IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Gregory S. Samorajski, CFA
Chief Executive Officer

Kim Reynolds
Governor

Adam Gregg
Lt. Governor

AGENDA

Monday, May 22, 2023
1:00 p.m.
IPERS BENEFITS ADVISORY COMMITTEE
Conference Telephone # 312-626-6799
Meeting ID: 871-7468-1669#

1) Call to Order / 1:00 p.m.
   a) Roll Call of Members

2) BAC Membership Elections
   a) Teacher Association Representative – Member Association
   b) City Association Representative – Employer Association
   c) Public Member – Citizen Representative

3) Approval of Previous Meeting Minutes
   a) October 31, 2022
   b) December 1, 2022
   c) January 23, 2023

4) COLA Study Options – Greg Samorajski

5) Legislative Session Update – Shawna Lode

6) Staff Reports
   a) Benefits Update – David Martin
   b) Investments Update – Sriram Lakshminaryanan

7) Other Business

8) Public Comments

9) Confirm Next Meeting Date
   a) Monday, August 28, 2023 – BAC Meeting
   b) Thursday, June 15, 2023 – Investment Board Meeting

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Gregory S. Samorajski, CFA
Chief Executive Officer

Kim Reynolds
Governor

Adam Gregg
Lt. Governor

May 17, 2023

TO: IPERS Benefits Advisory Committee Members

FR: Greg Samorajski, CEO

RE: Membership Elections

The BAC has nine voting representatives. Four representing employers, four representing members of the system and one citizen representative who is not a member of IPERS. Three voting seats on the Benefits Advisory Committee are up for election.

1. The statue requires one voting seat be held by a constituent group representing teachers.
    a. This seat is currently held by the Iowa State Education Association (ISEA)
    b. This seat is elected by the full BAC membership

2. The statue requires one voting seat to be held by an organization representing cities.
    a. This seat is currently held by the Iowa League of Cities
    b. This seat is elected by the full BAC membership

3. The statute requires one voting seat be held by a public member who is not a member of IPERS.
    a. This seat is currently held by Lowell Dauenbaugh
    b. This seat is elected by the voting membership

BENEFITS ADVISORY COMMITTEE MEETING MINUTES
IPERS BOARD ROOM
7401 Register Drive, Des Moines Iowa
October 31, 2022

The following people attended the IPERS Benefits Advisory Committee (BAC) meeting held on Monday, October 31, 2022.

Members of the Benefits Advisory Committee – Present

Len Cockman, Chair
Lowell Dauenbaugh, Vice Chair
Matt Carver
Sue Cave
Matt Cosgrove
Rick Eilander
Steve Hoffman
Connie Kuennen
Erin Mullenix
Jim Romar
Melissa Peterson
Phil Tetzloff

Members of the Benefits Advisory Committee – Absent

Andrew Hennesy
Adam Steen

IPERS Administration and Staff

Greg Samorajski, Chief Executive Officer
David Martin, Chief Benefits Officer
Melinda McElroy, Executive Assistant
Sriram Lakshminarayanan, CIO
Elizabeth Hennessey, General Counsel
Shawna Lode, Director of Communications
Tara Hagan, Chief Financial Officer
Rick Hindman, Chief Operations Officer

Call to Order

Len Cockman, chair, called the meeting to order at 1:00 p.m.

Matt Carver made the motion to approve the minutes from the August 22, 2022, Benefits Advisory Committee meeting. Steve Hoffman seconded; the motion carried by unanimous voice vote.

CEO Report – Greg Samorajski

FY2024 Contribution Rates – Contribution rates for Regular members and Protection Occupations members will remain unchanged at 15.73% and 15.52% respectively. Contribution rates for Sheriff and Deputy Sheriff members will be reduced 0.50% to 17.02%.

NIRS Annual Membership Renewal – Phil Tetzloff made the motion that the BAC authorize the expenditure of $6,800 from its budget to renew IPERS' membership in the National Institute of Retirement Security. Matt Carver seconded; the motion carried by unanimous voice vote.

2023 Legislative Session – Greg Samorajski reviewed IPERS' FY2024 budget appropriation request. The request represents a status quo budget, but if approved by the Governor, IPERS plans to seek an additional appropriation of $4.5 million.

November Dividend Adjustment – David Martin

David Martin reported that 2022 November Dividend recipients would receive a 3% adjustment based on actuarial certification. Approximately 1,792 recipients will receive a total of $3.51 million.

Administrative Rules – Elizabeth Hennessey

Elizabeth Hennessey reviewed the proposed administrative rules package. The changes will be filed in December. Matt Carver made the motion to support the proposed rule package as presented. Jim Romar seconded; the motion carried by unanimous roll call vote.

Iowa State Sheriffs and Deputies Association's Request for Benefit Enhancement Cost Studies – Steve Hoffman

Steve Hoffman reported that the ISSDA would like to request a cost study quote from IPERS' actuary to study the following benefit enhancements: change the contribution rate split to 60% employer and 40% employee, increase the service multiplier from 1.5% to 2.5% for years over 22 through 30 years of service (80% maximum), and institute an automatic compounding COLA of 1.5%. Matt Carver made the motion that the BAC supports the request for a cost quote for the study. Melissa Peterson seconded; the motion carried by unanimous roll call vote.

IPERS Staff Reports

Benefits Update – David Martin reported that he and his team continue to hire and fill vacant retirement benefit officer positions.

Investment Update – Sriram Lakshminaryanan reported the IPERS Trust Fund balance at $39.416 billion and noted third quarter markets returns of approximately –6.71%.

Appeals Update – Elizabeth Hennessey reviewed the October 2022 Appeal Status report.

Other Business

None

Public Comments

Former Senator Patrick Deluhery requested a comparison of IPERS' current Trust Fund balance to a previous point in time. Sriram Lakshminarayanan referred him to the Trust Fund balance reported at the last BAC meeting. Deluhery next asked about the split between active members and retirees. David Martin answered that IPERS has approximately 176,000 active members and 123,000 retirees.

Future Meeting Dates

The next scheduled BAC meeting is Monday, January 23, 2023. With no further business to come before the committee, Steve Hoffman made the motion to adjourn the meeting. Matt Carver seconded; the motion carried by unanimous voice vote. Meeting adjourned at 1:50 p.m.

BENEFITS ADVISORY COMMITTEE MEETING MINUTES
IPERS BOARD ROOM
7401 Register Drive, Des Moines Iowa
December 1, 2022

The following people attended the IPERS Benefits Advisory Committee (BAC) meeting held on Thursday, December 1, 2022.

Members of the Benefits Advisory Committee – Present

Len Cockman, Chair
Lowell Dauenbaugh, Vice Chair
Matt Carver
Sue Cave
Steve Hoffman
Connie Kuennen
Erin Mullenix
Melissa Peterson
Phil Tetzloff

Members of the Benefits Advisory Committee – Absent

Rick Eilander
Andrew Hennesy
Richard Hoffman
Adam Steen

IPERS Administration and Staff

Greg Samorajski, Chief Executive Officer
David Martin, Chief Benefits Officer
Melinda McElroy, Executive Assistant
Elizabeth Hennessey, General Counsel
Tara Hagan, Chief Financial Officer

Call to Order

Len Cockman, chair, called the meeting to order at noon.

Cost Study Estimate for Iowa State Sheriffs and Deputies Association's Request for Benefit Enhancements – Greg Samorajski and David Martin

At the October BAC meeting, the ISSDA requested permission to request a cost study quote from IPERS' actuary to study the following benefit enhancements for non-retired sheriffs and deputies: change the contribution rate split to 60% employer and 40% employee, increase the service multiplier from 1.5% to 2.5% for years over 22 through 30 years of service (80% maximum), and institute an automatic compounding COLA of 1.5%.

Cavanaugh Macdonald estimated the fees associated with completing these studies would be in the range of $5,200 to $6,300.

Phil Tetzloff made the motion that the BAC approves proceeding with the cost study for the mentioned benefit enhancements and paying for the study from the BAC's budget. Connie Kuennen seconded; the motion carried by unanimous roll call vote.

Other Business

Len Cockman reported that during the Investment Board meeting, which immediately preceded the BAC meeting, the Board tasked CEO Samorajski with forming a COLA working group consisting of Board and BAC members. Melissa Peterson, Phil Tetzloff and Steve Hoffman volunteered to represent the BAC.

Public Comments

None

Future Meeting Dates

The next scheduled BAC meeting is Monday, January 23, 2023. With no further business to come before the committee, Lowell Dauenbaugh made the motion to adjourn the meeting. Steve Hoffman seconded; the motion carried by unanimous voice vote. Meeting adjourned at 12:10 p.m.

BENEFITS ADVISORY COMMITTEE MEETING MINUTES
IPERS Board Room
7401 Register Drive, Des Moines, Iowa
January 23, 2023

The following people attended the IPERS Benefits Advisory Committee (BAC) meeting scheduled for Monday, January 23, 2023.

Members of the Benefits Advisory Committee – Present

Len Cockman, Chair
Lowell Dauenbaugh, Vice Chair
Matt Carver
Sue Cave
Andrew Hennesy
Steve Hoffman
Erin Mullenix
Phil Tetzloff

Members of the Benefits Advisory Committee – Absent

Rick Eilander
Richard Hoffman
Connie Kuennen
Melisa Peterson
Adam Steen

IPERS Administration and Staff

Greg Samorajski, Chief Executive Officer
David Martin, Chief Benefits Officer
Melinda McElroy, Executive Assistant
Sriram Lakshminarayanan, Chief Investment Officer
Elizabeth Hennessey, General Counsel
Shawna Lode, Director of Communications
Tara Hagan, Chief Financial Officer
Rick Hindman, Chief Operations Officer

Call to Order

Len Cockman, Chair, called the meeting to order at 1:00 p.m.

A quorum was not present, so voting on minutes from meeting held October 31, 2022, and December 1, 2022, was tabled.

CEO Report – Greg Samorajski

Greg Samorajski reported the Governor's office supported a $2.5 million administrative budget increase to address critical staffing and member service needs.

2023 Legislative Update – Shawna Lode

Shawna Lode reviewed several bills IPERS is tracking this session.

Benefit Enhancement Cost Studies for Non-Retired Sheriffs and Deputies – David Martin

David Martin discussed Cavanaugh Macdonald's actuarial cost study letter and the impact to the sheriffs and deputy sheriffs' membership group for the proposed benefit enhancements.

Staff Reports

Benefits Update – David Martin reported that approximately 50 members exceeded the increased earnings limitation of $50,000. The earnings limitation was previously $30,000. Had the increase not be enacted over 150,000 members would have exceeded the earnings limit.

