

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations and Schedule of
Pension Amounts by Employer

June 30, 2019

(With Independent Auditors' Report Thereon)

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

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Pension Amounts by Employer

June 30, 2019

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KPMG LLP
515 Broadway
Albany, NY 12207-2974

Independent Auditors' Report

The Retirement Board
New York State Teachers' Retirement System:

We have audited the accompanying schedule of employer allocations of the New York State Teachers' Retirement System (the System) as of and for the year ended June 30, 2019, and the related notes. We have also audited the total for all districts of the columns titled net pension liability (asset), total deferred outflows of resources, total deferred inflows of resources, and total pension expense (collectively the specified column totals) included in the accompanying schedule of pension amounts by employer of the System as of and for the year ended June 30, 2019, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.



Opinions

In our opinion, the schedules and the related notes referred to above present fairly, in all material respects, the employer allocations and net pension liability (asset), total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating districts for the New York State Teachers' Retirement System as of and for the year ended June 30, 2019, in accordance with U.S. generally accepted accounting principles.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the New York State Teachers' Retirement System as of and for the year ended June 30, 2019, and our report thereon dated October 31, 2019, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of the New York State Teachers' Retirement System management, the Retirement Board of the New York State Teachers' Retirement System, New York State Teachers' Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

KPMG LLP

Albany, New York

December 6, 2019

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
All districts	\$ 1,772,650,717	100.000000 %
1005	9,893,500	0.558119
1010	2,680,351	0.151206
1015	2,878,043	0.162358
1020	1,858,796	0.104860
1025	2,974,066	0.167775
1030	4,589,301	0.258895
1035	31,671,613	1.786681
1040	2,847,689	0.160646
1045	1,686,229	0.095125
1050	4,162,158	0.234799
1055	1,881,349	0.106132
1060	1,957,360	0.110420
1065	3,824,839	0.215769
1070	2,782,385	0.156962
1075	1,885,275	0.106353
1080	3,802,895	0.214532
1085	1,688,362	0.095245
1090	2,146,302	0.121079
1095	1,099,441	0.062022
1100	1,783,458	0.100610
1105	4,442,779	0.250629
1110	3,560,079	0.200834
1115	1,125,199	0.063476
1120	7,217,880	0.407180
1125	1,716,589	0.096837
1130	787,349	0.044416
1135	3,872,272	0.218445
1140	6,023,390	0.339796
1145	931,653	0.052557
1150	7,055,301	0.398009
1155	11,063,948	0.624147
1160	12,368,421	0.697736
1165	12,321,365	0.695081
1170	5,596,531	0.315715
1175	2,817,336	0.158934
1180	1,429,007	0.080614
1185	1,359,950	0.076718
1190	1,557,149	0.087843
1195	1,597,289	0.090107
1200	1,561,493	0.088088
1205	3,169,373	0.178793
1210	3,842,935	0.216790
1215	1,789,359	0.100943
1220	2,618,133	0.147696

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As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
1225	\$ 4,345,094	0.245118 %
1230	857,540	0.048376
1235	30,530,120	1.722286
1240	4,339,805	0.244820
1245	4,291,201	0.242078
1250	1,305,882	0.073668
1255	4,772,532	0.269231
1260	8,309,307	0.468750
1265	1,495,160	0.084346
1270	20,169,382	1.137809
1275	1,437,530	0.081095
1280	3,643,513	0.205540
1285	6,626,299	0.373807
1290	2,647,516	0.149353
1295	1,013,070	0.057150
1300	9,865,063	0.556515
1305	26,947,692	1.520192
2005	1,388,843	0.078348
2006	1,304,991	0.073618
2007	3,517,034	0.198405
2008	3,317,239	0.187134
2009	2,509,415	0.141563
2010	8,259,881	0.465962
2014	1,055,875	0.059565
2015	2,319,629	0.130857
2016	934,812	0.052735
2018	2,220,078	0.125241
2020	5,825,452	0.328629
2025	4,487,642	0.253160
2030	3,829,094	0.216010
2035	1,251,884	0.070622
2040	7,476,562	0.421773
2044	1,774,146	0.100084
2045	4,207,166	0.237338
2046	3,444,813	0.194331
2047	17,744,884	1.001037
2048	3,902,084	0.220127
2050	3,079,127	0.173702
2052	2,657,761	0.149931
2055	2,296,875	0.129573
2056	2,884,770	0.162738
2057	3,644,823	0.205614
2058	2,317,227	0.130721
2059	3,955,362	0.223133
2060	1,047,282	0.059080
2061	1,120,806	0.063228

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Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
2062	\$ 1,747,730	0.098594 %
2063	913,581	0.051538
2064	2,715,977	0.153216
2065	2,288,324	0.129091
2066	5,772,331	0.325633
2067	9,040,047	0.509973
2068	7,990,685	0.450776
2069	1,073,893	0.060581
2070	1,483,835	0.083707
2071	1,170,958	0.066057
2072	1,415,192	0.079835
2073	2,878,488	0.162383
2074	2,905,203	0.163890
2075	5,577,833	0.314661
2076	3,358,065	0.189438
2077	983,804	0.055499
2078	8,815,507	0.497306
2079	5,191,676	0.292876
2080	1,074,060	0.060591
2081	1,432,212	0.080795
2082	788,951	0.044507
2083	1,926,359	0.108671
2084	3,076,412	0.173549
2085	1,578,263	0.089034
2086	5,284,085	0.298089
2090	2,328,652	0.131366
2095	2,357,016	0.132966
2104	1,301,161	0.073402
2105	1,207,018	0.068091
2110	3,599,584	0.203062
2112	2,412,027	0.136069
2115	4,809,937	0.271341
2120	9,192,882	0.518595
2125	940,898	0.053079
2130	1,685,533	0.095085
2135	3,343,183	0.188598
2140	2,922,046	0.164841
2145	4,151,736	0.234211
2146	3,783,346	0.213429
2147	1,074,097	0.060593
2148	2,712,964	0.153046
2149	1,763,240	0.099469
2150	719,975	0.040616
2155	2,714,653	0.153141
2160	4,618,547	0.260545
2165	1,618,069	0.091280

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District Code	Required employer contributions	Employer allocation percentage
2170	\$ 7,051,427	0.397790 %
2175	649,051	0.036615
2180	1,375,154	0.077576
2185	7,490,536	0.422561
2187	3,660,640	0.206507
2190	4,802,609	0.270928
2191	3,371,111	0.190173
2195	1,052,898	0.059397
2196	1,216,509	0.068627
2198	2,486,067	0.140246
2200	10,487,836	0.591647
2204	9,331,628	0.526422
2205	285,909	0.016129
2206	1,454,604	0.082058
2207	2,587,793	0.145984
2208	4,522,709	0.255138
2209	10,218,067	0.576429
2210	2,903,249	0.163780
2212	3,690,167	0.208172
2215	5,530,538	0.311993
2220	2,331,182	0.131508
2224	4,932,038	0.278230
2225	8,632,863	0.487003
2230	7,237,074	0.408263
2231	3,476,193	0.196101
2235	747,754	0.042183
2239	3,219,059	0.181596
2240	6,191,583	0.349284
2241	961,607	0.054247
2242	1,631,737	0.092051
2243	1,686,565	0.095144
2244	1,029,520	0.058078
2245	2,751,475	0.155218
2250	1,581,491	0.089216
2255	5,025,998	0.283530
2260	3,459,553	0.195163
2266	2,888,150	0.162928
2268	1,546,639	0.087250
2270	2,766,506	0.156066
2271	1,935,012	0.109159
2272	2,904,591	0.163856
2275	5,415,866	0.305524
2280	1,804,568	0.101801
2281	1,090,155	0.061499
2282	4,736,853	0.267219
2285	6,862,228	0.387117

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District Code	Required employer contributions	Employer allocation percentage
2286	\$ 3,762,128	0.212232 %
2288	2,171,727	0.122513
2289	6,887,284	0.388530
2290	4,022,610	0.226926
2295	1,915,197	0.108041
2300	3,662,817	0.206629
2305	942,732	0.053182
2310	10,143,127	0.572201
2315	1,759,063	0.099233
2317	1,704,138	0.096135
2320	6,797,141	0.383445
2325	6,232,368	0.351585
2328	1,383,743	0.078061
2330	3,649,364	0.205870
2335	4,101,502	0.231377
2338	5,604,714	0.316177
2339	1,566,659	0.088379
2340	1,870,025	0.105493
2345	2,340,651	0.132042
2350	6,526,773	0.368193
2355	4,464,846	0.251874
2360	3,327,020	0.187686
2361	1,454,606	0.082058
2362	1,711,926	0.096574
2363	1,056,339	0.059591
2364	2,073,252	0.116958
2365	9,897,640	0.558353
2370	1,657,076	0.093480
2375	1,309,478	0.073871
2377	2,013,896	0.113609
2378	10,282,610	0.580070
2379	10,624,664	0.599366
2380	4,139,264	0.233507
2381	2,167,566	0.122278
2383	7,355,366	0.414936
2384	4,669,181	0.263401
2385	3,053,830	0.172275
2389	2,719,831	0.153433
2390	5,660,271	0.319311
2391	2,799,040	0.157901
2394	1,966,901	0.110958
2395	1,640,437	0.092541
2396	1,263,310	0.071267
2400	9,894,918	0.558199
2401	2,391,469	0.134909
2402	5,581,280	0.314855

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As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
2403	\$ 2,723,770	0.153655 %
2405	3,556,399	0.200626
2406	4,873,154	0.274908
2408	5,211,937	0.294019
2409	1,093,086	0.061664
2410	6,596,288	0.372114
2415	7,352,690	0.414785
2420	3,779,637	0.213219
2425	6,935,938	0.391275
2426	2,004,478	0.113078
2428	4,035,661	0.227663
2430	5,953,941	0.335878
2435	1,551,569	0.087528
2440	2,598,638	0.146596
2441	1,519,285	0.085707
2445	7,723,234	0.435688
2450	3,006,243	0.169590
2455	3,747,043	0.211381
2458	3,713,476	0.209487
2460	1,342,229	0.075719
2464	1,193,292	0.067317
2465	638,530	0.036021
2466	1,565,452	0.088311
2467	2,122,508	0.119736
2468	1,649,475	0.093051
2469	4,795,419	0.270522
2470	4,112,127	0.231976
2471	4,563,966	0.257466
2475	6,873,706	0.387764
2480	2,160,978	0.121907
2485	4,730,338	0.266851
2490	7,047,924	0.397592
2495	935,694	0.052785
2497	2,284,662	0.128884
2498	1,962,554	0.110713
2500	5,713,349	0.322305
2504	3,567,519	0.201253
2505	4,751,430	0.268041
2507	907,090	0.051171
2508	2,562,560	0.144561
2509	4,587,433	0.258789
2510	1,894,310	0.106863
2512	13,347,046	0.752943
2514	1,321,372	0.074542
2515	1,174,113	0.066235
2520	2,583,639	0.145750

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
2525	\$ 3,729,262	0.210378 %
2530	7,110,677	0.401132
2533	1,738,379	0.098067
2535	2,096,135	0.118249
2540	4,994,833	0.281772
2541	2,984,797	0.168380
2542	1,830,607	0.103269
2545	910,881	0.051385
2547	6,854,351	0.386672
2550	820,001	0.046258
2551	1,259,877	0.071073
2555	1,241,948	0.070062
2557	10,486,582	0.591576
2559	1,034,546	0.058362
2560	1,299,308	0.073297
2561	4,179,971	0.235803
2562	4,948,728	0.279171
2563	5,410,073	0.305197
2564	7,293,140	0.411426
2565	4,127,391	0.232837
2570	2,871,836	0.162008
2573	3,025,881	0.170698
2574	987,033	0.055681
2575	10,357,487	0.584294
2576	2,126,154	0.119942
2580	5,642,841	0.318328
2582	1,238,593	0.069872
2584	3,290,427	0.185622
2585	11,179,049	0.630640
2590	3,731,084	0.210480
2593	9,128,281	0.514951
2595	758,692	0.042800
2600	1,473,057	0.083099
2605	671,867	0.037902
2610	9,351,018	0.527516
2611	2,529,944	0.142721
2612	2,920,344	0.164744
2613	2,952,173	0.166540
2614	3,583,237	0.202140
2615	10,357,181	0.584276
2616	3,496,461	0.197245
2617	3,758,805	0.212044
2618	967,133	0.054559
2619	2,065,826	0.116539
2620	709,063	0.040000
2625	1,239,471	0.069922

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
2626	\$ 822,215	0.046383 %
2630	996,509	0.056216
2632	1,830,366	0.103256
2633	7,055,823	0.398038
2635	927,048	0.052297
2640	2,281,376	0.128699
2641	1,346,551	0.075963
2642	5,316,674	0.299928
2643	5,125,788	0.289159
2644	4,703,081	0.265313
2645	5,977,659	0.337216
2648	1,098,325	0.061959
2649	2,423,939	0.136741
2650	545,403	0.030768
2651	8,844,837	0.498961
2652	960,601	0.054190
2653	1,423,007	0.080276
2654	9,244,756	0.521522
2655	5,085,292	0.286875
2656	4,694,140	0.264809
3032	707,587	0.039917
3041	271,035	0.015290
3042	733,762	0.041394
3043	789,379	0.044531
3044	540,681	0.030501
3048	278,369	0.015704
3077	672,689	0.037948
3078	293,501	0.016557
3079	180,328	0.010173
3081	302,322	0.017055
3082	611,676	0.034506
3101	290,434	0.016384
3105	283,995	0.016021
3106	517,491	0.029193
3107	463,312	0.026137
3126	514,503	0.029024
3128	465,593	0.026265
3178	841,795	0.047488
3179	609,884	0.034405
3201	332,499	0.018757
3202	600,872	0.033897
3204	601,170	0.033914
3206	685,815	0.038689
3208	291,836	0.016463
3226	782,409	0.044138
3229	496,879	0.028030

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
3231	\$ 737,064	0.041580 %
3232	352,029	0.019859
3276	731,641	0.041274
3277	819,842	0.046249
3278	573,634	0.032360
3280	671,810	0.037899
3281	718,146	0.040513
3284	740,247	0.041759
3303	744,840	0.042018
3304	370,658	0.020910
3305	495,225	0.027937
3306	506,683	0.028583
3307	181,283	0.010227
3308	409,893	0.023123
3309	715,142	0.040343
3326	601,005	0.033904
3327	819,784	0.046246
3328	449,908	0.025380
3329	542,486	0.030603
3330	836,631	0.047197
3331	990,966	0.055903
3332	414,688	0.023394
3452	1,012,768	0.057133
3453	333,385	0.018807
3458	721,031	0.040675
3460	1,050,245	0.059247
3464	286,552	0.016165
3465	222,162	0.012533
3466	574,365	0.032402
3467	308,651	0.017412
3468	60,748	0.003427
3470	284,815	0.016067
3471	243,547	0.013739
3472	203,549	0.011483
3526	525,335	0.029636
3527	459,788	0.025938
3528	400,234	0.022578
3531	644,591	0.036363
3552	199,104	0.011232
3559	467,960	0.026399
3560	616,922	0.034802
3561	634,228	0.035779
3576	274,298	0.015474
3577	606,523	0.034216
3579	319,933	0.018048
3585	668,233	0.037697

