

**PUBLIC SCHOOL RETIREMENT SYSTEM
OF THE CITY OF ST. LOUIS**
MINUTES OF THE BOARD OF TRUSTEES REGULAR MEETING
December 13, 2021

I. ROLL CALL AND ANNOUNCEMENT OF A QUORUM

The December 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 4:32 p.m. on Monday, December 13, 2021. 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 Angela Banks, Louis Cross, Sheila Goodwin, Donna Jones, Yvette Levy, Bobbie Richardson, Albert Sanders, Justin Stein, and Dorris Walker were present. The Board of Trustees had a quorum at the meeting. Trustees Christina Bennett and Antionette Cousins joined the meeting in progress.

Executive Director, Susan Kane, Michael Ribble and Matthew Staback, Actuarial Representatives and Attorney Representative, Matt Gierse, were also in attendance.

II. APPROVAL OF MINUTES FROM LAST MEETING

Sheila Goodwin made a motion, seconded by Bobbie Richardson, to approve the minutes of the Board of Trustees Meetings on October 27, 2021.

A roll call vote was taken.

Angela Banks	Yes	Antionette Cousins	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Donna Jones	Yes	Yvette Levy	Yes
Bobbie Richardson	Yes	Albert Sanders	Yes	Justin Stein	Yes
Dorris Walker	Yes				

The motion carried with ten yes votes.

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 November and December 2021. A roll call vote was taken.

Angela Banks	Yes	Antionette Cousins	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Donna Jones	Yes	Yvette Levy	Yes
Bobbie Richardson	Yes	Albert Sanders	Yes	Justin Stein	Yes
Dorris Walker	Yes				

The motion carried with ten yes votes.

Sheila Goodwin made a motion, seconded by Bobbie Richardson, to approve the Retirements and Benefits of October and November 2021. A roll call vote was taken.

Angela Banks	Yes	Antionette Cousins	Yes	Louis Cross	Yes
Sheila Goodwin	Yes	Donna Jones	Yes	Yvette Levy	Yes
Bobbie Richardson	Yes	Albert Sanders	Yes	Justin Stein	Yes
Dorris Walker	Yes				

The motion carried with ten yes votes.

VI. UNFINISHED BUSINESS

The Executive Director mentioned that the PSRS office currently remains closed to the public but that the status will continue to be reviewed and decisions on the office status made based on the unfolding developments with the pandemic.

VII. REPORT OF THE CHAIRPERSON

The Chairman began by expressing gratitude that the Board was moving in a positive direction. He thanked the Co-Chairs of the Personnel and Professional Contracts Committee on the recent selection of the new Investment Consultant. He also thanked the Trustees for their time and attendance at the many meetings conducted in 2021. He also mentioned that Trustee Bobbie Richardson had been re-elected as a non-Teacher Trustee for a four-year term and Angela Banks had been re-appointed by the St. Louis Board of Education for a four-year term, both ending December 31, 2025.

The Chairman announced that at this time there would be elections for 2022 Board of Trustees Chairperson and Vice-Chairperson. He called first for nominations of Chairperson. Sheila Goodwin nominated Louis Cross. The nomination was seconded by Christina Bennett. Board Chair Cross asked multiple times if there were any additional nominations. Since there were no additional nominations, Trustee Cross was re-elected by acclamation. Chairman Cross thanked the Board for their support.

Board Chair Cross then moved on to nominations for Vice Chairperson. Dorris Walker nominated Bobbie Richardson. This nomination was seconded by Sheila Goodwin. There were no additional nominations after Chair Cross asked multiple times for any further nominations. Trustee Richardson was deemed re-elected to Vice Chairperson by acclamation and also thanked the Board for their support.

VIII. REPORT OF THE EXECUTIVE DIRECTOR

The Executive Director began by highlighting the materials included in Tab IV which were copies of the Contribution letters sent to St. Louis Public Schools and the Charter Schools along with the GASB 68 report. She then moved to the proposed 2022 meeting schedule. The proposed dates were based on the normal schedule of the third Monday of the month with the exception of the February meeting being moved to the fourth Monday due to the President's Day Holiday. Motion was made by Trustee Bennett, seconded by Bobbie Richardson, to adopt the 2022 Meeting Schedule, subject to St. Louis Public Schools calendar.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Antionette Cousins	Yes
Louis Cross	Yes	Sheila Goodwin	Yes	Donna Jones	Yes
Yvette Levy	Yes	Bobbie Richardson	Yes	Albert Sanders	Yes
Justin Stein	Yes	Dorris Walker	Yes		

The motion carried with eleven yes votes.

The Executive Director then mentioned that during the Committee reports, the Board would review the 2022 Operating Budget. While the Business Insurance recommendations are included in the Budget, she reviewed this piece in more detail during her report. Business insurance included Worker's Compensation, Property and Cyber liability. Gallagher, the System's Business Insurance consultant, was continuing to review and seek more quotes for Cyber liability but had received a firm renewal premium from the current carrier. The motion to renew the Business Insurance policies would be covered during the Committee reports.

IX. REPORT OF THE INVESTMENT CONSULTANT

None

X. REPORT OF THE ACTUARY

Michael Ribble and Matthew Staback from Buck Consulting were present to review the five-year Experience Study. Mr. Ribble began by explaining that it is best practice to review the assumptions that are used for the Valuation every five years and is a requirement for the System. The Report was reviewed and the Actuary representatives responded to a number of questions from the Trustees. The topic of providing a COLA to members was brought up during this discussion. The Attorney Representative explained that public plans in Missouri must be 80% funded and Buck must also certify that the plan is actuarially sound before a COLA can be granted. Attorney Representative said that a letter had been sent to Trustees about this issue some years ago. The Executive Director will send this out to all board members.

After discussion was concluded, Trustee Bennett made a motion, seconded by Trustee Cousins, to adopt the five-year experience study and recommendations from the Actuary to implement changes in the Actuarial Methods, Mortality Assumptions, Demographic Assumptions, and Investment Return Assumptions.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Antionette Cousins	Yes
Louis Cross	Yes	Sheila Goodwin	Yes	Donna Jones	Yes
Yvette Levy	Yes	Bobbie Richardson	Yes	Albert Sanders	Yes
Justin Stein	Yes	Dorris Walker	Yes		

The motion carried with eleven yes votes.

XI. REPORTS OF COMMITTEES OF THE BOARD OF TRUSTEES

The Chairman asked for reports from the Committees.

Benefits Committee

While there was no report, the Chairman thanked Co-Chairs Jones and Richardson for their work in the benefits package offered to retirees during the recent open enrollment.

Trustee Business Committee

Trustee Business Committee Co-Chair Walker made a motion to approve the 2022 Operating Budget as recommended and accepted by the Trustee Business Committee at its meeting on December 8, 2021. Bobbie Richardson seconded the motion.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Antionette Cousins	Yes
Louis Cross	Yes	Sheila Goodwin	Yes	Donna Jones	Yes
Yvette Levy	Yes*	Bobbie Richardson	Yes	Albert Sanders	Yes
Justin Stein	Yes	Dorris Walker	Yes		

*Trustee Levy's yes vote was made through phone call with Chairman Cross. The motion carried with eleven yes votes.

Trustee Business Committee Co-Chair Goodwin made a motion to accept the renewals of the Worker's Compensation and Property Liability Coverage with Hartford, and the Cyber Liability Policy renewal as recommended by Gallagher. Motion was seconded by Bobbie Richardson.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Antionette Cousins	Yes
Louis Cross	Yes	Sheila Goodwin	Yes	Donna Jones	Yes
Yvette Levy	Yes*	Bobbie Richardson	Yes	Albert Sanders	Yes
Justin Stein	Yes	Dorris Walker	Yes		

*Trustee Levy's yes vote was made through phone call with Chairman Cross. The motion carried with eleven yes votes.

Trustee Business Committee Co-Chair Goodwin made a motion to enter into a three-year agreement from January 1, 2022 through December 31, 2024 with PBI Research Services for Death Audit Services at an annual cost of \$12,000.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Antionette Cousins	Yes
Louis Cross	Yes	Sheila Goodwin	Yes	Donna Jones	Yes
Yvette Levy	Yes*	Bobbie Richardson	Yes	Albert Sanders	Yes
Justin Stein	Yes	Dorris Walker	Yes		

*Trustee Levy's yes vote was made through phone call with Chairman Cross. The motion carried with eleven yes votes.

Investment Committee

No report.

Legislative, Rules & Regulations Committee

No report.

Personnel & Professional Contracts Committee

Co-Chair Banks asked the Executive Director for an update on the Investment Consultant transition. The Executive Director reported that an agreement had been signed and that the Managers had been informed of the transition.

XII. NEW BUSINESS

None

XIII. REPORT OF THE ATTORNEY

The Attorney did have a report but suggested that it be conducted in closed session. Albert Sanders 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. Antionette Cousins seconded the motion.

A roll call vote was taken.

Angela Banks	Yes	Christina Bennett	Yes	Antionette Cousins	Yes
Louis Cross	Yes	Sheila Goodwin	Yes	Donna Jones	Yes
Yvette Levy	Yes*	Bobbie Richardson	Yes	Albert Sanders	Yes
Justin Stein	Yes	Dorris Walker	Yes		

*Trustee Levy's yes vote was made through phone call with Chairman Cross. The motion carried with eleven yes votes.

The meeting continued in closed session.

After the closed meeting discussion, Sheila Goodwin motioned 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	Antionette Cousins	Yes
Louis Cross	Yes	Sheila Goodwin	Yes	Yvette Levy	Yes
Bobbie Richardson	Yes	Albert Sanders	Yes	Justin Stein	Yes
Dorris Walker	Yes				

The motion carried with ten 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 6:35 p.m.

Attachments:

- Retirements & Benefits: November and December 2021
- Refunds & Bills: October and November 2021
- 2022 Board of Trustees Meeting Schedule
- Actuarial Experience Study
- 2022 Operating Budget

To be Authorized and Approved
by the Board of Trustees

APPLICATIONS FOR RETIREMENT

NAME \ POSITION	RETIREMENT DATE	TYPE	CREDITED SERVICE	FINAL AVG SALARY	MONTHLY BENEFIT
Janine Edler Reading Specialist	10/1/2021	Early	13.1628	\$62,771.10	\$1,071.03
Beverly Foster Accounts Payable Supervisor	10/1/2021	Normal	21.9131	\$66,070.20	\$2,413.00
James Holland Safety Officer	10/1/2021	Normal	6.2261	\$39,301.97	\$407.83
Mary Houlihan Deputy Superintendent of Operations	10/1/2021	Normal	5.6391	\$164,164.59	\$1,542.90
Karen McCain ICA	10/1/2021	Normal	16.2834	\$32,369.51	\$878.48
Debra Moran-Reimonenq Associate Superintendent	10/1/2021	Normal	7.8696	\$147,128.79	\$1,929.74
Belinda Paine Disability	10/1/2021	Normal	14.7653	\$80,011.98	\$1,969.00
Paulette Phillips-Long Teacher	10/1/2021	Normal	5.4167	\$80,399.58	\$580.65
Robert Sutter Teacher	10/1/2021	Normal	10.7958	\$26,711.65	\$300.39
Deblin Thomas Office Manager	10/1/2021	Normal	5.0535	\$38,115.28	\$321.03

APPLICATIONS FOR RETIREMENT

NAME \ POSITION	RETIREMENT DATE	TYPE	CREDITED SERVICE	FINAL AVG SALARY	MONTHLY BENEFIT
Michael Allen Custodian	November 1, 2021	Disability	8.4586	\$39,852.63	\$830.26
Constance Byrd Buyer II	November 1, 2021	Normal	34.7435	\$58,132.08	\$2,906.60
Clora Easby Custodian	November 1, 2021	Normal	10.4687	\$41,651.82	\$726.74
Jeffrey Jones Custodian	November 1, 2021	Early	10.2296	\$45,397.85	\$761.10
Zebulun Miller Teacher	November 1, 2021	Normal	21.2777	\$71,220.41	\$2,525.68
Tracy Milligan Teacher	November 1, 2021	Normal	27.1278	\$77,130.76	\$2,856.11
Calvin Nicholes Custodian	November 1, 2021	Early	10.3508	\$41,194.86	\$556.68
Terri Payne Secretary	November 1, 2021	Normal	24.5783	\$64,082.51	\$2,625.07
Wendie Stephens Speech Pathologist	November 1, 2021	Normal	16.5000	\$81,078.72	\$2,229.66
Veronica Ware Teacher	November 1, 2021	Normal	30.3444	\$59,899.76	\$2,994.99
Kimberly Watson Teacher	November 1, 2021	Normal	28.3388	\$63,517.47	\$3,000.01
John Whisenhunt Teacher	November 1, 2021	Normal	28.2778	\$73,192.58	\$2,849.32

Distributions - October, 2021

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
077944	10/15/21	BAILEY	JAMAL	2,981.08		2,981.08	A	S	KIPP
077945	10/15/21	BAKER	SYDNEY	2,310.36	462.07	1,848.29	A	S	EAGLE
077946	10/15/21	BATISTE	DONNA	4,609.10	921.82	3,687.28	A	S	KIPP
077947	10/15/21	BOUNDS	CRYSTAL	30,464.16	6,092.83	24,371.33	A	S	
077948	10/15/21	CAMERON	TYRONE	11,901.52	2,380.30	9,521.22	A	S	
077949	10/15/21	CASTILLO MEZA	JIMMY	553.91	110.78	443.13	A	S	
077950	10/15/21	CHANG	MARISSA J	4,245.88		4,245.88	A	S	SLIS
077951	10/15/21	CLINARD	MARY	9,338.01		9,338.01	A	S	
077952	10/15/21	CODAY	ZOHRA	1,280.51		1,280.51	A	S	
077953	10/15/21	CONSTANTINO	BENEDICT	18,390.66	3,678.13	14,712.53	A	S	KIPP NSCS
077954	10/15/21	DIKGALE	BENJAMIN	98,903.29	19,780.66	79,122.63	A	S	
077955	10/15/21	EILER	CATHERINE	2,658.40		2,658.40	A	S	
077956	10/15/21	CHACON	ERICA	29,665.93		29,665.93	A	S	CA
077957	10/15/21	DAVIS	JANET E	7,000.00		7,000.00	A	S	
077958	10/15/21	DAVIS	JANET E	3,946.64	789.33	3,157.31	A	S	
077959	10/15/21	EVANS	CANDICE	9,376.16		9,376.16	A	S	GSA
077960	10/15/21	EVANS	JENNA	5,889.28	1,177.86	4,711.42	A	S	CA
077961	10/15/21	FENNOY	AMARI	8,866.86	1,773.37	7,093.49	A	S	
077962	10/15/21	GREEN	EVERIANNA	50.18		50.18	A	S	
077963	10/15/21	GREEN	EVERIANNA	953.40	190.68	762.72	A	S	
077964	10/15/21	HENDRIX	SHERRELL	17,184.37	3,436.87	13,747.50	A	S	SCPA SLLIS
077965	10/15/21	HENKE	MARINA	2,303.85	460.77	1,843.08	A	S	CGMS
077966	10/15/21	HAWKINS	DANIELLE	1,974.05	394.81	1,579.24	A	S	
077967	10/15/21	HALL	KHALIA	6,098.36	1,219.67	4,878.69	A	S	
077968	10/15/21	HALL	RACHEL	8,379.28	1,675.86	6,703.42	A	S	
077969	10/15/21	HINDMAN	TIFFANY L	8,214.57	1,642.91	6,571.66	A	S	SLIS
077970	10/15/21	JARMON SR	NAKIAMA	4,264.76	852.95	3,411.81	A	S	
077971	10/15/21	JONES	DYNA	19,999.81	3,999.96	15,999.85	A	S	
077972	10/15/21	GARCIA	LINDSAY	2,688.31		2,688.31	A	S	VOID AND REISSUE
077876	09/20/21	GARCIA	LINDSAY	(2,688.31)		(2,688.31)	A	S	VOID AND REISSUE
077973	10/15/21	JONES-FOWLER	DEBBIE	35,310.24	7,062.05	28,248.19	A	S	SLPS IESM
077974	10/15/21	KUNKEL	JOHN	15,949.86	3,189.97	12,759.89	A	S	
077975	10/15/21	LOMBARDO	EMILY	21,034.91	4,206.98	16,827.93	A	S	KIPP (Roth Ira)
077976	10/15/21	MOLL	HEATHER	5,946.54		5,946.54	A	S	
077977	10/15/21	MAHDI	KHADJAH S	8,247.98		8,247.98	A	S	CA
077978	10/15/21	MCCOY	KADA'TA	6,071.51	1,214.30	4,857.21	A	S	SLPS TACS
077979	10/15/21	MCMILLAN	KRETIA	21,779.46	4,355.89	17,423.57	A	S	
077980	10/15/21	MCKINNEY	DEARON M	14,915.54	2,983.11	11,932.43	A	S	CA
077981	10/15/21	NEUF	ELIZABETH	4,095.19	819.04	3,276.15	A	S	
077982	10/15/21	PAYTON	ORLANDO D	14,932.78	2,986.56	11,946.22	A	S	CA
077983	10/15/21	PEOPLES	DRACHELE	11,032.67	2,206.53	8,826.14	A	S	

