

**PUBLIC SCHOOL RETIREMENT SYSTEM  
OF THE CITY OF ST. LOUIS**  
**MINUTES OF THE BOARD OF TRUSTEES REGULAR MEETING**  
**June 23, 2022**

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**I. ROLL CALL AND ANNOUNCEMENT OF A QUORUM**

The June meeting of the Board of Trustees of the Public School Retirement System of the City of St. Louis (PSRSSTL) was called to order at around 4:34 p.m. on Thursday, June 23, 2022. The meeting was conducted by video conference through Zoom and a Livestream on YouTube. Louis Cross, Chairman of the Board of Trustees, was the presiding officer.

Roll Call was taken and Louis Cross, Donna Jones, Martel Mann, Bobbie Richardson, Albert Sanders, Justin Stein, and Dorris Walker were present. The Board of Trustees had a quorum at the meeting. Trustees Angela Banks, Christina Bennett, and Sheila Goodwin joined the meeting in progress. Trustee Yvette Levy was absent.

Executive Director Susan Kane, Attorney Representative Matt Gierse, Actuary Representatives Michael Ribble and Matthew Staback, and Gallagher Business Insurance Consultants Allison Benney and Stephen Fitzsimonds were also in attendance.

**II. APPROVAL OF MINUTES FROM LAST MEETING**

Dorris Walker made a motion, seconded by Bobbie Richardson, to approve the minutes of the Board of Trustees Meeting from April 18, 2022. By voice vote, the motion carried.

**III. READING OF COMMUNICATIONS TO THE BOARD OF TRUSTEES**

None

**IV. PRESENTATIONS BY INTERESTED PARTIES**

None

**V. CONSENT AGENDA**

Sheila Goodwin made a motion, seconded by Bobbie Richardson, to approve the Retirements and Benefits of April and May 2022. By voice vote, motion carried.

Bobbie Richardson made a motion, seconded by Sheila Goodwin, to approve the refunds and bills of April and May 2022. By voice vote, motion carried.

**VI. UNFINISHED BUSINESS**

None

**VII. REPORT OF THE CHAIRPERSON**

Chairman Cross began by announcing that the October Regular Board Meeting date of October 17 conflicted with the St. Louis Public Schools Parent Teacher Conferences and suggested that another date should be selected. After discussion, Bobbie Richardson made a motion, seconded by Dorris Walker, to change the October Regular Board Meeting date to Monday, October 24, 2022.

A roll call vote was taken.

Christina Bennett	Yes	Louis Cross	Yes	Sheila Goodwin	Yes
Donna Jones	Yes	Martel Mann	Yes	Bobbie Richardson	Yes
Albert Sanders	Yes	Justin Stein	Yes	Dorris Walker	Yes

The motion carried with nine yes votes.

Chairman Cross then made a recommendation to add the Juneteenth holiday for PSRSSTL staff and close the office to ensure that future regular Board meeting dates are not scheduled on this date. There was discussion about the proper procedure for making this change. Since recommendations for some additional rule changes were anticipated in August, this change will be included with that packet of rule changes.

At the end of his report, Chairman Cross encouraged Committee Chairs to provide a report from their respective Committees at future meetings.

### **VIII. REPORT OF THE EXECUTIVE DIRECTOR**

The Executive Director began by highlighting the materials included in Tab IV. She mentioned that there was a one-month overpayment for a deceased retiree, which was the first discovered in 2022. Staff will work with the bank and the family to recover the overpayment. She also reported that the processing of Staff Payroll using the external payroll firm began in the second quarter of 2022 and everything was going along smoothly. She also provided an update on the electronic devices for Trustees. The System's Technology Consultant is currently reviewing but some additional testing is required.

The Executive Director introduced the Gallagher Business Insurance Consultant team of Allison Benney and Stephen Fitzsimonds to discuss the options for the Fiduciary liability insurance coverage, which is up for renewal in July 2022. They explained that the market for this coverage had become very difficult, mainly due to increased liability claims. Travelers decided to offer only \$5 Million Dollars of coverage, down from the current \$10 Million Dollars. Gallagher then solicited bids from the market to find quotes for the additional \$5 Million Dollars of recommended coverage. The Business Insurance Consultant reviewed the new proposals and responded to questions from the Trustees. After all discussion had been concluded, Christina Bennett made a motion, seconded by Albert Sanders, to select the Traveler's renewal for primary fiduciary coverage of \$5,000,000 and secondary coverage of \$5,000,000 with Markel.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Donna Jones	Yes	Martel Mann	Yes
Bobbie Richardson	Yes	Albert Sanders	Yes	Justin Stein	Yes
Dorris Walker	Yes				

The motion carried with ten yes votes.

The Executive Director then mentioned that the System's current provider for Disability review had unexpectedly announced in May that they would no longer provide this service. After research and contacting local and national firms, two companies, MES and AMR, submitted proposals. She recommended the selection of Advanced Medical Review, AMR, due to their strong client portal,

flexibility in services, and lower cost. Bobbie Richardson made a motion, which was seconded by Christina Bennett, to select Advanced Medical Review as the System's disability review provider.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Donna Jones	Yes	Martel Mann	Yes
Bobbie Richardson	Yes	Albert Sanders	Yes	Justin Stein	Yes
Dorris Walker	Yes				

The motion carried with ten yes votes.

#### **IX. REPORT OF THE INVESTMENT CONSULTANT**

None

#### **X. REPORT OF THE ACTUARY**

Michael Ribble and Matthew Staback from Buck, the Actuary Representatives, were present to provide the 2022 Valuation Report and results. Mr. Ribble began his presentation by reminding the Trustees of the assumptions that were approved at the December 2021 meeting resulting from the experience study. After a thorough review of the report and all Trustee questions had been answered, Sheila Goodwin made a motion, seconded by Dorris Walker, to accept the 2022 Actuarial Valuation Report as presented by the Actuary.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Sheila Goodwin	Yes
Martel Mann	Yes	Bobbie Richardson	Yes	Justin Stein	Yes
Dorris Walker	Yes				

The motion carried with seven yes votes

#### **XI. REPORTS OF COMMITTEES OF THE BOARD OF TRUSTEES**

In the absence of the Chairman, the Vice Chairperson asked for reports from the Committees.

##### **Benefits Committee**

Bobbie Richardson announced that responses for the Medicare Advantage RFP's are expected by the end of June. RFP's for Identity Theft protection and prepaid Legal plans have also been released and should also be received by the end of June. The Executive Director indicated that the results would be shared with the Trustees at the August Board Meeting.

The Chairman returned to the meeting and asked for reports from the remaining committees.

### **Trustee Business Committee**

Co-Chair Walker reminded the Trustees, as discussed at the Trustee Business Committee meeting on May 11, that it was important for those trustees that are attending conferences to retain receipts and submit those along with the Travel Voucher form to request reimbursement.

### **Investment Committee**

Co-Chair Christina Bennett indicated that with AndCo's direction, there had been some detailed discussions at the Investment Committee Meetings on asset allocation, rebalancing, and investment policies.

Co-Chair Martel Mann made a motion, seconded by Louis Cross, to accept the asset allocations, restructuring, and rebalancing as recommended by AndCo and the Investment Committee at the April 21, 2022 Meeting.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Martel Mann	Yes	Bobbie Richardson	Yes
Justin Stein	Yes	Dorris Walker	Yes		

The motion carried with eight yes votes

Co-Chair Mann made a motion, seconded by Justin Stein, to accept the updated rebalancing recommendation from AndCo changing Fixed Income portion from April 21 recommendation (providing no additional investment to Xponance and reducing the amounts taken from Loomis and Neuberger) as approved by the Investment Committee at the May 19, 2022 meeting.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Martel Mann	Yes	Bobbie Richardson	Yes
Justin Stein	Yes	Dorris Walker	Yes		

The motion carried with eight yes votes

Bobbie Richardson made a motion, seconded by Sheila Goodwin, to add Xponance, Fixed Income Manager, to the Watch List due to Management change, as recommended by AndCo and the Investment Committee at the May 19, 2022 meeting.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Martel Mann	Yes	Bobbie Richardson	Yes
Justin Stein	Yes	Dorris Walker	Yes		

The motion carried with eight yes votes

Dorris Walker made a motion, which was seconded by Justin Stein, to add Intech, Large Cap Manager, to the Watch List due to Performance, Organizational Changes, and non-compliance with

MWBE policy as recommended by AndCo and the Investment Committee at the May 19, 2022 meeting.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Martel Mann	Yes	Bobbie Richardson	Yes
Justin Stein	Yes	Dorris Walker	Yes		

The motion carried with eight yes votes.

Bobbie Richardson made a motion to approve attendance at the National Public Pension Association Conference as recommended by the Investment Committee at the May 19 meeting. The motion was seconded by Dorris Walker.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Martel Mann	Yes	Bobbie Richardson	Yes
Justin Stein	Yes	Dorris Walker	Yes		

The motion carried with eight yes votes.

Dorris Walker made a motion to accept the changes to the Investment Guidelines as recommended by AndCo and the Investment Committee at the June 16, 2022 meeting. The motion was seconded by Bobbie Richardson.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Martel Mann	Yes	Bobbie Richardson	Yes
Justin Stein	Yes	Dorris Walker	Yes		

The motion carried with eight yes votes.

### **Legislative, Rules & Regulations Committee**

Chairman Cross mentioned that he would like to have a second work session with the Board of Education as a follow-up to the presentation made by the System earlier this year.

### **Personnel & Professional Contracts Committee**

Co-Chair Angie Banks mentioned that three RFP's were upcoming and additional information would be provided at future meetings.

## **XII. NEW BUSINESS**

None

### **XIII. REPORT OF THE ATTORNEY**

The Attorney did have a report but suggested that it be conducted in closed session. Sheila Goodwin made the motion to close the meeting, and that all records and votes, to the extent permitted by law, pertaining to and/or resulting from this closed meeting be closed under R.S.Mo. §§ 610.021 (1) for the purpose of having a confidential or privileged communication with the Attorney. Bobbie Richardson seconded the motion.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Martel Mann	Yes	Bobbie Richardson	Yes
Dorris Walker	Yes				

The motion carried with seven yes votes and the meeting continued in closed session.

