

Status Update

The image shows a close-up, low-angle shot of a building's exterior. The building is light-colored with large windows. On the facade, the word "IOWA" is written in large, black, serif capital letters. The letter "O" is replaced by a blue silhouette of the state of Iowa, which contains a white graphic of a tree and a river. To the right of "IOWA", the word "PERS" is written in the same large, black, serif capital letters. The sky is blue with some light clouds, and there are green trees in the foreground.

Donna M. Mueller, CEO
IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
December 18, 2017
Presented to the Public Retirement Systems Committee

The logo for the Iowa Public Employees' Retirement System (Iowa PERS). It features the word "IOWA" in a white, serif font, where the letter "O" is replaced by a white silhouette of the state of Iowa containing a stylized tree and river. To the right of "IOWA", the word "PERS" is written in the same white, serif font. A small registered trademark symbol (®) is located to the upper right of the "S".

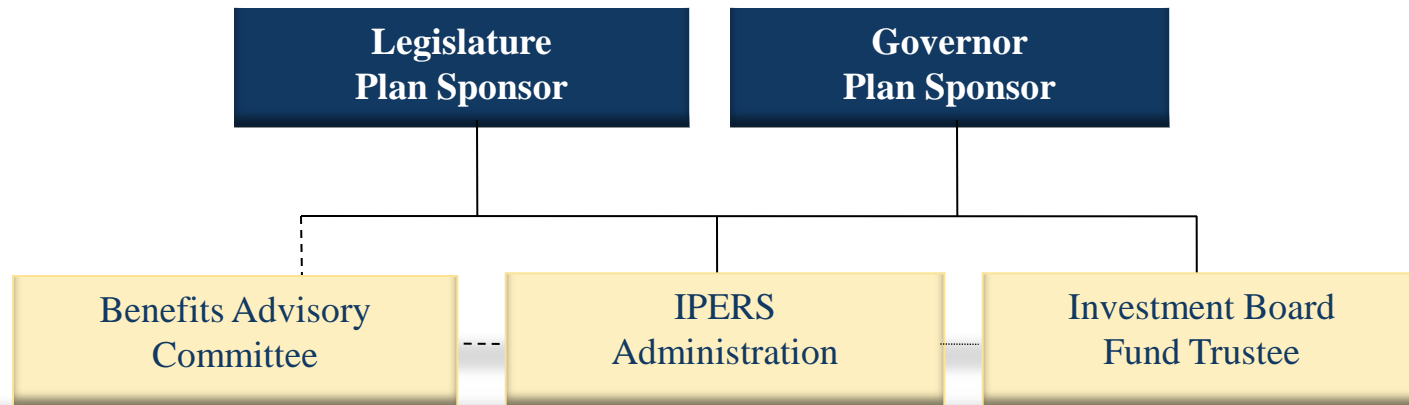
IPERS History 101



Established in 1953, to:

- Attract and retain a quality workforce
- Provide secure retirement with lifetime benefit payments

Governance



What is the role of the Plan Sponsor?

Creates plan

Determines participation

Establishes funding

Determines benefits

Monitors performance against plan goals

IPERS is a Defined Benefit Plan

- Paid as a lifetime, monthly annuity
- Amount is based on a formula
- Contributions from employee and employer
- Pooled contributions are invested by professional investment managers

IPERS Benefit Calculation

Average Salary
× Multiplier
– Reduction, If Any*

Annual IPERS Benefit

*Early-retirement reduction applies only to the benefits of Regular members who retire before normal retirement age.

Core Elements



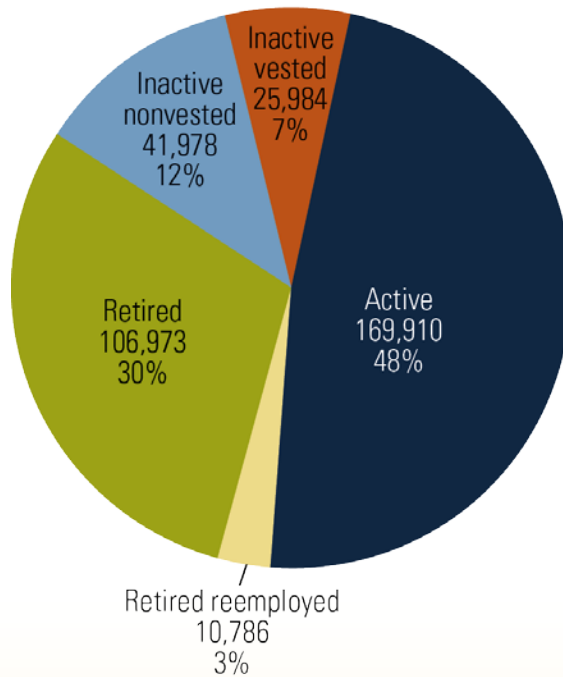
- Mandatory participation
- Pooled investment risk
- Pooled longevity risk
- Employer/employee cost-sharing
- Lifetime annuity
- Works with Social Security and personal savings

