



## October Financial Reporting & Expenses

Succeeding this cover page are the STRS Ohio financial reports & expenses for the period ending Oct. 31, 2018. The unaudited reports that follow are:

- *Statement of Changes in Net Position* — This statement reflects fiscal year-to-date additions and deductions to the plans' net position. Items such as contributions, investment income and benefit payments are included in this financial report.
- *Actual Expenses vs. Budget* — This report reflects current month operating expenses and fiscal year-to-date expenses compared to fiscal year-to-date pro-rata budgeted amounts approved by the Board. In addition to operating expenses, a similar comparison is made of capital and State of Ohio expenses.
- *Expense Notes* — This report provides helpful explanations around larger or infrequent expenses.
- *Detailed Operating Expenses* — This report provides the specific companies or individuals paid by STRS Ohio for operating expenses during the month.

STRS Ohio's funds are held in trust for the sole benefit of the retirement system's members and their beneficiaries. Benefits paid by STRS Ohio are funded by contributions from Ohio's public educators and their employers and the investment returns generated by the assets in which those contributions are invested. STRS receives no general revenue funds — in other words, none of the State of Ohio's budget is expended to support STRS Ohio's benefits or operations.

STRS Ohio' operating expenses are paid solely out of investment returns — no member contributions or tax dollars are expended. STRS Ohio's operating budget is approved by the retirement system's board of trustees, who under Ohio law act as fiduciaries to the retirement system's members. Additionally, prior to approval by the STRS Ohio Board, the operating budget is, by law, reviewed by the Ohio Retirement Study Council, which is comprised of members of the Ohio House and Senate, three members appointed by the Governor, as well as the executive directors of Ohio's five public retirement systems.

Questions about the reports attached can be sent to [ContactUs@strsoh.org](mailto:ContactUs@strsoh.org).

**State Teachers Retirement System of Ohio**  
 Statement of Changes in Net Position  
 For the Period July 1, 2018 through October 31, 2018

	Defined Benefit Plans	Defined Contribution	Postemployment Healthcare	Totals
<b>Additions:</b>				
<b>Contributions:</b>				
Member	509,443,987	33,170,173		\$542,614,160
Employer	536,759,449	14,215,789		\$550,975,238
Transfers from Defined Contribution Plan	6,070,841	(6,070,841)		
Government reimbursements			17,680,811	17,680,811
Benefit recipient healthcare premiums			106,554,195	106,554,195
Other retirement systems	11,463,365			11,463,365
Total contributions	<u>1,063,737,642</u>	<u>41,315,121</u>	<u>124,235,006</u>	<u>1,229,287,769</u>
<b>Net investment income (loss)</b>	<b><u>(829,915,622)</u></b>	<b><u>(42,084,378)</u></b>	<b><u>(38,000,000)</u></b>	<b><u>(910,000,000)</u></b>
<b>Total additions</b>	<b>\$233,822,020</b>	<b>(\$769,257)</b>	<b>\$86,235,006</b>	<b>\$319,287,769</b>
<b>Deductions:</b>				
Service retirement	2,245,671,808			2,245,671,808
Disability retirement	67,602,037			67,602,037
Survivor benefits	41,875,733			41,875,733
Health care			174,305,145	174,305,145
Other	9,911,263			9,911,263
Total benefit payments	<u>2,365,060,841</u>		<u>174,305,145</u>	<u>2,539,365,986</u>
Refunds to members who have withdrawn	85,305,878	20,854,721		106,160,599
Administrative expenses	40,277,562		833,445	41,111,007
<b>Total deductions</b>	<b><u>\$2,490,644,281</u></b>	<b><u>\$20,854,721</u></b>	<b><u>\$175,138,590</u></b>	<b><u>\$2,686,637,592</u></b>
<b>Net increase (decrease)</b>	<b><u>(\$2,256,822,261)</u></b>	<b><u>(\$21,623,978)</u></b>	<b><u>(\$88,903,584)</u></b>	<b><u>(\$2,367,349,823)</u></b>
<b>Net position held in trust for pension and postemployment healthcare benefits</b>				
<b>Beginning of year</b>	<b><u>73,457,567,076</u></b>	<b><u>1,458,734,754</u></b>	<b><u>3,721,348,874</u></b>	<b><u>78,637,650,704</u></b>
<b>End of period</b>	<b><u>\$71,200,744,815</u></b>	<b><u>\$1,437,110,776</u></b>	<b><u>\$3,632,445,290</u></b>	<b><u>\$76,270,300,881</u></b>

**STATE TEACHERS RETIREMENT SYSTEM**  
 Actual Expenses vs. Budget  
 For the Month and Fiscal Year-to-Date Ended October 31, 2018

	October	September	Year-to-Date	Expected Budget-to-Date	Annual Budget	Prior Year-to-Date
Salaries and Wages	\$ 12,832,637	\$ 4,071,768	\$ 26,773,063	\$ 26,989,573	\$ 61,836,300	\$ 26,581,062
Fringe Benefits	2,203,344	1,294,847	6,290,204	6,435,414	17,400,200	6,255,709
Professional and Technical Services	1,769,797	357,308	3,817,913	4,049,951	11,093,100	3,616,106
Repairs and Maintenance	250,564	723,251	1,865,973	1,804,343	5,669,800	1,987,264
Travel and Vehicles	67,075	51,404	163,334	163,578	715,000	145,773
Communications	324,270	205,025	725,442	640,578	1,954,200	613,899
Utilities	135,763	42,818	329,659	290,233	1,018,000	294,532
Supplies and Materials	112,853	123,119	354,259	270,165	907,000	262,329
Other Expenses	487,390	29,451	645,093	729,222	1,153,000	637,602
<b>Total Operating Expenses</b>	<b>\$ 18,183,693</b>	<b>\$ 6,898,991</b>	<b>\$ 40,964,940</b>	<b>\$ 41,373,056</b>	<b>\$ 101,746,600</b>	<b>\$ 40,394,276</b>
Capital Budget	\$ 12,127	\$ 1,593	\$ 153,883	\$ 153,883	\$ 4,195,800	\$ 234,993
State of Ohio Expenses	\$ 80,445	\$ 176	\$ 146,067	\$ 146,067	\$ 363,500	\$ 124,370

Staffing Information:	October	September	August
Budgeted FTE Associates	538	538	538
Full Time Equivalent Associates	524	521	525
Open FTE Positions	12	16	15

\_\_\_\_ Mr. Price \_\_\_\_ moved, seconded by \_\_\_\_ Ms. Correthers \_\_\_\_, that the report be accepted and the expenditures for the month ending October 31, 2018 in the total amount of \$18,276,265 be approved.