After the closed meeting discussion, Sheila Goodwin made a motion to open the meeting pursuant to R. S. Mo. §610.021. The motion was seconded by Bobbie Richardson.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Martel Mann	Yes	Bobbie Richardson	Yes
Dorris Walker	Yes				

The motion carried with seven yes votes

### **XIV. ADJOURNMENT**

Sheila Goodwin made a motion, seconded by Bobbie Richardson, to adjourn the meeting. By voice vote, motion carried, and the meeting adjourned at around 6:56 p.m.

Attachments:

- Refunds & Bills: April and May 2022
- 2022 Meeting Schedule—Updated 6/23/22
- 2022 Actuarial Valuation Report

## Distributions -April, 2022

CHECK NUMBER	CHECK DATE	LAST NAME	FIRST NAME/MI	GROSS (B+C)	FEDERAL TAXES W/H	NET PAY	STATUS A(ctive) R(etired)	REASON D(eath) S(eparation)	NOTES
078589	04/22/22	ANDERSON	KERILYN	4,313.90		4,313.90	A	S	
078590	04/22/22	ARCHER	ASHLYN	19,699.64		19,699.64	A	S	
078591	04/22/22	BALTZER	ANN	7,353.07		7,353.07	A	S	
078592	04/22/22	BOLDEN	KIANA	6,631.13	1,326.23	5,304.90	A	S	
078593	04/22/22	BONDERER	ALISON	4,695.65		4,695.65	A	S	
078594	04/22/22	BROCKHAUS	CAROLINE M	12,521.13		12,521.13	A	S	PREM
078595	04/22/22	BRUMMUND	EMMA	5,809.15		5,809.15	A	S	
078596	04/22/22	CHAVIS	DANIELLE	1,922.73	384.55	1,538.18	A	S	KAIROS
078597	04/22/22	CHISM	BETTY	5,977.05		5,977.05	A	S	ICP GSA
078598	04/22/22	COX	ANDREA	11,981.85	2,396.37	9,585.48	A	S	
078599	04/22/22	DANCY	CHRISTOPHER	10,786.38	2,157.28	8,629.10	A	S	KIPP
078600	04/22/22	DOUGAN	MELISSA	2,840.99	568.20	2,272.79	A	S	EAGLE
078601	04/22/22	DUNCAN	MCFARLANE	9,571.02	1,914.20	7,656.82	A	S	CA
078602	04/22/22	FARMER	EDNA	10,005.54	2,001.11	8,004.43	A	S	
078603	04/22/22	FELDHAKE	LADONNA H	4,355.84		4,355.84	A	S	CA
078604	04/22/22	GERDINE	ERIKA	3,964.93	792.99	3,171.94	A	S	
078605	04/22/22	GLASPY	WAYNE	2,123.45	424.69	1,698.76	A	S	
078606	04/22/22	GREMAUD	NICHOLAS	2,779.88	555.98	2,223.90	A	S	KIPP
078607	04/22/22	GRIFFIN	LATOYA	7,762.44	1,552.49	6,209.95	A	S	LLIS EAGLE
078608	04/22/22	HAWKINS	KIYONA A	3,545.22	709.04	2,836.18	A	S	
078609	04/22/22	HAYNES	ERIC	12,354.00		12,354.00	A	S	KIPP LFL
078610	04/22/22	HICKS	TREVOR	4,007.82		4,007.82	A	S	KAIROS
078611	04/22/22	HOLLEY	JAZMINIQUE	15,397.19	3,079.44	12,317.75	A	S	KIPP LFL
078612	04/22/22	JACKSON	LENA	6,478.57	1,295.71	5,182.86	A	S	EAGLE
078613	04/22/22	KNESE	KIMBERLY	29,513.60	5,902.72	23,610.88	A	S	
078614	04/22/22	KOESTER	ROSEMARY	6,002.18		6,002.18	A	S	
078615	04/22/22	LANGE	SARAH	16,169.92	3,233.98	12,935.94	A	S	
078616	04/22/22	LASTER	FAITH	1,500.05		1,500.05	A	S	KIPP
078617	04/22/22	MALACHI	KEIRA	10,153.61	2,030.72	8,122.89	A	S	KIPP
078618	04/22/22	MCBRIDE	SARAH	6,053.47		6,053.47	A	S	LFL
078619	04/22/22	MCCLAIN	KELLY	4,990.11	998.02	3,992.09	A	S	
078620	04/22/22	MCCORMICK	CELESTE	3,189.20	637.84	2,551.36	A	S	
078621	04/22/22	MERES	THERESE	6,027.98		6,027.98	A	S	
078622	04/22/22	MORRIS	SARAH	6,645.51	1,329.10	5,316.41	A	S	
078623	04/22/22	MOSS	SAMELLA	1,506.68		1,506.68	A	S	
078624	04/22/22	MYTON	PHILLIP	11,586.58	2,317.32	9,269.26	A	S	KIPP
078625	04/22/22	NORMAN	SARAH	20,459.10		20,459.10	A	S	
078626	04/22/22	NOWAK	LANETTE	17,136.10		17,136.10	A	S	CA
078627	04/22/22	PARRISH	LASHAWN	15,985.27	3,197.05	12,788.22	A	S	KIPP

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## Distributions - May, 2022

CHECK NUMBER	CHECK DATE	LAST NAME	FIRST NAME/MI	GROSS (B+C)	FEDERAL TAXES W/H	NET PAY	STATUS A(ctive) R(etired)	REASON D(eath) S(eparation)	NOTES
078670	05/13/22	REID	RITA	5,139.05		5,139.05	A	D	DEC: S REID-BUSH
				0.00					
078686	05/31/22	ACKERMAN	MARIE E	3,095.88		3,095.88	A	S	
078687	05/31/22	ARELLANO	JENNIFER N	16,493.20	3,298.64	13,194.56	A	S	
078688	05/31/22	ARMOUR	EBONI R	6,105.29	1,221.06	4,884.23	A	S	
078689	05/31/22	BLACK	BROOKE	6,568.53	1,313.71	5,254.82	A	S	SLCP
078690	05/31/22	BOONE	JAMES	13,755.68	2,751.14	11,004.54	A	S	
078691	05/31/22	BORUM	TERRELL D	15,111.82	3,022.36	12,089.46	A	S	
078692	05/31/22	BOSMAN	MALISSA	21,861.57	4,372.31	17,489.26	A	S	KIPP
078693	05/31/22	CALDWELL	NATHAN	14,110.79	2,822.16	11,288.63	A	S	
078694	05/31/22	CAMPISE	DAVID	9,815.48		9,815.48	A	S	KIPP
078695	05/31/22	CHAPMAN	DERRELL	2,030.42	406.08	1,624.34	A	S	
078696	05/31/22	CHILTON	SARA	14,612.52		14,612.52	A	S	KIPP
078697	05/31/22	COLLINS GARDEN	FALLON	3,147.86	629.57	2,518.29	A	S	KIPP
078698	05/31/22	CORRICK	CHELSEA	4,656.14	931.23	3,724.91	A	S	
078699	05/31/22	DOXLEY	VICKIE	13,058.06	2,611.61	10,446.45	A	S	
078700	05/31/22	GERBER	ALEXANDER	2,978.43		2,978.43	A	S	KAIROS
078701	05/31/22	GRAY	LYNN Y	1,882.04	376.41	1,505.63	A	S	CA
078702	05/31/22	HOLMES	MONICA	1,854.87	370.97	1,483.90	A	S	
078703	05/31/22	ISOM	MARLA	3,810.69		3,810.69	A	S	
078704	05/31/22	JAMES	NAYA	8,200.73		8,200.73	A	S	LPA SCPA
078705	05/31/22	JORDAN	ARETHA	1,702.48		1,702.48	A	S	
078706	05/31/22	KARIM	MARIA	12,600.37		12,600.37	A	S	SLIS
078707	05/31/22	LANIER	DANIEL J	5,814.88	1,162.98	4,651.90	A	S	GCAA
078708	05/31/22	LUDWIG	KRISTE	6,355.23		6,355.23	A	S	GSA
078709	05/31/22	MASON	IVY	2,983.24	596.65	2,386.59	A	S	CGMS
078710	05/31/22	MCKENNA	TIMOTHY	14,239.00		14,239.00	A	S	
078711	05/31/22	MOSS	LINDA	3,607.78	721.56	2,886.22	A	S	
078712	05/31/22	MUELLER	ALEXANDRIA M	22,559.94	4,511.99	18,047.95	A	S	
078713	05/31/22	MULIMBI	BETHANY L	8,201.94		8,201.94	A	S	
078714	05/31/22	PECHMANN	ADAM	15,031.70	3,006.34	12,025.36	A	S	
078715	05/31/22	PICHON	DARSHANAY	1,284.60	256.92	1,027.68	A	S	KAIROS EAGLE
078716	05/31/22	POWELL	TUESDAY M	44,213.02	8,842.60	35,370.42	A	S	CA SLPS
078717	05/31/22	RAPPENECKER	GARY	9,441.88	1,888.38	7,553.50	A	S	
078718	05/31/22	SHELTON	ERIKA J	3,996.07	799.21	3,196.86	A	S	CA
078719	05/31/22	SIMMONS	TERESA	3,812.25		3,812.25	A	S	
078720	05/31/22	SIMPKINS	KIMBERLY	1,986.17	397.23	1,588.94	A	S	
078721	05/31/22	STEWART	QUINTON	13,209.76		13,209.76	A	S	
078722	05/31/22	STREB	ZACHARY	1,288.19	257.64	1,030.55	A	S	

## Distributions - May, 2022

[illegible]