355,600 Members

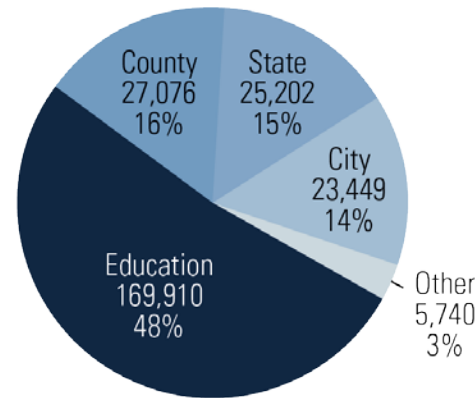


MEMBERSHIP

By Status



Active Members by Major Employer Type



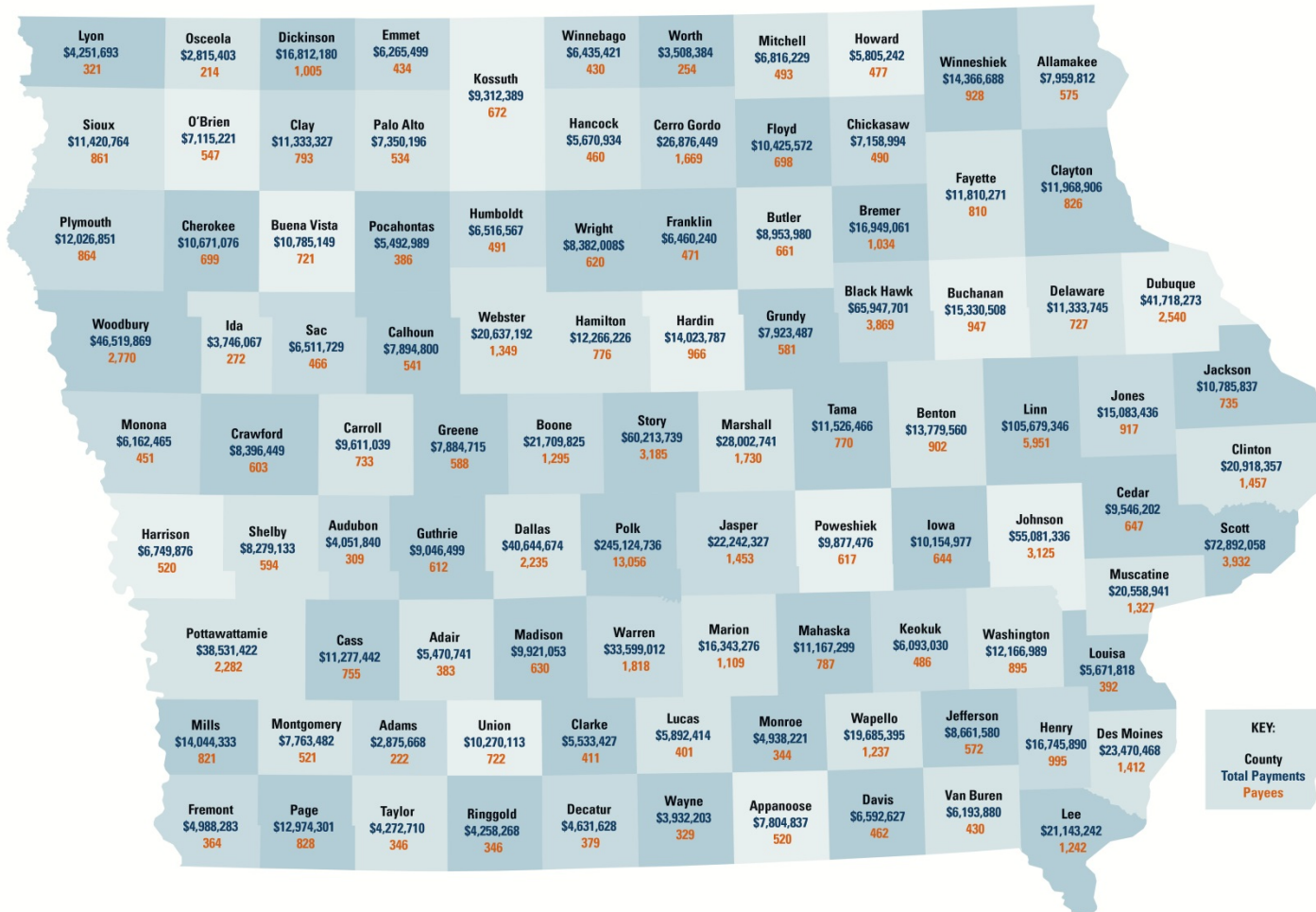
Regular members make up **95%**.

Special Service members make up **5%**.

As of 6/30/17

Benefit Payments by County

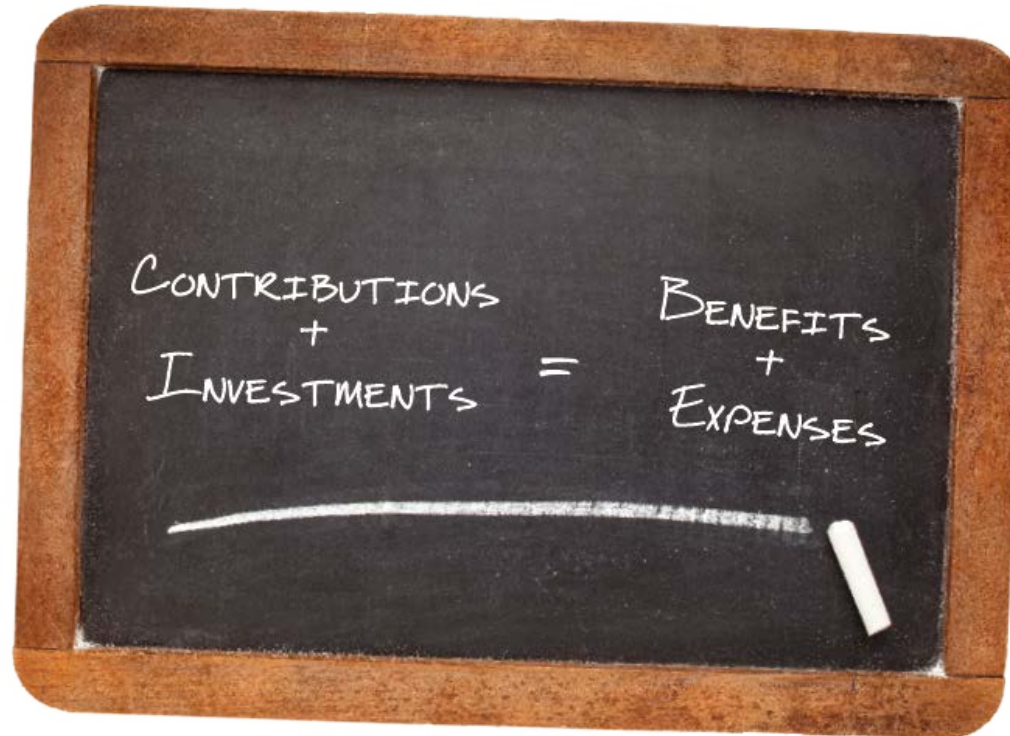
Benefit Payments by Iowa County
Fiscal Year 2017



- Over 117,000 retirees
- \$2 billion paid in benefits
- \$1.7 billion paid to lowans

KEY:
County
Total Payments
Payees

The Funding Equation



The key to secure funding for any pension system is managing to this equation.

IPERS' Shortfall (pre-2017)



\$5.6 billion UAL resulted from:

- Over a decade of insufficient contributions
- Two recessions – 2001 and 2009
- Changed assumptions
 - Updated mortality tables
- Unfunded benefit enhancements
 - FED payments

