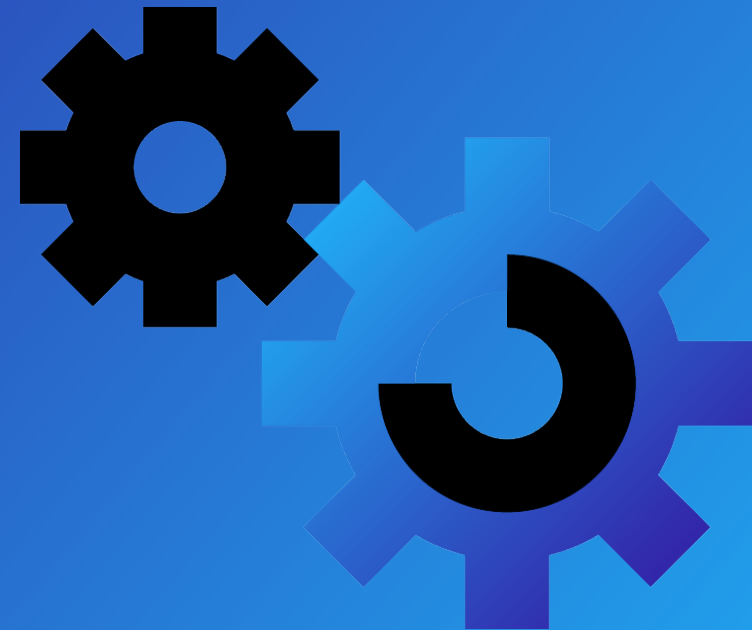




# Pennsylvania Public School Employees' Retirement System

June 30, 2021 Valuation  
Board Presentation  
December 16, 2021



# Disclosures

The information contained herein is developed for the Board of Trustees and Staff of the Pennsylvania Public School Employees' Retirement System (PSERS) by Buck Global, LLC (Buck) using actuarial principles and techniques in accordance with all applicable Actuarial Standards of Practice (ASOPs). This document provides key results of the June 30, 2021 actuarial valuation. Interested parties may refer to the full June 30, 2021 Actuary's Report, which is scheduled to be released in 2022, for a detailed explanation regarding data, assumptions, methods, and plan provisions that underlie the valuation results. In the interim, interested parties may refer to the full Actuary's Report on the June 30, 2020 actuarial valuation and the PowerPoint presentations discussed at the Board's March 4, 2021, June 10, 2021 and August 5, 2021 Budget/Finance Committee meetings for a detailed explanation regarding assumptions, methods, plan provisions, and certain risks that underlie the valuation.

The material contained herein is based on census and financial data, actuarial assumptions and methods, and System provisions applicable to the June 30, 2021 actuarial valuation of PSERS. Where presented, historical information is based on the parameters of the corresponding actuarial valuation. No third-party recipient of Buck's work product should rely upon Buck's work product absent involvement of Buck or without our approval.

Future actuarial measurements may differ significantly from current measurements due to System experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in System provisions or applicable law. An analysis of the potential range of future results is beyond the scope of this valuation.

Where presented, references to "funded ratio" and "unfunded accrued liability" are to measurements made on the basis of the actuarial value of assets. It should be noted that the same measurements made using the market value of assets would result in different funded ratios and unfunded accrued liabilities. Moreover, the funded ratios presented are appropriate for evaluating the need for and level of future contributions but provide no indication of the funded status of the System if the System were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

# Disclosures

Actuarial Standard of Practice No. 56 (“ASOP 56”) provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Buck uses the following:

- third-party software in the performance of annual actuarial valuations and projections to calculate the liabilities associated with the provisions of the System using data and assumptions as of the measurement date under the funding methods specified in this report.
- an internally developed model that applies applicable funding methods and policies to the liabilities derived from the output of the third-party software and other inputs, such as System assets and contributions, to generate many of the exhibits found in this report

Buck has an extensive review process whereby the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability and consistency with prior results. Buck also reviews the third-party model when significant changes are made to the software or model. The review is performed by experts within the company who are familiar with applicable funding methods as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed. Significant changes to the internal model that are applicable to multiple clients are generally developed, checked and reviewed by multiple experts within the company who are familiar with the details of the required changes.

David L. Driscoll is a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. Edward Quinn and Salvador Nakar are Members of the American Academy of Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. We are available to answer any questions on the material contained herein, or to provide explanations or further details as may be appropriate.

# Agenda

- Overview of 2020 – 2021 fiscal year
- Board Adoption of Changes in Demographic and Economic Assumptions and Administrative Option Factors
- Report on June 30, 2021 valuation results
- ASOP 51

# Overview of 2020/2021 Fiscal Year

- The time-weighted rate of return on the market value of assets was 24.58% (per Aon)
  - Expected return for the period July 1, 2020 to June 30, 2021 was 7.25%
  - Due to the asset smoothing method approach for determining the Actuarial Value of Assets (AVA), the AVA rate of return for the year was approximately 7.29%, which reflects continued recognition of past investment gains and losses
- The Board adopted the recommended changes to the demographic and economic assumptions of the Experience Review for the Period July 1, 2015 to June 30, 2020; to be first reflected in the June 30, 2021 actuarial valuation.
- The Board also adopted the recommended changes to the administrative option factors to be effective July 1, 2022, if administratively possible, and first reflected in the June 30, 2021 actuarial valuation.
- The proportion of eligible participants who are assumed to elect Premium Assistance coverage for determination of the Premium Assistance contribution rate is 63% for fiscal years 2021/2022 and 62% for fiscal year 2022/2023 and thereafter.
- The assumed proportions of membership elections under Act 5 among new System members in fiscal year 2022/2023 are:
  - 98% elect Class T-G membership,
  - 1% elect Class T-H membership and
  - 1% elect DC-only membership

Note: As discussed with PSERS staff, these assumptions are based on the distribution of new member class elections as of June 30, 2020.