Public School Retirement System of the City of St. Louis Checks Written During the Month of April, 2022			
Payee	Ck. Number	Description	Amount
<b>Date Paid April 1, 2022</b>			
Ameren Missouri	78548	Electric Service	1,893.66
ACC Business	78549	Telephone Fiberoptics	520.94
Charter Communications	78550	Charter Internet and Voice	219.96
Republic Services #346	78551	Trash Pick-Up	305.60
Clayton Parking	78552	April 2022 Parking - 2 Employees	140.00
Office Essentials	78553	Office Supplies	492.76
Specialty Mailing	78554	Postage - Active Member Newsletters	1,291.92
Stericycle, Inc.	78555	Document Shredding	116.49
Gregory F. X. Daily, Collector of Revenue	78556	City Earnings Tax - First Quarter 2022	1,013.46
Pensions & Investments	78557	P & I Subscriptions	4,510.00
Tech Electronics, Inc.	78558	Preventative Inspection Agreement	25.00
Board of Education St. Louis Benefits Trust	78559	Office Employees Insurance - Dental	189.56
Board of Education St. Louis Benefits Trust	78560	Office Employees Insurance - Vision	12.78
Board of Education St. Louis Benefits Trust	78561	Office Employees Insurance - Life	173.60
<b>Date Paid April 8, 2022</b>			
Office Payroll	ACH	Office Payroll	11,389.85
AXA Equitable	ACH	457 Contributions	2,035.00
<b>Date Paid April 20, 2022</b>			
Absopure Water Company	78562	Water Cooler Service	12.00
Blade Technologies, Inc.	78563	Professional Services	4,046.25
Gallagher Benefit Services, Inc.	78564	Group Ins. Consulting Services Monthly Fee	3,320.25
Konika Minolta Business Solutions USA Inc.	78565	Service for Copier C360I, C364E	232.85
Purchase Power	78566	Postage	600.00
Buck Global, LLC	78567	Actuarial & Consulting Services - March. 2022	16,843.50
Specialty Mailing	78568	Daily Pick-Up	230.00
Specialty Mailing	78569	Service - Retiree Newsletters	828.45
Specialty Mailing	78570	Service - Active Member Newsletters	946.15
Hartnett Reyes-Jones. L.L.C.	78571	Legal Fees	17,622.65
Office Essentials	78572	Office Supplies	54.96
MSD	78573	Sewer Service	57.71
Mitel	78574	Telephone Service	287.20
Anders CPAs & Advisors	78575	Audit of Financial Statements	39,000.00
Tech Electronics Inc.	78576	City of St. Louis ARFAM Permit Fee	55.00
Arthur J. Gallagher Risk Mgmt. Services, Inc.	78577	Crime - Installment 3 of 3	1,710.00
American City Business Journals, Inc.	78578	1 Subscriptions	1,020.00
Susan Kane	78579	Sympathy Flowers, Office Supplies	94.89
Randy Elam	78580	Domain Renewal For psrsstl.org	122.97
CBRE - 60884	78581	Management Fee - April 2022	1,228.29
CBRE - 60884	78582	Engineer Services	230.85
St. Louis Mat & Linen Company	78583	Floor Mats	220.00
Grainger	78584	Supplies	115.00
EARNEST Partners, LLC	78585	1st Quarter 2022 Management Fee	7,174.01
Mellon Investments Corporation	78586	1st Quarter 2022 Management Fee	818.62
Mellon Investments Corporation	78587	1st Quarter 2022 Management Fee	2,125.05
Systematic Financial Management, LP	78588	1st Quarter 2022 Management Fee	76,691.60
<b>Date Paid April 22, 2022</b>			
Office Payroll	ACH	Office Payroll	11,389.88
AXA Equitable	ACH	457 Contributions	2,035.00
		<b>TOTAL</b>	<b>\$213,443.71</b>



Public School Retirement System of the City of St. Louis Checks Written During the Month of May, 2022			
Payee	Ck. Number	Description	Amount
<b>Date Paid May 5, 2022</b>			
Ameren Missouri	78643	Electric Service	1,657.87
ACC Business	78644	Telephone Fiberoptics	520.94
Charter Communications	78645	Charter Internet and Voice	219.96
Republic Services #346	78646	Trash Pick-Up	305.60
Clayton Parking	78647	May 2022 Parking - 2 Employees	146.00
Specialty Mailing	78648	Daily Pick-Up	190.00
Anders CPAs & Advisors	78649	Audit of Financial Statements	15,000.00
BuildingStars STL Operations, Inc.	78650	Janitorial Services	2,772.00
Nexcess	78651	Web Hosting	143.40
ActiveTrak	78652	Internet Security	345.60
Pension Benefit Information, LLC	78653	Death Audit - Continuous Monitoring	12,000.00
MAPERS	78654	Conference Registration For Four People	300.00
CBRE - 608844	78655	Enginee Services	368.23
Blue Chip Pest Services	78656	Pest Control	46.00
TK Elevator Corporation	78657	Full Maintenance Coverage - Second Quarter	555.00
Causeway Capital Management LLC	78658	1st Quarter 2022 Management Fee	73,697.99
The Edgar Lomax Company	78659	1st Quarter 2022 Management Fee	79,669.56
INTECH Investment Management LLC	78660	1st Quarter 2022 Management Fee	35,532.70
Manulife Investment Management U.S. LLC	78661	1st Quarter 2022 Management Fee	28,610.08
TCW Asset Management Company	78662	1st Quarter 2022 Management Fee	56,655.63
Westfield Capital Management Company, LP	78663	1st Quarter 2022 Management Fee	69,025.76
Xponance, Inc.	78664	1st Quarter 2022 Management Fee	72,543.51
Xponance, Inc.	78665	1st Quarter 2022 Management Fee	10,097.92
US Bank	78666	1st Quarter 2022 Custodial Fee	25,472.71
Board of Education St. Louis Benefits Trust	78667	Office Employees Insurance - Dental	189.56
Board of Education St. Louis Benefits Trust	78668	Office Employees Insurance - Vision	12.78
Board of Education St. Louis Benefits Trust	78669	Office Employees Insurance - Life	173.60
<b>Date Paid May 6, 2022</b>			
Office Payroll	ACH	Office Payroll	11,742.37
AXA Equitable	ACH	457 Contributions	1,600.00
Integrated Payroll Services (IPS)	ACH	Payroll Processing Fee	59.95
<b>Date Paid May 20, 2022</b>			
Absopure Water Company	78671	Water Cooler Service	12.00
Blade Technologies, Inc.	78672	Professional Services	3,512.64
Konika Minolta Business Solutions USA Inc.	78673	Service for Copier C360I, C364E	232.85
Konika Minolta Business Solutions USA Inc.	78674	Service - Copier C364E Charges	245.94
Purchase Power	78675	Postage	500.00
Buck Global, LLC	78676	Actuarial & Consulting Services - April 2022	5,816.00
Hartnett Reyes-Jones. L.L.C.	78677	Legal Fees	8,909.50
MSD	78678	Sewer Service	57.71
Mitel	78679	Telephone Service	286.96
Tech Electronics Inc.	78680	Monitoring of Fire and Security Alarm	360.00
HITS Scanning Solutions	78681	Imaging Hosting For April 2022	424.80
TK Elevator Corporation	78682	Repairs	443.00
Government Finance Officers Association	78683	Membership Dues 07/01/2022 thru 06/30/2022	420.00
Notary Public Underwriters Agency	78684	Notary Commission Renewal	96.92
Fidelity Institutional Asset Mgmt Trust Company	78685	1st Quarter 2022 Management Fee	73,691.87
<b>Date Paid May 20, 2022</b>			
Office Payroll	ACH	Office Payroll	11,742.37
AXA Equitable	ACH	457 Contributions	1,600.00
Integrated Payroll Services (IPS)	ACH	Payroll Processing Fee	66.95
<b>TOTAL</b>			<b>\$608,074.23</b>

Public School Retirement System of the  
City of St. Louis (PSRSSTL)  
3641 Olive Street, 2<sup>nd</sup> Floor Boardroom  
St. Louis, MO 63108

Voice: (314) 534-7444  
Fax: (314) 534-0531  
Website: <http://www.psrssl.org>

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**Board of Trustees  
Regular Meeting Schedule  
Calendar Year 2022**

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Unless otherwise posted, trustee meetings are conducted in the Boardroom on the  
2<sup>nd</sup> floor of the Retirement System's office building (address above)

