



FY2019 – A REVIEW

Public Employee Retirement System of Idaho



WELCOME

I will be discussing the following topics:

- Fiscal year-end & historical snapshot
- PERSI investment return assumption
- Public pension challenges to make assumed return rates
- Market volatility, PERSI & impact
- PERSI asset value
- Should PERSI adjust the investment return assumption?
- What is an actuarial valuation?
- Early warning model
- Every four years...
- When will the next recession occur?
- On the horizon
- Timing is everything
- Contribution rates
- PERSI membership at a glance
- Membership growth & circumstances
- Cost-of-living adjustment/COLA
- Looking forward
- Requirements for return to work
- Where does PERSI place & compared to...

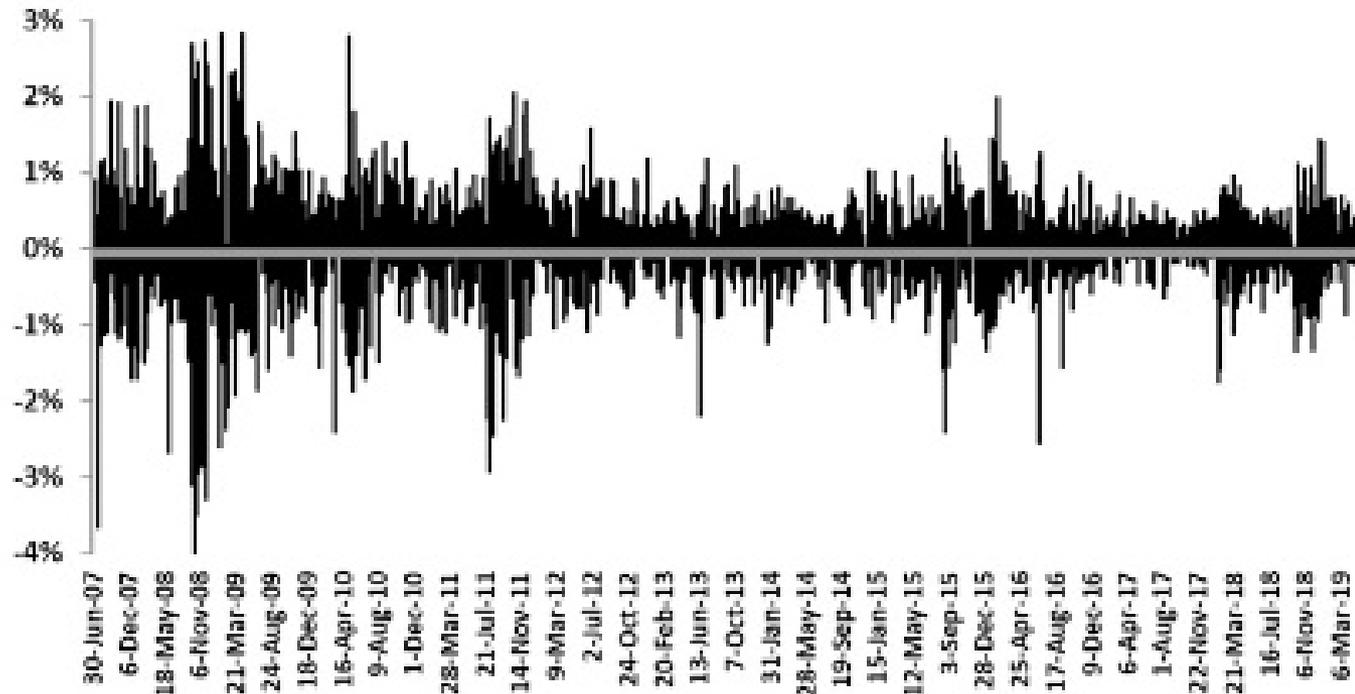


FISCAL YEAR-END & HISTORICAL SNAPSHOT

As of June 28, 2019

CURRENT VALUE OF THE FUND	\$	18,519,408,054
FISCAL YEAR NET CHANGE IN ASSETS	\$	1,065,979,261
FISCAL YEAR TO DATE RETURNS		8.4%
MONTH TO DATE RETURNS		4.4%

HISTORICAL SNAPSHOT



PERSI INVESTMENT RETURN ASSUMPTION

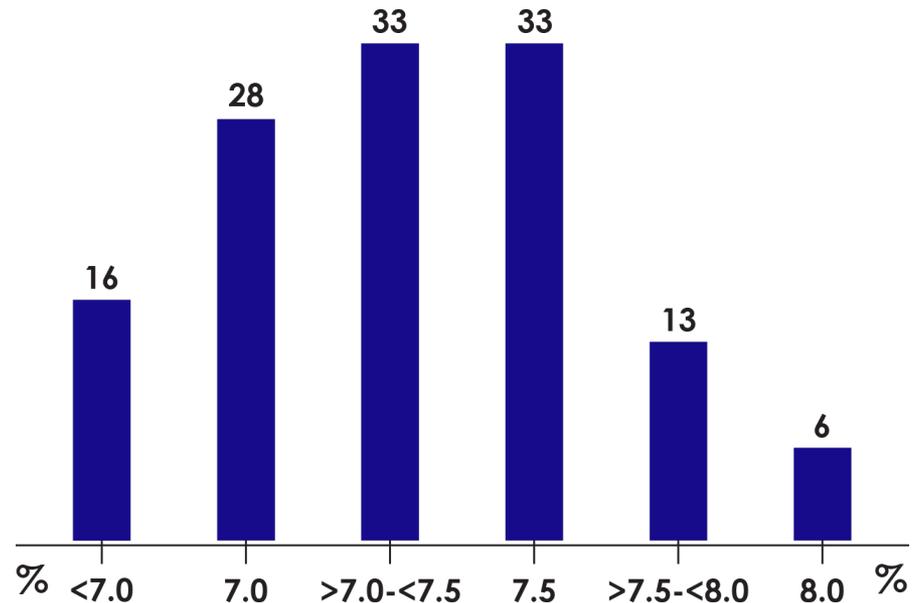
The return assumption after fees of administering the system and its investments is **7.00%** net.

Assuming all of the actuarial assumptions are accurate, this 7.0% net return will suffice to:

- Assure the payment of statutorily required benefits, which includes a 1% Cost of Living Adjustment (COLA).
- Maintain the reduction of the level of the unfunded liability (if any) on the scheduled amortization (one year at a time).

The assumed 7.0% net return **will not allow** for discretionary COLAs.