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Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
3586	\$ 780,311	0.044019 %
3589	627,976	0.035426
3591	266,045	0.015008
3592	639,783	0.036092
3593	1,170,211	0.066015
3594	274,165	0.015466
3626	1,331,588	0.075118
3629	801,124	0.045194
3630	1,262,544	0.071223
3631	1,037,531	0.058530
3632	1,933,048	0.109048
3635	1,320,430	0.074489
3636	1,063,925	0.060019
3658	1,071,492	0.060446
3679	1,220,797	0.068868
3702	681,951	0.038471
3709	537,470	0.030320
3805	431,634	0.024350
3821	627,518	0.035400
3822	245,366	0.013842
3854	1,364,678	0.076985
3855	730,593	0.041215
3856	126,046	0.007111
3927	802,101	0.045249
3928	379,896	0.021431
3929	711,376	0.040131
3930	668,313	0.037701
3931	913,459	0.051531
3932	674,708	0.038062
3934	126,690	0.007147
3979	436,610	0.024630
3980	366,395	0.020669
3981	308,712	0.017415
3982	143,626	0.008102
3983	317,897	0.017933
3986	331,609	0.018707
3987	234,204	0.013212
3988	294,016	0.016586
3989	230,191	0.012986
3990	312,459	0.017627
3991	392,628	0.022149
3992	340,027	0.019182
3994	649,944	0.036665
3995	325,171	0.018344
3996	259,804	0.014656
3997	288,267	0.016262

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
3998	\$ 278,324	0.015701 %
3999	274,985	0.015513
4004	157,396	0.008879
4007	230,678	0.013013
4008	77,515	0.004373
4009	1,336,928	0.075420
4010	125,755	0.007094
4014	586,797	0.033103
4015	385,074	0.021723
4020	751,184	0.042376
4021	1,037,672	0.058538
4022	772,138	0.043558
4027	772,985	0.043606
4028	136,370	0.007693
4029	836,257	0.047175
4030	500,763	0.028249
4031	442,466	0.024961
4034	384,265	0.021677
4036	577,676	0.032588
4101	410,626	0.023165
4104	358,709	0.020236
4124	33,626	0.001897
4126	1,203,447	0.067890
4128	774,192	0.043674
4130	659,249	0.037190
4132	299,169	0.016877
4134	287,556	0.016222
4135	251,309	0.014177
4137	341,995	0.019293
4142	1,065,605	0.060114
4143	839,640	0.047366
4144	528,684	0.029824
4149	280,456	0.015821
4151	762,645	0.043023
4152	695,399	0.039229
4153	775,439	0.043745
4154	458,554	0.025868
4155	594,321	0.033527
4178	565,456	0.031899
4180	1,143,315	0.064497
4183	736,874	0.041569
4184	727,161	0.041021
4202	487,772	0.027517
4203	492,783	0.027799
4205	336,227	0.018967
4206	329,327	0.018578

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
4208	\$ 1,686,173	0.095122 %
4258	628,409	0.035450
4259	554,075	0.031257
4260	839,838	0.047378
4301	1,689,306	0.095298
4351	2,387,412	0.134680
4353	1,497,182	0.084460
4355	2,477,915	0.139786
4356	4,042,629	0.228056
4357	1,788,723	0.100907
4358	1,377,483	0.077708
4360	1,497,929	0.084502
4361	2,616,479	0.147603
4363	1,482,703	0.083643
4364	1,573,346	0.088757
4365	1,226,174	0.069172
4366	5,551,016	0.313148
4367	9,262,309	0.522512
4368	7,345,151	0.414360
4428	427,336	0.024107
4430	479,799	0.027067
4434	174,730	0.009857
4437	701,495	0.039573
4438	546,084	0.030806
4439	684,474	0.038613
4504	481,662	0.027172
4531	640,189	0.036115
4532	1,032,958	0.058272
4533	760,159	0.042883
4534	734,915	0.041459
4557	377,919	0.021319
4582	739,587	0.041722
4583	610,355	0.034432
4586	656,636	0.037043
4588	572,778	0.032312
4590	630,646	0.035576
4592	368,006	0.020760
4593	710,871	0.040102
4594	724,914	0.040894
4595	787,408	0.044420
4596	617,364	0.034827
4597	905,947	0.051107
4598	835,070	0.047109
4604	1,063,248	0.059981
4617	408,828	0.023063
4620	797,140	0.044969

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
4651	\$ 886,474	0.050008 %
4653	2,981,796	0.168211
4654	3,498,729	0.197373
4662	688,045	0.038814
4663	852,276	0.048079
4679	707,320	0.039902
4680	547,066	0.030861
4701	972,233	0.054846
4703	796,751	0.044947
4704	803,303	0.045317
4705	1,088,877	0.061426
4854	1,038,266	0.058571
4855	321,783	0.018153
4857	2,116,190	0.119380
4862	1,888,663	0.106545
4863	2,303,538	0.129949
4877	971,053	0.054780
4879	704,663	0.039752
4883	25,219	0.001423
4884	310,722	0.017529
4885	804,345	0.045375
4890	1,271,252	0.071715
4892	1,147,031	0.064707
4894	1,157,058	0.065273
4901	765,732	0.043197
4905	326,445	0.018416
4906	1,049,858	0.059225
4907	1,662,559	0.093789
4908	454,351	0.025631
4909	1,228,497	0.069303
4910	585,559	0.033033
4976	280,377	0.015817
4978	310,152	0.017497
4979	428,975	0.024200
4980	223,473	0.012607
4981	281,220	0.015864
4982	404,107	0.022797
4983	320,251	0.018066
5001	604,447	0.034098
5002	402,940	0.022731
5003	476,197	0.026864
5026	363,071	0.020482
5027	667,054	0.037630
5028	309,747	0.017474
5076	904,903	0.051048
5078	694,795	0.039195

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
5102	\$ 2,302,134	0.129870 %
5103	1,216,497	0.068626
5107	834,094	0.047054
5108	741,013	0.041803
5251	569,220	0.032111
5253	773,490	0.043635
5276	962,788	0.054313
5281	335,049	0.018901
5282	383,825	0.021653
5301	420,037	0.023695
5303	221,455	0.012493
5305	293,379	0.016550
5306	486,130	0.027424
5307	664,004	0.037458
5308	485,530	0.027390
5309	200,843	0.011330
5351	2,917,916	0.164607
5352	29,647	0.001672
5353	316,833	0.017873
5354	950,674	0.053630
5355	1,858,683	0.104853
5356	597,564	0.033710
5357	2,708,377	0.152787
5358	5,476,560	0.308948
5359	491,766	0.027742
5360	329,601	0.018594
5361	2,560,299	0.144433
5362	307,823	0.017365
5363	2,305,663	0.130069
5364	636,001	0.035879
5365	22,453	0.001267
5367	617,680	0.034845
5368	515,771	0.029096
5369	158,912	0.008965
5371	186,502	0.010521
5372	1,280,652	0.072245
5375	1,723,180	0.097209
5376	762,029	0.042988
5379	55,215	0.003115
5380	358,237	0.020209
5403	4,077,910	0.230046
5406	1,761,936	0.099396
5407	2,665,519	0.150369
5408	2,791,670	0.157486
5409	3,415,075	0.192654
5415	1,877,018	0.105888

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
5416	\$ 730,312	0.041199 %
5418	3,492,401	0.197016
5420	3,281,534	0.185120
5427	165,896	0.009359
5457	2,953,474	0.166613
5458	2,774,583	0.156522
5501	1,097,697	0.061924
5504	1,040,306	0.058686
5505	296,259	0.016713
5506	504,749	0.028474
5507	467,613	0.026379
5527	618,785	0.034907
5528	690,023	0.038926
5530	915,728	0.051659
5533	345,831	0.019509
5534	632,021	0.035654
5535	1,066,325	0.060154
5541	588,297	0.033187
5601	1,630,616	0.091987
5676	427,700	0.024128
5677	377,766	0.021311
5678	461,541	0.026037
5679	860,281	0.048531
5680	803,813	0.045345
5681	407,870	0.023009
5682	490,235	0.027655
5683	751,875	0.042415
5684	310,655	0.017525
5685	481,934	0.027187
5687	905,432	0.051078
5688	319,036	0.017998
5691	147,883	0.008342
5692	737,267	0.041591
5693	219,226	0.012367
5694	178,373	0.010062
5695	193,528	0.010917
5801	2,578,844	0.145480
5806	1,509,898	0.085177
5807	504,354	0.028452
5812	617,539	0.034837
5813	649,176	0.036622
5817	2,092,928	0.118068
5820	614,099	0.034643
5821	1,114,226	0.062856
5822	1,104,536	0.062310
5823	321,449	0.018134

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
6001	\$ 2,779,262	0.156786 %
6005	2,192,637	0.123693
6008	2,141,049	0.120782
6011	1,115,817	0.062946
6018	1,033,338	0.058293
6022	1,067,667	0.060230
6026	2,045,989	0.115420
6027	2,966,240	0.167334
6028	2,540,774	0.143332
6036	485,684	0.027399
6040	768,955	0.043379
6041	1,107,844	0.062496
6042	1,012,811	0.057135
6044	1,543,048	0.087047
6048	1,251,647	0.070609
6050	1,460,733	0.082404
6051	3,507,365	0.197860
6052	2,344,383	0.132253
6056	10,175,594	0.574033
6057	2,030,844	0.114565
6061	3,689,406	0.208129
6065	4,242,238	0.239316
6067	2,217,253	0.125081
6068	1,807,995	0.101994
6074	2,456,387	0.138571
6075	1,835,618	0.103552
6078	4,887,540	0.275719
6079	2,043,352	0.115271
6091	9,460,223	0.533677
6093	4,619,334	0.260589
6094	2,950,206	0.166429
6095	1,134,085	0.063977
6097	971,358	0.054797
6099	1,275,465	0.071952
6104	1,973,567	0.111334
6105	3,407,907	0.192249
6109	3,116,186	0.175792
6507	96,330	0.005434
6511	49,649	0.002801
7000	15,408,208	0.869218
7500	119,827	0.006760
7501	253,930	0.014325
7502	53,569	0.003022
8000	1,710,243	0.096479
8102	376,287	0.021227
8105	419,304	0.023654

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
8110	\$ 789,386	0.044531 %
8112	141,632	0.007990
8113	193,138	0.010895
8115	206,393	0.011643
8120	733,706	0.041390
8124	1,770,836	0.099898
8129	511,833	0.028874
8130	2,256,095	0.127272
8131	335,293	0.018915
8133	456,130	0.025732
8134	180,679	0.010193
8135	1,061,880	0.059903
8140	258,548	0.014585
8142	486,121	0.027423
8145	491,124	0.027706
8146	1,112,835	0.062778
8149	161,678	0.009121
8150	2,334,502	0.131696
8151	966,994	0.054551
8153	395,887	0.022333
8155	636,570	0.035911
8160	737,265	0.041591
8162	207,362	0.011698
8166	3,074,857	0.173461
8167	127,724	0.007205
8168	203,402	0.011474
8169	215,675	0.012167
8170	1,349,114	0.076107
8400	497,470	0.028064
8402	344,673	0.019444
8403	335,074	0.018902
8406	176,655	0.009966
8407	1,180,460	0.066593
8409	701,951	0.039599
8410	372,735	0.021027
8412	637,913	0.035986
8415	613,957	0.034635
8416	248,831	0.014037
8419	435,008	0.024540
8420	375,004	0.021155
8421	298,794	0.016856
8423	186,009	0.010493
8424	136,376	0.007693
8425	333,749	0.018828
8426	124,702	0.007035
8427	81,029	0.004571

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Employer Allocations

As of and for the fiscal year ended June 30, 2019

District Code	Required employer contributions	Employer allocation percentage
8428	\$ 427,475	0.024115 %
8429	250,756	0.014146
8430	263,291	0.014853
8431	277,533	0.015656
8432	280,812	0.015841
8433	78,931	0.004453
8434	165,048	0.009311
8435	125,786	0.007096
8436	454,672	0.025649

See accompanying notes to schedule of employer allocations and schedule of pension amounts by employer.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense		
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	Total pension expense
All Districts	\$ (2,598,006,772)	1,760,602,856	4,907,982,346	182,634,839	6,851,220,041	193,192,854	2,083,467,450	1,196,704,947	182,634,839	3,656,000,090	3,209,970,774	—	3,209,970,774
1005	(14,499,969)	9,826,259	27,392,381	79,823	37,298,463	1,078,246	11,628,227	6,679,037	3,126,152	22,511,663	17,915,456	(706,115)	17,209,341
1010	(3,928,338)	2,662,134	7,421,155	262,702	10,345,992	292,119	3,150,324	1,809,488	153,863	5,405,793	4,853,663	25,752	4,879,415
1015	(4,218,075)	2,858,482	7,968,508	1,094,936	11,921,926	313,664	3,382,679	1,942,948	411,795	6,051,086	5,211,648	108,510	5,320,158
1020	(2,724,261)	1,846,162	5,146,494	111,624	7,104,280	202,581	2,184,717	1,254,861	189,987	3,832,146	3,365,965	(10,961)	3,355,004
1025	(4,358,808)	2,953,853	8,234,371	42,246	11,230,470	324,129	3,495,539	2,007,773	556,095	6,383,536	5,385,531	(94,572)	5,290,958
1030	(6,726,105)	4,558,109	12,706,512	16,873	17,281,494	500,166	5,393,989	3,098,207	480,012	9,472,375	8,310,448	(105,043)	8,205,405
1035	(46,418,092)	31,456,356	87,689,986	3,891,761	123,038,104	3,451,740	37,224,916	21,381,299	7,735,230	69,793,185	57,351,937	(1,126,252)	56,225,685
1040	(4,173,589)	2,828,335	7,884,468	129,352	10,842,155	310,356	3,347,003	1,922,456	260,063	5,839,879	5,156,684	(6,030)	5,150,654
1045	(2,471,347)	1,674,769	4,668,705	66,068	6,409,542	183,774	1,981,893	1,138,362	385,485	3,689,514	3,053,476	(55,242)	2,998,233
1050	(6,100,082)	4,133,870	11,523,872	322,443	15,980,185	453,614	4,891,951	2,809,846	332,742	8,488,154	7,536,965	11,298	7,548,263
1055	(2,757,316)	1,868,562	5,208,938	399,617	7,477,118	205,039	2,211,225	1,270,087	68,190	3,754,541	3,406,805	51,302	3,458,107
1060	(2,868,717)	1,944,057	5,419,391	186,894	7,550,341	213,323	2,300,563	1,321,401	349,398	4,184,686	3,544,448	(28,865)	3,515,583
1065	(5,605,705)	3,798,843	10,589,926	501,771	14,890,541	416,851	4,495,486	2,582,124	230,745	7,725,206	6,926,136	79,084	7,005,221
1070	(4,077,879)	2,763,475	7,703,659	354,603	10,821,737	303,239	3,270,249	1,878,370	94,486	5,546,344	5,038,429	62,489	5,100,918
1075	(2,763,070)	1,872,462	5,219,809	248,853	7,341,124	205,467	2,215,840	1,272,737	111,112	3,805,156	3,413,915	12,933	3,426,848
1080	(5,573,543)	3,777,048	10,529,169	373,624	14,679,841	414,460	4,469,694	2,567,309	197,386	7,648,850	6,886,399	50,346	6,936,745
1085	(2,474,473)	1,676,887	4,674,610	285,839	6,637,336	184,007	1,984,399	1,139,802	295,728	3,603,937	3,057,338	(9,790)	3,047,548
1090	(3,145,632)	2,131,714	5,942,519	448,572	8,522,805	233,915	2,522,634	1,448,954	216,008	4,421,512	3,886,589	57,757	3,944,346
1095	(1,611,347)	1,091,969	3,044,049	223,024	4,359,042	119,823	1,292,217	742,225	80,761	2,235,027	1,990,902	31,293	2,022,195
1100	(2,613,846)	1,771,337	4,937,904	232,286	6,941,527	194,371	2,096,170	1,204,001	509,879	4,004,420	3,229,541	(69,937)	3,159,603
1105	(6,511,362)	4,412,584	12,300,834	270,555	16,983,973	484,198	5,221,777	2,999,291	552,362	9,257,628	8,045,122	(46,111)	7,999,011
1110	(5,217,671)	3,535,883	9,856,879	420,646	13,813,409	387,996	4,184,303	2,403,386	92,374	7,068,060	6,446,701	109,912	6,556,614
1115	(1,649,098)	1,117,552	3,115,366	247,701	4,480,619	122,630	1,322,491	759,614	198,725	2,403,461	2,037,545	(341)	2,037,204
1120	(10,578,565)	7,168,823	19,984,324	449,268	27,602,415	786,643	8,483,463	4,872,744	1,398,314	15,541,163	13,070,360	(197,612)	12,872,748
1125	(2,515,843)	1,704,923	4,752,764	94,591	6,552,278	187,083	2,017,576	1,158,858	206,358	3,569,875	3,108,453	(18,090)	3,090,363
1130	(1,153,943)	781,997	2,179,952	23,999	2,985,949	85,809	925,402	531,534	190,059	1,732,805	1,425,755	(28,666)	1,397,089
1135	(5,675,224)	3,845,954	10,721,257	225,446	14,792,657	422,021	4,551,237	2,614,146	7,052	7,594,455	7,012,030	62,145	7,074,175
1140	(8,827,914)	5,982,452	16,677,111	813,985	23,473,549	656,461	7,079,532	4,066,352	237,563	12,039,908	10,907,341	142,158	11,049,499
1145	(1,365,436)	925,321	2,579,492	—	3,504,813	101,537	1,095,010	628,953	163,096	1,988,595	1,687,067	(33,713)	1,653,354
1150	(10,340,289)	7,007,350	19,534,189	320,139	26,861,677	768,924	8,292,378	4,762,988	1,796,696	15,620,986	12,775,958	(231,614)	12,544,343
1155	(16,215,384)	10,988,752	30,633,029	119,750	41,741,531	1,205,808	13,003,902	7,469,199	747,144	22,426,052	20,034,939	(154,045)	19,880,895
1160	(18,127,226)	12,284,359	34,244,756	498,130	47,027,244	1,347,976	14,537,101	8,349,840	61,643	24,296,560	22,397,119	92,212	22,489,331
1165	(18,058,262)	12,237,623	34,114,472	408,942	46,761,037	1,342,848	14,481,795	8,318,073	1,206,022	25,348,737	22,311,910	(110,134)	22,201,776
1170	(8,202,307)	5,558,494	15,495,256	386,297	21,440,047	609,940	6,577,827	3,778,182	619,365	11,585,314	10,134,372	468	10,134,840
1175	(4,129,103)	2,798,188	7,800,429	566,953	11,165,569	307,048	3,311,328	1,901,965	135,196	5,655,537	5,101,719	86,293	5,188,012
1180	(2,094,361)	1,419,295	3,956,528	364,197	5,740,020	155,741	1,679,570	964,714	220,041	3,020,065	2,587,691	14,278	2,601,969
1185	(1,993,150)	1,350,700	3,765,328	314,121	5,430,156	148,215	1,598,404	918,093	139,186	2,803,898	2,462,640	33,741	2,496,381
1190	(2,282,167)	1,546,566	4,311,318	109,307	5,967,192	169,706	1,830,180	1,051,221	74,736	3,125,844	2,819,734	14,127	2,833,861
1195	(2,340,996)	1,586,433	4,422,454	243,082	6,251,969	174,081	1,877,358	1,078,319	180,025	3,309,783	2,892,420	1,293	2,893,713
1200	(2,288,532)	1,550,880	4,323,344	75,265	5,949,488	170,180	1,835,285	1,054,153	32,898	3,092,516	2,827,599	7,202	2,834,801
1205	(4,645,051)	3,147,832	8,775,122	1,139,401	13,062,355	345,415	3,725,091	2,139,623	736,158	6,946,287	5,739,199	165,372	5,904,571