**February 28, 2022**

*(4<sup>th</sup> Monday due to Presidents Day)*

**April 18, 2022**

**June 23, 2022**

**August 15, 2022**

**October 24, 2022**

**December 19, 2022**

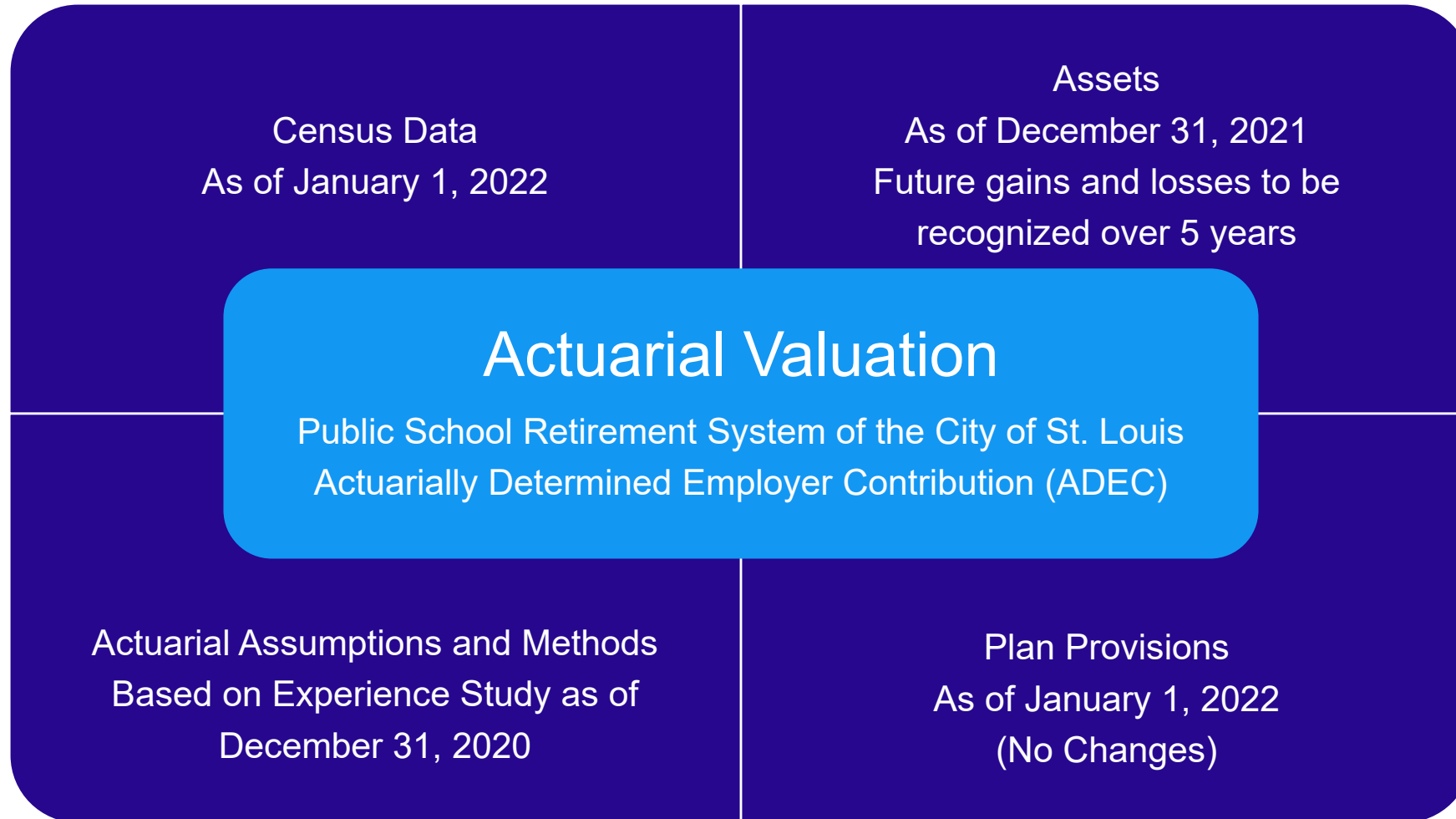


# Public School Retirement System of the City of St. Louis, Missouri

2022 Valuation Results  
June 23, 2022



# Overview – Valuation Process



# Data – Population as of January 1

	2022	2021	Change
<b>Total Actives</b>	<b>4,594</b>	<b>4,984</b>	<b>(390)</b>
School District	2,903	3,503	(600)
Charter Schools	1,684	1,474	210
Retirement System	7	7	0
<b>Total Terminated Records</b>	<b>4,256</b>	<b>3,560</b>	<b>696</b>
Deferred Vested	940	703	237
Nonvested with Balance	3,316	2,857	459
<b>Total in Pay Status</b>	<b>4,363</b>	<b>4,386</b>	<b>(23)</b>
Retirees	3,879	3,893	(14)
Beneficiaries	265	268	(3)
Disabled	219	225	(6)
<b>Total</b>	<b>13,213</b>	<b>12,930</b>	<b>283</b>





# Data – Member census information

As of January 1st	2022	2021
<b>Active Members</b>		
Number	4,594	4,984
Average Age	43.78	43.49
Average Service	8.11	8.15
Average Covered Payroll	\$ 56,474	\$ 53,105
<b>Vested Terminated Members</b>		
Number	940	703
Average Account Balance	\$ 35,941	\$ 34,896
<b>Non-vested Terminated Members</b>		
Number	3,316	2,857
Average Account Balance	\$ 4,750	\$ 4,535
<b>Benefit Recipients</b>		
Number	4,363	4,386
Average Age	75.14	74.95
Average Monthly Benefit	\$ 2,012	\$ 2,005



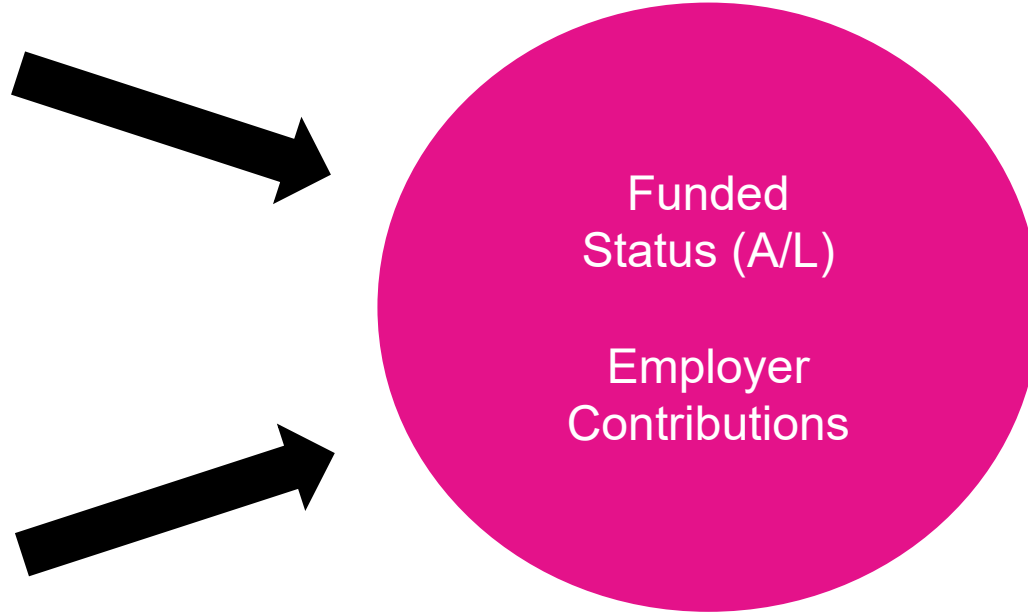
# Understanding Assets & Liabilities

## Assets (A)

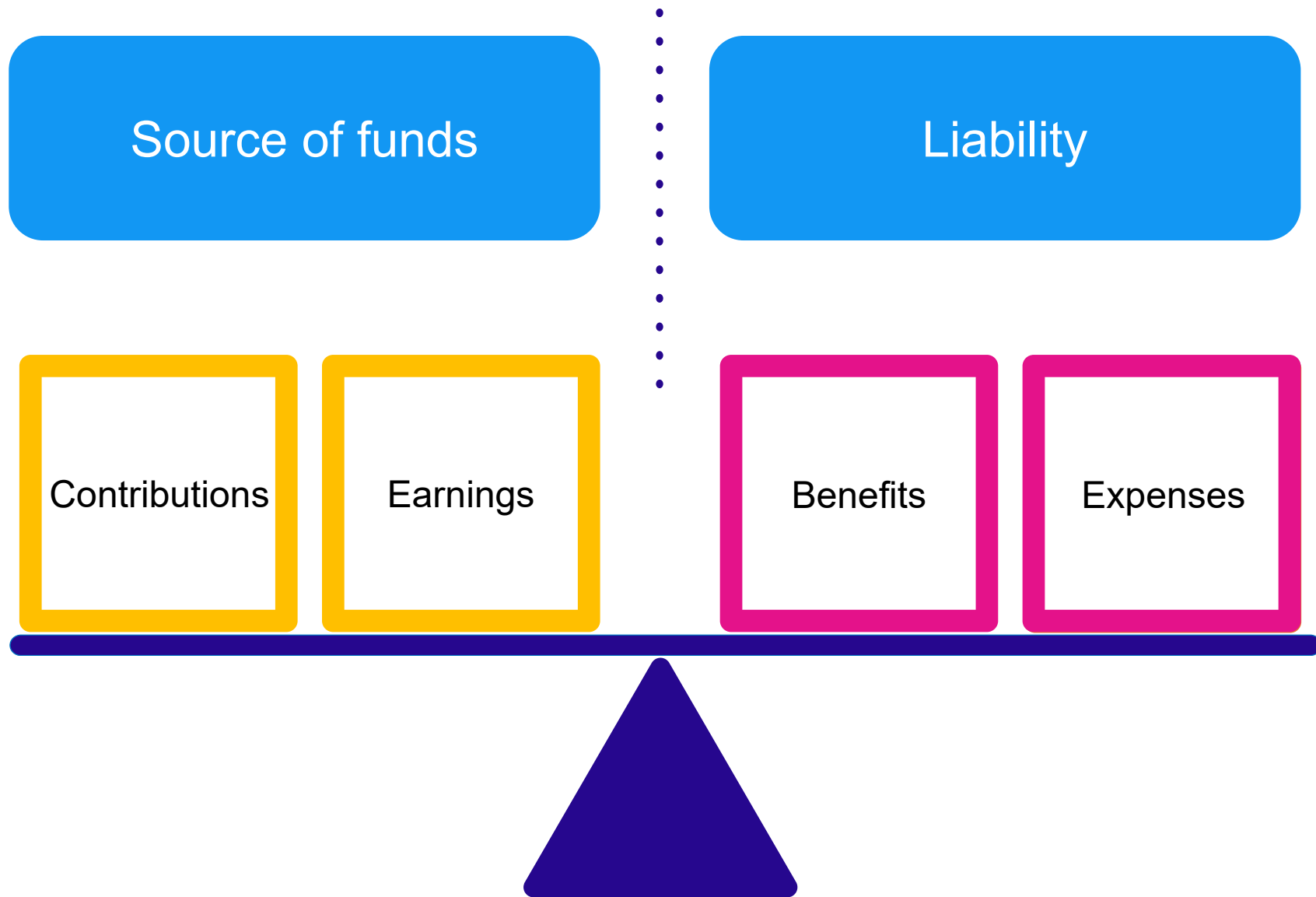
Staff, boards, and committee members typically are more knowledgeable and comfortable with information and decisions related to assets

## Liabilities (L)

But financial decisions rely just as much on an understanding of the liabilities



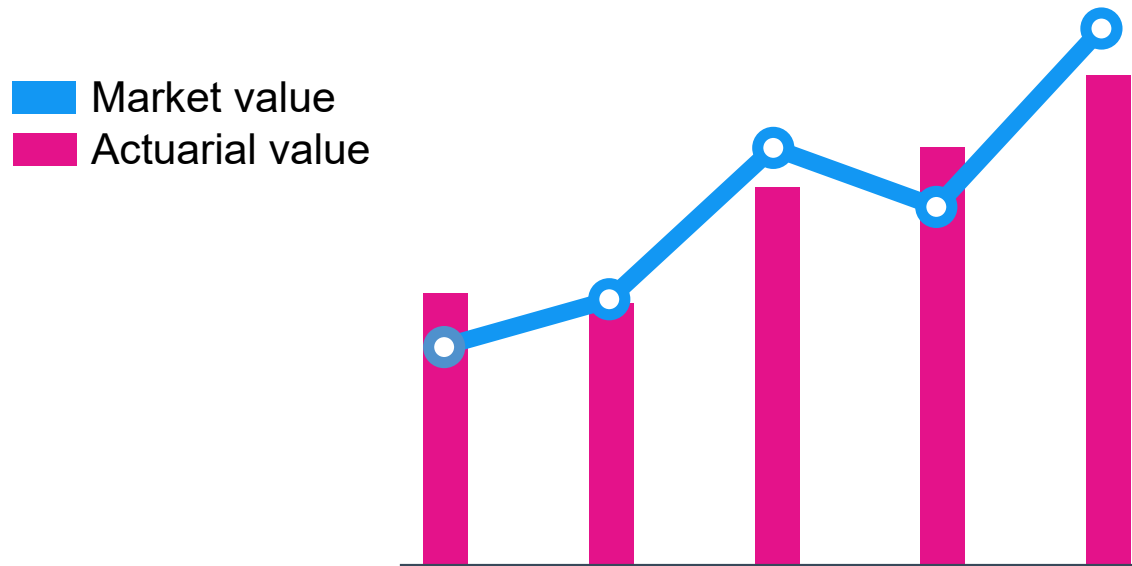
The real key is to understand the interplay of the assets and the liability for the pension plan and its ultimate 'cost'