**STATE TEACHERS RETIREMENT SYSTEM**

Actual Expenses vs. Budget

For the Month and Fiscal Year-to-Date Ended October 31, 2018

	October	September	Year-to-Date	Expected Budget-to-Date	Annual Budget	Prior Year-to-Date
<b>SALARIES AND WAGES</b>						
Salaries and Wages	\$ 3,914,876	\$ 3,915,786	\$ 17,669,652	\$ 17,577,242	\$ 50,778,700	\$ 17,243,710
Other Compensation	1,406	4,052	8,561	7,790	27,100	5,981
Incentive Compensation	8,886,078	0	8,886,078	9,200,000	9,200,000	9,222,061
Unused Vacation and Sick Leave	21,186	135,549	161,790	161,790	1,690,000	54,229
Overtime	7,116	8,006	32,657	28,426	92,500	32,406
Service Awards	1,975	8,375	14,325	14,325	48,000	22,675
<b>Total Salaries and Wages</b>	<b>\$ 12,832,637</b>	<b>\$ 4,071,768</b>	<b>\$ 26,773,063</b>	<b>\$ 26,989,573</b>	<b>\$ 61,836,300</b>	<b>\$ 26,581,062</b>
<b>FRINGE BENEFITS</b>						
OPERS Employer Cost	\$ 1,308,170	\$ 557,049	\$ 3,260,420	\$ 3,327,669	\$ 8,100,600	\$ 3,288,292
Medical/Hospitalization Insurance	603,495	589,690	2,329,646	2,400,000	7,200,000	2,183,915
Medicare	185,232	56,847	381,902	314,827	909,500	380,386
Dental Insurance	49,745	49,230	198,621	205,614	615,100	201,109
Educational Assistance	2,964	6,242	43,547	34,689	120,000	31,716
Workers' Compensation	27,169	7,854	(30,531)	50,192	145,000	59,094
Life Insurance	19,836	19,748	79,374	64,754	208,000	68,064
Disability Insurance	7,896	10,132	34,055	26,058	84,000	27,589
Wellness	(2,109)	(2,890)	(8,900)	0	0	2,288
Unemployment Compensation	946	945	2,070	11,611	18,000	13,256
<b>Total Fringe Benefits</b>	<b>\$ 2,203,344</b>	<b>\$ 1,294,847</b>	<b>\$ 6,290,204</b>	<b>\$ 6,435,414</b>	<b>\$ 17,400,200</b>	<b>\$ 6,255,709</b>
<b>PROFESSIONAL AND TECHNICAL SERVICES</b>						
Actuary	\$ 26,005	\$ 6,811	\$ 73,970	\$ 5,317	\$ 265,000	\$ 4,400
Audit	58,200	0	58,200	62,494	205,600	96,889
Banking Expense	(2,882)	8,766	15,878	41,450	130,000	42,352
Board Election Processing	0	0	0	0	65,000	0
Contract Services	21,415	12,409	37,824	1,333	377,900	1,000
Custodial Banking Fees	497,279	21,986	544,245	625,000	2,400,000	665,376
Data Management and Analytics	33,375	0	48,375	61,250	245,000	0
Disaster Recovery	705	1,228	2,947	3,383	14,500	3,165
Employment Verification	1,034	699	2,462	995	4,000	1,161
Health Care Consultant	6,250	0	6,250	57,000	228,000	0
Insurance Consultant	16,000	0	32,000	32,005	95,500	31,000
Investigative Services	665	887	1,952	2,123	19,300	1,708
Investment Consultant	134,820	20,834	176,487	177,499	710,000	173,305
Investment Research Services	347,708	276,873	1,645,521	1,567,903	2,600,000	1,469,011
Legal Fees	5,864	(74,428)	(67,100)	22,016	360,000	20,244
Medical Examinations	32,985	20,240	89,979	129,695	433,000	114,626
Other Consulting Services	62,748	52,370	143,902	107,030	623,300	101,105
Quotation and Analytic Services	492,279	3,294	954,603	1,111,500	2,223,000	847,914
Real Estate Contract Services	27,794	0	27,794	27,500	55,000	11,981
Recruitment Fees	959	539	6,075	7,789	19,000	16,404
Temporary Employment Services	6,594	4,800	16,549	6,667	20,000	14,465
<b>Total Professional/Technical Services</b>	<b>\$ 1,769,797</b>	<b>\$ 357,308</b>	<b>\$ 3,817,913</b>	<b>\$ 4,049,951</b>	<b>\$ 11,093,100</b>	<b>\$ 3,616,106</b>

