.4 percent of annual compensation offset by the cost of assumption changes.

The amortization period for MHSPRS increased by 10.7 years due to the decrease in investment return assumption from 7.55 percent to 7.00 percent.

For SLRP, the primary reason for the increase in the amortization period is due to the decrease in the investment return assumption from 7.55 percent to 7.00 percent, offset by the increase in the Fixed Contribution Rate.

Schedules of Funding Progress

Last 10 Fiscal Years

[in thousands]

Actuarial Valuation Date	Actuarial Value of Assets (A)	Actuarial Accrued Liability (AAL) Entry Age (B)	Unfunded AAL (UAAL) (B-A)	Percent Funded (A/B)	Annual Covered Payroll (C)	UAAL as a Percentage of Covered Payroll ((B-A)/C)
PERS						
6/30/14	\$22,569,940	\$37,015,288	\$14,445,348	61.00%	\$5,834,687	247.60%
6/30/15	24,387,161	40,364,584	15,977,423	60.40	5,904,827	270.60
6/30/16	25,185,078	41,997,513	16,812,435	60.00	6,022,533	279.20
6/30/17	26,364,446	43,166,491	16,802,045	61.10	6,038,229	278.30
6/30/18	27,455,702	44,396,161	16,940,459	61.80	5,999,231	282.40
6/30/19	28,024,611	46,006,859	17,982,248	60.90	6,144,916	292.60
6/30/20	28,629,205	47,354,464	18,725,259	60.50	6,287,441	297.80
6/30/21	30,768,251	50,204,296	19,436,045	61.30	6,246,077	311.20
6/30/22	31,873,200	52,000,143	20,126,943	61.30	6,454,760	311.80
6/30/23	32,605,990	58,148,282	25,542,292	56.10	7,065,419	361.50
MHSPRS						
6/30/14	\$295,298	\$445,822	\$150,524	66.20%	\$25,554	589.00%
6/30/15	316,149	477,803	161,654	66.20	25,505	633.80
6/30/16	324,894	494,101	169,207	65.80	27,380	618.00
6/30/17	339,114	497,992	158,878	68.10	28,845	550.80
6/30/18	352,415	527,428	175,013	66.80	29,555	592.20
6/30/19	362,591	541,925	179,334	66.90	31,811	563.70
6/30/20	373,511	561,662	188,151	66.50	32,346	581.70
6/30/21	403,748	573,134	169,386	70.40	29,780	568.80
6/30/22	419,219	604,084	184,865	69.40	33,759	547.60
6/30/23	429,909	657,219	227,310	65.40	34,846	652.30
SLRP						
6/30/14	\$14,899	\$20,240	\$5,341	73.60%	\$6,918	77.20%
6/30/15	16,098	21,213	5,115	75.90	6,861	74.60
6/30/16	16,447	21,259	4,812	77.40	6,862	70.10
6/30/17	17,208	21,849	4,641	78.80	6,928	67.00
6/30/18	17,945	22,319	4,374	80.40	6,833	64.00
6/30/19	18,428	22,865	4,437	80.60	6,937	64.00
6/30/20	18,472	23,485	5,013	78.70	6,891	72.70
6/30/21	19,980	25,038	5,058	79.80	8,030	63.00
6/30/22	20,808	26,133	5,325	79.60	8,180	65.10
6/30/23	21,465	28,530	7,065	75.20	8,425	83.90
MRS						
6/30/14	\$157,970	\$340,385	\$182,415	46.40%	\$727	25,091.50%
6/30/15	162,616	341,525	178,909	47.60	579	30,899.70
6/30/16	159,160	330,663	171,503	48.10	419	40,931.50
6/30/17	157,674	321,747	164,073	49.00	321	51,113.10
6/30/18	154,749	307,457	152,708	50.30	200	76,354.00
6/30/19	147,671	296,006	148,335	49.90	95	156,142.10
6/30/20	140,731	286,436	145,705	49.10	-	N/A
6/30/21	140,258	274,426	134,168	51.10	-	N/A
6/30/22	136,246	265,490	129,244	51.30	-	N/A
6/30/23	129,392	264,337	134,945	49.00	-	N/A

See Schedule of Employer Contributions on page 54.

Solvency Tests

(in thousands)

	Actuarial Accrued Liabilities for:				Portions of Accrued Liabilities Covered by Assets		
	(1) Accumulated Employee Contributions Including Allocated Investment Earnings	(2) Retirees & Beneficiaries Currently Receiving Benefits	(3) Active & Inactive Members Employer-Financed Portion	Net Position Available for Benefits	(1)	(2)	(3)
PERS							
6/30/14	\$5,277,944	\$22,033,588	\$9,703,756	\$22,569,940	100.00%	78.50%	-%
6/30/15	5,379,226	24,012,624	10,972,734	24,387,161	100.00	79.20	-
6/30/16	5,468,859	25,390,774	11,137,880	25,185,078	100.00	77.70	-
6/30/17	5,534,403	26,686,958	10,945,130	26,364,446	100.00	78.10	-
6/30/18	5,570,524	27,874,365	10,951,272	27,455,702	100.00	78.50	-
6/30/19	5,626,602	29,109,623	11,270,634	28,024,611	100.00	76.90	-
6/30/20	5,710,182	30,220,083	11,424,199	28,629,205	100.00	75.80	-
6/30/21	5,728,172	31,821,655	12,654,469	30,768,251	100.00	78.70	-
6/30/22	5,749,289	33,106,303	13,144,551	31,873,200	100.00	78.90	-
6/30/23	5,895,176	35,734,821	16,518,285	32,605,990	100.00	74.70	-
MHSPRS							
6/30/14	\$24,411	\$317,825	\$103,586	\$295,298	100.00%	85.20%	-%
6/30/15	24,827	338,459	114,517	316,149	100.00	86.10	-
6/30/16	25,791	343,635	124,675	324,894	100.00	87.00	-
6/30/17	26,922	349,850	121,219	339,114	100.00	89.20	-
6/30/18	27,581	358,342	141,506	352,415	100.00	90.60	-
6/30/19	27,244	372,526	142,156	362,591	100.00	90.00	-
6/30/20	26,382	389,269	146,010	373,511	100.00	89.20	-
6/30/21	24,844	417,468	130,821	403,748	100.00	90.80	-
6/30/22	23,951	442,965	137,168	419,219	100.00	89.20	-
6/30/23	22,995	480,925	153,300	429,909	100.00	84.60	-
SLRP							
6/30/14	\$2,638	\$11,920	\$5,682	\$14,899	100.00%	100.00%	6.00%
6/30/15	2,862	12,329	6,023	16,098	100.00	100.00	15.10
6/30/16	2,485	13,758	5,016	16,447	100.00	100.00	4.10
6/30/17	2,636	13,799	5,414	17,208	100.00	100.00	14.30
6/30/18	2,693	13,840	5,786	17,945	100.00	100.00	24.40
6/30/19	2,701	14,300	5,864	18,428	100.00	100.00	24.30
6/30/20	2,145	16,356	4,983	18,472	100.00	99.80	-
6/30/21	2,331	16,292	6,415	19,980	100.00	100.00	21.10
6/30/22	2,611	16,053	7,469	20,808	100.00	100.00	28.70
6/30/23	2,779	16,857	8,895	21,465	100.00	100.00	20.60
MRS							
6/30/14	\$1,342	\$334,937	\$4,106	\$157,970	100.00%	46.80%	-%
6/30/15	1,101	337,039	3,385	162,616	100.00	47.90	-
6/30/16	867	327,525	2,271	159,160	100.00	48.30	-
6/30/17	667	319,346	1,734	157,674	100.00	49.20	-
6/30/18	442	305,791	1,223	154,749	100.00	50.50	-
6/30/19	220	295,261	525	147,671	100.00	49.90	-
*6/30/20	-	-	-	-	-	-	-
*6/30/21	-	-	-	-	-	-	-
*6/30/22	-	-	-	-	-	-	-
*6/30/23	-	-	-	-	-	-	-

* The solvency test indicates the coverage of current assets to the different categories of the actuarial accrued liability. First, coverage is applied to accumulated employee contributions with interest for active employees, then to pension obligations for retirees and beneficiaries, and lastly to the employer financed position of active and inactive member benefits. As the Plan only has retired members remaining, all assets are committed to pension obligations for retirees and beneficiaries. Every year, the actuaries calculate millage rates that are applied to assessed property values for each of the MRS plans that are sufficient to maintain an asset reserve of approximately 100 percent to 150 percent of their upcoming year's projected benefit payouts.

Analysis of Financial Experience
Gains & Losses in Accrued Liabilities Resulting from Differences Between
Assumed Experience & Actual Experience
For The Year Ended June 30, 2023

[in thousands]

Type of Activity	Gain (Loss) for Year			
	PERS	MHSPRS	SLRP	MRS
Age & Service Retirements: If members retire at older ages, there is a gain. If younger ages, a loss.	\$26,300.0	\$(427.3)	\$19.8	\$ -
Disability Retirements: If disability claims are less than assumed, there is a gain. If more claims, a loss.	(1,600.0)	59.5	11.1	-
Death-in-service Benefits: If survivor claims are less than assumed, there is a gain. If more claims, a loss.	(1,700.0)	112.6	3.7	-
Withdrawal from Employment: If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(122,500.0)	770.3	29.2	-
Pay Increase: If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	(935,300.0)	1,386.4	(169.5)	-
New Members: Additional unfunded accrued liability will produce a loss.	(132,000.0)	(382.6)	-	-
Investment Income: If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(217,200.0)	(2,090.6)	(97.0)	(944.8)
Death After Retirement: If retirants live longer than assumed, there is a loss. If not as long, a gain.	16,500.0	1,136.6	21.5	942.6
Other: Miscellaneous gains & losses, data adjustments, timing of financial transactions, etc.	(104,000.0)	(2,617.8)	(46.2)	(199.3)
Gain (or Loss) During Year from Financial Experience	(1,471,500.0)	(2,052.9)	(227.4)	(201.5)
Non-recurring Items: Adjustments for plan amendments, software changes, assumption changes, or method changes.	(3,769,200.0)	(42,719.5)	(1,573.3)	(10,332.6)
Composite Gain (or Loss) During Year	\$(5,240,700.0)	\$(44,772.4)	\$(1,800.7)	\$(10,534.1)

Schedule of Active Member Valuation Data

Valuation Date	Active Members				
	Number of Employers	Number of Employees	Annual Payroll	Annual Average Pay	Increase in Average Pay
PERS					
6/30/14	871	161,360	\$5,834,686,655	\$36,159	0.40 %
6/30/15	868	157,215	5,904,827,181	37,559	3.90
6/30/16	862	154,104	6,022,532,933	39,081	4.10
6/30/17	861	152,382	6,038,228,708	39,626	1.40
6/30/18	858	150,687	5,999,230,701	39,813	0.50
6/30/19	854	150,651	6,144,915,630	40,789	2.50
6/30/20	853	149,855	6,287,441,467	41,957	2.90
6/30/21	855	145,763	6,246,076,841	42,877	2.20
6/30/22	859	144,416	6,454,760,163	44,696	4.20
6/30/23	861	145,985	7,065,419,204	48,398	8.30
MHSPRS					
6/30/14	1	495	\$25,553,765	\$51,624	4.00 %
6/30/15	1	518	25,504,676	49,237	(4.60)
6/30/16	1	484	27,380,162	56,571	14.90
6/30/17	1	470	28,845,478	61,373	8.50
6/30/18	1	511	29,555,411	57,838	(5.80)
6/30/19	1	522	31,811,231	60,941	5.40
6/30/20	1	511	32,345,730	63,299	3.90
6/30/21	1	478	29,780,428	62,302	(1.60)
6/30/22	1	478	33,758,750	70,625	13.4
6/30/23	1	507	34,845,681	68,729	(2.70)
SLRP					
6/30/14	5	175	\$6,917,939	\$39,531	3.30 %
6/30/15	5	174	6,861,166	39,432	(0.30)
6/30/16	5	171	6,862,262	40,130	1.80
6/30/17	5	174	6,928,085	39,817	(0.80)
6/30/18	5	174	6,832,961	39,270	(1.40)
6/30/19	5	170	6,937,075	40,806	3.90
6/30/20	5	171	6,890,817	40,297	(1.20)
6/30/21	5	173	8,029,670	46,414	15.20
6/30/22	4	174	8,179,673	47,010	1.30
6/30/23	4	172	8,425,049	48,983	4.20
MRS					
6/30/14	17	14	\$727,347	\$51,953	4.70 %
6/30/15	17	11	579,267	52,661	1.40
6/30/16	17	8	419,000	52,375	(0.50)
6/30/17	17	6	321,243	53,541	2.20
6/30/18	17	4	199,742	49,936	(6.70)
6/30/19	17	2	94,871	47,436	(5.00)
6/30/20	17	-	-	-	N/A
6/30/21	17	-	-	-	N/A
6/30/22	17	-	-	-	N/A
6/30/23	17	-	-	-	N/A

Schedule of Retirants Added to & Removed from Rolls
Last Ten Fiscal Years

	Added		Removed		Increase Due to Annual COLA	Rolls at End of Year		Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances		Number	Annual Allowances		
PERS									
6/30/14	6,159	\$120,190,296	(2,869)	\$(48,955,768)	\$52,368,041	93,504	\$1,998,322,954	6.59 %	\$21,372
6/30/15	5,907	117,113,206	(3,073)	(55,158,128)	56,044,620	96,338	2,116,322,652	5.90	21,968
6/30/16	6,548	132,970,248	(3,403)	(59,603,335)	59,355,139	99,483	2,249,044,704	6.27	22,607
6/30/17	6,219	123,938,697	(3,442)	(62,470,173)	64,233,789	102,260	2,374,747,017	5.59	23,223
6/30/18	5,985	121,870,115	(3,272)	(64,186,324)	68,319,584	104,973	2,500,750,392	5.31	23,823
6/30/19	6,101	129,095,132	(3,230)	(67,416,138)	72,575,289	107,844	2,635,004,675	5.37	24,433
6/30/20	5,645	121,134,338	(3,608)	(76,727,172)	76,182,083	109,881	2,755,593,924	4.58	25,078
6/30/21	6,502	133,897,944	(4,225)	(93,663,207)	79,655,197	112,158	2,875,483,858	4.35	25,638
6/30/22	6,634	140,675,196	(4,330)	(94,287,872)	83,654,923	114,462	3,005,526,105	4.52	26,258
6/30/23	5,577	123,571,787	(4,149)	(97,250,520)	86,664,519	115,890	3,118,511,891	3.76	26,909
MHSPRS									
6/30/14	28	\$1,113,236	(21)	\$(661,028)	\$678,533	720	\$26,966,360	4.38 %	\$37,453
6/30/15	22	890,167	(18)	(480,408)	700,417	724	28,076,536	4.12	38,780
6/30/16	26	833,870	(26)	(830,278)	701,887	724	28,782,015	2.51	39,754
6/30/17	22	717,225	(20)	(694,187)	758,789	726	29,563,842	2.72	40,722
6/30/18	17	787,728	(18)	(494,512)	757,399	725	30,614,457	3.55	42,227
6/30/19	28	1,186,864	(19)	(812,457)	826,033	734	31,814,897	3.92	43,345
6/30/20	21	1,202,084	(15)	(613,918)	941,045	740	33,344,108	4.81	45,060
6/30/21	39	2,196,435	(18)	(1,029,029)	932,376	761	35,443,890	6.30	46,575
6/30/22	35	2,117,341	(11)	(1,072,205)	931,161	785	37,420,187	5.58	47,669
6/30/23	26	1,372,960	(19)	(1,073,822)	1,058,766	792	38,778,091	3.63	48,962
SLRP									
6/30/14	6	\$32,688	(7)	\$(44,780)	\$30,165	187	\$1,139,477	1.61 %	\$6,093
6/30/15	8	58,303	(10)	(95,910)	31,718	185	1,133,588	(0.52)	6,128
6/30/16	28	177,207	(6)	(57,546)	24,514	207	1,277,763	12.72	6,173
6/30/17	6	31,300	(8)	(64,321)	34,729	205	1,279,471	0.13	6,241
6/30/18	6	34,983	(4)	(42,480)	32,574	207	1,304,548	1.96	6,302
6/30/19	11	72,406	(3)	(43,651)	39,575	215	1,372,878	5.24	6,385
6/30/20	24	216,379	(4)	(64,124)	40,523	235	1,565,656	14.04	6,662
6/30/21	3	14,393	(5)	(26,951)	43,712	233	1,596,810	1.99	6,853
6/30/22	1	2,970	(4)	(34,377)	48,814	230	1,614,217	1.09	7,018
6/30/23	9	66,878	(11)	(84,837)	36,858	228	1,633,116	1.17	7,163
MRS									
6/30/14	29	\$485,121	(80)	\$(1,041,083)	\$173,544	1,890	\$34,723,473	(1.09)%	\$18,372
6/30/15	40	731,337	(81)	(1,119,680)	143,234	1,849	34,478,364	(0.71)	18,647
6/30/16	46	842,966	(97)	(1,365,194)	132,268	1,798	34,088,404	(1.13)	18,959
6/30/17	34	712,490	(78)	(1,174,872)	125,506	1,754	33,751,528	(0.99)	19,243
6/30/18	36	674,428	(96)	(1,530,600)	102,334	1,694	32,997,690	(2.23)	19,479
6/30/19	37	736,820	(97)	(1,441,224)	130,022	1,634	32,423,308	(1.74)	19,843
6/30/20	34	654,407	(83)	(1,386,860)	128,512	1,585	31,819,367	(1.86)	20,075
6/30/21	34	633,039	(109)	(1,724,751)	117,892	1,510	30,845,547	(3.06)	20,428
6/30/22	31	613,357	(97)	(1,612,065)	130,790	1,444	29,977,629	(2.81)	20,760
6/30/23	30	588,260	(83)	(1,433,618)	223,534	1,391	29,355,805	(2.07)	21,104

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Statistical

Statistical Report

The objective of the statistical section is to provide additional historical perspective, context, and details to assist readers in understanding and using the information in the financial statements and required supplementary information. Statistical data for each plan is obtained from the System's internal resources and the actuarial valuation (the most recent being as of June 30, 2023). As of June 30, 2024, the System had no outstanding debt.