# Assets

# Purpose of Actuarial Value of Assets

- Market value of assets – may be volatile
- Smoothed value of assets – reduces market volatility
  - Difference between expected asset value versus actual asset value paid over a predetermined amount of time
  - Plan uses a 5-year period of difference in expected versus actual market value
  - Corridor around market value – symmetrical, example 80%/120%

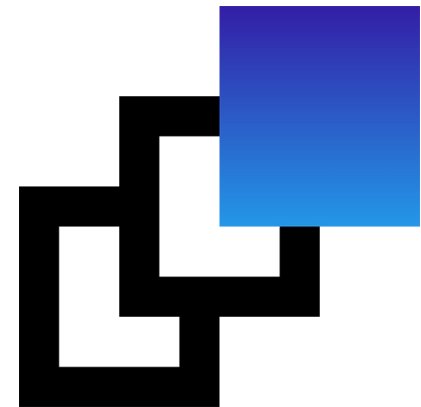


# January 1, 2022 – Development of Actuarial Valuation of Assets\*

A.	Market Value of Assets (MVA) on January 1, 2021	\$914,776,954
B.	Member contributions	20,880,189
C.	Employer contributions	41,226,981
D.	Benefits paid	(113,687,442)
E.	Administrative Expenses	(1,523,071)
F.	Investment return (net of investment expenses only)	111,154,045
G.	Market Value of Assets on January 1, 2022	972,827,656
H.	Expense and Contingency Reserve as of January 1, 2022	29,625,803
I.	MVA on January 1, 2022 minus Expense & Contingency Reserve (G. - H.)	943,201,853
J.	Yield for the 2021 plan year based upon Market Value of Assets	12.51%
O.	Actuarial Value of Assets at January 1, 2022, (I) - (Nf)	943,201,853
P.	Minimum Corridor of Actuarial Value of Assets (80% x I.)	754,561,482
Q.	Maximum Corridor of Actuarial Value of Assets (120% x I.)	1,131,842,224
R.	Actuarial Value of Assets at January 1, 2022 adjusted for limits <sup>9</sup>	943,201,853
S.	Yield for the 2021 plan year based upon the Actuarial Value of Assets	11.76%

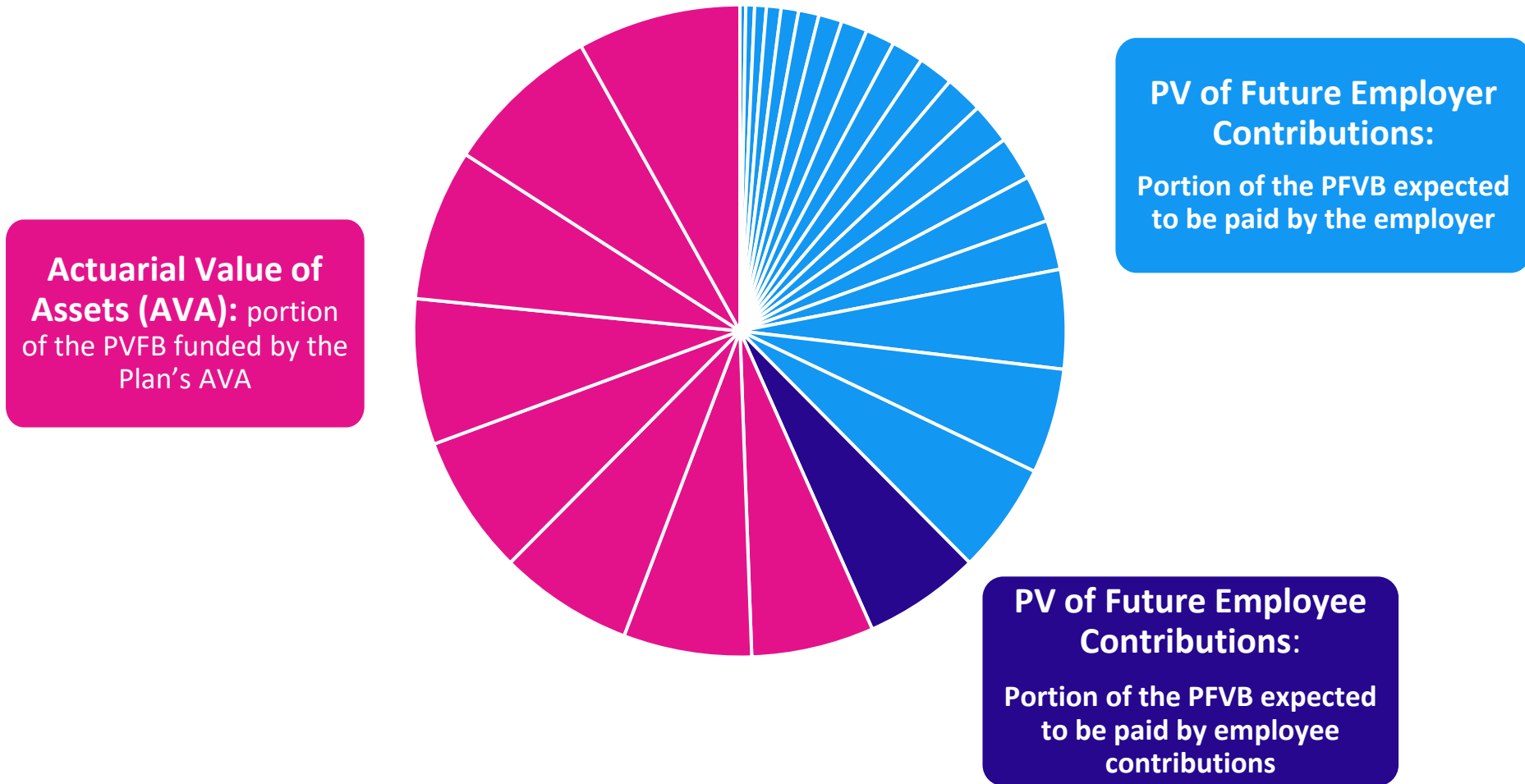
\*Snapshot of key components in section 2.1 of the report

<sup>9</sup>Actuarial Value of Assets set equal to Market Value of Assets less expense and contingency reserve as of January 1, 2022.



# Liabilities

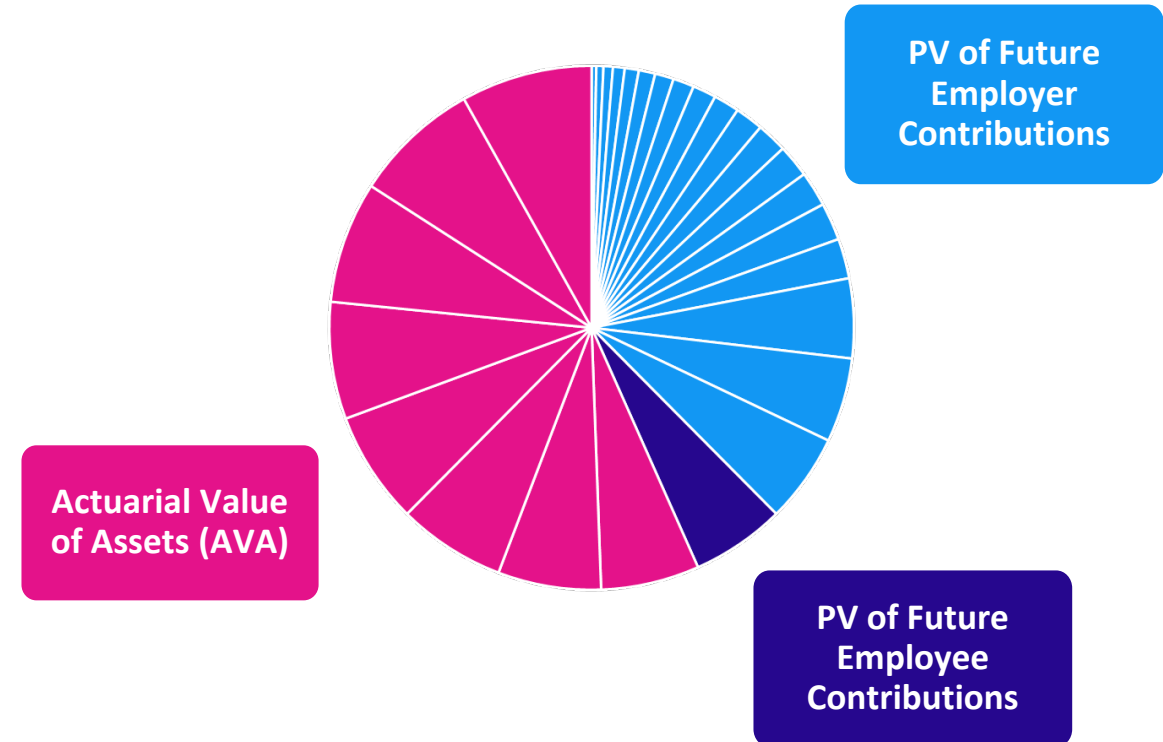
# Present Value of Future Benefits (PVFB)