Distributions - October, 2021

CHECK NUMBER	CHECK DATE	LAST NAME	FIRST NAME/MI	GROSS (B+C)	FEDERAL TAXES W/H	NET PAY	STATUS A(ative) R(etired)	REASON D(eath) S(eparation)	NOTES
077984	10/15/21	POTO	CASSANDRA	14,113.72		14,113.72	A	S	CA
077985	10/15/21	POTTS	TIERANNI	14,894.69	2,978.94	11,915.75	A	S	
077986	10/15/21	PRANGER	DENISE A	26,542.68	5,308.54	21,234.14	A	S	GCAA CA
077987	10/15/21	PLYLER	TATUM	3,610.24		3,610.24	A	S	KAUROS
077988	10/15/21	PUGH	JOEL	6,609.18	1,321.84	5,287.34	A	S	KIPP EAGLE
077989	10/15/21	REYNOLDS	ISHEKA	3,111.81	622.36	2,489.45	A	S	LFL
077990	10/15/21	ROWSEY	MALINDA	12,735.67	2,547.13	10,188.54	A	S	LFL KIPP
077991	10/15/21	SANDERS	JANINE	4,219.40		4,219.40	A	S	CA
077992	10/15/21	JAINES SOLER	JULIAN	4,931.35	986.27	3,945.08	A	S	SLLS
077993	10/15/21	TRIPLETT	AMARIS	15,774.82		15,774.82	A	S	
077994	10/15/21	TRIPLETT	AMARIS	6,000.00	1,200.00	4,800.00	A	S	
077995	10/15/21	WILMES	MAEGANN	15,434.33	3,086.87	12,347.46	A	S	
077996	10/15/21	WILLIAMS	ANTONIO	10,628.00	2,125.60	8,502.40	A	S	
077997	10/15/21	WILLIAMS	BRANDON	13,336.42	2,667.28	10,669.14	A	S	
077998	10/15/21	WILLIAMS	KRISTIN	19,066.14	3,813.23	15,252.91	A	S	KIPP BIOME
077999	10/15/21	WOLF	LISA	42,074.34	8,414.87	33,659.47	A	S	SLPS CA GSA
078000	10/15/21	WILILAMS	DESTING	1,910.85	382.17	1,528.68	A	S	
078001	10/15/21	WARDEN	TAMMY	7,600.36	1,520.07	6,080.29	A	S	
078002	10/15/21	WILLIAMS	DENA	11,768.78		11,768.78	A	S	
078003	10/15/21	LAWRENCE	VALERIE	11,856.84		11,856.84	A	S	SLLS
75338	10/12/21	COWAN	SANDRA L	(73,271.30)	(14,654.26)	(58,617.04)	A	D	DEC: J COWAN Void and Reissue
078024	10/22/21	COWAN	SANDRA L	73,271.30		73,271.30	A	D	DEC: J COWAN Void and Reissue cashiers chk
TOTAL				\$ 727,340.68	\$ 102,386.97	\$ 624,953.71			

Distributions - November, 2021

CHECK NUMBER	CHECK DATE	LAST NAME	FIRST NAME/MI	GROSS (B+C)	FEDERAL TAXES W/H	NET PAY	STATUS A(Active) R(Retired)	REASON D(eath) S(eparation)	NOTES
078060	11/15/21	ANDREWS	BRANDON	4,334.48	866.90	3,467.58	A	S	
078061	11/15/21	ATKINS	TONY S	10,761.87	2,152.37	8,609.50	A	S	LPA
078062	11/15/21	BEDNARICK	TRACY	24,120.73	4,824.15	19,296.58	A	S	
078063	11/15/21	BELL	MICHAEL	6,743.78	1,348.76	5,395.02	A	S	
078064	11/15/21	BETHEA	TIFFANY	8,341.44	1,668.29	6,673.15	A	S	KIPP
078065	11/15/21	BROWN	MECHA	2,735.14	547.03	2,188.11	A	S	KIPP
078066	11/15/21	BROWN	QUANACKIE	14,314.43	2,862.89	11,451.54	A	S	SLPS KIPP EAGLE
078067	11/15/21	BUSBY	ROBERT	10,226.24	2,045.25	8,180.99	A	S	CGMC
078068	11/15/21	CAMPBELL	JAMES	9,379.46	1,875.89	7,503.57	A	S	
078069	11/15/21	CANNON	TEMEKKA	4,128.78	825.76	3,303.02	A	S	SLPS KIPP
078070	11/15/21	CLARK	TIAYA	8,017.11		8,017.11	A	S	KIPP
078071	11/15/21	CLAY	KAREN J	4,562.64	912.53	3,650.11	A	S	SLPS PREC
078072	11/15/21	COLE	ANTHONY	849.00	169.80	679.20	A	S	LMS
078073	11/15/21	CONNOLLY	ELIZABETH	15,028.67		15,028.67	A	S	
078074	11/15/21	DENT	JARON	7,063.29		7,063.29	A	S	
078075	11/15/21	EVANS	JANEE	9,374.94	1,874.99	7,499.95	A	S	
078076	11/15/21	FERRILL	BRITTANY	169.83		169.83	A	S	CA
078077	11/15/21	FINCHER	BRADLEY	10,641.86	2,128.37	8,513.49	A	S	
078078	11/15/21	HAMILTON	DANYELL	9,483.44		9,483.44	A	S	
077965	10/15/21	HENKE	MARINA	(2,303.85)	(460.77)	(1,843.08)	A	S	CGMS VOID AND REISSUE
078079	11/15/21	HENKE	MARINA	2,303.85	460.77	1,843.08	A	S	CGMS VOID AND REISSUE
078080	11/15/21	HORTON	JAMAAL	7,602.33		7,602.33	A	S	
078081	11/15/21	JAMES	CHELSEA	4,664.53		4,664.53	A	S	
077734	08/09/21	KELLER	KURT	(2,335.38)		(2,335.38)	A	S	VOID AND REISSUE
078082	11/15/21	KELLER	KURT	2,335.38		2,335.38	A	S	VOID AND REISSUE
078083	11/15/21	KENNEDY	ALEXIS	2,733.37	550.67	2,202.70	A	S	
078084	11/15/21	KNAPP	LAURA	24,140.16		24,140.16	A	S	GSA
078085	11/15/21	LEAKE	TIFFANY	237.23	47.45	189.78	A	S	CA
078086	11/15/21	LITTLES	ERIC	2,209.70	441.94	1,767.76	A	S	
078087	11/15/21	MASON	ALETHA L	20,597.85	4,119.57	16,478.28	A	S	
078088	11/15/21	MCNULTY-SPENCER	KISHA	297.16	59.43	237.73	A	S	
078089	11/15/21	MITCHELL	RACQUEL	10,823.02	2,164.60	8,658.42	A	S	
078090	11/15/21	MORRISON	KENAN	48,818.28		48,818.28	A	S	LFL
078091	11/15/21	NORMAN	JEANETTE D	38,672.00		38,672.00	A	S	
078092	11/15/21	PERNICIARO	HEATHER	29,859.07	5,971.81	23,887.26	A	S	
078093	11/15/21	PRIMER	EMANUEL B	32,842.16		32,842.16	A	S	
077893	09/20/21	OLSON	ASHLEY N	(34,638.61)		(34,638.61)	A	S	CA VOID AND REISSUE
078094	11/15/21	OLSON	ASHLEY J	34,638.61		34,638.61	A	S	CA VOID AND REISSUE
078095	11/15/21	ROSS	JIBRI	3,816.48	763.30	3,053.18	A	S	

Distributions - November, 2021

CHECK NUMBER	CHECK DATE	LAST NAME	FIRST NAME/MI	GROSS (B+C)	FEDERAL TAXES W/H	NET PAY	STATUS A(Active) R(Retired)	REASON D(eath) S(eparation)	NOTES
078096	11/15/21	SCHNABEL	WHITNEY	2,477.26		2,477.26	A	S	
078097	11/15/21	THOMAS	ALBERT	41,089.11	8,217.82	32,871.29	A	S	
078098	11/15/21	THORPE	JENNIFER	1,512.99	302.60	1,210.39	A	S	CA
078099	11/15/21	TYLER	NEDRA	2,643.66	528.73	2,114.93	A	S	
078100	11/15/21	VANEK	KRISTINE	13,210.02		13,210.02	A	S	
078101	11/15/21	VIDEMSCHEK	JACOB	10,735.43	2,147.09	8,588.34	A	S	CA
078102	11/15/21	WILLIAMS	BONNECIA	17,195.10	3,439.02	13,756.08	A	S	KIPP
078103	11/15/21	WILLIAMS	JAMES	5,340.03		5,340.03	A	S	
078104	11/15/21	YOUNG	STEPHEN J	1,826.43		1,826.43	A	S	
078122	11/30/21	BITNER	MARCY M	2,472.94		2,472.94	A	S	PREM
078123	11/30/21	BLAND	ROSALIND	581.39	116.28	465.11	A	S	
078124	11/30/21	BROWN	KIEIRRA	215.54	43.11	172.43	A	S	
078125	11/30/21	CARTER	DANIELLE	30,364.94	6,072.99	24,291.95	A	S	SLPS CA
078126	11/30/21	COOPER JR	GLEN	7,698.06	1,539.61	6,158.45	A	S	
078127	11/30/21	COOPER	JAMAL	13,730.95	2,746.19	10,984.76	A	S	
078128	11/30/21	CUSHSHON-BEY	SANDRA	14,187.11	2,837.42	11,349.69	A	S	
078129	11/30/21	COLLIER	ARKYA	5,385.21	1,077.04	4,308.17	A	S	
078130	11/30/21	COX	TOR	13,301.36	2,660.27	10,641.09	A	S	
078131	11/30/21	DAMPIER	DONETTA	10,183.02	2,036.60	8,146.42	A	S	
078132	11/30/21	DOUANGKEOMANY	OUBONVANH L	13,606.29		13,606.29	A	S	VOID AND REISSUE
077873	09/20/21	DOUANGKEOMANY	OUBONVANH L	(13,606.29)		(13,606.29)	A	S	VOID AND REISSUE
078133	11/30/21	DUBOSE	MARY L	31,799.78		31,799.78	A	S	SLPS EAGLE JAMAA
078134	11/30/21	DUKES	DAMON	341.24		341.24	A	S	
078135	11/30/21	EISENREICH	DARCY	16,347.52		16,347.52	A	S	
078136	11/30/21	FLETCHER	LARRY	4,569.79	913.96	3,655.83	A	S	EAGLE
078137	11/30/21	FITZGIBBONS	AMBER	431.24	86.25	344.99	A	S	
078138	11/30/21	GARLAND	PHILIP	794.10		794.10	A	S	
078139	11/30/21	GEORGE	PEGGY	568.23	113.65	454.58	A	S	
078140	11/30/21	GOODE-LOCKLEY	KELLIE	29,980.50	5,996.10	23,984.40	A	S	
078141	11/30/21	HUDDLESTON	DETRA L	4,082.37		4,082.37	A	S	
078142	11/30/21	HYDE	WILL	665.16		665.16	A	S	LFL
078143	11/30/21	KING	NAKIA	37,372.01	7,474.40	29,897.61	A	S	
078144	11/30/21	LEDBETTER	RELANDA	3,325.23	665.05	2,660.18	A	S	
078145	11/30/21	LEE	VALARIE	2,871.79	574.36	2,297.43	A	S	
078146	11/30/21	JOHNSON MCNICHOLS	MONICA L	32,719.29	6,543.86	26,175.43	A	S	
078147	11/30/21	MABRY	PRECIOUS L	40,489.30	8,097.86	32,391.44	A	S	SLPS TACS
078148	11/30/21	MITCHELL	GARY A	4,532.85	906.57	3,626.28	A	S	
078149	11/30/21	NAMASIVAYAM	VENKATESH KUMAR	10,671.88	2,134.38	8,537.50	A	S	
078150	11/30/21	OATIS	HEATHER	4,836.69	967.34	3,869.35	A	S	EAGLE

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Public School Retirement System of the City of St. Louis Checks Written During the Month of October, 2021			
Payee	Ck. Number	Description	Amount
Date Paid October 5, 2021			
Ameren Missouri	77919	Electric Service	2,915.28
ACC Business	77920	Telephone Fiberoptics	528.08
Charter Communications	77921	Charter Internet and Voice	214.96
Republic Services #346	77922	Trash Pick-Up	241.30
Clayton Parking	77923	October 2021 Parking - 2 Employees	140.00
Microtek Document Imaging Systems, Inc.	77924	Imaging Hosting For The Month of Sept. 2021	423.60
Specialty Mailing	77925	Service - Benefit Statements	755.72
Specialty Mailing	77926	Service - Election Notice	2,880.95
Specialty Mailing	77927	Postage - Active Employee Newsletter	2,081.71
The Berwyn Group	77928	Online Address Search August 2021	150.00
Blade Technologies, Inc.	77929	Two Dell Precision 3000 PC's	3,985.00
Gregory F.X. Daly - Collector of Revenue	77930	City Earnings Tax - Third Quarter 2021	1,108.01
Pitney Bowes, Inc.	77931	Postage Supplies	629.79
Softchoice Corporation	77932	Software Maintenance	3,606.98
NCTR	77933	Registration-Annual Conference, Susan Kane, She	1,000.00
Susan Kane	77934	Flowers For Sheila Goodwin, Birthday Cards	128.79
CBRE - 608844	77935	Management Fee - September	1,211.81
CBRE - 608844	77936	Engineer Services	195.00
Blue Chip Pest Services	77937	Pest Control	46.00
Yardi Marketplace	77938	Supplies	274.55
EARNEST Partners, LLC	77939	3rd Quarter 2021 Management Fee	7,614.53
Board of Education St. Louis Benefits Trust	77940	Office Employees Insurance - Dental	203.81
Board of Education St. Louis Benefits Trust	77941	Office Employees Insurance - Vision	12.78
Board of Education St. Louis Benefits Trust	77942	Office Employees Insurance - Life	173.60
Date Paid October 8, 2021			
Office Payroll	ACH	Office Payroll	10,466.75
AXA Equitable	ACH	457 Contributions	2,591.00
Specialty Mailing	77943	Postage - Retiree Newsletter	1,930.42
Date Paid October 20, 2021			
Absopure Water Company	78004	Water Cooler Service	61.20
Blade Technologies, Inc.	78005	Professional Services	2,077.00
Hartnett Reyes-Jones, L.L.C.	78006	Legal Fees	17,366.50
Gallagher Benefit Services, Inc.	78007	Group Ins. Consulting Services Monthly Fee	3,320.55
Konika Minolta Business Solutions USA Inc.	78008	Service for Copier C360I, C364E	232.85
BuildingStars STL Operations, Inc.	78009	Janitorial Services	1,386.00
MSD	78010	Sewer Service	42.20
Purchase Power	78011	Postage	1,000.00
Mitel	78012	Telephone Service	297.82
Office Essentials	78013	Office Supplies	720.02
Buck Global, LLC	78014	Actuarial & Consulting Services - Sept. 2021	19,755.50
Specialty Mailing	78015	Daily Pick-Up	200.00
Specialty Mailing	78016	Postage - Ballot Mailing	2,280.95
Minuteman Press	78017	RFP Repsonses, Newsletters, Annual Report Sum	11,435.22
Stericycle, Inc.	78018	Document Shredding	108.06
CBRE - 608844	78019	Management Fee - October 2021	1,211.81
St. Louis Mat & Linen Company	78020	Floor Mats	103.50
TK Elevator Corporation	78021	Full Maintenance Coverage	557.71
Systematic Financial Management, LP	78022	3rd Quarter 2021 Management Fee	84,235.17
Date Paid October 22, 2021			
Office Payroll	ACH	Office Payroll	10,466.75
AXA Equitable	ACH	457 Contributions	2,591.00
Minuteman Press	78023	Envelopes-Annual Benefit Statements, Envelopes	633.38