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources				Deferred inflows of resources				Pension expense				
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	Total pension expense
1210	\$ (5,632,226)	3,816,816	10,640,029	739	14,457,585	418,823	4,516,755	2,594,340	730,367	8,260,286	6,958,905	(146,673)	6,812,232
1215	(2,622,495)	1,777,198	4,954,244	520,294	7,251,735	195,014	2,103,106	1,207,985	9,349	3,515,453	3,240,227	99,010	3,339,237
1220	(3,837,151)	2,600,339	7,248,891	236,028	10,085,258	285,338	3,077,197	1,767,485	57,199	5,187,219	4,740,997	43,712	4,784,708
1225	(6,368,194)	4,315,562	12,030,370	803,601	17,149,534	473,551	5,106,963	2,933,345	1,205,599	9,719,458	7,868,231	25,758	7,893,989
1230	(1,256,815)	851,711	2,374,292	101,342	3,327,345	93,459	1,007,901	578,920	52,862	1,733,142	1,552,860	11,186	1,564,045
1235	(44,745,114)	30,322,621	84,529,506	2,874,549	117,726,677	3,327,334	35,883,274	20,610,685	5,870,616	65,691,910	55,284,886	(427,558)	54,857,328
1240	(6,360,442)	4,310,309	12,015,725	402,652	16,728,686	472,975	5,100,746	2,929,774	521,216	9,024,711	7,858,652	(41,099)	7,817,553
1245	(6,289,208)	4,262,036	11,881,155	164,002	16,307,193	467,678	5,043,620	2,896,962	1,378,697	9,786,957	7,770,639	(253,127)	7,517,513
1250	(1,913,908)	1,297,007	3,615,629	15,210	4,927,846	142,322	1,534,856	881,593	485,849	3,044,619	2,364,732	(87,741)	2,276,991
1255	(6,994,649)	4,740,095	13,213,827	16,920	17,970,842	520,136	5,609,348	3,221,905	492,438	9,843,826	8,642,248	(104,812)	8,537,436
1260	(12,178,167)	8,252,833	23,006,186	207,940	31,466,959	905,592	9,766,262	5,609,559	1,364,979	17,646,392	15,046,750	(243,047)	14,803,703
1265	(2,191,314)	1,484,998	4,139,686	12,381	5,637,064	162,950	1,757,321	1,009,372	137,474	3,067,118	2,707,481	(28,881)	2,678,600
1270	(29,560,359)	20,032,300	55,843,473	1,094,936	76,970,709	2,198,166	23,705,883	13,616,218	3,655,667	43,175,935	36,523,341	(743,414)	35,779,927
1275	(2,106,852)	1,427,760	3,980,124	38,315	5,446,199	156,670	1,689,586	970,467	296,710	3,113,432	2,603,123	(49,669)	2,553,455
1280	(5,339,954)	3,618,750	10,087,887	295,540	14,002,177	397,089	4,282,367	2,459,712	219,214	7,358,383	6,597,787	792	6,598,579
1285	(9,711,541)	6,581,263	18,346,400	824,830	25,752,494	722,169	7,788,155	4,473,371	1,165,748	14,149,444	11,999,108	(96,392)	11,902,716
1290	(3,880,214)	2,629,522	7,330,243	220,568	10,180,333	288,540	3,111,731	1,787,321	363,232	5,550,824	4,794,203	(9,963)	4,784,241
1295	(1,484,761)	1,006,185	2,804,913	66,231	3,877,329	110,410	1,190,702	683,917	62,051	2,047,080	1,834,499	(3,113)	1,831,386
1300	(14,458,292)	9,798,015	27,313,648	309,463	37,421,126	1,075,147	11,594,804	6,659,840	809,980	20,139,772	17,863,962	(124,897)	17,739,065
1305	(39,494,688)	26,764,542	74,610,750	117,900	101,493,192	2,936,902	31,672,703	18,192,212	1,951,226	54,753,042	48,797,715	(457,107)	48,340,608
2005	(2,035,497)	1,379,404	3,845,325	323,705	5,548,435	151,364	1,632,363	937,599	8,701	2,730,027	2,514,961	62,050	2,577,010
2006	(1,912,602)	1,296,122	3,613,162	126,618	5,035,902	142,225	1,533,809	880,991	73,152	2,630,176	2,363,119	8,789	2,371,907
2007	(5,154,584)	3,493,130	9,737,699	610,248	13,841,077	383,305	4,133,711	2,374,326	644,329	7,535,671	6,368,753	(44,887)	6,323,866
2008	(4,861,765)	3,294,694	9,184,524	30,689	12,509,906	361,530	3,898,884	2,239,447	490,763	6,990,624	6,006,960	(84,065)	5,922,894
2009	(3,677,812)	2,492,359	6,947,879	231,883	9,672,121	273,489	2,949,416	1,694,090	90,859	5,007,854	4,544,126	18,163	4,562,288
2010	(12,105,728)	8,203,743	22,869,339	390,399	31,463,481	900,206	9,708,169	5,576,192	165,626	16,350,193	14,957,248	54,911	15,012,159
2014	(1,547,496)	1,048,699	2,923,427	198,259	4,170,385	115,075	1,241,012	712,814	998	2,069,899	1,912,011	44,254	1,956,265
2015	(3,399,661)	2,303,863	6,422,414	283,546	9,009,824	252,805	2,726,353	1,565,966	186,508	4,731,632	4,200,456	1,747	4,202,203
2016	(1,370,065)	928,458	2,588,237	279,851	3,796,546	101,881	1,098,722	631,085	124,351	1,956,039	1,692,786	38,382	1,731,168
2018	(3,253,759)	2,204,990	6,146,787	154,204	8,505,981	241,956	2,609,347	1,498,761	193,421	4,543,484	4,020,187	(19,233)	4,000,954
2020	(8,537,814)	5,785,859	16,129,073	543,233	22,458,165	634,889	6,846,887	3,932,724	119,821	11,534,321	10,548,908	89,884	10,638,792
2025	(6,577,113)	4,457,141	12,425,046	—	16,882,187	489,087	5,274,505	3,029,578	356,328	9,149,498	8,126,360	(88,234)	8,038,127
2030	(5,611,941)	3,803,069	10,601,708	212,639	14,617,417	417,315	4,500,488	2,584,996	131,275	7,634,074	6,933,842	37,132	6,970,973
2035	(1,834,768)	1,243,375	3,466,122	61,070	4,770,567	136,437	1,471,389	845,139	51,021	2,503,985	2,266,950	(1,444)	2,265,506
2040	(10,957,691)	7,425,747	20,700,543	59,253	28,185,543	814,835	8,787,503	5,047,378	1,529,579	16,179,295	13,538,789	(293,278)	13,245,512
2044	(2,600,198)	1,762,088	4,912,121	4,718	6,678,927	193,356	2,085,224	1,197,714	539,802	4,016,096	3,212,678	(135,435)	3,077,243
2045	(6,166,047)	4,178,572	11,648,487	251,562	16,078,621	458,519	4,944,851	2,840,231	175,235	8,418,836	7,618,467	21	7,618,489
2046	(5,048,738)	3,421,401	9,537,741	457,240	13,416,381	375,434	4,048,827	2,325,571	45,861	6,795,693	6,237,975	70,256	6,308,230
2047	(26,007,001)	17,624,281	49,130,704	49,931	66,804,915	1,933,931	20,856,274	11,979,456	1,846,196	36,615,857	32,132,985	(379,073)	31,753,912
2048	(5,718,916)	3,875,563	10,803,797	808,814	15,488,174	425,270	4,586,276	2,634,271	114,750	7,760,567	7,066,014	133,290	7,199,304
2050	(4,512,786)	3,058,200	8,525,257	182,336	11,765,793	335,580	3,619,022	2,078,699	158,083	6,191,383	5,575,779	7,613	5,583,392
2052	(3,895,230)	2,639,698	7,358,610	553,140	10,551,448	289,657	3,123,773	1,794,237	402,742	5,610,409	4,812,756	1,662	4,814,418
2055	(3,366,312)	2,281,264	6,359,414	392,548	9,033,226	250,326	2,699,609	1,550,605	72,022	4,572,562	4,159,252	74,801	4,234,053

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense				
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	Total pension expense		
2056	\$ (4,227,935)	2,865,164	7,987,135	254,706	11,107,004	314,397	3,390,586	1,947,489	144,944	5,797,416	5,223,831	14,691	5,238,522		
2057	(5,341,872)	3,620,050	10,091,511	602,460	14,314,022	397,232	4,283,906	2,460,596	130,104	7,271,838	6,600,157	81,820	6,681,978		
2058	(3,396,141)	2,301,478	6,415,765	199,178	8,916,421	252,544	2,723,530	1,564,345	66,161	4,606,580	4,196,107	25,430	4,221,537		
2059	(5,797,001)	3,928,479	10,951,310	53,913	14,933,703	431,076	4,648,896	2,670,239	675,738	8,425,949	7,162,492	(127,549)	7,034,943		
2060	(1,534,903)	1,040,164	2,899,636	53,211	3,993,012	114,138	1,230,913	707,013	187,084	2,239,148	1,896,451	(29,175)	1,867,276		
2061	(1,642,660)	1,113,189	3,103,204	143,595	4,359,989	122,151	1,317,329	756,649	74,947	2,271,076	2,029,591	22,729	2,052,320		
2062	(2,561,482)	1,735,851	4,838,983	320,546	6,895,380	190,477	2,054,177	1,179,881	317,162	3,741,696	3,164,843	1,544	3,166,387		
2063	(1,338,950)	907,372	2,529,456	8,056	3,444,884	99,567	1,073,769	616,753	163,732	1,953,821	1,654,342	(35,158)	1,619,184		
2064	(3,980,551)	2,697,518	7,519,794	429,536	10,646,847	296,002	3,192,197	1,833,538	—	5,321,737	4,918,175	93,291	5,011,467		
2065	(3,353,780)	2,272,771	6,335,740	330,957	8,939,468	249,394	2,689,559	1,544,833	1,884	4,485,669	4,143,768	79,285	4,223,053		
2066	(8,459,961)	5,733,100	15,981,998	472,590	22,187,689	629,099	6,784,453	3,896,863	156,997	11,467,412	10,452,716	36,265	10,488,981		
2067	(13,249,143)	8,978,606	25,029,404	303,210	34,311,220	985,232	10,625,130	6,102,877	1,338,177	19,051,416	16,369,997	(211,019)	16,158,978		
2068	(11,711,193)	7,936,376	22,124,009	427,646	30,488,032	870,867	9,391,772	5,394,459	845,809	16,502,908	14,469,780	(76,386)	14,393,393		
2069	(1,573,903)	1,066,594	2,973,313	56,384	4,096,291	117,039	1,262,189	724,978	236,629	2,340,834	1,944,638	(54,199)	1,890,439		
2070	(2,174,717)	1,473,750	4,108,331	66,349	5,648,429	161,716	1,744,011	1,001,727	55,018	2,962,473	2,686,974	5,559	2,692,533		
2071	(1,716,163)	1,163,000	3,242,062	257,315	4,662,376	127,617	1,376,274	790,506	85,191	2,379,589	2,120,408	29,264	2,149,671		
2072	(2,074,113)	1,405,573	3,918,276	47,484	5,371,333	154,235	1,663,331	955,387	111,872	2,884,825	2,562,673	(5,053)	2,557,620		
2073	(4,218,728)	2,858,924	7,969,742	319,844	11,148,510	313,713	3,383,202	1,943,248	266,039	5,906,202	5,212,455	27,506	5,239,961		
2074	(4,257,881)	2,885,457	8,043,707	539,988	11,469,153	316,624	3,414,601	1,961,283	45,668	5,738,177	5,260,831	85,879	5,346,710		
2075	(8,174,903)	5,539,923	15,443,486	909,421	21,892,830	607,902	6,555,851	3,765,559	247,898	11,177,209	10,100,513	181,000	10,281,512		
2076	(4,921,599)	3,335,242	9,297,560	220,196	12,852,998	365,980	3,946,869	2,267,008	266,675	6,846,531	6,080,889	(27,109)	6,053,780		
2077	(1,441,869)	977,118	2,723,884	23,480	3,724,481	107,220	1,156,305	664,160	119,849	2,047,534	1,781,503	(20,289)	1,761,214		
2078	(12,920,056)	8,755,592	24,407,713	1,379,379	34,542,684	960,761	10,361,218	5,951,291	345,065	17,618,335	15,963,392	186,929	16,150,321		
2079	(7,608,950)	5,156,391	14,374,324	59,461	19,590,175	565,816	6,101,985	3,504,867	705,395	10,878,063	9,401,248	(133,056)	9,268,192		
2080	(1,574,148)	1,066,760	2,973,776	334,705	4,375,241	117,057	1,262,386	725,091	33,494	2,138,027	1,944,941	61,037	2,005,978		
2081	(2,099,058)	1,422,478	3,965,402	82,202	5,470,082	156,090	1,683,337	966,877	86,180	2,892,484	2,593,494	(1,065)	2,592,429		
2082	(1,156,291)	783,589	2,184,388	96,631	3,064,607	85,984	927,286	532,616	15,610	1,561,495	1,428,657	15,174	1,443,831		
2083	(2,823,282)	1,913,266	5,333,558	90,487	7,337,311	209,945	2,264,127	1,300,472	166,287	3,940,831	3,488,310	(21,032)	3,467,278		
2084	(4,508,807)	3,055,503	8,517,740	287,854	11,861,097	335,284	3,615,831	2,076,866	169,111	6,197,091	5,570,863	9,055	5,579,918		
2085	(2,313,110)	1,567,536	4,369,775	28,616	5,965,927	172,007	1,854,995	1,065,475	136,913	3,229,391	2,857,967	(17,117)	2,840,850		
2086	(7,744,384)	5,248,172	14,630,178	524,616	20,402,965	575,888	6,210,597	3,567,251	126,485	10,480,221	9,568,585	62,679	9,631,263		
2090	(3,412,886)	2,312,825	6,447,398	217,801	8,978,024	253,789	2,736,958	1,572,058	67,128	4,629,934	4,216,796	32,254	4,249,049		
2095	(3,454,456)	2,340,996	6,525,929	2,030	8,868,956	256,880	2,770,295	1,591,206	356,304	4,974,685	4,268,157	(68,789)	4,199,368		
2104	(1,906,989)	1,292,318	3,602,558	294,105	5,188,981	141,807	1,529,307	878,406	225,570	2,775,090	2,356,183	23,312	2,379,495		
2105	(1,769,012)	1,198,814	3,341,901	208,041	4,748,756	131,547	1,418,657	814,850	219,890	2,584,944	2,185,705	7,055	2,192,760		
2110	(5,275,570)	3,575,119	9,966,257	152,235	13,693,611	392,302	4,230,735	2,430,055	177,470	7,230,562	6,518,237	(457)	6,517,780		
2112	(3,535,081)	2,395,634	6,678,240	313,846	9,387,721	262,876	2,834,952	1,628,344	12,077	4,738,249	4,367,774	68,947	4,436,721		
2115	(7,049,470)	4,777,246	13,317,392	1,757,836	19,852,473	524,212	5,653,311	3,247,157	14,612	9,439,292	8,709,982	372,237	9,082,219		
2120	(13,473,138)	9,130,402	25,452,561	519,374	35,102,337	1,001,889	10,804,762	6,206,054	160,191	18,172,897	16,646,754	62,054	16,708,808		
2125	(1,378,986)	934,503	2,605,088	107,944	3,647,535	102,544	1,105,875	635,194	144,470	1,988,084	1,703,808	(16,553)	1,687,254		
2130	(2,470,326)	1,674,077	4,666,776	329,895	6,670,749	183,698	1,981,074	1,137,892	3,651	3,306,315	3,052,215	68,894	3,121,109		
2135	(4,899,788)	3,320,461	9,256,355	131,356	12,708,173	364,358	3,929,377	2,256,961	365,958	6,916,655	6,053,940	(33,172)	6,020,768		
2140	(4,282,568)	2,902,187	8,090,343	27,443	11,019,973	318,460	3,434,398	1,972,655	298,701	6,024,214	5,291,332	(56,147)	5,235,185		