October Expenses vs. Budget  
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	October	September	Year-to-Date	Expected Budget-to-Date	Annual Budget	Prior Year-to-Date
<b>REPAIRS AND MAINTENANCE</b>						
Building Maintenance and Equipment	\$ 98,727	\$ 44,623	\$ 245,960	\$ 224,241	\$ 722,000	\$ 213,455
Copiers	16,086	4,035	34,530	35,510	110,000	35,346
Data Processing Equipment	93,887	654,636	1,411,683	1,424,267	4,272,800	1,615,463
Elevators	982	240	1,222	(13,133)	93,000	(8,981)
Mail Center Equipment	840	258	6,391	7,376	21,500	5,331
Property Tax and Leases	9,156	9,057	36,325	32,183	240,000	36,225
Safety and Security Equipment	28,772	8,512	122,496	88,922	188,500	84,461
Trash Removal	2,114	1,890	7,366	4,979	22,000	5,964
<b>Total Repairs and Maintenance</b>	<b>\$ 250,564</b>	<b>\$ 723,251</b>	<b>\$ 1,865,973</b>	<b>\$ 1,804,343</b>	<b>\$ 5,669,800</b>	<b>\$ 1,987,264</b>
<b>TRAVEL AND VEHICLES</b>						
Gasoline	\$ 1,072	\$ 936	\$ 2,556	\$ 2,092	\$ 7,600	\$ 2,106
Staff and Board Travel	64,886	50,384	157,781	158,983	694,400	142,296
Vehicle Maintenance	1,117	84	2,997	2,504	13,000	1,371
<b>Total Travel and Vehicles</b>	<b>\$ 67,075</b>	<b>\$ 51,404</b>	<b>\$ 163,334</b>	<b>\$ 163,578</b>	<b>\$ 715,000</b>	<b>\$ 145,773</b>
<b>COMMUNICATIONS</b>						
Courier Services	\$ 2,038	\$ 1,205	\$ 6,265	\$ 7,699	\$ 27,200	\$ 6,403
Outsourced Distribution	21,061	3,292	28,054	31,550	108,000	25,169
Photography / Media	0	0	0	0	5,000	0
Postage	225,680	175,091	504,119	446,637	1,160,000	434,327
Printing	50,348	0	88,766	77,324	373,000	65,972
Telecommunications	25,143	25,437	98,238	77,368	281,000	82,028
<b>Total Communications</b>	<b>\$ 324,270</b>	<b>\$ 205,025</b>	<b>\$ 725,442</b>	<b>\$ 640,578</b>	<b>\$ 1,954,200</b>	<b>\$ 613,899</b>
<b>UTILITIES</b>						
Electricity	\$ 128,187	\$ 35,188	\$ 290,744	\$ 252,010	\$ 800,000	\$ 257,985
Natural Gas	7,576	6,759	29,338	11,763	120,000	14,665
Oil	0	0	0	0	18,000	0
Water	0	871	9,577	26,459	80,000	21,882
<b>Total Utilities</b>	<b>\$ 135,763</b>	<b>\$ 42,818</b>	<b>\$ 329,659</b>	<b>\$ 290,233</b>	<b>\$ 1,018,000</b>	<b>\$ 294,532</b>
<b>SUPPLIES AND MATERIALS</b>						
Equipment Supplies	\$ 89,082	\$ 77,244	\$ 262,232	\$ 204,910	\$ 596,800	\$ 201,223
Food Service Supplies	4,627	8,967	12,183	13,038	49,000	16,445
Office Supplies	6,910	5,285	21,200	14,537	52,000	13,459
Personal Computer Software	3,411	16,946	23,576	2,329	68,300	2,575
Publications/Subscriptions	5,776	12,185	24,470	22,501	100,900	16,086
Uniforms	3,047	2,492	10,598	12,849	40,000	12,541
<b>Total Supplies and Materials</b>	<b>\$ 112,853</b>	<b>\$ 123,119</b>	<b>\$ 354,259</b>	<b>\$ 270,165</b>	<b>\$ 907,000</b>	<b>\$ 262,329</b>

October Expenses vs. Budget  
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	October	September	Year-to-Date	Expected Budget-to-Date	Annual Budget	Prior Year-to-Date
<b>OTHER EXPENSES</b>						
Board Employer Reimbursement	\$ 0	\$ 0	\$ 0	\$ 0	\$ 3,000	\$ 0
Conferences and Seminars	3,362	3,479	14,128	32,511	101,200	27,054
Dues and Licenses	7,382	1,685	12,131	48,489	161,100	46,584
Equipment Rental	0	0	0	0	0	0
Insurance	440,975	3,881	544,035	575,000	575,000	501,814
Member/Employer Education Programs	16,849	10,724	36,159	34,316	138,200	26,944
Miscellaneous Expense	942	1,234	3,246	4,244	22,800	3,589
Other Board Expense	237	293	823	847	3,800	797
Other Staff Expense	721	1,891	1,447	3,382	19,900	2,510
Training	16,922	6,264	33,124	30,432	128,000	28,310
<b>Total Other Expenses</b>	<b>\$ 487,390</b>	<b>\$ 29,451</b>	<b>\$ 645,093</b>	<b>\$ 729,222</b>	<b>\$ 1,153,000</b>	<b>\$ 637,602</b>
<b>Total Operating Expenses</b>	<b>\$ 18,183,693</b>	<b>\$ 6,898,991</b>	<b>\$ 40,964,940</b>	<b>\$ 41,373,056</b>	<b>\$ 101,746,600</b>	<b>\$ 40,394,276</b>

	October	September	Year-to-Date	Expected Budget-to-Date	Annual Budget	Prior Year-to-Date
Building Improvements	\$ 12,127	\$ 1,593	\$ 153,883	\$ 153,883	\$ 2,300,000	\$ 35,920
Furniture & Fixtures	0	0	0	0	0	0
Audio Visual	0	0	0	0	0	0
Information Processing	0	0	0	0	856,400	24,999
Maintenance	0	0	0	0	194,400	0
Miscellaneous	0	0	0	0	0	0
Office	0	0	0	0	20,000	0
Telecommunications	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0
Computer Software	0	0	0	0	825,000	174,074
<b>Total Capital Budget</b>	<b>\$ 12,127</b>	<b>\$ 1,593</b>	<b>\$ 153,883</b>	<b>\$ 153,883</b>	<b>\$ 4,195,800</b>	<b>\$ 234,993</b>
<b>Total State of Ohio Expenses</b>	<b>\$ 80,445</b>	<b>\$ 176</b>	<b>\$ 146,067</b>	<b>\$ 146,067</b>	<b>\$ 363,500</b>	<b>\$ 124,370</b>

## October 2018 Expense Notes

### General Comments

Actual fiscal year-to-date operating expenses total \$41.0 million, which is approximately \$400,000 under the expected budget.