FY2017 Actuarial Valuation



Presented by

Patrice A. Beckham, FSA, EA, FCA, MAAA



Cavanaugh Macdonald Consulting

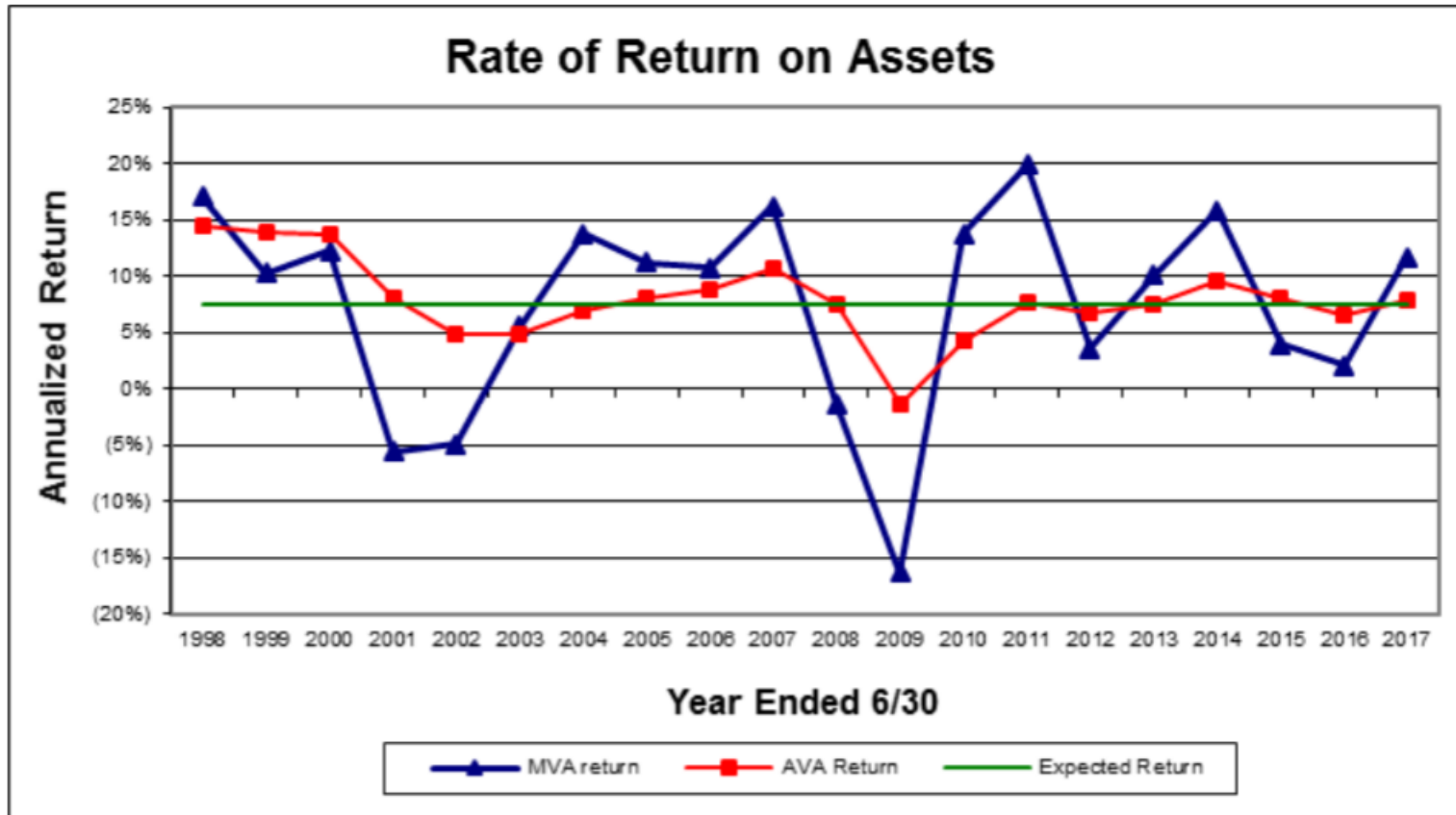
- Independent actuarial consulting firm
- Practicing entirely in the public sector
- Lead actuarial consultant to IPERS for many years

Actuarial Value of Assets



- Market value not used directly in valuation
- Asset valuation method used to smooth the effect of market fluctuations
- Actuarial value is expected value (based on 7.5% assumption) plus 25% of difference between actual and expected values
- Resulting value of actuarial assets must be within corridor of 80 – 120% of pure market value (corridor did not apply this year).

Historical Asset Returns



Expected return is 7.5% for all years. The assumption has been changed to 7.0% effective June 30, 2017.

Changes Since Prior Valuation



- No change to benefit structure
- No change to actuarial methods
- Change to actuarial assumptions
 - Economic assumptions modified pursuant to study prepared earlier this year
 - Inflation lowered from 3.0% to 2.6%
 - Investment return lowered from 7.5% to 7.0%
 - Interest on member accounts decreased from 3.75% to 3.50%
 - General wage growth assumption decreased from 4.00% to 3.25%
 - Payroll growth assumption was lowered from 4.00% to 3.25%
- Demographic assumptions reviewed in FY2018

Funded Status: Regular



Regular Members	June 30, 2016	Old Assumptions June 30, 2017	New Assumptions June 30, 2017
Actuarial Liability (AL)	\$32,578	\$33,829	\$35,177
Actuarial Value of Assets (AVA)	<u>27,001</u>	<u>28,293</u>	<u>28,293</u>
Unfunded AL (UAL)	\$ 5,576	\$ 5,536	\$ 6,884
Funded Ratio	82.9%	83.6%	80.4%

Note: Numbers may not add due to rounding.

Funded Status: Sheriffs & Deputies

Sheriffs & Deputies	Old Assumptions		New Assumptions
	June 30, 2016	June 30, 2017	June 30, 2017
Actuarial Liability (AL)	\$624.8	\$664.0	\$691.2
Actuarial Value of Assets (AVA)	<u>602.2</u>	<u>642.5</u>	<u>642.5</u>
Unfunded AL (UAL)	\$ 22.6	\$ 21.5	\$ 48.7
Funded Ratio	96.4%	96.8%	93.0%

Note: Numbers may not add due to rounding.

Funded Status: Protection Occupation

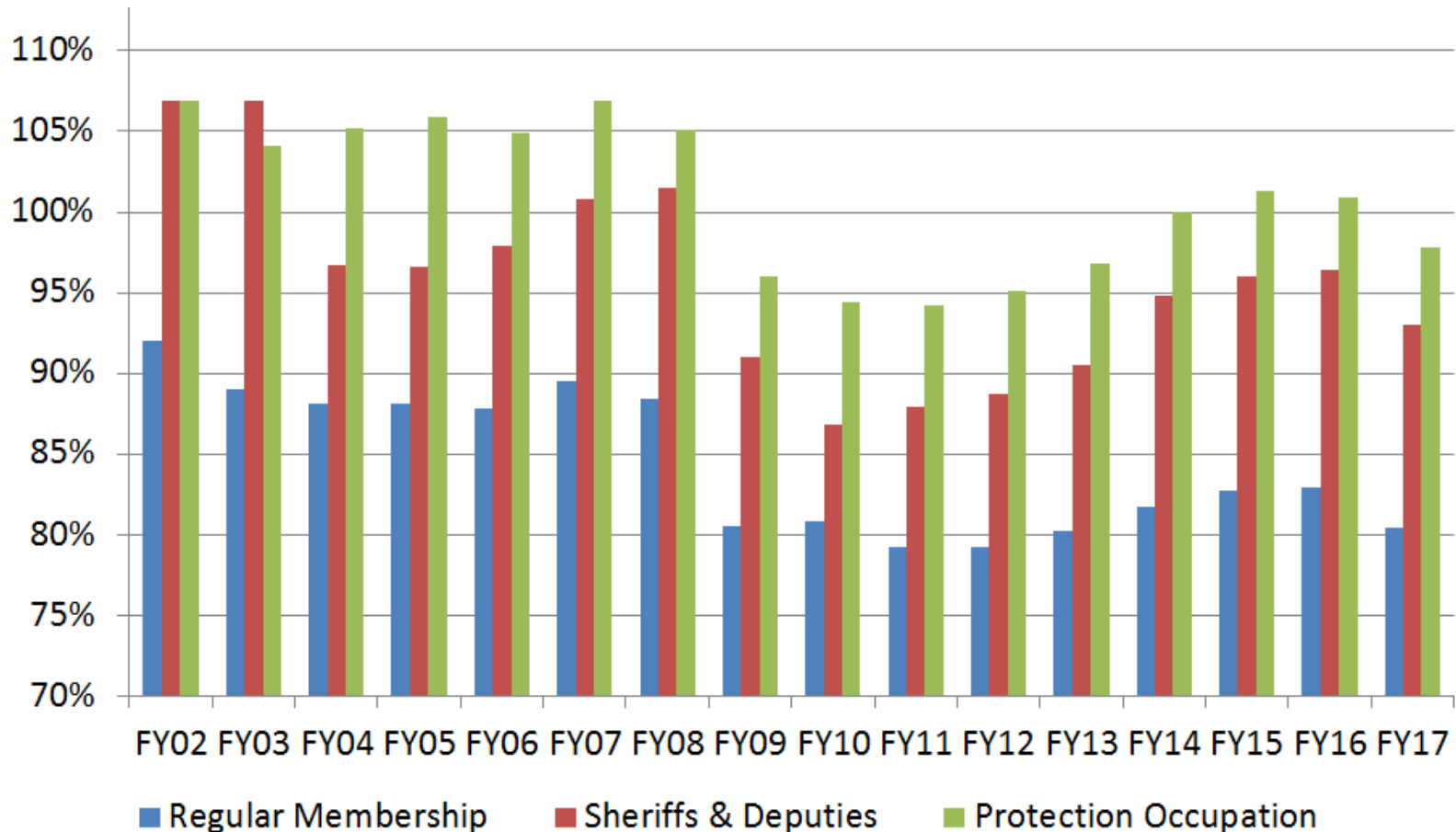
Protection Occupation	June 30, 2016	Old Assumptions June 30, 2017	New Assumptions June 30, 2017
Actuarial Liability (AL)	\$1,417	\$1,515	\$1,572
Actuarial Value of Assets (AVA)	<u>1,430</u>	<u>1,537</u>	<u>1,537</u>
Unfunded AL (UAL)	\$ (13)	\$ (22)	\$ 35
Funded Ratio	100.9%	101.5%	97.8%