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources				Deferred inflows of resources				Pension expense				
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	Total pension expense
2145	\$ (6,084,808)	4,123,519	11,495,016	226,715	15,845,250	452,478	4,879,702	2,802,810	130,087	8,265,077	7,518,092	23,301	7,541,393
2146	(5,544,894)	3,757,633	10,475,046	2,384,474	16,617,153	412,329	4,446,719	2,554,113	31,894	7,445,054	6,851,001	460,586	7,311,587
2147	(1,574,203)	1,066,797	2,973,879	180,174	4,220,851	117,061	1,262,429	725,116	77,313	2,181,919	1,945,008	25,832	1,970,840
2148	(3,976,135)	2,694,525	7,511,451	22,282	10,228,258	295,673	3,188,655	1,831,504	403,878	5,719,711	4,912,719	(74,500)	4,838,218
2149	(2,584,214)	1,751,256	4,881,927	141,628	6,774,812	192,167	2,072,407	1,190,352	62,749	3,517,675	3,192,930	27,306	3,220,236
2150	(1,055,199)	715,081	1,993,412	13,572	2,722,066	78,467	846,215	486,050	76,902	1,487,634	1,303,753	(9,663)	1,294,090
2155	(3,978,610)	2,696,202	7,516,127	85,842	10,298,171	295,857	3,190,640	1,832,644	172,979	5,492,121	4,915,777	(9,539)	4,906,238
2160	(6,768,968)	4,587,157	12,787,486	1,308,269	18,682,912	503,354	5,428,363	3,117,951	163,624	9,213,292	8,363,408	203,565	8,566,973
2165	(2,371,450)	1,607,071	4,479,987	158,839	6,245,897	176,346	1,901,781	1,092,348	97,916	3,331,390	2,930,049	(1,840)	2,928,209
2170	(10,334,611)	7,003,502	19,523,463	768,535	27,295,500	768,502	8,287,825	4,760,373	77,435	13,894,135	12,768,943	146,271	12,915,214
2175	(951,253)	644,640	1,797,045	90,195	2,531,880	70,737	762,856	438,170	27,837	1,299,601	1,175,322	12,704	1,188,026
2180	(2,015,434)	1,365,808	3,807,425	56,525	5,229,758	149,872	1,616,274	928,358	66,151	2,760,655	2,490,172	3,594	2,493,766
2185	(10,978,171)	7,439,626	20,739,233	907,010	29,085,870	816,358	8,803,927	5,056,812	160,311	14,837,408	13,564,094	156,085	13,720,179
2187	(5,365,054)	3,635,760	10,135,305	11,514	13,782,579	398,956	4,302,497	2,471,274	330,203	7,502,929	6,628,800	(61,298)	6,567,502
2190	(7,038,731)	4,769,968	13,297,104	833,956	18,901,028	523,414	5,644,699	3,242,210	2,860	9,413,183	8,696,714	172,531	8,869,245
2191	(4,940,720)	3,348,200	9,333,680	427,850	13,109,730	367,402	3,962,202	2,275,815	131,717	6,737,136	6,104,513	39,060	6,143,572
2195	(1,543,132)	1,045,741	2,915,184	56,610	4,017,536	114,750	1,237,513	710,804	97,852	2,160,920	1,906,619	(10,271)	1,896,348
2196	(1,782,922)	1,208,241	3,368,178	58,185	4,634,604	132,582	1,429,812	821,257	178,565	2,562,215	2,202,892	(22,032)	2,180,859
2198	(3,643,593)	2,469,170	6,883,235	152,233	9,504,639	270,945	2,921,974	1,678,327	188,106	5,059,352	4,501,847	(24,492)	4,477,355
2200	(15,371,031)	10,416,555	29,037,933	1,377,880	40,832,368	1,143,020	12,326,774	7,080,270	250,142	20,800,206	18,991,697	226,044	19,217,741
2204	(13,676,486)	9,268,205	25,836,711	1,374,872	36,479,788	1,017,010	10,967,836	6,299,721	87,041	18,371,608	16,898,000	291,092	17,189,092
2205	(419,030)	283,966	791,604	73,218	1,148,788	31,160	336,041	193,015	101,335	661,551	517,733	(2,118)	515,615
2206	(2,131,876)	1,444,718	4,027,399	71,710	5,543,827	158,530	1,709,655	981,994	127,073	2,977,252	2,634,042	(3,839)	2,630,203
2207	(3,792,684)	2,570,205	7,164,888	582,552	10,317,645	282,031	3,041,537	1,747,002	241,172	5,311,743	4,686,056	70,805	4,756,861
2208	(6,628,507)	4,491,970	12,522,136	110,058	17,124,165	492,909	5,315,721	3,053,251	672,621	9,534,501	8,189,861	(141,507)	8,048,354
2209	(14,975,656)	10,148,620	28,291,018	1,497,992	39,937,630	1,113,619	12,009,704	6,898,150	59,655	20,081,128	18,503,192	284,670	18,787,862
2210	(4,255,018)	2,883,517	8,038,297	—	10,921,814	316,411	3,412,305	1,959,964	435,057	6,123,737	5,257,293	(95,820)	5,161,473
2212	(5,408,330)	3,665,087	10,217,059	264,915	14,147,061	402,174	4,337,202	2,491,208	272,285	7,502,868	6,682,269	(24,183)	6,658,086
2215	(8,105,587)	5,492,949	15,312,538	249,053	21,054,540	602,747	6,500,263	3,733,630	318,931	11,155,571	10,014,869	6,920	10,021,789
2220	(3,416,594)	2,315,338	6,454,403	22,501	8,792,243	254,065	2,739,932	1,573,766	327,481	4,895,243	4,221,377	(56,473)	4,164,904
2224	(7,228,423)	4,898,518	13,655,458	59,195	18,613,171	537,520	5,796,822	3,329,587	310,695	9,974,624	8,931,088	(42,677)	8,888,410
2225	(12,652,372)	8,574,190	23,902,024	1,769,249	34,245,463	940,855	10,146,550	5,827,990	17,492	16,932,887	15,632,656	442,505	16,075,161
2230	(10,606,697)	7,187,887	20,037,469	1,540,167	28,765,523	788,735	8,506,024	4,885,702	842,916	15,023,376	13,105,118	273,639	13,378,758
2231	(5,094,729)	3,452,567	9,624,624	312,864	13,390,056	378,854	4,085,710	2,346,756	150,170	6,961,489	6,294,799	42,398	6,337,197
2235	(1,095,913)	742,672	2,070,326	75,286	2,888,285	81,494	878,866	504,804	167,826	1,632,990	1,354,057	(17,885)	1,336,172
2239	(4,717,870)	3,197,180	8,912,688	320,484	12,430,353	350,830	3,783,489	2,173,166	2,198	6,309,683	5,829,171	66,929	5,896,100
2240	(9,074,418)	6,149,501	17,142,790	405,137	23,697,428	674,791	7,277,215	4,179,897	716,206	12,848,110	11,211,909	(17,281)	11,194,628
2241	(1,409,337)	955,072	2,662,426	103,605	3,721,103	104,801	1,130,216	649,175	33,551	1,917,742	1,741,308	20,470	1,761,778
2242	(2,391,482)	1,620,646	4,517,830	374,161	6,512,637	177,835	1,917,845	1,101,575	29,927	3,227,182	2,954,799	80,423	3,035,222
2243	(2,471,839)	1,675,102	4,669,635	236,546	6,581,283	183,811	1,982,288	1,138,589	33,472	3,338,160	3,054,084	48,799	3,102,883
2244	(1,508,871)	1,022,523	2,850,459	146,286	4,019,268	112,203	1,210,037	695,022	207,979	2,225,240	1,864,287	(756)	1,863,531
2245	(4,032,577)	2,732,775	7,618,078	127,373	10,478,226	299,870	3,233,919	1,857,503	385,652	5,776,945	4,982,457	(73,963)	4,908,493
2250	(2,317,842)	1,570,743	4,378,714	30,005	5,979,462	172,359	1,858,790	1,067,654	110,100	3,208,903	2,863,813	(25,913)	2,837,901