Public School Retirement System of the City of St. Louis Checks Written During the Month of October, 2021			
<u>Payee</u>	<u>Ck. Number</u>	<u>Description</u>	<u>Amount</u>
Date Paid October 27, 2021			
Specialty Mailing	78024	Postage - Open Enrollment	4,119.30
		TOTAL	\$209,712.91

Public School Retirement System of the City of St. Louis Checks Written During the Month of November, 2021			
Payee	Ck. Number	Description	Amount
Date Paid November 5, 2021			
Office Payroll	ACH	Office Payroll	10,093.75
AXA Equitable	ACH	457 Contributions	2,841.00
Date Paid November 5, 2021			
Ameren Missouri	78026	Electric Service	1,789.79
ACC Business	78027	Telephone Fiberoptics	528.08
Charter Communications	78028	Charter Internet and Voice	214.96
Republic Services #346	78029	Trash Pick-Up	241.30
Clayton Parking	78030	November 2021 Parking - 2 Employees	140.00
Microtek Document Imaging Systems, Inc.	78031	Imaging Hosting For The Month of Oct. 2021	423.60
Specialty Mailing	78032	Service - Active Employee Newsletter	810.21
Specialty Mailing	78033	Service - Ballot Mailing	2,845.32
Specialty Mailing	78034	Service - Retiree Newsletter	716.42
Specialty Mailing	78035	Service - Open Enrollment	1,025.86
The Berwyn Group	78036	Online Address Search September 2021	135.00
Blade Technologies, Inc.	78037	Professional Services	97.00
Hartnett Reyes-Jones, L.L.C.	78038	Legal Fees	9,898.20
Office Essentials	78039	Office Supplies	445.04
Tech Electronics, Inc.	78040	Monitoring of Fire and Security Alarm	360.00
Susan Kane	78041	Plants For The Boardroom	111.98
CBRE - 608844	78042	Engineer Services	520.00
Blue Chip Pest Services	78043	Pest Control	46.00
St. Louis Mat & Linen Company	78044	Floor Mats	69.00
Causeway Capital Management LLC	78045	3rd Quarter 2021 Management Fee	76,615.14
The Edgar Lomax Company	78046	3rd Quarter 2021 Management Fee	77,012.72
Fidelity Institutional Asset Mgmt. Trust Company	78047	3rd Quarter 2021 Management Fee	76,023.27
INTECH Investment Management LLC	78048	3rd Quarter 2021 Management Fee	42,906.42
Manulife Investment Management U.S. LLC	78049	3rd Quarter 2021 Management Fee	30,347.98
Mellon Investment Corporation	78050	3rd Quarter 2021 Management Fee	789.98
Mellon Investment Corporation	78051	3rd Quarter 2021 Management Fee	2,188.25
TCW Asset Management Company	78052	3rd Quarter 2021 Management Fee	62,907.40
Westfield Capital Management Company, LP	78053	3rd Quarter 2021 Management Fee	82,812.50
Xponance, Inc.	78054	3rd Quarter 2021 Management Fee	82,166.89
Xponance, Inc.	78055	3rd Quarter 2021 Management Fee	10,792.42
US Bank	78056	3rd Quarter 2021 Custodial Fee	26,694.79
Board of Education St. Louis Benefits Trust	78057	Office Employees Insurance - Dental	203.81
Board of Education St. Louis Benefits Trust	78058	Office Employees Insurance - Vision	12.78
Board of Education St. Louis Benefits Trust	78059	Office Employees Insurance - Life	173.60
Date Paid November 19, 2021			
Office Payroll	ACH	Office Payroll	10,093.75
AXA Equitable	ACH	457 Contributions	2,841.00
Date Paid November 22, 2021			
Absopure Water Company	78105	Water Cooler Service	95.80
Blade Technologies, Inc.	78106	Professional Services	2,088.46
Gallagher Benefit Services, Inc.	78107	Group Ins. Consulting Services Monthly Fee	3,320.25
Konika Minolta Business Solutions USA Inc.	78108	Service for Copier C360I, C364E	316.99
BuildingStars STL Operations, Inc.	78109	Janitorial Services	1,386.00
MSD	78110	Sewer Service	42.20
Purchase Power	78111	Postage	500.00
Mitel	78112	Telephone Service	276.66
Office Essentials	78113	Office Supplies	360.94
Buck Global, LLC	78114	Actuarial & Consulting Services - Oct. 2021	16,321.50
Specialty Mailing	78115	Daily Pick-Up	190.00

Public School Retirement System of the City of St. Louis Checks Written During the Month of November, 2021			
Payee	Ck. Number	Description	Amount
Minuteman Press	78116	Enrollment Booklets, Envelopes	7,243.00
BarnesCare	78117	Shreko Bonnett	100.00
Anders CPAs & Advisors	78118	Audit Services-GASB, Active Non-Teacher	12,000.00
American Solutions for Business	78119	Laser Checks - Operating Account	305.91
PRISM	78120	PRISM Member Dues 2022	300.00
CBRE - 60884	78121	Management Fee - November 2021	1,211.81
		TOTAL	\$663,994.73

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

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

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

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

February 28, 2022

(4th Monday due to Presidents Day)

April 18, 2022

June 20, 2022

August 15, 2022

October 17, 2022

December 19, 2022



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

Presentation to the Board of Trustees

2021 Experience Study

December 13, 2021

Contents

- Background
- Economic Assumptions
- Demographic Assumptions
- Actuarial Methods
- Cost Effects of Proposed Assumptions and Methods
- Actuarial Certification

Background

Background

- The last experience study was completed in 2016
- The current experience study covers the experience for the 5-year period January 1, 2016 to December 31, 2020
 - New assumptions adopted by the Board of Trustees will be effective beginning with the January 1, 2022 valuation
- The experience study covers *economic* assumptions, *demographic* assumptions, and actuarial methods
- Setting assumptions is a blend of art and science
- The process is a collaborative effort, including input from the actuary, investment consultant and other stakeholders, using past experience and future expectations to develop proposed assumptions for the Board of Trustees to adopt

Background (cont'd)

- Each assumption used in the valuation should represent the actuary's **best estimate of reasonable long-term expectations**
 - An assumption is considered reasonable if it is not anticipated to result in significant cumulative gains or losses over time
 - The economic assumptions should be internally consistent with each other
 - Each assumption should be evaluated considering its materiality on the valuation results
 - Typically, a range of reasonableness applies for each assumption
 - Past experience should be considered, but not given undue influence if future expectations differ
- The cost impact is shown in this presentation as if the proposed new assumptions were used in the January 1, 2021 valuation

Background (cont'd)

- Actuarial Standard of Practice No. 51 (ASOP 51) requires the actuary to identify risks that, in their professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition
- The more significant risk factors affecting future funded ratios and contribution rates of the plan are:
 - Investment Risk – the risk that future investment returns will be different than the assumed rate
 - Contribution Risk – the risk that the actuarially determined contribution is not deposited to the trust each year
 - Longevity Risk – the potential that mortality rates of participants and beneficiaries will be different than assumed
 - Other Demographic Risk - the potential that non-mortality demographic patterns will be different than assumed
- The Plan's full ASOP 51 disclosure can be found in Section 4 of the 2021 Valuation Report dated June 2021
- An experience study is performed every five years to assess whether the assumptions being used in the annual actuarial valuations should be changed to better match future experience, thereby managing these risk factors

Economic Assumptions – Investment Return, Inflation and Salary Increase

Things That Happen to Money (Economic Assumptions)

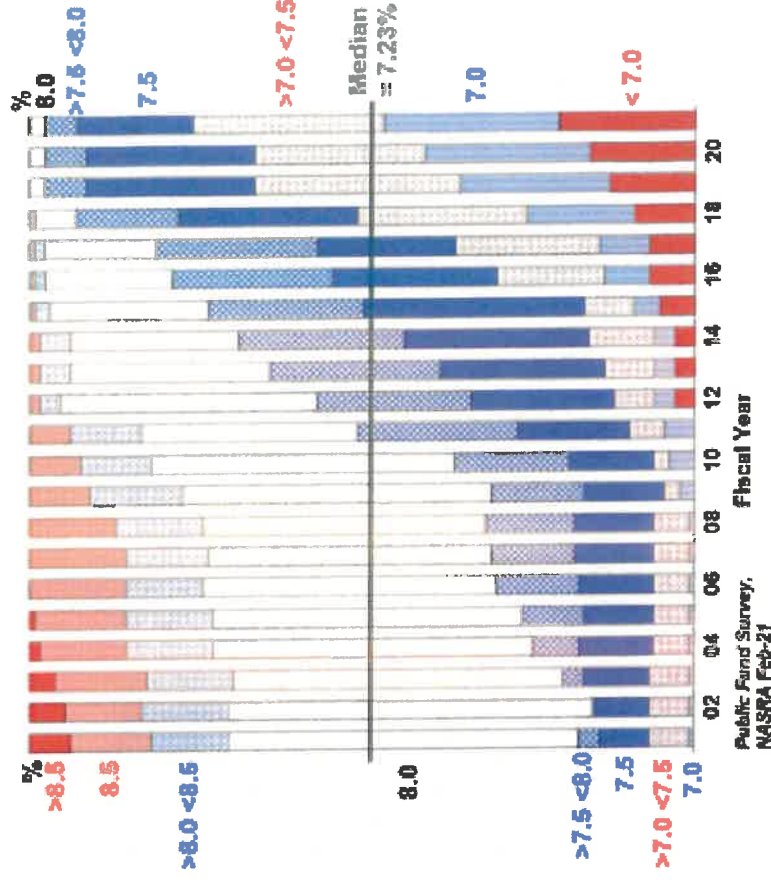
- **KNOWN at valuation date:**
 - 1. Market value of Fund assets
 - 2. Composition of Fund assets
 - Stocks
 - Bonds
 - Short term
 - Long term
 - International
 - Real estate
 - Alternative investments
- **ASSUMED at valuation date:**
 - 1. Future rates of investment return
 - 2. Future rates of inflation
 - 3. No change in composition of Fund assets

Investment Return

- The investment return assumption represents the expected return on invested assets
- The investment return assumption is used to discount projected benefits for all active and inactive members to determine the plan's liabilities
- A change in this assumption generally has the biggest impact on the plan's liabilities
- Factors to be considered in setting the investment return assumption
 - The plan's investment policy and asset allocation strategy
 - Capital market assumptions in effect at the time of measurement
 - Risk preference of the Board
 - Investment expenses

Investment Return (cont'd)

- NASRA public fund survey for FY21 released in February 2021 captures a median assumed rate on investment return for responding funds of 7.23%, which was slightly lower than 7.25% from prior year; lower recent rates may reflect:
 - Medium to long-term expectations for rate of return are lower than in the past
 - Sponsors are beginning to introduce some additional margin of conservatism in reaction to emerging events over the recent past
- NCPERS study released in January 2021 shows a slight increase in the average assumed rate on investment return for responding funds from 7.24% from prior year to 7.26%



Investment Return (cont'd)

ASSET MIXES FOR CONSIDERATION

Asset		Actual (%) ^a	2020 Policy (%)	Policy vs Actual (%)
Equity	Global Equity	6.4	5.0	1.4
	Large Cap Equity	15.4	13.0	2.4
	Small/Mid Cap Equity	9.7	9.0	0.7
	International - Developed	11.3	14.0	(2.7)
	International - Emerging	6.0	0.0	(2.0)
	Private Equity	3.2	7.0	(3.8)
Credit Strategies	Total	52.0	56.0	(4.0)
	Emerging Market Debt (Blended)	3.4	3.0	0.4
	Core Fixed Income	7.3	8.0	(0.7)
	TPFs	3.1	3.0	0.1
	Global Multi-Sector Fixed Income	4.5	5.0	(0.5)
	Absolute Return Fixed Income	5.2	3.0	0.2
	Private Debt	3.0	3.0	0.0
	Total	26.5	27.0	(0.5)
	Real Estate	5.0	7.0	(2.0)
	Total	8.8	7.0	(1.8)
Real Assets	Global Asset Allocation	5.6	5.0	0.6
	Hedge Funds	6.0	5.0	1.0
	Total	11.6	10.0	1.6
	Cash	4.1	0.0	4.1
Cash	Total	4.1	0.0	4.1
	Total	88.5	93.0	(4.5)
Expected Return (10 years)		8.12%	8.55%	
Expected Return (20 years)		6.14%	6.57%	
Standard Deviation		12.24%	13.42%	
Sharpe Ratio (10 year)		0.35	0.38	
Sharpe Ratio (20 years)		0.35	0.35	

^aActual allocation as of 12/31/20; allocation may not add to 100% due to rounding



Investment Return Assumption (continued)

Inflation Component

- Current long-term assumption is 2.75%
- NEPC 30-year expected inflation is 2.2%
- Various measures for the rate of inflation; not much published data beyond 10 years
 - NCPERS 2020 Public Retirement Systems Study shows a 2.7% inflation rate average
 - 138 pension plans included in study
 - 0.1% lower than prior study
 - Midpoint of the 75-year Social Security Administration projection is 2.4%
 - Average 10-year, 20-year and 30-year CPI-U increases of 2.4%, 2.3% and 2.5%
 - Philly Fed's 10-year expectation is 2.55% (November 2021)

Investment Return (cont'd)

- **Recommendation:**
 - Recommend the Board lower the investment return assumption from 7.50% to 7.00%, net of investment expenses based on the following building blocks:
 - 2.50% inflation, plus
 - 4.50% real return on assets

Salary Increase

Things That Happen to Members – Salary Increases (Economic Assumptions)

➤ KNOWN at valuation date:

Salary History	
Age 43	\$ 48,857
Age 44	51,422
Age 45	54,019
Total	\$154,298
Current 3-year average	
\$154,298/3 = \$51,433	

➤ ASSUMED at valuation date:

at Retirement	
Age 57	\$ 80,138
Age 58	82,542
Age 59	85,018
Total	\$247,698
Projected 3-year average	
\$247,698/3 = \$82,566	