### Salaries and Fringe Benefits

Incentive Compensation is lower than the budgeted amount by approximately \$300,000. Related fringe benefits are higher in October due to Incentive Compensation.

### Professional and Technical Services

Two months of pension and health care valuation fees are included in Actuary. Audit includes fees for the annual financial statement audit. Banking Expense reflects an earnings credit in excess of banking fees in October. ITS security monitoring is included in Contract Services. One quarter of global custody, collateral and performance charges are included in Custodial Banking Fees. Retiree health care information services are included in Data Management and Analytics. Quarterly retainer fees are included in Health Care Consultant and Insurance Consultant. Quarterly investment board consultant services and monthly alternative investment consultant fees are included in Investment Consultant. Investment Research Services includes biennial real estate market data services, quarterly trade management system fees, annual fees for credit ratings and quarterly and semi-annual fees for fundamental research services. Other Consulting Services includes external quantitative programming costs and the annual CEM investment benchmarking study. Quotation and Analytic Services include quarterly Bloomberg charges. Retainer fees for two REIC members are included in Real Estate Contract Services.

### Repairs and Maintenance

UPS equipment, building automation system and generator maintenance are included in Building Maintenance and Equipment. Copier maintenance and two new copiers are included in Copiers. Annual renewal of quantitative portfolio management software, virus scanning and investment traders' telecom software are included in Data Processing Equipment. Annual fire alarm system maintenance and inspection and access card system upgrades are included in Safety and Security Equipment.

### Communications

Annual member statements are included in Outsourced Distribution. Postage and Printing includes the retiree newsletter and health care and dental and vision plan open enrollment information.

### Utilities

Electricity includes two months of charges and Gas is monthly usage.

### Supplies and Materials

Replacement desktop computers, monitors, printers and phones, benefit deposit advices and federal 1099-R tax forms are included in Equipment Supplies. Publications/Subscriptions includes compensation salary surveys and tax reference guides.

### Other Expenses

Dues and Licenses include annual membership fees to the National Association of Public Pension Attorneys and National Conference on PERS. Annual premiums for fiduciary risk and cyber

liability are included in Insurance. Meeting room charges are included in Member Education Programs. Online technology courses are included in Training.

**Capital Budget**

Capital items for October include freight elevator upgrades.

**State of Ohio Expenses**

Quarterly fees were paid to ORSC and for Ohio Attorney General representation.



## STATE TEACHERS RETIREMENT SYSTEM

Detailed Operating Expenses  
For the Month Ended October 31, 2018

<u>ACCOUNT</u>	<u>VENDOR</u>	<u>AMOUNT</u>
<b>Salaries and Wages</b>		
Salaries & Wages	STRS OHIO	12,825,521
	<b>Total</b>	<b>12,825,521</b>
Overtime	STRS OHIO	7,116
	<b>Total</b>	<b>7,116</b>
	<b>Total Salaries and Wages</b>	<b>12,832,637</b>
<b>Fringe Benefits</b>		
OPERS Employer Cost	STRS OHIO	1,308,170
	<b>Total</b>	<b>1,308,170</b>
Medical/Hospitalization Insurance	ANDREA L GARNER	200
	ANDREW VICEN	200
	BRENDA L TRITTSCHUH	400
	CAROL N CLARK	200
	CATHY C TONG	400
	DAN J ROBERTS	400
	DEVON W MAESTRI	400
	ERIN RITTER	200
	GRANT EDWARDS	200
	JAMES H RITTER	400
	JAY W ALSPAUGH	400
	JEFFREY L LIESER	400
	JENNIFER L PEERY	400
	JOHN D MORROW	400
	JULIA A VISKANTA	400
	KASEY HORAN	200
	KATHY BOETTCHER	200
	KATHY K HOFFMANNBECK	200
	KEIRRA KARSHNER	400
	KEN C CHEE	400
	KEVIN D DEVRIES	400
	LEO M WILHELM	400
	LINDA M HORNE	400
	MARIN SOEUNG	400
	MARK MAXWELL	400
	MEDICAL CLAIMS	600,000
	MEI ZHANG	400
	MICHAEL C BOBER	400
	MISC. RECEIPTS	(1,656)
	NATHAN DRAKE	200
	NEAL J HUSTON	400
	PAUL M SNYDER	200
	RICHARD A HARMAN	400
	RICHARD E FISCHBACH	400
	RONALD J MCKILLIP	200
	RYAN W COLLINS	400
	STACEY WIDEMAN	200
	STRS OHIO	(86,362)
	SUSAN D YOUNG	200
	TAMLA D COLE	200
	TERENCE M HERBST	400
	THOMAS S COUNTS	400
	UNITED HEALTHCARE INSURANCE CO	77,313
	VENKATA D KANTAMNENI	400
	WILLIAM A SHURMAN	400
	YI ZHANG	200
	YING SHI	400
	<b>Total</b>	<b>603,495</b>
Medicare	STRS OHIO	185,232
	<b>Total</b>	<b>185,232</b>