Investment Update – Sriram Lakshminarayanan reported IPERS' Trust Fund balance at $40.712 billion and noted IPERS' fourth quarter investment returns were positive.

Appeals Report – Elizabeth Hennessey reviewed the appeal status report as of January 2023.

Other Business

None

Public Comments

None

Future Meeting Dates

The next BAC meeting is scheduled for Monday, February 27, 2023. The meeting concluded at 1:35 p.m.

FED/SAAM Programs

Gregory S. Samorajski, CEO

April 14, 2023

What are FED/SAAM dividends (Chapter 97B.49F)

- **FED: Favorable Experience Dividend**
- **Created in 1998**
- **Implemented when IPERS is "fully funded"**
- **Amount in excess of fully funded level goes into FED reserve account**
  - Example: If funded ratio = 102%, 2% to FED reserve account
- **Reserve account capped at 10 years of payments**
- **10 years of payments might be as much as $10 billion**
- **A member's dividend:**
  - Last year's benefit × years of retirement × maximum of 3%
- **IPERS might have discretion on the percentage**

What are FED/SAAM dividends (Chapter 97B.49H)

- SAAM: Supplemental Accounts for Active Members
- Created in 1998
- IPERS has never funded the SAAM
- Each active member receives a supplemental account
- SAAM payments are made when the system is more than 100% funded
- Each members receives an amount equal to the total employer + employee contribution in excess of the normal cost rate
- IPERS has some discretion on the amount of the SAAM payments

History of FED payments

- **Created when contribution rates were fixed at 9.45%**
- **Historically, fixed rates exceeded normal cost**
- **FED was meant to "sweep the excess"**
- **Eventually, normal cost exceeded fixed contribution rates**
- **2012: Variable contribution rates enacted**
- **Funding policy goals:**
  - Become 100% funded
  - Create a surplus buffer
  - Reduce contribution rates
- **FED philosophy and current funding policy goals conflict**

History of FED payments

- **1999**
  - FED first funded and paid
  - Funded ratio = 97%
- **2014**
  - FED reserve depleted

Fiscal Year	FED Transfer	FED Payments	Percent	Net Investment Income	Fiscal Year-End Balance
FY1999	$229,000,000	(12,152,683)	1.33	29,523,325	$246,370,642
FY2000	$264,908,935	(18,797,522)	1.59	38,522,151	$531,004,206
FY2001	$108,440,545	(46,219,145)	3.00	(22,197,795)	$571,027,811
FY2002	0	(57,890,007)	3.00	(26,518,247)	$486,619,557
FY2003	0	(25,570,783)	1.07	26,210,587	$487,259,361
FY2004	0	(31,067,817)	1.07	67,497,454	$523,688,998
FY2005	0	(37,178,186)	1.07	56,650,354	$543,161,166
FY2006	0	(43,988,077)	1.07	58,021,055	$557,194,144
FY2007	0	(51,378,132)	1.07	86,964,919	$592,780,931
FY2008	0	(59,512,875)	1.07	(8,301,373)	$524,966,683
FY2009	0	(68,463,353)	1.07	(85,779,297)	$370,724,033
FY2010	0	(78,080,966)	1.07	46,466,138	$339,109,205
FY2011	0	(88,569,816)	1.07	59,248,895	$309,788,284
FY2012	0	(100,428,496)	1.07	9,406,974	$218,766,762
FY2013	0	(113,283,944)	1.07	16,559,496	$122,042,314
FY2014	0	(120,813,747)	1.02		$1,228,567
Total	**$602,349,480**	**(953,395,548)**		**$352,274,636**	

Problems with the FED/SAAM

- FED/SAAM payment priorities conflict
- Conflicts with philosophy of current funding policy
- Actuary recommends accounting for dividend liabilities now
- IPERS might have to recognize the FED/SAAM contingent liabilities and may have to increase contribution rates
- Once funds go into the FED reserve account, they cannot be removed

Options to address the FED/SAAM

- **Legislative solution**
  - **Propose legislation to eliminate the FED/SAAM provisions in Iowa code**
  - **Pros:**
    - No additional costs or increased contribution rates
  - **Cons:**
    - No possibility of future inflation protection without additional action
  - **Legislative solution presented to Public Retirement Systems Committee in 2013**

Options to address the FED/SAAM

- **Administrative solution (Investment Board action)**
  - **Investment Board utilizes a percentage larger than 100% when calculating potential transfers to ensure long-term stability (ie: 120% - 130%)**
  - **Pros:**
    - No additional costs or increased contribution rates
  - **Cons:**
    - No possibility of inflation protection in the foreseeable future
  - **Presented to Investment Board in December 2022**

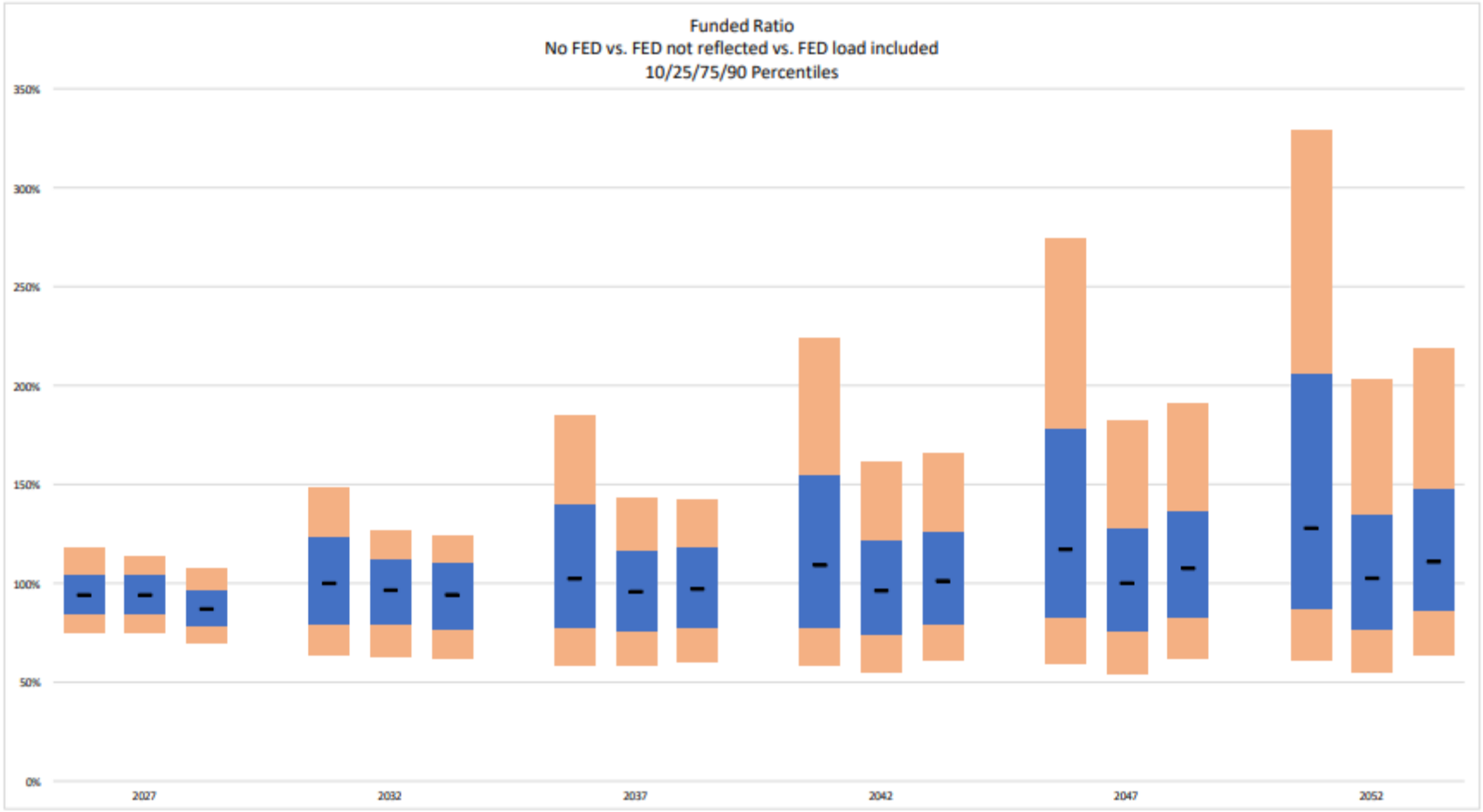
Options to address the FED/SAAM

- **Recognize the actuarial liability and begin funding now**
  - **Liabilities will initially increase by $3.9 billion**
  - **Actuarial contribution rate increases from 13.96% to 17.21%**
  - **Funded ratio declines to 81%**