Salary Increase

- Salary increase is the assumed rate of future annual salary increases for employees
- Current salary increase assumption:
 - 5.00% per year for the first 5 years of service and 3.00% per year after the first 5 years of service
- Buck reviewed salary experience during the experience study period with and without 2020
- Buck reviewed 2020 average salary based on service interval of five to determine estimated salary increase required to move to the next service interval

Historical Plan Data – Average Salary Increases

Service	Population	Actual Salaries	Expected Salary	Actual/Expected
1-5	5,665	277,752,869	283,488,515	0.9798
6-10	2,220	123,030,648	124,543,414	0.9879
11-15	1,887	107,752,086	108,953,574	0.9890
16-20	1,763	100,371,669	101,694,332	0.9870
21-25	711	44,449,325	44,775,881	0.9927
26-30	510	31,942,979	32,345,978	0.9875
31+	384	27,114,626	27,362,815	0.9909
Total	13,140	712,414,202	723,164,509	0.9851

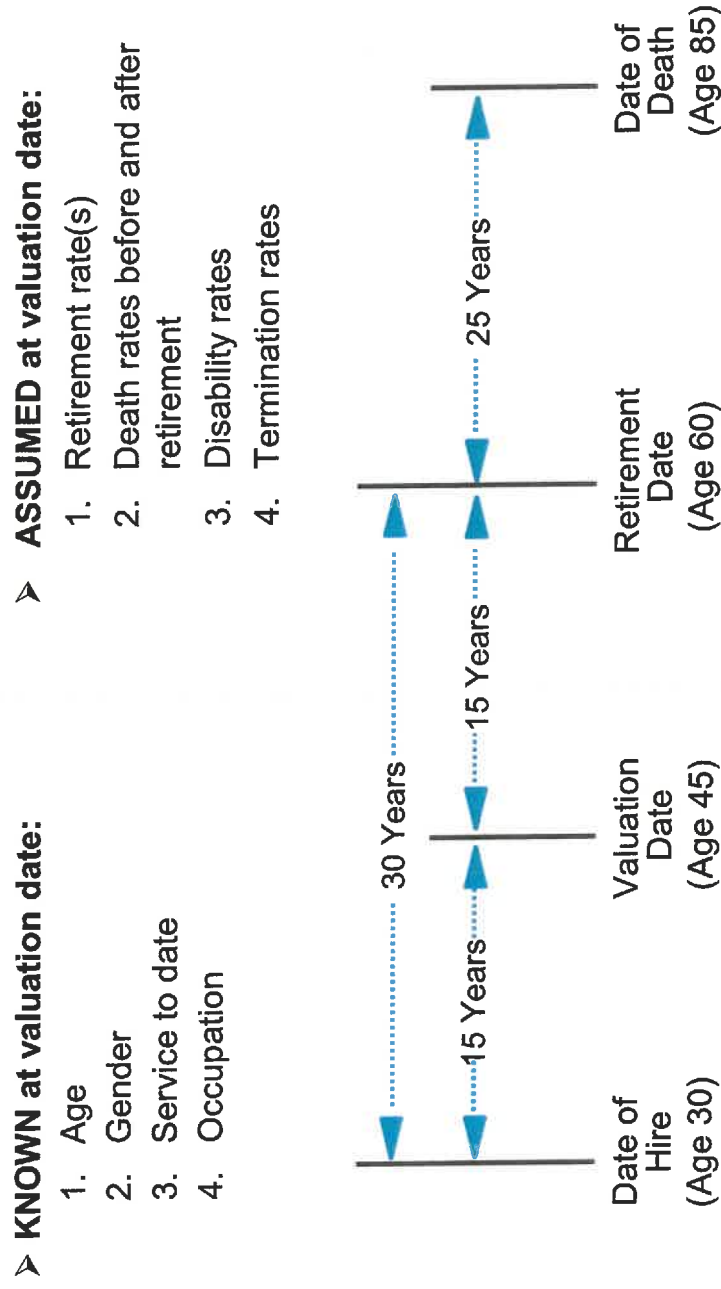
*Historical plan data excludes 2020 pay data in analysis.

Salary Increase

- **Recommendation:**
 - Since the methods reviewed provided no evidence of significant deviation of actual experience from the assumed rates of salary increases, we recommend no change to the salary increase assumption

Demographic Assumptions

Things That Happen to Members (Demographics Assumptions)



Process for Demographic Assumption Review

- Includes a five-year review of the following assumptions:
 - Mortality
 - Retirement
 - Withdrawal
 - Disability
- Data collected from January 1, 2016 to December 31, 2020
- Compare past experience (“actual”) with assumptions (“expected”)
 - More about Actual to Expected (A/E) ratios on the following slide
- Determine trends
- Consider any external factors
- Make judgements about the future
- Recommend adjustments, as needed

A/E Ratios

- A/E ratios are used to analyze recent demographic experience
 - A = actual experience
 - E = expected experience
- An A/E ratio of 100% suggests the assumption matches recent experience
- Depending on the assumption, an A/E ratio greater or less than 1.0000 indicates if the current assumption is “too conservative” or “not conservative enough” relative to recent experience. Using retirement rates as an example:
 - An A/E ratio for retirement rates that is greater than 1.0000 indicates that higher actual number of retirements occurred over the observation period than the current assumption for retirement rates predicted
 - In such cases, higher rates of assumed retirement rates may be warranted
- When deciding upon proposed assumptions the credibility of the experience is considered. A large number of exposures are needed to create fully credible experience. Therefore, when proposed assumptions are developed the new A/E will usually still not be exactly 1.0000 to account for partial credibility of the experience.
- A/E ratios reviewed based on employees from January 1, 2016 through January 1, 2021. Assumptions recommended to be reflected in the January 1, 2022 valuation.

Mortality Assumption

Mortality Assumption

- The mortality assumption is used to project the life expectancy of each participant in the plan. It includes:
 - An underlying base table with mortality rates that vary by age and gender
 - An assumption regarding future mortality improvement
- Current base mortality tables are the RP-2014 tables based on a study performed by the Society of Actuaries (SOA)
 - RP-2014 tables are based on private sector data
 - The mortality rates for inactive participants receiving benefits (non-disabled) are increased by 10%
- All mortality rates projected from 2006 using generational improvement with Scale MP-2015, as developed by the SOA

Mortality Assumption, continued

- In 2019, the SOA released the Pub-2010 tables based on a study of public plan participant data
- Based on observations on the following slides, the following variations to Pub-2010 tables provided a closer fit to actual PSRSSTL experience during 2016 to 2020:
 - General employee mortality tables
 - Below median adjustment
 - Amounts-weighted basis
- The amounts-weighted number of observed deaths for healthy male and female retirees deemed these groups to be “partially credible”
 - Partial credibility results in a partial adjustment to the base Pub-2010 mortality tables to fit PSRSSTL actual observed experience by increasing or decreasing mortality rates across all ages by a factor
 - Male retirees result in an adjustment of 102% of selected Pub-2010 retiree table for males
 - Female retirees result in an adjustment of 110% of selected Pub-2010 retiree table for females
- No other groups (active, terminated, disabled retirees and beneficiaries of deceased retirees) had enough observed deaths to warrant a credibility adjustment

Mortality Assumption – Actual vs. Expected

Healthy Retirees (2016 – 2020)

Sex	Method	Population	Actual Deaths		Expected Deaths		Actual/Expected	
			Actual	Proposed	Current	Proposed	Current	Proposed
Male	Head Counts	4,879	241	226	204	226	118%	90%
Female	Head Counts	15,039	569	536	531	536	107%	99%
Total	Head Counts	19,918	810	762	735	762	110%	106%

Sex	Method	Population Liability	Actual Liability of Deaths		Expected Liability Deaths		Actual/Expected	
			Actual	Proposed	Current	Proposed	Current	Proposed
Male	Liability Weighted	954,017,617	31,875,452	30,987,015	27,367,626	30,987,015	116%	103%
Female	Liability Weighted	3,224,840,463	71,807,874	65,585,873	67,625,604	65,585,873	106%	109%
Total	Liability Weighted	4,178,858,079	103,683,326	96,572,888	94,993,230	96,572,888	109%	107%

Mortality Projection scale

- In the 2016 experience study, the Board adopted the Society of Actuaries' latest mortality improvement scale (MP-2015)
- Currently, all mortality rates projected from 2006 using generational improvement with Scale MP-2015
- Each year, the Society of Actuaries releases an updated mortality improvement scale
- Some systems update mortality improvement scales each year
- However, since PSRSSL consistently performs regularly experience studies, updating the mortality improvement scale upon each study rather than annually is an acceptable and common practice
- In October 2021, the Society of Actuaries released updated mortality improvement Scale MP-2021
- Recommendation
 - Board adoption of updated mortality improvement scale MP-2021 with all applicable Pub-2010 mortality rates projected from 2010 using generational improvement

Mortality Assumption – Current and Proposed

We propose the following changes to the mortality assumption:

Group	Current			Proposed		
	Base Table	Load	Mortality Improvement	Base Table*	Load	Mortality Improvement
Active & Deferred Vested Participants	RP-2014 Combined Healthy Mortality Table (rolled back to 2006)	N/A	MP-2015	PubG-2010 (Below Median) Mortality Table	N/A	MP-2021
Retirees - Male	RP-2014 Combined Healthy Mortality Table (rolled back to 2006)	10%	MP-2015	PubG-2010 (Below Median) Mortality Table	2%	MP-2021
Retirees - Female	RP-2014 Combined Healthy Mortality Table (rolled back to 2006)	10%	MP-2015	PubG-2010 (Below Median) Mortality Table	10%	MP-2021
Beneficiaries	RP-2014 Combined Healthy Mortality Table (rolled back to 2006)	10%	MP-2015	PubG-2010 (Below Median) Mortality Table	N/A	MP-2021
Disabled Participants	RP-2014 Disabled Mortality Table (rolled back to 2006)	N/A	MP-2015	PubT/G-2010 Mortality Disability Table	N/A	MP-2021

*Base tables are amount weighted.

Retirement Rates

Retirement Rates

- The retirement assumption is used to project the ages at which current active participants are expected to retire
 - Different age-based rates apply to those who will be eligible for *unreduced* vs. *reduced* retirement benefits
- Eligibility for reduced and unreduced retirement is summarized in the table below:

	Reduced Retirement	Unreduced Retirement
Not Rule of 80	Age 60 with 5 years of service (benefit reduced 0.5556% per month)	Age 65
Rule of 80	N/A	Age plus service at least 80

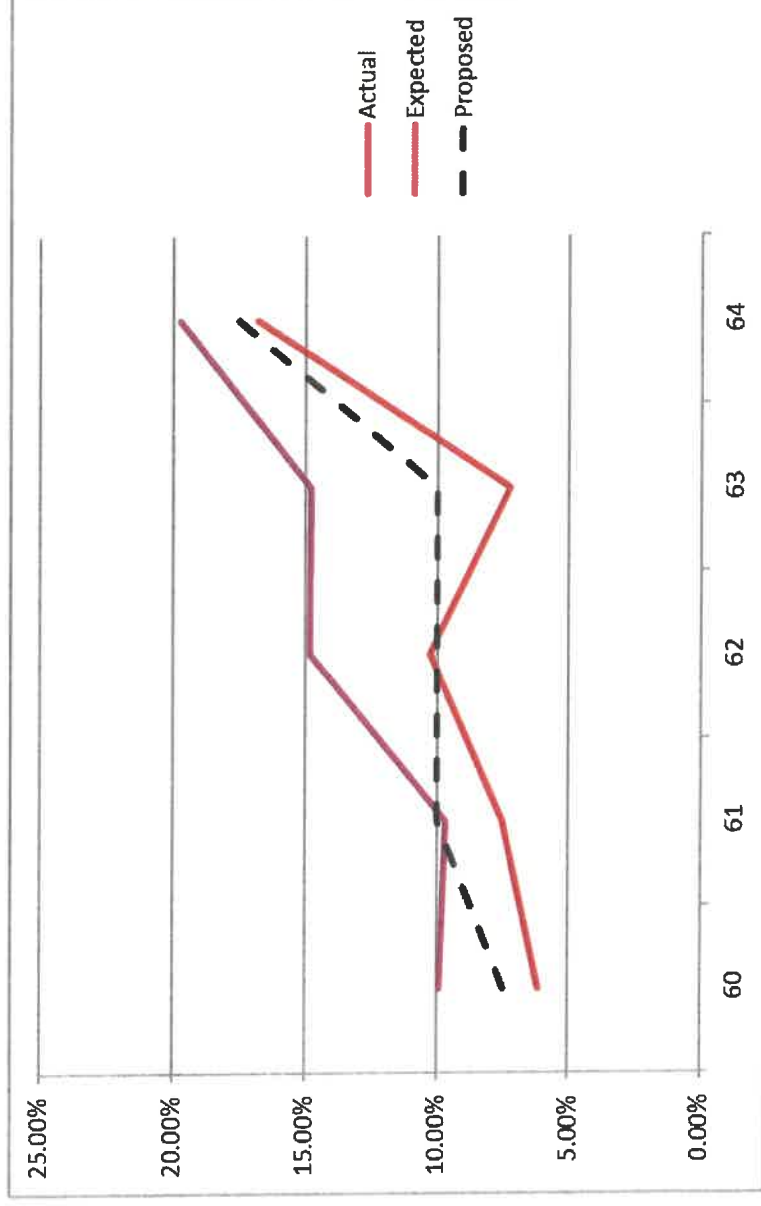
- The graphs on the following slides in this section show the average retirement counts and rates over the last 5 years
 - Actual
 - Expected - current assumptions
 - Proposed - proposed assumptions

Retirement Rates – Actual vs. Expected

Not Rule of 80 and Under Age 65

Age	Population	Actual		Assumption		Number of Retirements		Actual/Expected	
		Retirements		Current	Proposed	Current	Proposed	Current	Proposed
60	212	13		10%	7.5%	21.00	15.90	62%	82%
61	186	14		10%	10.0%	18.00	18.60	78%	75%
62	175	18		15%	10.0%	26.00	17.50	69%	103%
63	138	10		15%	10.0%	20.40	13.80	49%	72%
64	107	18		20%	17.5%	21.10	18.73	85%	96%
Total	818	73		N/A	N/A	106.50	84.53	69%	86%

Retirement Rates – Not Rule of 80 and Under Age 65



In general, participants who are under age 65 and did not reach rule of 80 eligibility retired at lower rates than anticipated.