Distribution of Investment Return Assumptions



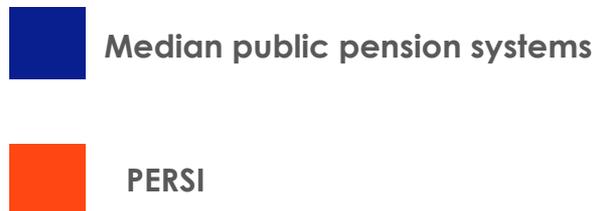
RESULTS FOR 129 PUBLIC PENSION SYSTEMS



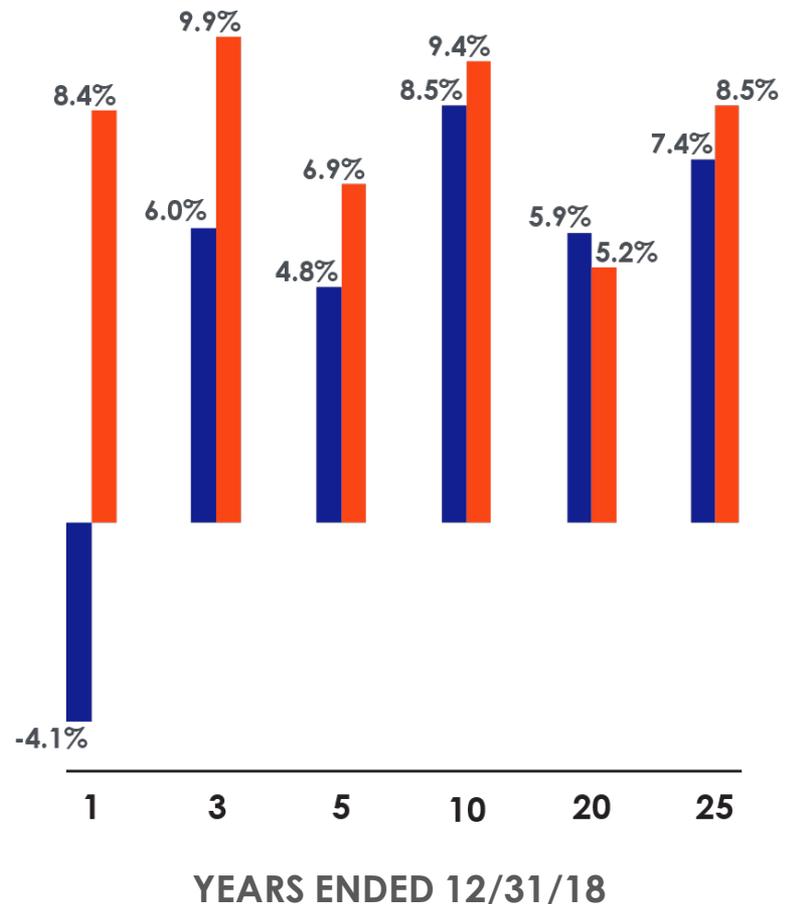
PUBLIC PENSION CHALLENGES TO MAKE ASSUMED RETURN RATES

This graph plots median public pension fund annualized investment returns for a range of periods ended December 31, 2018.

As the figure shows, poor returns in 2018 pulled down annualized returns for the three- and five-year periods; returns for longer-term periods are relatively higher.



Median public pension annualized investment returns for period ended 12/31/2018





MARKET VOLATILITY & PERSI

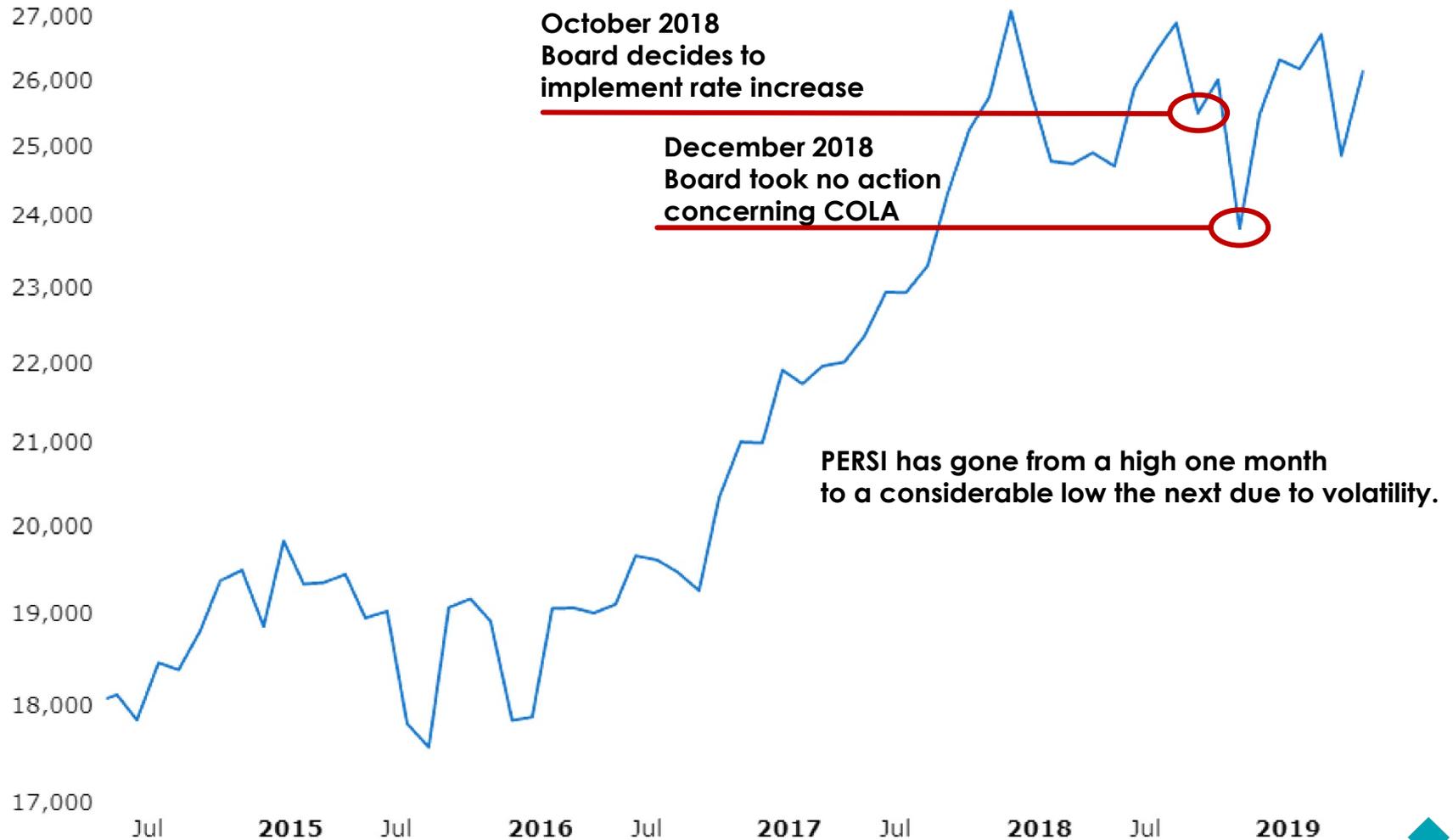
While the markets continue to see significant volatility, we rely on PERSI's proven investment philosophy.