Financial Trends

126 Changes in Net Position – Last 10 Fiscal Years

The schedule of changes in net position contains historical information related to the System's revenues (in the form of contributions and investment earnings), deductions (primarily retirement annuities), changes in net position, and ending net position restricted for benefits.

Increases to net position of the System's plans are from the excess of investment earnings and contributions over deductions. Over the last 10 years, investment income has fluctuated with the economy, with net investment earnings/losses ranging from an \$3.0 billion loss in 2022 to an \$8.8 billion gain in 2021. The increase in contributions over time is attributable to employer contribution rate increases, as well as wage increases over the 10-year period.

Retirement annuities account for approximately 96.0 percent of the total deductions for the System and have increased steadily over the 10-year period. The drivers of this increase include an increase in the number of retirees, a higher average compensation on which annuities for new retirees are computed, and the 3.0 percent compounded annual cost-of-living adjustment for retirees of the PERS, MHSPRS, and SLRP plans.

Operating Information

- 130 Benefit & Refund Payments by Type
- 134 Average Benefit Payments
- 138 Retired Members by Type of Benefit
- 141 Analysis of Employer & Member Contributions

These schedules provide information on retiree benefits and refunds as presented in the most recent actuarial valuation. Retiree information includes total number and dollar amount by type of retirement (service, disability, and survivor), as well as average monthly benefit based on years of service and retirement option selected by retirees. Additionally, a summary of employer by type and the associated employer and member contribution amounts is provided for the current and prior year.

Demographic & Economic Information

- 142 Total Active Members by Attained Age & Years of Service
- 144 System Benefit Payments by County
- 145 Ten Largest Participating Employers
- 146 Public Agencies Covered by State Retirement Annuity

The schedules of active members by age and years of service summarize relevant details about the composition of each plan's membership as reported in the actuarial valuation. Members are grouped by age to show the length of service and associated payroll totals. The schedule of benefit payments by county provides the location of benefit recipients with their associated annuity payments and accordingly, the economic contribution to areas within the state of Mississippi and beyond. The ten largest participating employers schedule shows those employers with the most covered employees in PERS, a multi-employer plan.

Changes in Net Position

Last 10 Fiscal Years

[in thousands]

Public Employees' Retirement System of Mississippi

Fiscal Year	Member Contributions			Employer Contributions		Net Investment Income/(Loss)	Other Revenues	Total Additions
	Beginning Net Position	Amount	Percent*	Amount	Percent*			
2015	\$24,877,119	\$557,909	9.00%	\$996,478	15.75%	\$827,666	\$670	\$2,382,723
2016	24,906,556	572,574	9.00	1,021,261	15.75	130,900	633	1,725,368
2017	24,135,016	570,066	9.00	1,019,084	15.75	3,436,144	604	5,025,898
2018	26,543,097	570,807	9.00	1,018,163	15.75	2,385,913	51	3,974,934
2019	27,763,190	580,941	9.00	1,038,108	15.75	1,701,321	38	3,320,408
2020	28,206,602	594,711	9.00	1,171,805	17.40	856,935	22	2,623,473
2021	27,827,394	594,876	9.00	1,169,679	17.40	8,736,632	6	10,501,193
2022	35,216,597	615,421	9.00	1,211,004	17.40	(2,980,325)	10	(1,153,890)
2023	30,791,116	661,986	9.00	1,303,563	17.40	2,234,354	12	4,199,915
2024**	31,621,983	682,937	9.00	1,455,811	17.40	3,219,564	314	5,358,626

Fiscal Year	Pension Benefits	Refunds	Administrative Expenses	Total Deductions	Changes in Net Position	Ending Net Position
2015	\$2,219,240	\$119,356	\$14,690	\$2,353,286	\$29,437	\$24,906,556
2016	2,367,709	112,926	16,273	2,496,908	(771,540)	24,135,016
2017	2,477,914	113,707	26,196	2,617,817	2,408,081	26,543,097
2018	2,609,415	124,306	21,120	2,754,841	1,220,093	27,763,190
2019	2,747,397	108,042	21,557	2,876,996	443,412	28,206,602
2020	2,878,073	104,851	19,757	3,002,681	(379,208)	27,827,394
2021	2,995,255	101,044	15,691	3,111,990	7,389,203	35,216,597
2022	3,134,859	120,807	15,925	3,271,591	(4,425,481)	30,791,116
2023	3,237,085	115,517	16,446	3,369,048	830,867	31,621,983
2024	3,394,102	118,413	18,251	3,530,766	1,827,860	33,449,843

* Percentage of annual covered payroll.

** Employer Contributions include an additional state contribution.

Changes in Net Position

Last 10 Fiscal Years

[in thousands]

Mississippi Highway Safety Patrol Retirement System

Fiscal Year	Member Contributions			Employer Contributions		Net Investment Income/(Loss)	Other Revenues	Total Additions
	Beginning Net Position	Amount	Percent*	Amount	Percent*			
2015	\$326,032	\$1,938	7.25%	\$13,695	37.00%	\$10,812	-	\$26,445
2016	323,207	2,128	7.25	14,755	37.00	1,704	-	18,587
2017	311,612	2,147	7.25	14,809	37.00	44,499	-	61,455
2018	341,719	2,271	7.25	15,128	37.00	30,855	-	48,254
2019	357,305	2,340	7.25	19,375	49.08	22,144	-	43,859
2020	366,165	2,428	7.25	20,144	49.08	11,196	-	33,768
2021	364,102	2,378	7.25	19,563	49.08	115,761	-	137,702
2022	463,984	2,356	7.25	19,476	49.08	(39,468)	-	(17,636)
2023	405,372	2,621	7.25	20,837	49.08	29,536	-	52,994
2024	416,724	2,625	7.25	21,059	49.08	42,521	-	66,205

Fiscal Year	Pension Benefits	Refunds	Administrative Expenses	Total Deductions	Changes in Net Position	Ending Net Position
2015	\$28,909	\$163	\$198	\$29,270	\$(2,825)	\$323,207
2016	29,913	52	217	30,182	(11,595)	311,612
2017	31,001	144	203	31,348	30,107	341,719
2018	32,315	103	250	32,668	15,586	357,305
2019	34,671	16	312	34,999	8,860	366,165
2020	35,455	48	328	35,831	(2,063)	364,102
2021	37,433	67	320	37,820	99,882	463,984
2022	40,522	135	319	40,976	(58,612)	405,372
2023	41,122	161	359	41,642	11,352	416,724
2024	43,960	143	350	44,453	21,752	438,476

* Percentage of annual covered payroll.

Changes in Net Position
Last 10 Fiscal Years
[in thousands]

Supplemental Legislative Retirement Plan

Fiscal Year	Beginning Net Position	Member Contributions		Employer Contributions		Net Investment Income/(Loss)	Other Revenues	Total Additions
		Amount	Percent*	Amount	Percent*			
2015	\$16,453	\$207	3.00%	\$511	7.40%	\$552	\$-	\$1,270
2016	16,456	208	3.00	514	7.40	86	-	808
2017	15,768	212	3.00	522	7.40	2,264	-	2,998
2018	17,342	207	3.00	513	7.40	1,412	-	2,132
2019	18,036	214	3.00	525	7.40	1,287	-	2,026
2020	18,609	207	3.00	512	7.40	554	-	1,273
2021	17,995	245	3.00	604	7.40	5,732	-	6,581
2022	22,951	245	3.00	607	7.40	(1,964)	-	(1,112)
2023	20,139	255	3.00	629	7.40	1,477	-	2,361
2024	20,829	271	3.00	668	7.40	2,123	-	3,062

Fiscal Year	Pension Benefits	Refunds	Administrative Expenses	Total Deductions	Changes in Net Position	Ending Net Position
2015	\$1,220	\$37	\$10	\$1,267	\$3	\$16,456
2016	1,454	32	10	1,496	(688)	15,768
2017	1,397	17	10	1,424	1,574	17,342
2018	1,410	18	10	1,438	694	18,036
2019	1,442	-	11	1,453	573	18,609
2020	1,857	20	10	1,887	(614)	17,995
2021	1,608	5	12	1,625	4,956	22,951
2022	1,687	-	13	1,700	(2,812)	20,139
2023	1,653	5	13	1,671	690	20,829
2024	2,000	10	13	2,023	1,039	21,868

* Percentage of annual covered payroll.

Changes in Net Position
Last 10 Fiscal Years
[in thousands]

Municipal Retirement Systems

Fiscal Year	Beginning Net Position	Member Contributions		Employer Contributions		Net Investment Income/(Loss)	Other Revenues	Total Additions
		Amount	Percent*	Amount	Percent*			
2015	\$180,092	\$45	**	\$19,344	**	\$5,692	\$-	\$25,081
2016	169,986	53	**	18,542	**	846	-	19,441
2017	154,627	31	**	17,732	**	20,605	-	38,368
2018	158,570	25	**	17,610	**	13,066	-	30,701
2019	155,314	15	**	17,114	**	9,297	-	26,426
2020	148,463	8	**	16,614	**	4,197	-	20,819
2021	136,781	-	**	14,907	**	39,519	-	54,426
2022	159,572	-	**	15,741	**	(12,812)	-	2,929
2023	131,677	-	**	14,357	**	8,818	-	23,175
2024	124,879	-	**	14,230	**	11,699	-	25,929

Fiscal Year	Pension Benefits	Refunds	Administrative Expenses	Total Deductions	Changes in Net Position	Ending Net Position
2015	\$34,799	\$1	\$387	\$35,187	\$(10,106)	\$169,986
2016	34,429	-	371	34,800	(15,359)	154,627
2017	34,070	-	355	34,425	3,943	158,570
2018	33,604	-	353	33,957	(3,256)	155,314
2019	32,935	-	342	33,277	(6,851)	148,463
2020	32,170	-	331	32,501	(11,682)	136,781
2021	31,336	-	299	31,635	22,791	159,572
2022	30,509	-	315	30,824	(27,895)	131,677
2023	29,686	-	287	29,973	(6,798)	124,879
2024	29,025	-	285	29,310	(3,381)	121,498

* Percentage of annual covered payroll.

** Employee and employer rates vary among the 19 systems that comprise the Municipal Retirement Systems.

Benefit & Refund Payments by Type:
Public Employees' Retirement System of Mississippi
Last 10 Fiscal Years

Number of Participants by Type of Benefit

Fiscal Year	Service	Disability	Survivor	Total	Refunds	
					Terminated	Deaths*
2014	76,665	6,229	10,610	93,504	20,700	-
2015	79,156	6,352	10,830	96,338	19,479	-
2016	82,145	6,430	10,908	99,483	13,026	449
2017	84,825	6,485	10,950	102,260	13,003	633
2018	87,277	6,506	11,190	104,973	12,407	454
2019	89,811	6,514	11,519	107,844	12,502	416
2020	91,642	6,471	11,768	109,881	10,101	423
2021	93,630	6,394	12,134	112,158	9,150	611
2022	95,976	6,251	12,235	114,462	10,311	665
2023	97,395	6,153	12,342	115,890	10,081	466

Total Payments by Type of Benefit
[in thousands]

Fiscal Year	Service	Disability	Survivor	Total	Refunds	
					Terminated	Deaths*
2014	\$1,930,284	\$127,537	\$42,022	\$2,099,843	\$121,532	\$-
2015	2,042,728	133,454	43,058	2,219,240	119,356	-
2016	2,182,627	140,619	44,464	2,367,710	106,644	6,282
2017	2,289,330	143,292	45,292	2,477,914	108,652	5,055
2018	2,415,631	146,835	46,949	2,609,415	118,638	5,668
2019	2,548,245	150,741	48,411	2,747,397	103,716	4,326
2020	2,411,483	128,432	215,679	2,755,594	99,218	5,633
2021	2,517,981	129,746	227,757	2,875,484	91,774	9,270
2022	2,637,791	130,179	237,556	3,005,526	111,142	9,664
2023	2,740,184	131,430	246,898	3,118,512	108,797	6,720

* Information unavailable prior to 2016.

Benefit & Refund Payments by Type:
Mississippi Highway Safety Patrol Retirement System
Last 10 Fiscal Years

Number of Participants by Type of Benefit

Fiscal Year	Service	Disability	Survivor	Total	Refunds	
					Terminated	Deaths*
2014	516	17	187	720	9	-
2015	525	17	182	724	13	-
2016	526	17	181	724	3	1
2017	528	16	182	726	7	-
2018	534	17	174	725	6	-
2019	544	17	173	734	1	-
2020	556	16	168	740	3	1
2021	575	13	173	761	3	1
2022	591	13	181	785	8	-
2023	600	13	179	792	7	-

Total Payments by Type of Benefit
[in thousands]

Fiscal Year	Service	Disability	Survivor	Total	Refunds	
					Terminated	Deaths*
2014	\$26,595	\$526	\$1,099	\$28,220	\$42	\$-
2015	27,295	501	1,113	28,909	163	-
2016	29,153	509	249	29,911	42	10
2017	30,175	518	308	31,001	144	-
2018	31,455	554	306	32,315	103	-
2019	33,757	583	331	34,671	16	-
2020	28,639	421	4,284	33,344	42	6
2021	30,667	339	4,438	35,444	42	24
2022	32,230	347	4,843	37,420	134	-
2023	33,395	355	5,028	38,778	161	-

* Information unavailable prior to 2016.

Benefit & Refund Payments by Type:
Supplemental Legislative Retirement Plan
Last 10 Fiscal Years

Number of Participants by Type of Benefit

Fiscal Year	Service	Disability	Survivor	Total	Refunds	
					Terminated	Deaths*
2014	149	2	36	187	5	-
2015	145	2	38	185	7	-
2016	167	2	38	207	2	1
2017	168	1	36	205	1	1
2018	168	1	38	207	2	1
2019	173	1	41	215	-	-
2020	191	1	43	235	3	-
2021	186	1	46	233	1	-
2022	183	1	46	230	-	-
2023	176	1	51	228	1	-

Total Payments by Type of Benefit
[in thousands]

Fiscal Year	Service	Disability	Survivor	Total	Refunds	
					Terminated	Deaths*
2014	\$1,123	\$13	\$80	\$1,216	\$22	\$-
2015	1,126	13	81	1,220	37	-
2016	1,341	15	97	1,453	9	22
2017	1,314	11	72	1,397	12	5
2018	1,332	10	68	1,410	13	5
2019	1,361	11	70	1,442	-	-
2020	1,252	8	305	1,565	19	-
2021	1,242	9	346	1,597	6	-
2022	1,250	9	355	1,614	-	-
2023	1,267	9	357	1,633	5	-

* Information unavailable prior to 2016.

Benefit & Refund Payments by Type:
Municipal Retirement Systems
Last 10 Fiscal Years

Number of Participants by Type of Benefit

Fiscal Year	Service	Disability	Survivor	Total	Refunds	
					Terminated	Deaths**
2014	1,216	70	604	1,890	7	-
2015	1,170	66	613	1,849	1	-
2016	1,110	64	624	1,798	-	-
2017	1,070	59	625	1,754	-	-
2018	1,014	57	623	1,694	-	-
2019	974	51	609	1,634	-	-
2020	923	46	616	1,585	-	-
2021	870	38	602	1,510	-	-
2022	824	35	585	1,444	-	-
2023	779	34	578	1,391	-	-

Total Payments by Type of Benefit *
[in thousands]

Fiscal Year	Service	Disability	Survivor	Total	Refunds	
					Terminated	Deaths**
2014	\$25,382	\$816	\$8,816	\$35,014	\$3	\$-
2015	24,824	761	9,214	34,799	1	-
2016	24,085	744	9,600	34,429	-	-
2017	23,456	688	9,926	34,070	-	-
2018	22,807	657	10,140	33,604	-	-
2019	22,093	612	10,230	32,935	-	-
2020	20,885	557	10,377	31,819	-	-
2021	19,954	479	10,413	30,846	-	-
2022	19,182	449	10,346	29,977	-	-
2023	18,428	435	10,493	29,356	-	-

* Individual MRS COLA increases are paid if funding is available.