## STATE TEACHERS RETIREMENT SYSTEM

Detailed Operating Expenses  
For the Month Ended October 31, 2018

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<u>ACCOUNT</u>	<u>VENDOR</u>	<u>AMOUNT</u>
Dental Insurance	DELTA DENTAL	49,902
	MISC. RECEIPTS	(157)
	<b>Total</b>	<b>49,745</b>
Educational Assistance	FRANKLIN UNIVERSITY	2,104
	SOUTHERN NEW HAMPSHIRE UNIVERSITY	960
	STRS OHIO	(100)
	<b>Total</b>	<b>2,964</b>
Workers' Compensation	STRS OHIO	27,169
	<b>Total</b>	<b>27,169</b>
Life Insurance	LINCOLN NATIONAL LIFE INSURANCE COMPANY	19,836
	<b>Total</b>	<b>19,836</b>
Disability Insurance	LINCOLN NATIONAL LIFE INSURANCE COMPANY	7,896
	<b>Total</b>	<b>7,896</b>
Wellness	MARCY FREED YOGA	480
	MISC. RECEIPTS	(391)
	OHIOHEALTH/WORK HEALTH	160
	PEOPLE	132
	STRS OHIO	(2,490)
	<b>Total</b>	<b>(2,109)</b>
Unemployment Compensation	OHIO DEPT OF JOB AND FAMILY SERVICES	946
	<b>Total</b>	<b>946</b>
	<b>Total Fringe Benefits</b>	<b>2,203,344</b>
<b>Professional and Technical Services</b>		
Actuary	CHEIRON INC	26,005
	<b>Total</b>	<b>26,005</b>
Audit	CLIFTONLARSONALLEN LLP	58,200
	<b>Total</b>	<b>58,200</b>
Banking Expense	FIFTH THIRD BANK	(2,882)
	<b>Total</b>	<b>(2,882)</b>
Contract Services	SECUREWORKS INC	17,213
	TRICENTIS USA CORP	4,202
	<b>Total</b>	<b>21,415</b>
Custodial Banking Fees	FIFTH THIRD BANK	(7,047)
	NORTHERN TRUST	504,326
	<b>Total</b>	<b>497,279</b>
Data Management and Analytics	OPTUMHEALTH	33,375
	<b>Total</b>	<b>33,375</b>
Disaster Recovery	FIFTH THIRD BANK-CORP CARD	51
	FIREPROOF RECORDS CENTER	654
	<b>Total</b>	<b>705</b>
Employment Verification	OHIOHEALTH/WORK HEALTH	327
	SCREENPOINTE INC	707
	<b>Total</b>	<b>1,034</b>
Health Care Consultants	OPTUMHEALTH	6,250
	<b>Total</b>	<b>6,250</b>
Insurance Consultant	ALPHA RISK MANAGEMENT INC	16,000
	<b>Total</b>	<b>16,000</b>

**STATE TEACHERS RETIREMENT SYSTEM**

Detailed Operating Expenses  
For the Month Ended October 31, 2018

<u>ACCOUNT</u>	<u>VENDOR</u>	<u>AMOUNT</u>
Investigative Services	LEXISNEXIS RISK SOLUTIONS	665
	<b>Total</b>	<b>665</b>
Investment Consultant	CALLAN LLC	113,987
	CLIFFWATER LLC	20,833
	<b>Total</b>	<b>134,820</b>
Investment Research Services	BCA RESEARCH	68,000
	DTCC ITP LLC	400
	INSTITUTIONAL INVESTOR	14,500
	ITG PLATFORMS INC	32,756
	MOODY'S ANALYTICS INC	52,200
	REIS SERIVCES LLC	72,865
	THOMSON REUTERS(MARKETS) LLC	98,159
	TRADEWEB LLC	1,500
	WILSHIRE ASSOCIATES INC	7,328
<b>Total</b>	<b>347,708</b>	
Legal Fees	CALFEE HALTER AND GRISWOLD LLP	5,647
	JONES DAY	109
	NEWHOUSE PROPHATER KOLMAN & HOGAN LLC	70
	PRYOR CASHMAN LLP	38
	<b>Total</b>	<b>5,864</b>
Medical Examinations	ALBERT J KOLIBASH JR MD	360
	CLAIRE V WOLFE MD	720
	DISABILITY & IMPAIRMENT EVALUATIONS, INC	5,800
	DONALD C MANN MD INC	750
	EDWIN H SEASON MD INC	180
	INDEPENDENT EVALUATORS INC	500
	JAMES N ALLEN, MD	540
	JAMES R. HAWKINS, M.D.	3,000
	JEFFERY C HUTZLER MD	180
	KNIGHTSBRIDGE INT MEDICINE & CARDIOLOGY	540
	MARC COOPERMAN MD	360
	MARJORIE C GALLAGHER MD	725
	MARTIN J GOTTESMAN MD	7,295
	MEDICAL ASSESSMENTS LLC	400
	MEDICAL EVALUATORS LLC	2,200
	NORTHWEST EYE SURGEONS INC	250
	OHIO ENT	205
	OHIO GASTROENTEROLOGY GROUP INC	430
	ORTHOPEDIC ONE	950
	PHYSICAL MEDICINE, SPORTS & INDL LLC	500
	QUALITY EVALUATION INC	1,650
	STEIMAN NEUROLOGY GROUP INC	4,350
	STEPHEN D HEIS MD & ASSOCIATES	475
SUMMIT REHAB MEDICINE INC	425	
THE OHIO STATE UNIVERSITY HOSPITALS	200	
<b>Total</b>	<b>32,985</b>	
Other Consulting Services	CALFEE HALTER AND GRISWOLD LLP	12,000
	CEM BENCHMARKING INC	30,000
	FIFTH THIRD BANK	7,270
	FUSION TECHNOLOGIES-EAST LLC	13,478
	<b>Total</b>	<b>62,748</b>
Quotation and Analytic Service	BLOOMBERG FINANCE LP	488,964
	NYSE MARKET INC	2,443
	OPTIONS PRICE REPORTING AUTHORITY LLC	441
	TSX INC	431
	<b>Total</b>	<b>492,279</b>
Real Estate Contract Services	ANTHONY CIOCHETTI	12,294
	TIMOTHY HEISE	15,500
	<b>Total</b>	<b>27,794</b>