  - **Pros:**
    - Allows some future inflation protection

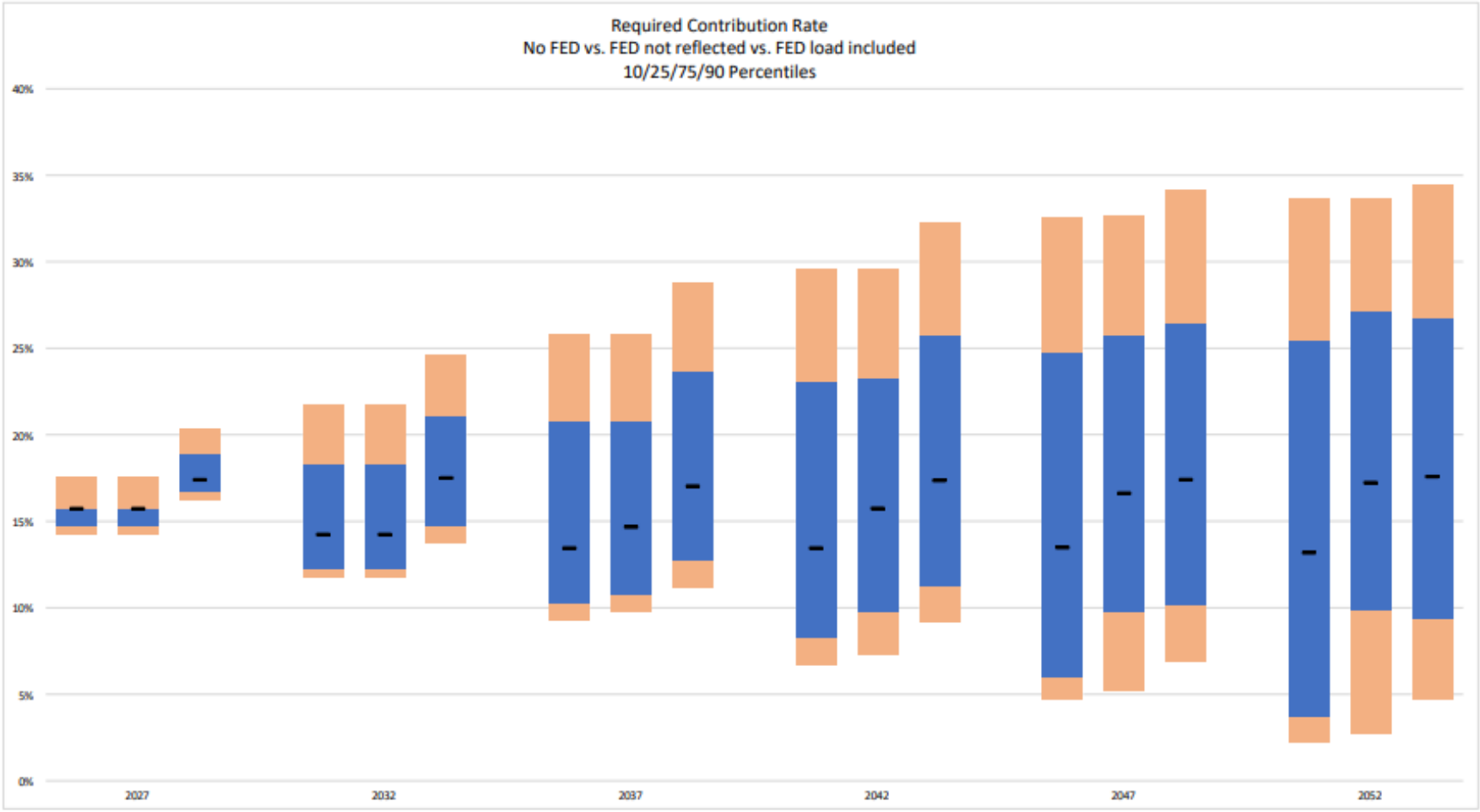
Options to Address the FED/SAAM

- **Defer liability recognition until IPERS is more than 100% funded**
  - **Pros:**
    - No increased contribution rates
  - **Cons:**
    - Significant risk of future, new unfunded liabilities



	2027			2032			2037			2042			2047			2052		
Percentile	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load
10%	75%	75%	70%	63%	63%	62%	58%	58%	60%	59%	55%	61%	59%	54%	62%	61%	55%	64%
25%	85%	85%	79%	80%	79%	76%	77%	76%	77%	78%	74%	79%	83%	75%	83%	87%	77%	86%
50%	94%	94%	87%	100%	96%	94%	102%	96%	97%	109%	96%	101%	117%	100%	107%	128%	103%	111%
75%	105%	104%	97%	123%	113%	110%	140%	117%	118%	155%	122%	126%	178%	128%	136%	206%	134%	148%
90%	118%	113%	108%	148%	127%	124%	185%	143%	143%	224%	162%	166%	274%	182%	190%	329%	203%	219%

IOPERS



	2027			2032			2037			2042			2047			2052		
Percentile	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load
10%	14.23%	14.23%	16.18%	11.73%	11.73%	13.73%	9.23%	9.73%	11.23%	6.73%	7.23%	9.23%	4.73%	5.23%	6.88%	2.23%	2.73%	4.73%
25%	14.73%	14.73%	16.73%	12.23%	12.23%	14.73%	10.23%	10.73%	12.73%	8.23%	9.80%	11.23%	6.00%	9.73%	10.23%	3.73%	9.89%	9.41%
50%	15.73%	15.73%	17.40%	14.23%	14.23%	17.50%	13.45%	14.67%	17.03%	13.45%	15.75%	17.36%	13.48%	16.62%	17.41%	13.18%	17.23%	17.59%
75%	15.75%	15.75%	18.96%	18.25%	18.25%	21.09%	20.82%	20.82%	23.72%	23.10%	23.26%	25.76%	24.81%	25.72%	26.52%	25.50%	27.17%	26.76%
90%	17.56%	17.56%	20.38%	21.73%	21.73%	24.59%	25.84%	25.84%	28.79%	29.58%	29.58%	32.24%	32.59%	32.65%	34.18%	33.69%	33.73%	34.46%

Options to address the FED/SAAM

- **Transform FED/SAAM into traditional COLA**

COLA Option:		(1)	(2)	(3)	(4)	(5)	(6)
($ in millions)	6/30/2022 Valuation	2.5% COLA Immediate	2.5% COLA Deferred to 65	2.5% COLA Deferred to 70	1.5% COLA Immediate	1.5% COLA Deferred to 65	1.5% COLA Deferred to 70
Regular Members							
- Unfunded Actuarial Liability	$4,745	$14,876	$13,299	$11,027	$10,377	$9,524	$8,280
- Funded Ratio	88.45%	70.96%	73.21%	76.72%	77.79%	79.24%	81.45%
- Actuarial Contribution Rate	13.96%	25.34%	23.31%	20.57%	20.27%	19.18%	17.68%
Sheriffs & Deputies							
- Unfunded Actuarial Liability	($40.0)	$187.8	$176.5	$140.3	$85.8	$79.7	$60.2
- Funded Ratio	104.70%	82.57%	83.45%	86.38%	91.21%	91.77%	93.66%
- Actuarial Contribution Rate	16.78%	31.77%	30.62%	27.48%	24.08%	23.47%	21.78%
Protection Occupation							
- Unfunded Actuarial Liability	($89.4)	$429.5	$378.8	$279.7	$198.4	$171.1	$117.1
- Funded Ratio	104.41%	83.15%	84.83%	88.34%	91.44%	92.53%	94.76%
- Actuarial Contribution Rate	15.31%	26.93%	25.19%	22.43%	21.06%	20.12%	18.62%

Contact Us

info@IPERS.org

515-281-0020

800-622-3849

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

March 29, 2023

Mr. Greg Samorajski
Chief Executive Officer
Iowa Public Employees Retirement System
7401 Register Drive
PO Box 9117
Des Moines, IA 50321

Re: Study of Options to Preserve Inflation Protection

Dear Greg:

The Iowa Public Employees Retirement System (IPERS) does not provide a traditional cost-of-living adjustment or other post-retirement adjustment for most retirees. As a result, once a member retires, their benefit amount is a level dollar amount guaranteed for life. There currently is no guaranteed protection of purchasing power for retirees so inflation can wear away the value of the retired members' benefit and impact their standard of living. Current statutes do include a provision for a Favorable Experience Dividend (FED) which is a non-guaranteed post-retirement adjustment, but no funds have been available to pay dividends since 2014. Given recent high inflation and the probability that the System could be 100% (fully[1]) funded within the next 10 to 15 years, if all assumptions are met, there is renewed interest in funding the FED or modifying the postretirement adjustment design. To that end, we have prepared an actuarial study to analyze the expected liability for the likely benefits to be paid under the current FED and Supplemental Accounts for Active Members (SAAM) provisions along with considerations of alternate ways to provide some form of inflation protection to retired IPERS members. The FED is a mechanism that allocates actuarial gains to a fund that in turn pays benefits to retirees. The SAAM is a defined contribution account for active members to which contributions are added when certain funding conditions are satisfied.

Summary Analysis

When the FED and SAAM were implemented in 1998, IPERS' regular members contributed a fixed rate of pay of 9.45%. With the difference between the fixed contribution rate and the normal cost rate of 8.79% at that time, IPERS was expected to become 100% funded if all actuarial assumptions were met. Because

[1]The meaning of fully funded may be subject to interpretation for purposes of the FED/SAAM. Fully funded might mean 100% funded or it might mean a percentage selected by the Investment Board but not less than 100%. For purposes of analysis in this paper, we will assume fully funded means 100% funded.

the fixed contribution rate would remain in place even after the System reached a funded ratio of 100%, favorable experience that occurred could be moved to a reserve account and be paid out as an additional benefit for retirees to help offset the negative impact of post-retirement inflation. In addition, because the fixed contribution rate was above the normal cost rate, the SAAM payment would also be made once the System was 100% funded.

The current funding policy, which has been in place since 2012, no longer uses a fixed contribution rate to fund the system, but instead uses a variable contribution rate with mechanisms to stabilize the contribution rates and move the funded ratio of the System to around 100%. Certain provisions in the funding policy keep contribution rates higher than the actuarial determined contribution rate when the System is below 100% funded and incrementally reduce contribution rates as the System approaches, and eventually exceeds, a funded ratio of 100%.

The concepts behind the FED/SAAM provisions are appropriate for a funding policy based on a fixed contribution rate. When the System became 100% funded and favorable experience occurred (which would move the funded ratio above 100%), the favorable experience would be moved to the FED Reserve. The purpose of the design of the FED was two-fold: (1) it kept the funded ratio of the System from climbing far above 100% and (2) provided an additional benefit to retirees to help address the impact of post-retirement inflation.

Under the current funding policy, the mechanism to keep the system's funded ratio from climbing far above 100% when favorable experience occurs is a reduction in the contribution rate paid by both members and employers. The FED/SAAM provisions and the current funding policy counteract the intent of each other, limiting the effectiveness of either approach. For example, if the System is over 100% funded due to favorable experience and a transfer to the FED occurs, the System's funded ratio drops to 100%. If the following year has negative actuarial experience, the contribution rate will increase to fund the unfunded actuarial liability over time and return the System to 100% funded, but any funds in the FED reserve cannot be used to offset the adverse experience. We believe the intent of the FED/SAAM was to provide additional benefits when favorable experience occurred, using fixed contribution rates, not to pay additional benefits while possibly increasing contribution rates to do so.

Our findings from this study indicate there is a cost associated with the FED/SAAM provisions, whether or not those benefits are prefunded as part of the annual actuarial valuation. The decision as to whether to ultimately prefund the FED/SAAM rests with the Investment Board. Under Actuarial Standards of Practice, the FED/SAAM benefits may be excluded if it is determined it is not appropriate for the purpose of the measurement, i.e., funding the regular benefits. If there is interest in retaining the FED and prefunding those benefits, we would note that the design of the FED/SAAM is inconsistent with the intent of the variable contribution rate in IPERS' current funding policy. There are a few options available that could potentially allow the FED/SAAM to better work with the current funding policy, and those are detailed later in this letter. The other observation is a simple one: additional benefits require additional funding. Whether it is prefunding the FED/SAAM or providing a more traditional cost-of-living adjustment, providing additional benefits will increase contribution rates, whether now or in the future.

The following pages provide a more detailed analysis of the FED/SAAM and various options that were considered to address and mitigate the issues described above.

Scope of Project

Based on discussions prior to beginning this work, we jointly identified the following options to study:

Option 1: Delete the FED/SAAM provisions either administratively through board action or through legislation. This is the current valuation process so no further analysis is required.

