

#### **Board of Trustees Meeting Agenda**

Special Called Meeting, February 5, 2025 1 P.M.

- I. Call to Order
- II. **Approval of Agenda**
- **Discussion of Tier 5** III.
- 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

Public Employees' Retirement System of Mississippi

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#### **Board of Trustees Meeting Agenda**

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

- Call to Order (Mr. Kelly Breland, Chair)
  - Invocation
  - Pledge of Allegiance B.
  - C.
  - Approval of Agenda Approval of Minutes October 23, 2024
  - Approval of Minutes-November 19, 2024 Employee of the Quarter- (January-March 2024)
- Report of Administrative Committee (Mr. Bill Benson)

  - Retiree Representative Board Election Schedule Actuarial Reports for MHSPRS, SLRP, and MRS B.
  - **PERS Funding Policy Revisions**
- III. Report of Audit Committee (Mr. Chris Graham)
  - Annual Comprehensive Financial Report (ACFR)
    External Audit Results
  - B.
- IV. Report of Claims Committee (Dr. Jay Smith)

  A. Modification of a Joinder Agreement Newton County Board of Supervisors
  - R
- Report of Defined Contribution Committee (Dr. Brian Rutledge)
  - Mississippi Deferred Compensation- Empower Contract Renewal
  - Other
- VI Report of Legislative Committee (Mr. George Dale)

  A. PERS Legislation and Legislative Session

  - Other
- VII. Report of Investment Committee (Dr. Randy McCoy)

  A. Watchlist

  - B. Global Equity Search Criteria
  - Other
- VIII. Disability Appeals Committee
- IX. Staff Reports
  - Retiree Report
  - Investment Report
- 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 McCov

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 Wednesday, December 18, 2024, at 429 Mississippi Street, Jackson, MS 39201. This meeting was duly announced to the public Monday, December 9, 2024, at 12:12 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 and on the PERS website.

#### **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.

Current Board Vacancies: None.

#### **LEGISLATIVE LIAISON ATTENDEES**

In Person: Senator David Blount, Representative Karl Oliver, and Senator Daniel Sparks.

#### 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; Benefit Payments Program Administrator Susan Lyon; Employer Reporting Program Administrator Alisa Evans; Member Account Support Program Administrator Chris Hudson; Retirement Services Program Administrator Terri Bennett; Mariam Clayton, Member and Employer Services; Comptroller Tracy Day; Christy Smith and Cindy Byars, Accounting; Tiffany Jennings, Benefit Payments; Maurice Gilliam and Billy Means, 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; Ed Koebel and Darby Carraway, CavMac; Allan Cooper, Mississippi Department of Finance and Administration; Emily Pote, Mary Kathryn Clayton, Mike Larsen, and Bonnie Granger, Mississippi Retired Public Employees' Association; Brad Berls, Eide Bailly; Kelly Riley, Mississippi Public Educators; Caleb Nicholson, HRK; Toren Ballard, Mississippi First; Emily Tschiffely, Legislative Budget Office, and Senator Jeff Tate.

#### **CALL TO ORDER**

Board Chair Breland called the meeting to order at 1:04 p.m.

#### **INVOCATION**

Breland gave the invocation.

#### PLEDGE OF ALLEGIANCE

Breland led the Pledge of Allegiance.

#### **AGENDA**

- Motion: To approve the meeting agenda.
  - o Made by: McCoy.
  - 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.

#### **MINUTES**

- Motion: To approve the minutes of the October 23, 2024, PERS Board of Trustees' meeting.
  - o **Made by:** Rutledge.
  - Seconded by: Graham.
  - Discussion: None.
  - o **Voting for:** Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - Voting against: None.
  - Absent: None.

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- Duly Passed.
- Motion: To approve the minutes of the November 19, 2024, PERS Board of Trustees' special called meeting.
  - o Made by: Graham.
  - Seconded by: McRae.
  - o Discussion: None.
  - Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - Voting against: None.
  - Absent: None.
  - Duly Passed.