## STATE TEACHERS RETIREMENT SYSTEM

Detailed Operating Expenses  
For the Month Ended October 31, 2018

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<u>ACCOUNT</u>	<u>VENDOR</u>	<u>AMOUNT</u>	
Recruitment Fees	GENERAL DYNAMICS INFORMATION	315	
	THE OHIO STATE UNIVERSITY	149	
	YOURMEMBERSHIP.COM INC	495	
	<b>Total</b>	<b>959</b>	
Temporary Employment Services	OFFICE TEAM	1,594	
	US PROTECTION SERVICE	5,000	
	<b>Total</b>	<b>6,594</b>	
<b>Total Professional and Technical Services</b>		<b>1,769,797</b>	
<b>Repairs and Maintenance</b>			
Building Maintenance and Equipment	AMBIUS LLC 05	1,573	
	ATLAS INDUSTRIAL CONTRACTORS LTD	1,350	
	BUCK AND SONS LANDSCAPE SERVICE INC	3,369	
	FIBERCARE	4,490	
	FIFTH THIRD BANK-CORP CARD	366	
	GLOBE WINDOW CLEANING INC	19,700	
	GRAINGER INC	833	
	HOBART SERVICE	52	
	I SUPPLY COMPANY	6,154	
	JD EQUIPMENT INC.	152	
	JOHNSON CONTROLS INC	21,876	
	LOMBARDI WATER MANAGEMENT INC	725	
	MCMASTER-CARR SUPPLY COMPANY	407	
	OHIO CAT	10,906	
	PEPCO	13	
	PIPE-VALVES INC	235	
	PRAXAIR DISTRIBUTION INC	183	
	SPEER MECHANICAL	2,484	
	TERMINIX	399	
	VERTIV CORPORATION	20,966	
	WESCO DISTRIBUTION, INC.	1,519	
	WESTWATER SUPPLY CO	889	
	WORLY PLUMBING SUPPLY INC	86	
	<b>Total</b>	<b>98,727</b>	
	Copiers	ABS MONEY SYSTEMS INC	145
		BLUE TECHNOLOGIES COLUMBUS INC	4,490
		CANON FINANCIAL SERVICES INC	3,804
GORDON FLESCH CO INC		7,410	
MT BUSINESS TECHNOLOGIES INC		237	
<b>Total</b>	<b>16,086</b>		
Data Processing Equipment	ARISTOTLE INTERNATIONAL INC	2,600	
	ARROW GLOBAL ASSET DISPOSITION INC	935	
	BLOOMBERG FINANCE LP	6,625	
	CDW GOVERNMENT INC	13,401	
	ELIXIR TECHNOLOGIES CORPORATION	9,878	
	FIFTH THIRD BANK-CORP CARD	1,775	
	IOVATION INC	5,372	
	IPC SYSTEMS, INC.	10,377	
	MEMSQL INC	38,400	
	MISC. RECEIPTS	(8,500)	
	NICE SYSTEMS INC	7,564	
	TECHSMITH	1,079	
	XEROX CORPORATION	4,381	
<b>Total</b>	<b>93,887</b>		
Elevators	FIFTH THIRD BANK-CORP CARD	382	
	OTIS ELEVATOR COMPANY	600	
	<b>Total</b>	<b>982</b>	
Mail Center Equipment	PITNEY BOWES INC	840	
<b>Total</b>	<b>840</b>		

## STATE TEACHERS RETIREMENT SYSTEM

Detailed Operating Expenses  
For the Month Ended October 31, 2018

<u>ACCOUNT</u>	<u>VENDOR</u>	<u>AMOUNT</u>
Property Tax and Leases	590 MADISON AVE LLC	100
	HOLLINGSWORTH CAPITAL PARTNERS COLS LLC	9,056
	<b>Total</b>	<b>9,156</b>
Safety & Security Equipment	ABCO FIRE PROTECTION INC	6,292
	CAMTRONICS COMMUNICATION COMPANY	2,604
	ELECTRONIC SECURITY SERVICES INC	593
	FIFTH THIRD BANK-CORP CARD	144
	HARD FIRE SUPPRESION SYSTEMS	823
	JOHNSON CONTROLS FIRE PROTECTION LP	15,899
	KOORSEN FIRE AND SECURITY INC	1,375
	MITCHELL LOCK LLC	370
	NOFZIGER DOOR SALES OF COLUMBUS	362
	SIGNATURE CONTROL SYSTEMS LLC	310
	<b>Total</b>	<b>28,772</b>
Trash Removal	MISC. RECEIPTS	(257)
	REPUBLIC SERVICES #046	199
	WASTE MANAGEMENT INC	2,172
	<b>Total</b>	<b>2,114</b>
	<b>Total Repairs and Maintenance</b>	<b>250,564</b>
<b>Travel and Vehicles</b>		
Gasoline	FIFTH THIRD BANK-CORP CARD	1,072
	<b>Total</b>	<b>1,072</b>
Staff and Board Travel	AARON BLACK	429
	AARON DICENZO	25
	ALAN A RUSNAK	1,244
	ALAN E MUENCH	72
	ALAN J WARNER	62
	AMERICAN EXPRESS COMPANY	28,285
	ANDREW J MARFURT	1,095
	ANTHONY WEBB	810
	ARQAAM CAPITAL LIMITED	438
	BENJAMIN T DEUTSCHLE	599
	BRIAN R ENGSTROM	71
	BTG PACTUAL US CAPITAL	721
	CAROL L CORRETHEERS	281
	CLINT M FOCKLER	1,197
	DALE L PRICE	170
	DRURY INN & SUITES	1,190
	ERIC NEWBERG	39
	EVELIO ROSARIO III	1,179
	FINDLAY INN & CONFERENCE CENTER	215
	FOUR POINTS SHERATON	209
	FREDERICK SETON STALEY	1,815
	GARRETT WOFFORD	2,059
	GARY M RUSSELL	1,206
	GRANT EDWARDS	809
	GREGORY A TAYLOR	1,194
	HOLIDAY INN	105
	HOPE K SHORT	32
	JAMIE LI	99
	JANET PROEHL	968
	JASON A SAUER	78
	JASON J TINCHER	106
	JASON T JARVIS	191
	JOHN A BUCH	157
	JOSEPH B LUBELSKI	541
	JULIA A VISKANTA	140
	KELLEY S MCCHRISTY	31
	KEN C CHEE	1,074
	KENNETH H BLANKE	446
	KIMBERLY R MOORE	157
	LANNY D WELLY	1,080