Note: Numbers may not add due to rounding.

Case Study Within IPERS



Historical Funded Ratios By Membership Class



Unfunded Actuarial Liability (UAL \$M)

UAL June 30, 2016	\$5,586
– Contributions above actuarial rate	(58)
– Expected increase from amortization	52
– Investment experience	(102)
– Liability experience	33
– Changes to actuarial assumptions	1,433
– Other	24
UAL June 30, 2017	\$6,968

Note: This represents the total System.

Contribution Rates



Components

- Normal Cost (ongoing cost for actives)
- Amortization of UAL

UAL Amortization Policy

- June 30, 2014 base is amortized over a closed 30-year period (27 years remaining as of current valuation).
- Each year thereafter, changes in the expected UAL will result in the establishment of new base to be amortized over a separate closed 20-year period. (layered amortization)
- Once a group becomes fully funded, all outstanding bases are eliminated and the surplus is amortized over an open 30-year period.

Contribution Rates



Contribution Rate Funding Policy

Compares Required Contribution Rate (RCR) from prior year to Actuarial Contribution Rate (ACR) in current year.

- If $ACR < \text{previous RCR}$, then:
 - If difference is $< 0.50\%$, RCR is unchanged
 - If difference is $> 0.50\%$, RCR is lowered by 0.05% provided funded ratio is 95% or higher
- If $ACR > \text{previous RCR}$, then current RCR shall be:

Regular

Increased to
ACR with max 1%

Sheriffs/Deputies

Increased to ACR

Protection Occupation

Increased to ACR

Contribution Rates: Regular

Regular Members	June 30, 2016	Old Assumptions June 30, 2017	New Assumptions June 30, 2017
Normal Cost Rate	10.20%	10.18%	10.40%
UAL Rate	<u>4.01%</u>	<u>3.88%</u>	<u>5.33%</u>
Actuarial Contribution Rate	14.21%	14.06%	15.73%
Required Contribution Rate	14.88%	14.88%	15.73%
Shortfall/ (Margin)	(0.67%)	(0.82%)	0.00%
Employee Contribution Rate	5.95%	5.95%	6.29%
Employer Contribution Rate	8.93%	8.93%	9.44%

The Actuarial Contribution Rate is greater than the prior year's Required Contribution Rate by less than 1 percent. Therefore, the Required Contribution Rate was increased to the Actuarial Contribution Rate.

Contribution Rates: Sheriffs & Deputies

Sheriffs & Deputies	June 30, 2016	Old Assumptions	New Assumptions
		June 30, 2017	June 30, 2017
Normal Cost Rate	16.41%	16.44%	16.85%
UAL Rate	<u>0.91%</u>	<u>0.84%</u>	<u>2.67%</u>
Actuarial Contribution Rate	17.32%	17.28%	19.52%
Required Contribution Rate	18.76%	18.26%	19.52%
Shortfall/ (Margin)	(1.44%)	(0.98%)	0.00%
Employee Contribution Rate	9.38%	9.13%	9.76%
Employer Contribution Rate	9.38%	9.13%	9.76%

The Actuarial Contribution Rate is greater than the prior year's Required Contribution Rate. Therefore, the Required Contribution Rate was increased to the Actuarial Contribution Rate.