PERSI keeps investments:

- SIMPLE – Rely primarily on public markets over time.
 - TRANSPARENT – Easy to understand and explain.
 - FOCUSED – Keep eye on the big picture.
 - PATIENT – At least five to ten year horizon.
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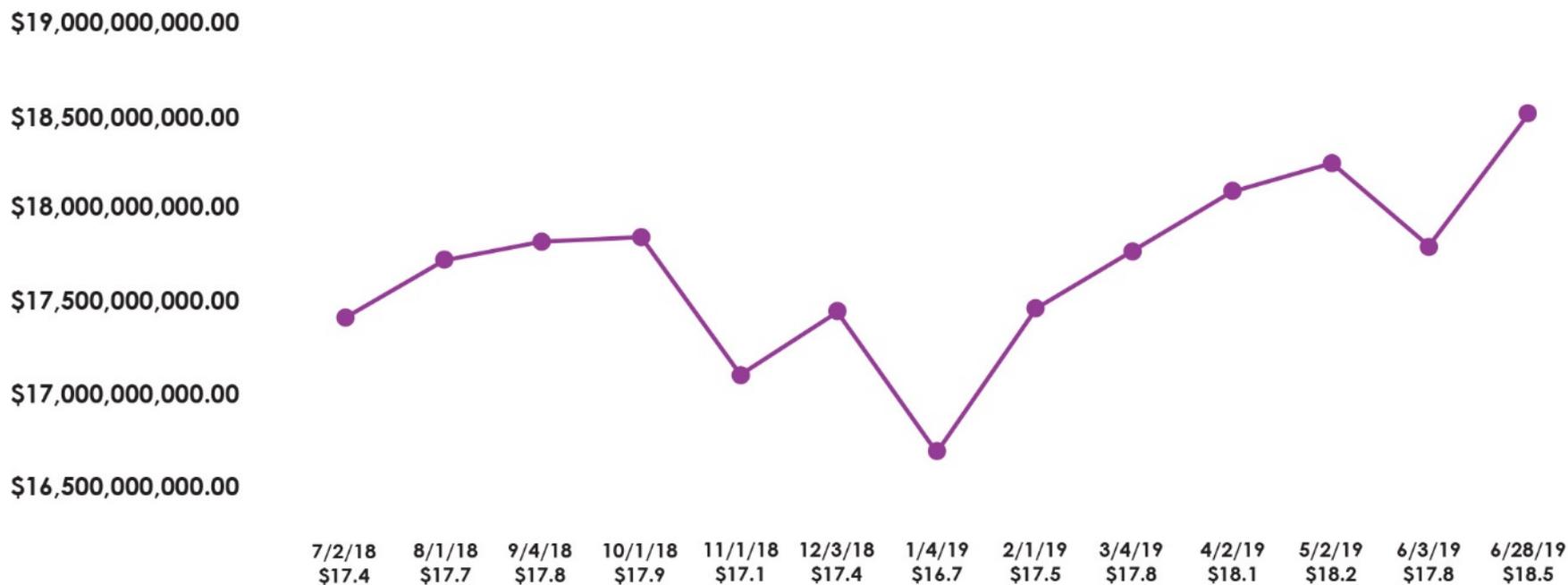
MARKET VOLATILITY & IMPACT

DOW JONES DURING THE LAST FIVE YEARS



PERSI ASSET VALUE

2019 FISCAL YEAR



SHOULD PERSI ADJUST THE INVESTMENT RETURN ASSUMPTION?

- PERSI's Board of Directors will continue to evaluate and may make changes.
- Currently, PERSI is currently meeting benefit needs.

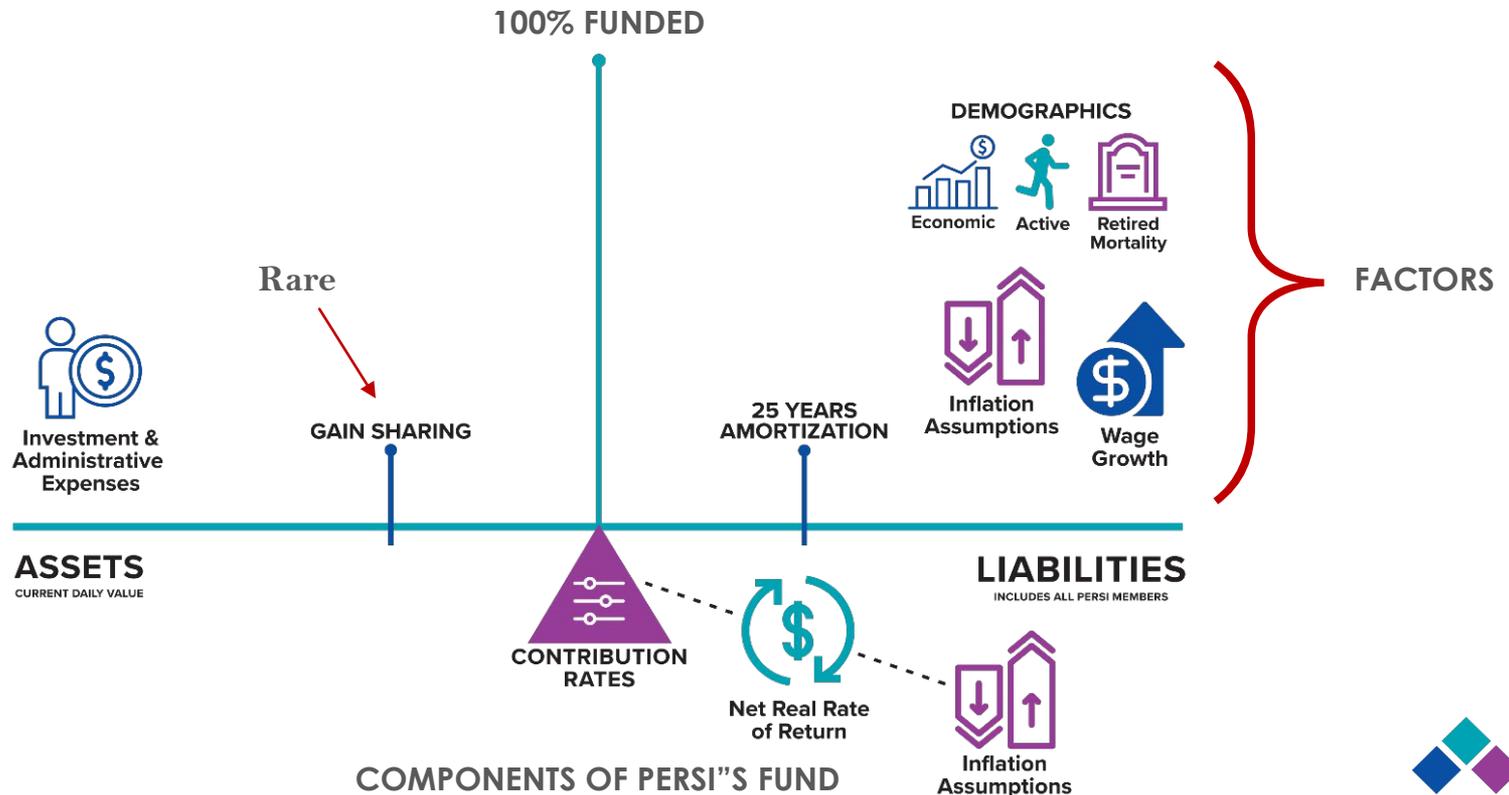
SHOULD PERSI CONSIDER THAT...