** Information unavailable prior to 2016.

Average Benefit Payments:
Public Employees' Retirement System of Mississippi

Retirement Effective Dates: July 1, 2013 to June 30, 2023	Years Credited Service							
	0-9	10-14	15-19	20-24	25	26-29	30	31+
2014								
Average Monthly Benefit	\$465	\$712	\$999	\$1,384	\$1,871	\$1,993	\$2,283	\$2,954
Average Final Salary	\$31,044	\$35,356	\$37,962	\$40,947	\$47,490	\$48,732	\$51,456	\$57,022
Number of Active Retirants	751	945	815	663	505	1,146	232	1,102
2015								
Average Monthly Benefit	\$458	\$688	\$977	\$1,346	\$1,834	\$1,989	\$2,217	\$2,899
Average Final Salary	\$29,781	\$33,585	\$37,938	\$40,770	\$46,461	\$48,614	\$50,908	\$57,019
Number of Active Retirants	599	898	774	693	494	1,072	230	1,147
2016								
Average Monthly Benefit	\$512	\$701	\$1,054	\$1,638	\$1,879	\$2,118	\$2,400	\$3,196
Average Final Salary	\$31,771	\$34,459	\$39,422	\$45,571	\$46,533	\$50,536	\$52,472	\$59,306
Number of Active Retirants	751	997	874	1,048	402	1,204	234	1,038
2017								
Average Monthly Benefit	\$476	\$727	\$1,013	\$1,656	\$1,948	\$2,106	\$2,446	\$3,093
Average Final Salary	\$31,990	\$37,033	\$39,332	\$47,400	\$49,568	\$50,461	\$55,156	\$59,849
Number of Active Retirants	732	938	859	1,014	369	1,174	190	943
2018								
Average Monthly Benefit	\$485	\$722	\$1,057	\$1,767	\$2,024	\$2,174	\$2,534	\$3,179
Average Final Salary	\$32,660	\$37,608	\$39,878	\$49,009	\$52,289	\$52,205	\$57,261	\$60,427
Number of Active Retirants	672	933	849	1,047	348	1,080	192	864
2019								
Average Monthly Benefit	\$476	\$730	\$1,156	\$1,852	\$2,091	\$2,316	\$2,469	\$3,356
Average Final Salary	\$33,243	\$36,871	\$42,708	\$51,686	\$52,874	\$55,298	\$55,458	\$65,639
Number of Active Retirants	730	930	870	1,127	359	1,062	204	819
2020								
Average Monthly Benefit	\$495	\$780	\$1,218	\$1,881	\$1,995	\$2,307	\$2,635	\$3,166
Average Final Salary	\$34,969	\$38,904	\$45,180	\$52,942	\$51,515	\$56,787	\$60,150	\$61,884
Number of Active Retirants	641	844	787	1,037	339	1,062	192	838
2021								
Average Monthly Benefit	\$484	\$798	\$1,171	\$1,724	\$2,081	\$2,203	\$2,731	\$3,198
Average Final Salary	\$34,676	\$39,370	\$43,511	\$49,033	\$52,995	\$54,445	\$62,496	\$62,914
Number of Active Retirants	775	1,026	971	1,186	365	1,098	200	881
2022								
Average Monthly Benefit	\$476	\$864	\$1,133	\$1,885	\$2,040	\$2,379	\$2,553	\$3,087
Average Final Salary	\$35,214	\$42,232	\$42,668	\$51,950	\$51,494	\$57,956	\$58,253	\$61,825
Number of Active Retirants	740	1,008	918	1,339	424	1,209	173	823
2023								
Average Monthly Benefit	\$544	\$825	\$1,248	\$1,901	\$2,156	\$2,351	\$2,735	\$3,347
Average Final Salary	\$37,882	\$41,639	\$48,250	\$52,843	\$54,179	\$57,900	\$61,359	\$66,322
Number of Active Retirants	636	783	803	1,129	350	1,014	168	694

Average Benefit Payments:
Mississippi Highway Safety Patrol Retirement System

Retirement Effective Dates: July 1, 2013 to June 30, 2023	Years Credited Service							
	0-9	10-14	15-19	20-24	25	26-29	30	31+
2014								
Average Monthly Benefit	\$-	\$-	\$402	\$2,013	\$-	\$2,756	\$3,899	\$4,528
Average Final Salary	\$-	\$-	\$15,019	\$54,344	\$-	\$51,233	\$69,760	\$68,011
Number of Active Retirants	-	-	1	5	-	8	5	9
2015								
Average Monthly Benefit	\$-	\$-	\$1,831	\$1,719	\$1,978	\$4,054	\$-	\$4,758
Average Final Salary	\$-	\$-	\$45,652	\$30,832	\$36,845	\$51,500	\$-	\$67,378
Number of Active Retirants	-	-	3	3	2	10	-	4
2016								
Average Monthly Benefit	\$315	\$-	\$-	\$2,078	\$-	\$3,013	\$1,729	\$5,059
Average Final Salary	\$53,306	\$-	\$-	\$45,948	\$-	\$37,841	\$50,692	\$51,223
Number of Active Retirants	3	-	-	6	-	13	1	3
2017								
Average Monthly Benefit	\$338	\$996	\$556	\$2,928	\$1,186	\$2,670	\$4,606	\$3,493
Average Final Salary	\$19,660	\$45,533	\$22,016	\$67,683	\$28,912	\$54,518	\$72,101	\$47,950
Number of Active Retirants	1	1	1	6	2	6	4	1
2018								
Average Monthly Benefit	\$-	\$1,307	\$2,491	\$3,100	\$-	\$3,562	\$4,826	\$5,101
Average Final Salary	\$-	\$31,380	\$68,832	\$60,334	\$-	\$68,126	\$77,928	\$75,940
Number of Active Retirants	-	1	2	4	-	1	2	7
2019								
Average Monthly Benefit	\$-	\$455	\$2,112	\$3,375	\$3,943	\$4,902	\$5,824	\$5,690
Average Final Salary	\$-	\$56,574	\$53,477	\$77,544	\$75,696	\$84,403	\$93,541	\$82,712
Number of Active Retirants	-	3	6	9	1	1	1	7
2020								
Average Monthly Benefit	\$-	\$2,247	\$2,673	\$3,797	\$3,751	\$-	\$-	\$6,127
Average Final Salary	\$-	\$70,328	\$72,280	\$73,365	\$72,571	\$-	\$-	\$91,720
Number of Active Retirants	-	1	1	5	4	-	-	10
2021								
Average Monthly Benefit	\$-	\$2,073	\$2,071	\$3,751	\$5,042	\$4,935	\$4,757	\$6,336
Average Final Salary	\$-	\$63,446	\$85,505	\$46,027	\$61,918	\$70,663	\$24,044	\$59,803
Number of Active Retirants	-	1	2	10	3	12	3	8
2022								
Average Monthly Benefit	\$-	\$-	\$2,756	\$3,827	\$4,385	\$5,445	\$-	\$5,346
Average Final Salary	\$-	\$-	\$68,698	\$54,435	\$54,702	\$77,453	\$-	\$84,018
Number of Active Retirants	-	-	6	8	6	10	-	5
2023								
Average Monthly Benefit	\$957	\$-	\$2,656	\$3,895	\$-	\$4,182	\$5,379	\$-
Average Final Salary	\$56,835	\$-	\$66,853	\$55,733	\$-	\$70,714	\$99,200	\$-
Number of Active Retirants	1	-	2	12	-	10	1	-

Average Benefit Payments:
Supplemental Legislative Retirement Plan

Retirement Effective Dates: July 1, 2013 to June 30, 2023	Years Credited Service							
	0-9	10-14	15-19	20-24	25	26-29	30	31+
2014								
Average Monthly Benefit	\$-	\$345	\$491	\$473	\$-	\$580	\$-	\$-
Average Final Salary	\$-	\$34,404	\$34,871	\$39,301	\$-	\$43,165	\$-	\$-
Number of Active Retirants	-	2	2	1	-	1	-	-
2015								
Average Monthly Benefit	\$164	\$740	\$721	\$-	\$579	\$-	\$-	\$1,032
Average Final Salary	\$18,636	\$68,228	\$37,912	\$-	\$34,791	\$-	\$-	\$42,949
Number of Active Retirants	2	2	2	-	1	-	-	1
2016								
Average Monthly Benefit	\$250	\$350	\$487	\$654	\$522	\$-	\$-	\$1,200
Average Final Salary	\$36,600	\$39,878	\$35,211	\$39,774	\$41,482	\$-	\$-	\$42,238
Number of Active Retirants	6	6	4	7	2	-	-	3
2017								
Average Monthly Benefit	\$181	\$-	\$609	\$452	\$732	\$-	\$-	\$-
Average Final Salary	\$29,821	\$-	\$37,791	\$28,378	\$40,932	\$-	\$-	\$-
Number of Active Retirants	2	-	1	2	1	-	-	-
2018								
Average Monthly Benefit	\$33	\$-	\$538	\$513	\$-	\$-	\$-	\$1,285
Average Final Salary	\$20,840	\$-	\$40,101	\$41,549	\$-	\$-	\$-	\$41,618
Number of Active Retirants	2	-	1	2	-	-	-	1
2019								
Average Monthly Benefit	\$169	\$373	\$637	\$742	\$-	\$739	\$-	\$960
Average Final Salary	\$24,873	\$42,782	\$42,043	\$42,480	\$-	\$40,655	\$-	\$44,126
Number of Active Retirants	3	2	1	2	-	1	-	2
2020								
Average Monthly Benefit	\$245	\$334	\$551	\$799	\$-	\$969	\$-	\$713
Average Final Salary	\$36,523	\$40,009	\$32,107	\$39,044	\$-	\$34,675	\$-	\$42,095
Number of Active Retirants	3	2	5	7	-	4	-	3
2021								
Average Monthly Benefit	\$192	\$-	\$-	\$-	\$-	\$815	\$-	\$-
Average Final Salary	\$32,589	\$-	\$-	\$-	\$-	\$44,865	\$-	\$-
Number of Active Retirants	2	-	-	-	-	1	-	-
2022								
Average Monthly Benefit	\$123	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Average Final Salary	\$31,733	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Number of Active Retirants	1	-	-	-	-	-	-	-
2023								
Average Monthly Benefit	\$436	\$233	\$639	\$1,103	\$-	\$-	\$-	\$927
Average Final Salary	\$39,251	\$35,026	\$46,070	\$58,191	\$-	\$-	\$-	\$45,845
Number of Active Retirants	1	2	2	1	-	-	-	2

Average Benefit Payments:
Municipal Retirement Systems

Retirement Effective Dates: July 1, 2013 to June 30, 2020*	Years Credited Service			
	25	26-29	30	31+
2014				
Average Monthly Benefit	\$-	\$-	\$-	\$2,778
Average Final Salary	\$-	\$-	\$-	\$47,160
Number of Active Retirants	-	-	-	2
2015				
Average Monthly Benefit	\$-	\$-	\$2,898	\$2,912
Average Final Salary	\$-	\$-	\$51,253	\$56,520
Number of Active Retirants	-	-	1	2
2016				
Average Monthly Benefit	\$-	\$-	\$-	\$3,479
Average Final Salary	\$-	\$-	\$-	\$44,155
Number of Active Retirants	-	-	-	3
2017				
Average Monthly Benefit	\$-	\$-	\$-	\$2,424
Average Final Salary	\$-	\$-	\$-	\$43,631
Number of Active Retirants	-	-	-	2
2018				
Average Monthly Benefit	\$-	\$-	\$-	\$3,738
Average Final Salary	\$-	\$-	\$-	\$67,277
Number of Active Retirants	-	-	-	2
2019				
Average Monthly Benefit	\$-	\$-	\$-	\$3,427
Average Final Salary	\$-	\$-	\$-	\$53,998
Number of Active Retirants	-	-	-	2
2020				
Average Monthly Benefit	\$-	\$-	\$-	\$3,024
Average Final Salary	\$-	\$-	\$-	\$47,435
Number of Active Retirants	-	-	-	2

* All active employees were retired as of June 30, 2020.

Retired Members by Type of Benefit
June 30, 2023

Public Employees' Retirement System of Mississippi

Amount of Monthly Benefit *	Option Selected **					
	Life	Opt. 1	Opt. 2	Opt. 3	Opt. 4	Opt. 4A
\$1 - 500	14,999	644	2,524	221	205	426
501 - 1,000	15,859	647	2,944	240	301	901
1,001 - 1,500	13,157	616	3,055	246	384	1,088
1,501 - 2,000	10,816	472	2,809	177	436	1,195
2,001 - 2,500	8,105	327	2,255	114	333	1,185
2,501 - 3,000	5,118	181	1,303	56	252	760
3,001 - 3,500	3,194	123	858	30	152	509
3,501 - 4,000	1,784	63	494	18	70	274
4,001 - 4,500	1,061	30	333	6	69	231
4,501 - 5,000	590	15	174	6	31	123
Over 5,000	1,105	26	510	10	117	316
Totals	75,788	3,144	17,259	1,124	2,350	7,008

Amount of Monthly Benefit *	Opt. 4B	Opt. 4C***	Opt. 5	PLSO	PLSO	PLSO
				1 YR.***	2 YR.***	3 YR.***
\$1 - 500	1,712	135	24	568	457	2,058
501 - 1,000	1,612	624	29	948	656	2,226
1,001 - 1,500	1,481	792	39	947	792	3,158
1,501 - 2,000	1,368	354	19	835	875	3,764
2,001 - 2,500	1,119	97	13	881	752	3,229
2,501 - 3,000	716	38	10	651	506	1,865
3,001 - 3,500	437	14	4	516	373	1,022
3,501 - 4,000	239	8	-	291	198	516
4,001 - 4,500	152	3	-	189	127	348
4,501 - 5,000	74	1	-	95	49	190
Over 5,000	169	2	-	191	105	352
Totals	9,079	2,068	138	6,112	4,890	18,728

* Excluding Cost-of-Living Adjustment

** Option Selected:

Life – return of contributions;

Opt. 1 – return of member's annuity;

Opt. 2 – 100.0 percent survivorship;

Opt. 3 – 50.0 percent / 50.0 percent dual survivorship;

Opt. 4 – 75.0 percent survivorship;

Opt. 4A – 50.0 percent survivorship;

Opt. 4B – years certain and life;

Opt. 4C – Social Security leveling;

Opt. 5 – pop up;

PLSO – Partial-Lump-Sum Option.

*** Included in other options.

Retired Members by Type of Benefit
June 30, 2023

Mississippi Highway Safety Patrol Retirement System

Amount of Monthly Benefit *	Option Selected **					
	Life	Opt. 1	Opt. 2	Opt. 3	Opt. 4	Opt. 4A
\$1 - 500	17	-	1	-	-	-
501 - 1,000	79	-	1	1	-	-
1,001 - 1,500	46	-	3	-	-	-
1,501 - 2,000	19	-	8	2	-	1
2,001 - 2,500	13	-	8	-	-	-
2,501 - 3,000	8	-	10	1	-	2
3,001 - 3,500	13	1	11	-	1	-
3,501 - 4,000	6	-	2	1	2	3
4,001 - 4,500	2	2	5	-	-	2
4,501 - 5,000	-	1	1	-	-	-
Over 5,000	1	-	1	1	-	-
Totals	204	4	51	6	3	8

Amount of Monthly Benefit *	Opt. 4B	Opt. 4C***	Opt. 9	PLSO 1 YR.***	PLSO 2 YR.***	PLSO 3 YR.***
\$1 - 500	-	-	3	-	-	-
501 - 1,000	2	1	8	-	1	1
1,001 - 1,500	1	4	18	2	-	7
1,501 - 2,000	2	2	50	1	1	9
2,001 - 2,500	2	1	78	11	2	14
2,501 - 3,000	4	2	68	6	6	33
3,001 - 3,500	1	-	74	9	6	34
3,501 - 4,000	3	-	54	9	9	22
4,001 - 4,500	2	-	42	5	7	17
4,501 - 5,000	-	-	26	5	1	12
Over 5,000	-	-	78	9	9	22
Totals	17	10	499	57	42	171

* Excluding Cost-of-Living Adjustment

** Option Selected:

Life – return of contributions;

Opt. 1 – return of member's annuity;

Opt. 2 – 100.0 percent survivorship;

Opt. 3 – 50.0 percent / 50.0 percent dual survivorship;

Opt. 4 – 75.0 percent survivorship;

Opt. 4A – 50.0 percent survivorship;

Opt. 4B – years certain and life;

Opt. 4C – Social Security leveling;

Opt. 9 – maximum benefit with pop-down provision;

PLSO – Partial-Lump-Sum Option.

*** Included in other options.

Retired Members by Type of Benefit
June 30, 2023

Supplemental Legislative Retirement Plan

Amount of Monthly Benefit *	Option Selected **					
	Life	Opt. 1	Opt. 2	Opt. 3	Opt. 4	Opt. 4A
\$1 - 100	6	-	5	-	-	-
101 - 200	19	1	17	-	1	-
201 - 300	16	1	11	2	1	1
301 - 400	23	-	10	-	-	1
401 - 500	10	1	8	2	-	-
501 - 600	5	-	6	3	-	1
601 - 700	9	-	7	-	-	1
701 - 800	7	-	6	-	1	-
801 - 900	4	-	2	-	1	1
901 - 1,000	2	1	3	-	-	-
Over 1,000	7	-	2	-	1	1
Totals	108	4	77	7	5	6

Amount of Monthly Benefit *	Option Selected **					
	Opt. 4B	Opt. 4C***	Opt. 5	PLSO 1 YR.***	PLSO 2 YR.***	PLSO 3 YR.***
\$1 - 100	2	1	-	-	-	-
101 - 200	1	-	-	-	-	6
201 - 300	2	-	-	1	-	2
301 - 400	6	-	-	2	-	6
401 - 500	3	-	-	1	2	5
501 - 600	4	-	-	-	1	8
601 - 700	-	-	-	-	2	2
701 - 800	-	-	-	1	1	2
801 - 900	-	-	-	-	-	3
901 - 1,000	2	-	-	-	1	2
Over 1,000	-	-	-	2	1	3
Totals	20	1	-	7	8	39

* Excluding Cost-of-Living Adjustment

** Option Selected:

Life – return of contributions;

Opt. 1 – return of member's annuity;

Opt. 2 – 100.0 percent survivorship;

Opt. 3 – 50.0 percent / 50.0 percent dual survivorship;

Opt. 4 – 75.0 percent survivorship;

Opt. 4A – 50.0 percent survivorship;

Opt. 4B – years certain and life;

Opt. 4C – Social Security leveling;

Opt. 5 – pop up;

PLSO – Partial-Lump-Sum Option.

*** Included in other options.

Analysis of Employer & Member Contributions
Public Employees' Retirement System of Mississippi
For Fiscal Years Ended June 30, 2024 & 2023

[contributions in thousands]

	Employer		Member		Total Contributions	Percent
	Units	Contributions	Number	Contributions		
2024						
State Agencies	108	\$231,208	25,333	\$118,387	\$349,595	17.23%
State Universities	9	205,656	17,318	105,416	311,072	15.33
Public Schools	140	531,331	60,549	271,606	802,937	39.58
Community/Junior Colleges	15	59,136	5,836	30,219	89,355	4.41
Counties	82	121,318	14,795	61,249	182,567	9.00
Municipalities	244	126,741	15,410	64,991	191,732	9.45
Others	260	70,421	6,595	31,069	101,490	5.00
Totals	858	\$1,345,811	145,836	\$682,937	\$2,028,748	100.00%
2023						
State Agencies	106	\$216,773	24,922	\$111,100	\$327,873	16.68%
State Universities	9	200,290	17,220	102,722	303,012	15.42
Public Schools	140	518,842	61,095	265,317	784,159	39.90
Community/Junior Colleges	15	57,008	5,835	29,136	86,144	4.38
Counties	82	117,476	14,671	59,340	176,816	9.00
Municipalities	244	122,315	15,526	62,744	185,059	9.42
Others	265	70,859	6,716	31,627	102,486	5.20
Totals	861	\$1,303,563	145,985	\$661,986	\$1,965,549	100.00%

Note: Above table excludes MHSPRS, SLRP, and MRS contributions. Classification amounts are established at the time entities join PERS. Classification amounts may differ from those identified through other sources.