Contribution Rates: Protection Occupation

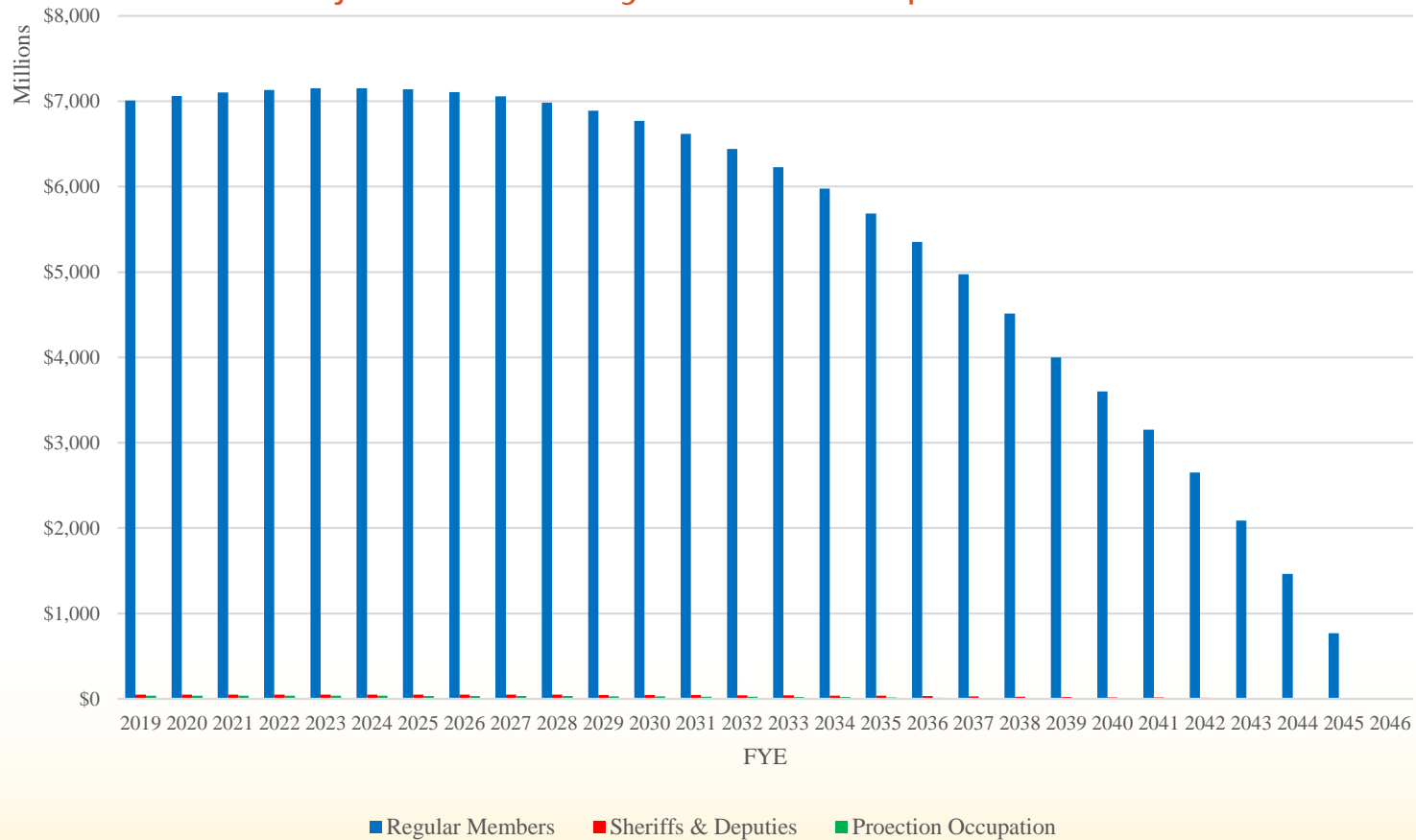
Protection Occupation	June 30, 2016	Old Assumptions June 30, 2017	New Assumptions June 30, 2017
Normal Cost Rate	15.99%	15.93%	16.31%
UAL Rate	<u>0.00%</u>	<u>0.00%</u>	<u>0.71%</u>
Actuarial Contribution Rate	15.99%	15.93%	17.02%
Required Contribution Rate	16.40%	16.40%	17.02%
Shortfall/ (Margin)	(0.41%)	(0.47%)	0.00%
Employee Contribution Rate	6.56%	6.56%	6.81%
Employer Contribution Rate	9.84%	9.84%	10.21%

The Actuarial Contribution Rate is greater than the prior year's Required Contribution Rate. Therefore, the Required Contribution Rate was increased to the Actuarial Contribution Rate.

Case Study Within IPERS



Projected UAL By Membership Class

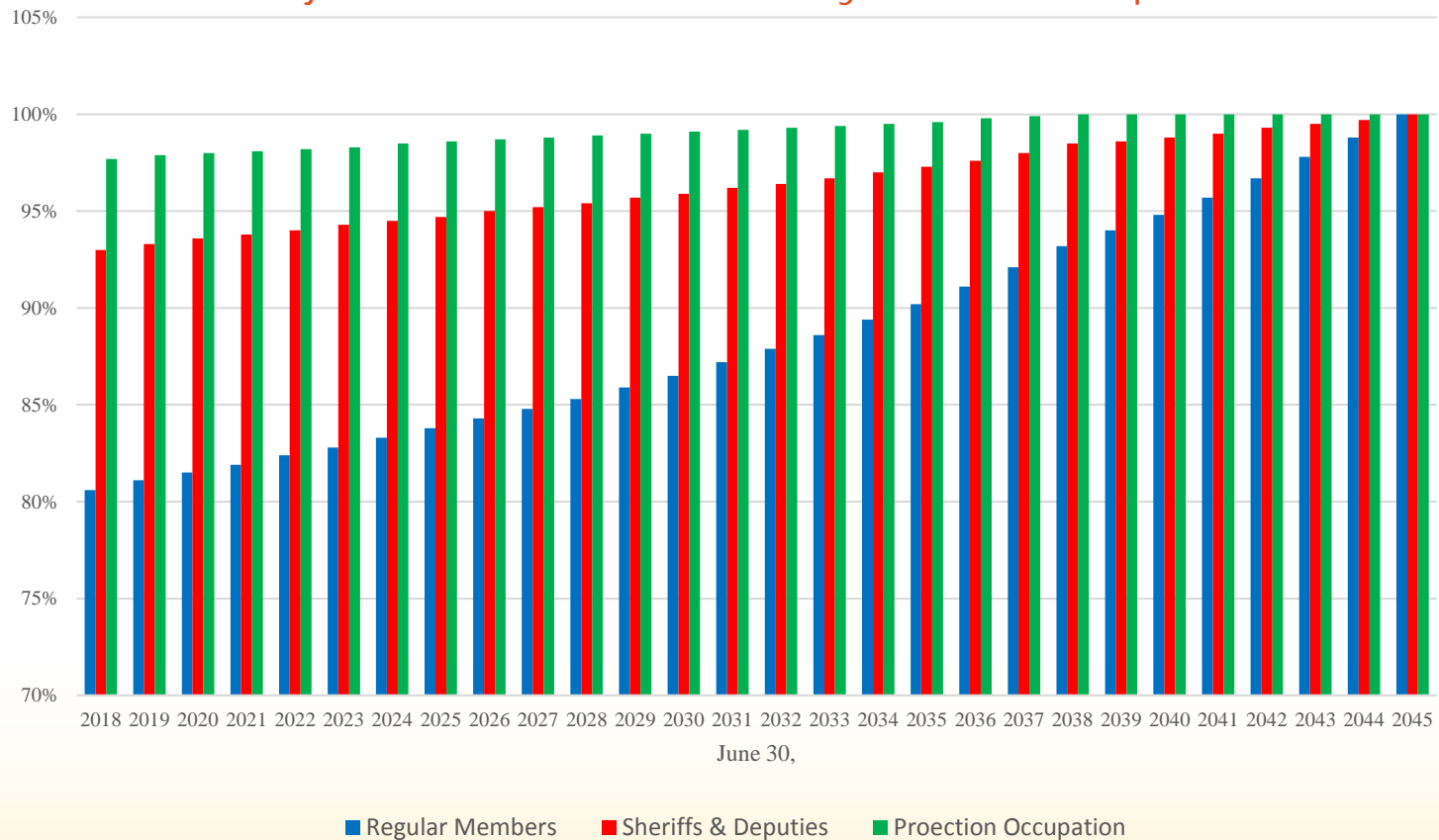


Projections assume current contribution rates remain in place and all actuarial assumptions are met in the future.

Case Study Within IPERS



Projected Funded Ratios By Membership Class



Projections assume current contribution rates remain in place and all actuarial assumptions are met in the future.