# Board Adoption of Changes in Demographic and Economic Assumptions and Administrative Option Factors

- Economic Assumptions
  - Investment Rate of Return: Reduced from 7.25% to 7.00%
  - Inflation: Reduced from 2.75% to 2.50%
  - Salary Growth: Reduced from (average) 5.00% to (average) 4.50%
  - Payroll Growth: Reduced from 3.50% to 3.25%
- Demographic Assumptions
  - Updated the rates of mortality among active members, annuitants, and beneficiaries.
  - Updated the rates of withdrawal, disability, and retirement from employment among active members
- Optional Forms of Benefit Payment at Retirement
  - Updated the eligible retirees optional form of benefit election rates
  - Added the assumption that 50% of retiring Class T-E, Class T-F, Class T-G and Class T-H members will elect to receive a partial or full withdrawal of the member's accumulated deductions under the Option 4 form of payment.
- Withdrawing Member Benefit Commencement
  - Updated the election rates to commence payment immediately or defer payment to superannuation age among withdrawing members
- Administrative Option Factors
  - Updated the mortality table basis to a blend of the Board-approved annuitant base mortality tables to be used for actuarial valuations beginning June 30, 2021, generationally projected to 2025 with the Buck Modified 2020 improvement scale assuming the population consists of 25% males and 75% females

# Results of Actuarial Valuation

- Employer contribution rate
  - The fiscal year 2022/2023 actuarially required employer contribution rate is 35.26%
    - 34.31% Pension plus
    - 0.75% Premium Assistance plus
    - 0.20% Act 5 DC contribution\*
  - The Act 120 minimum employer pension rate is the normal cost rate of 6.07%
  - The fiscal year 2021/2022 actuarially required employer contribution rate is 34.94%
    - 33.99% Pension plus
    - 0.80% Premium Assistance plus
    - 0.15% Act 5 DC contribution\*

\* Estimated average DC contribution rate. The actual employer DC contribution rate will be based on each employer's Class T-G, Class T-H and DC-only membership/participation.

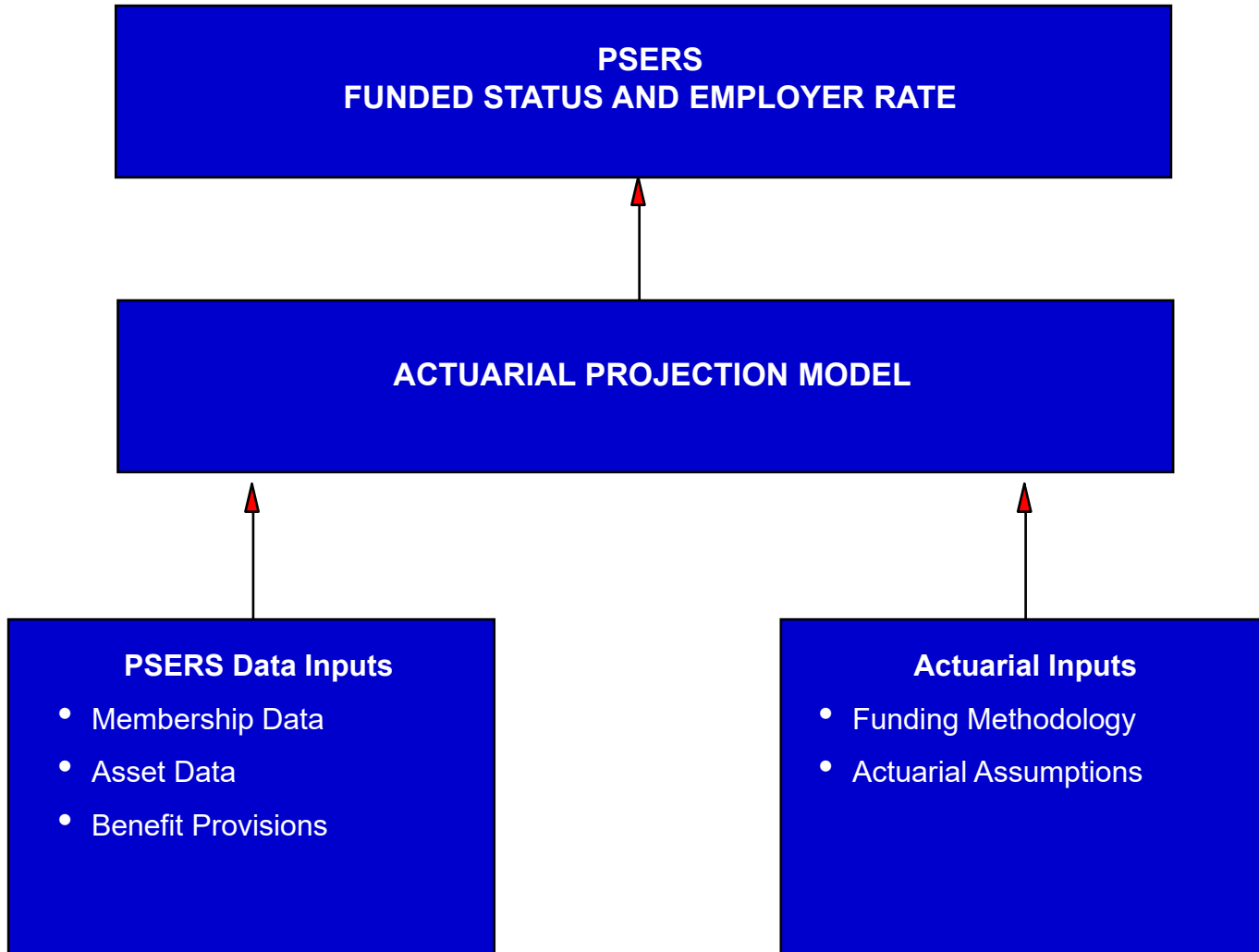
# Results of Actuarial Valuation

- Security of promised benefits
  - Accrued liability exceeds actuarial value of assets by \$45.5 billion
    - As of June 30, 2020, the accrued liability exceeded actuarial value of assets by \$44.0 billion
  - Funded status based on the System's actuarial value of assets is 59.6%
    - Funded status as of June 30, 2020 based on the System's actuarial value of assets was 59.2%

Note: The above funded ratios have no relationship to the possible funded position on a settlement-of-liabilities basis.