Option 2**:** Maintain the current provisions regarding the FED and SAAM. Clarify the actuarial assumptions and methods required to value the provisions and measure the cost impact on the June 30, 2022 actuarial valuation including the increase in the required and actuarial contribution rate.

Option 3: Delete the FED/SAAM provisions and replace them with a more traditional Cost-of-Living Adjustment (COLA). This approach eliminates the FED/SAAM and directly funds a more typical approach to address the impact of inflation on retirement benefits by including a compound cost of living adjustment. For this purpose, several specified plan designs were considered in order to provide a range of costs.

Note that our analysis of the FED considers only the IPERS Regular membership. This is because the current provisions apply to the System as a whole, so the comparatively smaller Special Services groups can be excluded for simplicity without any meaningful change in results.

Background on the Favorable Experience Dividend Reserve (FED)

The Favorable Experience Dividend Reserve account was created by legislation passed in 1998. The purpose of the legislation was to help offset the negative impact of post-retirement inflation for members who retired after July 1, 1990 (those retired prior to that date receive an annual dividend). All members and beneficiaries who have been receiving a monthly retirement allowance for at least a year qualify for a FED payment, which is paid in January as a lump sum payment. The FED payment is not guaranteed.

Initially, the law provided for a transfer to the FED Reserve account sufficient to pay the maximum favorable dividend for the next five years. Beginning with the June 30, 1999 actuarial valuation and each valuation thereafter, any favorable actuarial experience (actual experience that is better than anticipated by the actuarial assumptions) was to be transferred to the FED Reserve. Legislation passed in 2000 capped the total in the FED Reserve at ten years of expected benefit payments at the maximum level and legislation in 2006 prohibited further transfers to the FED until the System was fully funded. The formula used to determine the FED payments each year was (December monthly benefit * 12 * rate * full years retired), although this formula is not in statute. The rate could vary but not exceed 3%. The FED Reserve fund was exhausted in 2014 and no further dividends have been paid since that time.

In 1998 when the FED legislation was passed, the contribution rate for the regular IPERS members was fixed in statute at 9.45%, 3.70% employee and 5.75% employer, and the normal cost rate was 8.79%. The difference between the fixed contribution rate and the normal cost rate was expected to be paid to the SAAM once the System reached a funded ratio of 100%. The fixed contribution rates remained in place until 2006 when legislation increased the statutory contribution rate from 9.45% to 13.45%, incrementally from fiscal year 2008 to 2012, to address concerns over the projected long-term funding of IPERS. In 2010, additional legislation delegated the responsibility to set the Required Contribution Rate (RCR) for subsequent years to the IPERS Investment Board, based on their Funding Policy and the annual actuarial valuation results.

This was a critical change from the funding policy that was in place when the FED was created in 1998 because it created a variable contribution rate for the regular membership. By statute, the change in the Required Contribution Rate for the regular membership cannot exceed 1.0% per year. Employees contribute 40% of the Required Contribution Rate and employers contribute the remaining 60%. Note the Sheriffs and Deputies and Protection Occupation groups have always contributed the full Actuarial Contribution Rate.

Current IPERS Funding Policy

As noted earlier, the FED and SAAM were first created in a funding framework in which the regular membership contribution rate was a fixed contribution rate, set in statute. It had been in place for many years without change. Legislation subsequently modified the funding of the System and moved to a variable contribution rate, based on the results of the annual actuarial valuation. This required the IPERS Board to develop a funding policy to set the criteria to determine the statutory contribution rate, also called the Required Contribution Rate. **There are certain interactions between a variable contribution rate funding policy and the requirements for the FED and SAAM transfers that are inconsistent with the original intent of the FED and SAAM.**

The IPERS Funding Policy is based on the Actuarial Contribution Rate (ACR) which is defined as:

a. Normal cost plus an amortization payment (not less than zero) of any unfunded actuarial liability.
b. Normal cost may only be offset by a negative amortization payment after a membership group has attained a funded ratio of 110 percent or greater for 3 consecutive years.

The Required Contribution Rate is determined by comparing the Actuarial Contribution Rate determined in the current annual valuation to the Required Contribution Rate of the previous year.

a. If the ACR is less than the previous Required Contribution Rate by fewer than 50 basis points, then the Required Contribution Rate shall remain unchanged from the previous year.

b. If the ACR is less than the previous Required Contribution Rate by 50 basis points or more, then the Required Contribution Rate shall be lowered by 50 basis points provided the funded ratio of the membership group is 95 percent or higher.

c. If the ACR is greater than the Required Contribution Rate of the previous year, then the Required Contribution Rate shall be:

    i. Increased to be equal to ACR for Sheriffs and Deputies.
    ii. Increased to be equal to ACR for Protection Occupation Members.
    iii. Increased to be equal to ACR for Regular Members, or one percentage point greater than the prior year's Required Contribution Rate, whichever is smaller.

The Funding Policy was designed to stabilize contribution rates and move the System to 100% funded more rapidly than scheduled in the amortization policy. With the IPERS Contribution Rate Funding Policy, contribution rates increase when the actuarial valuation indicates higher contribution rates are needed (subject to the 1% cap for regular members), while contribution rate decreases are intentionally limited. This leads to accelerated funding of investment experience lower than assumed (shortfalls) and increases the potential for FED and SAAM transfers in the future. If the contribution rate was fixed and did not increase (as was the case when these provisions were enacted), the FED and SAAM benefits would be smaller over time.

In addition, since no surplus assets can be used to reduce the Required Contribution Rate until the group is 110% funded, the likelihood that future favorable experience can be transferred to the FED and 100% funding can be maintained increases. The provision that the Required Contribution Rate cannot decrease until the group is 95% funded and then only in increments of 0.50%, also increases the probability of funded ratios in excess of 100%. These provisions in the funding policy are positive when evaluating their impact on the funding of the System, but they are inconsistent with the basic design and intent of the FED/SAAM.

The general concept behind the FED and SAAM is to provide additional non-guaranteed benefits when certain conditions are met, i.e., the System has favorable actuarial experience and is fully funded both before and after the FED transfer. Alternatively, absent the FED/SAAM the surplus of assets over the actuarial liability from the favorable experience would be retained to offset unfavorable experience that might occur in the future, with contribution rates eventually decreasing to use surplus once the System is 110% funded. When some of the assets are used to provide additional benefits rather than retained to offset later adverse market experience, it increases the probability of contribution increases at a later date to address the impact of the unfavorable experience and return the System to 100% funding. This was not an issue when the FED/SAAM were created in a fixed contribution rate environment.

Cost of Inflation Protection Options

Option 1: Eliminate the FED/SAAM

No further analysis is required as this is the current approach used in the annual valuation.

Option 2: Keep Current FED and SAAM

By statute, favorable actuarial experience may only be transferred to the FED when the total IPERS system (all three groups combined) is fully funded. In addition, contributions to the SAAM may only occur when IPERS is fully funded and the Required Contribution Rate exceeds the normal cost rate. Following the market downturn in 2008, the timeframe for reaching 100% funded was distant. Furthermore, there was a general expectation that the FED and SAAM provisions would be repealed, especially once IPERS' funding moved from a fixed, statutory rate to a variable rate set by the Investment Board. Consequently, the FED and SAAM provisions were not considered when determining the liabilities, and therefore the contribution rates, in the actuarial valuation. With no legislative action to remove the FED and SAAM and strong market returns in several of the past few years, reflecting these provisions is becoming more relevant. Note that because of the variable nature of the contributions and benefits, these provisions are difficult to value using standard actuarial techniques. Therefore, it requires developing a reasonable methodology for addressing the impact of the provisions which we propose and discuss further in this study. Given the unusual issues

related to funding the variable benefits associated with the FED and the SAAM, it would not be surprising to find that different actuaries may arrive at different methodologies to value these provisions.

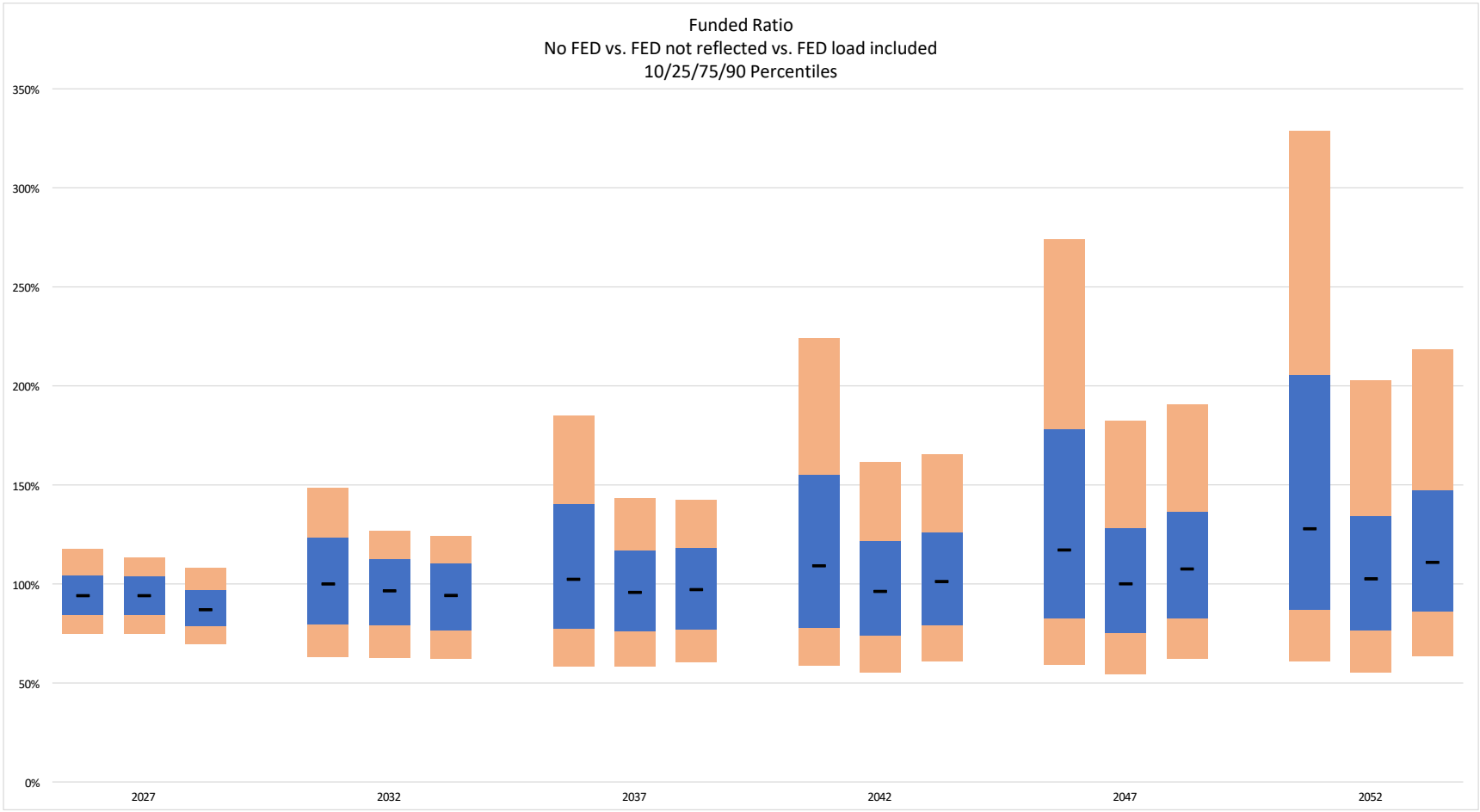
Because the benefits payable from the FED result from favorable experience in the future, the standard valuation techniques of "assuming all assumptions are met in all future years" is not sufficient to model the amount, timing, and likelihood of those benefit payments. Our proposed methodology involves using our valuation projection model, coupled with stochastic investment return input, to determine the expected FED transfers and SAAM contributions under 1,000 random investment return scenarios over the next 30 years (amounts beyond this point in time, when discounted to the present, have a relatively small present value). All demographic assumptions are assumed to be met each year in the future. These expected FED/SAAM distributions under the 1,000 30-year investment return scenarios are then discounted back to the valuation date. In order to come up with an assumption for the load on actuarial liabilities, the distributions were prorated based on either the actuarial liability of the current members to the sum of the actuarial liabilities for both current and future members (for the FED) or the current members' covered payroll to the sum of both current and future members' covered payroll (for the SAAM). The ratio of these discounted payments to the initial actuarial liability is then used as a load on the actuarial liability in future years. However, this initial calculation of the load is only a preliminary step in determining the ultimate assumed load because when the liabilities are increased with the load, the contribution rates and funded ratios also change, impacting the FED/SAAM distributions. Therefore, an iterative approach is required where the liability load is adjusted and the stochastic model is rerun repeatedly until sufficient convergence is obtained.