Total Active Members by Attained Age & Years of Service:
Public Employees' Retirement System of Mississippi
June 30, 2023

Attained Age	Active Member Years of Service							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	Numbers	Valuation Payroll
Under 20	352	-	-	-	-	-	-	352	\$8,552,735
20-24	6,368	42	-	-	-	-	-	6,410	220,103,726
25-29	10,887	2,182	22	-	-	-	-	13,091	544,537,472
30-34	7,581	6,142	1,559	35	-	-	-	15,317	695,683,096
35-39	6,213	4,349	4,855	1,773	38	-	-	17,228	851,505,742
40-44	5,593	3,716	3,464	5,240	1,743	22	-	19,778	1,033,641,780
45-49	4,705	3,302	2,820	3,418	4,286	988	13	19,532	1,053,425,035
50-54	4,579	3,023	2,699	3,140	3,223	2,296	461	19,421	1,022,704,580
55-59	3,704	2,660	2,200	2,607	2,546	1,527	979	16,223	783,788,139
60-64	2,473	2,170	1,661	1,743	1,690	1,076	944	11,757	550,169,913
65-69	1,113	931	666	562	480	289	409	4,450	199,094,529
70 & Over	642	461	357	324	234	159	249	2,426	102,212,457
Totals	54,210	28,978	20,303	18,842	14,240	6,357	3,055	145,985	\$7,065,419,204

While not used in the financial computations, the following group averages are computed and shown because of their general interest:

Age: 45.2 years
Service: 10.2 years
Entry Age: 35 years
Annual Pay: \$48,398

Total Active Members by Attained Age & Years of Service:
Mississippi Highway Safety Patrol Retirement System
June 30, 2023

Attained Age	Active Member Years of Service							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	Numbers	Valuation Payroll
Under 25	24	-	-	-	-	-	-	24	\$1,287,502
25-29	74	13	-	-	-	-	-	87	4,908,000
30-34	39	25	5	-	-	-	-	69	4,010,009
35-39	19	23	15	13	-	-	-	70	4,425,369
40-44	11	12	13	49	3	-	-	88	6,337,041
45-49	5	6	4	41	21	3	-	80	6,298,341
50-54	3	7	4	21	15	13	1	64	5,335,706
55-59	-	-	-	4	8	7	2	21	1,893,054
60-64	-	-	-	-	2	2	-	4	350,659
65 & Over	-	-	-	-	-	-	-	-	-
Totals	175	86	41	128	49	25	3	507	\$34,845,681

While not used in the financial computations, the following group averages are computed and shown because of their general interest:

Age: 39.8 years
Service: 10.8 years
Annual Pay: \$68,729

Total Active Members by Attained Age & Years of Service:
Supplemental Legislative Retirement Plan
June 30, 2023

Attained Age	Active Member Years of Service							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	Numbers	Valuation Payroll
Under 25	-	-	-	-	-	-	-	-	\$-
25-29	1	-	-	-	-	-	-	1	47,064
30-34	3	2	-	-	-	-	-	5	237,696
35-39	1	3	1	-	-	-	-	5	238,042
40-44	7	5	3	-	-	-	-	15	689,630
45-49	13	3	5	2	-	-	-	23	1,099,875
50-54	2	8	13	3	1	-	-	27	1,331,388
55-59	9	10	5	2	2	-	-	28	1,339,610
60-64	6	5	7	3	1	1	-	23	1,191,637
65-69	4	2	3	5	1	-	4	19	924,498
70 & Over	3	1	4	8	-	2	8	26	1,325,609
Totals	49	39	41	23	5	3	12	172	\$8,425,049

While not used in the financial computations, the following group averages are computed and shown because of their general interest:

Age: 57.3 years
Benefit Service: 11.3 years
Eligibility Service: 16.5 years
Annual Pay: \$48,983

System Benefit Payments by County

June 30, 2024

[amounts paid in thousands]

County	Number of Payments	Amount Paid	County	Number of Payments	Amount Paid
Adams	1,372	\$35,175	Lowndes	1,834	\$50,711
Alcorn	1,476	39,935	Madison	5,070	189,153
Amite	433	10,174	Marion	869	23,417
Attala	916	24,624	Marshall	803	20,616
Benton	237	5,488	Monroe	1,256	34,336
Bolivar	1,652	45,704	Montgomery	590	16,133
Calhoun	529	13,567	Neshoba	1,031	26,361
Carroll	527	13,507	Newton	949	25,181
Chickasaw	658	16,789	Noxubee	361	9,308
Choctaw	406	10,463	Oktibbeha	2,629	107,797
Claiborne	384	11,097	Panola	1,333	33,969
Clarke	719	16,531	Pearl River	1,534	35,912
Clay	727	20,986	Perry	507	11,142
Coahoma	969	28,678	Pike	1,399	37,650
Copiah	1,133	30,607	Pontotoc	911	26,403
Covington	812	21,198	Prentiss	918	25,644
Desoto	2,254	57,397	Quitman	260	6,429
Forrest	3,668	112,198	Rankin	7,209	232,962
Franklin	373	9,149	Scott	905	23,340
George	779	18,363	Sharkey	231	6,472
Greene	428	10,467	Simpson	1,268	31,908
Grenada	943	26,059	Smith	614	14,727
Hancock	1,160	29,001	Stone	895	23,185
Harrison	5,780	165,003	Sunflower	995	25,287
Hinds	10,993	331,981	Tallahatchie	503	12,780
Holmes	750	18,615	Tate	935	25,940
Humphreys	313	8,601	Tippah	905	22,413
Issaquena	35	685	Tishomingo	678	16,727
Itawamba	1,010	28,070	Tunica	302	7,282
Jackson	4,370	121,977	Union	1,030	28,221
Jasper	680	15,021	Walthall	462	11,368
Jefferson	445	11,818	Warren	1,558	46,036
Jefferson Davis	439	9,979	Washington	1,765	46,995
Jones	2,935	76,484	Wayne	667	16,223
Kemper	387	9,951	Webster	655	18,306
Lafayette	2,628	97,052	Wilkinson	326	8,164
Lamar	1,588	42,681	Winston	803	23,086
Lauderdale	3,034	81,847	Yalobusha	741	18,811
Lawrence	594	14,621	Yazoo	884	22,985
Leake	780	19,481	Mississippi	111,121	\$3,176,947
Lee	2,806	84,573	Out-of-Country	36	961
Leflore	1,210	34,394	Out-of-State	11,731	291,179
Lincoln	1,204	33,576	Total	122,888	\$3,469,087

Ten Largest Participating Employers

Participating Employer	2024			2015		
	Covered Employees	Rank	Percentage of Total System	Covered Employees	Rank	Percentage of Total System
<i>Public Employees' Retirement System</i>						
University Medical Center	6,760	1	4.64%	8,321	1	5.29%
Desoto County Board of Education	4,160	2	2.85	4,135	3	2.63
Mississippi State University	3,997	3	2.74	3,815	4	2.43
Jackson Municipal Separate Schools	2,903	4	1.99	4,434	2	2.82
Mississippi Department of Transportation	2,619	5	1.80	3,072	6	1.95
Rankin County Board of Education	2,463	6	1.69	2,200	10	1.40
University of Mississippi	2,448	7	1.68	2,214	9	1.41
Harrison County Board of Education	1,938	8	1.33	1,826	-	1.16
Corrections Department	1,899	9	1.30	2,750	7	1.75
Madison County Board of Education	1,758	10	1.21	1,511	-	0.96
All Other	114,891	-	78.77	122,937	-	78.20
Totals (858 Employers)	145,836		100.00%	157,215		100.00%

Public Agencies Covered by State Retirement Annuity

Participating Employers Covered by Law

State Agencies
State Universities
Community/Junior Colleges
Public School Districts

Participating Employers Covered by Separate Agreement

Counties

Local Governmental Entities Covered by Separate Agreement

Municipalities

Aberdeen	Crenshaw	Itta Bena	Nettleton	Shannon
Ackerman	Crosby	Iuka	New Albany	Shaw
Algoma	Crystal Springs	Jackson	New Augusta	Shelby
Amory	Decatur	Jonestown	New Hebron	Sherman
Anguilla	De Kalb	Jumpertown	Newton	Shubuta
Arcola	D'lo	Kilmichael	North Carrollton	Shuqualak
Artesia	Derma	Kosciusko	Noxapater	Silver City
Ashland	D'Iberville	Lake	Ocean Springs	Sledge
Baldwyn	Drew	Lambert	Okolona	Smithville
Bassfield	Duck Hill	Laurel	Olive Branch	Soso
Batesville	Durant	Leakesville	Osyka	Southaven
Bay Springs	Ecru	Leland	Oxford	Starkville
Bay St. Louis	Edwards	Lena	Pachuta	State Line
Beaumont	Ellisville	Lexington	Pascagoula	Stonewall
Belmont	Enterprise	Liberty	Pass Christian	Sturgis
Belzoni	Ethel	Long Beach	Pearl	Summit
Benoit	Eupora	Louin	Pelahatchie	Sumner
Bentonla	Falkner	Louise	Petal	Sumrall
Biloxi	Farmington	Louisville	Philadelphia	Sunflower
Blue Mountain	Flora	Lucedale	Picayune	Tailorsville
Booneville	Florence	Lula	Plantersville	Tchula
Boyle	Flowood	Lumberton	Polkville	Terry
Brandon	Forest	Lyon	Pontotoc	Tishomingo
Brookhaven	French Camp	Maben	Poplarville	Tremont
Brooksville	Fulton	Macon	Port Gibson	Tunica
Bruce	Gautier	Madison	Potts Camp	Tupelo
Bude	Gloster	Magee	Prentiss	Tutwiler
Burnsville	Gluckstadt	Magnolia	Puckett	Tylertown
Byhalia	Golden	Mantachie	Purvis	Union
Byram	Goodman	Marietta	Quitman	Vaiden
Caledonia	Greenville	Marion	Raleigh	Vardaman
Calhoun City	Greenwood	Marks	Raymond	Verona
Canton	Grenada	Mathiston	Renova	Vicksburg
Carthage	Gulfport	Mayersville	Richland	Walnut
Cary	Guntown	McComb	Richton	Walnut Grove
Centreville	Hatley	McLain	Ridgeland	Walthall
Charleston	Hattiesburg	Meadville	Rienzi	Water Valley
Chunky	Hazlehurst	Mendenhall	Ripley	Waveland
Clarksdale	Heidelberg	Meridian	Rolling Fork	Waynesboro
Cleveland	Hernando	Merigold	Rosedale	Weir
Clinton	Hickory	Metcalfe	Roxie	Wesson
Coffeetille	Hickory Flat	Mize	Ruleville	West
Coldwater	Hollandale	Monticello	Salttillo	West Point
Collins	Holly Springs	Moorhead	Sallis	Wiggins
Columbia	Horn Lake	Morton	Sandersville	Winona
Columbus	Houlka	Moss Point	Sardis	Woodland
Como	Houston	Mount Olive	Sebastopol	Woodville
Corinth	Indianola	Myrtle	Seminary	Yazoo City
Crawford	Inverness	Natchez	Senatobia	

Public Agencies Covered by State Retirement Annuity

(continued)

Juristic Entities

Adams County Airport Commission	Harrison County Utility Authority
Adams County Soil & Water Conservation District	Hattiesburg Tourism Commission
Bogue Philia Drainage District	Hinds County Soil & Water Conservation District
Bolivar County Soil & Water Conservation District	Holly Springs Utility Department
Booneville Gas & Water System	Itawamba County Soil & Water Conservation District
Brookhaven Park & Recreation	Jackson Convention & Visitors Bureau dba Visit Jackson
Caledonia Natural Gas District	Jackson County Emergency Communications District
Calhoun County Soil & Water Conservation District	Jackson County Port Authority
Canton Convention & Visitors Bureau	Jackson County Utility Authority
Canton Municipal Utilities	Jackson Municipal Airport Authority
Canton Redevelopment Authority	Kiln Water & Fire District
Chickasawhay Natural Gas District	Kosciusko Water & Light Department
Choctaw County Economic Development District	Lafayette County Soil & Water Conservation District
Claiborne County Human Resource Agency	Lamar County Soil & Water Conservation District
Clarksdale Park Commission	Lauderdale County Emergency Medical Service District
Clarksdale Public Utilities	Lauderdale County Soil & Water Conservation District
Cleary Water, Sewer & Fire District	Laurel Airport Authority
Coahoma County Soil & Water Conservation District	Lee County Soil & Water Conservation District
Coast Coliseum & Convention Center	Levee Commission Yazoo MS Delta
Columbus Light & Water Department	Levee Commissioners
Copiah County Human Resource Agency	Louisville Electric System
Corinth-Alcorn Airport Board	Louisville Water System
Corinth-Alcorn Convention & Agriculture Exposition Center	Macon Electric & Water Department
Corinth-Alcorn County Recreation Commission	Madison County Economic Development Authority
Corinth City Water Department	Madison County Nursing Home
Covington County Soil & Water Conservation District	Madison County Soil & Water Conservation District
Culkin Water District	Marion County Soil & Water Conservation District
Delta Blues Museum	Mental Health & Retardation, Region III (NE MS)
Desoto County Convention & Visitors Bureau	Mental Health & Retardation, Region IV (Corinth)
Desoto County Regional Utility Authority	Mental Health & Retardation, Region VI (Greenwood)
Desoto County Soil & Water Conservation District	Mental Health & Retardation, Region VIII (Brandon)
Diamondhead Fire Protection District	Mental Health & Retardation, Region X (Weems)
East Leflore County Water & Sewer District	Mental Health & Retardation, Region XI (SW MS)
Economic Development of Jones County	Mental Health & Retardation, Region XIV (Singing River)
Emergency Management District	Meridian Airport Authority
Forrest County Soil & Water Conservation District	Mid-Mississippi Development District
Glendale Utility District	Mississippi Gulf Coast Regional Convention & Visitors Bureau
Golden Triangle Cooperative Service District	Municipal Energy Agency of Mississippi
Golden Triangle Regional Airport	Natchez-Adams County Port Commission
Golden Triangle Regional Solid Waste Management Authority	Natchez Convention Promotion Commission
Greenville Port Commission	Natchez City of Waterworks
Greenwood Tourism Commission	Neshoba County Soil Conservation District
Greenwood Utilities Commission	New Albany Electric Department
Grenada County Civil Defense	Newton County Soil Conservation District
Grenada County Soil & Water Conservation District	Northeast Mississippi Natural Gas District
Gulf Park Estates St. Andrew Fire Protection District	Northeast Mississippi Regional Water Supply District
Gulf Regional Planning Commission	NRoute Transit Commission
Gulfport-Biloxi Regional Airport Authority	Okolona Electric Department
Hancock County Human Resource Agency	Oxford Utilities
Hancock County Planning Commission	Oxford Tourism Council
Hancock County Port & Harbor Commission	Panola County Soil & Water Conservation District
Hancock County Soil Conservation District	Pearl River County Soil & Water Conservation District
Hancock County Utility Authority	Philadelphia-Neshoba County Park Commission
Hancock County Water & Sewer District	Pike County Soil Conservation District
Harrison County Development Commission	Pine Belt Region Solid Waste Management Authority
Harrison County Soil & Water Conservation District	

Public Agencies Covered by State Retirement Annuity
(continued)

Juristic Entities (continued)

Prentiss County Soil & Water Conservation District	Tupelo Airport Authority
Rankin-Hinds Pearl River Flood	Tupelo Coliseum Comm District
Reservoir Fire Protection District	Tupelo Water & Light Department
Ridgeland Tourism Commission	Union County Soil & Water Conservation District
Rosedale-Bolivar County Port Commission	Vicksburg Bridge Commission
Runnelstown Utility District	Vicksburg Convention & Visitors Bureau
Scenic Rivers Development Alliance	Walthall County Soil & Water Conservation District
Sebastopol Natural Gas District	Warren County Soil & Water Conservation District
Simpson County Parks & Recreation	Wayne County Economic Development District
South Madison County Fire Protection District	Wayne County Soil & Water Conservation District
South Mississippi Fair Commission	West Jackson County Utility District
Starkville Electric Department	West Point Electric System
Stone County Soil & Water Conservation District	West Point Water Department
Stone County Utility Authority	West Rankin Utility Authority
Sunflower County Soil & Water Conservation District	Winston County Economic Development
Tallahatchie County Soil & Water Conservation District	Winston County Soil & Water Conservation District
Tennessee-Tombigbee Waterway Development Authority	Yalobusha Water & Sewer District
Tunica County Airport Commission	Yazoo City Public Service Commission
Tunica County Healthcare	Yazoo County Convention & Visitors Bureau
Tunica County Tourism Commission	Yazoo County Soil & Water Conservation District
	Yazoo-Mississippi Delta Joint Water Management District
	Yazoo Recreation Commission

Housing Authorities

Attala County	Hattiesburg	MS Reg. V-Newton	Shelby
Baldwyn	Hazlehurst	MS Reg. VI-Jackson	South Delta Region
Bay Waveland	Holly Springs	MS Reg. VII-McComb	Starkville
Biloxi	Itta Bena	MS Reg. VIII-Gulfport	Summit
Booneville	Iuka	Mound Bayou	Tupelo
Canton	Jackson	Natchez	Vicksburg
Clarksdale	Laurel	Oxford	Water Valley
Columbus	Louisville	Picayune	Waynesboro
Corinth	McComb	Pontotoc	West Point
Forest	Meridian	Sardis	Winona
Greenwood	MS Reg. IV-Columbus	Senatobia	Yazoo City

Local Hospitals

Claiborne County Medical Center	Jefferson County	South Sunflower County
Field Memorial Community	Magnolia Regional Health Center	Tippah County
Franklin County Memorial	North Sunflower Medical Center	

Local Libraries

Amory Municipal	Harrison County	Neshoba County Public
Benton County	Hattiesburg-Petal-Forrest County	Northeast Regional
Bolivar County	Humphreys County	Noxubee County
Carnegie Public	Jackson-George Regional	Oktibbeha County
Carroll County	Jackson-Hinds	Pearl River County
Central Mississippi Regional	Jennie Stephens Smith	Pike-Amite-Walthall County
Choctaw County	Judge George W. Armstrong	Pine Forest Regional
Columbus-Lowndes Public	Kemper-Newton County Regional	Sharkey-Issaquena County
Copiah-Jefferson Regional	Lamar County	South Mississippi Regional
Covington County	Laurel-Jones County	Sunflower County
Dixie Regional	Lee-Itawamba County	Tallahatchie County
East Mississippi Regional	Lincoln-Lawrence-Franklin	Tombigbee Regional
Elizabeth Jones	Madison County-Canton Public	Washington County
Evans Memorial	Marks-Quitman County	Waynesboro-Wayne County
First Regional	Marshall County	Wilkinson County
Greenwood-Leflore Public	Meridian-Lauderdale County	Yalobusha County
Hancock County	Mid-Mississippi Regional	Yazoo Library Association
Harriette Person Memorial		



PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI

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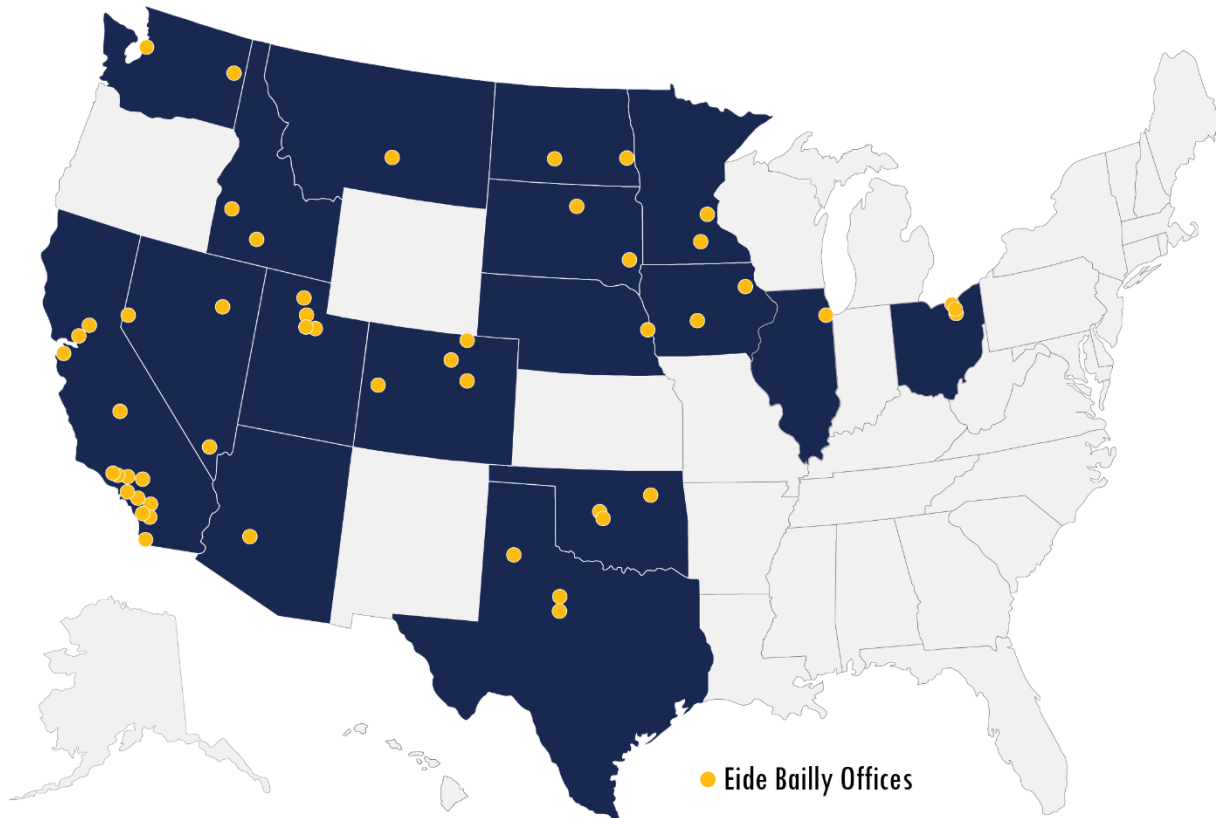


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PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI

Brad Berls
Partner
December 18, 2024

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- 200+ professional staff dedicated to government industry
- State and local governments
 - PERS plans
 - Housing agencies
 - Lotteries
 - College and universities
 - Cities, counties, school districts
 - 500+ government clients
 - 150,000 audit hours

PUBLIC PENSION FUNDS

- Public Employees Retirement System of Idaho
- South Dakota Retirement System
- Municipal Fire and Police Retirement System of Iowa
- Wyoming Retirement System
- Washington State Investment Board
- Public Employees' Retirement System of Mississippi
- Oklahoma Teachers Retirement System
- Oklahoma Public Employee Retirement System
- Fire and Police Pension Association of Colorado
- Utah Retirement System
- Missouri State Employees' Retirement System
- West Virginia Public Employee's Retirement

AUDIT TEAM

Brad Berls

Abbie Belthoff

Partner

Senior Manager

Additional Resources

Internal Actuary

Harvest

IT Auditors

AUDIT REPORTS

Public Employees Retirement System of Mississippi (ACFR)

Municipal Retirement System and Fire and Police Disability and Relief Fund (Agent Reporting)

Unmodified opinions

Clean report

No new accounting standards

Internal controls report

No findings noted

Passed Journal Entry

The employer contribution receivable and employer contribution revenue amounts recorded for the Municipal Retirement System (MRS) Plan are understated by \$318,000.

RESPONSIBILITIES

Management is responsible for:

- Adopting sound accounting policies
- Fairly presenting the financial statements,
- Establishing and maintaining effective internal control over financial reporting,
- Identifying and ensuring that the Public Employees' Retirement System of Mississippi (the System) complies with laws and regulations
- Making all financial records and related information available to the auditor
- Providing unrestricted access to personnel within the entity from whom the auditor determines it necessary to obtain audit evidence
- Adjusting the basic financial statements to correct material misstatements
- Providing the auditor with a letter confirming certain representations made during the audit

RESPONSIBILITIES

The Management and Audit Committee is responsible for:

- Oversight of the financial reporting process and oversight of internal controls over financial reporting
- Oversight of the establishment and maintenance of programs and internal controls designed to prevent and detect fraud
- Setting the proper tone and creating and maintaining a culture of honesty and high ethical standards

RESPONSIBILITIES

Eide Bailly is responsible for:

- Forming and expressing an opinion
- Planning and performing the audit with an attitude of professional skepticism
- Conducting the audit in accordance with professional audit standards
- Evaluating internal controls over financial reporting as a basis for designing audit procedures
- Communicating to management and the Audit Committee all required information, including significant matters

REQUIRED COMMUNICATIONS

Audit performed according to professional standards

Objective - Reasonable (not absolute) assurance

Basic financial statements free of material misstatement

Not intended to be an audit of internal control

Relationship with management

Received full cooperation

No disagreements

Full access to all books and records

Other matters

Transparency and quality

Critical accounting policies

Independence - In our professional judgment, Eide Bailly is independent of the Public Employees' Retirement System of Mississippi within the meaning of the requirements of the Independence Standards Board

AREAS OF AUDIT EMPHASIS

Significant areas of management judgments and estimates

Audit responses

Alternative investments

Valuation of investments in real estate, private equities, and commingled funds for which no readily determinable market value is available

- Evaluated management's methodology and process for valuing alternative investments
- Tested design and implementation of controls surrounding alternative investments
- Reviewed support for valuation of alternative investments for potential impairment
- Confirmed alternative investments
- Obtained and examined the underlying agreements related to alternative investments
- Obtained and reviewed the most recent audited financial statements for alternative investments
- Performed substantive analytical and detail testing procedures to test the fair value measurements and recorded appreciation/depreciation from the date of the most recent audited financial statements to the reporting date
- Evaluated required disclosures included in the notes to the financial statements

AREAS OF AUDIT EMPHASIS

Significant areas of management judgments and estimates	Audit responses
Actuarial accrued liability	
Reasonableness of assumptions used in estimating the liability	<ul style="list-style-type: none">• Assessed qualifications of the System's actuarial expert• Evaluated management's methodology and assumptions for compliance with GAAP• Significant assumptions included, but were not limited to, the investment return, discount rate, mortality rates, and retirement rates• Reviewed actuarial report and support for the calculations• Evaluated data utilized by the System's actuarial expert• Performed testing surrounding the disclosures in the notes to the financial statements and the required supplementary information

FINANCIAL RESULTS

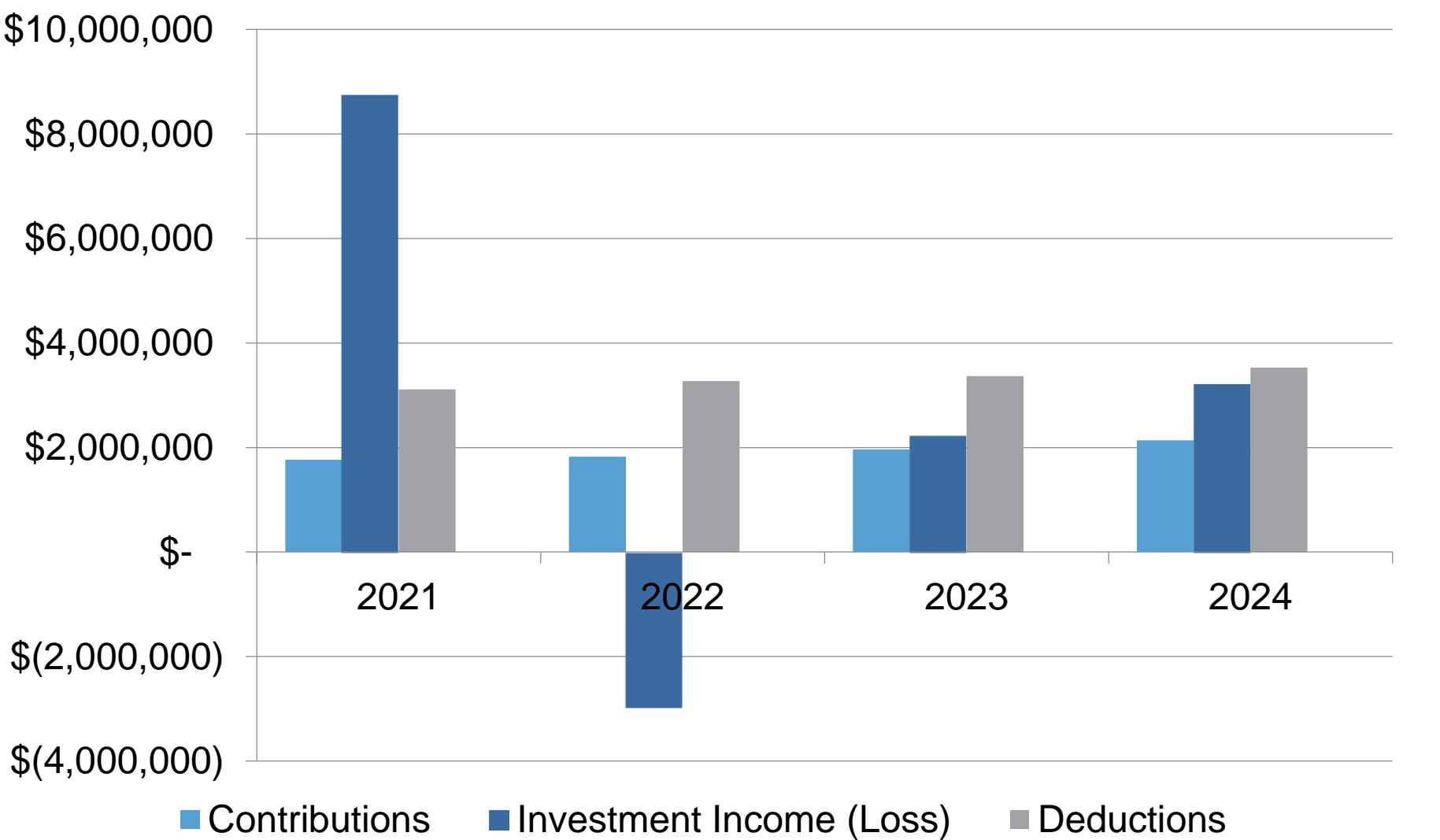
Annual money-weighted rate of return: 10.37%

(PERS only, see ACFR for detail of other plans)

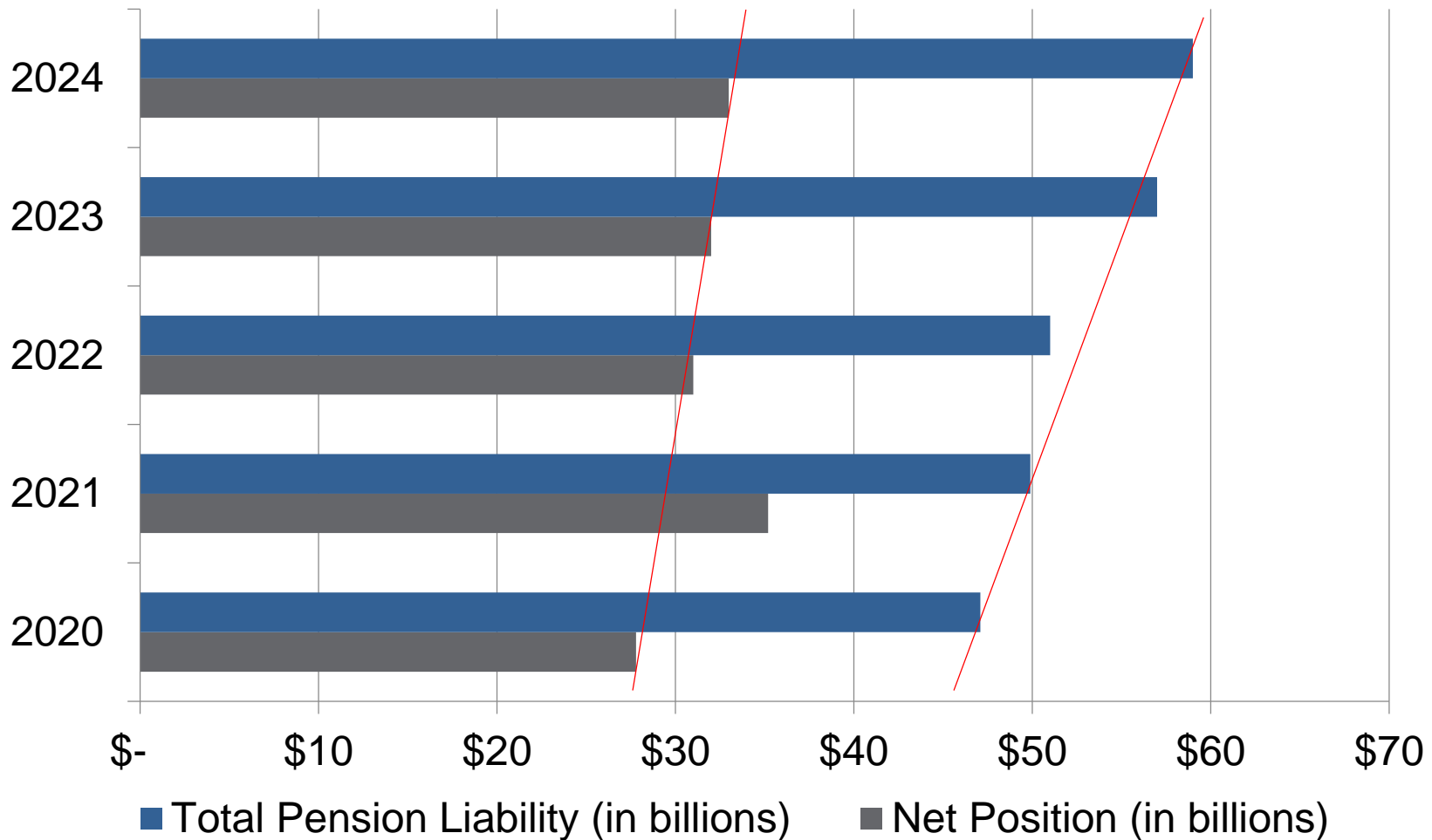
- Net position increased \$1.8 billion to \$33.4 Billion
- Net pension liability increased \$816 million to \$26.0 Billion
- 56.30% fiduciary net position to total pension liability

Will be different from your actuarial funding percentages

POSITION (IN THOUSANDS) – INCLUDES COST SHARING PERS ONLY



AND PENSION LIABILITY (INCLUDES COST SHARING PERS ONLY)



REMAINING OPEN WORK

Update on the following reports

GASB 68 Employer allocation report

Examination report for Municipal Retirement System and Fire and Police
Disability and Relief Fund

LOOKING FORWARD TO 2023 AND BEYOND

Statement / Project	Effective Date / Projected	Focus Areas
GASB Statement No. 101 – <i>Compensated Absences</i>	<ul style="list-style-type: none">Periods beginning after June December 15, 2023	<ul style="list-style-type: none">Aligns the recognition and measurement guidance for compensated absences under a unified model and amends certain previously required disclosures.
GASB Statement No. 102 – <i>Certain Risk Disclosures</i>	<ul style="list-style-type: none">Periods beginning after June 15, 2024	<ul style="list-style-type: none">Improves financial reporting by providing users of financial statements with timely information regarding risks related to a government's vulnerabilities due to certain concentrations or constraints.
GASB Statement No. 103 – <i>Financial Reporting Model Improvements</i>	<ul style="list-style-type: none">Periods beginning after June 15, 2025	<ul style="list-style-type: none">Improves key components of the financial reporting model to enhance its effectiveness in providing information essential for decision making and assessing a government's accountability. Provides clarity regarding what information should be included in Management's Discussion and Analysis (MD&A).

THANK YOU

Brad Berls, Partner
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208.383.4711



CPAs & BUSINESS ADVISORS

501/546



CPAs & BUSINESS ADVISORS

QUESTIONS

These materials are intended to provide the participants with guidance in accounting and financial reporting matters. The materials do not constitute, and should not be treated as professional advice regarding the use of any particular accounting or financial reporting technique. Every effort has been made to assure the accuracy of these materials. Eide Bailly LLP and the author do not assume responsibility for any individual's reliance upon the written or oral information provided during the seminar. Seminar participants should independently verify all statements made before applying them to a particular fact situation, and should independently determine consequences of any particular technique before recommending the technique to a client or implementing it on the client's behalf.

PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF
MISSISSIPPI

PERS BOARD OF TRUSTEES
CLAIMS COMMITTEE

December 18, 2024

MODIFICATIONS TO EXISTING AGREEMENT

MODIFICATIONS TO EXISTING AGREEMENT

Newton County Board of Supervisors

Upon their initial membership, January 1, 1953, the Newton County Board of Supervisors' constables were excluded from the joinder. This membership includes social security and retirement coverage for their employees.

On November 5, 2024, the Newton County Board of Supervisors requested to amend their original joinder agreement to include social security and retirement coverage with effective dates of December 31, 2024, and January 1, 2025, respectively. If the amendment to the joinder is approved, the Newton County Board of Supervisors will add 2 new employees.

We recommend that the amendment to the joinder, to include constables for the Newton County Board of Supervisors, be approved for social security and retirement coverage with effective dates of December 31, 2024, and January 1, 2025, respectively.

Mississippi Government Employees' Deferred Compensation Plan & Trust

Recommendation to Exercise Renewal Option with Empower Retirement

Staff Recommendation:

Staff recommends PERS exercise the option to renew the Recordkeeping Agreement with Empower Retirement for continuation of services for a three (3) year period as provided in the current agreement. (Renewal period – January 1, 2025 – December 31, 2027)

Staff also recommends the following changes included with the proposed renewal:

- **Recordkeeping Fee Reduction** - Empower has agreed to a reduction in the annual record-keeping administration fee from \$47.50 to \$46.25 per participant.
- **Unallocated Plan Account** - PERS will forgo the annual \$50,000 deposit to the plan's unallocated plan account, but PERS will receive credit for the net banking float in the unallocated plan account.



Manager Watch List Review

PERS Fund Watch List

Manager	3-year Criteria	Trend	Comments	Recommendation	Currently on Watch List	Date Added to Watch List
Epoch Global Equity	Exceeded Benchmark	Declining	Rolling 3-year relative performance has lagged the benchmark and peer group shorter term improvements shown	Initiate Search	Yes	8/23/2022
	Exceeded Peer Median	Declining				
UBS Trumbull Property Fund Core Real Estate	Exceeded Benchmark	Declining	Rolling 3-year relative performance has lagged the benchmark and peer group Potential for improvement with new PM	Maintain on Watch List	Yes	3/31/2017
	Exceeded Peer Median	Declining				
JP Morgan Strategic Property Fund Core Real Estate	Exceeded Benchmark	Declining	Rolling 3-year relative performance has lagged the benchmark and peer group	Maintain on Watch List	Yes	3/31/2018
	Exceeded Peer Median	Declining				
Principal International Small Cap	Exceeded Benchmark	Improving	Rolling 3-year relative performance has lagged the benchmark and peer group shorter term improvements shown	Maintain on Watch List	Yes	2/28/2023
	Exceeded Peer Median	Improving				
Wellington Small Cap	Exceeded Benchmark	Stable	Turnover of key personnel	Remove from Watch List	Yes	6/27/2023
	Exceeded Peer Median	Stable				
Baillie Gifford ACWI ex US All Cap	Exceeded Benchmark	Declining	Rolling 3-year relative performance has lagged the benchmark and peer group	Maintain on Watch List	Yes	6/26/2024
	Exceeded Peer Median	Declining				
Harding Loevner Global Equity	Exceeded Benchmark	Declining	Turnover of key personnel and rolling 3-year relative performance has lagged the benchmark and peer group	Maintain on Watch List	Yes	6/26/2024
	Exceeded Peer Median	Declining				
Artisan Partners Mid Cap Growth	Exceeded Benchmark	Declining	Rolling 3-year relative performance has lagged the benchmark and peer group	Add to Watch List	No	
	Exceeded Peer Median	Declining				
Riverbridge Small Cap Growth	Exceeded Benchmark	Declining	Rolling 3-year relative performance has lagged the benchmark and peer group	Add to Watch List	No	
	Exceeded Peer Median	Declining				

PERS Fund Watch List Performance

3-year Returns

3-year period ending:		9/30/2024	6/30/2024	3/31/2024	12/31/2023
Epoch - Global	Return	6.04%	3.96%	5.59%	4.23%
	Benchmark	8.09%	5.43%	6.96%	5.75%
	Percentile Rank	66	65	70	68
UBS - Trumbull Property Fund	Return	Data not yet	-1.17%	0.21%	1.20%
	Benchmark	available	1.14%	2.81%	4.35%
	Percentile Rank		82	81	89
JP Morgan - Strategic Property Fund	Return	Data not yet	-0.98%	-0.46%	2.02%
	Benchmark	available	1.14%	2.81%	4.35%
	Percentile Rank		78	88	82
Principal - International Small Cap	Return	0.45%	-2.14%	0.14%	0.15%
	Benchmark	0.05%	-2.98%	-0.93%	-0.20%
	Percentile Rank	48	49	53	48
Wellington - Small Cap	Return	6.56%	2.30%	4.30%	5.39%
	Benchmark	1.84%	-2.58%	-0.10%	2.22%
	Percentile Rank	27	39	54	68
Baillie Gifford - ACWI ex US All Cap	Return	-4.46%	-8.59%	-6.35%	-7.29%
	Benchmark	3.74%	0.19%	1.72%	1.53%
	Percentile Rank	94	99	95	98
Harding Loevner - Global Equity	Return	1.94%	-0.12%	2.31%	0.58%
	Benchmark	8.09%	5.43%	6.96%	5.75%
	Percentile Rank	91	89	90	87
Artisan Partners - Mid Cap Growth	Return	-4.88%	-4.75%	0.38%	-3.57%
	Benchmark	2.32%	-0.08%	4.62%	1.31%
	Percentile Rank	86	78	72	77
Riverbridge - Small Cap Growth	Return	-7.42%	-8.76%	-3.58%	-4.63%
	Benchmark	-0.35%	-4.86%	-2.68%	-3.50%
	Percentile Rank	95	89	67	72

1-year Returns

1-year period ending:		9/30/2024	6/30/2024	3/31/2024	12/31/2023
Epoch - Global	Return	28.08%	18.32%	20.30%	19.47%
	Benchmark	31.76%	19.38%	23.22%	22.20%
	Percentile Rank	63	49	59	61
UBS - Trumbull Property Fund	Return	Data not yet	-8.23%	-10.25%	-15.10%
	Benchmark	available	-10.32%	-12.33%	-13.33%
	Percentile Rank		46	51	70
JP Morgan - Strategic Property Fund	Return	Data not yet	-14.66%	-16.86%	-14.69%
	Benchmark	available	-10.32%	-12.33%	-13.33%
	Percentile Rank		84	82	70
Principal - International Small Cap	Return	22.34%	9.34%	13.19%	14.66%
	Benchmark	23.36%	7.80%	10.04%	12.62%
	Percentile Rank	69	46	43	53
Wellington - Small Cap	Return	27.34%	9.84%	18.16%	18.93%
	Benchmark	26.76%	10.06%	19.71%	16.93%
	Percentile Rank	35	61	62	29
Baillie Gifford - ACWI ex US All Cap	Return	25.93%	3.17%	4.25%	10.84%
	Benchmark	25.06%	11.57%	13.20%	15.62%
	Percentile Rank	43	97	94	97
Harding Loevner - Global Equity	Return	31.25%	18.15%	24.01%	23.28%
	Benchmark	31.76%	19.38%	23.22%	22.20%
	Percentile Rank	49	51	40	39
Artisan Partners - Mid Cap Growth	Return	17.43%	11.28%	23.09%	25.27%
	Benchmark	29.33%	15.05%	26.28%	25.87%
	Percentile Rank	86	45	45	20
Riverbridge - Small Cap Growth	Return	11.08%	-2.24%	15.08%	21.15%
	Benchmark	27.66%	9.14%	20.35%	18.66%
	Percentile Rank	98	100	76	26

Candidate Profile

1. Manager Type

The Public Employees' Retirement System of Mississippi ("MS PERS") is seeking a Global Growth Equity manager.

2. Only qualified investment counselors or organizations registered under the Investment Advisers Act of 1940 that are currently managing ACWI IMI ("global equity") oriented assets will be considered. This includes investment counselors and investment counseling subsidiaries of banks, brokerage houses and insurance companies. Investment Style

MS PERS is seeking a growth-oriented global equity manager that exhibits characteristics (including regions, sectors, risk, and return) consistent with the MSCI ACWI IMI and the Callan Global Equity Peer Group.

3. Managed Assets

The anticipated size of the allocation is approximately \$1.0 - \$1.4 billion (as of September 30, 2024), allocated to a single manager. The firm should have an established presence in the global equity space. For large firms (> \$25 billion in firm AUM), MS PERS allocation should be no greater than 50% of strategy assets. For smaller firms, the allocation should not exceed 25% of the strategy's total assets.

4. Professional Staff

Investment staff should be of sufficient depth and breadth to perform ongoing duties of the firm. Additionally, there should be a sufficient number of client service and investment personnel relative to the firm's account load to ensure that MSPERS has reasonable access to the firm and that the investment portfolios are well attended. If the client service representatives are the main contacts they should be well versed in the firm's investment approach.

5. Portfolio Manager Structure & Experience

While at least ten years of experience by the investment team is preferred, a minimum of five years is mandatory. If key investment personnel for the active strategy do not satisfy these experience criteria, the firm must be able to convincingly demonstrate a strong continuing commitment to this product and currently have other professionals on staff that were major contributors to the performance record being used for evaluation.

6. Investment Vehicle

MS PERS prefers a separate account for this mandate.

Candidate Profile (continued)

7. Historical Performance & Risk Criteria

Performance over multiple cumulative, annual and rolling periods will be evaluated relative to the appropriate peer group and index. Risk-adjusted measures and holdings-based portfolio characteristics will also be considered. A track record of at least three years is preferred, and performance records from previous firms will be evaluated on a case-by-case basis. Strategies based on simulations or back-testing should be clearly indicated as such.

8. Qualities Specifically Sought

- Firm must be a viable, ongoing business
- Organizational infrastructure to support institutional client base
- Disciplined investment process
- Low turnover of key personnel
- Low dispersion of returns within appropriate composite
- Commitment to client service and an ability to effectively articulate their investment process
- Willingness to visit client in person in Jackson, Mississippi for Investment Committee meetings periodically (no more than annually) and as required by Staff.

9. Characteristics To Be Avoided

- Concentrated client base
- Candidates currently involved in a merger, acquisition, or recent transaction impacting the firm's senior executives
- Excessive recent personnel turnover
- Excessive fees. Fees should be competitive for comparable services in the industry

10. Specific Client Requests & Additional Considerations

This is a replacement search for Epoch Global Choice due to performance and personnel reasons. MSPERS staff has a preference for quantitative management styles, and the client is highly fee sensitive. Cost considerations will play a role in the evaluation and selection process

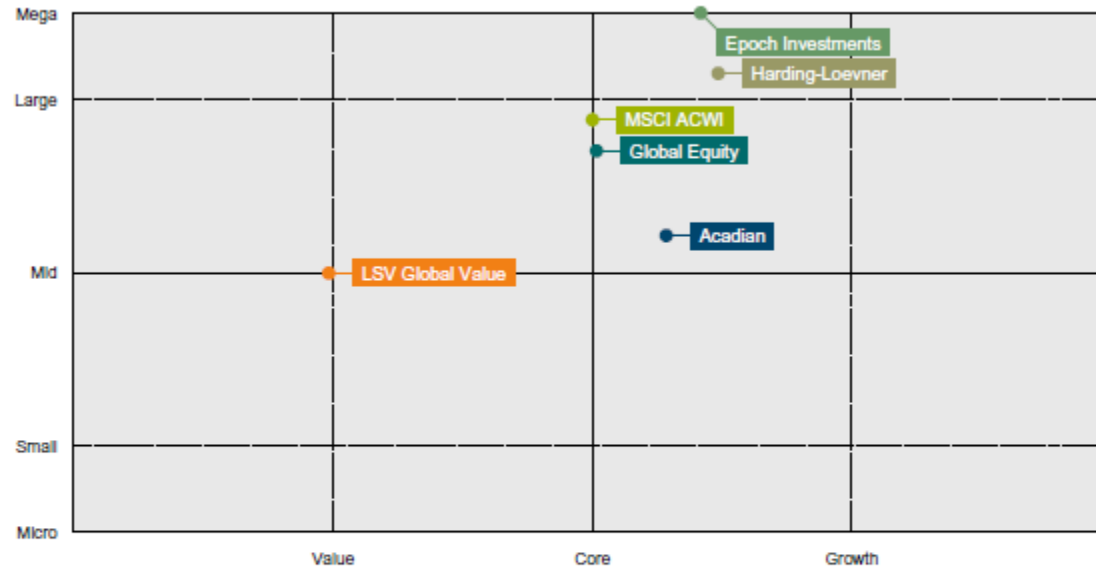
Show MS PERS existing roster of global equity managers other than Epoch as “complement” alongside search candidates for comparison of performance, style, holdings, etc. (style map on following page). Show Epoch as “incumbent” alongside search candidates for comparison of performance, style, holdings, etc. (style map on following page).

MS PERS would like to review 8 to 12 semi-finalist candidates.

MS PERS may have additional candidates they want to include in the search, which the consulting team will supply to Callan's Global manager Research group (GMR) for evaluation.

Candidate Profile (continued)

Style Map
Holdings for One Quarter Ended June 30, 2024



	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
Acadian	25.49%	47.13	0.33	0.24	(0.09)	353	20.76
Epoch Investments	24.98%	301.50	0.46	0.14	(0.32)	32	10.09
Harding-Loevner	25.15%	179.81	0.53	0.07	(0.46)	61	15.87
LSV Global Value	24.26%	22.25	(1.06)	(0.21)	0.85	271	83.61
Global Equity	100.00%	103.73	0.07	0.06	(0.01)	664	43.64
MSCI ACWI	-	124.55	0.05	0.01	(0.05)	2759	104.59

Prepared by: Lisa Green

December 18, 2024

Two cases were considered by the Disability Appeals Committee. We are recommending two cases for denial of duty related disability and one case for denial of non-duty related disability.

PERS Case Number	Applied for	If Duty-Related, eligible to apply for Non-Duty Related?	Medical Board Decision	Disability Appeals Committee Recommendation	Eligible for Service Retirement?	Disability Appeals Committee Members
24-07	Duty Related	No	Denied Duty Related	Denied Duty Related	No	Sweet, Wyatt, and Rubisoff
24-09	Duty Related	Yes	Denied Duty Related and Non-Duty Related	Denied Duty Related and Non-Duty Related	Yes	Herrin, Sweet, and Rubisoff

DAC: Dr. Vince Herrin, Dr. Selika Sweet, Dr. Felice Wyatt and Honorable Chuck Rubisoff

Report to the Board of Trustees
PERS of Mississippi

MONTHLY TOTALS BY RETIREMENT TYPE AND BENEFIT AMOUNT									
ALL SYSTEMS		SERVICE		DISABILITY		SURVIVOR		SUMMARY TOTAL	
MONTH	YEAR	#	\$	#	\$	#	\$	#	\$
JULY	2024	110,928	\$200,366,848.93	7,157	\$9,489,766.91	3,731	\$3,513,795.28	121,816	\$213,370,411.12
AUGUST	2024	111,073	\$200,814,873.23	7,149	\$9,475,745.05	3,727	\$3,514,935.06	121,949	\$213,805,553.34
SEPTEMBER	2024	111,049	\$200,936,966.45	7,138	\$9,470,290.51	3,730	\$3,517,115.87	121,917	\$213,924,372.83
OCTOBER	2024	111,058	\$201,042,668.00	7,131	\$9,460,167.16	3,726	\$3,520,034.14	121,915	\$214,022,869.30
NOVEMBER	2024	111,050	\$201,052,695.09	7,137	\$9,475,019.63	3,678	\$3,499,404.43	121,865	\$214,027,119.15
DECEMBER	2024	110,947	\$200,953,834.87	7,122	\$9,466,446.14	3,687	\$3,499,608.07	121,756	\$213,919,889.08
DECEMBER 15	2024								\$884,796,679.82
JANUARY	2025								
FEBRUARY	2025								
MARCH	2025								
APRIL	2025								
MAY	2025								
JUNE	2025								
YEAR-TO-DATE			\$1,205,167,886.57		\$ 56,837,435.40		\$ 21,064,892.85		\$2,167,866,894.64

Report to the Board of Trustees
PERS of Mississippi

MONTHLY TOTALS BY RETIREMENT PLAN AND BENEFIT AMOUNT											
ALL SYSTEMS		PERS		SLRP		MHSP		MRS		SUMMARY TOTAL	
MONTH	YEAR	#	\$	#	\$	#	\$	#	\$	#	\$
JULY	2024	119,422	\$208,584,512.63	245	\$115,546.65	811	\$2,565,734.74	1,338	\$2,104,617.10	121,816	\$213,370,411.12
AUGUST	2024	119,558	\$208,995,702.18	244	\$115,448.98	815	\$2,592,886.18	1,332	\$2,101,516.00	121,949	\$213,805,553.34
SEPTEMBER	2024	119,536	\$209,129,799.21	244	\$115,159.41	811	\$2,588,975.24	1,326	\$2,090,438.97	121,917	\$213,924,372.83
OCTOBER	2024	119,542	\$209,239,351.50	244	\$115,165.30	810	\$2,589,214.69	1,319	\$2,079,137.81	121,915	\$214,022,869.30
NOVEMBER	2024	119,494	\$209,245,348.67	244	\$115,165.30	807	\$2,581,758.48	1,320	\$2,084,846.70	121,865	\$214,027,119.15
DECEMBER	2024	119,394	\$209,146,869.84	242	\$113,716.40	807	\$2,582,183.05	1,313	\$2,077,119.79	121,756	\$213,919,889.08
DECEMBER 15	2024		\$870,317,391.26		\$430,056.98		\$10,754,880.52		\$3,294,351.06		\$884,796,679.82
JANUARY	2025										
FEBRUARY	2025										
MARCH	2025										
APRIL	2025										
MAY	2025										
JUNE	2025										
YEAR-TO-DATE			\$2,124,658,975.29		\$1,120,259.02		\$26,255,632.90		\$ 15,832,027.43		\$2,167,866,894.64