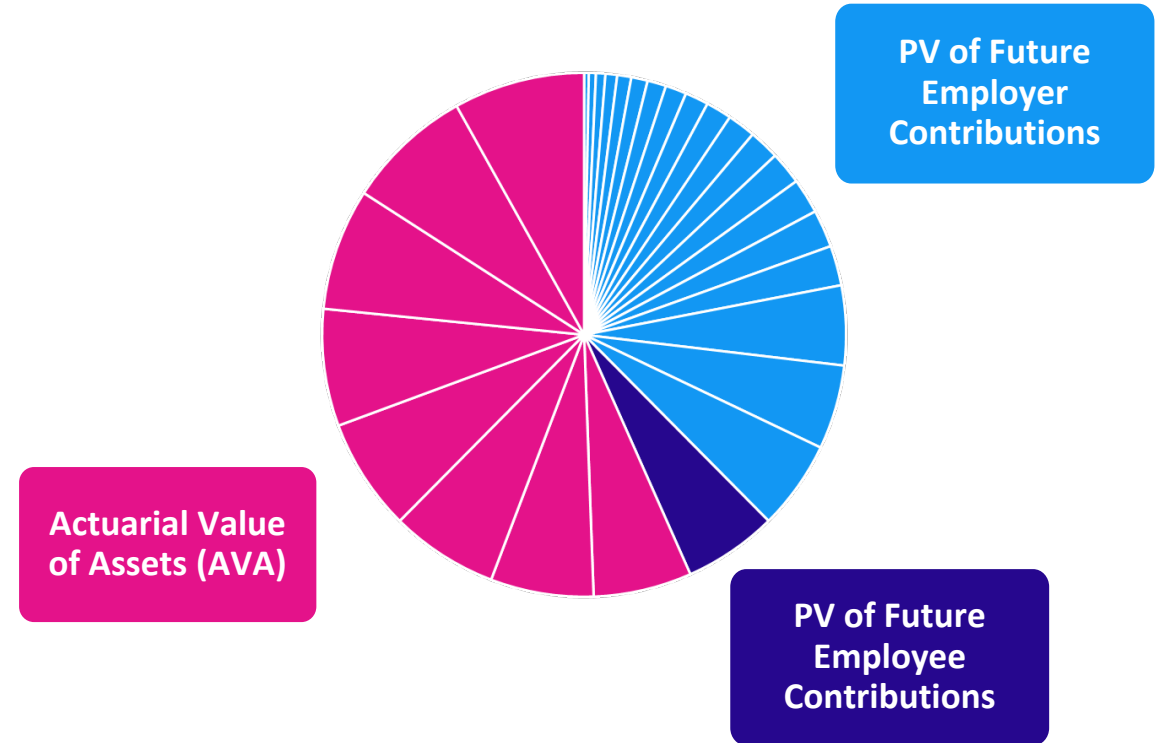
# Present Value of *Future Benefits*

- For every possible benefit amount and payment date, assumptions are made about
  - The amount of the benefit (future salaries, service, early retirement reduction)
  - When the benefit starts and how long it will be paid
- Every possible benefit payment is adjusted for
  - The probability that it is actually paid
  - The present value of all the payments in today's dollars
- Add all this up to get the Present Value of Future Benefits

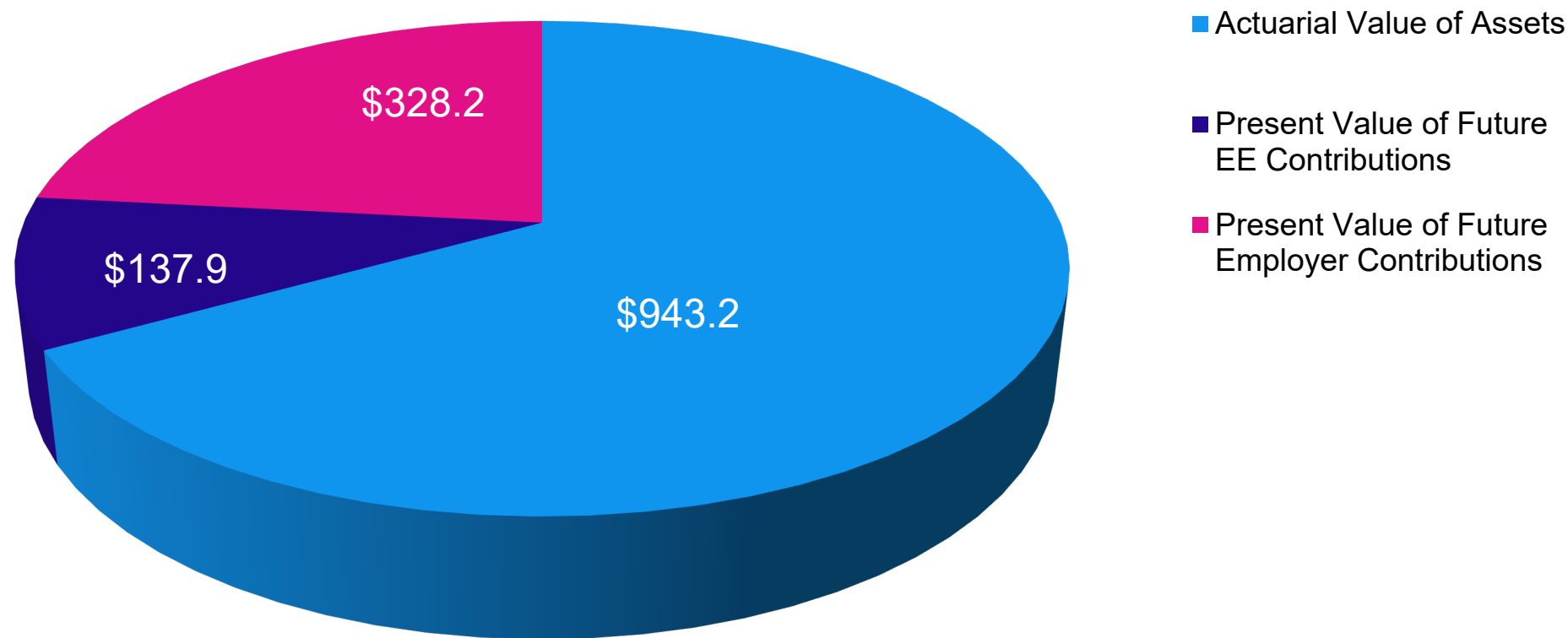


# Present Value of Future Benefits

- Future benefits are all possible amounts paid out of the pension trust at any possible time
  - Retirement benefits
  - Death benefits
  - Disability benefits
- Amount depends on:
  - Years worked
  - Salary earned while working (if pay based)
  - Time benefits start
  - How they choose to receive benefits (form of payment)
  - How long they (and their spouse) live



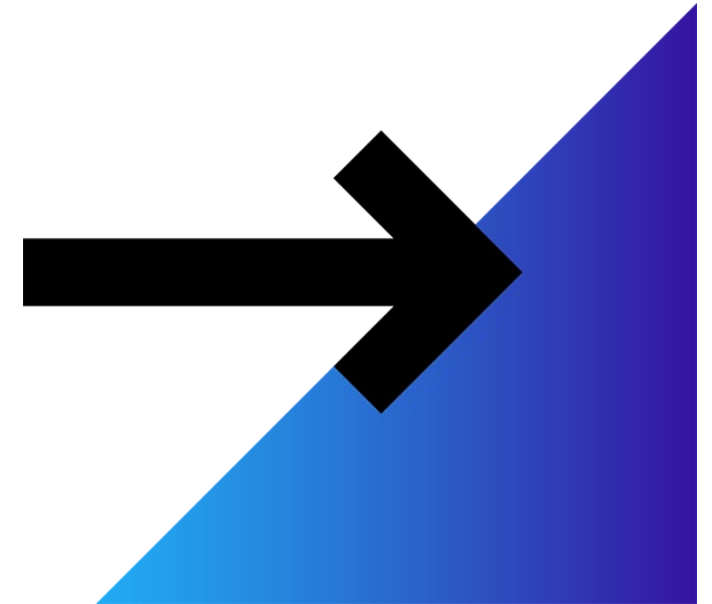
# Present Value of Future Benefits



**Total Present Value of Plan Benefits  
(\$1,409.3 million)**

# Normal Cost and Accrued Liability

- Each year, an employee's benefit increases
- Normal Cost: the cost of the employee working another year, growing their benefit and getting closer to retirement
- Accrued Liability: sum of all of the prior Normal Costs, so the cost of the growth of the benefit to-date



# Liabilities: Plan's Actuarial Cost Method

A cost method is used to convert the total liability of everything that might be paid (Present Value of Future Benefits) into a 'payment plan' so the benefits are prefunded but in a smooth pattern as the employee works and earns a benefit.

- The choice of funding method does not affect overall costs.
- Controlling factor in determining how much of the eventual cost is to be paid at a particular point in time.
- Present Value of Future Benefits can be divided into three categories.

## Normal Cost

- Cost of the employee working another year, growing their benefit and getting closer to retirement
- Current year normal cost is accounted for in Plan's contributions

## Accrued Liability

- Sum of all prior Normal Costs, so the cost of the growth of the benefit to-date
- Amortized under a 15-year layered amortization method to be paid in contributions

## Present Value of Future Normal Cost

- Present value of all future cost of employees for working an additional year
- Will be paid at a later valuation date

\*Details of the Plan's cost method can be found in the Appendix

# Gain and Losses

# Types of Assumptions

## Demographic

- Withdrawal / termination
- Retirement
- Death (mortality)
- Disability

## Economic

- Discount rate / return on assets
- Salary increases
- Inflation

Each demographic and economic assumptions used in the valuation should represent the best estimate of reasonable long-term expectations to calculate the Plan's Present Value of Future Benefits.

# Gains / Losses

- No crystal ball
  - actual experience will NOT match expected
- Difference creates an actuarial gain or loss
  - Better than expected = Gain
  - Worse than expected = Loss

Uncertainty = Volatility



Volatility can destroy budgets



# Gain/loss during 2021 – Assets (\$ in Millions)

1. Actuarial value of assets 1/1/2021	\$ 894.3
2. Contributions (Total)	62.1
3. Benefit payments	(113.7)
4. Expense	(1.5)
5. Interest on (1), (2), and (3) at 7.50%	<u>65.1</u>
6. Expected actuarial value of assets as 1/1/2022	\$ 906.3
7. Actual actuarial value of assets as of 1/1/2022	943.2
8. Gain (loss) due to assets: (7) - (6)	\$ 36.9