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
2255	\$ (7,366,131)	4,991,839	13,915,607	183,073	19,090,519	547,760	5,907,257	3,393,019	321,222	10,169,258	9,101,233	(47,023)	9,054,210	
2260	(5,070,340)	3,436,040	9,578,550	541,097	13,555,687	377,040	4,066,151	2,335,522	11,451	6,790,164	6,264,665	115,559	6,380,224	
2266	(4,232,889)	2,868,521	7,996,494	127,169	10,992,185	314,766	3,394,559	1,949,772	59,967	5,719,064	5,229,952	12,514	5,242,466	
2268	(2,266,763)	1,536,127	4,282,218	426,468	6,244,813	168,561	1,817,827	1,044,126	108,889	3,139,403	2,800,702	73,999	2,874,701	
2270	(4,054,606)	2,747,703	7,659,693	98,408	10,505,804	301,508	3,251,585	1,867,650	174,069	5,594,812	5,009,674	(29,571)	4,980,102	
2271	(2,835,964)	1,921,861	5,357,516	84,758	7,364,134	210,888	2,274,297	1,306,314	217,704	4,009,203	3,503,979	(21,016)	3,482,964	
2272	(4,256,985)	2,884,850	8,042,014	270,972	11,197,836	316,558	3,413,882	1,960,871	45,682	5,736,993	5,259,724	46,358	5,306,081	
2275	(7,937,523)	5,379,057	14,995,043	477,296	20,851,396	590,250	6,365,484	3,656,216	83,352	10,695,302	9,807,218	106,657	9,913,874	
2280	(2,644,786)	1,792,304	4,996,354	70,521	6,859,178	196,671	2,120,982	1,218,252	204,962	3,740,867	3,267,768	(31,824)	3,235,945	
2281	(1,597,737)	1,082,745	3,018,338	44,084	4,145,168	118,811	1,281,302	735,956	52,074	2,188,144	1,974,086	(2,803)	1,971,283	
2282	(6,942,358)	4,704,659	13,115,044	1,046,440	18,866,143	516,247	5,567,413	3,197,819	—	9,281,480	8,577,640	235,377	8,813,017	
2285	(10,057,319)	6,815,589	18,999,622	415,834	26,231,044	747,882	8,065,452	4,632,645	340,978	13,786,957	12,426,335	21,212	12,447,547	
2286	(5,513,796)	3,736,559	10,416,298	327,690	14,480,547	410,017	4,421,780	2,539,788	80,072	7,451,657	6,812,578	71,259	6,883,837	
2288	(3,182,896)	2,156,967	6,012,915	297,495	8,467,378	236,686	2,552,518	1,466,119	—	4,255,323	3,932,631	69,405	4,002,036	
2289	(10,094,042)	6,840,475	19,068,996	794,818	26,704,288	750,613	8,094,901	4,649,561	—	13,495,075	12,471,707	204,372	12,676,080	
2290	(5,895,560)	3,995,270	11,137,502	—	15,132,772	438,405	4,727,935	2,715,638	673,178	8,555,156	7,284,267	(136,778)	7,147,489	
2295	(2,806,924)	1,902,181	5,302,654	21,959	7,226,794	208,728	2,251,008	1,292,937	576,537	4,329,211	3,468,098	(98,042)	3,370,056	
2300	(5,368,245)	3,637,922	10,141,332	1,878,446	15,657,700	399,193	4,305,055	2,472,744	—	7,176,992	6,632,742	416,885	7,049,627	
2305	(1,381,673)	936,324	2,610,165	38,358	3,584,847	102,744	1,108,030	636,432	104,830	1,952,037	1,707,128	(17,050)	1,690,078	
2310	(14,865,823)	10,074,189	28,083,529	1,660,659	39,818,376	1,105,452	11,921,624	6,847,559	—	19,874,634	18,367,488	343,173	18,710,661	
2315	(2,578,092)	1,747,107	4,870,361	120,826	6,738,294	191,712	2,067,497	1,187,532	247,238	3,693,978	3,185,365	(17,365)	3,167,999	
2317	(2,497,595)	1,692,556	4,718,290	51,491	6,462,337	185,726	2,002,942	1,150,453	213,167	3,552,288	3,085,906	(24,540)	3,061,366	
2320	(9,961,927)	6,750,944	18,819,413	968,621	26,538,977	740,788	7,988,952	4,588,705	131,210	13,449,655	12,308,472	152,193	12,460,665	
2325	(9,134,193)	6,190,010	17,255,713	364,113	23,809,836	679,236	7,325,152	4,207,431	354,083	12,565,903	11,285,765	(21,581)	11,264,184	
2328	(2,028,022)	1,374,338	3,831,204	195,472	5,401,015	150,808	1,626,369	934,156	68,952	2,780,285	2,505,725	23,628	2,529,353	
2330	(5,348,529)	3,624,561	10,104,086	238,814	13,967,461	397,727	4,289,244	2,463,662	439,614	7,590,247	6,608,382	(38,396)	6,569,986	
2335	(6,011,185)	4,073,626	11,355,932	126,371	15,555,930	447,003	4,820,660	2,768,898	229,982	8,266,543	7,427,127	(39,547)	7,387,580	
2338	(8,214,300)	5,566,622	15,517,912	249,221	21,333,755	610,831	6,587,445	3,783,706	143,060	11,125,043	10,149,190	6,389	10,155,579	
2339	(2,296,104)	1,556,011	4,337,648	457,489	6,351,149	170,743	1,841,357	1,057,641	268,649	3,338,390	2,836,955	19,367	2,856,322	
2340	(2,740,719)	1,857,315	5,177,585	68,063	7,102,963	203,805	2,197,915	1,262,442	172,614	3,836,776	3,386,299	(34,472)	3,351,827	
2345	(3,430,471)	2,324,743	6,480,619	274,735	9,080,097	255,097	2,751,061	1,580,158	187,124	4,773,440	4,238,523	6,834	4,245,358	
2350	(9,565,675)	6,482,414	18,070,839	513,074	25,066,326	711,322	7,671,178	4,406,182	759,997	13,548,679	11,818,882	(72,381)	11,746,502	
2355	(6,543,704)	4,434,501	12,361,932	730,043	17,526,476	486,603	5,247,713	3,014,189	227,934	8,976,438	8,085,082	79,845	8,164,927	
2360	(4,876,100)	3,304,408	9,211,605	162,643	12,678,656	362,596	3,910,380	2,246,050	160,356	6,679,382	6,024,671	(10,741)	6,013,930	
2361	(2,131,879)	1,444,720	4,027,405	73,191	5,545,317	158,531	1,709,657	981,995	152,467	3,002,650	2,634,046	(13,808)	2,620,238	
2362	(2,509,008)	1,700,291	4,739,852	28,946	6,469,088	186,575	2,012,095	1,155,710	270,575	3,624,955	3,100,008	(43,733)	3,056,275	
2363	(1,548,176)	1,049,159	2,924,712	75,296	4,049,167	115,125	1,241,557	713,128	69,792	2,139,602	1,912,851	8,869	1,921,720	
2364	(3,038,570)	2,059,161	5,740,265	98,221	7,897,647	225,954	2,436,776	1,399,639	357,082	4,419,452	3,754,309	(44,646)	3,709,663	
2365	(14,506,036)	9,830,370	27,403,843	1,500,437	38,734,650	1,078,697	11,633,093	6,681,832	1,213,641	20,607,264	17,922,953	9,272	17,932,225	
2370	(2,428,620)	1,645,814	4,587,988	118,532	6,352,333	180,597	1,947,628	1,118,681	95,696	3,342,603	3,000,685	801	3,001,485	
2375	(1,919,178)	1,300,578	3,625,583	334,363	5,260,524	142,714	1,539,082	884,020	109,162	2,674,978	2,371,243	29,620	2,400,862	
2377	(2,951,577)	2,000,209	5,575,924	354,504	7,930,637	219,485	2,367,013	1,359,568	328,625	4,274,690	3,646,825	27,784	3,674,609	
2378	(15,070,251)	10,212,724	28,469,721	317,468	38,999,913	1,120,653	12,085,564	6,941,723	420,436	20,568,377	18,620,069	(62,706)	18,557,363	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense		
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	Total pension expense
2379	\$ (15,571,567)	10,552,453	29,416,773	177,601	40,146,828	1,157,932	12,487,594	7,172,642	1,193,608	22,011,775	19,239,471	(197,056)	19,042,415
2380	(6,066,529)	4,111,132	11,460,484	441,240	16,012,856	451,119	4,865,043	2,794,390	224,170	8,334,722	7,495,508	63,486	7,558,994
2381	(3,176,796)	2,152,834	6,001,393	411,378	8,565,605	236,233	2,547,627	1,463,309	420,490	4,667,658	3,925,095	(30,475)	3,894,620
2383	(10,780,065)	7,305,375	20,364,985	474,373	28,144,732	801,627	8,645,056	4,965,559	156,836	14,569,078	13,319,324	93,910	13,413,233
2384	(6,843,178)	4,637,447	12,927,679	227,133	17,792,259	508,872	5,487,876	3,152,134	714,170	9,863,052	8,455,098	(156,805)	8,298,294
2385	(4,475,710)	3,033,074	8,455,215	514,545	12,002,834	332,823	3,589,288	2,061,621	132,431	6,116,162	5,529,969	74,399	5,604,368
2389	(3,986,200)	2,701,346	7,530,465	588,413	10,820,224	296,422	3,196,727	1,836,140	132,869	5,462,158	4,925,155	81,054	5,006,209
2390	(8,295,725)	5,621,801	15,671,734	1,074,564	22,368,098	616,886	6,652,743	3,821,212	392,557	11,483,399	10,249,794	161,917	10,411,711
2391	(4,102,288)	2,780,016	7,749,771	375,931	10,905,718	305,054	3,289,823	1,889,613	—	5,484,491	5,068,588	87,832	5,156,419
2394	(2,882,701)	1,953,533	5,445,807	202,333	7,601,674	214,363	2,311,777	1,327,842	84,255	3,938,237	3,561,725	21,601	3,583,325
2395	(2,404,234)	1,629,288	4,541,919	110,294	6,281,501	178,784	1,928,071	1,107,448	57,218	3,271,521	2,970,554	7,522	2,978,076
2396	(1,851,514)	1,254,724	3,497,757	159,365	4,911,846	137,682	1,484,818	852,852	253,144	2,728,497	2,287,640	(27,796)	2,259,844
2400	(14,502,047)	9,827,667	27,396,307	732,559	37,956,533	1,078,401	11,629,894	6,679,995	983,912	20,372,202	17,918,224	21,461	17,939,485
2401	(3,504,950)	2,375,215	6,621,320	233,554	9,230,089	260,635	2,810,789	1,614,465	370,904	5,056,793	4,330,546	(734)	4,329,812
2402	(8,179,955)	5,543,347	15,453,030	521,927	21,518,304	608,277	6,559,902	3,767,886	176,672	11,112,738	10,106,755	55,035	10,161,790
2403	(3,991,973)	2,705,258	7,541,371	74,113	10,320,742	296,851	3,201,356	1,838,800	304,064	5,641,071	4,932,287	(42,987)	4,889,300
2405	(5,212,278)	3,532,228	9,846,691	48,139	13,427,058	387,595	4,179,979	2,400,902	354,127	7,322,603	6,440,038	(75,210)	6,364,827
2406	(7,142,122)	4,840,034	13,492,424	152,870	18,485,328	531,102	5,727,614	3,289,835	510,859	10,059,410	8,824,459	(100,369)	8,724,090
2408	(7,638,644)	5,176,514	14,430,421	109,907	19,716,842	568,024	6,125,799	3,518,545	851,844	11,064,212	9,437,937	(125,193)	9,312,744
2409	(1,602,033)	1,085,657	3,026,454	137,357	4,249,467	119,130	1,284,747	737,935	248,980	2,390,792	1,979,393	(11,732)	1,967,661
2410	(9,667,557)	6,551,457	18,263,309	254,461	25,069,227	718,898	7,752,882	4,453,111	147,193	13,396,085	11,944,763	(18,767)	11,925,996
2415	(10,776,144)	7,302,717	20,357,577	1,513,714	29,174,009	801,335	8,641,911	4,963,753	480,662	14,887,661	13,314,479	174,897	13,489,375
2420	(5,539,456)	3,753,948	10,464,774	178,134	14,396,856	411,925	4,442,358	2,551,608	218,864	7,624,755	6,844,283	(19,449)	6,824,834
2425	(10,165,349)	6,888,797	19,203,704	1,858,709	27,951,210	755,915	8,152,085	4,682,406	13,384	13,603,791	12,559,810	408,293	12,968,104
2426	(2,937,774)	1,990,854	5,549,848	346,285	7,886,988	218,459	2,355,943	1,353,210	40,052	3,967,664	3,629,771	73,027	3,702,797
2428	(5,914,688)	4,008,233	11,173,636	126,776	15,308,645	439,828	4,743,274	2,724,449	259,668	8,167,219	7,307,900	(25,569)	7,282,331
2430	(8,726,129)	5,913,475	16,484,825	165,788	22,564,089	648,892	6,997,906	4,019,467	465,226	12,131,491	10,781,581	(54,176)	10,727,405
2435	(2,273,988)	1,541,024	4,295,868	266,990	6,103,881	169,098	1,823,621	1,047,454	116,141	3,156,314	2,809,629	22,721	2,832,350
2440	(3,808,578)	2,580,976	7,194,913	324,533	10,100,422	283,213	3,054,283	1,754,323	124,931	5,216,750	4,705,694	63,315	4,769,009
2441	(2,226,672)	1,508,959	4,206,482	59,641	5,775,082	165,580	1,785,676	1,025,659	75,132	3,052,047	2,751,168	(4,301)	2,746,867
2445	(11,319,215)	7,670,743	21,383,511	343,603	29,397,856	841,719	9,077,426	5,213,905	846,520	15,979,571	13,985,471	(54,765)	13,930,706
2450	(4,405,967)	2,985,811	8,323,461	30,532	11,339,805	327,636	3,533,358	2,029,495	224,619	6,115,109	5,443,799	(49,780)	5,394,018
2455	(5,491,687)	3,721,576	10,374,531	350,385	14,446,492	408,373	4,404,049	2,529,604	367,794	7,709,820	6,785,261	(7,509)	6,777,752
2458	(5,442,491)	3,688,237	10,281,593	348,873	14,318,703	404,714	4,364,597	2,506,943	141,186	7,417,440	6,724,477	59,097	6,783,573
2460	(1,967,178)	1,333,106	3,716,262	140,508	5,189,876	146,283	1,577,575	906,130	83,463	2,713,451	2,430,549	5,311	2,435,860
2464	(1,748,896)	1,185,182	3,303,898	94,602	4,583,683	130,051	1,402,524	805,584	4,600	2,342,759	2,160,851	19,151	2,180,001
2465	(935,833)	634,190	1,767,914	111,729	2,513,833	69,590	750,490	431,067	56,036	1,307,183	1,156,270	15,955	1,172,225
2466	(2,294,335)	1,554,812	4,334,305	66,969	5,956,086	170,611	1,839,938	1,056,826	355,351	3,422,727	2,834,768	(69,147)	2,765,621
2467	(3,110,760)	2,108,082	5,876,641	171,642	8,156,366	231,322	2,494,669	1,432,891	98,790	4,257,673	3,843,503	5,875	3,849,379
2468	(2,417,480)	1,638,264	4,566,943	402,538	6,607,745	179,769	1,938,694	1,113,550	—	3,232,012	2,986,920	82,090	3,069,011
2469	(7,028,192)	4,762,826	13,277,195	243,970	18,283,992	522,630	5,636,248	3,237,356	271,335	9,667,569	8,683,692	19,763	8,703,455
2470	(6,026,756)	4,084,178	11,385,347	728,595	16,198,121	448,161	4,833,147	2,776,070	116,710	8,174,089	7,446,366	104,610	7,550,976
2471	(6,688,975)	4,532,947	12,636,368	460,322	17,629,637	497,405	5,364,213	3,081,104	16,526	8,959,248	8,264,572	100,165	8,364,736