In projecting future distributions to the FED, we assume that the maximum FED distribution in any year is 30% of the total benefit payments, an assumption that inherently assumes that the demographic profile of the retired membership stays proportionately uniform over time. Note that the 30% threshold is based on our analysis comparing benefit payments with the FED structure divided by the benefit payments without the FED. The modeling has been performed under the assumption that transfers to the FED and SAAM are determined before the calculation of the Actuarial Contribution Rate or Required Contribution Rate. Admittedly, despite being a complex and technical process, this approach cannot fully capture the dynamic nature of the FED/SAAM structure, but we believe it is a reasonable approach to approximate the expected obligation of these benefits in the IPERS valuation given the unusual nature of the benefit design. The complex process needed for this analysis once again points to the difficulty in trying to reflect the FED/SAAM with the current funding policy.

Based on this approach and the June 30, 2022 valuation data, assumptions, and methods, reflecting the FED and SAAM would increase the actuarial liability by $3.9 billion or 9.5%. The Actuarial Contribution Rate would increase from 13.96% to 17.21%. The Required Contribution Rate would increase from 15.73% to 16.73% (limited to a 1% annual increase due to the statutory cap). It is important to note that the nature of this estimation approach is that it is very sensitive to changes in the market value of assets which heavily influence the projected 100% funding date. The sooner the 100% funding date is expected to occur, the sooner FED/SAAM payments are expected to be made, which increases liabilities. With IPERS portfolio and standard deviation, the rate of return could, and is expected to, significantly change year-to-year, which can also significantly change the projected date of reaching 100% funding. For example, we estimate that there is a 1 in 6 chance that this load could increase to at least 11.3% (or $4.7 billion) in the 2023 valuation and a 1 in 6 chance that this load could decrease below 7.1% (or $2.9 billion) in the 2023 valuation.

To quantify the impact of future FED transfers on future actuarial valuations, the graph on the following page shows the expected funded ratio of the IPERS regular membership under three scenarios:

- Option 1: eliminating the FED/SAAM provisions – no future transfers (the left column in each group),
- Option 2A: allowing the FED/SAAM provisions to operate without prefunding those benefits (the middle column), and
- Option 2B: pre-funding the FED/SAAM benefits by directly reflecting the expected transfers in the valuation with a load on liabilities, as described earlier in this section (the right column).



	2027			2032			2037			2042			2047			2052		
Percentile	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load
10%	75%	75%	70%	63%	63%	62%	58%	58%	60%	59%	55%	61%	59%	54%	62%	61%	55%	64%
25%	85%	85%	79%	80%	79%	76%	77%	76%	77%	78%	74%	79%	83%	75%	83%	87%	77%	86%
50%	94%	94%	87%	100%	96%	94%	102%	96%	97%	109%	96%	101%	117%	100%	107%	128%	103%	111%
75%	105%	104%	97%	123%	113%	110%	140%	117%	118%	155%	122%	126%	178%	128%	136%	206%	134%	148%
90%	118%	113%	108%	148%	127%	124%	185%	143%	143%	224%	162%	166%	274%	182%	190%	329%	203%	219%

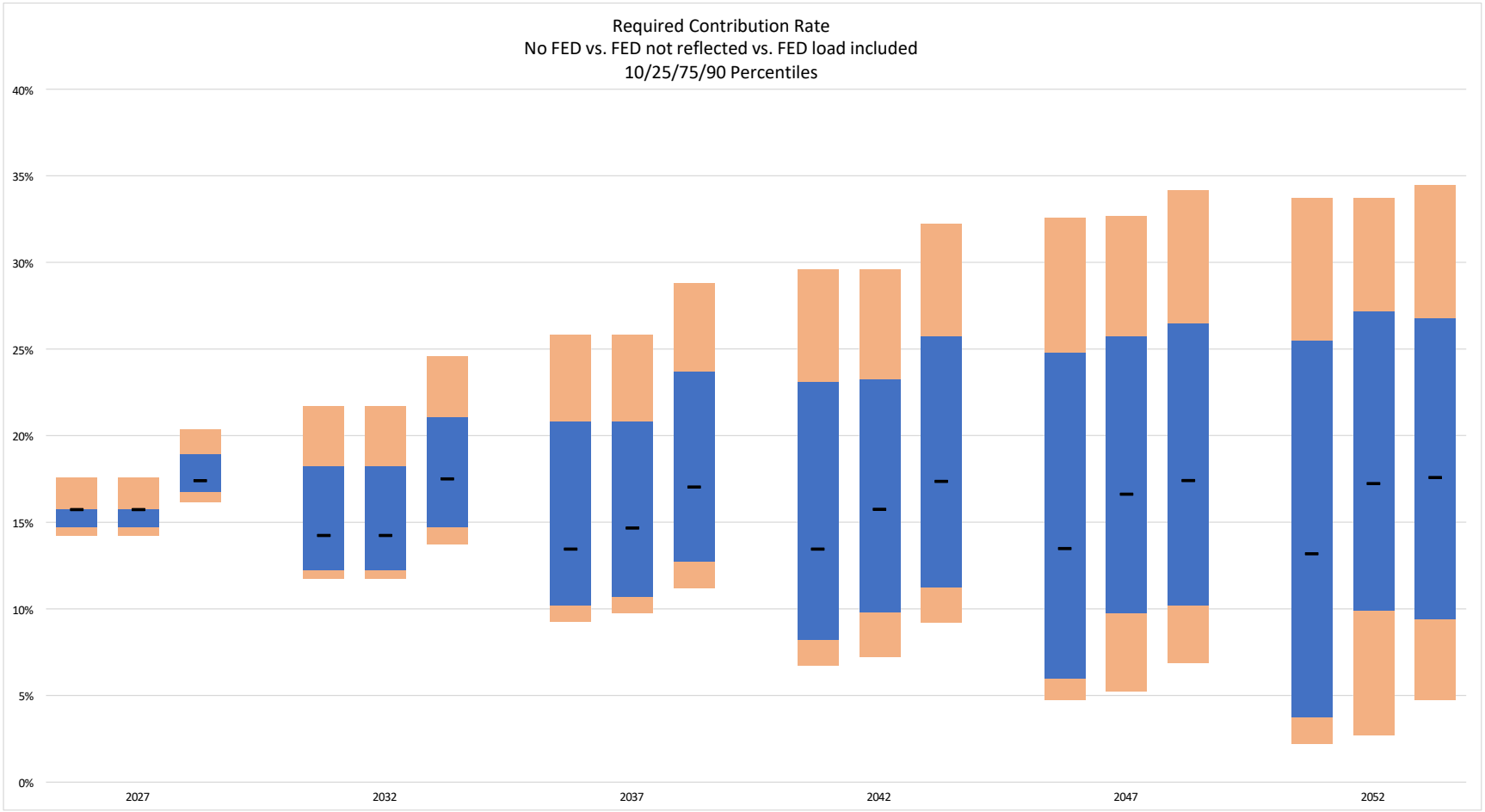
No FED is Option 1, Not Reflected is Option 2A and FED Load is Option 2B. The funded ratio in the 2022 valuation under Option 1 and Option 2A is 88% and 81% under Option 2B. The Actuarial Contribution Rate in the 2022 valuation under Options 1 and 2A is 13.96% and 17.21% under Option 2B. The Required Contribution Rate in the 2022 valuation under Options 1 and 2A is 15.73% and 16.73% under Option 2B.

Based on the graph of projected funded ratios, several observations are noteworthy:

- The FED/SAAM provision reduces the likelihood of the funded ratio significantly exceeding 100% since favorable experience from higher earnings that occurs once the System is 100% funded is redirected to FED and SAAM benefits.
- Prefunding the benefits by reflecting the liability associated with the FED/SAAM transfers in the actuarial valuation leads to lower funded ratios initially due to including the additional liability associated with the FED/SAAM benefit payments in the valuation results. However, ultimately this approach results in higher funded ratios in later years compared with not funding the FED and SAAM in annual valuations but making transfers to the FED/SAAM. This is expected since the initial recognition of the FED/SAAM liability results in higher contribution rates and lower transfers to the FED/SAAM compared with not valuing the FED and SAAM in the annual valuations.
- There is a little difference in the funded ratios between the different scenarios 30 years out, in 2052. The 10^{th} percentile results all fall in the range of a 55% - 65% funded ratio. This is because under each scenario, when poor market returns are observed the funding policy is increasing contributions to fund for the adverse experience.
- On the other end of the range, at the 90^{th} percentile, funded ratios can climb very high. Under scenario (1), when asset returns are well above expectations, contribution rates will decrease, but due to the funding policy, not fast enough in some scenarios to keep the funded ratio from reaching very high levels. Scenarios (2) and (3) show a much lower 90^{th} percentile funded ratio than scenario (1) because there are transfers going to the FED and SAAM. Those funded ratios can still reach high levels (200%+) because the FED Reserve cannot exceed 10 years of benefit payments, so favorable experience that occurs thereafter will remain in the regular trust fund and increase the System's funded ratio.