- Increase of Unfunded Actuarial Accrued Liability due to 2021 Net Actuarial Loss
  - Comparison of actual experience to expected
  - Experience gain for fiscal year ended June 30, 2021 is \$0.814 billion
    - Actuarial asset gain of \$0.023 billion
    - Actuarial liability gain of \$0.791 billion
  - Increase in the Unfunded Accrued Liability due to Act 5 Shared Risk of \$0.029 billion
  - Increase in the Unfunded Accrued Liability associated with the change in the assumptions is \$2.772 billion
  - The fiscal year 2021 actuarially required employer contribution rate was received. There was no actuarial experience due to (over)/under-contribution





# Active Membership Statistics

<u>Item</u>	<u>June 2021</u>	<u>June 2020</u>
Class T - C	2,635	2,845
Class T - D	148,546	158,971
Class T - E	57,944	64,658
Class T - F	13,766	14,559
Class T - G	25,061	15,122
Class T - H	<u>139</u>	<u>91</u>
Total Number*	248,091	256,246
	-3.18 %	
Annualized salaries (Total salaries)	\$ 14.057 Bil +0.60 %	\$ 13.974 Bil
Average compensation	\$ 56,663 +3.90 %	\$ 54,535
Average age	45.5 Yrs.	45.5 Yrs.
Average service	12.1 Yrs.	11.8 Yrs.
<hr/>		
Funding year	2022-2023	2021-2022
Total employer payroll (est.)	\$ 14.497 Billion	\$ 14.289 Billion

\* Excludes 54 DC-only participants in 2021 and 60 DC-only in 2020.

# Annuitant Membership Statistics

<u>Item</u>	<u>June 2021</u>	<u>June 2020</u>
Number		
Annuitants	221,277	218,478
Survivors and beneficiaries*	12,704	12,072
Disabled annuitants	<u>8,858</u>	<u>9,064</u>
Total	242,839	239,614
	+1.35 %	
Annual annuities		
Annuitants	\$ 5.927 Bil	\$ 5.799 Bil
Survivors and beneficiaries	0.197	0.182
Disabled annuitants	<u>0.188</u>	<u>0.190</u>
Total	\$ 6.312 Bil	\$ 6,171 Bil
	+2.28 %	
Average annuities		
Annuitants	\$ 26,783	\$ 26,541
Survivors and beneficiaries	\$ 15,529	\$ 15,099
Disabled annuitants	\$ 21,218	\$ 20,954
Total	\$ 25,992	\$ 25,753
	+0.93 %	

\* Excludes 1,678 beneficiaries in 2021 and 1,281 beneficiaries in 2020 who are only entitled to a lump sum distribution.

# Market Value of Assets

<u>Item</u>	<u>June 2021</u>	<u>June 2020</u>
Beginning of year	\$ 58.687 Bil	\$ 58.859 Bil
Contributions	5.956	5.862
Benefits	(7.248)	(6.990)
Investment income**	<u>14.705</u>	<u>0.956</u>
End of year	\$ 72.100 Bil	\$ 58.687 Bil
Rate of return	24.58 % (per Aon)	1.12* % (per Aon)
Expected rate of return***	7.25 %	7.25 %

\* Amount was revised from 1.11% by Aon

\*\* Net of administrative and investment expenses

\*\*\* Based on prior year's valuation interest rate

# Actuarial Value of Assets

## Ten-year asset smoothing method

1. Market value of assets June 30, 2021 \$ 72.100 Bil

2. Determination of deferred gain (loss)

Fiscal Year	Gain (Loss)	Recognized Amount – FY20/21	Percent Deferred	Deferred Amount
2020/2021	\$ 10.116 Bil	\$ 1.012 Bil	90.00 %	\$ 9.104 Bil
2019/2020	(3.440)	(0.344)	80.00	(2.752)
2018/2019	(0.600)	(0.060)	70.00	(0.420)
2017/2018	0.551	0.055	60.00	0.330
2016/2017	0.847	0.085	50.00	0.423
2015/2016	(3.794)	(0.379)	40.00	(1.517)
2014/2015	(2.918)	(0.292)	30.00	(0.875)
2013/2014	2.864	0.286	20.00	0.573
2012/2013	(0.153)	(0.015)	10.00	(0.015)
2011/2012	<u>(3.246)</u>	<u>(0.325)</u>	0.00	<u>0.000</u>
	\$ 0.227 Bil	\$ 0.023 Bil		\$ 4.851 Bil

3. Preliminary actuarial value of assets June 30, 2021: (1) – (2) \$ 67.249 Bil

# Actuarial Value of Assets

## Ten-year asset smoothing method

4. Per Act 5 of 2017, the Actuarial Value of Assets must be in a 30% range of the Market Value of Assets:
  - a. Preliminary Actuarial Value of Assets = \$67.249 Billion
  - b. 70% of the Market Value of Assets =  $.70 \times \$72.100 \text{ Billion} = \$50.470 \text{ Billion}$
  - c. 130% of the Market Value of Assets =  $1.30 \times \$72.100 \text{ Billion} = \$93.730 \text{ Billion}$
  - d. Actuarial Value of Assets = (a) not less than (b) nor greater than (c) = \$67.249 Billion

### Notes:

- The 30% corridor limits how far the 10-year asset smoothing method can depart from market value of assets.
- The corridor will (decrease)/increase the unfunded accrued liability contribution rate if the actuarial value of assets is (less than 70%)/greater than 130% of the market value of assets.