#### **EMPLOYEE OF THE QUARTER**

Breland presented the Employee of the Quarter for January through March 2025 to Jennings.

#### REPORT OF THE ADMINISTRATIVE COMMITTEE

Committee Chair Benson reported that the Administrative Committee met the morning of December 18, 2024, and approved the following items for Board consideration.

#### Retiree Representative Election Schedule

Benson presented the Board with the election schedule for the retiree representative term that runs from July 2025 to June 2031.

- Motion: To approve the election schedule for the retiree representative term that runs from July 2025 to June 2031.
  - Made by: Benson.
  - o Seconded by: Hanna.
  - o Discussion: None.
  - o Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - Voting against: None.
  - Absent: None.
  - Duly Passed.

(Addendum A – Retiree Representative Election Schedule)

#### **FY 2024 Actuarial Reports Presentation**

Benson presented the FY 2024 Actuarial Valuations for the Mississippi Highway Safety Patrol Retirement System (MHSPRS), the Supplemental Legislative Retirement System (SLRP), and the Municipal Retirement System (MRS).

- Motion: To acknowledge and accept the FY 2024 actuarial valuation and projection reports for the Mississippi Highway Safety Patrol Retirement System (MHSPRS), the Supplemental Legislative Retirement System (SLRP), and the Municipal Retirement System (MRS).
  - o Made by: Benson.
  - Seconded by: Hanna.
  - Discussion: None.
  - Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - o Voting against: None.
  - Absent: None.
  - Duly Passed.

(Addendum B - FY 2024 Actuarial Valuations for MHSPRS, SLRP, and MRS)

#### **PERS Funding Policy Revisions**

Benson informed the Board that the committee had some lengthy discussion about the PERS Funding Policy and an investment advisory committee, but no action was taken.

#### REPORT OF THE AUDIT COMMITTEE

Committee Chair Graham reported that the Audit Committee met the morning of December 18, 2024, and heard an internal audit update and plan report, which did not require committee or board action. Graham also presented the following items for Board approval.

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#### **Annual Comprehensive Financial Report (ACFR)**

Graham presented the FY 2024 Annual Comprehensive Financial Report (ACFR) for approval.

- Motion: To acknowledge and accept the FY 2024 Annual Comprehensive Financial Report, as presented.
  - o Made by: Graham.
  - Seconded by: Rutledge.
  - Discussion: None.
  - o Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - Voting against: None.
  - o Absent: None.
  - Duly Passed.

(Addendum C - FY 2024 ACFR)

#### **External Audit Results**

Graham presented the Board with the FY 2024 external audit report from Eide Bailley for approval. He said that PERS received an unmodified opinion, which is a clean report with no adjusting entries or findings noted on internal controls.

- Motion: To acknowledge and accept the FY 2024 external audit results, as presented.
  - o Made by: Graham.
  - Seconded by: Hanna.
  - o Discussion: None.
  - Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - Voting against: None.
  - o Absent: None.
  - Duly Passed.

(Addendum D – External Audit Results)

#### REPORT OF THE CLAIMS COMMITTEE

Committee Chair Smith reported that the Claims Committee met the morning of December 18, 2024, and voted on the following item for board consideration.

#### Modification of a Joinder Agreement - Newton County Board of Supervisors

Smith presented the Board with a request to amend the joinder agreement for Newton County Board of Supervisors to include constables for Social Security and retirement coverage with effective dates of December 31, 2024, and January 1, 2025, respectively.

- **Motion:** To approve the recommendation to amend the joinder agreement for Newton County Board of Supervisors to include constables for Social Security and retirement coverage with effective dates of December 31, 2024, and January 1, 2025, respectively.
  - o Made by: Smith.
  - Seconded by: Yarbrough.
  - Discussion: None.
  - Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - Voting against: None.
  - o Absent: None.
  - Duly Passed.