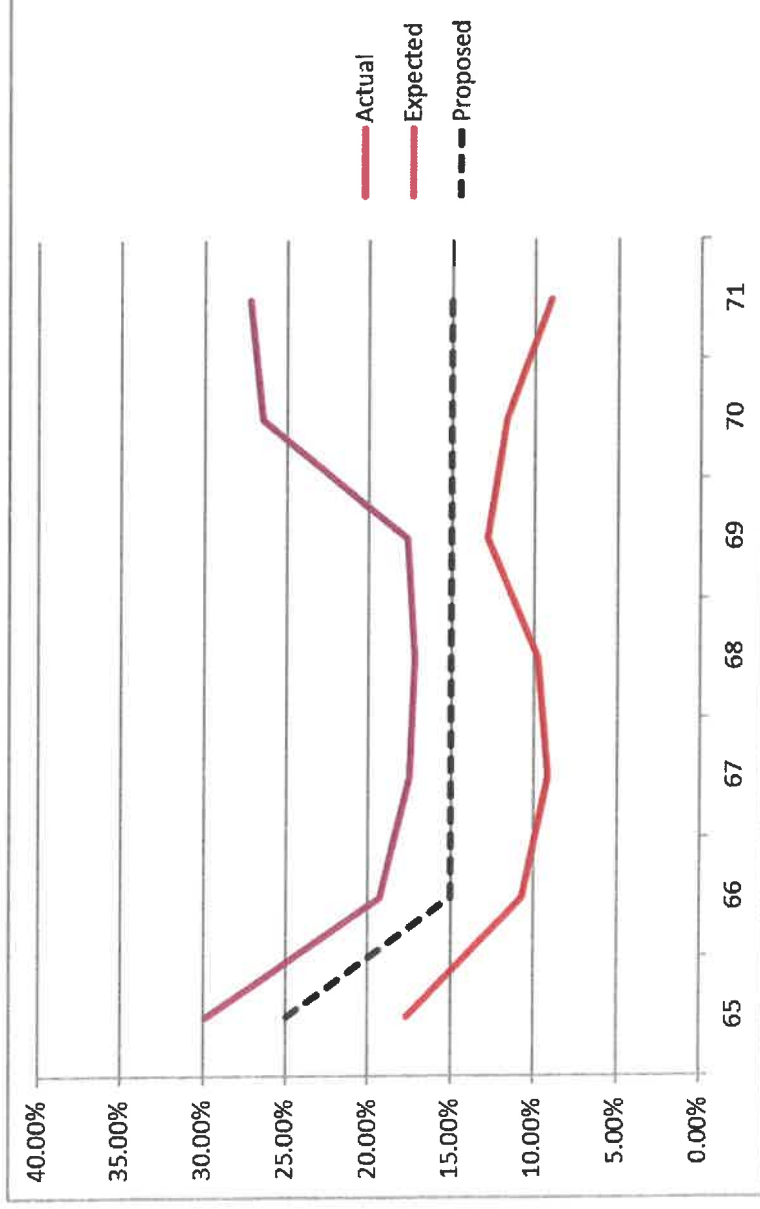
We propose reducing rates to better match experience.

Retirement Rates – Actual vs. Expected

Not Rule of 80 and Over Age 65

Age	Population	Actual Retirements	Assumption		Number of Retirements		Actual/Expected	
			Current	Proposed	Current	Proposed	Current	Proposed
65	147	26	35%	25.0%	43.95	36.75	59%	71%
66	84	9	20%	15.0%	16.20	12.60	56%	71%
67	65	6	20%	15.0%	11.40	9.75	53%	62%
68	51	5	20%	15.0%	8.80	7.65	57%	65%
69	31	4	20%	15.0%	5.50	4.65	73%	86%
70	17	2	30%	15.0%	4.50	2.55	44%	78%
71	11	1	30%	15.0%	3.00	1.65	33%	61%
Total	406	53	N/A	N/A	93.35	75.60	57%	70%

Retirement Rates – Not Rule of 80 and Over Age 65



In general, participants who are over age 65 and did not reach rule of 80 eligibility retired at lower rates than anticipated.

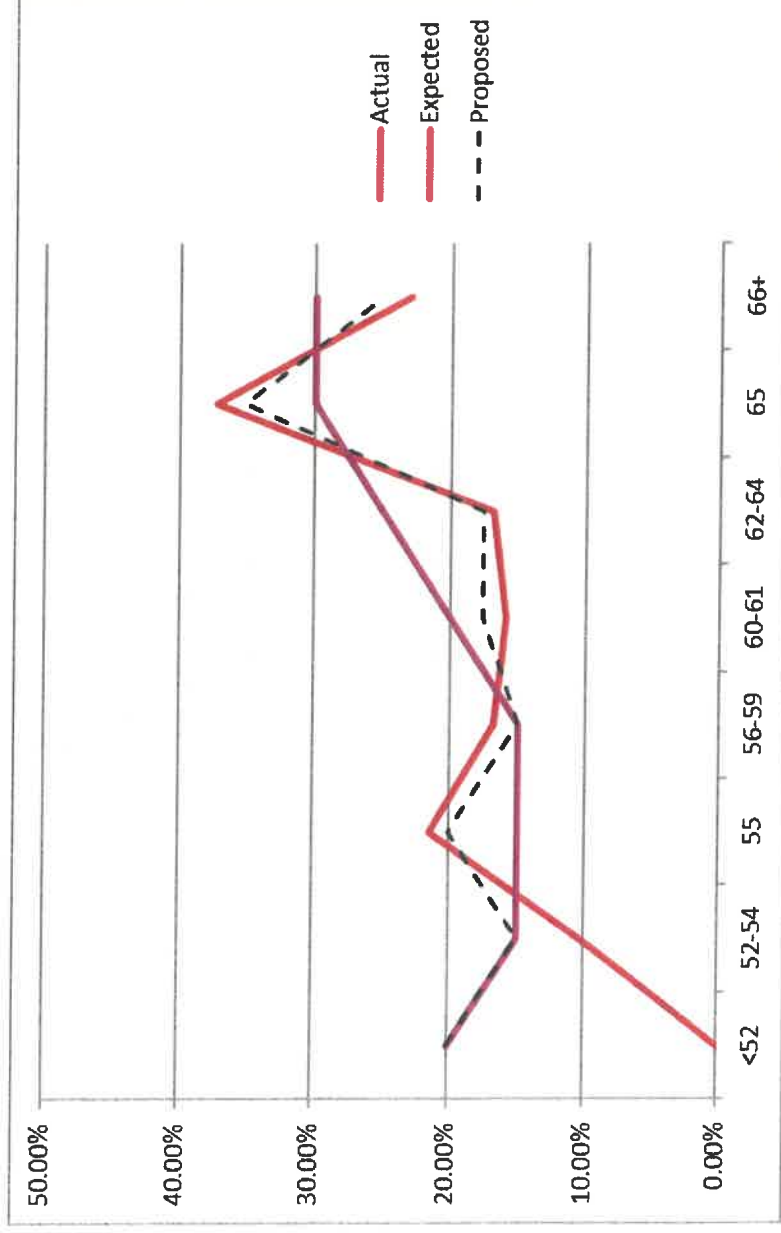
We propose reducing rates to better match experience.

Retirement Rate – Actual vs. Expected

Rule of 80

Age	Population	Actual Retirements	Assumption		Number of Retirements		Actual/Expected	
			Current	Proposed	Current	Proposed	Current	Proposed
<52	0	0	20%	20%	0.00	0.00	0%	0%
52-54	58	6	15%	15%	8.55	8.70	70%	69%
55	42	9	15%	20%	6.15	8.40	146%	107%
56-59	327	55	15%	15%	48.00	49.05	115%	112%
60-61	220	35	20%	17.5%	38.30	38.50	91%	91%
62-64	386	65	25%	17.5%	89.30	67.55	73%	96%
65	94	35	30%	35%	28.75	32.90	122%	106%
66+	265	61	30%	25%	77.40	66.25	79%	92%
Total	1392	266	N/A	N/A	296.45	271.35	90%	98%

Retirement Rates – Rule of 80



In general, more participants than expected opted to retire when eligible under the Rule of 80 for retirement.

Proposed rates slightly trail previous rates, to better fit experience.

Assume 100% retirement at age 72

Retirement Rates – Current and Proposed

Recommendation:

Age	Current		Proposed	
	Rule of 80	Not Rule of 80	Rule of 80	Not Rule of 80
<52	20%	N/A	20%	N/A
52	15%	N/A	15%	N/A
53	15%	N/A	15%	N/A
54	15%	N/A	15%	N/A
55	15%	N/A	20%	N/A
56	15%	N/A	15%	N/A
57	15%	N/A	15%	N/A
58	15%	N/A	15%	N/A
59	15%	N/A	15%	N/A
60	20%	10%	18%	7.5%
61	20%	10%	18%	10%
62	25%	15%	18%	10%
63	25%	15%	18%	10%
64	25%	20%	18%	17.5%

Retirement Rates – Current and Proposed (cont'd)

Recommendation, continued:

Age	Current		Proposed	
	Rule of 80	Not Rule of 80	Rule of 80	Not Rule of 80
65	30%	35%	35%	25%
66	30%	20%	25%	15%
67	30%	20%	25%	15%
68	30%	20%	25%	15%
69	30%	20%	25%	15%
70	30%	30%	25%	15%
71	30%	30%	25%	15%
72+	100%	100%	100%	100%

Withdrawal Rates

Withdrawal Rates

- The withdrawal assumption is used to project the ages at which current active participants are expected to terminate employment
- If a participant terminates before becoming vested (5 years of service), they are entitled to receive a refund of their accumulated contributions with interest. If termination occurs after 5 years, the individual is entitled to a deferred retirement benefit.
- The current withdrawal assumption is a “select and ultimate” assumption
 - Higher withdrawal rates are used for each of the first 5 years of service
 - After 5 years, the withdrawal rates gradually decline by age
- The graphs on the next two slides show the average withdrawal counts and rates over the last 5 years
 - Actual
 - Expected - current assumptions
 - Proposed - proposed assumptions

Withdrawal Rates – A/E

Charter – Service Less Than 5 Years

Service	Population	Actual Terminations	Assumption		Number of Terminations		Actual/Expected	
			Current	Proposed	Current	Proposed	Current	Proposed
0-1	996	314	35%	35.0%	344.11	348.60	91%	90%
1-2	1419	403	35%	30.0%	486.79	425.70	83%	95%
2-3	1033	271	35%	25.0%	345.03	258.25	79%	105%
3-4	757	156	25%	20.0%	214.33	151.40	73%	103%
4-5	588	122	15%	20.0%	115.06	117.60	106%	104%
Total	4793	1266	N/A	N/A	1505.32	1301.55	84%	97%

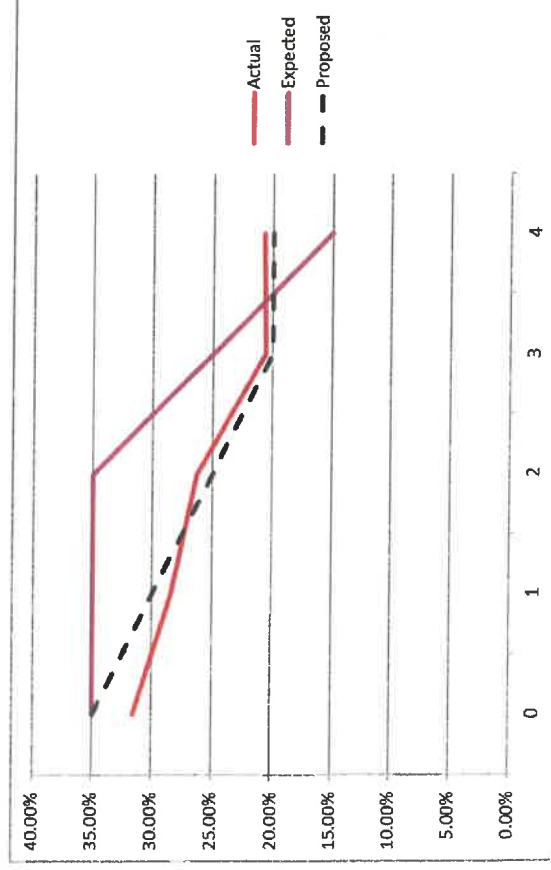
Withdrawal Rates – A/E

Non-Charter – Service Less Than 5 Years

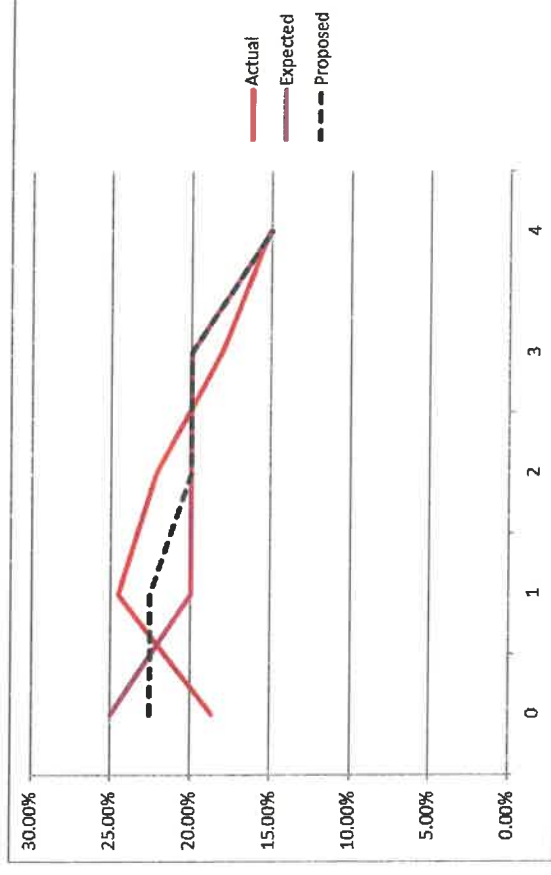
Service	Population	Actual		Assumption		Number of Terminations		Actual/Expected	
		Terminations		Current	Proposed	Current	Proposed	Current	Proposed
0-1	1424	266		25%	22.5%	350.43	320.40	76%	83%
1-2	2244	550		20%	22.5%	495.06	504.90	111%	109%
2-3	1677	372		20%	20.0%	330.65	335.40	113%	111%
3-4	1344	243		20%	20.0%	261.61	268.80	93%	90%
4-5	1052	159		15%	15.0%	176.69	157.80	90%	101%
Total	7741	1590		N/A	N/A	1614.45	1587.30	98%	100%

Withdrawal Rates – Service Less Than 5 Years

Charter



Non-Charter



- For charter schools, experience shows fewer terminations than anticipated
- For non-charter schools, experience shows slightly more terminations than anticipated
- We propose decreasing withdrawal rates to better fit experience for charter schools, and slight adjustments to rates for the first two years for non-charter schools

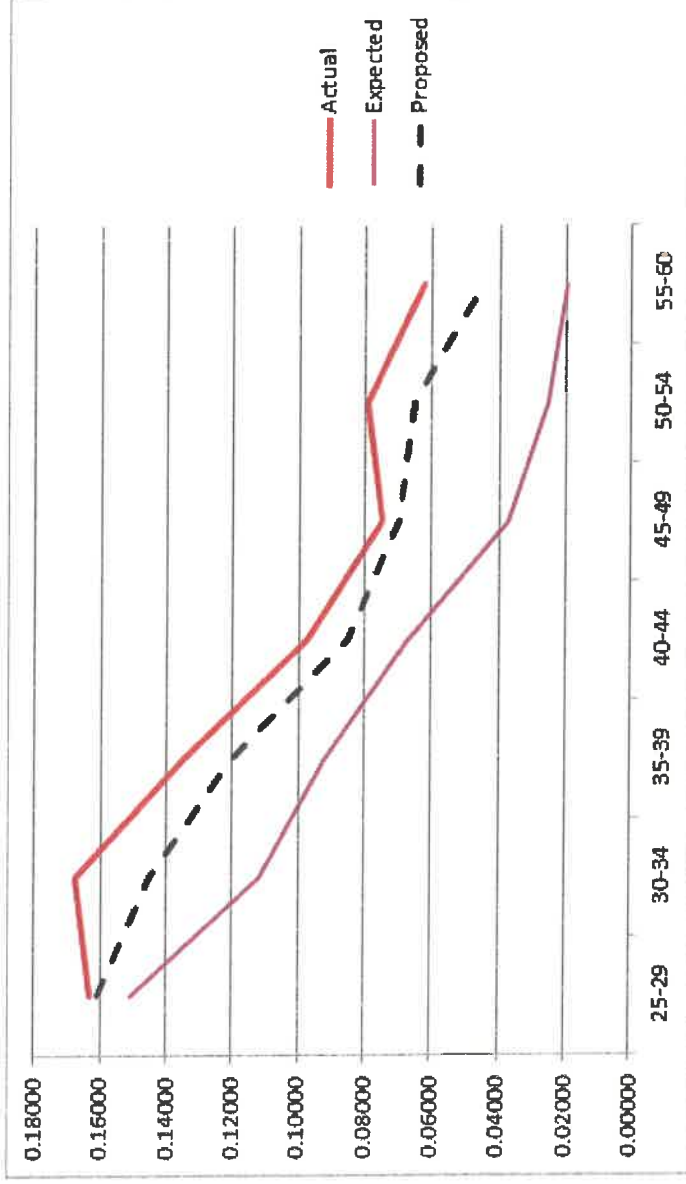
Withdrawal Rates – A/E

Service 5+ Years

Age	Population	Actual Terminations	Assumption		Number of Terminations		Actual/Expected	
			Current	Proposed	Current	Proposed	Current	Proposed
25-29	294	48	15%	16.1%	45.40	47.33	106%	101%
30-34	1081	181	11%	14.5%	135.31	156.75	134%	115%
35-39	1378	186	9%	12.0%	143.52	165.36	130%	112%
40-44	1654	161	7%	8.5%	131.37	140.59	123%	115%
45-49	1774	133	4%	7.0%	88.95	124.18	150%	107%
50-54	1537	122	3%	6.5%	57.22	99.91	213%	122%
55-60	1342	84	2%	4.5%	44.04	60.39	191%	139%
Total	9060	915	N/A	N/A	645.80	794.50	142%	115%

Proposed rates shown above represent the proposed rate at the median of the age range. Full proposed rates by age can be found on slide 48.