# Actuarial Cost Method

- PSERS Cost Method
  - Entry Age Normal
  - Required by Code
- Entry age normal method: allocation of reserve over members' working lifetimes
  - Pension benefit earned during year (normal cost)
  - Payment toward unfunded accrued liability
- Goal: full reserve at retirement

# Accrued Liability

	<u>June 2021</u>		
	<u>New Assumptions</u>	<u>Old Assumptions</u>	<u>June 2020</u>
Annuitants and inactives	\$ 63.996 Bil	\$ 61.979 Bil	\$ 60.860 Bil
Active members	<u>48.655</u>	<u>47.900</u>	<u>46.973</u>
Accrued Liability Pension	\$ 112.651	\$ 109.879	\$ 107.833
Healthcare payments	<u>0.132</u>	<u>0.132</u>	<u>0.130</u>
Total Accrued liability	\$ 112.783 Bil	\$ 110.011 Bil	\$ 107.963 Bil



# Unfunded Accrued Liability and Funded Status

<u>Item</u>	<u>June 2021</u>		<u>June 2020</u>
	<u>New Assumptions</u>	<u>Old Assumptions</u>	
Accrued Liability Pension	\$112.651 Bil	\$109.879 Bil	\$107.833 Bil
Healthcare Payments	<u>0.132</u>	<u>0.132</u>	<u>0.130</u>
Total Accrued liability	\$112.783 Bil	\$110.011 Bil	\$107.963 Bil
<u>Assets</u>			
Market value of assets	\$72.100 Bil	\$72.100 Bil	\$58.687 Bil
Actuarial value of assets	\$67.249 Bil	\$67.249 Bil	\$63.929 Bil
<u>Unfunded accrued liability</u>			
Market value of assets*	\$40.683 Bil	\$37.911 Bil	\$49.276 Bil
Actuarial value of assets**	\$45.534 Bil	\$42.762 Bil	\$44.034 Bil
<u>Funded status</u>			
Market value of assets	63.9%	65.5%	54.4%
Actuarial value of assets	59.6%	61.1%	59.2%

\* Similar to GASB 67 Net Pension Liability.

\*\* Act 120 amortization is over a period of 24 years with amounts increasing as a level percent of compensation.

# Employer Contribution Rate

<u>Item</u>	<u>June 2021 (FY22/23)</u>	<u>June 2020 (FY21/22)</u>
Normal cost rate	13.59%	14.76%
Member rate (average)	<u>(7.52)</u>	<u>(7.56)</u>
Employer normal cost rate*	6.07%	7.20%
Unfunded accrued liability rate	<u>28.24</u>	<u>26.79</u>
Total pension rate**	34.31%	33.99%
Health insurance rate	0.75	0.80
Act 5 DC contribution rate***	<u>0.20</u>	<u>0.15</u>
Total****	35.26%	34.94%

\* The new assumptions decreased the employer normal cost rate by 0.94%.

\*\* The total pension rate cannot be less than the employer normal cost rate .

\*\*\* Estimated average DC contribution rate. The actual employer DC contribution rate will be based on each employer's Class T-G, Class T-H and DC-only membership/participation.

\*\*\*\* The total employer contribution rate is the sum of the final pension rate, health insurance rate and Act 5 DC contribution rate.

# Funding Methodology

## Goal - Full Reserve at Retirement

Benefit	Annual Cost	Rate Component
Projected Retirement Benefit	Level % Pay	Normal Cost Rate
Accrued Benefit:		
(1) Unfunded accrued liability as of the June 30, 2010 valuation	24-Year Amortization Level % Pay	Accrued Liability Rate
(2) Legislation that increases liability (e.g. COLAs or ERI windows)	10-Year Amortization Level % Pay	Supplemental Liability Rate
(3) Annual Actuarial Gains/Losses and Assumption Changes	24-Year Amortization Level % Pay	Experience Adjustment Factor

# Unfunded Accrued Liability Rate

<u>Rate Component</u>	<u>June 2021 (FY22/23)</u>	<u>June 2020 (FY21/22)</u>
Accrued liability rate	11.70%	11.49%
Supplemental liability rate	0.00	0.00
Experience adjustment factor	<u>16.54</u>	<u>15.30</u>
Unfunded accrued liability rate	28.24%	26.79%

# 2021 Net Actuarial Loss

1. Investment return (gain) <sup>1</sup>	\$ (23) Mil
2. Experience (gains) and losses <sup>2</sup>	
- New entrants and pickups	61
- Individual salary increases	(591)
- Mortality	(224)
- Terminations (retirement/disability/terminations)	308
- Miscellaneous	<u>(345)</u>
- Total	\$ (791) Mil
3. Net actuarial experience gain: (1) + (2)	\$ (814) Mil
4. Act 5 Shared Risk	\$ 29 Mil
5. Change in Assumptions	\$ 2,772 Mil

1 7.29% actual rate of return on the Actuarial Value of Assets vs. the assumed 7.25% rate of return.

2 Experience (gains) reduce the System's unfunded accrued liability and experience losses increase the System's unfunded accrued liability.