(Addendum E - Newton County Board of Supervisors)

#### REPORT OF THE DEFINED CONTRIBUTION COMMITTEE

Committee Chair Rutledge reported that the Defined Contribution Committee met December 17, 2024, and heard an update on the defined contribution watchlist and a market update and performance review from Callan on Mississippi Deferred Compensation and the Optional Retirement Plan. No committee action was taken on these items; however, the committee did bring before the Board the following items.

Mississippi Deferred Compensation – Empower Contract Renewal

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Rutledge presented the Board with the staff's recommendation to exercise the three-year renewal option in the Recordkeeping Agreement PERS currently has with Empower Retirement as administrator of the Mississippi Deferred Compensation plan.

- **Motion:** To exercise the three-year renewal option in the Recordkeeping Agreement PERS has with Empower Retirement as administrator of the Mississippi Deferred Compensation plan.
  - Made by: Rutledge.
  - Seconded by: Graham.
  - Discussion: None.
  - Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - Voting against: None.
  - o Absent: None.
  - Duly Passed.

(Addendum F – Empower Contract Renewal)

#### REPORT OF THE LEGISLATIVE COMMITTEE

Committee Chair Dale reported that the Legislative Committee met the morning of December 18, 2024, and, after a considerable discussion, recommended a potential draft motion regarding a new plan retirement tier.

- Motion: If the state, as the plan sponsor with the ultimate responsibility for plan design, proposes a PERS Tier 5 defined benefit/defined contribution (DB/DC) hybrid model for future employees as explained by staff and actuaries in the December 2024 board meeting that is estimated and projected to have a favorable impact on the future funded status of the plan by lowering the cost of future benefits, directing a larger share of the employer contribution toward the unfunded actuarial accrued liability (UAAL), paying off the UAAL sooner, and mitigating contribution rate risk by lowering the future projected actuarial determined contributions and thereby better sustaining PERS and maintaining the fiscal integrity of the plan for existing members, retirees, and beneficiaries, I move that the PERS Board endorse such a Tier 5 proposal.
  - Made by: Dale.
  - Seconded by: Benson.
  - Discussion: McCoy asked to amend the motion.
    - Motion Amendment: To insert parenthetical language after "(DB/DC) hybrid model for future employees" that reads "(or a defined benefit plan that accomplishes the same impact on the future status of the plan)".
    - Amendment Made by: McCoy.
    - Amendment Seconded by: None.
    - Amendment Failed.
  - Voting for: Benson, Breland, Dale, Graham, Hanna, Rutledge, Smith, and Yarbrough.
  - Voting against: McCoy.
  - Abstained: McRae.
  - o Absent: None.
  - Duly Passed.

#### REPORT OF THE INVESTMENT COMMITTEE

Committee Chair McCoy reported that the Investment Committee met December 17, 2024, and heard a market update and performance review from Callan; an Iran Divestment Act of 2015 Exposure Review, Israel Support Act of 2019 update, a securities lending update, and various miscellaneous updates. McCoy reported that the fund's YTD return is 5.7 percent. He also presented the following items for Board consideration.

#### Watchlist

McCoy presented the Board with PERS' watchlist and the following staff recommendations: initiate search to replace Epoch Global Equity, remove Wellington Small Cap from list due to stable performance, add Artisan Partners Mid Cap Growth to the watchlist due to declining performance, and add Riverbridge Small Cap Growth to the watchlist due to declining performance.

- **Motion:** To approve staff recommendations to initiate search to replace Epoch Global Equity, remove Wellington Small Cap from list due to stable performance, add Artisan Partners Mid Cap Growth to the watchlist due to declining performance, and add Riverbridge Small Cap Growth to the watchlist due to declining performance.
  - Made by: McCoy.
  - Seconded by: Graham.
  - Discussion: None.

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- o Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
- o Voting against: None.
- o Absent: None.
- Duly Passed.

(Addendum G - PERS Watchlist)

#### **Search Criteria for Global Equity Manager**

McCoy presented the Board with criteria for a new global equity manager to manage a \$1-\$1.4 billion allocation, replacing Epoch Global Choice due to performance and personnel reasons.