- Nationwide, state pension systems are confronting fundability and exploring various solutions – rates, reductions, rule changes...
- Idaho's public workforce is changing:
 - Younger members are faced with more debt than previous generations.
 - Older members working longer – past retirement age and changing the retirement pattern.

WHAT IS AN ACTUARIAL VALUATION?

An actuarial valuation is an assessment of PERSI's assets compared to its liabilities. Investment, economic and demographic assumptions are used to determine PERSI's funded status.

Assumptions are based on factors like long-term data, possible short-term conditions or unanticipated trends that can alter projections.



EARLY WARNING MODEL

Public Employees Retirement System of Idaho Early Warning Calculations (All Dollar Amounts in Millions)

COLA Scenarios: March 2018 COLA Input by User

CPI Change from August 2017 to August 2018	1.00%
March 1, 2019 COLA	1.00%
Automatic COLA	1.00%
Discretionary COLA/ROPP	0.00%

1.0%

6/30/2019 Early Warning	FY 2019 Asset Return (Net)*	Total Contribution Rate 7/1/18	Total Contribution Rate 7/1/19	Total Contribution Rate 7/1/20	Total Contribution Rate 7/1/21+	Actuarial Accrued Liability Funded by PERS]	Market Value of Assets	Unfunded Actuarial Accrued Liability	Amortization Period (years)	Funded Ratio
A1. 7/1/2018 Valuation without 3/1/2019 discretionary COLA Assumes COLA on March 1, 2019 is the lesser of CPI and 1.00%	NA	18.42%	19.42%	19.42%	19.42%	\$17,854.9	\$16,274.8	\$1,580.1	13.9	91.2%
A2. 7/1/2018 Valuation with 3/1/2019 COLA input above Includes any ROPP or discretionary COLA, if input by user Future contribution rates input by user	NA	18.42%	19.42%	19.42%	19.42%	\$17,854.9	\$16,274.8	\$1,580.1	13.9	91.2%
B. Projected 7/1/2019 Valuation with 2019 Discretionary COLA Total COLA & future contribution rates input by user above FY 2019 Asset Return Input by User	8.400%	NA	19.42%	19.42%	19.42%	\$18,624.0	\$17,279.4	\$1,344.6	10.6	92.8%

8.4%

* Expected annualized return for 6/30/2019 fiscal year, net of expenses

This work product was prepared solely to provide assistance to the PERSI. It may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

- Amortization period determines the future contribution rates.
- Amortization must be under 25 years otherwise the Board must take action per Idaho Statute 59-1322(5).

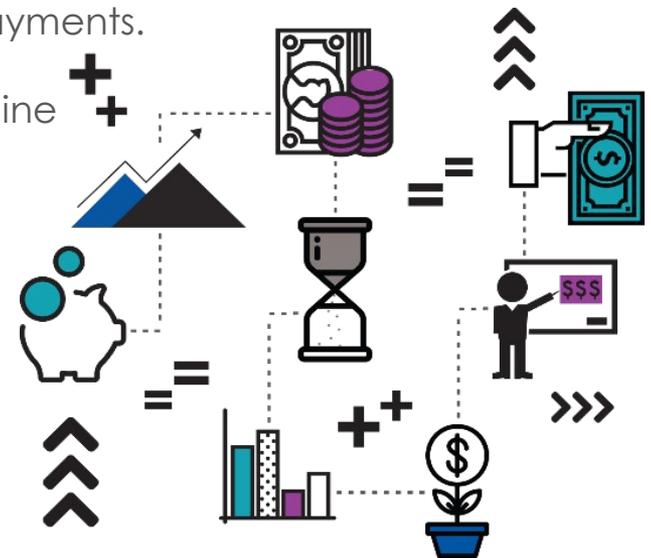
EVERY FOUR YEARS...

Experience studies are conducted by PERSI's actuaries every four years. They review and discuss the economic actuarial assumptions, the mortality assumptions of the retired members, and the demographic assumptions for active members. This study also examines a number of miscellaneous assumptions.

Determining adequate contribution rates is dependent on the assumptions. These assumptions are then used to project future benefit payments.

The experience, whether favorable or less favorable, determine decisions for potential changes, and could possibly alter the investment managers' investment strategies.

After the data is evaluated, the actuaries develop a calculation of actual and expected experience – similar to a forecast.



WHEN WILL THE NEXT RECESSION OCCUR?

UCLA Anderson Forecast: “There’s ‘a very real risk’ the national economy will skid into a recession in late 2020 after the current expansion that began a decade ago.”

“A year ago we were looking forward to a synchronized global expansion; today we are starting a synchronized slowdown,” says David Shulman, a senior economist at the forecast group.

The UCLA Anderson Forecast is one of the most-watched outlooks since the forecasting group was credited with being ahead of others in declaring the 2001 recession.*

THE HILL: “More than three-fourths of an influential panel of economists said the U.S. will enter a recession by 2021, according to survey results released in February 2019 by the National Association of Business Economics (NABE).”**

HOW COULD A RECESSION IMPACT PERSI?

- Contribution rates
- COLA
- Assumptions

Overall, forecasting when the next recession takes place is unpredictable because of market volatility. The market is much more erratic/changeable than that of previous years. In a way, it’s a new era/way/cycle/pattern that we are seeing which is unknown.



*<https://www.cnbc.com/2019/03/13/economy-at-very-real-risk-of-entering-recession-in-late-2020-ucla.html>

**<https://thehill.com/policy/finance/431423-three-fourths-of-economists-predict-recession-by-2021-survey>

ON THE HORIZON

FACTORS THAT AFFECT THE MARKET

TARIFFS

- China
- Mexico
- Iran
- Unknown



INFLATION

- The Federal Reserve is more likely to cut rates soon because of reduced inflation.*

INTEREST RATES

- The Fed could cut rates in 2020 if an expected economic slowdown threatens to snowball. **

ECONOMIC OUTLOOK

- Confidence
- Expectations

*<https://www.kiplinger.com/article/business/T019-C000-S010-inflation-rate-forecast.html>

**<https://www.kiplinger.com/article/business/T019-C000-S010-interest-rate-forecast.html>



TIMING IS EVERYTHING

- Historically, October to January tend to be more volatile. We cannot predict what the markets will do as we move toward the end of 2019.
- Volatility is felt much more so when there is more capital involved.
- This coming October, the Board will discuss if an additional contribution rate will be needed.
- Per Idaho Statute 59-1322(5), the Board must act if the amortization period for the Fund's unfunded actuarial liability (UAL) exceeds 25 years.
- The Board could propose another increase this October, but it could be unnecessary by the beginning of 2020...it is too early to know.