# Health Insurance Account 2022/2023 Employer Rate

Estimated number of eligible annuitants in FY 2023/2024	158,000
Estimated number of eligible annuitants who elect coverage	97,960
1. Estimated balance at 6/30/2022	\$ 129.5 Mil
2. Disbursements FY 2022/2023	\$ 117.8
3. Disbursements FY 2023/2024	\$ 119.0
4. Required contribution: (2) + (3) – (1)	\$ 107.3
5. FY 2022/2023 membership payroll	\$ 14,497 Mil
6. Health insurance employer rate: (4) ÷ (5) (rounded up)	0.75%

Notes:

1. 63% for fiscal year 2021/2022 and 62% for fiscal years 2022/2023 and thereafter of eligible annuitants are assumed to elect coverage.
2. Total OPEB Liability (Actuarial Accrued Liability) disclosed under GASB 74 as of June 30, 2021 is \$2,503 million, based on a discount rate of 2.18%.
3. Estimated balance as of 6/30/2022 is based on a FY 2021/2022 appropriation payroll of \$14,424 Mil.

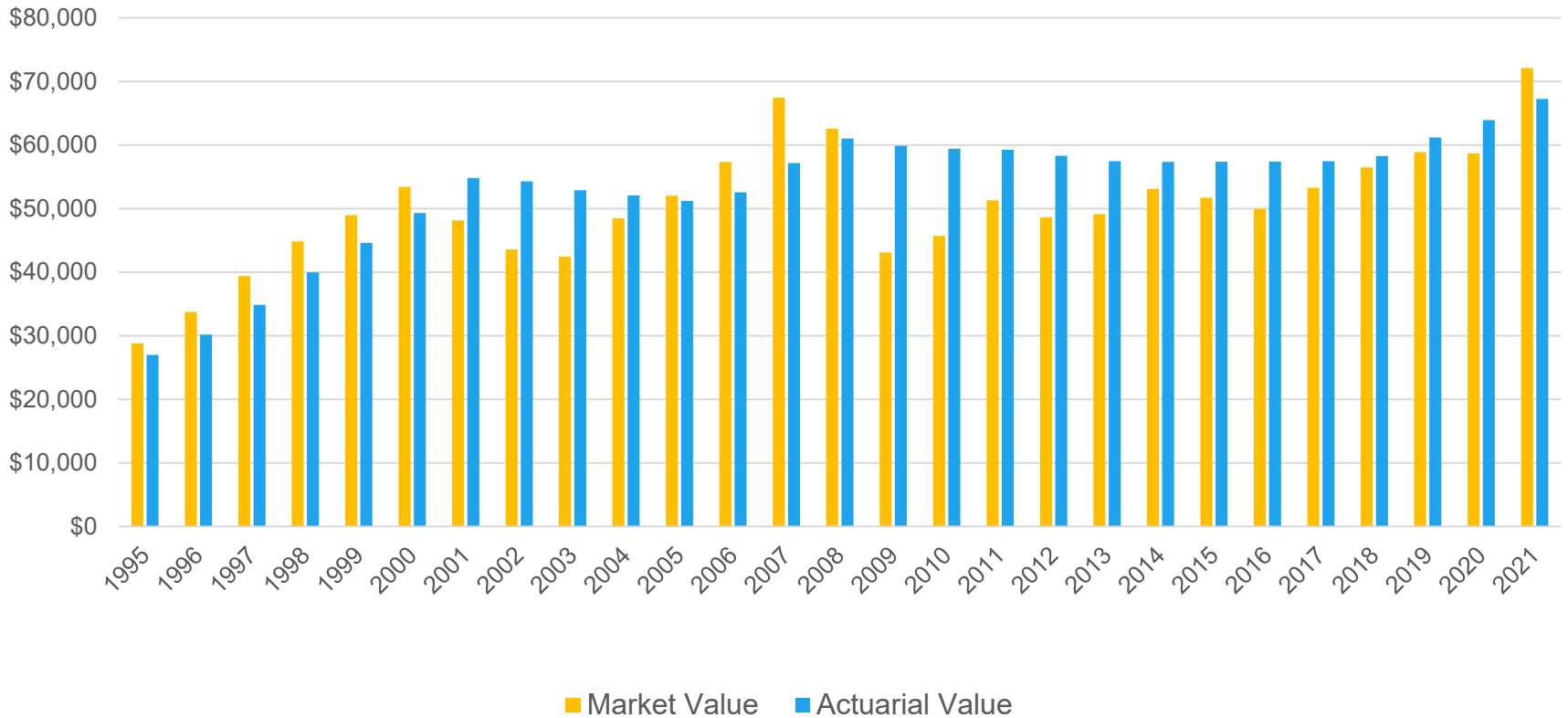
# ASOP 51 Disclosures

- **Investment Risk** – Asset returns less than expected would lead to lower assets, higher unfunded liabilities and larger employer contributions
  - 10-year asset averaging helps to smooth out volatility due to the above-mentioned investment risk
- **Salary increases** – Salaries greater than expected would lead to higher liabilities, larger unfunded liabilities and larger employer contributions. Salaries less than expected would lead to lower liabilities but may increase employer contribution rates due to lower employer payroll.
- **Longevity risks** – Members living longer than expected would increase the System’s liabilities, the unfunded liability and the employer contributions
  - The mortality assumption uses a mortality improvement scale that mitigates some of the risk associated with members living longer
- **Declining active workforce** - Employer contributions are based on a percentage of members’ and DC-only participants’ salaries. If the required dollar amount of contributions remain level or increase, a declining active workforce will result in higher contribution rates in order to meet required contribution levels
- **Contribution risk** – Risk of not contributing an actuarially determined contribution. If future contributions are at levels below those presented in this report, the System may not be expected to achieve a fully funded position over the 24-year time horizon as contemplated in the statute based on the data, assumptions and methods used in the valuation