- **Motion:** To approve staff-recommended search criteria to replace Epoch Global Choice in managing a \$1-\$1.4 billion global equity allocation.
  - Made by: McCov.
  - Seconded by: Benson.
  - Discussion: None.
  - Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - Voting against: None.
  - o Absent: None.
  - Duly Passed.

(Addendum H – Search Criteria for Global Equity Manager)

#### REPORT OF THE 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. 24-07 - 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 denied.

PERS No. 24-09 - This matter came on for hearing before the DAC November 4, 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 denied and that the Claimant's request for non-duty-related disability benefits be denied.

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

(Addendum I – Disability Appeals Summary)

#### RETIREE REPORT

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

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

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(Addendum J - 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 October 23, 2024, board meeting.

- **Motion:** To approve the Investment Report, as well as all trades and transactions performed by the PERS Investments division since the October 23, 2024, board meeting.
  - Made by: Benson.
  - Seconded by: Hanna.
  - Discussion: None.
  - o Voting for: Benson, Breland, Dale, Graham, Hanna, McCoy, McRae, Rutledge, Smith, and Yarbrough.
  - o Voting against: None.
  - Absent: None.
  - o Duly Passed.

(Addendum K - Investment Report)

Breland thanked attendees and wished everyone a very merry Christmas.

#### **ADJOURN**

Breland called the meeting adjourned at 1:21 p.m.

Respectfully Submitted,

H. Ray Higgins, Jr. Executive Director
Public Employees' Retirement System Mr. Kelly Breland Chair PERS Board of Trustees

HRH

## Public Employees' Retirement System of Mississippi Tier 5 Analysis – February 2025



### **Assumptions and Caveats**



- Projections based on all assumptions and methods used in the 2024 valuation, except as otherwise noted
- Active membership remains at approximately 146,000 employees
- Assumes 7.00% investment return in all future years
- Assumes Statutory Contribution Rate is phased-in to 19.90% of payroll as set by Legislature, except as otherwise noted

## PERS Tier 5 Comparison



Plan Specifications	Current PERS Tier 4	PERS Board Approved Tier 5 from 2024	Potential State- Sponsored Hybrid Plan	Pure DB Plan 1.6 Plan	Pure DB Plan 1.0% COLA	
Type of Plan	Pure Defined Benefit (DB)	Pure Defined Benefit (DB)	Hybrid of DB and Defined Contribution (DC)	Pure Defined Benefit (DB)	Pure Defined Benefit (DB)	
Employee Contribution Rates	9%	7%	9% (4% into DB Plan, 5% into DC Plan)	8.5%	9%	
DB Multiplier	2% for first 30 years of service, plus 2.5% for service above 30 years	2% for first 30 years of service, plus 2.5% for service above 30 years	1% for all service	1.6% for all service	2% for first 30 years of service, plus 2.5% for service above 30 years	
Vesting Eligibility	8 years	4 years	8 years	8 years	8 years	
Unreduced Retirement Eligibility	30 years of service or 65&8	30 years of service or 65&8	62&30 or 65&8	30 years of service or 65&8	30 years of service or 65&8	
Final Average Salary Definition	4 highest years	4 highest years	8 highest consecutive years	4 highest years	4 highest years	
Sick Leave and Military Service	Included in Eligibility	Included in Eligibility	Not Included in Eligibility	Included in Eligibility	Included in Eligibility	
Cost-of-Living Adjustments (COLAs)	3% Simple COLA to Age 60 and then 3% Compounding COLA thereafter	No Guaranteed COLA (Ad hoc approved by Board or Legislature - TBD)	No Guaranteed COLA (Ad hoc approved by Board or Legislature - TBD)	1.6% Simple COLA for All Ages	1% Simple COLA to Age 60 and then 1% Compounding COLA thereafter	
Partial Lump Sum Option (PLSO)	Option available with 33 years of service	Option available with 33 years of service	No Option	Option available with 33 years of service	Option available with 33 years of service	
Defined Contribution Employer Match	N/A	N/A	None	N/A	N/A	
DC Plan Vesting	N/A	N/A	Immediately	N/A	N/A	