It should also be noted that under scenario (2), where the FED/SAAM operate without being directly reflected in the valuation, in order to comply with GASB standards, the FED/SAAM would likely need to be reflected. This would create a difference between the liability numbers used for the funding and GASB valuations.

The graph on the following page shows the same three scenarios as above but illustrates the impact on the Required Contribution Rate for the regular membership, which is shared by members and employers.



	2027			2032			2037			2042			2047			2052		
Percentile	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load	No FED	Not Reflected	FED Load
10%	14.23%	14.23%	16.18%	11.73%	11.73%	13.73%	9.23%	9.73%	11.23%	6.73%	7.23%	9.23%	4.73%	5.23%	6.88%	2.23%	2.73%	4.73%
25%	14.73%	14.73%	16.73%	12.23%	12.23%	14.73%	10.23%	10.73%	12.73%	8.23%	9.80%	11.23%	6.00%	9.73%	10.23%	3.73%	9.89%	9.41%
50%	15.73%	15.73%	17.40%	14.23%	14.23%	17.50%	13.45%	14.67%	17.03%	13.45%	15.75%	17.36%	13.48%	16.62%	17.41%	13.18%	17.23%	17.59%
75%	15.75%	15.75%	18.96%	18.25%	18.25%	21.09%	20.82%	20.82%	23.72%	23.10%	23.26%	25.76%	24.81%	25.72%	26.52%	25.50%	27.17%	26.76%
90%	17.56%	17.56%	20.38%	21.73%	21.73%	24.59%	25.84%	25.84%	28.79%	29.58%	29.58%	32.24%	32.59%	32.65%	34.18%	33.69%	33.73%	34.46%

No FED is Option 1, Not Reflected is Option 2A and FED Load is Option 2B. The funded ratio in the 2022 valuation under Option 1 and Option 2A is 88% and 81% under Option 2B. The Actuarial Contribution Rate in the 2022 valuation under Options 1 and 2A is 13.96% and 17.21% under Option 2B. The Required Contribution Rate in the 2022 valuation under Options 1 and 2A is 15.73% and 16.73% under Option 2B.

One interesting observation from this graph is that the highest contribution rates are similar under all scenarios, largely because they are the result of the stochastic returns that reflect investment scenarios below the assumed return and any funds diverted to FED/SAAM would be small. Also, as the graph shows, reflecting the expected future benefit payments from the FED/SAAM in the valuation only increases liabilities so the opportunity for lower contribution rates is less likely to occur. Note the two bars on the right are higher than the one on the left as time progresses.

Finally, the fact that reflecting the expected transfers to the FED and SAAM in the funding valuation reduces the System's funded ratio and increases contribution rates is fully expected because there is a cost for the additional benefits expected to be paid in future years. The following table shows the present value of the expected additional benefits to current members over the next 30 years. Note that these amounts are transfers to the FED Reserve rather than benefit amounts immediately paid to members.

Expected Present Value of Additional Benefits

($ in millions)	Not Funded in Advance		Funded in Advance	
Percentile	FED	SAAM	FED	SAAM
10%	$ 0.0	$ 0.0	$ 0.0	$ 0.0
25%	712.0	168.7	707.7	265.1
50%	2,938.7	525.0	2,717.5	699.0
75%	5,862.8	792.4	5,363.1	1,058.0
90%	7,857.9	960.3	7,223.0	1,309.3

If the expected benefits from the FED and SAAM are funded in advance by increasing liabilities in the funding valuation, it reduces the System's funded status and takes more time to become 100% funded. Therefore, as the table above illustrates, total transfers to the FED over the projection period are smaller. However, advance funding of these provisions in the valuation will result in higher contribution rates. Coupled with the current IPERS funding policy that intentionally reduces the Required Contribution Rate slowly, there are more occurrences when a SAAM could be paid when the FED and SAAM are funded in advance.

Because the FED and SAAM policies, as well as the funding policy, work to reduce the amount of assets above the actuarial liability in different ways, the result may not satisfactorily meet the goals of either approach. During this analysis, mechanisms were considered to resolve or mitigate this situation, but the fundamental issue of competing interests could not be eliminated.

Option 3: Eliminate the FED/SAAM and Move to Traditional COLA

As mentioned previously, another alternative proposed for this study was to replace the FED/SAAM provisions with a standard cost-of-living adjustment (COLA) design. For this purpose, several options were proposed in order to provide a range of costs. Under each of the proposed options, the COLA amount is based on the recipient's benefit amount during the immediately preceding year (i.e., a compound COLA) and the benefit increase cannot exceed the actual rate of inflation.

Option 1: 2.5% COLA, commencing immediately upon retirement.

Option 2: 2.5% COLA, deferred to age 65 for Regular members, age 55 for Sheriffs & Deputies, and age 60 for Protection Occupation.

Option 3: 2.5% COLA, deferred to age 70 for Regular members, age 60 for Sheriffs & Deputies, and age 65 for Protection Occupation.

Option 4: 1.5% COLA, commencing immediately upon retirement.

Option 5: 1.5% COLA, deferred to age 65 for Regular members, age 55 for Sheriffs & Deputies, and age 60 for Protection Occupation.

Option 6: 1.5% COLA, deferred to age 70 for Regular members, age 60 for Sheriffs & Deputies, and age 65 for Protection Occupation.

While the proposed COLAs granted each year would be capped at the actual rate of inflation, our analysis indicated the cap of actual inflation would not significantly lower the long-term expected COLA increases. Therefore, the cost analysis in this study assumes a 2.5% COLA each year for Options 1 through 3 and a 1.5% COLA each year for Options 4 through 6.

The proposed COLA options increase the benefit amounts for both current and future retirees and, therefore, the actuarial liability for both groups. Because this affects current and future retirees, the increase in the unfunded actuarial liability was amortized over a period of 20 years. The same methodology as is used in the actuarial valuation for determining the payment schedule (i.e., level-percent of payroll for all groups) was used in this cost study.

The impact to the unfunded actuarial liability, funded ratio and the Actuarial Contribution Rate are summarized in the following table for all membership groups (Regular, Sheriffs & Deputies, and Protection Occupation). More detailed exhibits can be found in the Appendix attached to this letter.

COLA Option:		(1)	(2)	(3)	(4)	(5)	(6)
($ in millions)	6/30/2022 Valuation	2.5% COLA Immediate	2.5% COLA Deferred to 65	2.5% COLA Deferred to 70	1.5% COLA Immediate	1.5% COLA Deferred to 65	1.5% COLA Deferred to 70
Regular Members							
- Unfunded Actuarial Liability	$4,745	$14,876	$13,299	$11,027	$10,377	$9,524	$8,280
- Funded Ratio	88.45%	70.96%	73.21%	76.72%	77.79%	79.24%	81.45%
- Actuarial Contribution Rate	13.96%	25.34%	23.31%	20.57%	20.27%	19.18%	17.68%
Sheriffs & Deputies							
- Unfunded Actuarial Liability	($40.0)	$187.8	$176.5	$140.3	$85.8	$79.7	$60.2
- Funded Ratio	104.70%	82.57%	83.45%	86.38%	91.21%	91.77%	93.66%
- Actuarial Contribution Rate	16.78%	31.77%	30.62%	27.48%	24.08%	23.47%	21.78%
Protection Occupation							
- Unfunded Actuarial Liability	($89.4)	$429.5	$378.8	$279.7	$198.4	$171.1	$117.1
- Funded Ratio	104.41%	83.15%	84.83%	88.34%	91.44%	92.53%	94.76%
- Actuarial Contribution Rate	15.31%	26.93%	25.19%	22.43%	21.06%	20.12%	18.62%

As shown in the earlier table, there is a significant cost to implementing any of the proposed traditional COLAs for all three groups as demonstrated by a large decrease in the funded ratio and a large increase in the Actuarial Contribution Rate. The Sheriffs & Deputies and the Protection Occupation groups contribute the full Actuarial Contribution Rate, so while their contributions would increase significantly – for both employers and employees – these changes are not expected to have a material impact on their projected funding status. Unlike those two groups, the Required Contribution Rate for the Regular membership group cannot increase by more than 1.0% in any given year, which means that any of the proposed COLAs would result in a contribution rate shortfall, ranging from 0.95% of pay under Option 6 to 8.61% of pay under Option 1. While the contribution rate shortfall would eventually be eliminated by future increases in the Required Contribution Rate, it still increases the ultimate cost of implementing any of the proposed standard COLAs.

The costs shown in the tables above assume that all assumptions will be met exactly in each future year, including the assumed investment return of 7.00%. The proposed standard COLAs would significantly increase the future benefit payments for both current and future retirees, and therefore, increase the System's funding risk. The actual cost of the COLA will be dependent on the actual experience in future years including retirement patterns, actual inflation, actual investment returns and mortality experience. To the extent actual experience as it unfolds in the future is different than that assumed, the cost estimates provided here will also be different. For example, if actual investment returns are lower than assumed or members live longer than expected, the cost of the proposed COLAs will be higher than anticipated. Once a COLA is granted, the benefit increase generally cannot be reduced or removed in the future. Therefore, lower investment returns and/or longer life expectancies would result in a higher unfunded actuarial liability than anticipated in this study and a corresponding higher contribution rate to fund the COLA than shown in this cost study.

Data, Assumptions and Methodology

The analysis in this letter is based primarily upon the June 30, 2022 actuarial valuation results, the actuarial assumptions and methods used in that valuation (see Appendix C), and the projection model prepared by the System's actuary, Cavanaugh Macdonald Consulting, LLC. In order to prepare these results, we have utilized appropriate actuarial models and related software that in our professional judgment have the capability to provide results that are consistent with the purpose of this study and have no material limitations or known weaknesses. 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. We performed analysis to ensure the model reasonably represents that which is intended to be modeled. These models use assumptions about future contingent events, along with recognized actuarial approaches, to develop the necessary results.