# Appendices

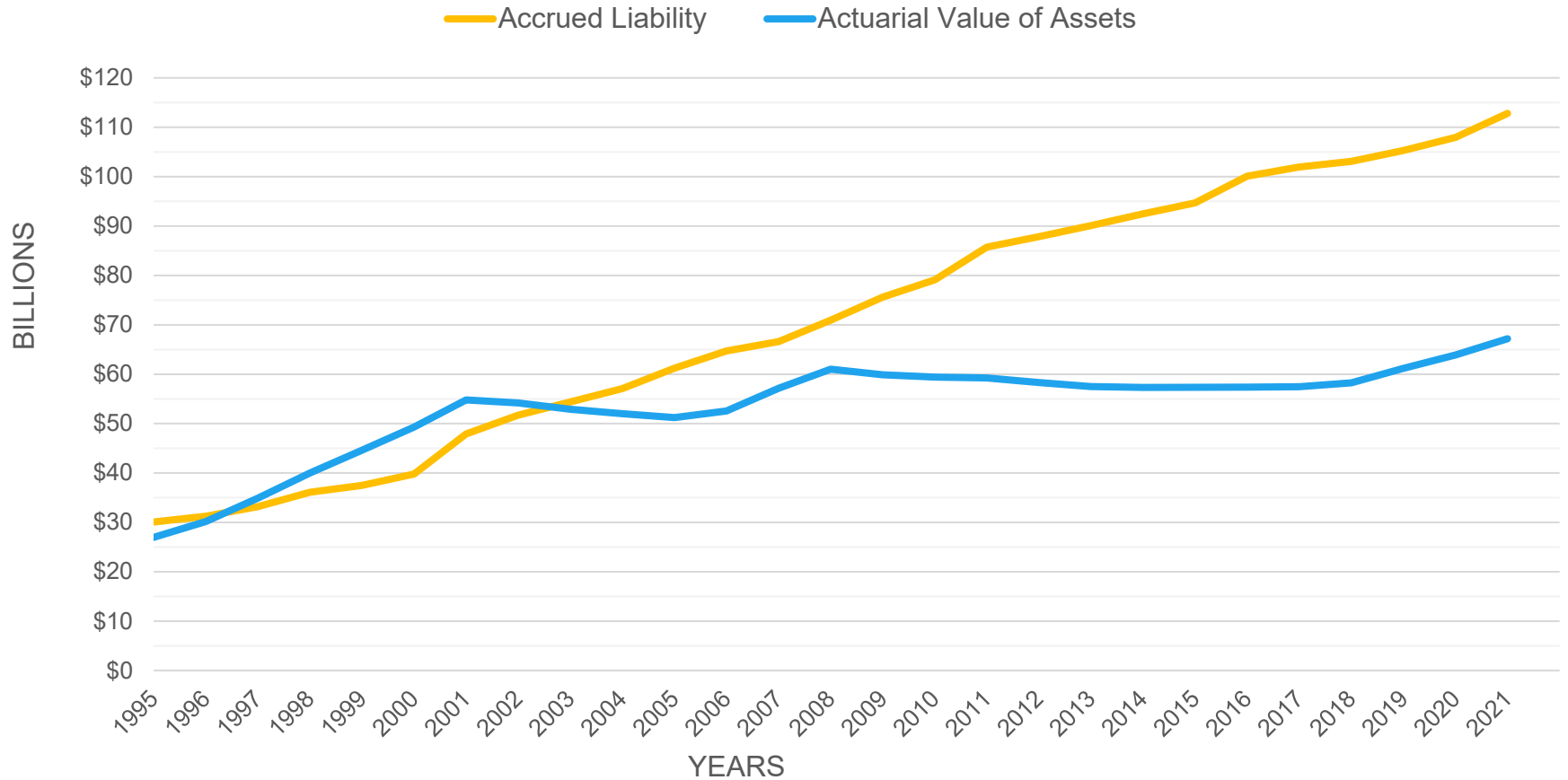


# Comparison of Asset Values (\$ Millions)



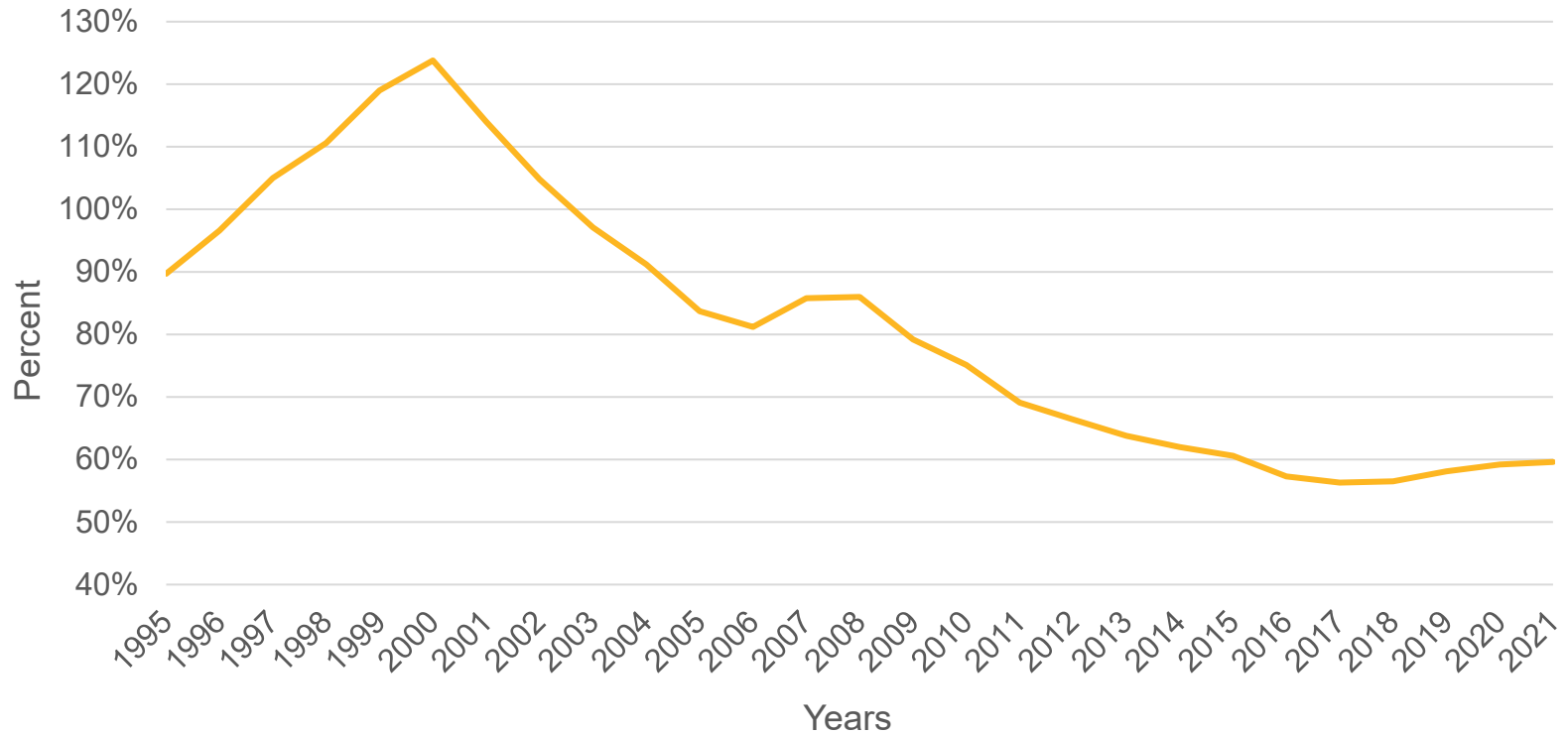
Note: Beginning with the 2010 valuation, the actuarial value of assets reflects the 10-year asset smoothing method enacted by Act 120.