Withdrawal Rates – Service 5+ Years



- Experience shows relatively higher rates of termination once an employee has become vested.
- We propose an increase to the rates of withdrawal in order to better fit experience.

Withdrawal Rates – Current and Proposed

Recommendation:

Charter with Service Less Than 5 Years

Service (years)	Current	Proposed
0	35%	35.0%
1	35%	30.0%
2	35%	25.0%
3	25%	20.0%
4	15%	20.0%

Non-Charter with Service Less Than 5 Years

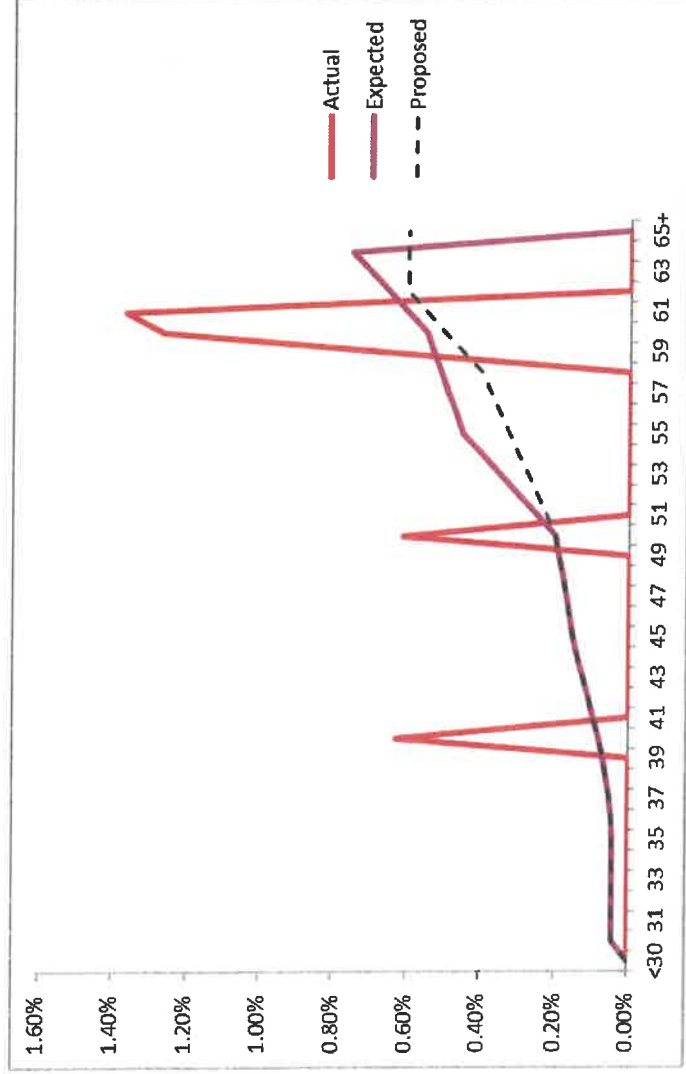
Service (years)	Current	Proposed
0	25%	22.5%
1	20%	22.5%
2	20%	20.0%
3	20%	20.0%
4	15%	15.0%

Withdrawal Rates – Current and Proposed (Cont'd)

Recommendation for Service 5 years or more:

Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed
<25	17.1%	17.0%	37	9.2%	12.0%	49	3.1%	6.8%
25	17.1%	16.7%	38	8.9%	11.1%	50	2.8%	6.7%
26	16.1%	16.4%	39	8.6%	10.2%	51	2.6%	6.7%
27	15.1%	16.1%	40	8.3%	9.3%	52	2.5%	6.5%
28	14.1%	15.8%	41	7.5%	8.8%	53	2.4%	6.0%
29	13.1%	15.5%	42	6.7%	8.5%	54	2.3%	5.5%
30	12.1%	15.2%	43	5.9%	8.2%	55	2.2%	5.0%
31	11.7%	14.9%	44	5.2%	7.9%	56	2.1%	4.7%
32	11.2%	14.5%	45	4.4%	7.6%	57	2.0%	4.5%
33	10.8%	14.1%	46	4.1%	7.3%	58	1.9%	4.3%
34	10.3%	13.7%	47	3.7%	7.0%	59	1.8%	4.1%
35	9.9%	13.3%	48	3.4%	6.9%	60	1.7%	3.9%
36	9.6%	12.9%						

Disability Rates – Male



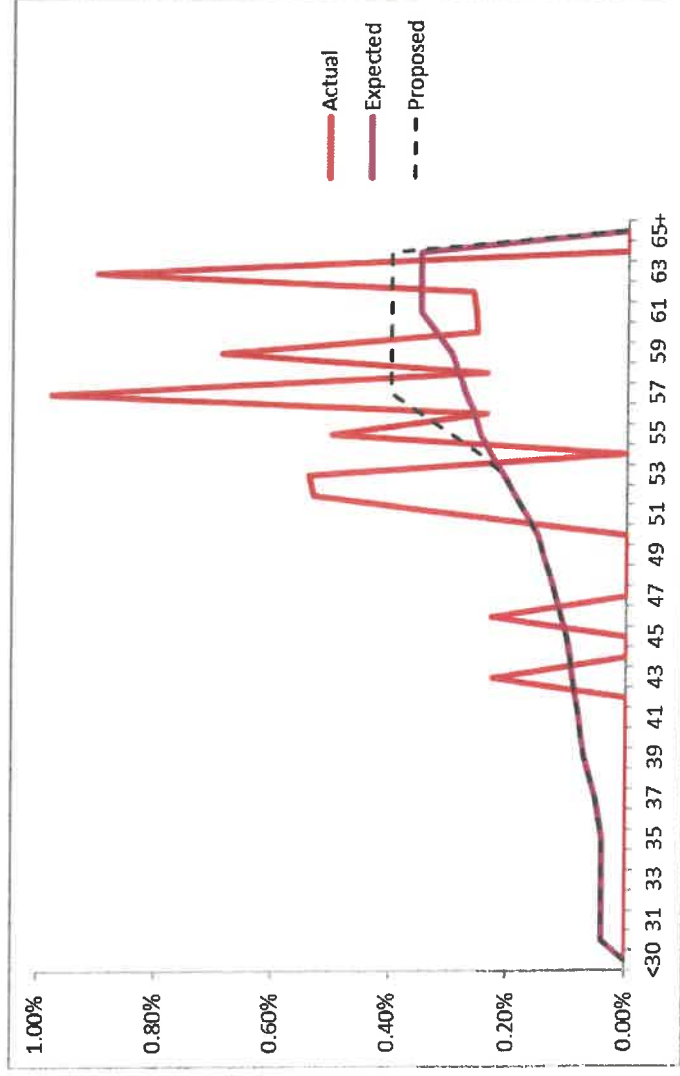
- Small sample size results in limited credible data
- In general, males experience a lower rate of disability at later ages than anticipated
- We propose minor adjustments to rates to better fit experience

Actual		Expected Disabilities		Actual/Expected	
Population	Disabilities	Current	Proposed	Current	Proposed
Total	6,576	7	11.45	53%	61%

Disability Rates

- The disability assumption is used to project the ages at which current participants are expected to become disabled.
- If a participant becomes disabled, they are entitled to receive an unreduced benefit upon date of disablement. This benefit is fixed to not be greater than the amount the participant would have received at NRD had they continued to work until retirement, nor less than 25% of Average Final Compensation.
- The graphs on the next two slides show the average disability counts and rates over the last 5 years
 - Actual
 - Expected - current assumptions
 - Proposed - proposed assumptions

Disability Rates – Female



- Small sample size results in limited credible data
- In general, females experienced a higher rate of disability at later ages than anticipated
- We propose minor adjustments to rates to better fit experience

Actual		Expected Disabilities		Actual/Expected	
Population	Disabilities	Current	Proposed	Current	Proposed
Total	25,427	31	37.59	82%	91%

Disability Rates – Current and Proposed

Recommendation (chart is continued on next slide):

Age	Current		Proposed	
	Male	Female	Male	Female
<30	0.00%	0.00%	0.00%	0.00%
30-35	0.04%	0.04%	0.04%	0.04%
36	0.045%	0.045%	0.05%	0.045%
37	0.05%	0.05%	0.05%	0.05%
38	0.06%	0.06%	0.06%	0.06%
39	0.07%	0.07%	0.07%	0.07%
40	0.08%	0.075%	0.08%	0.075%
41	0.095%	0.08%	0.10%	0.08%
42	0.11%	0.085%	0.11%	0.085%
43	0.125%	0.09%	0.13%	0.09%
44	0.14%	0.095%	0.14%	0.095%
45	0.15%	0.10%	0.15%	0.10%
46	0.16%	0.11%	0.16%	0.11%
47	0.17%	0.12%	0.17%	0.12%
48	0.18%	0.13%	0.18%	0.13%

Disability Rates – Current and Proposed (Cont'd)

Age	Current		Proposed	
	Male	Female	Male	Female
49	0.19%	0.14%	0.19%	0.14%
50	0.20%	0.15%	0.20%	0.15%
51	0.25%	0.17%	0.23%	0.17%
52	0.30%	0.19%	0.25%	0.19%
53	0.35%	0.21%	0.28%	0.21%
54	0.40%	0.23%	0.30%	0.25%
55	0.45%	0.25%	0.33%	0.30%
56	0.47%	0.26%	0.35%	0.35%
57	0.49%	0.275%	0.38%	0.40%
58	0.51%	0.285%	0.40%	0.40%
59	0.53%	0.30%	0.45%	0.40%
60	0.55%	0.325%	0.50%	0.40%
61	0.60%	0.35%	0.55%	0.40%
62	0.65%	0.35%	0.60%	0.40%
63	0.70%	0.35%	0.60%	0.40%
64	0.75%	0.35%	0.60%	0.40%
65+	0.00%	0.35%	0.60%	0.40%

Deferred Vested

Deferred Vested

- This assumption estimates the amount of liability for deferred vested members with no benefit information provided in the employee data by the System.
- Current assumption assumes 150% of the member contributions with interest, as of the valuation date, will reasonably estimate the actual liability for the member if benefit information was provided.
- Buck examined projected retirement benefit information estimated in the deferred vested statements provided annually.
 - These benefits are subject to verification at the time of retirement.
 - However, the statements provide a good representation of the amount of benefit a member may receive at normal retirement date based on available information.
- A sample of roughly 75% of the deferred vested population from the 1/1/2021 valuation was reviewed.
 - The actual versus expected liability was estimated to be greater than 100% but significantly less than 150%
 - Estimate did not include pre-retirement death benefits or any subsidy provided by Rule of 80 or 85 eligibility
- **Recommendation:**
 - Recommend the Board decrease the assumption from 150% to 125% of the member contributions with interest.

Participant Account Interest Crediting Rate

Participant Account Interest Crediting Rate

- Member contributions are credited with an annual interest crediting rate
 - For active employees, interest is credited during employment
 - For non-vested terminations, interest is credited until a refund of contributions is requested
 - For vested terminations, interest is credited until the earlier of a refund of contributions is requested or the participant elects to commence annuity payments
 - For participants electing to commence annuity payments
 - No refund of contributions is provided
 - If the retiree dies prior to receiving total annuity payments at least equal to participant's contribution balance with interest, then the balance not received is payable to the beneficiary or estate
- The interest crediting rate is a plan provision
 - This is not an actuarial assumption and thus, not officially part of this experience study
- The current interest crediting rate is 5.0%
- The PSRSSTL Board of Trustees has authority to update the crediting rate from time to time

Participant Account Interest Crediting Rate

- Considerations when establishing an interest crediting rate:
 - Plan's ability to earn investment returns to fund the annual crediting rate
 - Plan's objectives to incentivize members to keep contributions in the plan versus requesting a refund of contributions
 - The affected population
 - Type of interest crediting rate
 - Fixed percentage
 - X% of actual rate of return on plan assets earned during prior year
 - CPI (6.2% for 12-month period ending October 2021, 3.2% for a 5-year average, 2.4% for a 10-year average)
 - 30-year treasury rate (2.06% as of October 2021)
 - Option to cap or floor the interest crediting rate if a variable rate (e.g., not less than 0%)
 - Whether interest should be credited for participants who terminate employment prior to retirement
 - May have different approach for vested vs. non-vested terminations

Actuarial Cost Method

Actuarial Cost Method – Current

Frozen Entry Age Actuarial Cost Method

- On the plan's initial actuarial valuation date for which the cost method is used, the annual cost of accruals are determined as a level percentage of pay for each year from entry age until retirement or termination.
 - Unfunded Frozen Actuarial Accrued Liability (UFAAL) was originally determined as of January 1, 1981.
 - Effective January 1, 2006, the UFAAL was reset
- The UFAAL is only frozen in that it is not adjusted due to experience gains and losses.
 - Instead, these gains and losses are reflected through changes in the normal cost accrual rate.
 - The UFAAL does change, increasing due to interest and additional normal costs, and decreasing due to contributions.
 - Any changes to plan provisions or actuarial assumptions results in a change to the UFAAL.
- Funding Requirement is the sum of the following components
 - Normal cost contribution
 - Actuarial accrued contribution: payment required to amortize the UFAAL over a closed 30-year period from January 1, 2006
 - 15 years remaining as of January 1, 2021

Actuarial Cost Method – Proposed

- Implement the actuarial cost method of Entry Age Normal cost method
 - 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
 - The cost allocated to the current fiscal year is called the Normal Cost
- 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
- **Recommendation:**
 - Recommend the Board to approve the move from Frozen Entry Age to Entry Age Normal cost method

Amortization Method

- Amortization methods determine the payment schedule for unfunded actuarial accrued liability (UAAL) (i.e. the difference between the actuarial accrued liability and actuarial value of assets)
- Actuarial Funding Policies and Practices for Public Pension Plans published by the Conference of Consulting Actuaries provided best practice recommendations when establishing amortization methods under a Plan's cost method
 - When the paper was published, acceptable practices includes a 25-year layered amortization method
 - However, there has been a trend over the past several years of lowering the number of years in the amortization period to 15 or 20 years
- Under the proposed Entry Age Normal actuarial cost method, amortization payment is determined as a level dollar amount, similar to a mortgage payment
- Under layered amortization, incremental increases or decreases in UAAL are amortized over a new period
 - The original UAAL amortization would be established as of January 1, 2022
 - New layers would include impact of actuarial gains and losses, assumption changes and plan amendments
 - Layered amortization mitigates volatility of a large fluctuation in one year

Amortization Method, continued

- **Recommendation:**

20-year, level dollar, closed amortization period with layered amortization for future changes