## STATE TEACHERS RETIREMENT SYSTEM

Detailed Operating Expenses  
For the Month Ended October 31, 2018

<u>ACCOUNT</u>	<u>VENDOR</u>	<u>AMOUNT</u>
	LAWRENCE M TEDESCHI	1,614
	LEA STURGELL	198
	LOCKHEED MARTIN CORPORATION	18
	MACQUARIE SECURITIES	0
	MAINFIRST SECURITIES US INC	216
	MARCY H YEAMANS	1,044
	MARK A REED	335
	MARK A STOLL	51
	MARK D SCRANTON	661
	MARY PATRICIA GORDON	26
	MICHAEL K MANCUSO	555
	MICHAEL MILLER	394
	MICHAEL R RILEY	349
	MISC. RECEIPTS	(13)
	NIK TAN	1,341
	REBECCA BLUMENSHEID	25
	RITA J WALTERS	367
	ROBERT W STEIN	451
	STANTON WEST	1,347
	STEPHEN M REYNARD	3,005
	STEPHEN W EHLERS	73
	TAMLA D COLE	81
	TERENCE M HERBST	821
	THOMAS R O'ROURKE	1,296
	TODD WOLFORD	12
	<b>Total</b>	<b>64,886</b>
Vehicle Maintenance	BYERS CHRYSLER, LLC	670
	CENTURY EQUIPMENT INC.	405
	KLEAN-A-KAR KUSTOM	42
	<b>Total</b>	<b>1,117</b>
	<b>Total Travel and Vehicles</b>	<b>67,075</b>
<b>Communications</b>		
Courier Services	FEDEX	89
	FREIGHTQUOTE.COM	178
	RAINBOW EXPRESS INC	929
	UNITED PARCEL SERVICE	842
	<b>Total</b>	<b>2,038</b>
Outsourced Distribution	BAESMAN GROUP INC	21,061
	<b>Total</b>	<b>21,061</b>
Postage	FIFTH THIRD BANK-CORP CARD	15
	LORTON DATA INC.	514
	RESERVE ACCOUNT	225,000
	THE OLD TRAIL PRINTING CO INC	151
	<b>Total</b>	<b>225,680</b>
Printing	ADVANCE GRAPHICS	173
	BAESMAN GROUP INC	17,284
	THE OLD TRAIL PRINTING CO INC	3,639
	THE VERNON COMPANY	398
	VERITIV OPERATING COMPANY	27,162
	WEST CAMP PRESS INC	998
	WESTERN STATES ENVELOPE & LABEL	694
	<b>Total</b>	<b>50,348</b>
Telecommunications	AT&T	82
	FRONTIER	86
	T-MOBILE	37
	TIME WARNER CABLE	344
	VERIZON WIRELESS	3,646
	WEST UNIFIED COMMUNICATIONS SERVICES INC	38
	WOW BUSINESS	1,778
	XO COMMUNICATIONS	19,132

## STATE TEACHERS RETIREMENT SYSTEM

Detailed Operating Expenses  
For the Month Ended October 31, 2018

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<u>ACCOUNT</u>	<u>VENDOR</u>	<u>AMOUNT</u>
	<b>Total</b>	<b>25,143</b>
	<b>Total Communications</b>	<b>324,270</b>
<b>Utilities</b>		
Electricity	AMERICAN ELECTRIC POWER	32,374
	CITY OF WESTERVILLE	3,212
	CONSTELLATION NEW ENERGY INC	92,601
	<b>Total</b>	<b>128,187</b>
Natural Gas	COLUMBIA GAS OF OHIO	2,252
	CONSTELLATION ENERGY SVCS - NATURAL GAS	5,324
	<b>Total</b>	<b>7,576</b>
	<b>Total Utilities</b>	<b>135,763</b>
<b>Supplies and Materials</b>		
Equipment Supplies	ACTION SUPPLY PRODUCTS INC	253
	CDW GOVERNMENT INC	1,872
	CINTAS CORPORATION	186
	FASTSIGNS	70
	FIFTH THIRD BANK-CORP CARD	920
	GORDON FOOD SERVICE	2,665
	IT SAVVY	19,653
	KINZUA ENVIRONMENTAL INC	397
	KROGER-COLUMBUS CUSTOMER CHARGES	20
	MAINLINE COMPUTER PRODUCTS	2,279
	METROLINEDIRECT.COM	2,702
	MISC. RECEIPTS	(600)
	MNJ TECHNOLOGIES DIRECT INC	32,578
	MOORE MEDICAL LLC	64
	PM PROFESSIONAL SERVICES	404
	RR DONNELLEY AND SONS COMPANY	21,439
	SPIRAL BINDING COMPANY INC	142
	STATE INDUSTRIAL PRODUCTS	842
	THE MILLCRAFT PAPER COMPANY	929
	VERITIV OPERATING COMPANY	2,267
	<b>Total</b>	<b>89,082</b>
Food Service Supplies	AVI FOOD SYSTEMS INC	1,754
	COCA-COLA BOTTLING CO CONSOLIDATED	1,363
	FIFTH THIRD BANK-CORP CARD	67
	FIRSTCHOICE	121
	GORDON FOOD SERVICE	17,255
	GREGORY J RUESS	134
	KROGER-COLUMBUS CUSTOMER CHARGES	640
	MISC. RECEIPTS	(9,307)
	READY REFRESH	8
	SAM'S CLUB	338
	SCHNEIDER'S BAKERY INC	296
	STRS OHIO	(9,084)
	TREASURER STATE OF OHIO	1,042
	<b>Total</b>	<b>4,627</b>
Office Supplies	BLUE BOX CORRUGATED INC	257
	CENTRAL OHIO COPIER SUPPLY	4,680
	FIFTH THIRD BANK-CORP CARD	139
	GRAINGER INC	27
	INDEPENDENT STATIONERS INC	749
	OFFICE DEPOT INC	131
	STAPLES BUSINESS ADVANTAGE	927
	<b>Total</b>	<b>6,910</b>
Personal Computer Software	DELL MARKETING LP	2,429
	FIFTH THIRD BANK-CORP CARD	2,232
	MISC. RECEIPTS	(1,250)
	<b>Total</b>	<b>3,411</b>