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
2475	\$ (10,074,142)	6,826,989	19,031,401	889,654	26,748,044	749,133	8,078,942	4,640,394	191,907	13,660,376	12,447,119	147,631	12,594,751	
2480	(3,167,141)	2,146,291	5,983,153	522,886	8,652,330	235,515	2,539,884	1,458,862	31,787	4,266,048	3,913,166	92,749	4,005,914	
2485	(6,932,810)	4,698,189	13,097,006	605,383	18,400,578	515,537	5,559,756	3,193,421	955,453	10,224,167	8,565,843	(155,753)	8,410,090	
2490	(10,329,476)	7,000,022	19,513,763	151,854	26,665,639	768,120	8,283,707	4,758,007	129,929	13,939,764	12,762,598	21,612	12,784,210	
2495	(1,371,359)	929,335	2,590,681	25,288	3,545,303	101,977	1,099,759	631,681	192,435	2,025,852	1,694,384	(40,379)	1,654,005	
2497	(3,348,413)	2,269,134	6,325,600	222,224	8,816,958	248,995	2,685,255	1,542,360	33,596	4,510,205	4,137,136	43,880	4,181,017	
2498	(2,876,329)	1,949,215	5,433,771	316,261	7,699,247	213,889	2,306,668	1,324,907	61,209	3,906,673	3,553,853	44,261	3,598,114	
2500	(8,373,516)	5,674,518	15,818,692	147,843	21,641,054	622,671	6,715,128	3,857,045	414,075	11,608,919	10,345,909	(49,414)	10,296,495	
2504	(5,228,576)	3,543,272	9,877,479	134,128	13,554,880	388,807	4,193,048	2,408,409	815,553	7,805,817	6,460,174	(155,237)	6,304,937	
2505	(6,963,722)	4,719,137	13,155,403	464,493	18,339,032	517,836	5,584,546	3,207,659	50,574	9,360,615	8,604,036	94,077	8,698,114	
2507	(1,329,437)	900,925	2,511,484	40,934	3,453,343	98,860	1,066,140	612,371	30,240	1,807,610	1,642,587	217	1,642,804	
2508	(3,755,703)	2,545,144	7,095,025	289,896	9,930,065	279,281	3,011,880	1,729,968	122,526	5,143,655	4,640,364	47,613	4,687,976	
2509	(6,723,368)	4,556,255	12,701,341	435,319	17,692,915	499,963	5,391,794	3,096,946	74,474	9,063,178	8,307,066	68,669	8,375,736	
2510	(2,776,311)	1,881,435	5,244,823	203,373	7,329,631	206,452	2,226,458	1,278,836	66,685	3,778,432	3,430,275	42,369	3,472,644	
2512	(19,561,506)	13,256,333	36,954,301	2,536,195	52,746,828	1,454,632	15,687,319	9,010,504	609,394	26,761,848	24,169,245	495,343	24,664,587	
2514	(1,936,610)	1,312,391	3,658,516	153,375	5,124,283	144,010	1,553,062	892,050	238,588	2,827,709	2,392,781	(1,376)	2,391,406	
2515	(1,720,787)	1,166,133	3,250,796	176,815	4,593,744	127,961	1,379,982	792,636	281,661	2,582,240	2,126,120	(3,701)	2,122,419	
2520	(3,786,596)	2,566,080	7,153,387	127,684	9,847,151	281,579	3,036,655	1,744,198	73,031	5,135,463	4,678,534	10,005	4,688,539	
2525	(5,465,628)	3,703,916	10,325,302	172,961	14,202,179	406,435	4,383,151	2,517,601	223,500	7,530,686	6,753,064	(6,186)	6,746,877	
2530	(10,421,448)	7,062,349	19,687,509	658,320	27,408,179	774,959	8,357,464	4,800,372	105,552	14,038,346	12,876,234	119,201	12,995,435	
2533	(2,547,778)	1,726,564	4,813,094	202,204	6,741,863	189,458	2,043,187	1,173,568	204,939	3,611,152	3,147,911	(2,533)	3,145,378	
2535	(3,072,107)	2,081,888	5,803,621	134,255	8,019,764	228,448	2,463,671	1,415,087	51,766	4,158,972	3,795,746	17,848	3,813,593	
2540	(7,320,455)	4,960,885	13,829,319	2,019	18,792,223	544,363	5,870,627	3,371,979	562,780	10,349,750	9,044,798	(129,022)	8,915,776	
2541	(4,374,535)	2,964,510	8,264,081	397,595	11,626,187	325,299	3,508,151	2,015,017	152,015	6,000,482	5,404,962	37,462	5,442,424	
2542	(2,682,948)	1,818,165	5,068,448	135,549	7,022,162	199,509	2,151,586	1,235,831	78,212	3,665,138	3,314,920	24,696	3,339,616	
2545	(1,334,992)	904,690	2,521,978	151,645	3,578,313	99,273	1,070,595	614,930	24,533	1,809,330	1,649,451	23,922	1,673,373	
2547	(10,045,775)	6,807,765	18,977,812	219,425	26,005,002	747,023	8,056,193	4,627,328	805,623	14,236,167	12,412,070	(157,801)	12,254,269	
2550	(1,201,799)	814,428	2,270,358	107,839	3,192,625	89,368	963,781	553,578	96,616	1,703,342	1,484,884	11,536	1,496,419	
2551	(1,846,483)	1,251,314	3,488,254	103,237	4,842,805	137,308	1,480,784	850,535	232,033	2,700,660	2,281,425	(17,903)	2,263,522	
2555	(1,820,206)	1,233,507	3,438,612	185,499	4,857,618	135,354	1,459,711	838,431	4,071	2,437,567	2,248,958	36,059	2,285,016	
2557	(15,369,194)	10,415,310	29,034,463	228,217	39,677,990	1,142,883	12,325,301	7,079,423	474,729	21,022,337	18,989,428	(40,993)	18,948,435	
2559	(1,516,237)	1,027,515	2,864,374	222,900	4,114,789	112,750	1,215,944	698,415	70,988	2,098,097	1,873,388	22,375	1,895,764	
2560	(1,904,273)	1,290,477	3,597,427	77,410	4,965,314	141,605	1,527,129	877,154	136,757	2,682,646	2,352,827	(4,587)	2,348,240	
2561	(6,126,189)	4,151,562	11,573,191	157,533	15,882,286	455,555	4,912,888	2,821,871	170,075	8,360,390	7,569,222	(1,049)	7,568,173	
2562	(7,252,883)	4,915,094	13,701,666	136,701	18,753,461	539,339	5,816,438	3,340,854	362,725	10,059,356	8,961,309	(53,452)	8,907,857	
2563	(7,929,033)	5,373,303	14,979,005	15,022	20,367,331	589,618	6,358,676	3,652,305	553,816	11,154,416	9,796,728	(139,395)	9,657,333	
2564	(10,688,867)	7,243,572	20,192,700	32,861	27,469,133	794,845	8,571,920	4,923,552	1,857,860	16,148,177	13,206,644	(352,245)	12,854,399	
2565	(6,049,128)	4,099,339	11,427,611	545,427	16,072,378	449,825	4,851,088	2,786,375	281,604	8,368,893	7,474,008	100,166	7,574,174	
2570	(4,208,979)	2,852,318	7,951,325	155,937	10,959,579	312,988	3,375,384	1,938,758	183,704	5,810,834	5,200,410	(19,337)	5,181,073	
2573	(4,434,749)	3,005,316	8,377,834	1,151	11,384,300	329,777	3,556,440	2,042,753	213,568	6,142,537	5,479,360	(44,306)	5,435,054	
2574	(1,446,601)	980,325	2,732,823	111,457	3,824,605	107,572	1,160,100	666,340	—	1,934,011	1,787,350	24,674	1,812,024	
2575	(15,179,990)	10,287,092	28,677,032	450,654	39,414,778	1,128,814	12,173,569	6,992,272	2,092,857	22,387,511	18,755,657	(403,337)	18,352,320	
2576	(3,116,103)	2,111,703	5,886,735	3,498	8,001,937	231,719	2,498,954	1,435,353	233,478	4,399,504	3,850,105	(56,335)	3,793,770	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	Total pension expense	
2580	\$ (8,270,180)	5,604,490	15,623,476	154,845	21,382,810	614,987	6,632,258	3,809,445	359,286	11,415,976	10,218,232	(63,409)	10,154,822	
2582	(1,815,289)	1,230,175	3,429,324	297,469	4,956,968	134,988	1,455,768	836,166	—	2,426,923	2,242,883	69,108	2,311,991	
2584	(4,822,468)	3,268,064	9,110,288	65,590	12,443,942	358,608	3,867,371	2,221,346	112,054	6,559,379	5,958,407	(21,282)	5,937,125	
2585	(16,384,076)	11,103,070	30,951,711	1,264,946	43,319,727	1,218,352	13,139,184	7,546,903	74,992	21,979,430	20,243,367	258,680	20,502,047	
2590	(5,468,297)	3,705,725	10,330,345	35,079	14,071,149	406,633	4,385,292	2,518,830	383,461	7,694,217	6,756,362	(84,420)	6,671,942	
2593	(13,378,459)	9,066,240	25,273,699	30,140	34,370,079	994,848	10,728,834	6,162,443	1,300,047	19,186,173	16,529,773	(318,215)	16,211,558	
2595	(1,111,944)	753,536	2,100,610	71,564	2,925,710	82,686	891,721	512,188	49,036	1,535,632	1,373,863	(1,228)	1,372,636	
2600	(2,158,920)	1,463,045	4,078,488	39,191	5,580,724	160,541	1,731,342	994,451	488,936	3,375,271	2,667,456	(90,096)	2,577,361	
2605	(984,692)	667,300	1,860,214	47,767	2,575,281	73,224	789,672	453,573	57,752	1,374,221	1,216,637	(12,361)	1,214,276	
2610	(13,704,903)	9,287,463	25,890,396	495,118	35,672,978	1,019,123	10,990,626	6,312,811	846,756	19,169,316	16,933,112	(128,316)	16,804,796	
2611	(3,707,901)	2,512,750	7,004,720	405,473	9,922,943	275,727	2,973,545	1,707,949	409,240	5,366,460	4,581,302	32,657	4,613,959	
2612	(4,280,073)	2,900,496	8,085,630	253,334	11,239,461	318,275	3,432,398	1,971,505	43,365	5,765,543	5,288,250	34,473	5,322,722	
2613	(4,326,721)	2,932,108	8,173,755	—	11,105,863	321,743	3,469,807	1,992,993	428,666	6,213,209	5,345,886	(91,444)	5,254,442	
2614	(5,251,612)	3,558,883	9,920,997	747,595	14,227,475	390,520	4,211,522	2,419,020	7,624	7,028,686	6,488,636	132,600	6,621,235	
2615	(15,179,543)	10,286,788	28,676,187	—	38,962,975	1,128,780	12,173,210	6,992,066	1,006,862	21,300,919	18,755,104	(208,054)	18,547,050	
2616	(5,124,433)	3,472,698	9,680,740	594,545	13,747,983	381,063	4,109,531	2,360,438	18,086	6,869,119	6,331,501	113,441	6,444,942	
2617	(5,508,925)	3,733,258	10,407,096	604,833	14,745,187	409,654	4,417,874	2,537,545	145,751	7,510,823	6,806,560	112,572	6,919,132	
2618	(1,417,436)	960,560	2,677,727	141,219	3,779,506	105,403	1,136,711	652,906	124,620	2,019,640	1,751,315	(5,313)	1,746,002	
2619	(3,027,686)	2,051,786	5,719,704	296,892	8,068,382	225,145	2,428,048	1,394,626	90,409	4,138,228	3,740,862	29,197	3,770,059	
2620	(1,039,207)	704,244	1,963,200	95,982	2,763,426	77,277	833,390	478,684	57,654	1,447,005	1,283,993	8,921	1,292,914	
2625	(1,816,575)	1,231,047	3,431,754	149,825	4,812,625	135,084	1,456,800	836,759	128,985	2,557,628	2,244,472	15,505	2,259,977	
2626	(1,205,044)	816,627	2,276,488	316,402	3,409,518	89,609	966,383	555,072	43,438	1,654,502	1,488,893	53,795	1,542,688	
2630	(1,460,490)	989,736	2,759,060	274,831	4,023,627	108,605	1,171,237	672,737	181,529	2,134,108	1,804,510	36,159	1,840,668	
2632	(2,682,595)	1,817,926	5,067,781	612,185	7,497,892	199,483	2,151,303	1,235,668	101,367	3,687,821	3,314,484	96,329	3,410,813	
2633	(10,341,054)	7,007,868	19,535,634	202,396	26,745,898	768,981	8,292,992	4,763,340	543,173	14,368,486	12,776,903	(64,439)	12,712,464	
2635	(1,358,687)	920,748	2,566,742	179,641	3,667,131	101,035	1,089,597	625,844	226,119	2,042,595	1,678,728	(6,922)	1,671,806	
2640	(3,343,597)	2,265,870	6,316,502	637,267	9,219,640	248,636	2,681,392	1,540,142	99,242	4,569,413	4,131,186	148,381	4,279,567	
2641	(1,973,513)	1,337,400	3,728,231	123,632	5,189,262	146,754	1,582,656	909,048	45,133	2,683,591	2,438,377	25,812	2,464,189	
2642	(7,792,148)	5,280,540	14,720,409	1,293,136	21,294,085	579,439	6,248,901	3,589,252	—	10,417,592	9,627,599	251,854	9,879,453	
2643	(7,512,383)	5,090,950	14,191,897	513,652	19,796,499	558,635	6,024,544	3,460,386	181,017	10,224,582	9,281,935	111,558	9,393,493	
2644	(6,892,862)	4,671,117	13,021,538	489,818	18,182,473	512,567	5,527,720	3,175,019	81,492	9,296,798	8,516,485	99,985	8,616,470	
2645	(8,760,891)	5,937,032	16,550,494	377,823	22,865,349	651,477	7,025,783	4,035,479	888,955	12,601,693	10,824,530	(141,984)	10,682,546	
2648	(1,609,711)	1,090,860	3,040,959	282,174	4,413,993	119,701	1,290,905	741,472	11,037	2,163,115	1,988,880	52,465	2,041,346	
2649	(3,552,539)	2,407,465	6,711,221	115,608	9,234,293	264,174	2,848,953	1,636,385	83,437	4,832,949	4,389,344	9,988	4,399,332	
2650	(799,345)	541,696	1,510,070	158,393	2,210,159	59,441	641,034	368,198	196,224	1,264,897	987,632	(2,547)	985,086	
2651	(12,963,043)	8,784,723	24,488,922	531,414	33,805,060	963,957	10,395,692	5,971,092	1,573,191	18,903,932	16,016,505	(282,817)	15,733,688	
2652	(1,407,862)	954,072	2,659,639	152,323	3,766,034	104,691	1,129,033	648,495	3,010	1,885,229	1,739,486	32,323	1,771,809	
2653	(2,085,567)	1,413,335	3,939,915	100,542	5,453,792	155,087	1,672,517	960,663	147,449	2,935,716	2,576,825	(19,741)	2,557,084	
2654	(13,549,166)	9,181,924	25,596,187	270,225	35,048,335	1,007,542	10,865,732	6,241,074	974,589	19,088,938	16,740,690	(124,640)	16,616,050	
2655	(7,453,033)	5,050,730	14,079,776	5,727	19,136,234	554,222	5,976,948	3,433,048	401,195	10,365,413	9,208,605	(89,638)	9,118,967	
2656	(6,879,757)	4,662,236	12,996,782	471,517	18,130,535	511,592	5,517,211	3,168,983	—	9,197,786	8,500,294	97,673	8,597,966	
3032	(1,037,043)	702,778	1,959,114	14,127	2,676,019	77,117	831,655	477,687	165,448	1,551,908	1,281,320	(27,651)	1,253,670	
3041	(397,230)	269,193	750,421	55,678	1,075,291	29,539	318,558	182,974	27,246	558,317	490,798	3,342	494,140	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
3042	\$ (1,075,406)	728,775	2,031,586	284,590	3,044,951	79,969	862,420	495,358	—	1,437,748	1,328,719	52,520	1,381,239	
3043	(1,156,919)	784,014	2,185,574	151,200	3,120,788	86,031	927,789	532,905	23,873	1,570,597	1,429,432	20,406	1,449,838	
3044	(792,425)	537,006	1,496,998	128,324	2,162,328	58,926	635,484	365,010	61,068	1,120,489	979,082	18,922	998,004	
3048	(407,979)	276,477	770,727	45,223	1,092,426	30,338	327,178	187,925	109,639	655,080	504,079	(10,453)	493,626	
3077	(985,896)	668,117	1,862,490	65,986	2,596,594	73,313	790,638	454,128	10,350	1,328,430	1,218,126	14,421	1,232,547	
3078	(430,157)	291,507	812,625	27,213	1,131,345	31,987	344,964	198,141	23,792	598,885	531,482	1,158	532,640	
3079	(264,290)	179,103	499,280	57,870	736,252	19,653	211,947	121,739	18,909	372,248	326,544	8,645	335,189	
3081	(443,084)	300,267	837,045	139,048	1,276,360	32,949	355,331	204,095	7,750	600,125	547,453	25,674	573,127	
3082	(896,475)	607,518	1,693,562	85,125	2,386,205	66,664	718,927	412,938	81,438	1,279,966	1,107,641	3,620	1,111,261	