Key Funding Measurements

FY2017

- Ratio of actuarial assets to actuarial liabilities
81.4% (down from 83.9%)
- Unfunded actuarial liability (UAL) increased by
\$1.4 billion, largely because of the change in investment return rate
- Deferred investment gain of **\$307 million**

IPERS Investment Board



The Investment Board is the trustee of the Trust Fund

A fiduciary with a legal duty to act in accordance with all of the following:

- Solely in the interest of the participants and beneficiaries
- For the exclusive purpose of providing benefits to participants and beneficiaries and paying reasonable expenses



Wayne Walter
Chair
Voting Member
term expires 2019



Michael L. Fitzgerald
Vice Chair, State
Treasurer
Voting Member



David O. Creighton, Sr.
Voting Member
term expires 2021



Phyllis S. Peterson
Voting Member
term expires 2022



Marlene Sprouse
Voting Member
term expires 2023



Lisa Stange
Voting Member
term expires 2023



Dennis Young
Voting Member
term expires 2019



Mark S. Lofgren
State Senator
Nonvoting Member



Mary Mascher
State
Representative
Nonvoting Member



Matthew McCoy
State Senator
Nonvoting Member



Dawn E. Pettengill
State
Representative

IPERS Investment Board



Roles & Responsibilities

- Establish the investment policy and risk tolerance of the investment program
 - Asset allocation policy is most critical
- Hire investment managers and consultants
- Review investment performance, investment management expenses and IPERS' administrative budget
- Select the actuary and adopt actuarial methods, mortality tables and assumptions to be used by the actuary for the annual valuation of assets

Investment Staff



- Chief Investment Officer reports to IPERS' Board and CEO
- CIO and five investment officers oversee \$31 billion global portfolio
- Key responsibilities:
 - Implement the Board's investment policies
 - Manage investment risk within risk budgets set by the Board
 - Add value – earn more than the Board's strategic asset allocation
 - Advise Board on investment issues; make recommendations regarding asset allocation and implementation
 - Oversee and evaluate investment managers and recommend retention or removal; administer competitive bidding processes, divestment mandates
 - Make limited tactical allocation calls

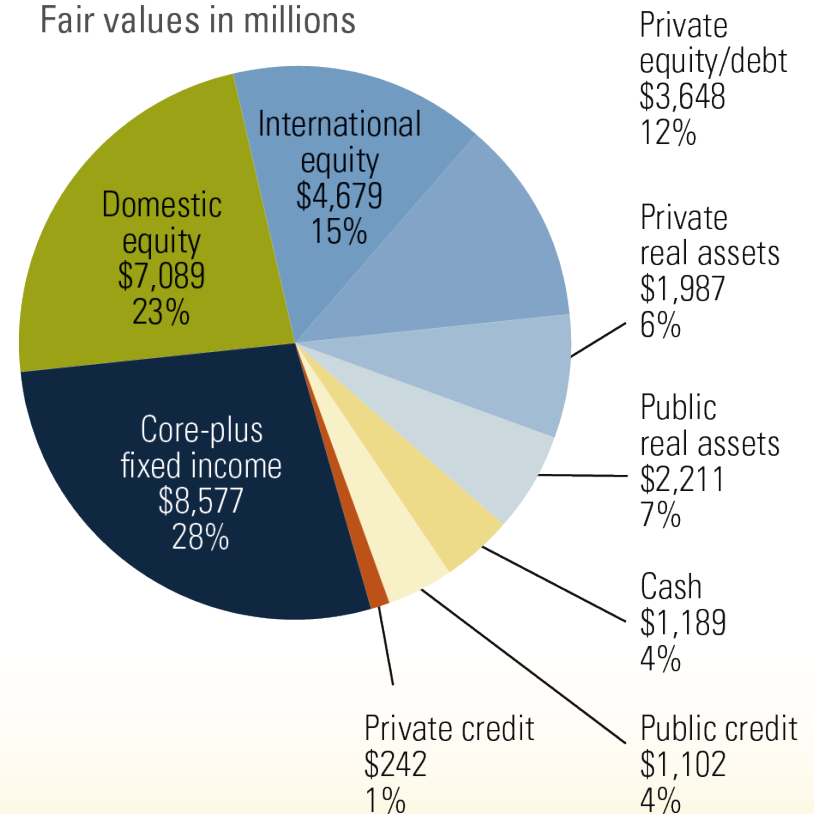
Strategic Asset Allocation



- Investment Board annually reviews & periodically adjusts
- Most important policy decision – drives 90% of total return
- How much risk is prudent?
 - Long-dated liabilities allow for long investment horizon
 - Can afford to take more equity and illiquidity risk
 - Cash flows must be monitored diligently

FUND ALLOCATION

Fair values in millions



As of June 30, 2017

Investment Performance



FY2017 was a good year for investments

- Fund earned 11.70% net of fees for year ended June 30, 2017
- Exceeded the 7.5% investment return assumption
- Exceeded the Policy Benchmark return of 11.17%
- 73% of active investment managers outperformed
- Investment expenses were 0.23%

IPERS' return reflects a lower risk profile than peers

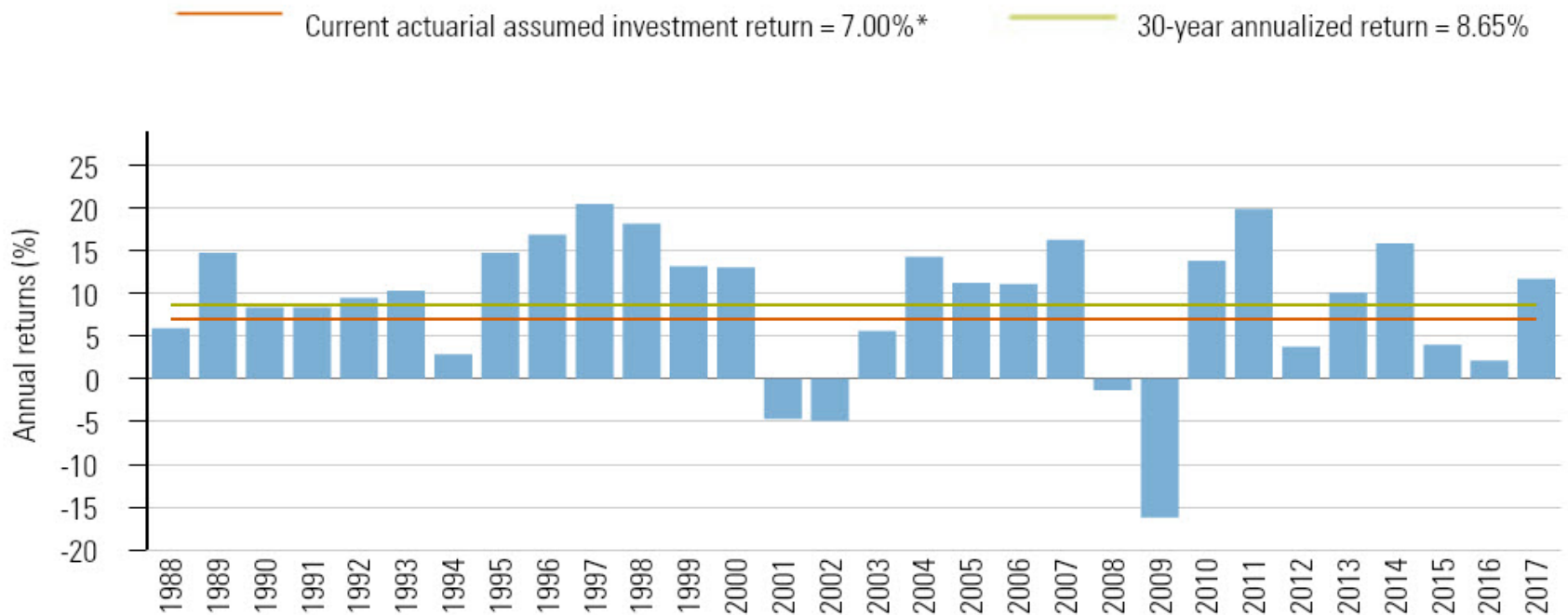
- Higher allocation to fixed income
- 1% cash allocation is a drag in a “risk on” year
- IPERS' approach is generally more conservative than its peers
- FY17 return ranks 71st versus peers; 10-year return ranks in top 20th percentile