### Tier 5 Design Sample Benefits



- What is the impact of member's benefits?
  - Pay at Retirement = \$60,000
  - Service at Retirement = 30 years

Sample Benefit Formula	Current PERS Tier 4	PERS Board Approved Tier 5 from 2024	Potential State- Sponsored Hybrid (5% Return)	Potential State- Sponsored Hybrid (7% Return)	Pure DB Plan 1.6 Plan	Pure DB Plan 1.0% COLA
Final Average Salary at Retirement	\$57,700	\$57,700	\$54,850	\$54,850	\$57,700	\$57,700
Annual DB Plan Benefit at Retirement	\$34,620	\$34,620	\$16,455	\$16,455	\$27,696	\$34,620
Estimated DC Account Balance at Retirement	\$0	\$0	\$130,500	\$181,100	\$0	\$0
Annuitized DC Plan Benefit at Retirement	\$0	\$0	\$11,500	\$16,000	\$0	\$0
Estimated Social Security Benefit at Retirement	\$18,000	\$18,000	\$18,000	\$18,000	\$18,000	\$18,000
Total Benefit at Retirement	\$52,620	\$52,620	\$45,955	\$50,455	\$45,696	\$52,620
Replacement Ratio of Pay at Retirement	87.7%	87.7%	76.6%	84.1%	76.2%	87.7%
Estimated Guaranteed Benefit after 20 Years of Retirement*	\$80,528	\$52,620	\$45,955	\$50,455	\$54,559	\$56,242

<sup>\*</sup> No COLA increase on estimated Social Security benefit

### Assumptions for Sample Benefits



Age at Hire: Age 32

• Pay at Hire: \$28,100

Pay Increases Each Year: 2.65%

Age at Retirement: Age 62

Pay at Retirement: \$60,000

DC Interest Crediting: 5.00%

Annuitizing Assumptions: Based on Valuation Assumptions

7.00%

**PERS Healthy Retiree Mortality Table** 

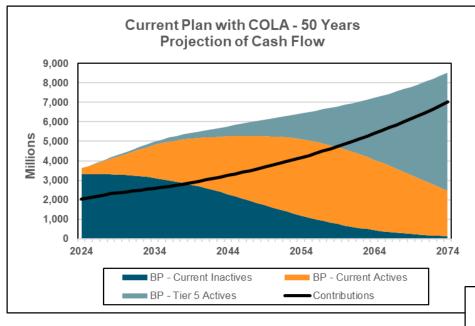
**Life Annuity Benefit in Retirement** 

No COLA in Future

Social Security Benefit: 30% of Final Pay

### Projection of Benefit Payments





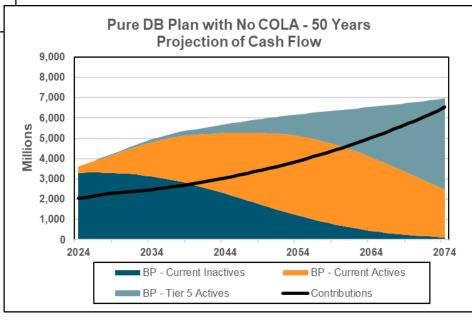


Current PERS Plan
Guaranteed COLAs
continue to increase BPs

PERS Board Approved Tier 5 from 2024
A Pure DB Tier 5 without Guaranteed
COLAs does limit the increase in BPs
after 2054