- Initial UAAL in the 2022 valuation will be amortized over a 20-year period
- Similar to a house mortgage, the dollar amount will remain level for 20 years
- Initial UAAL would be paid off in 20 years
- Incremental increases or decreases in UAAL in future valuation will be amortized over a new 20-year period
 - New layers would include impact of actuarial gains and losses, assumption changes and plan amendments
 - Layered amortization only works in conjunction with closed amortization periods

Employer Contributions – interest adjustment

- Employer contributions are based on actuarially determined contributions needed for the Plan to be sustainable in the long term
 - Employer annual cost composed of a normal cost and amortization payment, reduced by expected employee contributions
 - Actuary determines the employer's annual cost as of the valuation date (January 1)
 - Total employer costs then expressed as a percentage of expected payroll for the calendar year of the valuation
 - No interest adjustment is applied to the dollar cost based on timing of actual contributions
- **Recommendation:**
 - Recommend the Board apply an interest adjustment of one-half year's interest at the valuation interest rate to better reflect the timing of contributions

Actuarial Value of Assets - Current

- Currently, the plan uses the assumed yield method of valuing assets
 - Prior year's actuarial value of assets (AVA) is increased at the assumed rate of return with appropriate adjustments for contributions and disbursements to produce an expected AVA at the end of the year.
 - Expected AVA is compared to the market value of assets (MVA) less the expense and contingency reserve
 - 20% of the difference is added to the expected actuarial value
- Method was established as of January 1, 2006 and set equal to the MVA
- In the event the plan experiences no gains or losses in the future, the Plan's AVA will never fully return to the Plan's MVA

Actuarial Value of Assets - Considerations

- An asset smoothing method should reduce the effect of short-term market volatility while still tracking the overall movement of the market value of assets (MVA)
- The plan's asset smoothing method should have clear objectives:
 - Amount of return subject to smoothing based on total return gain/loss for a given year
 - Smoothing period: Longer smoothing periods generally reduce contribution volatility
 - Corridors help constrain the actuarial value of assets (AVA) to not exceed a certain threshold from market value of assets
- **Recommend the Board adopt the following policy:**
 - Set actuarial value of assets equal to market value of assets (less contingency reserve) as of January 1, 2022
 - Five-year smoothing of assets based on the difference between the actual investment income and the expected income 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 contingency reserve)

Cost Effects of Proposed Assumptions

Cost Effects of Proposed Assumptions

	Current Assumptions	Actuarial Methods	Demographic Assumptions Excluding Mortality	Mortality Assumption	Investment Return Assumption
1. Entry Age Normal Actuarial Accrued Liability (AAL)	1,257,782,934	1,257,782,934	1,239,646,172	1,219,692,824	1,274,069,463
2. Actuarial Value of Assets (AVA)	894,251,149	884,772,226	884,772,226	884,772,226	884,772,226
3. Unfunded Actuarial Accrued Liability (AAL - AVA)	363,531,785	373,010,708	354,873,946	334,920,598	389,297,237
4. Funded Ratio (AVA / AAL)	71.1%	70.3%	71.4%	72.5%	69.4%
5. Projected Payroll for Upcoming Year	264,676,845	264,676,845	264,676,845	264,676,845	264,676,845
6. Total Normal Cost	17,821,684	21,761,352	20,426,739	20,290,573	22,291,870
7. Amortization of Unfunded AAL	27,438,261	39,309,165	37,397,850	35,295,097	39,946,490
8. Interest Adjustment to Mid-Year	N/A	2,248,743	2,129,221	2,046,779	2,141,500
9. Total Annual Cost	45,259,945	63,319,260	59,953,810	57,632,449	64,379,860
10. Expected Employee Contributions	N/A	20,326,908	20,326,908	20,326,908	20,326,908
11. Total Employer Cost	45,259,945	42,992,351	39,626,902	37,305,541	44,052,952
12. Total Employer Cost as % of Covered Payroll	17.1%	16.2%	15.0%	14.1%	16.6%

*Results calculated based on methods and assumptions in effect as of January 1, 2021 valuation.

**Results use a building block approach for each scenario. For example, the scenario titled "Demographic Assumptions Excluding Mortality" implements the proposed demographic assumptions excluding mortality discussed in the presentation with the proposed actuarial cost methods.

Actuarial Certification

Use of Models

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. For this presentation, Buck used the following:

- internally developed and third party model to compare actual versus assumed experience and determine proposed assumptions to use for valuing the liabilities in the third-party software
- models to analyze and propose investment returns as previously described in this presentation
- third-party software to calculate the liabilities associated with the plan based on current and proposed assumptions
- 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 plan assets and contributions, to determine the contribution rates

Buck has an extensive review process for annual valuations 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. The models used for annual valuations are used for this presentation and any adaptations for this presentation are checked and reviewed 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.

Actuarial Certification

The purpose of this presentation is to provide the Board of Trustees with an analysis of proposed changes to the assumptions and methods that are used in the actuarial valuations of the Public School Retirement System of the City of St. Louis pension plan.

The cost effects of the proposed assumptions are based on the January 1, 2021 actuarial valuation.

Please see the January 1, 2021 actuarial valuation report for a more detailed description of the risk factors related to future funding of the plan (ASOP 51).

Future actuarial measurements may differ significantly from current measurements due to plan 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 plan provisions or applicable law.

The results were prepared under the direction of Michael Ribble and Matthew Staback, both of whom meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. These results have been prepared in accordance with all applicable Actuarial Standards of Practice.

Michael Ribble
FSA, EA, MAAA, FCA
Principal

Matthew Staback
FSA, EA, MAAA, CERA, FCA
Consultant



**PUBLIC SCHOOL RETIREMENT SYSTEM
OF THE CITY OF ST. LOUIS**

2022 Operating Budget

Final

**Public School Retirement System
of the City of St. Louis
Operating Budget - Calendar Year 2022**

**3641 OLIVE STREET, SUITE 300
ST. LOUIS, MO 63108**

**OFFICE OF THE
EXECUTIVE DIRECTOR**

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Donna Jones
Albert J. Sanders, Jr.

FROM: Susan Kane

DATE: December 2, 2021

RE: **2022 PSRSSTL Proposed Operating Budget**

The following is the 2022 proposed operating budget for the Public School Retirement System of the City of St. Louis for your review and discussion at the Trustee Business Committee Meeting on December 8, 2021. Overall, the proposed budget is about 5% higher than the 2021 approved budget. Increased expenditures are highlighted below along with some accomplishments achieved by PSRSSTL during 2021.

2021 Accomplishments

- **Professional Services**
 - Conducted RFP's for Actuarial and Investment Consultant Services resulting in service enhancements and cost decreases
 - Conducted RFP's for Dental and Vision Services resulting in additional benefits being added at reduced premium
- **General Administration**
 - Utilized free resources for death audit services, resulting in earlier detection of deceased Members
 - Implemented a Document Retention Policy
 - Redesigned the newsletter, offering targeted content for Actives and Retirees
 - Offered virtual retirement seminars and open enrollment sessions
- **Property Management**
 - Added recycling and consolidated pickup schedule which lowered monthly cost.
- **Property Management, continued**
 - Implemented new lower cost phone system, with improved features

**Public School Retirement System
of the City of St. Louis
Operating Budget - Calendar Year 2022**

Completed maintenance projects, such as paving of the parking lot.

2022 Budget Highlights

- Fees for Investment Managers are based on the fund balance and types of investments. These fees are projected to increase from 2021 but are based on investment performance, which is difficult to accurately predict. The Investment Management fees, based on the portfolio as of September 30, 2021, are a nearly \$300,000 increase from the prior year and are the largest line item increase in the proposed 2022 budget.
- Proposed Expenses for Technology and Equipment Maintenance & Purchases are also an increase from 2021. This is primarily due to continued security testing and enhancement, change in death audit services to a new provider offering a broader level of service, and providing devices for Trustees to use for Board related activity.
- The premiums for business insurance may also increase. The Insurance consultant has recommended increasing Cyber Liability policy limits from \$1,000,000 to \$2,000,000 so additional costs have been requested in this category to cover the anticipated additional premium if coverage is approved.
- In the Legal Services area, there is an additional request of \$50,000 for advocacy and research services. This will be needed if proposed legislation to address the System funding is introduced in the 2022 Missouri legislative session.
- The Auditing/Accounting Services line item has been increased by \$25,000. This funding is needed for the cost for a payroll service to handle PSRSSTL staff payroll and tax filings. Currently, this is being managed internally via a spreadsheet.
- Funding for three Special Project items have been requested for 2022. The automatic, preferably handsfree, door opener project for the main entrance was not completed in 2021 due to difficulties in obtaining materials but this is expected to be completed in 2022. The awning over the balconies in the back of the building has been severely damaged by weather and needs replacement. There are also areas of the building, such as the Boardroom and the balcony railings that need painting.
- Items with a decrease in expenditure expected in 2022 include Actuarial Services, Trustee Elections (only one scheduled election in 2022), Postage, and Retiree Insurance and Consulting, primarily due to decreased premiums obtained from the 2021 Dental and Vision RFP.

Thank you for your review and consideration of the proposed budget.

**Public School Retirement System
of the City of St. Louis
Operating Budget - Calendar Year 2022**

Asset Assumptions (as of 9/30/21)

Investment Accounts Billed Indirectly (fees not budgeted)	\$187.4 million	
Investment Accounts Billed Directly	<u>502.0 million</u>	
Financial Investments		796.0 million
Real Estate Investments		50.1 million
Private Market Investments (fees not budgeted)		<u>69.0 million</u>
Total Investment Fund		\$915.1 million

Investment Management Fees

Investment Accounts Billed Directly		
\$502.0 million in assets at 50 basis points	\$2,510,000	
Real Estate Investments		
\$50.14 million in assets at 85 basis points	<u>425,850</u>	
Investment Management Fees		\$2,935,850
2021 Budgeted		\$2,641,042

Trust & Custody Bank Services

U.S. Bank

17 Separate Accounts at \$1,000/account	\$17,000	
Domestic Assets of \$315.0 million at 1.5 basis points	47,250	
Foreign Equity Assets of \$68.9 million at 6 basis points	41,340	
Miscellaneous Administrative Fees (Foreign & Global Equities)	<u>35,000</u>	
Trust & Custody Bank Services		\$140,590
2021 Budgeted		\$141,396

Investment Consulting

AndCo Consulting

Investment Consulting	\$190,000	
2021 Budgeted		\$189,715

Actuarial Services

Buck Global, LLC

Retirement and Purchase of Service Calculations, Retirement Estimates	\$70,000	
Valuation Report, Board Meetings, Annual Audit, Benefit Statements	42,000	
Miscellaneous Actuarial Services	<u>15,000</u>	
Actuarial Services		\$127,000
2021 Budgeted		\$136,000

**Public School Retirement System
of the City of St. Louis
Operating Budget - Calendar Year 2022**

Legal Services

Hartnett Reyes Jones, LLC

General Legal Counsel	\$120,000
Investment Agreement Reviews	30,000
Advocacy and Research	60,000
Legal Services	\$210,000
2021 Budgeted	\$160,000

Auditing/Accounting Services

Anders Minkler Huber & Helm LLP

Annual Audit (financial statements & GASB No. 68)	\$83,000
Accounting Services (Annual Report & other requirements)	3,000
<u>Payroll Service—Staff Payroll/Taxes</u>	<u>\$25,000</u>
Auditing/Accounting Services	\$111,000
2021 Budgeted	\$84,000

Trustee Elections—1 Active Election and No Retiree Elections

Active Trustee Elections (4,600 eligible voters)

Election Commissioner Costs	\$3,200
Miscellaneous Costs (i.e. ballot return postage)	1,200
Postage Service at \$1.29/voter	5,934
Printing & Mail Service at \$1.40/voter	<u>6,440</u>
Cost Per Active Trustee Election (includes 2 nd notice)	16,774

Retiree Trustee Elections ---no scheduled elections

Election Commissioner Costs	\$0
Miscellaneous Costs (i.e. ballot return postage)	0
Postage Service at \$1.29/voter	0
Printing & Mail Service at \$1.40/voter	<u>0</u>
Cost Per Retiree Trustee Election (includes 2 nd notice)	0

Trustee Elections	\$16,774
2021 Budgeted	\$32,917

Technology Services, Computer Consulting & Software

(see Technology Budget, page 11)

Technical Services, Consulting & Support	\$119,650
Software Purchases & Licenses	<u>7,400</u>
Technology Services, Computer Consulting & Software	\$127,050
2021 Budgeted	\$124,265

Physician Fees

Disability Medical Evaluations	\$1,200
2021 Budgeted	\$2,000

**Public School Retirement System
of the City of St. Louis
Operating Budget - Calendar Year 2022**

Property Management, Security & Utilities

Property Management at \$1,212/month	\$15,600	
Property Management Services (trash, janitorial, maint.)	60,000	
Security Monitoring	<u>2,000</u>	
Property Management & Security Monitoring		77,600
Charter Internet Service at \$225/month	2,700	
Fiber Optic Internet Service at \$667/month	8,000	
Mitel Telephone Service at \$300/month	3,900	
Ameren UE Electric Service	28,000	
MSD/St. Louis City Water	<u>1,250</u>	
Utilities		<u>43,850</u>
Property Management, Security & Utilities.....		\$121,450
2021 Budgeted		\$124,614

Postage & Delivery

Active Newsletter—Quarterly Mailing	\$4,000	
Retiree Quarterly Newsletter at \$3,000/ mailing	\$12,000	
Insurance Open Enrollment Packets—3,100 at \$2.03/ea.	6,300	
1099R Forms – 5,300 at .62 each	3,304	
Annual Benefit Statements – 5,500 at 60¢ each	3,286	
Miscellaneous Postage & Delivery	<u>15,000</u>	
Postage & Delivery		\$43,890
2021 Budgeted		\$52,299

Printing & Office Supplies

Active Newsletters and 4 Retiree Newsletters	\$10,000	
Annual Reports – 50 at \$30.00 each	1,500	
Annual Report Summaries – 10,000 at \$1.00 each	10,000	
Health Insurance Open Enrollment Packets – 3,600 at \$3.00 each	10,800	
Miscellaneous Printing & Office Supplies	<u>18,000</u>	
Printing & Office Supplies		\$50,300
2021 Budgeted		\$51,853

Public School Retirement System
of the City of St. Louis
Operating Budget - Calendar Year 2022

Equipment Maintenance & Purchases

Maintenance Contracts & Leases

Paymaster Check Writer	500
Firewall Maintenance & Subscription Service	1,000
Security Cameras	750
Konica Printers	3,000
Pitney Bowes Mail System	<u>5,800</u>
Maintenance Contract & Leases	11,050

Equipment Purchases (see Technology Budget, page 8) 17,100

Equipment Maintenance & Purchases **\$28,150**

2021 Budgeted **\$33,950**

Business Insurance

Fiduciary Coverage	\$75,194
Crime Coverage & Treasurer's Bond	3,300
Property, Casualty & Workers' Compensation Coverage	21,000
Cyber Liability	7,000
Insurance Brokerage Services	<u>15,000</u>

Business Insurance **\$121,494**

2021 Budgeted **\$115,300**

Trustee Educational Expenses

Projected for 2022 **\$30,000**

2021 Budgeted **\$30,000**

Retiree Insurance, Consulting & Open Enrollment

(Based on November 2021 enrollment levels)

Retiree Health Care Insurance Subsidy

Medical Insurance:	
2,200 members @ \$80.00/member/month	\$2,112,000
Dental Insurance:	
2,800 members @ \$5.95/member/month	199,920
Vision Insurance:	
3,000 members @ \$2.37/member/month	85,320
Health Insurance Consulting	39,850
Open Enrollment Assistance	<u>5,000</u>