Investment Performance



Investment Returns

Fiscal Years Ended June 30



Annualized Returns

1-Year	11.70%
10-Year	5.89%
20-Year	7.45%
30-Year	8.65%

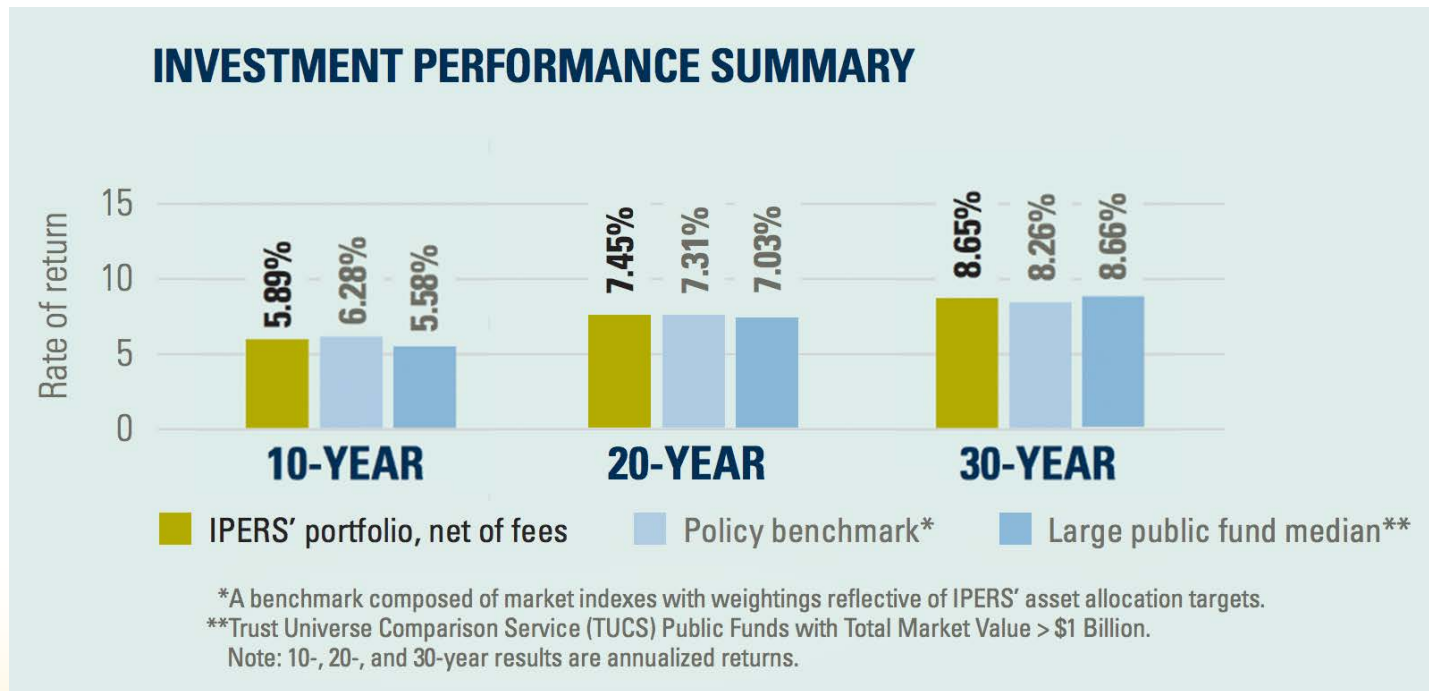
*Actuarial Assumed Investment Return

1977–1993	6.50%
1994–1995	6.75%
1996–2016	7.50%
2017–present	7.00%

For periods ending June 30

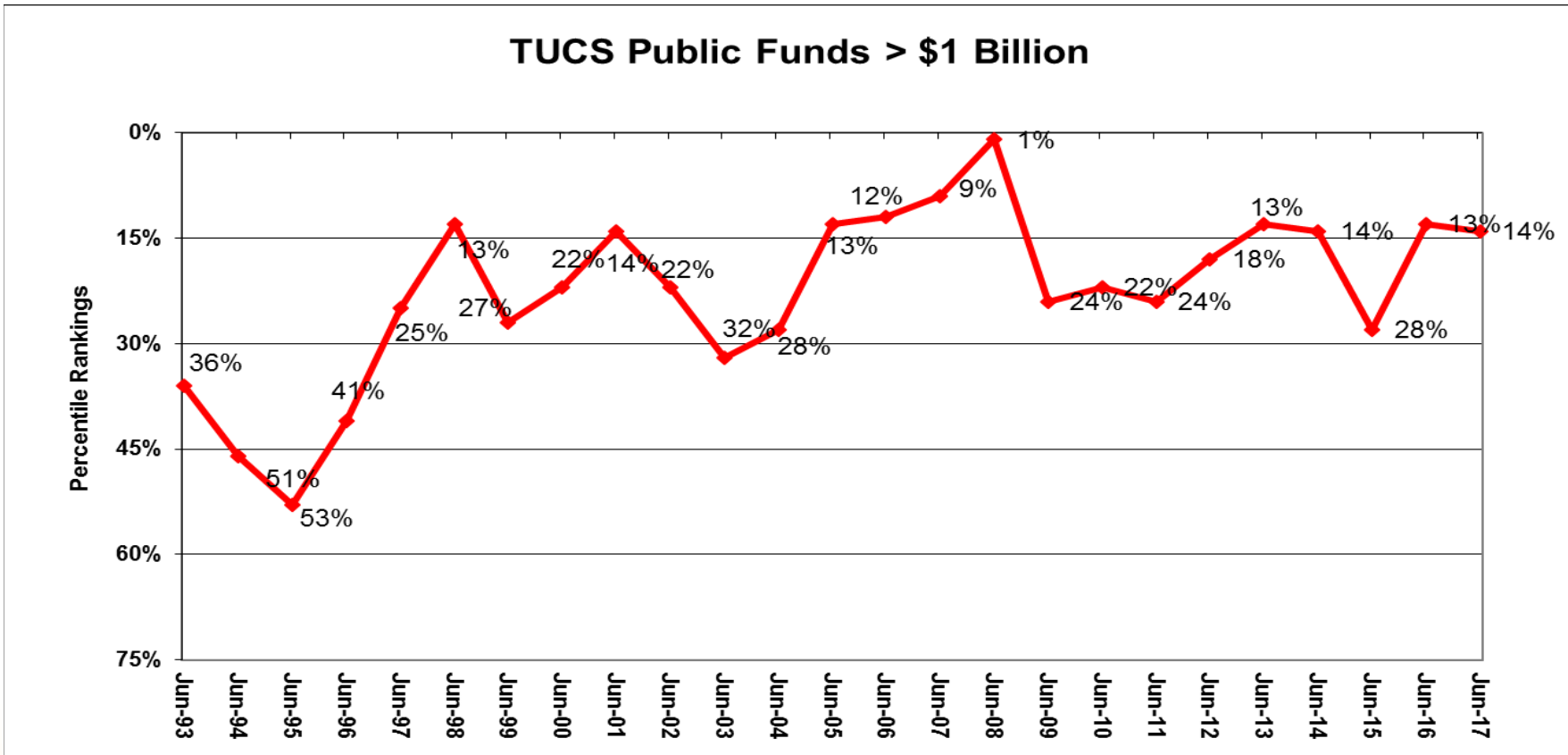
Investment Performance

IPERS has beaten its benchmarks and peers over most long-term periods.



For periods ended June 30, 2017

Risk-Adjusted Returns Rank High



Based on 3-year rolling return/risk ratios; IPERS ranked in top 14th percentile of peer universe of large public pension funds for period ended June 30, 2017

Source: Wilshire Associates; Trust Universe Comparison Services (TUCS)

Internal Investment Management

- Strategic initiative of IPERS
- Could save millions of dollars annually
 - Significantly lower management costs
 - Better oversight of external managers
 - Other benefits
- Requires significant start-up investment
 - Need trading, accounting and control infrastructure

Internal Investment Management

- Requires Investment Board to have more authority and autonomy
 - To hire and fire investment professionals (exempt from State personnel system)
 - To set compensation levels for investment personnel, and utilize performance incentive compensation structures
 - To oversee procurement of investment management tools and services

Internal Investment Management

- Investment Board supports the development of internal investment management
- It's part of IPERS' 5-year strategic plan; won't happen overnight
- Requires legislative and administration support for key changes

Trust Fund Value



The IPERS Trust Fund
as of 6/30/17

remained at **\$31 billion**

after paying out \$1.9 billion in FY2017.

Benefits Advisory Committee

The Benefit Advisory Committee represents major member, employer and retiree associations.

An important communication link between members, administrators and legislators.

- Each association chooses its BAC representative
 - Nine voting members
 - Includes public member and DAS director
- BAC studies issues and make plan design recommendations to IPERS and the General Assembly
- Helps ensure IPERS continues to meet the needs of members and employers



Len Cockman
Chair
Voting Member
term expires 2018



Bradley Hudson
Vice Chair
Voting Member
term expires 2020