Models are designed to identify anticipated trends and to compare various scenarios rather than predicting some future state of events. The projections do not predict the System's financial condition or its ability to pay benefits in the future and do not provide any guarantee of future financial soundness of the System. Over time, a defined benefit plan's total cost will depend on a number of factors, including the amount of benefits paid, the number of people paid benefits, the duration of the benefit payments, plan expenses, and the amount of earnings on assets invested to pay benefits. These amounts and other variables are uncertain

and unknowable at the time the projections were made. Because actual experience will not unfold exactly as expected, actual results can be expected to differ from the projections. To the extent that actual experience deviates significantly from the assumptions, results could be significantly better or significantly worse than indicated in this study. This cost analysis has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statement of Actuarial Opinion of the American Academy of Actuaries.

We have not explored any legal issues with respect to the proposed plan changes. We are not attorneys and cannot give legal advice on such issues. We suggest that you review this proposal with counsel.

We, Patrice A. Beckham, FSA, and Brent A. Banister, FSA, are consulting actuaries with Cavanaugh Macdonald Consulting, LLC. We are members of the American Academy of Actuaries, Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions or additional information is needed, please let us know.

Sincerely,

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Brent. A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Actuary

Bryan K. Hoge, FSA, FCA, EA, MAAA
Consulting Actuary

APPENDIX

Detailed Cost Impact Analysis for Replacing FED/SAAM with a Traditional COLA

(Regular Members)

COLA Option:		(1)	(2)	(3)	(4)	(5)	(6)
($ in millions)	6/30/2022 Valuation	2.5% COLA Immediate	2.5% COLA Deferred to 65	2.5% COLA Deferred to 70	1.5% COLA Immediate	1.5% COLA Deferred to 65	1.5% COLA Deferred to 70
Actuarial Liability	$41,091	$51,222	$49,645	$47,373	$46,723	$45,870	$44,625
Actuarial Value of Assets	36,346	36,346	36,346	36,346	36,346	36,346	36,346
Unfunded Actuarial Liability	$4,745	$14,876	$13,299	$11,027	$10,377	$9,524	$8,280
Change from 6/30/2022 Valuation		**$10,131**	**$8,554**	**$6,282**	**$5,632**	**$4,779**	**$3,535**
Funded Ratio	88.45%	70.96%	73.21%	76.72%	77.79%	79.24%	81.45%
Change from 6/30/2022 Valuation		**(17.49%)**	**(15.24%)**	**(11.73%)**	**(10.66%)**	**(9.21%)**	**(7.00%)**
Normal Cost Rate	10.60%	13.34%	12.67%	11.88%	12.11%	11.75%	11.32%
UAL Contribution Rate	3.36%	12.00%	10.64%	8.69%	8.16%	7.43%	6.36%
Actuarial Contribution Rate	13.96%	25.34%	23.31%	20.57%	20.27%	19.18%	17.68%
Change from 6/30/2022 Valuation		**11.38%**	**9.35%**	**6.61%**	**6.31%**	**5.22%**	**3.72%**
Required Contribution Rate	15.73%	16.73%	16.73%	16.73%	16.73%	16.73%	16.73%
Change from 6/30/2022 Valuation		**1.00%**	**1.00%**	**1.00%**	**1.00%**	**1.00%**	**1.00%**
Employee Contribution Rate	6.29%	6.69%	6.69%	6.69%	6.69%	6.69%	6.69%
Employer Contribution Rate	9.44%	10.04%	10.04%	10.04%	10.04%	10.04%	10.04%
Change from 6/30/2022 Valuation		**0.60%**	**0.60%**	**0.60%**	**0.60%**	**0.60%**	**0.60%**
Contribution Shortfall/(Surplus)	(1.77%)	8.61%	6.58%	3.84%	3.54%	2.45%	0.95%

APPENDIX

Detailed Cost Impact Analysis for Replacing FED/SAAM with a Traditional COLA

(Sheriffs & Deputies)

COLA Option: ($ in millions)	6/30/2022 Valuation	(1) 2.5% COLA Immediate	(2) 2.5% COLA Deferred to 55	(3) 2.5% COLA Deferred to 60	(4) 1.5% COLA Immediate	(5) 1.5% COLA Deferred to 55	(6) 1.5% COLA Deferred to 60
Actuarial Liability	$849.7	$1,077.4	$1,066.1	$1,029.9	$975.4	$969.4	$949.8
Actuarial Value of Assets	889.6	889.6	889.6	889.6	889.6	889.6	889.6
Unfunded Actuarial Liability	($40.0)	$187.8	$176.5	$140.3	$85.8	$79.7	$60.2
Change from 6/30/2022 Valuation		**$227.7**	**$216.4**	**$180.2**	**$125.7**	**$119.7**	**$100.2**
Funded Ratio	104.70%	82.57%	83.45%	86.38%	91.21%	91.77%	93.66%
Change from 6/30/2022 Valuation		**(22.13%)**	**(21.25%)**	**(18.32%)**	**(13.49%)**	**(12.93%)**	**(11.04%)**
Normal Cost Rate	16.78%	21.62%	21.10%	19.95%	19.43%	19.16%	18.54%
UAL Contribution Rate	0.00%	10.15%	9.52%	7.53%	4.65%	4.31%	3.24%
Actuarial Contribution Rate	16.78%	31.77%	30.62%	27.48%	24.08%	23.47%	21.78%
Change from 6/30/2022 Valuation		**14.99%**	**13.84%**	**10.70%**	**7.30%**	**6.69%**	**5.00%**
Required Contribution Rate	17.02%	31.77%	30.62%	27.48%	24.08%	23.47%	21.78%
Change from 6/30/2022 Valuation		**14.75%**	**13.60%**	**10.46%**	**7.06%**	**6.45%**	**4.76%**
Employee Contribution Rate	8.51%	15.89%	15.31%	13.74%	12.04%	11.74%	10.89%
Employer Contribution Rate	8.51%	15.88%	15.31%	13.74%	12.04%	11.73%	10.89%
Change from 6/30/2022 Valuation		**7.37%**	**6.80%**	**5.23%**	**3.53%**	**3.22%**	**2.38%**
Contribution Shortfall/(Surplus)	(0.24%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

APPENDIX

Detailed Cost Impact Analysis for Replacing FED/SAAM with a Traditional COLA

(Protection Occupation)

COLA Option: ($ in millions)	6/30/2022 Valuation	(1) 2.5% COLA Immediate	(2) 2.5% COLA Deferred to 60	(3) 2.5% COLA Deferred to 65	(4) 1.5% COLA Immediate	(5) 1.5% COLA Deferred to 60	(6) 1.5% COLA Deferred to 65
Actuarial Liability	$2,029.3	$2,548.2	$2,497.5	$2,398.4	$2,317.1	$2,289.8	$2,235.8
Actuarial Value of Assets	2,118.7	2,118.7	2,118.7	2,118.7	2,118.7	2,118.7	2,118.7
Unfunded Actuarial Liability	($89.4)	$429.5	$378.8	$279.7	$198.4	$171.1	$117.1
Change from 6/30/2022 Valuation		**$518.9**	**$468.3**	**$369.1**	**$287.8**	**$260.5**	**$206.5**
Funded Ratio	104.41%	83.15%	84.83%	88.34%	91.44%	92.53%	94.76%
Change from 6/30/2022 Valuation		**(21.26%)**	**(19.58%)**	**(16.07%)**	**(12.97%)**	**(11.88%)**	**(9.65%)**
Normal Cost Rate	15.31%	19.45%	18.62%	17.60%	17.59%	17.14%	16.59%
UAL Contribution Rate	0.00%	7.48%	6.57%	4.83%	3.47%	2.98%	2.03%
Actuarial Contribution Rate	15.31%	26.93%	25.19%	22.43%	21.06%	20.12%	18.62%
Change from 6/30/2022 Valuation		**11.62%**	**9.88%**	**7.12%**	**5.75%**	**4.81%**	**3.31%**
Required Contribution Rate	15.52%	26.93%	25.19%	22.43%	21.06%	20.12%	18.62%
Change from 6/30/2022 Valuation		**11.41%**	**9.67%**	**6.91%**	**5.54%**	**4.60%**	**3.10%**
Employee Contribution Rate	6.21%	10.77%	10.08%	8.97%	8.42%	8.05%	7.45%
Employer Contribution Rate	9.31%	16.16%	15.11%	13.46%	12.64%	12.07%	11.17%
Change from 6/30/2022 Valuation		**6.85%**	**5.80%**	**4.15%**	**3.33%**	**2.76%**	**1.86%**
Contribution Shortfall/(Surplus)	(0.21%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

June 3, 2022

Mr. Greg Samorajski
Chief Executive Officer
Iowa Public Employees Retirement System
7401 Register Drive
PO Box 9117
Des Moines, IA 50321

Re: Cost Study for Expanding Eligibility for Automatic Post-Retirement Dividends and Elimination of the Favorable Experience Dividend Reserve Account

Dear Greg:

At your request, we have prepared a cost study to analyze the impact of expanding the eligibility requirements for receiving a post-retirement dividend and eliminating the current provisions that provide a Favorable Experience Dividend (FED).

Currently, automatic annual dividends are paid to members who retired prior to July 1, 1990 in the form of a 13th check. The automatic dividend amount is adjusted each year by the least of the following percentages: (i) the change in the CPI, (ii) percentage certified by the actuary as affordable by the System, and (iii) 3.0%.

For members who retired on or after July 1, 1990, a FED reserve account was established (via 1998 legislation) to help offset the negative effects of post-retirement inflation by paying dividends to these members when there is sufficient favorable experience on the System's actuarial liabilities and assets. The balance in the FED reserve has been zero since the June 30, 2014 actuarial valuation, and no money can be transferred to the account until the System is 100% funded. As of June 30, 2021, the funded ratio for the System was 88.3% using the actuarial value of assets and 100.8% using the market value of assets.

Under the alternative scenarios proposed for this study, the eligibility requirements for the automatic dividend payment will be expanded to include a larger number of retirees and beneficiaries, and the FED reserve account will be eliminated. Each proposal expands the eligibility criteria to include the following groups:

- Proposal A – Those retired before July 1, 2000.
- Proposal B – Those retired before July 1, 2005.
- Proposal C – All members once they have been retired for 20 years.

Cost Analysis

The results of this study are based on the most recent actuarial valuation, prepared as of June 30, 2021. The following tables summarize the impact for the Regular Members, Sheriffs and Deputies, and Protection Occupation members. Under each proposal, we valued a payment starting in FY 2022 that is 2.6% of the prior year's benefit. This is the same assumption as is used for the current group that receives the dividend. For Proposals A and B, these benefits start immediately for the identified closed group of retirees and beneficiaries. For Proposal C, where the payments are assumed to start 20 years after retirement, those who have already been retired 20 years or longer receive the payment in FY 2022, while those who have been retired less than 20 years, or have not yet commenced benefits, are assumed to receive the payment when they have been retired 20 years.