## STATE TEACHERS RETIREMENT SYSTEM

Detailed Operating Expenses  
For the Month Ended October 31, 2018

<u>ACCOUNT</u>	<u>VENDOR</u>	<u>AMOUNT</u>
Publications/Subscriptions	BARRON'S	239
	BUSINESS FIRST	80
	DIRECTV	193
	FIFTH THIRD BANK-CORP CARD	690
	LESLIE JAYE ORD	64
	MATTHEW BENDER & CO INC	434
	MERCER	1,395
	PROJECT MANAGEMENT INSTITUTE	60
	RELX INC DBA LEXISNEXIS	326
	THE ECONOMIST	197
	THE NEW YORK OBSERVER	500
	THOMSON REUTERS INC	1,598
		<b>Total</b>
Uniforms	CINTAS CORPORATION	2,161
	ECONOMY	442
	FASTSIGNS	35
	UNIFIRST CORPORATION	409
	<b>Total</b>	<b>3,047</b>
	<b>Total Supplies and Materials</b>	<b>112,853</b>
<b>Other Expenses</b>		
Conferences and Seminars	ARMA GREATER COLUMBUS OHIO CHAPTER	20
	DAVID S TACKETT	419
	HUMAN RESOURCES ASSOCIATION-CENTRAL OH	260
	JAMIE LI	175
	LYNN A HOOVER	75
	MARK A REED	300
	OHIO SOCIETY OF CPAS	25
	PUBLIC PENSION FINANCIAL FORUM	500
	PUBLIC RELATIONS SOCIETY OF AMERICA	975
	RYAN (YEON BAE) KONG	419
	STANTON WEST	159
	TASHA JEFFERSON	35
		<b>Total</b>
Dues and Licenses	AMERICAN PAYROLL INSTITUTE INC	100
	FIFTH THIRD BANK-CORP CARD	500
	INTERNATIONAL FOUNDATION	1,440
	NAT'L ASSOC OF AFRICAN AMERICANS IN HR	125
	NATIONAL CONFERENCE ON PERS	3,000
	NATL ASSOC OF PUBLIC PENSION ATTORNEYS	1,200
	PROJECT MANAGEMENT INSTITUTE	154
	PUBLIC PENSION FINANCIAL FORUM	150
	PUBLIC RELATIONS SOCIETY OF AMERICA	380
	SOCIETY FOR HUMAN RESOURCE MANAGEMENT	209
	TASHA JEFFERSON	124
	<b>Total</b>	<b>7,382</b>
Insurance	ARC EXCESS & SURPLUS, LLC	440,975
	<b>Total</b>	<b>440,975</b>
Member & Employer Education Programs	CINCINNATI MARRIOTT NE	1,173
	EMPLOYER EDUCATION REGISTRATIONS	(60)
	EMBASSY SUITES	922
	FIFTH THIRD BANK-CORP CARD	1,600
	FINDLAY INN & CONFERENCE CENTER	369
	FOUR POINTS SHERATON	1,119
	HOLIDAY INN	8,781
	MISC. RECEIPTS	(123)
	OSCAR'S RESTAURANT	450
	PRESTIGE AV & CREATIVE SERVICES	96
	PRITCHARD LAUGHLIN CIVIC CENTER	450
	SHARONVILLE CONVENTION CENTER	300
STONE RIDGE GOLF CLUB LLC	672	



## STATE TEACHERS RETIREMENT SYSTEM

Detailed Operating Expenses  
For the Month Ended October 31, 2018

<u>ACCOUNT</u>	<u>VENDOR</u>	<u>AMOUNT</u>
	THE MANDALAY	1,100
	<b>Total</b>	<b>16,849</b>
Miscellaneous	CAPITOL SQUARE REVIEW & ADVISORY BOARD	200
	FIFTH THIRD BANK-CORP CARD	64
	FIREPROOF RECORDS CENTER	370
	INFOSTORE LLC	31
	MAPLE LEE FLOWERS	177
	NATL ASSOC OF STATE RETIREMENT ADMIN	100
	<b>Total</b>	<b>942</b>
Other Board Expense	FIFTH THIRD BANK-CORP CARD	23
	MISCELLANEOUS EXPENSE	214
	<b>Total</b>	<b>237</b>
Other Staff Expense	ANDREW J MARFURT	200
	FIFTH THIRD BANK-CORP CARD	56
	FRESHBOX CATERING	115
	HALO BRANDED SOLUTIONS INC	147
	JENNIFER MONTENARO	113
	KARRIE L HARTLEY	26
	LESLIE JAYE ORD	36
	MISCELLANEOUS EXPENSE	546
	STRS OHIO	(796)
	SUZAN J WALTERS	175
	TERENCE M HERBST	90
	VANESSA SCHUMM WELCH	13
	<b>Total</b>	<b>721</b>
Training	ASPE	1,091
	CHANGE GUIDES LLC	1,995
	EREPUBLIC INC	50
	FIFTH THIRD BANK-CORP CARD	275
	GLOBAL KNOWLEDGE TRAINING LLC	13,414
	MASTERY CLOUD SERVICES	97
	<b>Total</b>	<b>16,922</b>
	<b>Total Other Expenses</b>	<b>487,390</b>
	<b>Total Operating Expenses</b>	<b>18,183,693</b>
State of Ohio Expenses	STATE OF OHIO ATTORNEY GENERALS OFFICE	15,000
	OHIO RETIREMENT STUDY COUNCIL	65,296
	TREASURER STATE OF OHIO	149
	<b>Total State of Ohio Expenses</b>	<b>80,445</b>