CONTRIBUTION RATES

	PUBLIC SAFETY		GENERAL MEMBER	
YEAR	EMPLOYER(%)	EMPLOYEE(%)	EMPLOYER (%)	EMPLOYEE(%)
AS OF JULY 1, 2019	12.28	8.81	11.94	7.16
2013-2018	11.66	8.36	11.32	6.79
2004-2012	10.73	7.65	10.39	6.23
1997-2003	10.01	7.21	9.77	5.86
1994-1996	11.85	8.53	11.61	6.97
1994-1996	11.85	8.53	11.61	6.97

PERSI MEMBERSHIP – AT A GLANCE

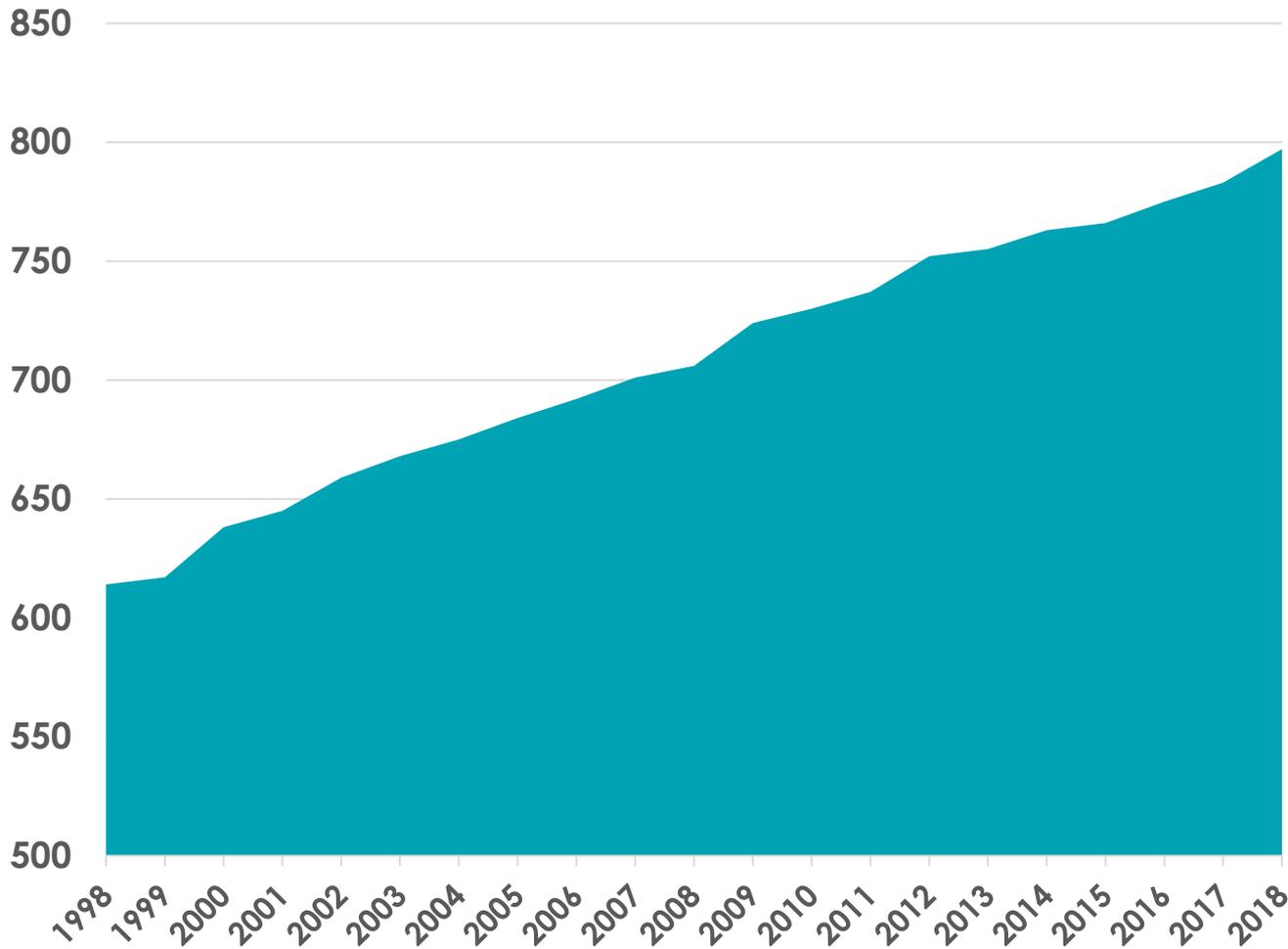
FISCAL YEAR 2018

- Employers – 797
- Active Members – 71,112
- Retired Members – 46,907

TOTALS FOR FISCAL YEAR 2019
WILL BE AVAILABLE AT THE END OF OCTOBER.



MEMBERSHIP GROWTH – EMPLOYERS



In a 2018 employer survey, results show 146 employers out of 151 employers (responded to survey) believe the PERSI benefit is a significant part in recruiting and retaining employees.