\* Totals may differ from summation due to rounding

# Gain/loss during 2021 – Liability (\$ in Millions)

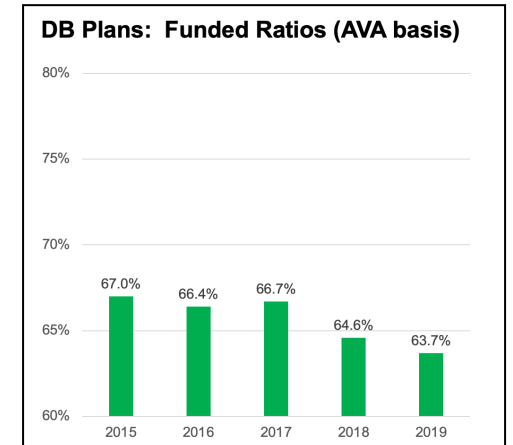
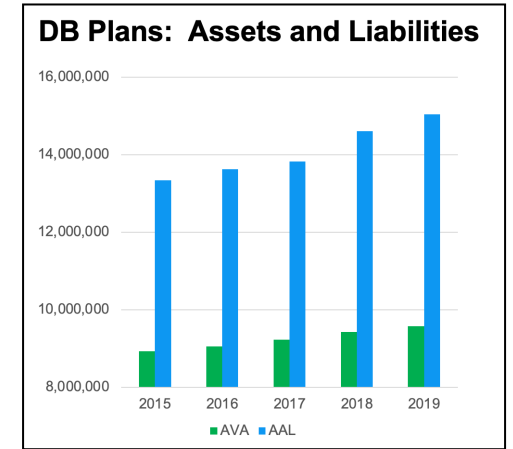
1. Actuarial liability as of 1/1/2021	\$ 1,257.8
2. Normal cost as of 1/1/2021	21.8
3. Benefit payments	(113.7)
4. Interest on (1), (2), and (3) at 7.50%	<u>91.8</u>
5. Expected actuarial liability as of 1/1/2022 Before Changes	\$ 1,257.6
6. Change in Actuarial Accrued Liability due to Change in Assumptions	<u>12.3</u>
7. Expected actuarial liability as of 1/1/2022	\$ 1,270.0
8. Actual actuarial liability as of 1/1/2022	1,279.8
9. Gain (loss) due to liabilities: (7) - (8)	\$ (9.9)

\* Totals may differ from summation due to rounding

# Valuation Results

# Unfunded Liability & Funded Status

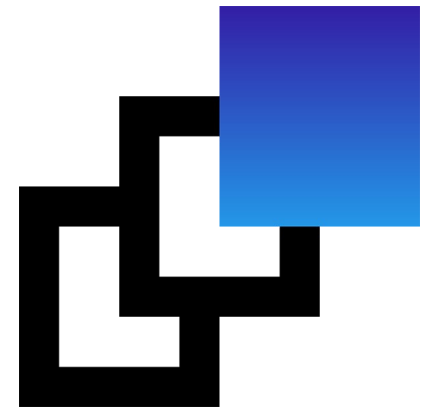
- Unfunded liability = Liability – Assets
- Funded status = Assets / Liability, AKA:
  - Funded percent
  - Funded ratio
- A “fully funded plan” means zero unfunded liability and 100% funded status
- Various measures for different purposes
  - Funding uses funding liability and actuarial value of assets
  - Accounting requires a method called Entry Age Normal liability with market value of assets



# Valuation results

	January 1, 2022	January 1, 2021
<b>System Assets</b>		
Expense and Contingency Reserve	\$ 29,625,803	\$ 30,004,728
Market Value, Excluding Expense & Contingency Reserve	\$ 943,201,853	\$ 884,772,226
Actuarial Value	\$ 943,201,853	\$ 894,251,149
<b>System Liabilities</b>		
Unfunded Actuarial Accrued Liability (UAAL) <sup>1</sup>	\$ 336,645,221	\$ 242,200,815
Entry Age Normal (EAN) Actuarial Accrued Liability	\$ 1,279,847,074	\$ 1,257,782,934
<b>EAN Funding Ratio</b>		
Actuarial Value Funding Ratio	73.7%	71.1%

<sup>1</sup>January 1, 2021 UAAL calculated on the Frozen Entry Age actuarial cost method on the Plan's unfunded actuarial accrued liability reestablished on January 1, 2006.  
January 1, 2022 UAAL calculated on the Entry Age Normal cost method.



Funding

Gain  
Loss

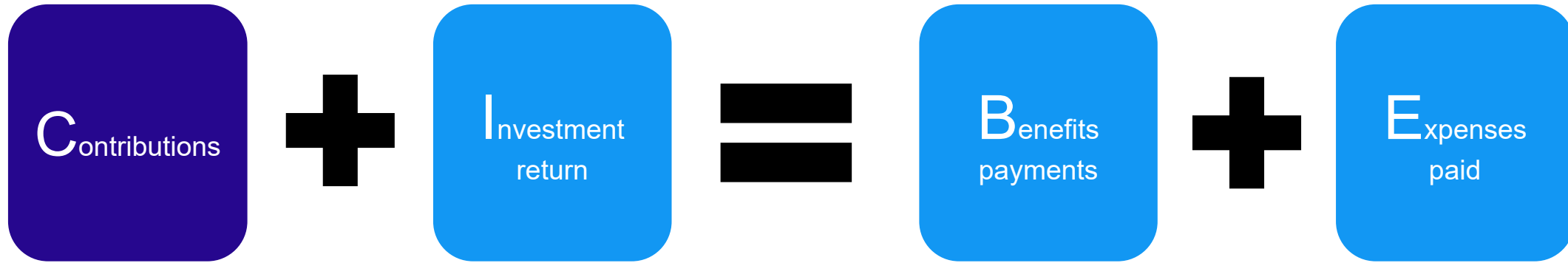
How on earth do  
we figure this out?

# Contribution Requirements

Smoothing

Amortization

# Funding a Defined Benefit Pension Plan



Over the lifetime of the pension plan, the contributions made into the plan along with the investment returns will equal the benefit payments and expense paid out of the trust.

Actuary's role is to help allocate the contributions over time, but the ultimate cost of the plan is driven by the plan provisions.

# Actuarially Determined Contribution (ADC) and Actuarially Determined Employer Contribution (ADEC)

- Paid as a dollar amount or percent of pay
- Percent of pay ADEC = dollar amount divided by projected pay

Plan's calculation of ADEC:

$$\begin{array}{r} \text{Normal Cost} \\ \text{Amortization payment} \\ + \quad \text{Interest adjustment} \\ \hline \text{ADC} \\ - \quad \text{Employee Contributions} \\ \hline = \quad \text{ADEC} \end{array}$$



# 15-year Layered Amortization

$$\begin{array}{|c|} \hline \text{Actuarial} \\ \text{Accrued} \\ \text{Liability} \\ \hline \end{array} - \begin{array}{|c|} \hline \text{Actuarial} \\ \text{Value of} \\ \text{Assets} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Unfunded} \\ \text{Actuarial} \\ \text{Accrued} \\ \text{Liability} \\ \hline \end{array}$$

# Determination of Actuarially Determined Employer Contributions\*

	<u>2022</u>	<u>2021</u>
D. Actuarial Liability - Entry Age Normal		
Active	\$ 339,125,635	\$ 329,019,928
In Pay Status	882,739,730	879,008,936
Deferred Vested	42,230,323	36,797,875
Nonvested with Balance	<u>15,751,386</u>	<u>12,956,195</u>
TOTAL	\$1,279,847,074	\$1,257,782,934
E. Plan Assets - Actuarial Value	\$ 943,201,853	\$ 894,251,149
F. Entry Age Normal Unfunded Actuarial Accrued Liability (D. - E.) <sup>2</sup>	\$ 336,645,221	\$ 363,531,785
G. Entry Age Normal Funded Ratio (D. / E.)	73.70%	71.10%
H. Total Normal Cost (Entry Age Normal for 2022, Frozen Entry Age for 2021)	\$ 21,576,380	\$ 17,177,527
I. Total Normal Cost with Interest Adjustment	\$ 22,318,781	\$ 17,821,684
As a Percentage of Covered Payroll	8.60%	6.73%
J. Amortization Payment of Unfunded Actuarial Accrued Liability <sup>3</sup>	\$ 34,543,772	\$ 27,438,261
K. Amortization Payment with Interest Adjustment <sup>4</sup>	35,732,356	27,438,261
As a Percentage of Covered Payroll	13.77%	10.37%
L. Actuarially Determined Contribution (I. + K.)	\$ 58,051,137	\$ 45,259,945
M. Expected Member Contributions <sup>5</sup>	\$ 21,013,966	N/A
As a Percentage of Covered Payroll	8.10%	
N. Actuarially Determined Employer Contribution (L. - M.)	\$ 37,037,171	\$ 45,259,945
As a Percentage of Covered Payroll	14.28%	17.10%

\*Snapshot of key components in section 1.1 of the report



<sup>2</sup>Unfunded Frozen Actuarial Accrued Liability (UAAL) as of January 1, 2021 under prior cost method was \$242,200,815.

<sup>3</sup>2021 Amortization Payment calculated on the Frozen Entry Age actuarial cost method on the Plan's unfunded actuarial accrued liability reestablished on January 1, 2006. 2022 Amortization Payment implemented a new 15-year, level dollar, closed amortization period with layered amortization for future changes calculated on the Entry Age Normal cost method.

<sup>4</sup>Interest adjustment on Amortization Payment effective January 1, 2022.

<sup>5</sup>Tier 1 Expected Member Contributions are 7.5% in 2022 and 7.0% in 2021. Tier 2 Contributions are 9.0% in 2021 and 2022.

# Valuation results – Required Annual Contributions

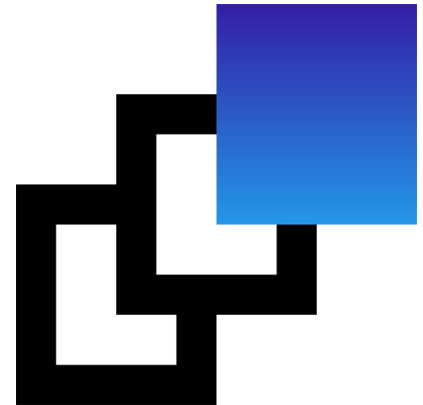
## Actuarially Determined Employer Contribution (ADEC):

	Board of Education	Retirement System	Charter Schools	Total
Normal Cost Contribution	\$ 14,525,814	\$ 50,353	\$ 7,742,614	\$ 22,318,781
Actuarial Accrued Liability Contribution	23,255,821	80,615	12,395,920	35,732,356
Member Contributions	<u>(13,676,596)</u>	<u>(47,410)</u>	<u>(7,289,960)</u>	<u>(21,013,966)</u>
Actuarially Determined Employer Contribution (ADEC)	\$ 24,105,039	\$ 83,558	\$ 12,848,574	\$ 37,037,171
Covered Payroll	168,852,563	585,315	90,002,539	259,440,417
ADEC as % of Covered Payroll	14.28%	14.28%	14.28%	14.28%