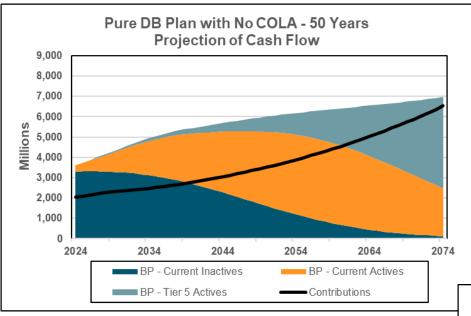


Aids in Sustainability & Helps Control Cash Flow Issues in Future



### Projection of Benefit Payments





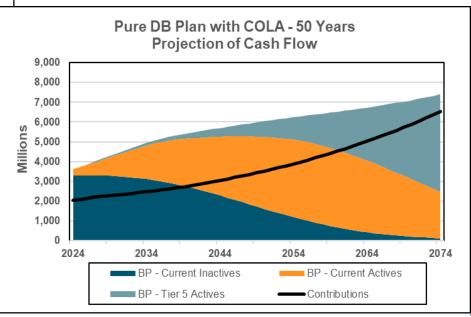
### NO COLA vs. 1% COLA



PERS Board Tier 5
A Pure DB Tier 5 without
Guaranteed COLAs does limit
the increase in BPs after 2054

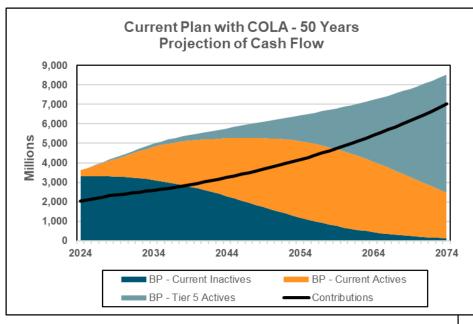
# Alternative Tier 5 A Pure DB Tier 5 with Guaranteed 1% COLA results in increase in BPs beyond 30 Years





### Projection of Benefit Payments





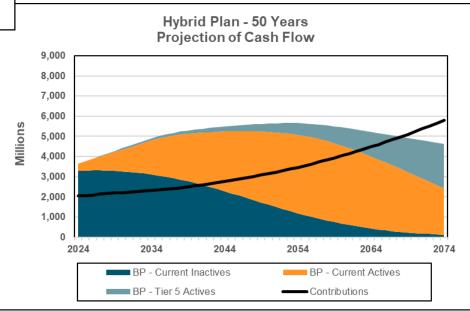
# **Comparison of Current Plan to Hybrid Option**



Current PERS Plan
Guaranteed COLAs
continue to increase BPs

# Hybrid Tier 5 BPs are much lower as expected but projection only shows DB portion of benefit





### Tier 5 Design Underlying Costs



- The underlying cost of any of these plan designs is the total normal cost rate at the 7.00% assumption
- Total normal cost rate is the value of a given year's expected benefit accruals for every active member summed together and divided by that year's expected payroll
- All Tier 5 design options result in a lower total normal cost rate compared to the current Tier 4 design

Tier 5 Design	Total Normal Cost (NC) Rate	Employee Contribution Rate	Employer NC Rate	Amount of FCR to Pay Down UAAL
Current PERS Tier 4	12.26%	9.00%	3.26%	16.64%
PERS Board Approved Tier 5 from 2024	9.58%	7.00%	2.58%	17.32%
Potential State-Sponsored Hybrid Plan	5.25%	4.00%	1.25%	18.65%
Pure DB Plan – 1.6 Plan	9.65%	8.50%	1.15%	18.75%
Pure DB Plan – 1.0% COLA	10.31%	9.00%	1.31%	18.59%

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### Projection of Funded Ratios