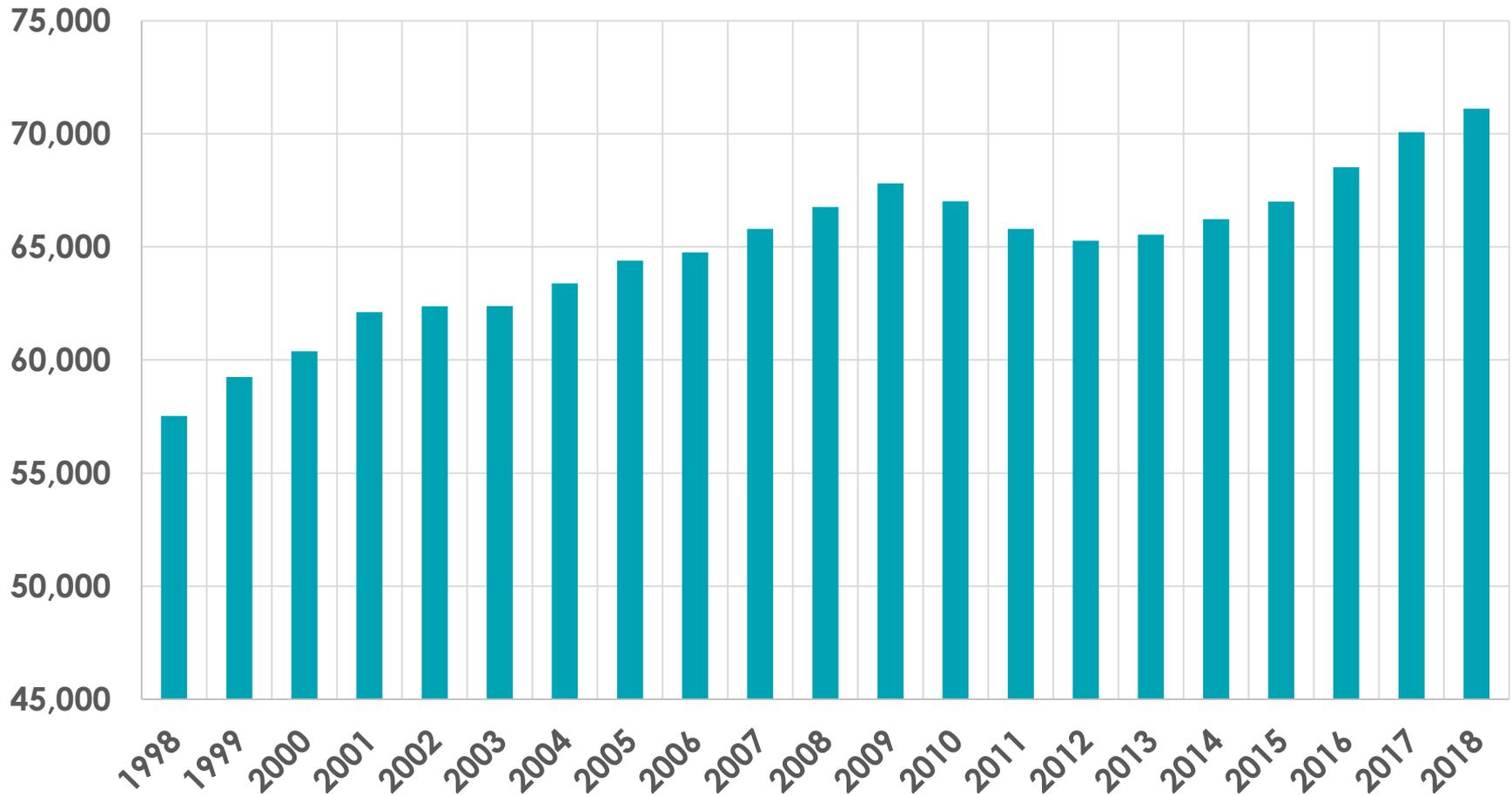
The benefit as a recruiting and retention tool is a primary factor for employers wanting to join PERSI.

WITHDRAWING FROM PERSI

- When an employer withdraws from PERSI, allowed by **Idaho Statute 59-1326**, Section (7), the employer is responsible for paying any withdrawal liability existing at the time of withdrawal. The employer must project the value of benefits that will be paid in the future to its employee members and compare the present value of those benefits to the actual value of the employer and employee contributions, plus earnings (assets). If the present value of the benefits to be paid is higher than the actual value of the assets, there is a withdrawal liability. If the analysis shows the employer can expect to pay more in benefits to the employee members than will be received in contributions and earnings from them, the employer must make up the difference.
- Once an employer has withdrawn from PERSI, there is a 5 year waiting period before employer can reapply to join PERSI.
- Milliman Consultants and Actuaries determines the withdrawal liability for PERSI each year based on July 1st actuarial valuations.
- Withdrawing from PERSI is expensive, and should be thoroughly examined before starting the process.



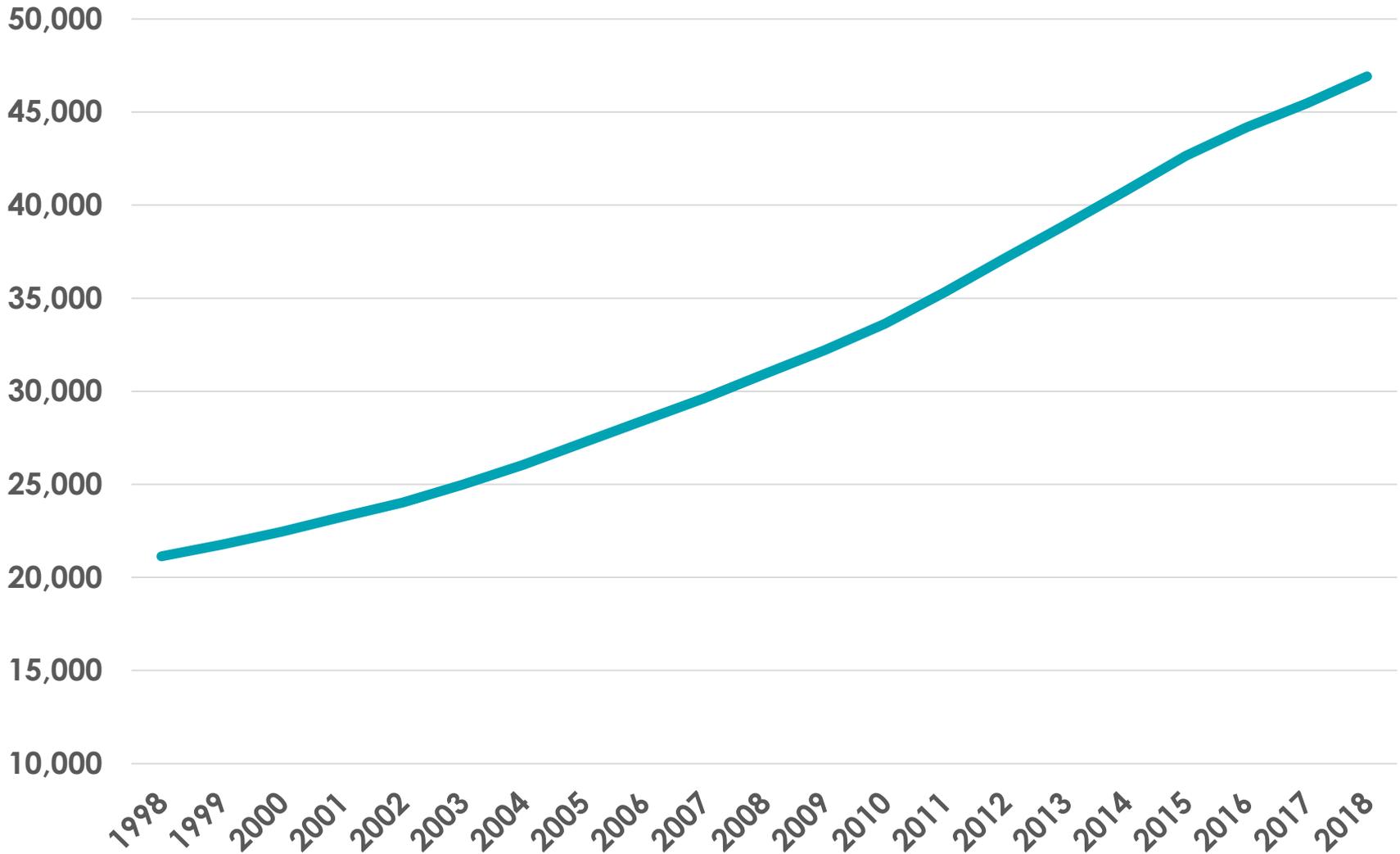
MEMBERSHIP GROWTH – ACTIVES



Economic growth = growth in employment | No economic growth = less jobs, less need