## Statutory Annual Required Contribution (ARC):

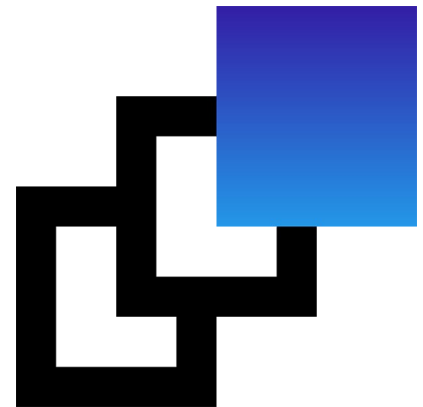
	Board of Education	Retirement System	Charter Schools	Total
Covered Payroll	\$ 168,852,563	\$ 585,315	\$ 90,002,539	\$ 259,440,417
ARC as % of Covered Payroll	14.00%	14.00%	14.00%	14.00%
Statutory Annual Required Contribution (ARC)	\$ 23,639,359	\$ 81,944	\$ 12,600,355	\$ 36,321,658

\*Snapshot of key components in section 1.2 of the report



# Valuation results

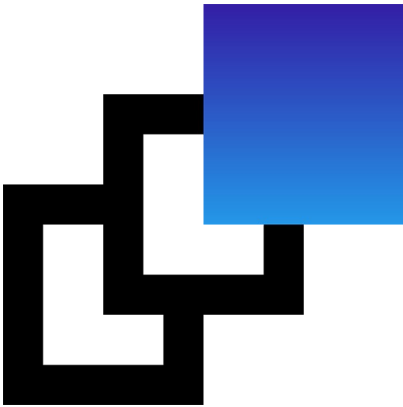
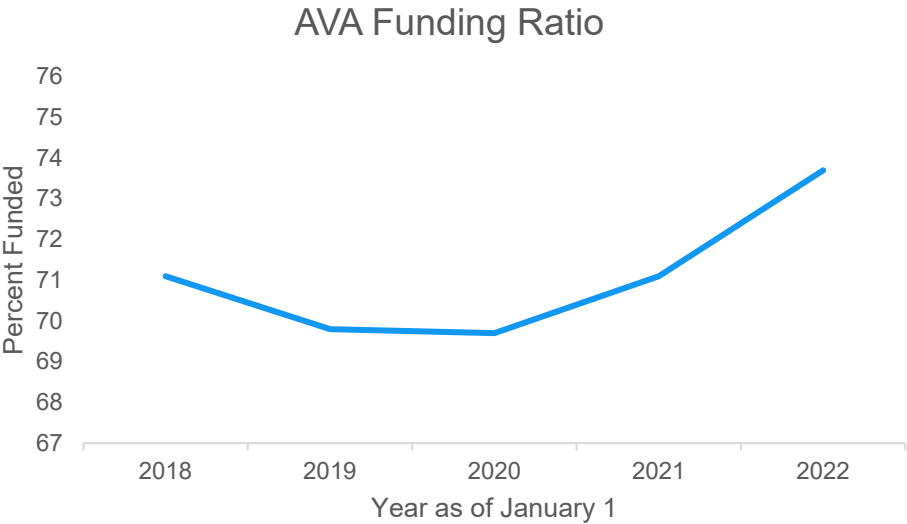
	Board of Education	Retirement System	Charter Schools	Total
<b>2022</b>				
Normal Cost Contribution	\$ 14,525,814	\$ 50,353	\$ 7,742,614	\$ 22,318,781
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Member Contributions	<u>(13,676,596)</u>	<u>(47,410)</u>	<u>(7,289,960)</u>	<u>(21,013,966)</u>
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Covered Payroll	168,852,563	585,315	90,002,539	259,440,417
ADEC as % of Covered Payroll	14.28%	14.28%	14.28%	14.28%
Statutory Required Contribution Rate	14.00%	14.00%	14.00%	14.00%
Statutory Annual Required Contribution (ARC)	\$ 23,639,359	\$ 81,944	\$ 12,600,355	\$ 36,321,658
<b>2021</b>				
Normal Cost Contribution	\$ 12,395,193	\$ 37,245	\$ 5,389,246	\$ 17,821,684
Actuarial Accrued Liability Contribution	<u>19,083,636</u>	<u>57,343</u>	<u>8,297,282</u>	<u>27,438,261</u>
Actuarially Determined Employer Contribution (ADEC)	\$ 31,478,829	\$ 94,588	\$ 13,686,528	\$ 45,259,945
Covered Payroll	184,085,888	553,144	80,037,813	264,676,845
ADEC as % of Covered Payroll	17.10%	17.10%	17.10%	17.10%
Statutory Required Contribution Rate	14.50%	14.50%	14.50%	14.50%
Statutory Annual Required Contribution (ARC)	\$ 26,692,454	\$ 80,206	\$ 11,605,483	\$ 38,378,143



# Funded Ratio History

(Actuarial Value of Assets divided by Entry Age Normal Accrued Liability)

	January 1, 2022	January 1, 2021	January 1, 2020	January 1, 2019	January 1, 2018
Actuarial Value Funding Ratio	73.7%	71.1%	69.7%	69.8%	71.1%



# Potential risks to Plan's future financial condition

- Deviations between actual future experience and actuarial assumed future experience may cause the plan to become less funded over time increasing the required contributions.
- A few areas where deviations may arise:

## **Investment risk:**

Plan does not achieve the 7.00% expected return on assets over time.

Use of Actuarial Value of Assets helps smooths gains and losses to help control volatility in contributions due to investment risk.

## **Longevity risk:**

Participants live longer than expected based on valuation mortality assumptions.

## **Contribution risk:**

Actual contribution amounts less than the actuarially determined contribution.

Statutory contributions being lower than the actuarially determined contributions will significantly increase the risk.

## **Long term return on investment assumption risk:**

Potential that future capital market assumptions will produce a need to decrease the current long term investment return assumption

# Actuarial Standards of Practice (ASOP) No. 4

## Measuring Pension Obligations and Determining Pension Plan Costs or Contributions

- The Actuarial Standards Board issued a revision to the ASOP 4 effective for valuations with a measurement date on or after February 15, 2023
  - The Plan has a valuation date of January 1st so changes will be implemented in the January 1, 2024 valuation
- An additional requirement was added to ASOP 4 requiring valuation reports to disclose the liabilities valued with a Low-Default-Risk Obligation Measure (LDROM)
  - Provides insight to the Plan where cost could be if the Plan did not invest in risky assets
  - We will provide updates and work with the PSRS staff as more details around the ASOP are finalized

# Any questions?

Request board approval of report



# Appendix

# Certification

The results in this presentation were developed for the Public School Retirement System of the City of St. Louis by Buck using generally accepted actuarial principles and techniques in accordance with all applicable Actuarial Standards of Practice (ASOPs). The purpose of this presentation is to provide to the board a summary of the 2022 valuation results for discussion during the board meeting attended by the actuaries. Use of this presentation for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this presentation. Buck will not accept any liability for any such statement made without prior review. No third-party recipient of Buck's work product should rely upon Buck's work product absent involvement of Buck or without our approval.

Interested parties may refer to the full January 1, 2022, actuarial valuation report for a detailed explanation regarding data, assumptions, methods, and plan provisions that underlie the valuation results. The valuation report also provides the risk disclosures required under ASOP 51 and the use of model disclosures under ASOP 56.

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

Future actuarial measurements may differ significantly from the current measurement presented in this report due to such factors as: plan experience different 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 plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

Michael A. Ribble and Matthew Staback meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this presentation. We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

# Entry Age Normal Cost Method

- Method effective January 1, 2022 from Board approval during prior Experience Study
  - Definition: A cost method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated in a manner that produces a level annual cost over the earnings of the individual between entry age and assumed retirement age
- Benefits of the Entry Age Normal cost method
  - Benefits are projected and spread so that Normal Cost will be a level percentage of compensation from date of hire to assumed date of retirement (or if earlier, withdrawal, disability or death)
  - Consistent with method required by accounting standards under GASB 67 and 68
  - Allows for easier communication of the plan's funded ratio (actuarial value of assets over actuarial accrued liabilities)
  - Limits the plan's volatility compared to other cost methods

# Summary of Methods and Assumptions

Assumptions and Methods	
Interest Rate	7.0% (net of expenses)
Interest Crediting Rate	5.0%
Salary Increase	5.0% per year for first 5 years of employment and 3.50% thereafter
Mortality	PubG-2010 (Below Median) Mortality Table, amount weighted, projected fully generationally using projection scale MP-2021. The mortality assumption for retired participants receiving benefits is increased by 2% for males and 10% for females
Actuarial Cost Method	Entry Age Normal
Valuation of Assets	<p>The actuarial value of assets is based upon a smoothed market value method. Under this method, asset returns in excess of or less than the expected investment return on market value of assets will be reflected in the actuarial value of assets over a five-year period. The plan's actuarial value of assets will be set equal to the plan's market value of assets less the expense and contingency reserve as of January 1, 2022. The calculation of the Actuarial Value of Assets is based on the following formula:</p> $MV - 80\% \times G/(L)_1 - 60\% \times G/(L)_2 - 40\% \times G/(L)_3 - 20\% \times G/(L)_4 - \text{Expense and Contingency Reserve}$ <p>MV = the market value of assets as of the valuation date</p> <p><math>G/(L)_i</math> = the asset gain or (loss) for the i-th year preceding the valuation date</p>

\*Full Summary of Methods and Assumptions can be found in Section 3.8 of the Actuarial Valuation Report

# Change in Methods and Assumptions from Prior Valuation

## Assumptions

- Lowered the investment return assumption from 7.50% to 7.00%, net of investment expenses.
- Updated mortality from RP-2014 with mortality improvement scale MP-2015 to PubG-2010 (below median), amounted weighted with mortality improvement scale MP-2021.
- Updated retirement, withdrawal, and disability rates.
- Decreased the deferred vested members assumption from 150% to 125% of the member's total

Impact: Change in assumptions resulted in an increase in liability of \$12.3 million

## Methods

- Actuarial value of assets set equal to market value of assets less expense and contingency reserve as of January 1, 2022.
- Five-year smoothing of assets based on difference between the actual investment income and expected for 2022 and later years.
- Limit the actuarial value of assets to not less than 80% and not greater than 120% of the market value of assets less expense and contingency reserve.
- Plan's actuarial cost method changed from Unfunded Frozen Actuarial Accrued Liability to Entry Age Normal Actuarial Accrued Liability.
- Implemented a 15-year, level dollar, closed amortization period with layered amortization for future changes.
- One-half year's interest adjustment at the valuation's interest rate to better reflect the timing of contributions.

\*Full Summary of Methods and Assumptions can be found in Section 3.8 of the Actuarial Valuation Report