3101	(425,661)	288,460	804,131	88,576	1,181,168	31,653	341,358	196,070	92,574	661,656	525,926	(4,977)	520,949	
3105	(416,225)	282,065	786,305	64,446	1,132,816	30,951	333,791	191,723	7,445	563,910	514,267	10,548	524,815	
3106	(758,438)	513,974	1,432,790	28,202	1,974,966	56,399	608,228	349,355	98,539	1,112,520	937,089	(22,012)	915,076	
3107	(679,033)	460,163	1,282,785	57,906	1,800,854	50,494	544,550	312,779	24,280	932,103	838,980	11,404	850,384	
3126	(754,058)	511,006	1,424,516	591,934	2,527,456	56,073	604,716	347,337	84,013	1,092,139	931,677	112,614	1,044,291	
3128	(682,376)	462,429	1,289,100	174,440	1,925,969	50,743	547,231	314,319	45,598	957,891	843,111	24,449	867,560	
3178	(1,233,740)	836,074	2,330,700	99,371	3,266,145	91,743	989,396	568,291	9,583	1,659,013	1,524,349	22,407	1,546,756	
3179	(893,850)	605,739	1,688,602	402	2,294,743	66,468	716,821	411,729	90,628	1,285,647	1,104,397	(17,528)	1,086,869	
3201	(487,312)	330,239	920,597	61,397	1,312,233	36,237	390,799	224,468	14,553	666,057	602,099	12,804	614,903	
3202	(880,642)	596,788	1,663,650	19,843	2,280,282	65,486	706,229	405,645	42,296	1,219,656	1,088,078	(6,405)	1,081,673	
3204	(881,078)	597,084	1,664,474	91,648	2,353,206	65,519	706,579	405,846	62,927	1,240,870	1,088,617	8,755	1,097,371	
3206	(1,005,134)	681,154	1,898,833	44,451	2,624,438	74,744	806,066	462,989	81,843	1,425,642	1,241,895	(11,302)	1,230,593	
3208	(427,717)	289,853	808,014	53,282	1,151,149	31,806	343,007	197,017	23,993	595,822	528,466	7,021	535,487	
3226	(1,146,703)	777,092	2,166,276	193,138	3,136,506	85,271	919,597	528,199	22,413	1,555,480	1,416,811	40,416	1,457,227	
3229	(728,229)	493,502	1,375,721	41,278	1,910,501	54,152	584,002	335,440	63,493	1,037,087	899,764	(11,107)	888,657	
3231	(1,080,246)	732,055	2,040,729	61,330	2,834,113	80,329	866,301	497,587	62,467	1,506,685	1,334,699	2,966	1,337,665	
3232	(515,936)	349,637	974,672	52,773	1,377,082	38,366	413,754	237,653	41,175	730,948	637,465	(1,055)	636,410	
3276	(1,072,297)	726,668	2,025,712	23,062	2,775,443	79,738	859,927	493,926	121,588	1,555,178	1,324,878	(17,488)	1,307,390	
3277	(1,201,564)	814,269	2,269,916	44,555	3,128,740	89,351	963,593	553,470	102,192	1,708,605	1,484,594	(16,637)	1,467,957	
3278	(840,721)	569,735	1,588,235	18,438	2,176,409	62,518	674,215	387,257	33,604	1,157,593	1,038,754	(2,462)	1,036,292	
3280	(984,609)	667,244	1,860,058	67,375	2,594,677	73,217	789,605	453,535	32,722	1,349,080	1,216,535	10,482	1,227,016	
3281	(1,052,518)	713,265	1,988,347	87,064	2,788,676	78,267	844,065	484,815	227,072	1,634,220	1,300,440	(22,446)	1,277,994	
3284	(1,084,911)	735,216	2,049,541	21,906	2,806,664	80,676	870,042	499,736	77,635	1,528,090	1,340,463	(17,938)	1,322,524	
3303	(1,091,642)	739,778	2,062,257	151,180	2,953,215	81,177	875,440	502,837	10,138	1,469,591	1,348,780	34,204	1,382,984	
3304	(543,238)	368,138	1,026,249	92,650	1,487,037	40,396	435,649	250,229	14,023	740,296	671,198	13,623	684,821	
3305	(725,804)	491,859	1,371,141	50,404	1,913,404	53,972	582,057	334,323	10,803	981,155	896,768	7,780	904,548	
3306	(742,598)	503,240	1,402,867	28,362	1,934,469	55,221	595,525	342,059	63,664	1,056,469	917,518	(8,707)	908,811	
3307	(265,689)	180,050	501,921	119,955	801,926	19,757	213,069	122,383	18,366	373,574	328,272	21,020	349,292	
3308	(600,742)	407,107	1,134,881	1,415	1,543,403	44,672	481,764	276,716	69,541	872,694	742,247	(15,464)	726,783	
3309	(1,048,116)	710,282	1,980,032	1,858	2,692,171	77,940	840,535	482,788	89,522	1,490,784	1,295,001	(18,764)	1,276,237	
3326	(880,836)	596,920	1,664,017	84,744	2,345,681	65,501	706,385	405,734	1,791	1,179,411	1,088,318	18,026	1,106,343	
3327	(1,201,480)	814,212	2,269,756	93,623	3,177,591	89,344	963,525	553,431	44,740	1,651,040	1,484,490	18,742	1,503,232	
3328	(659,387)	446,850	1,245,670	234,709	1,927,230	49,033	528,794	303,730	133,794	1,015,351	814,707	36,504	851,211	
3329	(795,071)	538,799	1,501,995	59,400	2,100,194	59,123	637,606	366,229	24,078	1,087,036	982,351	8,597	990,947	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
3330	\$ (1,226,171)	830,945	2,316,402	72,508	3,219,855	91,181	983,326	564,804	52,512	1,691,823	1,514,998	8,599	1,523,597	
3331	(1,452,366)	984,231	2,743,714	10,178	3,738,123	108,001	1,164,723	668,995	190,021	2,131,739	1,794,473	(46,378)	1,748,095	
3332	(607,769)	411,870	1,148,157	62,802	1,622,829	45,195	487,400	279,953	26,166	838,713	750,930	6,830	757,760	
3452	(1,484,318)	1,005,884	2,804,075	157,307	3,967,266	110,377	1,190,346	683,713	153,536	2,137,972	1,833,951	(4,434)	1,829,517	
3453	(488,610)	331,119	923,050	83,435	1,337,604	36,334	391,840	225,066	33,811	687,051	603,703	8,375	612,078	
3458	(1,056,747)	716,130	1,996,336	159,527	2,871,993	78,582	847,457	486,763	34,534	1,447,336	1,305,665	27,711	1,333,376	
3460	(1,539,245)	1,043,107	2,907,839	340,731	4,291,678	114,461	1,234,395	709,014	32,481	2,090,350	1,901,816	56,996	1,958,812	
3464	(419,973)	284,605	793,384	49,062	1,127,052	31,230	336,796	193,450	9,002	570,478	518,898	6,744	525,642	
3465	(325,602)	220,652	615,106	7,482	843,241	24,212	261,116	149,980	56,873	492,182	402,298	(12,160)	390,138	
3466	(841,793)	570,462	1,590,260	36,007	2,196,729	62,597	675,075	387,750	62,164	1,187,586	1,040,079	(6,562)	1,033,517	
3467	(452,361)	306,553	854,570	15,800	1,176,924	33,638	362,770	208,368	106,877	711,654	558,915	(18,938)	539,977	
3468	(89,032)	60,335	168,194	19,607	248,136	6,621	71,399	41,011	14,665	133,695	110,004	1,379	111,383	
3470	(417,427)	282,880	788,575	12,237	1,083,692	31,041	334,755	192,277	94,302	652,374	515,752	(17,503)	498,250	
3471	(356,944)	241,892	674,315	23,303	939,510	26,543	286,251	164,417	40,853	518,064	441,022	(2,316)	438,706	
3472	(298,322)	202,165	563,571	84,672	850,408	22,184	239,239	137,415	16,660	415,498	368,593	11,685	380,278	
3526	(769,934)	521,764	1,454,508	121,313	2,097,585	57,254	617,447	354,650	38,581	1,067,932	951,293	14,363	965,656	
3527	(673,868)	456,663	1,273,027	45,373	1,775,062	50,110	540,407	310,400	36,307	937,224	832,598	6,480	839,078	
3528	(586,585)	397,514	1,108,138	127,239	1,632,890	43,620	470,411	270,195	39,541	823,767	724,756	16,769	741,525	
3531	(944,716)	640,210	1,784,694	52,520	2,477,424	70,251	757,613	435,159	175,436	1,438,459	1,167,245	(38,352)	1,128,893	
3552	(291,808)	197,751	551,264	101,507	850,522	21,699	234,015	134,414	42,246	432,374	360,543	14,114	374,657	
3559	(685,844)	464,779	1,295,651	177,553	1,937,983	51,001	550,012	315,916	32,769	949,698	847,396	29,253	876,649	
3560	(904,164)	612,729	1,708,086	74,406	2,395,221	67,235	725,093	416,480	59,542	1,268,350	1,117,141	470	1,117,610	
3561	(929,528)	629,917	1,756,003	288,362	2,674,282	69,122	745,433	428,163	30,699	1,273,418	1,148,479	48,526	1,197,006	
3576	(402,013)	272,434	759,456	41,180	1,073,069	29,894	322,393	185,177	32,474	569,939	496,707	2,460	499,167	
3577	(888,923)	602,400	1,679,294	53,082	2,334,776	66,102	712,870	409,459	61,670	1,250,102	1,098,310	(5,753)	1,092,557	
3579	(468,896)	317,759	885,807	105,734	1,309,299	34,868	376,030	215,985	64,621	691,503	579,345	10,158	589,503	
3585	(979,366)	663,692	1,850,154	184,802	2,698,647	72,828	785,401	451,120	73,061	1,382,409	1,210,057	13,358	1,223,415	
3586	(1,143,628)	775,008	2,160,466	107,843	3,043,317	85,042	917,131	526,783	140,303	1,669,259	1,413,011	(7,892)	1,405,119	
3589	(920,365)	623,708	1,738,693	86,991	2,449,392	68,440	738,085	423,943	174,989	1,405,458	1,137,158	(11,817)	1,125,341	
3591	(389,916)	264,236	736,604	102,372	1,103,212	28,995	312,693	179,605	9,848	531,140	481,762	19,953	501,715	
3592	(937,669)	635,434	1,771,382	59,003	2,465,819	69,727	751,962	431,913	27,296	1,280,898	1,158,538	3,800	1,162,338	
3593	(1,715,068)	1,162,258	3,239,992	119,371	4,521,621	127,536	1,375,396	790,002	19,789	2,312,722	2,119,054	19,470	2,138,524	
3594	(401,817)	272,301	759,086	68,707	1,100,095	29,880	322,237	185,087	14,426	551,630	496,466	9,295	505,760	
3626	(1,951,583)	1,322,538	3,686,801	80,071	5,089,410	145,124	1,565,069	898,946	123,320	2,732,459	2,411,281	(2,459)	2,408,822	
3629	(1,174,131)	795,679	2,218,091	136,147	3,149,917	87,311	941,593	540,833	68,239	1,637,975	1,450,699	6,516	1,457,216	
3630	(1,850,391)	1,253,963	3,495,636	364,066	5,113,665	137,599	1,483,918	852,335	47,990	2,521,842	2,286,253	59,724	2,345,977	
3631	(1,520,611)	1,030,479	2,872,637	292,997	4,196,114	113,076	1,219,452	700,430	24,463	2,057,420	1,878,793	45,026	1,923,819	
3632	(2,833,086)	1,919,910	5,352,078	219,184	7,491,173	210,674	2,271,989	1,304,988	20,042	3,807,693	3,500,423	36,797	3,537,220	
3635	(1,935,229)	1,311,455	3,655,906	185,440	5,152,801	143,907	1,551,954	891,413	9,405	2,596,680	2,391,075	41,636	2,432,711	
3636	(1,559,294)	1,056,694	2,945,715	242,875	4,245,283	115,952	1,250,473	718,249	2,204	2,086,878	1,926,588	49,359	1,975,947	
3658	(1,570,384)	1,064,209	2,966,666	146,251	4,177,126	116,777	1,259,367	723,357	94,298	2,193,799	1,940,291	3,266	1,943,557	
3679	(1,789,208)	1,212,500	3,380,052	15,296	4,607,848	133,049	1,434,852	824,152	191,145	2,583,199	2,210,658	(30,315)	2,180,343	
3702	(999,472)	677,317	1,888,136	23,373	2,588,826	74,323	801,525	460,381	138,541	1,474,770	1,234,899	(26,595)	1,208,303	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
3709	\$ (787,719)	533,817	1,488,107	19,428	2,041,352	58,576	631,710	362,843	102,886	1,156,015	973,267	(20,289)	952,978	
3805	(632,605)	428,700	1,195,075	24,471	1,648,246	47,042	507,316	291,393	86,273	932,024	781,616	(8,713)	772,903	
3821	(919,694)	623,253	1,737,425	74,199	2,434,878	68,390	737,547	423,633	227,385	1,456,956	1,136,329	(40,093)	1,096,236	
3822	(359,609)	243,698	679,350	22,606	945,653	26,741	288,388	165,645	120,222	600,996	444,315	(21,141)	423,174	
3854	(2,000,079)	1,355,403	3,778,417	182,765	5,316,584	148,730	1,603,960	921,285	417,577	3,091,552	2,471,200	(46,870)	2,424,331	
3855	(1,070,761)	725,627	2,022,811	25,453	2,773,892	79,624	858,695	493,219	48,857	1,480,395	1,322,980	(6,789)	1,316,191	
3856	(184,733)	125,189	348,986	51,806	525,981	13,737	148,147	85,093	4,968	251,945	228,248	8,489	236,737	
3927	(1,175,563)	796,649	2,220,796	70,573	3,088,017	87,417	942,741	541,493	94,558	1,666,209	1,452,468	(8,885)	1,443,583	
3928	(556,778)	377,314	1,051,828	165,280	1,594,422	41,403	446,507	256,465	129,268	873,644	687,928	12,457	700,384	
3929	(1,042,597)	706,541	1,969,605	199,406	2,875,552	77,530	836,109	480,245	82,719	1,476,603	1,288,182	14,832	1,303,014	
3930	(979,484)	663,771	1,850,376	56,006	2,570,153	72,836	785,496	451,174	49,476	1,358,982	1,210,203	2,195	1,212,397	
3931	(1,338,771)	907,251	2,529,118	—	3,436,369	99,554	1,073,626	616,671	147,250	1,937,100	1,654,121	(33,626)	1,620,495	
3932	(988,856)	670,123	1,868,082	18,603	2,556,808	73,533	793,012	455,491	84,286	1,406,322	1,221,783	(11,704)	1,210,078	
3934	(185,677)	125,829	350,769	37,792	514,390	13,807	148,904	85,527	6,434	254,673	229,414	9,085	238,499	
3979	(639,898)	433,642	1,208,853	94,219	1,736,715	47,584	513,165	294,752	—	855,502	790,627	19,909	810,536	
3980	(536,990)	363,905	1,014,447	209,553	1,587,905	39,932	430,639	247,351	1,319	719,240	663,479	39,108	702,587	
3981	(452,450)	306,614	854,739	56,966	1,218,319	33,645	362,842	208,410	74,154	679,051	559,026	(5,094)	553,932	
3982	(210,499)	142,650	397,660	39,737	580,047	15,653	168,809	96,961	13,962	295,385	260,082	4,955	265,037	
3983	(465,912)	315,737	880,171	92,647	1,288,555	34,646	373,638	214,611	3,295	626,190	575,659	25,572	601,231	
3986	(486,009)	329,356	918,135	105,551	1,353,042	36,141	389,754	223,867	23,629	673,391	600,488	18,631	619,119	
3987	(343,250)	232,612	648,446	120,365	1,001,423	25,525	275,269	158,109	43,888	502,791	424,103	12,601	436,704	
3988	(430,912)	292,018	814,051	139,748	1,245,817	32,043	345,569	198,489	13,134	589,235	532,414	28,327	560,741	
3989	(337,369)	228,626	637,334	35,792	901,752	25,087	270,552	155,400	11,506	462,546	416,836	5,629	422,465	
3990	(457,942)	310,335	865,113	129,499	1,304,948	34,053	367,246	210,939	6,792	619,030	565,811	25,526	591,337	
3991	(575,438)	389,960	1,087,079	69,233	1,546,272	42,791	461,472	265,061	82,619	851,942	710,983	(4,066)	706,917	
3992	(498,346)	337,716	941,442	50,649	1,329,807	37,058	399,648	229,550	28,739	694,995	615,732	1,888	617,620	
3994	(952,561)	645,526	1,799,515	66,933	2,511,974	70,834	763,905	438,773	92,390	1,365,901	1,176,938	(4,858)	1,172,079	
3995	(476,572)	322,961	900,308	26,862	1,250,130	35,439	382,186	219,521	38,059	675,205	588,829	(2,124)	586,705	
3996	(380,770)	258,038	719,325	28,776	1,006,139	28,315	305,358	175,392	9,874	518,939	470,461	3,455	473,916	