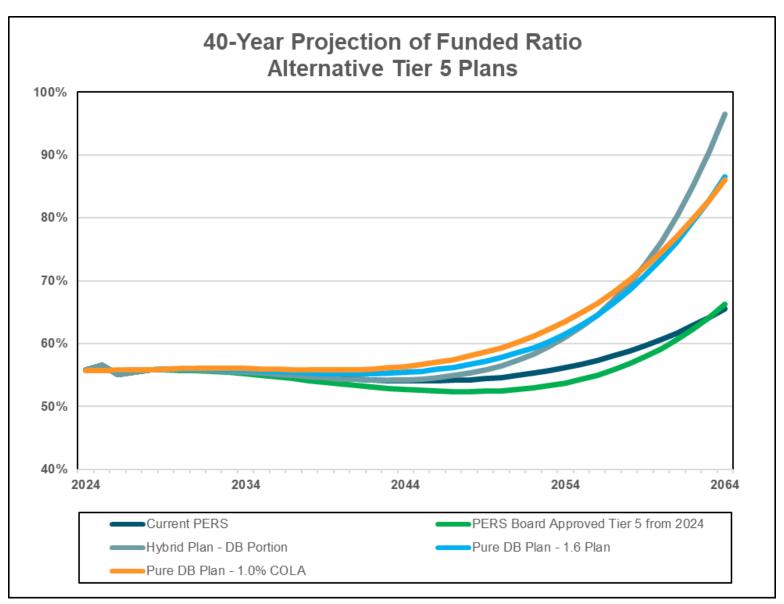


 Based on current contribution schedule, below are the projected funded ratios for each of the plan designs

Tier 5 Design	2024	2034	2044	2054	2064
Current PERS Tier 4	55.9%	55.4%	53.6%	55.8%	65.5%
PERS Board Approved Tier 5 from 2024	55.9%	55.2%	52.7%	53.8%	66.3%
Potential State-Sponsored Hybrid Plan	55.9%	55.5%	54.3%	61.1%	96.6%
Pure DB Plan – 1.6 Plan	55.9%	55.8%	55.4%	61.5%	86.5%
Pure DB Plan – 1.0% COLA	55.9%	56.0%	56.4%	63.5%	86.1%

### Projection of Funded Ratios

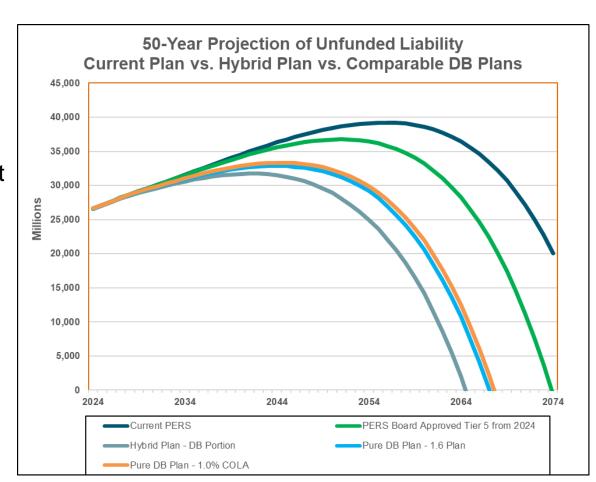




### Projection of Unfunded Liabilities



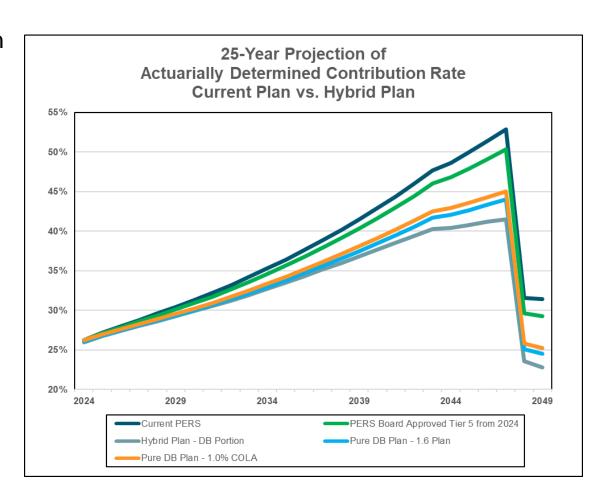
- This graph shows the growth of the Unfunded Liability over the next few decades (50 years)
- The decline in the latter part of the graph is due to the cash flow increasing and the impact that more of the Statutory Contribution is going to pay down the Unfunded Liability faster
- Since the Hybrid Plan and Pure DB Plans have smaller employer normal costs, they pay down the Unfunded Liability faster