RECIPIENTS ADDED TO AND REMOVED FROM PAYROLL BY PLAN

ALL SYSTEMS		PERS				MHSP				SLRP				MRS				SUMMARY TOTALS			
MONTH	YEAR	YTD	Added	Removed	Total	YTD	Added	Removed	Total	YTD	Added	Removed	Total	YTD	Added	Removed	Total	YTD	Added	Removed	Total
JULY	2024	118,453	1,381	412	119,422	811	4	4	811	245	-	-	245	1,344	4	10	1,338	120,853	1,389	426	121,816
AUGUST	2024	119,422	459	323	119,558	811	7	3	815	245	-	1	244	1,338	-	6	1,332	121,816	466	333	121,949
SEPTEMBER	2024	119,558	381	403	119,536	815	2	6	811	244	1	1	244	1,332	2	8	1,326	121,949	386	418	121,917
OCTOBER	2024	119,536	334	328	119,542	811	1	2	810	244	-	-	244	1,326	2	9	1,319	121,917	337	339	121,915
NOVEMBER	2024	119,542	289	337	119,494	810	2	5	807	244	-	-	244	1,319	7	6	1,320	121,915	298	348	121,865
DECEMBER	2024	119,494	287	387	119,394	807	1	1	807	244	-	2	242	1,320	2	9	1,313	121,865	290	399	121,756
JANUARY	2025																				
FEBRUARY	2025																				
MARCH	2025																				
APRIL	2025																				
MAY	2025																				
JUNE	2025																				

Report to the Board of Trustees
PERS of Mississippi

DAILY PAYROLL TOTALS BY PAYMENT TYPE					
ALL SYSTEMS		PARTIAL LUMP SUMS	BENEFITS	REFUNDS	TOTAL
MONTH	YEAR	\$	\$	\$	\$
JULY	2024	\$41,880,428.08	\$1,342,850.69	\$10,982,639.93	\$54,205,918.70
AUGUST	2024	\$5,944,244.28	\$817,290.92	\$13,054,868.70	\$19,816,403.90
SEPTEMBER	2024	\$3,349,084.98	\$594,832.24	\$12,048,530.67	\$15,992,447.89
OCTOBER	2024	\$3,245,767.44	\$606,831.33	\$11,435,583.75	\$15,288,182.52
NOVEMBER	2024	\$2,365,683.69	\$528,732.15	\$11,413,192.19	\$14,307,608.03
DECEMBER	2024				
JANUARY	2025				
FEBRUARY	2025				
MARCH	2025				
APRIL	2025				
MAY	2025				
JUNE	2025				
YEAR-TO-DATE		\$56,785,208.47	\$3,890,537.33	\$58,934,815.24	\$119,610,561.04

Report to the Board of Trustees
PERS of Mississippi

COMBINED DAILY AND MONTHLY RETIREE PAYROLL TOTALS				
ALL SYSTEMS		DAILY PAYROLL**	MONTHLY PAYROLL	PAYROLL TOTALS
MONTH	YEAR	\$	\$	\$
JULY	2024	\$43,223,278.77	\$213,370,411.12	\$256,593,689.89
AUGUST	2024	\$6,761,535.20	\$213,805,553.34	\$220,567,088.54
SEPTEMBER	2024	\$3,943,917.22	\$213,924,372.83	\$217,868,290.05
OCTOBER	2024	\$3,852,598.77	\$214,022,869.30	\$217,875,468.07
NOVEMBER	2024	\$2,894,415.84	\$214,027,119.15	\$216,921,534.99
DECEMBER	2024			
DECEMBER 15	2024			
JANUARY	2025			
FEBRUARY	2025			
MARCH	2025			
APRIL	2025			
MAY	2025			
JUNE	2025			
YEAR-TO-DATE		\$60,675,745.80	\$ 1,069,150,325.74	\$1,129,826,071.54

**These amounts do not include refunds; they represent retiree payroll (partial lump sums and benefits) only.

Public Employees' Retirement System of Mississippi

Report of Investments

October 31, 2024

(Unaudited)

Consolidated Portfolio Summary

10/31/2024

Asset Class	Book Value	% of Total Book Value	Market Value	% of Total Market Value
Domestic Equity	4,364,289,737.34	16.91%	8,934,168,947.35	25.82%
Fixed Income	7,300,206,760.01	28.29%	7,134,771,549.47	20.62%
International Equity	8,994,495,574.24	34.85%	10,968,997,342.57	31.70%
Real Estate	1,837,673,179.45	7.12%	2,839,781,376.62	8.21%
Private Equity	2,205,058,527.59	8.54%	3,670,839,309.63	10.61%
Private Credit	88,289,081.30	0.34%	89,662,815.30	0.26%
Cash & Cash Equivalent In-House	383,416,602.11	1.49%	383,416,602.11	1.11%
Cash & Cash Equivalent Manager	632,911,620.93	2.45%	578,522,424.15	1.67%
Total	25,806,341,082.97	100.00%	34,600,160,367.20	100.00%

Manager Portfolio Summary

10/31/2024

Manager	Account #	Book Value	% of Asset Class (BV)	% of Portfolio (BV)	Market Value	% of Asset Class (MV)	% of Portfolio (MV)
Domestic Equity							
<i>Active</i>							
ARTISAN PARTNERS	MS6F10015002	387,865,557.03	2.85%	1.50%	517,394,875.50	2.57%	1.50%
DIMENSIONAL FUND ADVISORS	MS6F10014002	291,428,067.37	2.14%	1.13%	352,715,546.75	1.75%	1.02%
EAGLE CAPITAL	MS6F10017002	584,811,003.31	4.30%	2.27%	881,900,927.90	4.38%	2.55%
RIVERBRIDGE PARTNERS	MS6F10019002	235,083,901.12	1.73%	0.91%	324,231,005.79	1.61%	0.94%
VICTORY MID CAP VALUE	MS6F10021002	525,919,830.53	3.87%	2.04%	590,832,454.04	2.93%	1.71%
WELLINGTON SMALL CAP	MS6F10013102	<u>297,389,417.30</u>	<u>2.19%</u>	<u>1.15%</u>	<u>364,138,795.05</u>	<u>1.81%</u>	<u>1.05%</u>
Total Active		2,322,497,776.66	17.07%	9.00%	3,031,213,605.03	15.04%	8.76%
<i>Passive</i>							
NOR TR RSSLL 10000 V	MS6F10016102	33,228.78	0.00%	0.00%	33,228.78	0.00%	0.00%
NORTHERN TRUST- SP 500	MS6F10010002	<u>2,119,985,824.72</u>	<u>15.58%</u>	<u>8.21%</u>	<u>5,981,149,206.36</u>	<u>29.68%</u>	<u>17.29%</u>
Total Passive		2,120,019,053.50	15.58%	8.22%	5,981,182,435.14	29.68%	17.29%
Total Domestic Equity		4,442,516,830.16	32.65%	17.21%	9,012,396,040.17	44.73%	26.05%
Global Equity							
ACADIAN ASSET	MS6F30010002	894,520,422.41	6.57%	3.47%	1,064,741,783.93	5.28%	3.08%
EPOCH GLOBAL	MS6F30020002	885,463,638.07	6.51%	3.43%	1,059,462,649.98	5.26%	3.06%
HARDING LOEVNER	MS6F30030002	790,354,459.25	5.81%	3.06%	1,059,190,623.12	5.26%	3.06%
LSV GLOBAL VALUE	MS6F30080002	866,889,939.85	6.37%	3.36%	1,042,410,185.41	5.17%	3.01%
Total Global Equity Managers		<u>3,437,228,459.58</u>	<u>25.26%</u>	<u>13.32%</u>	<u>4,225,805,242.44</u>	<u>20.97%</u>	<u>12.21%</u>
Total Global Equity Managers		3,437,228,459.58	25.26%	13.32%	4,225,805,242.44	20.97%	12.21%
International Equity							
<i>Active</i>							
ARROWSTREET CAPITAL	MS6F20020002	660,761,414.79	4.86%	2.56%	695,551,167.27	3.45%	2.01%
BAILLIE GIFFORD	MS6F20021002	592,874,860.79	4.36%	2.30%	764,875,246.44	3.80%	2.21%
MARATHON ASSET MGMT	MS6F20023002	756,765,874.36	5.56%	2.93%	867,291,065.21	4.30%	2.51%
NT INTL SMALL CAP	MS6F20025002	327,227,094.69	2.41%	1.27%	332,170,203.64	1.65%	0.96%
PRINCIPAL SC INTL	MS6F20019102	<u>306,635,239.63</u>	<u>2.25%</u>	<u>1.19%</u>	<u>352,672,151.22</u>	<u>1.75%</u>	<u>1.02%</u>
Total Active		2,644,264,484.26	19.44%	10.25%	3,012,559,833.78	14.95%	8.71%
<i>Passive</i>							
NT MSCI WORLD EX US INDEX	MS6F20024002	<u>1,777,062,138.52</u>	<u>13.06%</u>	<u>6.89%</u>	<u>2,386,264,283.82</u>	<u>11.84%</u>	<u>6.90%</u>
Total Passive		1,777,062,138.52	13.06%	6.89%	2,386,264,283.82	11.84%	6.90%
<i>Regional/Emerging</i>							
FISHER INVESTMENTS	MS6F20022002	562,668,462.09	4.14%	2.18%	743,619,891.48	3.69%	2.15%
LAZARD FRERES ASSET EM	MS6F20011002	<u>741,212,674.99</u>	<u>5.45%</u>	<u>2.87%</u>	<u>768,353,576.89</u>	<u>3.81%</u>	<u>2.22%</u>
Total Regional/Emerging		1,303,881,137.08	9.58%	5.05%	1,511,973,468.37	7.50%	4.37%
Total International Equity		5,725,207,759.86	42.08%	22.19%	6,910,797,585.97	34.30%	19.97%
Total Equity		13,604,953,049.60	100.00%	52.72%	20,148,998,868.58	100.00%	58.23%
Fixed Income							
<i>Domestic Active</i>							
LOOMIS SAYLES	MS6F40016002	1,220,939,293.48	16.44%	4.73%	1,155,830,185.45	16.03%	3.34%
MANULIFE ASSET MGMT	MS6F40018002	715,745,834.75	9.64%	2.77%	678,550,365.58	9.41%	1.96%
PACIFIC INVESTMENTS MGT	MS6F40013002	721,089,849.37	9.71%	2.79%	683,115,334.78	9.47%	1.97%
PRUDENTIAL	MS6F40017002	1,265,674,116.57	17.04%	4.90%	1,192,881,367.29	16.54%	3.45%
SIT SHORT DURATION FIXED	MS6F40019002	<u>1,190,003,444.30</u>	<u>16.02%</u>	<u>4.61%</u>	<u>1,198,651,544.98</u>	<u>16.62%</u>	<u>3.46%</u>
Total Domestic Active		5,113,452,538.47	68.84%	19.81%	4,909,028,798.08	68.07%	14.19%
<i>Global Active</i>							
ALLIANCE BERNSTEIN GLOBAL	MS6F45010002	791,673,429.50	10.66%	3.07%	783,409,766.32	10.86%	2.26%
PIMCO GLOBAL	MS6F45011002	<u>780,303,091.65</u>	<u>10.50%</u>	<u>3.02%</u>	<u>777,986,808.20</u>	<u>10.79%</u>	<u>2.25%</u>
Total Global Active		1,571,976,521.15	21.16%	6.09%	1,561,396,574.52	21.65%	4.51%
<i>International Active</i>							
WELLINGTON EM DEBT	MS6F50010002	742,525,310.08	10.00%	2.88%	741,219,725.95	10.28%	2.14%
Total International Active		<u>742,525,310.08</u>	<u>10.00%</u>	<u>2.88%</u>	<u>741,219,725.95</u>	<u>10.28%</u>	<u>2.14%</u>
Total Active		7,427,954,369.70	100.00%	28.78%	7,211,645,098.55	100.00%	20.84%
Total Fixed Income		7,427,954,369.70	100.00%	28.78%	7,211,645,098.55	100.00%	20.84%
Real Estate Managers							
<i>Core Commingled</i>							
INVESCO US INCOME FD	MS6F60030002	198,937,801.18	10.36%	0.77%	164,606,820.64	5.63%	0.48%
JPM STRAT PROP FD	MS6F60021002	209,048,667.52	10.88%	0.81%	384,826,764.95	13.17%	1.11%
PRINCIPAL COMMINGLED FUND	MS6F60010002	357,202,816.83	18.60%	1.38%	826,308,041.63	28.27%	2.39%
UBS TRUMBULL PROP FUND	MS6F60011002	180,534,190.69	9.40%	0.70%	359,769,458.91	12.31%	1.04%
UBS TRUMBULL PROP G&I FUND	MS6F60020002	<u>100,782,943.84</u>	<u>5.25%</u>	<u>0.39%</u>	<u>222,551,256.83</u>	<u>7.61%</u>	<u>0.64%</u>
Total Core Commingled		1,046,506,420.06	54.48%	4.06%	1,958,062,342.96	66.99%	5.66%
<i>Manulife Timber</i>							
MANULIFE TIMBER FUND	MS6F60014002	<u>24,365,860.24</u>	<u>1.27%</u>	<u>0.09%</u>	<u>38,483,043.24</u>	<u>1.32%</u>	<u>0.11%</u>
Manulife Timber		24,365,860.24	1.27%	0.09%	38,483,043.24	1.32%	0.11%

Manager Portfolio Summary

10/31/2024

Manager	Account #	Book Value	% of Asset Class (BV)	% of Portfolio (BV)	Market Value	% of Asset Class (MV)	% of Portfolio (MV)
REITS							
CENTERSQUARE INV	MS6F60027002	204,293,207.83	10.64%	0.79%	239,576,665.20	8.20%	0.69%
COHEN & STEERS GLOBAL REIT	MS6F60018002	<u>100,185,694.12</u>	<u>5.22%</u>	<u>0.39%</u>	<u>114,478,461.24</u>	<u>3.92%</u>	<u>0.33%</u>
Total REITS		304,478,901.95	15.85%	1.18%	354,055,126.44	12.11%	1.02%
VALUE ADDED							
AEW PARTNERS IX LP	MS6F60028002	54,788,480.12	2.85%	0.21%	62,938,811.12	2.15%	0.18%
AEW PARTNERS VI LP	MS6F60017102	295,385.40	0.02%	0.00%	759,168.40	0.03%	0.00%
AEW PARTNERS VII LP	MS6F60017202	6,519,103.47	0.34%	0.03%	3,875,467.71	0.13%	0.01%
AEW PARTNERS VIII LP	MS6F60017302	4,319,735.08	0.22%	0.02%	11,680,765.08	0.40%	0.03%
AEW PARTNERS X LP	MS6F60032002	0.00	0.00%	0.00%	0.00	0.00%	0.00%
AG CORE PLUS FD II	MS6F60015002	823.69	0.00%	0.00%	823.69	0.00%	0.00%
AG CORE PLUS FD III	MS6F60022002	1,191,848.11	0.06%	0.00%	136,031.34	0.00%	0.00%
AG CORE PLUS FD IV	MS6F60025002	21,724,421.11	1.13%	0.08%	16,699,771.54	0.57%	0.05%
AG REALTY VALUE FUND X	MS6F60025102	45,309,956.63	2.36%	0.18%	49,833,595.86	1.70%	0.14%
AG REALTY VALUE FUND XI	MS6F60031002	17,653,225.00	0.92%	0.07%	22,766,535.93	0.78%	0.07%
HEITMAN V	MS6F60029002	60,607,174.84	3.16%	0.23%	62,194,770.84	2.13%	0.18%
HEITMAN VALUE PARTNERS III	MS6F60016102	406,597.81	0.02%	0.00%	406,597.81	0.01%	0.00%
HEITMAN VALUE PARTNERS IV LP	MS6F60016202	22,607,987.62	1.18%	0.09%	30,520,612.78	1.04%	0.09%
HEITMAN VI	MS6F60034002	0.00	0.00%	0.00%	0.00	0.00%	0.00%
INVESCO VA FUND IV	MS6F60024002	1,719,895.68	0.09%	0.01%	1,865,600.85	0.06%	0.01%
INVESCO VA FUND V	MS6F60024102	65,954,677.16	3.43%	0.26%	56,999,522.16	1.95%	0.16%
INVESCO VA FUND VI	MS6F60024202	41,125,586.51	2.14%	0.16%	39,567,148.51	1.35%	0.11%
TA REALTY X	MS6F60023002	811,245.90	0.04%	0.00%	811,245.90	0.03%	0.00%
TA REALTY XI	MS6F60023102	1,124,144.98	0.06%	0.00%	486,673.98	0.02%	0.00%
TA REALTY XII	MS6F60023202	69,204,074.45	3.60%	0.27%	84,259,269.45	2.88%	0.24%
TA REALTY XIII	MS6F60023302	52,166,972.38	2.72%	0.20%	48,968,943.38	1.68%	0.14%
WESTBROOK RE FUND XI	MS6F60026102	58,409,196.96	3.04%	0.23%	64,234,372.96	2.20%	0.19%
WESTBROOK RE FUND XII	MS6F60033002	0.00	0.00%	0.00%	0.00	0.00%	0.00%
WESTBROOK REAL ESTATE FUND X	MS6F60026002	19,439,784.49	1.01%	0.08%	13,218,809.60	0.45%	0.04%
Total Value Added		545,380,317.39	28.39%	2.11%	572,224,538.89	19.58%	1.65%
Total Real Estate Managers		1,920,731,499.64	100.00%	7.44%	2,922,825,051.53	100.00%	8.45%
Private Equity Managers							
CFG DIV PRTNR 14-1	MS6F70014002	195,805,344.91	8.32%	0.76%	622,139,678.31	16.29%	1.80%
GCM GROSVENOR 2018 1 SERIES	MS6F70014102	386,300,888.98	16.42%	1.50%	537,897,207.47	14.08%	1.55%
GCM GROSVENOR 2019 1 SERIES	MS6F70011002	264,005,734.55	11.22%	1.02%	126,716,137.39	3.32%	0.37%
GCM GRSVNR PE 2024	MS6F70014202	9,790,518.00	0.42%	0.04%	10,849,511.00	0.28%	0.03%
PATHWAY PEF 2016	MS6F70013102	699,091,896.15	29.71%	2.71%	1,283,199,846.09	33.60%	3.71%
PATHWAY PEF SRS 2012	MS6F70013002	290,145,956.96	12.33%	1.12%	643,933,468.65	16.86%	1.86%
PATHWAY PEF SRS 2021	MS6F70013202	327,474,836.47	13.92%	1.27%	383,561,865.47	10.04%	1.11%
PATHWAY - PEF XXIII	MS6F70010002	<u>180,614,818.87</u>	<u>7.68%</u>	<u>0.70%</u>	<u>210,713,062.55</u>	<u>5.52%</u>	<u>0.61%</u>
Total Private Equity Managers		2,353,229,994.89	100.00%	9.12%	3,819,010,776.93	100.00%	11.04%
Private Credit Managers							
BLUE OWL LENDNG 2023	MS6F75000102	29,497,697.00	33.41%	0.11%	30,868,085.00	34.43%	0.09%
GCM PC SERIES 2023	MS6F75000002	<u>58,791,384.30</u>	<u>66.59%</u>	<u>0.23%</u>	<u>58,794,730.30</u>	<u>65.57%</u>	<u>0.17%</u>
Total Private Credit Managers		88,289,081.30	100.00%	0.34%	89,662,815.30	100.00%	0.26%
Terminated Managers							
BLACKROCK GLOBAL INV	MS6F20013002	1,440,388.01	6.23%	0.01%	1,387,979.52	6.15%	0.00%
DIMENSIONAL FUND ADV EAFE	MS6F20010002	211,651.26	0.92%	0.00%	166,007.90	0.74%	0.00%
INTL TRANSITION	MS6F20090002	3,744,671.86	16.20%	0.01%	3,506,012.40	15.54%	0.01%
JARISLOWSKY, FRASER LMT	MS6F20015002	411,892.60	1.78%	0.00%	325,377.23	1.44%	0.00%
LONGVIEW PARTNERS	MS6F30040002	1,037,847.01	4.49%	0.00%	993,613.65	4.40%	0.00%
MONDRIAN SMALL CAP	MS6F20018002	2,157,684.33	9.33%	0.01%	2,148,627.21	9.52%	0.01%
NEW STAR INSTITUTIONAL	MS6F20014002	130,711.96	0.57%	0.00%	103,083.45	0.46%	0.00%
NOR TR RSSLL MID CAP	MS6F10010102	14,020.03	0.00%	0.00%	14,020.03	0.00%	0.00%
NORTHERN TRUST BB AGGREGATE	MS6F40014102	-142.71	0.00%	0.00%	-142.71	0.00%	0.00%
NORTHERN TRUST EAFE	MS6F20013102	12,332,912.35	0.36%	0.05%	12,367,886.70	0.29%	0.04%
NORTHERN TRUST GLOBAL EQUITY INDEX	MS6F30060002	1,443,417.25	0.04%	0.01%	1,358,001.97	0.03%	0.00%
PYRAMIS SMALL CAP	MS6F20019002	147,488.31	0.00%	0.00%	142,525.27	0.00%	0.00%
RREEF REIT	MS6F60012002	0.00	0.00%	0.00%	0.00	0.00%	0.00%
WELLINGTON MIDCAP	MS6F10013002	<u>45,226.21</u>	<u>0.00%</u>	<u>0.00%</u>	<u>45,226.21</u>	<u>0.00%</u>	<u>0.00%</u>
Total Terminated Managers		23,117,768.47	39.92%	0.09%	22,558,218.83	38.59%	0.07%
Transition Managers							
MSPRS NORTHERN TRST TRANSITION	MS6F30050002	<u>4,648,717.26</u>	<u>0.14%</u>	<u>0.02%</u>	<u>2,042,935.37</u>	<u>0.05%</u>	<u>0.01%</u>
Total Transition		4,648,717.26	0.14%	0.02%	2,042,935.37	0.05%	0.01%
Short Term In-House							
PERS ADMINISTRATIVE SHORT TERM	MS6F80010002	383,416,602.11	100.00%	1.49%	383,416,602.11	100.00%	1.11%
Total Short Term In-House		383,416,602.11	100.00%	1.49%	383,416,602.11	100.00%	1.11%
Grand Total		25,806,341,082.97		100.00%	34,600,160,367.20		100.00%