Susanna Brown
Member
Association
Representative



Matt Carver
Member
Association
Representative
Voting Member
term expires 2019



Andrew Hennesy
Member
Association



Steve Hoffman
Member
Association



Danny Homan
Member
Association
Representative



Philip Tetzloff
Member
Association
Representative



Jon Thomas
Member
Association
Representative
Voting Member
term expires 2019



Matt Cosgrove
Employer
Association
Representative
Voting Member
term expires 2018



Janet Phipps
Employer
Association
Representative
Voting Member
appointed by
statute



Mark Tomb
Employer
Association
Representative
Voting Member
term expires 2020



Sandy B. Tryon
Employer
Association
Representative



Lowell Dauenbaugh
Public Member
Voting Member
term expires 2020

Benefits Advisory Committee



Roles & Responsibilities

- #1 role is to consider and make recommendations to IPERS and the General Assembly on the administration of IPERS benefits
- Recommends changes to the laws governing the System
- Helps to ensure IPERS continues to meet the needs of employees

BAC Supported Initiatives



Pension reform passed in 2010

Contribution Rates – Changed from statutory static rate to actuarially determined rate shared by employees and employers

Benefit Formula – Salary averaged over 5 years; down from 3

Early Retirement Reduction – Increased from 3 percent per year to 6 percent reduction per year

Vesting – Changed from age 55 to age 65; and from 4 years of service to 7 years of service

BAC Supported Initiatives

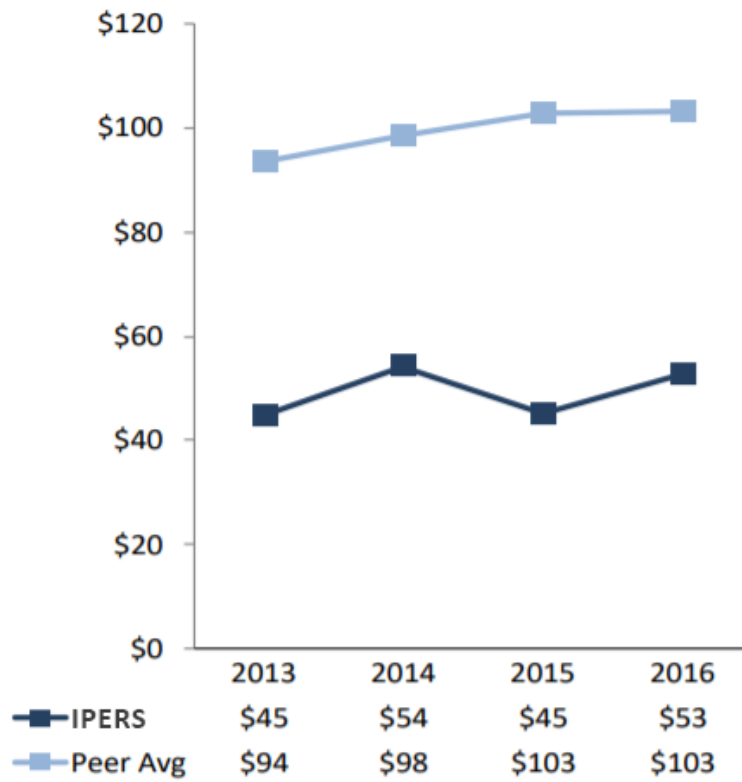


- Anti-spiking rules
- Exclusion of bonus and allowances from covered wages
- Actuarial cost studies
 - Cost-of-living adjustments
 - Retired re-employed
 - Mergers
 - Protection occupation membership guidelines
 - Plan projections

Consistent Low Cost



Trend in Total Pension Administration Costs



IPERS' total pension administration cost of **\$53** per active member and annuitant has remained significantly below its peer group cost of **\$103**.

Our Mission



Administer a cost-efficient retirement plan that provides lifetime pension payments to public employees and serves to attract and retain a quality workforce.

Contact Us



The purpose of this presentation is to provide an update on IPERS. For additional information, feel free to contact us or visit our website at www.ipers.org

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