# Accrued Liability and Actuarial Value of Assets: 1995 – 2021



# Financial Position Funded Status

**Actuarial Value of Assets as a % of Accrued Liability: 1995 - 2021**



# Total Contribution Rate

Fiscal Year	Normal Cost	Unfunded Accrued Liability	Health Care Contribution	DC Contribution (Average) <sup>4</sup>	Total Employer	Member Contribution (Average) <sup>1</sup>	Total Contribution Rate
22/23	6.07%	28.24%	.75%	.20%	35.26%	7.52%	42.78%
21/22	7.20	26.79	.80	.15	34.94	7.56	42.50
20/21	7.37	26.14	.82	.18	34.51	7.61	42.12
19/20	7.49	25.87	.84	.09	34.29	7.59	41.88
18/19	7.59	25.01	.83	N/A	33.43	7.57	41.00
17/18	7.70	24.04	.83	N/A	32.57	7.54	40.11
16/17	8.31	20.89	.83	N/A	30.03	7.52	37.55
15/16	8.38	19.44	.84	N/A	25.84 <sup>2</sup>	7.49	33.33
14/15	8.46	17.51	.90	N/A	21.40 <sup>2</sup>	7.46	28.86
13/14	8.57	15.25	.93	N/A	16.93 <sup>2</sup>	7.43	24.36
12/13	8.66	12.99	.86	N/A	12.36 <sup>2</sup>	7.40	19.76
11/12	8.12	10.15	.65	N/A	8.65 <sup>2</sup>	7.37	16.02
10/11	8.08	(0.50)	.64	N/A	5.64 <sup>3</sup>	7.34	12.98
09/10	7.35	(3.72)	.78	N/A	4.78	7.32	12.10
08/09	6.68	(3.37)	.76	N/A	4.76	7.29	12.05
07/08	6.68	(.24)	.69	N/A	7.13	7.25	14.38
06/07	6.62	(.95)	.74	N/A	6.46	7.21	13.67
05/06	7.61	(4.28)	.69	N/A	4.69	7.16	11.85
04/05	7.48	(7.10)	.23	N/A	4.23	7.12	11.35
03/04	7.25	(4.27)	.79	N/A	3.77	7.08	10.85
02/03	7.20	(10.03)	.97	N/A	1.15	7.10	8.25
01/02	5.63	(6.05)	1.09	N/A	1.09	6.43	7.52
00/01	6.29	(4.65)	.30	N/A	1.94	5.77	7.71
99/00	6.40	(2.04)	.25	N/A	4.61	5.72	10.33
98/99	6.33	(.44)	.15	N/A	6.04	5.69	11.73