69 Portfolios

36 Managers

Securities Lending Management Summary

As of October 2024

2024/2025 EARNINGS

	Gov.	Equity	Corp.	Int'l Fixed	Int'l Equities	Total
July	\$106,970	\$534,507	\$183,854	\$65,205	\$118,491	\$1,009,027
Aug	\$45,786	\$418,854	\$138,353	\$72,387	\$111,691	\$787,071
Sept	\$17,199	\$345,105	\$6,340	\$17,067	\$118,056	\$503,767
Oct ^	\$60,694	\$100,271	\$44,693	\$757	\$0	\$206,415
Nov						\$0
Dec						\$0
Jan						\$0
Feb						\$0
Mar						\$0
Apr						\$0
May						\$0
June						\$0

YTD \$230,649 \$1,398,737 \$373,240 \$155,416 \$348,238 \$2,506,280

^ as of October Mitsubishi UFJ Trust and Banking Corporation became the Securities Lender

October 2024

I. Earnings	This Month	Year-to-Date
Governments	\$60,694	\$230,649
Equity	\$100,271	\$1,398,737
Corporate/Equities	\$44,693	\$373,240
Int'l Fixed	\$757	\$155,416
Int'l Equities	\$0	\$348,238
Total	\$206,415	\$2,506,280

II. Monthly Performance Measures	Avg. Loan Volume (000's)	Avg. Wgt. Spread (BP)
Governments	\$264,706	29
Equity	\$489,476	27
Corporate/Equities	\$78,969	73
Int'l Fixed	\$2,474	38
Int'l Equities	\$0	0
Total	\$835,625	32

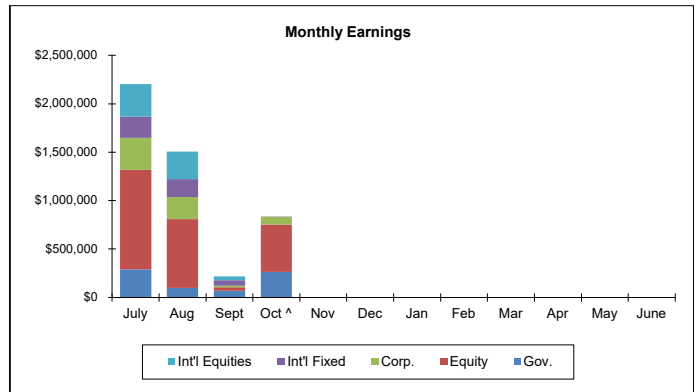
Outstandings (000's)

	Gov.	Equity	Corp.	Int'l Fixed	Int'l Equities	Total
July	\$289,121	\$1,030,113	\$331,065	\$217,466	\$335,947	\$2,203,712
Aug	\$98,433	\$709,774	\$228,047	\$186,122	\$282,883	\$1,505,259
Sept	\$69,669	\$36,131	\$16,896	\$55,895	\$39,995	\$218,586
Oct ^	\$264,706	\$489,476	\$78,969	\$2,474	\$0	\$835,625
Nov						\$0
Dec						\$0
Jan						\$0
Feb						\$0
Mar						\$0
Apr						\$0
May						\$0
June						\$0

AVG \$180,482 \$566,374 \$163,744 \$115,489 \$164,706 \$396,932

^ as of October Mitsubishi UFJ Trust and Banking Corporation became the Securities Lender

III. Trend Analysis

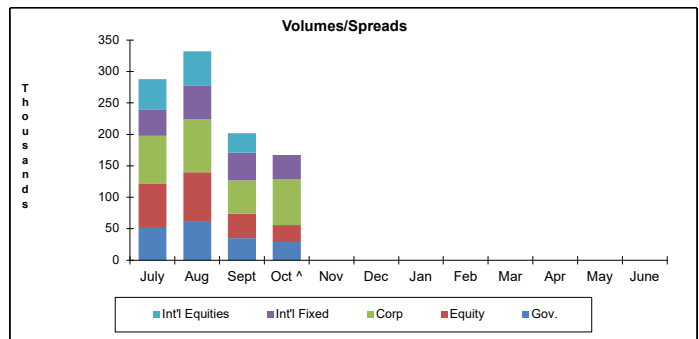


SPREADS

	Gov.	Equity	Corp	Int'l Fixed	Int'l Equities	Spread
July	51	71	76	41	49	58
Aug	61	79	84	53	55	71
Sept	35	39	53	44	31	38
Oct ^	29	27	73	38	0	32
Nov						
Dec						
Jan						
Feb						
Mar						
Apr						
May						
June						

WHT AVG 44 54 72 44 34 50

^ as of October Mitsubishi UFJ Trust and Banking Corporation became the Securities Lender

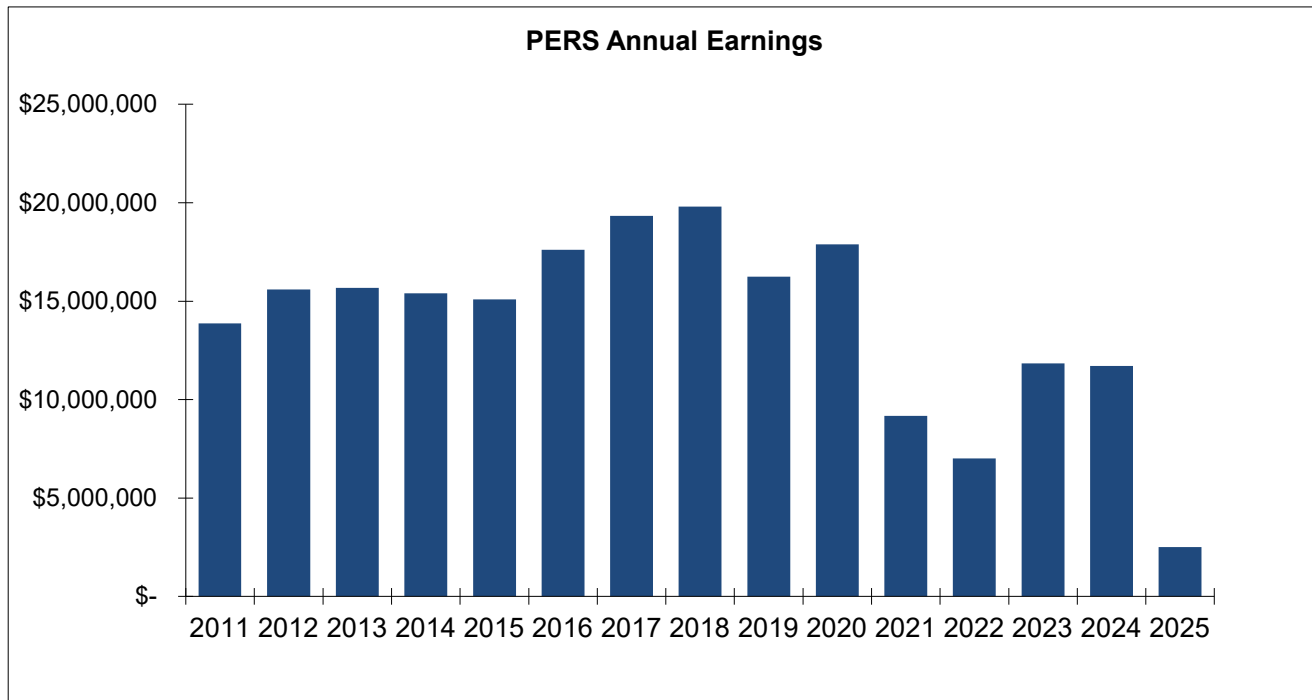


Securities Lending Management Summary

As of October

Fiscal Year	PERS Earnings	Lending Agent Earnings	Total Program Earnings
2011	\$ 13,878,226	\$ 2,449,099	\$ 16,327,325
2012	\$ 15,596,477	\$ 2,752,319	\$ 18,348,796
2013	\$ 15,682,377	\$ 2,767,478	\$ 18,449,855
2014	\$ 15,401,726	\$ 2,717,952	\$ 18,119,678
2015	\$ 15,094,878	\$ 2,663,802	\$ 17,758,681
2016	\$ 17,605,026	\$ 3,106,769	\$ 20,711,795
2017	\$ 19,329,769	\$ 3,411,136	\$ 22,740,905
2018	\$ 19,813,714	\$ 3,496,538	\$ 23,310,252
2019	\$ 16,240,589	\$ 2,865,986	\$ 19,106,575
2020	\$ 17,887,629	\$ 3,156,640	\$ 21,044,269
2021	\$ 9,167,025	\$ 1,617,710	\$ 10,784,735
2022	\$ 7,017,725	\$ 1,238,422	\$ 8,256,147
2023	\$ 11,837,810	\$ 2,089,025	\$ 13,926,835
2024	\$ 11,718,471	\$ 2,067,966	\$ 13,786,437
2025	* \$ 2,506,279	\$ 434,006	\$ 2,940,285

* As of October



**FY 2025
FUND TRANSFERS**

<u>DATE</u>	<u>MANAGER</u>	<u>AMOUNT</u>	<u>DATE</u>	<u>MANAGER</u>	<u>AMOUNT</u>
7/15/2024	Principal Capital MGT RE	(\$1,808,410.00)			
7/15/2024	Invesco VA Fund VI	\$1,808,410.00			
7/23/2024	GCM Grosvenor 2014-1	(\$545,454.55)			
7/23/2024	Heitman Value Partners V	\$545,454.55			
8/7/2024	MSPERS Short-term	(\$20,379,620.38)			
8/7/2024	Blue Owl Lending Fund 2023	\$20,379,620.38			
8/8/2024	GCM Grosvenor 2014-1	(\$127,285.71)			
8/8/2024	GCM Grosvenor 2024-1	\$127,285.71			
8/8/2024	GCM Grosvenor 2014-1	(\$511,589.67)			
8/8/2024	GCM Grosvenor 2018-1	\$511,589.67			
8/8/2024	GCM Grosvenor 2014-1	(\$15,334,600.00)			
8/8/2024	GCM Grosvenor 2018-1	\$15,334,600.00			
8/16/2024	GCM Grosvenor 2009-1	(\$21,000,000.00)			
8/16/2024	Pathway PEF 2008	(\$29,000,000.00)			
8/16/2024	Pathway PEF 2016	(\$90,000,000.00)			
8/16/2024	Principal Capital MGT RE	(\$30,000,000.00)			
8/16/2024	UBS Trumbull Growth & Income Fund	(\$3,000,000.00)			
8/16/2024	UBS Trumbull Property Fund	(\$12,000,000.00)			
8/16/2024	JPM Strategic Property Fund	(\$19,000,000.00)			
8/16/2024	Invesco U.S. Income Fund	(\$3,000,000.00)			
8/16/2024	AG Realty Core Plus Fund III	(\$1,000,000.00)			
8/16/2024	Heitman Value Partners IV	(\$4,000,000.00)			
8/16/2024	Reality Assoc. Fund XI	(\$9,000,000.00)			
8/16/2024	Reality Assoc. Fund XIII	(\$5,000,000.00)			
8/16/2024	AEW Partners VIII	(\$4,000,000.00)			
8/16/2024	AEW Partners IX	(\$4,000,000.00)			
8/16/2024	Hancock Timber Fund	(\$1,400,000.00)			
8/16/2024	MSPERS Short-term	\$235,400,000.00			
8/30/2024	Pathway PEF 2013	(\$12,145,250.07)			
8/30/2024	Pathway PEF 2021	\$12,145,250.07			
9/6/2024	Pathway PEF 2013	(\$2,625,000.00)			
9/6/2024	Pathway PEF 2013	\$2,625,000.00			
9/11/2024	MSPERS Short-term	(\$5,552,200.00)			
9/11/2024	GCM Grosvenor PC 2023	\$5,552,200.00			
9/12/2024	GCM Grosvenor 2014-1	(\$1,800,000.00)			
9/12/2024	Heitman Value Partners V	\$1,800,000.00			
9/20/2024	GCM Grosvenor 2014-1	(\$7,388,515.00)			
9/20/2024	Westbrook RE Fund XI	\$7,388,515.00			
9/20/2024	From Special State Funding to MSPERS Short-term	\$110,000,000.00			
10/4/2024	GCM Grosvenor 2014-1	(\$10,493,056.85)			
10/4/2024	GCM Grosvenor 2018-1	\$10,493,056.85			
10/4/2024	Pathway PEF 2013	(\$11,338,146.49)			
10/4/2024	Pathway PEF 2021	\$11,338,146.49			
10/22/2024	MSPERS Short-term	(\$6,993,006.99)			
10/22/2024	Blue Owl Lending Fund 2023	\$6,993,006.99			
10/28/2024	Reality Assoc. Fund XII	(\$1,934,578.00)			
10/28/2024	Invesco VA Fund VI	\$1,934,578.00			
10/28/2024	Reality Assoc. Fund XII	(\$7,500,000.00)			
10/28/2024	Reality Assoc. Fund XIII	\$7,500,000.00			
11/7/2024	GCM Grosvenor 2014-1	(\$81,000.00)			
11/7/2024	GCM Grosvenor 2024-1	\$81,000.00			
11/7/2024	GCM Grosvenor 2014-1	(\$498,750.00)			
11/7/2024	GCM Grosvenor 2018-1	\$498,750.00			
11/20/2024	GCM Grosvenor 2014-1	(\$1,745,454.55)			
11/20/2024	Heitman Value Partners V	\$1,745,454.55			
11/25/2024	Pathway PEF 2013	(\$3,603,691.00)			
11/25/2024	AG Realty Value Fund XI	\$3,603,691.00			
11/25/2024	SIT Short Duration	(\$245,000,000.00)			
11/25/2024	MSPERS Short-term	\$245,000,000.00			
11/27/2024	MSPERS Short-term	(\$5,066,699.71)			
11/27/2024	GCM Grosvenor PC 2023	\$5,066,699.71			
12/2/2024	SIT Short Duration	(\$100,000,000.00)			
12/2/2024	MSPERS Short-term	\$100,000,000.00			
12/4/2024	SIT Short Duration	(\$125,000,000.00)			
12/4/2024	MSPERS Short-term	\$125,000,000.00			