Retiree Insurance, Consulting & Open Enrollment **\$2,442,090**

2021 Budgeted **\$2,477,230**

**Public School Retirement System
of the City of St. Louis
Operating Budget - Calendar Year 2022**

Miscellaneous Expenses

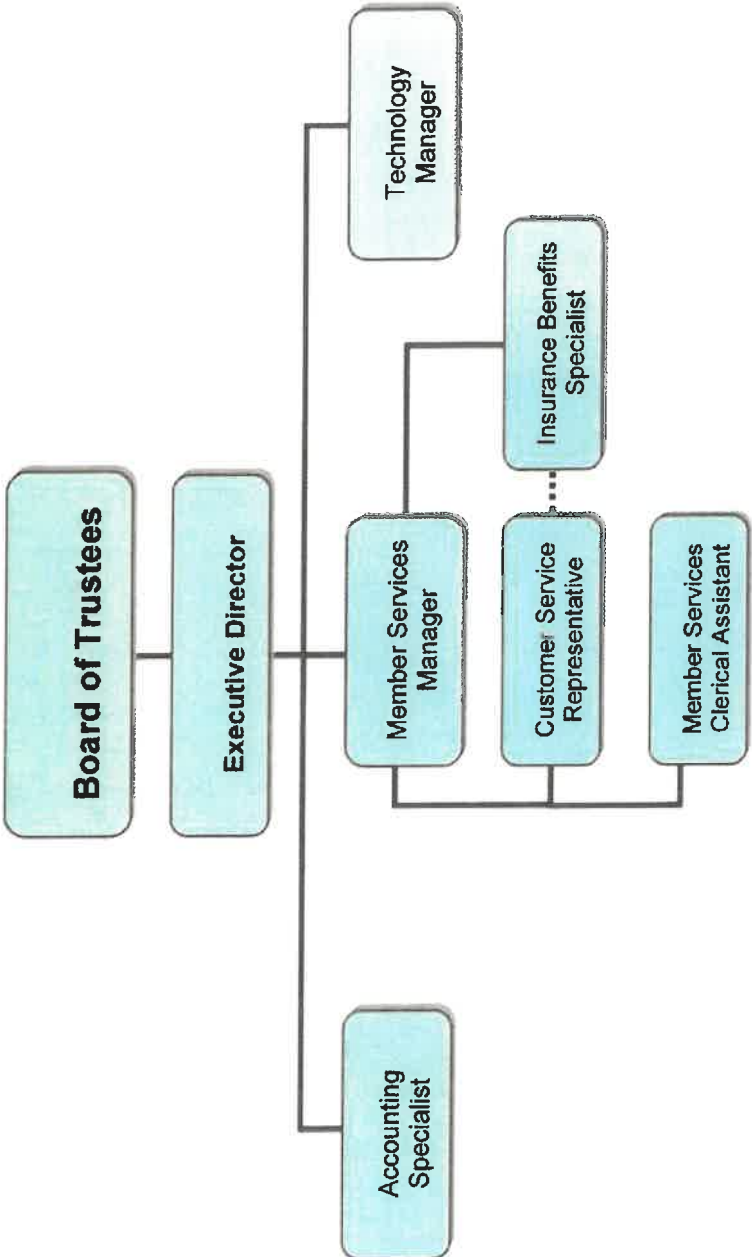
Bank Account Fees	\$36,000
Public Parking	2,000
Memberships—NCTR, ISCEBS, Prism, GFOA	
Certifications	4,500
Unforeseen Building Supplies & Equipment	<u>5,000</u>
Miscellaneous Expenses	\$47,500
2021 Budgeted	\$40,000

Special Projects Planned for 2021

Painting—Boardroom, Other Areas of Building	\$8,000
Awning for Back side of Building	\$5,000
Automatic Door Opener for Front Door	\$8,000
Special Projects Planned for 2022	\$21,000
2021 Budgeted	\$21,000

**PUBLIC SCHOOL RETIREMENT SYSTEM
OF THE CITY OF ST. LOUIS**

2022 Organizational Chart



..... Denotes work-flow supervision only

**PUBLIC SCHOOL RETIREMENT SYSTEM
OF THE CITY OF ST. LOUIS
2021 INVESTMENT MANAGEMENT FEES**

MONEY MANAGER	1st QUARTER			2nd QUARTER			3rd QUARTER		
	Fees	Market Value	Fee Rate	Fees	Market Value	Fee Rate	Fees	Market Value	Fee Rate
Manager Fees Billed Directly									
Causeway Capital Management	75,599	50,399,544	0.6009%	77,310	51,540,006	0.6009%	76,615	51,076,757	0.6000%
EARNEST Partners	7,433	11,892,948	0.2509%	7,629	12,206,222	0.2509%	7,615	12,183,246	0.2559%
Edgar Lomax Co.	78,633	73,291,383	0.4299%	81,437	76,796,647	0.4249%	77,013	69,287,638	0.4459%
Fidelity Institutional Asset Mgmt Co.	72,620	55,159,803	0.5279%	75,649	59,198,045	0.5111%	76,023	59,697,687	0.5099%
Intech	38,364	31,001,119	0.4959%	42,547	34,381,805	0.4959%	42,906	34,671,851	0.4959%
Mellon Capital Management	708	5,741,221	0.0499%	777	6,232,092	0.0509%	790	6,268,346	0.0509%
Mellon Dynamic Growth Fund	32,944	16,700,601	0.7899%	13,371	17,429,511	0.3079%	0	0	0%
Mellon Capital Management TIPS	2,038	27,546,546	0.3009%	2,127	28,441,282	0.3009%	2,188	28,938,852	0.3009%
Manulife Asset Management U.S. LLC	29,614	39,485,324	0.3009%	30,247	40,328,973	0.3009%	30,348	40,463,979	0.3009%
Xponance Inc. (Fixed Income)	10,219	13,625,694	0.3009%	10,541	14,054,942	0.3009%	10,792	14,389,889	0.3009%
Xponance Inc. (Global Equity)**	73,243	58,594,018	0.5009%	81,672	65,433,175	0.4999%	82,167	65,733,511	0.5009%
Systematic Financial Mgmt, LP	83,849	36,386,055	0.9229%	86,182	37,630,516	0.9169%	84,235	36,592,088	0.9219%
TCW Asset Management Co.	56,758	37,838,856	0.6009%	61,468	40,978,736	0.6009%	62,907	37,582,712	0.6709%
Westfield Capital Mgmt.	81,587	35,179,948	0.9289%	82,959	35,911,606	0.9249%	82,813	35,833,332	0.9249%
TOTAL MANAGER FEES BILLED DIRECTLY	\$643,609	\$492,843,060	0.5229%	\$653,916	\$520,563,558	0.4639%	\$636,412	\$492,719,888	0.4829%
Manager Fees Billed Indirectly									
DFA (Micro/Small Cap & Emerging Markets Equities)	33,165	48,455,828	0.5009%	39,955	51,112,515	0.5009%	41,428	49,837,351	0.5009%
ENTRUST (Hedge Fund)	1,971	1,574,709	0.5019%	1,307	1,566,546	0.3349%	1,945	1,553,669	0.5019%
GMO Global Balanced Fund	18,005	17,796,538	0.5409%	20,085	22,895,945	0.5409%	20,841	22,329,721	0.5409%
Grosvenor (Hedge Fund)	76,533	32,936,399	1.1509%	82,312	34,037,012	1.1509%	87,884	35,491,770	1.1509%
Lazard Emerging Markets Debt	56,287	30,181,655	0.8509%	61,512	30,704,463	0.8509%	62,176	30,425,946	0.8509%
Loomis Sayles (Absolute Return Fixed Income)	58,352	47,330,019	0.4939%	58,352	47,774,708	0.4899%	60,784	48,231,049	0.5049%
Neuberger Berman (Global Fixed Income)	26,171	40,670,000	0.3009%	28,271	41,265,000	0.3009%	29,059	41,195,000	0.3009%
Invesco (Emerging Markets Equity)	79,263	37,300,061	0.8509%	80,879	38,724,956	0.8509%	77,456	35,038,270	0.8509%
PIMCO All Asset Fund	27,999	17,755,168	0.8659%	31,444	23,462,944	0.8659%	32,239	23,323,954	0.8659%
UBS Trumbull (Real Estate Funds)	100,550	47,471,834	0.8479%	101,786	48,763,949	0.8359%	107,006	50,105,532	0.8549%
Whitebox (Hedge Fund)	75,778	21,237,623	1.5009%	79,912	21,861,719	1.5009%	81,618	22,446,530	1.4489%
TOTAL MANAGER FEES BILLED INDIRECTLY	\$554,074	\$342,709,834	0.7609%	\$585,815	\$362,169,757	0.7479%	\$602,436	\$359,978,792	0.7609%
TOTAL ALL FEES	\$1,197,683	\$677,707,546	0.6419%	\$1,239,731	\$756,195,004	0.6059%	\$1,238,848	\$732,131,579	0.6219%

TOTAL YEAR-TO-DATE MANAGER FEES BILLED DIRECTLY \$1,933,937

TOTAL YEAR-TO-DATE MANAGER FEES BILLED INDIRECTLY

\$1,742,325

TOTAL YEAR-TO-DATE MANAGER FEES

\$3,676,262

**PUBLIC SCHOOL RETIREMENT SYSTEM
OF THE CITY OF ST. LOUIS**

2022 TECHNOLOGY BUDGET

TYPE	DESCRIPTION	HARDWARE	SOFTWARE	SERVICES	TOTAL
Hardware	Replace and Upgrade Firewall	\$ 4,000			
	Replace 2 Desktop LaserJet & Computer Monitors	4,000			
	Replace POE Switch	700			
	Trustee IPADS or Chrome Books	4,400			
	Recycle obsolete monitors, hard drives, printers, etc.	2,000			
	Miscellaneous Hardware	2,000			
	Total Hardware (see page 4 - equipment maintenance & purchases)	\$ 17,100			\$ 17,100
Software	Adobe PDF Professional Software Licenses		\$ 450		
	Lenel Building Security System		1,000		
	Godaddy SSL Certificate		300		
	Zoom License		1,100		
	LastPass		350		
	1099 Software License		2,000		
	Microsoft Office365 (Office 2016)		300		
	Software for Server		400		
	Quik Books Licenses		500		
	Miscellaneous Software		1,000		
	Total Software (see page 3 - technology services)		\$ 7,400		\$ 7,400
Services	Monthly DeathScan Verification Service			12,000	
	Blade Technology Complete with Project			18,000	
	Blade Technology Data Backup			8,000	
	Blade Technology Security Audit/Enhancement & Disaster Recovery			7,000	
	Security Testing			6,000	
	Blade Technology On-Site Maintenance (estimated 24 hours)			4,000	
	Document Imaging Service & Licensing			7,200	
	ActivTrak			400	
	Systems Consultant			30,000	
	Jupiter Consulting Services			25,000	
	Website Hosting & DNS Made Easy			400	
	Website Modifications/Miscellaneous Services			1,500	
	Efax.com Internet Service			150	
	Total Services (see page 3 - technology services)			\$ 119,650	\$ 119,650
TOTAL		\$ 17,100	\$ 7,400	\$ 119,650	\$ 144,150

PUBLIC SCHOOL RETIREMENT SYSTEM
OF THE CITY OF ST. LOUIS
OPERATING BUDGET--CALENDAR YEAR 2022
APPENDIX B

DESCRIPTION	2018	2019	2020	2021			2022			
	ACTUAL EXPENSES	ACTUAL EXPENSES	ACTUAL EXPENSES	BUDGETED	PROJECTED	BUDGET VARIANCE	NOTES (If Variance +/- 10%)	BUDGET	INCREASE (DECREASE)	NOTES
SALARIES	\$524,826	\$453,634	\$495,394	\$ 483,654	\$483,654	\$0	0.0%	\$ 508,527	\$24,873	5.1%
BENEFITS	210,456	196,009	191,406	191,082	191,082	0	0.0%	206,964	\$15,878	8.3%
INVESTMENT MANAGEMENT FEES	2,736,400	2,520,649	2,232,590	2,641,042	2,546,073	(94,969)	-3.6%	2,935,850	\$294,808	11.2%
TRUST & CUSTODY BANK SERVICES	118,506	124,105	92,737	141,396	125,000	(16,396)	-11.6%	140,590	(\$806)	-0.6%
INVESTMENT CONSULTING	186,683	178,420	132,718	189,715	188,722	(993)	-0.5%	190,000	\$285	0.2%
ACTUARIAL SERVICES	139,075	134,575	113,300	136,000	144,000	8,000	5.9%	127,000	(\$9,000)	-6.6%
LEGAL SERVICES	128,598	136,381	125,741	160,000	110,000	(50,000)	-31.3%	210,000	\$50,000	31.3%
AUDITING SERVICES	66,317	69,975	56,100	84,000	84,660	660	0.8%	111,000	\$27,000	32.1%
TRUSTEE ELECTIONS	23,404	35,725	34,910	32,917	30,000	(2,917)	-8.9%	16,774	(\$16,143)	-49.0%
TECHNOLOGY SERVICES	112,831	95,678	99,600	124,265	100,000	(24,265)	-19.5%	127,050	\$2,785	2.2%
DISABILITY MEDICAL EVALUATIONS	700	500	500	2,000	500	(1,500)	-75.0%	1,200	(\$800)	-40.0%
PROPERTY MANAGEMENT	108,482	105,336	116,728	124,614	110,000	(14,614)	-11.7%	121,450	(\$3,164)	-2.5%
POSTAGE & DELIVERY	41,935	43,255	44,945	52,299	45,000	(7,299)	-14.0%	43,890	(\$8,409)	-16.1%
PRINTING & OFFICE SUPPLIES	48,766	52,624	43,799	51,853	40,000	(11,853)	-22.9%	50,300	(\$1,553)	-3.1%
EQUIPMENT MAINTENANCE & PURCHASES	12,339	24,880	15,286	33,950	30,000	(3,950)	-11.6%	28,150	(\$5,800)	-17.1%
BUSINESS INSURANCE	93,517	100,355	98,749	115,300	121,015	5,715	5.1%	121,494	\$6,194	5.4%
TRUSTEE EDUCATIONAL EXPENSES	21,646	28,090	0	30,000	8,000	(22,000)	-73.3%	30,000	No Change	0.0%
RETIREE INSURANCE & CONSULTING	2,421,780	2,289,292	2,169,834	2,477,230	2,200,000	(277,230)	-11.2%	2,442,090	(\$35,140)	-1.4%
MISCELLANEOUS EXPENSES	29,906	42,895	21,862	40,000	25,000	(15,000)	-37.5%	47,500	\$7,500	18.8%
SPECIAL PROJECTS	3,444	0	42,500	21,000	17,950	(3,050)	-14.5%	21,000	No Change	0.0%
SECURITIES LENDING REVENUE	(99,874)	(93,339)	(68,711)	(130,000)	(20,000)	110,000	-84.6%	(75,000)	\$55,000	-42.3%
COMMISSION RECAPTURE REVENUE	(8,935)	(9,877)	(18,347)	(15,000)	(10,000)	5,000	-33.3%	(15,000)	No Change	0.0%
VA LEASE REVENUE	(157,219)	(161,263)	(164,877)	(165,182)	(166,057)	(875)	-0.5%	(173,595)	(\$8,413)	5.1%
TOTAL	6,763,583	6,367,899	5,876,824	6,822,135	\$6,404,599	(\$417,536)	-6.1%	\$7,217,230	\$395,095	5.8%
2022 Budget Increase (Decrease) relative to amount budgeted in calendar year 2021.										
See Attached Budget Notes and Schedule C for details.										

2022 Budget Increase (Decrease) relative to amount budgeted in calendar year 2021.
See Attached Budget Notes and Supporting Budget Detail.