MEMBERSHIP GROWTH – RETIREES

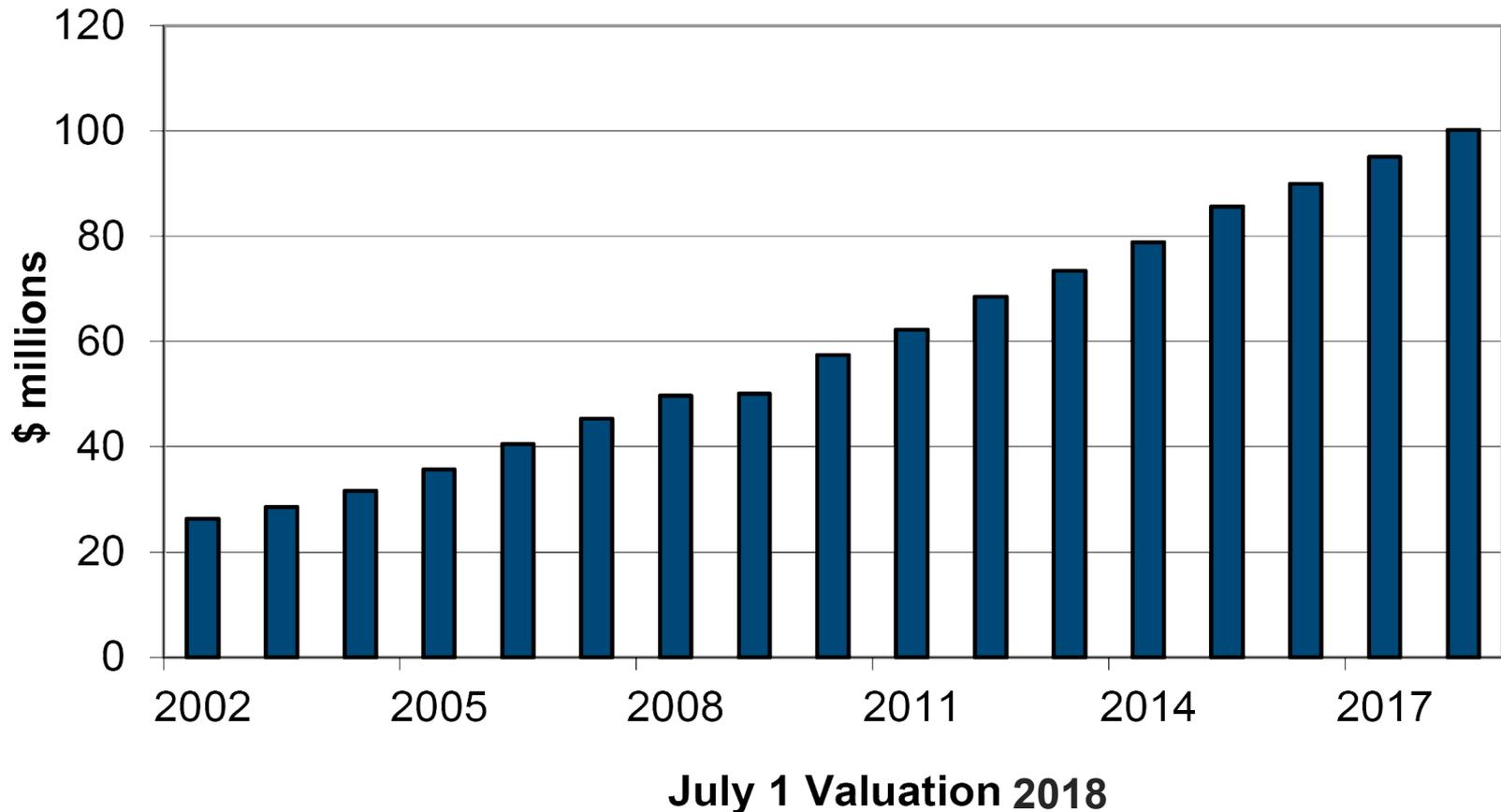


Average growth for retirees is currently 4.5%.



COST-OF-LIVING ADJUSTMENT/COLA

COST PER 1% OF DISCRETIONARY COLA
COLAs are more expensive than they were in prior years.



COST-OF-LIVING ADJUSTMENT/COLA

- Idaho Statute 59-1355 requires PERSI to apply a mandatory 1% cost-of-living adjustment to retirement benefits effective March 1st each year. The statute also allows the Board, if they choose to, to give a discretionary COLA.
- The COLA is tied to the Consumer Price Index (CPI-U) for the 12 months ending August of the current year and may not exceed the CPI-U or 6%, whichever is less.
- The Board's COLA recommendation is subject to amendment or rejection by the Idaho Legislature.
- In December 2018, the Board chose to take no action concerning COLA due to the market volatility.
- COLA for FY2020 will be looked at in December 2019.



LOOKING FORWARD

- At the October 2019 Board meeting, the Board will decide if contribution rates need to be increased. It is much too soon to know if an increase will be necessary.
- COLA for FY2020 will be looked at during December 2019's Board meeting.
- The Legislature, the Plan Sponsor, supports PERSI and has a good understanding of how PERSI functions. They understand that members overall would prefer rate increases rather than benefit changes.



REQUIREMENTS FOR RETURN TO WORK (RTW)*

To be eligible, **IRS Statutes & Regulations** and **Idaho Statutes** require each of the following requirements be fulfilled:

- ✓ Retired at age 60 or older with an original retirement date and DLC after 7/1/2017.
- ✓ Never received an early retirement incentive (ERIP).
- ✓ Bona fide termination in service. There must be a true termination of service between the employer and the employee where the employer/employee commitment has completely ended.
- ✓ Is receiving an unreduced PERSI retirement benefit.
- ✓ **ABSOLUTELY NO** promise, agreement, or prearrangement of future employment prior to termination date.

***REQUIREMENTS FOR RTW FOR CERTIFIED INSTRUCTIONAL STAFF
OR PUPIL SERVICE STAFF ARE POSTED ON PERSI'S WEBSITE:**

https://www.persi.idaho.gov/Documents/Brochures/Cer_Ins_Staff_or_Pup_Ser_Staff-RTW.pdf

RETURN TO WORK

Return To Work helps employers, particularly smaller, rural Idaho employers, recruit and employ skilled, knowledgeable, retired PERSI members in hard-to-fill positions. However, there is an additional cost to RTW and it is costing all of us.