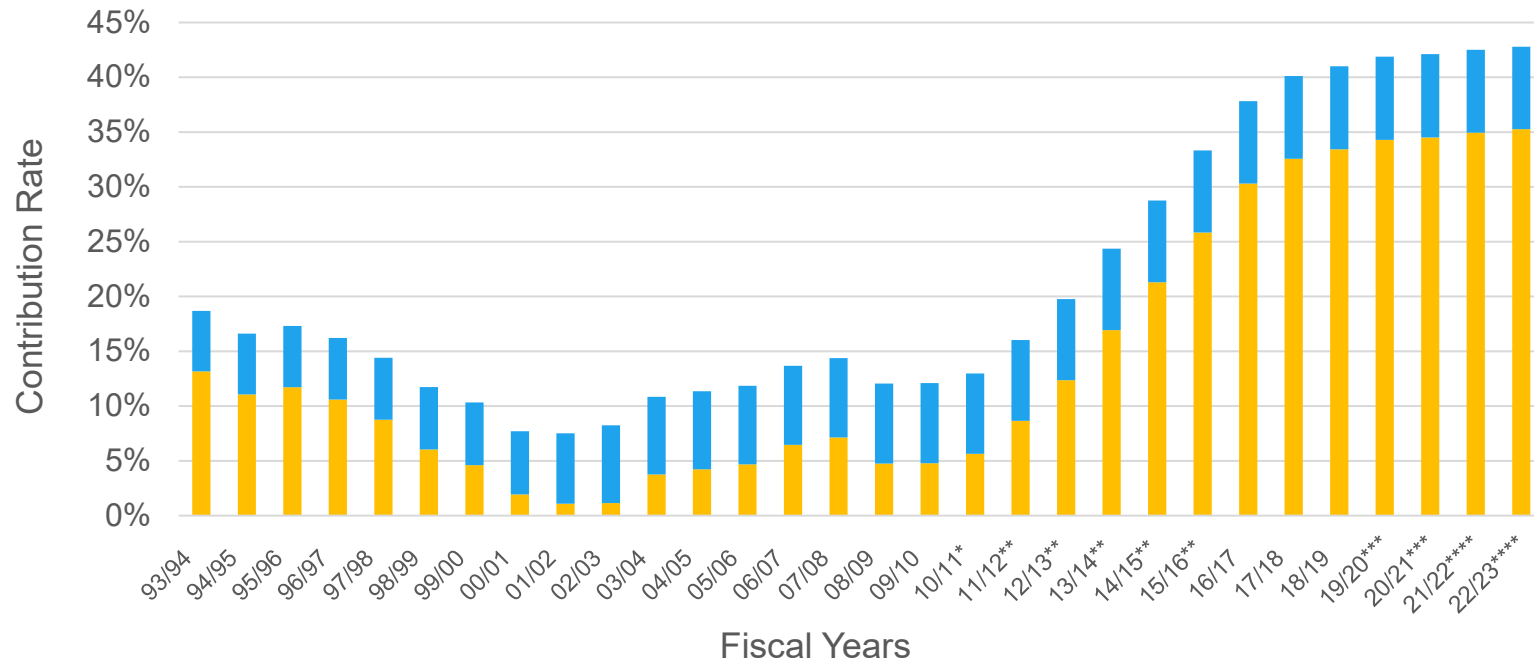
1. Act 9 member rate change took effect January 1, 2002. Act 120 member rate change took effect July 1, 2011.

2. Act 120 limited the employer pension contribution of 27.82% to 25.00% for Fiscal Year 15/16 (prior rate of 20.50% + 4.50% collar), 25.97% to 20.50% for Fiscal Year 14/15 (prior rate of 16.00% + 4.50% collar), 23.82% to 16.00% for Fiscal Year 13/14 (prior rate of 11.50% + 4.50% collar), 21.65% to 11.50% for Fiscal Year 12/13 (prior rate of 8.00% + 3.50% collar) and 18.27% to 8.00% for Fiscal Year 11/12 (prior rate of 5.00% + 3.00% collar).

3. Act 46 reduced the employer pension contribution from 7.58% to 5.00% for Fiscal Year 10/11.

4. Under Act 5, employers contribute 2.25% of pay for Class T-G members, 2.00% of pay for Class T-H members and 2.00% of pay for DC-only participants to the DC plan.

# 30-Year History of Member and Employer Contribution Rates



Notes:

■ Employer Rate    ■ Member Rate

\* Act 46 reduced the employer pension contribution from 7.58% to 5.00% for Fiscal Year 10/11.

\*\* Act 120 limited the employer pension contribution of 27.82% to 25.00% for Fiscal Year 15/16 (prior rate of 20.50% + 4.50 collar), 25.97% to 20.50% for Fiscal Year 14/15 (prior rate of 16.00% + 4.50% collar), 23.82% to 16.00% for Fiscal Year 13/14 (prior rate of 11.50% + 4.50% collar), 21.65% to 11.50% for Fiscal Year 12/13 (prior rate of 8.00% + 3.50% collar) and 18.27% to 8.00% for Fiscal Year 11/12 (prior rate of 5.00% + 3.00% collar).

\*\*\* Fiscal Years 2019/2020 and 2020/2021 include the anticipated Act 5 DC contribution based on the following new System Act 5 membership election: 65% elect Class T-G membership, 30% elect Class T-H membership and 5% elect DC-only participation. Fiscal Years 2021/2022 and 2022/2023 include the anticipated Act 5 DC contribution based on the following new System Act 5 membership election: 98% elect Class T-G membership, 1% elect Class T-H membership and 1% elect DC-only participation.

# Board Adoption of Changes in Demographic and Economic Assumptions and Administrative Option Factors

1. PSERB Resolution 2021-03: At the March 5, 2021 Board meeting, the Board's Budget/Finance Committee endorsed, and the Board accepted, the Five-Year Demographic Experience Review Prepared as of June 30, 2020 report recommendations, which will be implemented in the June 30, 2021 actuarial valuation.
  - Withdrawal
  - Retirement
  - Disability
  - Withdrawal Annuity Benefit Commencement
  - Optional Forms of Payment Elections
2. PSERB Resolution 2021-18: At the June 11, 2021 Board meeting, the Board's Budget/Finance Committee endorsed, and the Board accepted, the Five-Year Mortality Experience Review Prepared as of June 30, 2020 report recommendations, which will be first reflected in the June 30, 2021 actuarial valuation.
  - Mortality Experience among the System's Annuitants
  - Mortality Experience among the System's Active Membership
3. PSERB Resolution 2021-32: At the August 6, 2021 Board meeting, the Board's Budget/Finance Committee endorsed, and the Board accepted, the Update of Administrative Option Factors report recommendations, which will be effective July 1, 2022 and first reflected in the June 30, 2021 actuarial valuation.
4. PSERB Resolution 2021-33: At the August 6, 2021 Board meeting, the Board's Budget/Finance Committee endorsed, and the Board accepted, the Five-Year Economic Experience Review Prepared as of June 30, 2020 report recommendations, which will be first reflected in the June 30, 2021 actuarial valuation.
  - Investment Return
  - Inflation
  - Individual Salary Increases
  - Payroll Growth