Regular Members ($ in millions)

	6/30/2021 Valuation	(A) Retired Before 7/1/2000	(B) Retired Before 7/1/2005	(C) All Members Retired 20+ Years
Actuarial Liability	$39,777.9	$39,936.8	$40,347.4	$41,631.0
Actuarial Value of Assets	34,734.9	34,734.9	34,735.0	34,735.1
Unfunded Actuarial Liability (UAL)	$5,043.0	$5,201.9	$5,612.3	$6,895.9
Impact Compared to 6/30/2021 Valuation		**158.8**	**569.3**	**1,852.9**
Funded Ratio	87.32%	86.97%	86.09%	83.44%
Impact Compared to 6/30/2021 Valuation		**(0.35%)**	**(1.23%)**	**(3.88%)**
FY 2023 Contribution Rates				
Normal Cost Rate	10.49%	10.49%	10.49%	10.70%
UAL Contribution Rate	3.65%	3.79%	4.15%	5.27%
Actuarial Contribution Rate	14.14%	14.28%	14.64%	15.97%
Impact Compared to 6/30/2021 Valuation		**0.14%**	**0.50%**	**1.83%**
Required Contribution Rate	15.73%	15.73%	15.73%	15.97%
Contribution Shortfall/(Margin)	(1.59%)	(1.45%)	(1.09%)	0.00%
Impact Compared to 6/30/2021 Valuation		**0.14%**	**0.50%**	**1.59%**

Note: Future FED benefit payments are not currently reflected in the actuarial valuation.
Increase in the unfunded actuarial liability is amortized over a closed 20-year period.
Numbers may not add due to rounding.

For Proposals A and B, the current margin of the Required Contribution Rate over the Actuarial Contribution Rate allows the provision to be enacted without an immediate increase in the Required Contribution Rate. Proposal C would require an increase in the Required Contribution Rate, which impacts both the employer and member contribution rate.

Sheriffs & Deputies ($ in millions)

	6/30/2021 Valuation	(A) Retired Before 7/1/2000	(B) Retired Before 7/1/2005	(C) All Members Retired 20+ Years
Actuarial Liability	$816.7	$817.9	$825.0	$859.8
Actuarial Value of Assets	839.0	839.0	839.0	838.9
Unfunded Actuarial Liability (UAL)	($22.3)	($21.1)	($14.0)	$20.9
Impact Compared to 6/30/2021 Valuation		**$1.2**	**$8.3**	**$43.2**
Funded Ratio	102.73%	102.58%	101.70%	97.57%
Impact Compared to 6/30/2021 Valuation		**(0.15%)**	**(1.03%)**	**(5.16%)**
FY 2023 Contribution Rates				
Normal Cost Rate	16.93%	16.93%	16.93%	17.42%
UAL Contribution Rate	0.00%	0.00%	0.00%	1.43%
Actuarial Contribution Rate	16.93%	16.93%	16.93%	18.85%
Impact Compared to 6/30/2021 Valuation		**0.00%**	**0.00%**	**1.92%**
Required Contribution Rate	17.52%	17.52%	17.52%	18.85%
Contribution Shortfall/(Margin)	(0.59%)	(0.59%)	(0.59%)	0.00%
Impact Compared to 6/30/2021 Valuation		**0.00%**	**0.00%**	**0.59%**

Note: Future FED benefit payments are not currently reflected in the actuarial valuation.

Increase in the actuarial liability reduces the surplus (which is amortized over 30 years) under Proposals A and B, while creating a net unfunded liability to be amortized over a closed 20-year period under Proposal C.

Numbers may not add due to rounding.

For Proposals A and B, the current margin of the Required Contribution Rate over the Actuarial Contribution Rate allows the provision to be enacted without an immediate increase in the Required Contribution Rate. Proposal C would require an increase in the Required Contribution Rate, which impacts both the employer and member contribution rate.

Protection Occupation ($ in millions)

	6/30/2021 Valuation	(A) Retired Before 7/1/2000	(B) Retired Before 7/1/2005	(C) All Members Retired 20+ Years
Actuarial Liability	$1,950.0	$1,952.4	$1,962.8	$2,030.2
Actuarial Value of Assets	2,011.1	2,011.0	2,011.0	2,011.1
Unfunded Actuarial Liability (UAL)	($61.1)	($58.7)	($48.2)	$19.1
Impact Compared to 6/30/2021 Valuation		**$2.4**	**$12.8**	**$80.1**
Funded Ratio	103.13%	103.00%	102.46%	99.06%
Impact Compared to 6/30/2021 Valuation		**(0.13%)**	**(0.67%)**	**(4.07%)**
FY 2023 Contribution Rates				
Normal Cost Rate	15.30%	15.30%	15.30%	15.65%
UAL Contribution Rate	0.00%	0.00%	0.00%	0.59%
Actuarial Contribution Rate	15.30%	15.30%	15.30%	16.24%
Impact Compared to 6/30/2021 Valuation		**0.00%**	**0.00%**	**0.94%**
Required Contribution Rate	15.52%	15.52%	15.52%	16.24%
Contribution Shortfall/(Margin)	(0.22%)	(0.22%)	(0.22%)	0.00%
Impact Compared to 6/30/2021 Valuation		**0.00%**	**0.00%**	**0.22%**

Note: Future FED benefit payments are not currently reflected in the actuarial valuation.

Increase in the actuarial liability reduces the surplus (which is amortized over 30 years) under Proposals A and B, while creating a net unfunded actuarial liability to be amortized over a closed 20-year period under Proposal C.

Numbers may not add due to rounding.

For Proposals A and B, the current margin of the Required Contribution Rate over the Actuarial Contribution Rate allows the provision to be enacted without an immediate increase in the Required Contribution Rate. Proposal C would require an increase in the Required Contribution Rate, which impacts both the employer and member contribution rate.

As shown in the tables, each of the proposed plan changes will result in an increase in the actuarial liability, a lower funded ratio, and (in some cases) a higher total actuarial contribution rate. Under Proposals A and B, the increase in the actuarial liability is lower because the dividends are only granted to older retirees and beneficiaries. Under Proposal C, all current members, including actives and recent retirees/beneficiaries, are eligible for a dividend payment so the increase in the liability and the associated cost is greater.

As mentioned earlier, if any of these proposals are adopted, we assumed the provisions regarding the FED reserve would be eliminated. Even though the balance in the FED reserve has been zero for several years,

and it's been even longer since any transfers have been made, this is expected to change as the System approaches 100% funding. Once the System reaches 100% funding, the FED is expected to produce significant costs and, therefore, eliminating the provisions to grant the FED is expected to produce significant savings in the future. The expected benefit payments from the FED are not currently reflected in the actuarial valuation so we cannot easily quantify the impact of eliminating this benefit but based on our professional judgement the liability is significant.

Risk Considerations

These proposals have several implications for the risks faced by IPERS. First, one assumption used to value the proposed change to the benefit structure is that the annual increase would be 2.6%, the current inflation assumption. To the extent that inflation is higher or lower, the costs of this proposal will increase or decrease. Note that there is a cap of 3% for the current dividend, limiting the upward risk. The current dividend is also increased only if the System can afford the increase without an immediate increase in contribution rates. If this provision applies to the new dividend proposals, it will help mitigate the risk. Of course, since the liability for the benefits is built into the funding calculations, this protection only applies in limited situations.

A second consideration is that Proposals A and B extend new benefits only to a closed group of older retirees and beneficiaries. This limits the risk under these proposals since the number of people in the group will decline over time and eventually be gone.

Finally, it should be noted that for each of the three membership groups, Proposals A and B did not increase the Required Contribution Rate. This does not mean that these proposed dividend provisions have no cost. To the extent that benefit payments in the future are higher under these proposals, there is an increase in the System's liability and the costs. However, the current contribution margin (excess of the Required Contribution Rate over the Actuarial Contribution Rate) is adequate to absorb the initial cost increase as of June 30, 2021. The results as of June 30, 2022 valuation may be different as a result of any assumption changes adopted by the Investment Board and the actual FY 2022 investment performance.

Data, Assumptions and Methodology

The analysis contained in this letter is based on the June 30, 2021 actuarial valuation. To the extent that any of that data is inaccurate, our analysis may need to be revised. In order to prepare the results in this letter, we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the results. Unless otherwise noted, the actuarial assumptions and methods used in analyzing this proposed plan change are the same as those used in the June 30, 2021 actuarial valuation, which are shown in Appendix C of that report. Note that the quadrennial experience study is currently in process and the actuarial assumptions may change as a result of the findings of that study. Any change in the actuarial assumptions would likely impact the cost analysis included in this letter.

The comments and analysis contained in this letter are not intended to give exact calculations of costs. They should be considered as estimates. The emerging costs will vary from those presented in this letter to the extent that actual experience differs from that projected by the actuarial assumptions. This cost analysis has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statement of Actuarial Opinion of the American Academy of Actuaries.

We have not explored any legal issues with respect to the proposed plan changes. We are not attorneys and cannot give legal advice on such issues. We suggest that you review this proposal with counsel.

We, Patrice A. Beckham, FSA, and Brent A. Banister, FSA, are consulting actuaries with Cavanaugh Macdonald Consulting, LLC. We are members of the American Academy of Actuaries, Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions or additional information is needed, please let us know.

Sincerely,

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Brent. A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Actuary

Bill Number	Short Title	Description	Status
SF 507	ESG	An Act concerning public contracts by public funds with companies that boycott certain companies or that engage in nonpecuniary social investment practices.	Did not pass Senate
SF 418	China Divestment	This bill prohibits public funds, including IPERS, from investing in certain companies that are owned or controlled by the Chinese military or government.	Governor signed 5-3-23
HF 138	Language broadening Protection Occupation membership	This bill broadens the language that defines eligibility for membership in IPERS' Protection Occupation group. Previously, membership in the Protection Occupation group was available only to marshals, fire fighters and police officers who work for IPERS-covered city employers. The new language makes these employees eligible for membership in the Protection Occupation group if they work for any IPERS-covered employer.	Governor signed 4-28-23
SF 513	DOT/DPS transfer	As part of the state government realignment, employees of the Department of Transportation's Motor Vehicle Enforcement Bureau will be reassigned to the Iowa Department of Public Safety. Those employees who have fewer than 10 years of service will also transition to the State Peace Officers Retirement System. Those with more than 10 years of service will maintain IPERS coverage.	Governor signed 5-16-23
SF 557	Admin & Regs budget	In FY2024, IPERS' administrative budget will total $20,923,309, an increase of about $2.4 million from FY2023. In FY2024, IPERS is allocated 98.13 full time equivalent employees, 10 more than was allocated in FY2023. IPERS intends to hire six new investment professionals and four additional retirement benefit counselors.	Governor has not signed