### Projection of ADC



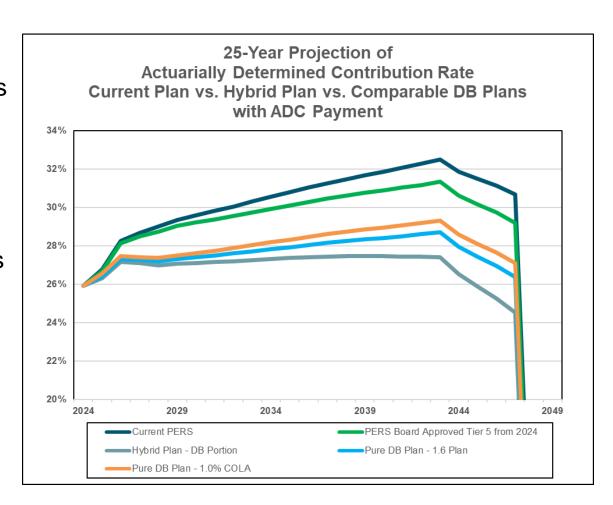
- As can be seen in the graph and as mentioned before, the Actuarially Determined Contribution (ADC) is expected to increase under all scenarios as statutory contribution losses will impact the Unfunded Liability
- If more funding is provided to PERS, this graph will look very different and some of the alternate Tier 5 designs may not need further contribution increases



### Projection of ADC



- This graph assumes that the contribution for PERS is changed to the ADC Payment Method that the Board recently adopted
- As you can see from the graph, more funding results in lower calculated ADC payment rates for PERS under any Plan design





Mississippi PERS
Actuarial Metrics for Several Potential Legislative Changes
(\$ in thousands)

Sce	nario	Employee Contribution Rate	Funding Options	Projected Funded Ratio in 2047	Projected Funded Ratio in 2054	Minimum Cash Flow Percentage
(A)	Current Tier 4 Continues	9%	Phase-In to 19.90%	53.7%	55.8%	-6.3%
(B)	Current Tier 4 Continues	9%	ADEC method	89.9%	> 100.0%	-4.7%
(C)	(A) with \$100M Contribution Each Year*	9%	Phase-In to 19.90%	60.1%	66.4%	-5.8%
(D)	(B) with \$100M Contribution Each Year	9%	ADEC method	96.2%	> 100.0%	-4.7%
(E)	Tier 5 Hybrid Implemented	4% DB; 5% DC	Phase-In to 19.90%	54.9%	61.1%	-7.1%
(F)	Tier 5 Hybrid Implemented	4% DB; 5% DC	ADEC method	97.2%	> 100.0%	-4.7%
(G)	(E) with \$100M Contribution Each Year	4% DB; 5% DC	Phase-In to 19.90%	62.4%	75.2%	-6.4%
(H)	(F) with \$100M Contribution Each Year	4% DB; 5% DC	ADEC method	> 100.0%	> 100.0%	-4.7%
(1)	PERS Board Tier 5 Before 2024 Session	7%	Phase-In to 19.90%	52.4%	53.8%	-6.7%
(I)						
(1)	PERS Board Tier 5 Before 2024 Session	7%	ADEC method	90.0%	> 100.0%	-4.6%
(K)	(I) with \$100M Contribution Each Year	7%	Phase-In to 19.90%	59.0%	65.2%	-6.1%
(L)	(J) with \$100M Contribution Each Year	7%	ADEC method	96.6%	> 100.0%	-4.6%
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(M)	Tier 5 Pure DB Plan with 1% COLA, not 3%	9%	Phase-In to 19.90%	57.5%	63.5%	-6.1%
(N)	Tier 5 Pure DB Plan with 1% COLA, not 3%	9%	ADEC method	94.3%	> 100.0%	-4.6%
(O)	(M) with \$100M Contribution Each Year	9%	Phase-In to 19.90%	64.0%	74.5%	-5.6%
(P)	(N) with \$100M Contribution Each Year	9%	ADEC method	> 100.0%	> 100.0%	-4.6%

<sup>\*</sup> In order for the funded ratio to reach 80% by 2054, \$230M would need to contributed each year