PERSI Return to Work (RTW) Illustration Prepared by Milliman

Assumptions

Sal Scale	4.25%
Annual COLA	1.00%
Interest Rate	7.00%
Hire Age	30
Starting Salary	\$25,000
RTW Age	60
Final Retirement	62
Age at Death*	85

* This is based on current average mortality for PERSI retirees who make it to age 60, and assumes no spouse benefit.

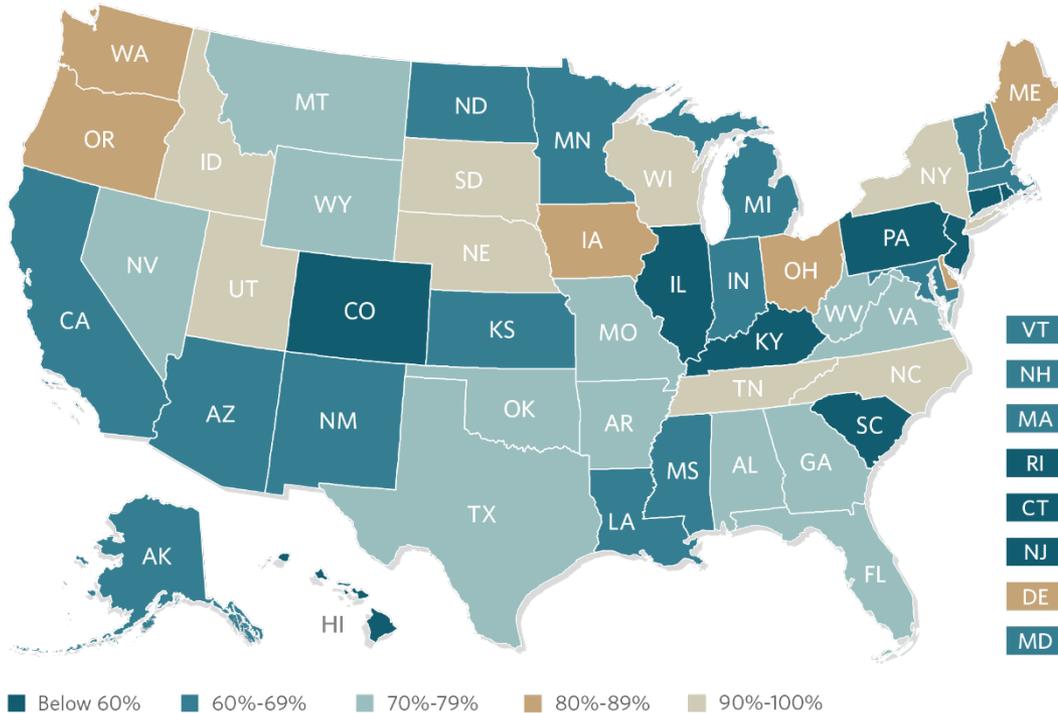
	With RTW		Without RTW	
	Gen/Tchr	Safety	Gen/Tchr	Safety
Accrual Rate	2.00%	2.30%	2.00%	2.30%
Present Values at age 60				
Benefits Paid	\$ 697,145	\$ 801,717	\$ 680,833	\$ 782,958
Contr's (age 60 - 62)	<u>(19,806)</u>	<u>(20,401)</u>	<u>(31,686)</u>	<u>(35,028)</u>
PERSI Cost	\$ 677,339	\$ 781,316	\$ 649,147	\$ 747,930
Cost of adding RTW			\$ 28,192	\$ 33,386

- Above are two hypothetical PERSI members based on the assumptions and data shown on the illustration. The members are assumed to retire at age 60 and return to work until age 62.
- Costs are modeled for a general/teacher member and a safety member separately, since they have different contribution rates and benefit accrual rates.
- The cost of the RTW benefit is based on the assumption that members who reach service retirement eligibility at age 60 will retire two years sooner (on average) if an RTW benefit is offered. Therefore, the cost is defined to be $(a - b) - (c - d)$:
 - Present value of future benefits at age 60 assuming retirement and RTW at 60
 - Present value of employer contributions assuming RTW from age 60 to age 62
 - Present value of future benefits at age 60 assuming retirement at age 62 without any RTW
 - Present value of employer and employee contributions from age 60 to age 62

RESULTS The illustration shows an RTW cost of **\$28,192** for general/teacher and **\$33,386** for safety. As the Plan Administrator, PERSI is looking at how to correct the cost difference for Return To Work.

WHERE DOES PERSI PLACE WITH OTHER SYSTEMS?

In a brief from **The PEW Charitable Trusts**, *The State Pension Funding Gap: 2017*, (published June 2019), **PERSI** was highlighted as 1 of just 8 states that were at least 90% funded while 24 states were below 70% funded.



The overall figure of 69 percent of pension liabilities being funded nationwide is down from funded levels before the recession, when state pension plans, in total, were 86 percent funded. Investment losses during the recession caused pension assets to drop in value by 24 percent from Dec. 31, 2007, to December 31, 2008.³

Similarly, state and local pension debt—measured as a share of gross domestic product (GDP)—reached historic highs in 2009 and 2011, with debt levels failing to return to pre-recession levels almost 10 years later. Looking at pension debt as a percentage of GDP sheds light on how pension costs could take up an increasing share of the budget in many states, making it more difficult for lawmakers to find money to invest in other important public services.

Note: Numbers reflect the Governmental Accounting Standards Board reporting standards as of 2017.

Source: Comprehensive annual financial reports, actuarial reports and valuations, other public documents, or as provided by plan officials.

SOURCE: The PEW Charitable Trusts

<https://www.pewtrusts.org/-/media/assets/2019/06/statepensionfundinggap.pdf>



PERSI COMPARED TO...

ACTION TAKEN	IDAHO	OREGON	UTAH	KENTUCKY
REDUCED PENSION			X	X
INCREASED AGE/SERVICE REQUIREMENT			X	X
CHANGED PLAN DESIGN			X	X
REDUCED COLA		X	X	X
INCREASED CONTRIBUTION RATES	X			

Last year after my employer tour, a survey was sent asking employers if modifications were needed, what changes would you prefer.

A majority of you said you would prefer contribution rate increases as opposed to seeing benefit changes.





Questions & Answers

FOR EMPLOYER QUESTIONS

Please call Employer Services Center
1-866-887-9525 or 208-287-9525
(in the Boise & surrounding areas)

FOR MEMBER QUESTIONS

Please call PERSI Answer Center
1-800-451-8228 or 208-334-3365
(in the Boise & surrounding areas)

**THANK YOU
FOR YOUR TIME & ATTENDING!**