3997	(422,485)	286,307	798,131	56,795	1,141,234	31,417	338,811	194,607	26,599	591,434	522,002	7,725	529,727	
3998	(407,913)	276,432	770,603	26,289	1,073,324	30,333	327,125	187,895	35,373	580,727	503,998	(3,308)	500,690	
3999	(403,019)	273,116	761,357	127,963	1,162,436	29,969	323,200	185,640	69,225	608,035	497,951	2,444	500,394	
4004	(230,681)	156,326	435,787	32,354	624,467	17,154	184,994	106,257	20,837	329,242	285,018	4,583	289,600	
4007	(338,083)	229,110	638,684	12,986	880,781	25,141	271,125	155,729	23,061	475,056	417,719	(1,113)	416,606	
4008	(113,606)	76,988	214,617	20,770	312,375	8,448	91,106	52,330	2,397	154,281	140,366	4,376	144,742	
4009	(1,959,408)	1,327,841	3,701,585	111,380	5,140,806	145,705	1,571,345	902,551	89,257	2,708,858	2,420,950	7,091	2,428,041	
4010	(184,308)	124,901	348,182	19,807	492,890	13,705	147,805	84,897	26,964	273,372	227,722	(1,727)	225,994	
4014	(860,014)	582,809	1,624,681	149,819	2,357,309	63,952	689,687	396,143	50,729	1,200,511	1,062,591	11,340	1,073,931	
4015	(564,367)	382,457	1,066,164	48,868	1,497,488	41,967	452,593	259,961	72,027	826,549	697,304	(6,012)	691,292	
4020	(1,100,940)	746,079	2,079,822	46,943	2,872,844	81,868	882,897	507,119	55,482	1,527,366	1,360,267	(1,414)	1,358,853	
4021	(1,520,818)	1,030,620	2,873,029	46,181	3,949,830	113,091	1,219,618	700,526	96,030	2,129,265	1,879,049	(18,907)	1,860,142	
4022	(1,131,650)	766,890	2,137,838	10,570	2,915,298	84,152	907,525	521,265	74,146	1,587,088	1,398,212	(15,560)	1,382,652	
4027	(1,132,891)	767,731	2,140,183	65,335	2,973,249	84,244	908,520	521,837	93,847	1,608,448	1,399,745	(807)	1,398,938	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
4028	\$ (199,865)	135,443	377,571	22,923	535,937	14,862	160,281	92,063	15,312	282,518	246,943	1,426	248,369	
4029	(1,225,623)	830,573	2,315,365	69,687	3,215,626	91,140	982,886	564,551	55,070	1,693,647	1,514,320	1,009	1,515,329	
4030	(733,922)	497,360	1,386,476	11,433	1,895,269	54,576	588,567	338,062	16,635	997,840	906,798	(1,465)	905,333	
4031	(648,481)	439,459	1,225,067	111,912	1,776,439	48,222	520,048	298,706	56,912	923,888	801,232	11,070	812,302	
4034	(563,181)	381,654	1,063,925	78,332	1,523,911	41,879	451,642	259,415	62,696	815,633	695,840	1,627	697,466	
4036	(846,645)	573,750	1,599,426	323,882	2,497,057	62,958	678,966	389,985	45,949	1,177,858	1,046,073	62,440	1,108,513	
4101	(601,815)	407,835	1,136,910	152,000	1,696,745	44,752	482,625	277,211	136,403	940,991	743,574	4,005	747,579	
4104	(525,726)	356,271	993,167	5,869	1,355,307	39,094	421,605	242,162	34,805	737,667	649,562	(4,867)	644,695	
4124	(49,282)	33,397	93,101	13,302	139,800	3,665	39,522	22,701	8,555	74,442	60,891	1,396	62,287	
4126	(1,763,778)	1,195,267	3,332,013	122,111	4,649,391	131,158	1,414,459	812,439	—	2,358,056	2,179,238	32,334	2,211,572	
4128	(1,134,660)	768,930	2,143,525	51,149	2,963,604	84,376	909,939	522,652	92,803	1,609,769	1,401,931	(11,603)	1,390,328	
4130	(966,200)	654,769	1,825,280	143,497	2,623,546	71,848	774,842	445,055	46,790	1,338,536	1,193,789	24,132	1,217,922	
4132	(438,463)	297,135	828,315	69,143	1,194,594	32,605	351,625	201,967	38,057	624,254	541,744	4,694	546,438	
4134	(421,444)	285,601	796,163	71,269	1,153,034	31,339	337,976	194,127	6,024	569,466	520,715	10,988	531,703	
4135	(368,320)	249,601	695,806	84,783	1,030,190	27,389	295,374	169,657	49,426	541,846	455,078	14,833	469,911	
4137	(501,230)	339,671	946,890	22,157	1,308,718	37,272	401,960	230,879	17,508	687,620	619,295	502	619,797	
4142	(1,561,757)	1,058,363	2,950,368	120,953	4,129,684	116,135	1,252,448	719,383	43,809	2,131,776	1,929,631	11,326	1,940,957	
4143	(1,230,581)	833,933	2,324,732	148,330	3,306,996	91,508	986,862	566,835	39,365	1,684,571	1,520,446	17,402	1,537,848	
4144	(774,842)	525,091	1,463,781	60,490	2,049,362	57,619	621,384	356,911	62,065	1,097,979	957,357	(4,402)	952,955	
4149	(411,038)	278,550	776,505	91,138	1,146,194	30,566	329,631	189,334	12,451	561,982	507,858	13,822	521,680	
4151	(1,117,737)	757,462	2,111,554	118,342	2,987,358	83,117	896,367	514,857	31,627	1,381,021	1,259,968	21,655	1,402,676	
4152	(1,019,181)	690,673	1,925,370	28,843	2,644,887	75,788	817,331	469,460	16,343	1,378,922	1,259,251	1,527	1,260,778	
4153	(1,136,488)	770,169	2,146,978	63,975	2,981,122	84,511	911,405	523,494	23,254	1,542,664	1,404,190	9,722	1,413,912	
4154	(672,059)	455,437	1,269,609	28,081	1,753,127	49,976	538,956	309,567	172,580	1,071,078	830,363	(25,916)	804,447	
4155	(871,040)	590,281	1,645,510	19,531	2,255,323	64,772	698,529	401,222	40,737	1,205,260	1,076,214	(8,019)	1,068,195	
4178	(828,736)	561,613	1,565,593	133,477	2,260,683	61,626	664,604	381,736	26,712	1,134,678	1,023,946	22,657	1,046,603	
4180	(1,675,649)	1,135,545	3,165,525	94,077	4,395,146	124,605	1,343,784	771,845	15,301	2,255,534	2,070,350	18,223	2,088,573	
4183	(1,079,967)	731,866	2,040,202	61,328	2,833,396	80,308	866,078	497,459	7,512	1,451,357	1,334,355	10,039	1,344,394	
4184	(1,065,732)	722,219	2,013,310	78,810	2,814,340	79,250	854,662	490,902	133,110	1,557,924	1,316,767	(10,528)	1,306,238	
4202	(714,882)	484,457	1,350,507	77,745	1,912,709	53,160	573,298	329,292	63,251	1,019,002	883,273	9,629	892,902	
4203	(722,225)	489,434	1,364,381	37,237	1,891,051	53,706	579,188	332,675	48,894	1,014,462	892,347	739	893,086	
4205	(492,776)	333,942	930,919	43,946	1,308,807	36,644	395,181	226,984	44,842	703,651	608,850	(1,796)	607,054	
4206	(482,664)	327,089	911,817	39,125	1,278,031	35,892	387,072	222,327	10,719	656,010	596,356	8,294	604,650	
4208	(2,471,265)	1,674,713	4,668,549	375,609	6,718,871	183,768	1,981,827	1,138,324	50,180	3,354,099	3,053,374	64,567	3,117,941	
4258	(921,000)	624,138	1,739,891	73,441	2,437,470	68,487	738,594	424,235	195,130	1,426,447	1,137,942	(14,642)	1,123,300	
4259	(812,055)	550,309	1,534,081	89,929	2,174,320	60,386	651,227	374,052	13,538	1,099,203	1,003,336	17,472	1,020,809	
4260	(1,230,871)	834,130	2,325,281	257,124	3,416,535	91,530	987,095	566,969	26,750	1,672,345	1,520,805	44,812	1,565,617	
4301	(2,475,856)	1,677,825	4,677,224	324,251	6,679,300	184,110	1,985,509	1,140,439	73,225	3,383,283	3,059,048	40,572	3,099,619	
4351	(3,499,005)	2,371,186	6,610,088	785,978	9,767,252	260,193	2,806,021	1,611,726	107,420	4,785,361	4,323,200	104,754	4,427,954	
4353	(2,194,278)	1,487,006	4,145,285	161,249	5,793,540	163,171	1,759,698	1,010,738	18,561	2,952,167	2,711,143	31,823	2,742,966	
4355	(3,631,646)	2,461,073	6,860,664	206,477	9,528,215	270,056	2,912,392	1,672,824	100,922	4,956,195	4,487,085	10,877	4,497,961	
4356	(5,924,900)	4,015,154	11,192,929	600,092	15,808,175	440,587	4,751,464	2,729,153	465,502	8,386,706	7,320,518	19,953	7,340,471	
4357	(2,621,562)	1,776,566	4,952,481	415,338	7,144,385	194,944	2,102,357	1,207,555	12,596	3,517,453	3,239,074	80,584	3,319,659	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
4358	\$ (2,018,847)	1,368,121	3,813,871	137,808	5,319,800	150,125	1,619,011	929,930	25,189	2,724,255	2,494,389	18,271	2,512,659	
4360	(2,195,373)	1,487,748	4,147,353	322,253	5,957,353	163,252	1,760,576	1,011,242	1,184	2,936,253	2,712,496	92,677	2,805,172	
4361	(3,834,726)	2,598,696	7,244,311	—	9,843,007	285,158	3,075,253	1,766,368	176,901	5,303,679	4,738,001	(33,644)	4,704,357	
4363	(2,173,058)	1,472,626	4,105,196	269,868	5,847,690	161,593	1,742,680	1,000,963	86,215	2,991,451	2,684,924	39,687	2,724,611	
4364	(2,305,904)	1,562,652	4,356,162	409,631	6,328,445	171,472	1,849,216	1,062,155	28,965	3,111,809	2,849,063	72,545	2,921,608	
4365	(1,797,088)	1,217,841	3,394,939	255,370	4,868,150	133,635	1,441,172	827,782	157,584	2,560,173	2,220,394	8,743	2,229,137	
4366	(8,135,600)	5,513,288	15,369,237	371,748	21,254,273	604,979	6,524,332	3,747,455	185,198	11,061,964	10,051,952	36,953	10,088,904	
4367	(13,574,891)	9,199,357	25,644,786	708,799	35,552,942	1,009,455	10,886,363	6,252,924	89,646	18,238,388	16,772,475	121,245	16,893,721	
4368	(10,765,094)	7,295,230	20,336,704	132,465	27,764,398	800,513	8,633,051	4,958,664	456,069	14,848,296	13,300,827	(53,138)	13,247,689	
4428	(626,306)	424,432	1,183,176	68,641	1,676,248	46,573	502,265	288,492	93,534	930,864	773,833	(1,077)	772,756	
4430	(703,196)	476,538	1,328,431	84,686	1,889,655	52,291	563,927	323,909	28,278	968,405	868,835	11,018	879,852	
4434	(256,086)	173,543	483,780	47,697	705,020	19,043	205,367	117,959	16,093	358,463	316,407	5,510	321,917	
4437	(1,028,116)	696,728	1,942,248	41,939	2,680,915	76,453	824,496	473,575	1,702	1,376,225	1,270,290	7,790	1,278,080	
4438	(800,344)	542,373	1,511,958	82,487	2,136,818	59,515	641,835	368,658	44,688	1,114,696	988,867	10,073	998,940	
4439	(1,003,169)	679,822	1,895,120	110,619	2,685,561	74,598	804,490	462,084	107,986	1,449,158	1,239,467	(569)	1,238,897	
4504	(705,927)	478,388	1,333,590	50,178	1,862,156	52,494	566,117	325,167	74,583	1,018,360	872,209	(6,228)	865,981	
4531	(938,265)	635,838	1,772,508	127,504	2,535,851	69,771	752,440	432,188	—	1,159,399	1,159,275	23,676	1,182,950	
4532	(1,513,909)	1,025,937	2,859,976	53,949	3,939,862	112,577	1,214,077	697,343	251,751	2,275,748	1,870,512	(38,898)	1,831,613	
4533	(1,114,093)	754,993	2,104,671	62,296	2,921,960	82,846	893,445	513,178	113,967	1,603,437	1,376,519	(2,596)	1,373,923	
4534	(1,077,095)	729,920	2,034,777	25,557	2,790,254	80,095	863,775	496,136	51,987	1,491,993	1,330,806	(5,909)	1,324,898	
4557	(553,881)	375,351	1,046,354	35,854	1,457,559	41,188	444,184	255,131	99,224	839,726	684,348	(15,282)	669,066	
4582	(1,083,943)	734,561	2,047,714	266,781	3,049,056	80,604	869,267	499,291	—	1,449,161	1,339,268	54,156	1,393,424	
4583	(894,539)	606,206	1,689,905	45,071	2,341,182	66,520	717,374	412,047	124,120	1,320,060	1,105,249	(14,688)	1,090,561	
4586	(962,369)	652,173	1,818,044	149,749	2,619,966	71,564	771,770	443,291	17,799	1,304,423	1,189,056	24,411	1,213,468	
4588	(839,466)	568,885	1,585,864	169,689	2,324,438	62,424	673,209	386,679	88,610	1,210,922	1,037,204	17,586	1,054,790	
4590	(924,278)	626,360	1,746,085	114,985	2,487,429	68,731	741,223	425,745	72,022	1,307,721	1,141,993	11,137	1,153,130	
4592	(539,352)	365,505	1,018,909	10,099	1,394,513	40,107	432,533	248,439	72,325	793,403	666,397	(18,694)	647,703	
4593	(1,041,857)	706,040	1,968,207	84,300	2,758,547	77,475	835,515	479,905	53,231	1,446,125	1,287,268	2,254	1,289,522	
4594	(1,062,438)	719,987	2,007,088	394,497	3,121,571	79,005	852,021	489,385	361,494	1,781,904	1,312,697	(5,451)	1,307,246	
4595	(1,154,030)	782,057	2,180,117	37,741	2,999,915	85,816	925,472	531,574	122,253	1,665,116	1,425,863	(18,890)	1,406,974	
4596	(904,813)	613,168	1,709,312	24,692	2,347,173	67,284	725,613	416,779	67,849	1,277,524	1,117,943	(4,879)	1,113,063	
4597	(1,327,761)	899,790	2,508,319	113,954	3,522,062	98,735	1,064,796	611,599	61,712	1,836,842	1,640,517	7,209	1,647,727	
4598	(1,223,883)	829,394	2,312,078	3,357	3,144,830	91,010	981,491	563,750	99,306	1,735,557	1,512,170	(26,438)	1,485,732	
4604	(1,558,302)	1,056,022	2,943,842	89,256	4,089,119	115,878	1,249,678	717,792	164,986	2,248,334	1,925,363	(27,193)	1,898,169	
4617	(599,181)	406,050	1,131,933	534,698	2,072,681	44,556	480,512	275,997	—	801,066	740,319	139,374	879,693	
4620	(1,168,293)	791,722	2,207,061	14,492	3,013,275	86,877	936,910	538,144	210,846	1,772,777	1,443,486	(32,919)	1,410,567	
4651	(1,299,221)	880,449	2,454,401	212,120	3,546,970	96,613	1,041,908	598,453	254,034	1,991,007	1,605,254	(15,593)	1,589,661	
4653	(4,370,137)	2,961,530	8,255,773	21,189	11,238,492	324,972	3,504,624	2,012,991	603,715	6,446,302	5,399,528	(114,596)	5,284,932	
4654	(5,127,757)	3,474,950	9,687,019	—	13,161,969	381,310	4,112,197	2,361,969	798,669	7,654,145	6,335,607	(160,683)	6,174,924	
4662	(1,008,402)	683,368	1,905,006	18,979	2,607,354	74,987	808,686	464,494	181,460	1,529,627	1,245,932	(27,177)	1,218,755	
4663	(1,249,100)	846,483	2,359,717	92,881	3,299,081	92,886	1,001,714	575,366	28,293	1,698,258	1,543,327	11,205	1,554,532	
4679	(1,036,652)	702,513	1,958,374	222,322	2,883,209	77,087	831,341	477,507	21,107	1,407,043	1,280,837	54,830	1,335,667	
4680	(801,782)	543,347	1,514,674	23,544	2,081,565	59,622	642,988	369,320	82,032	1,153,962	990,643	(8,386)	982,257	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
4701	\$ (1,424,910)	965,625	2,691,846	350,923	4,008,395	105,959	1,142,705	656,348	103,909	2,008,920	1,760,550	58,901	1,819,451	
4703	(1,167,722)	791,335	2,205,983	308,865	3,306,183	86,834	936,453	537,881	4,704	1,565,872	1,442,780	67,432	1,510,212	
4704	(1,177,326)	797,844	2,224,126	48,200	3,070,170	87,548	944,155	542,305	21,932	1,595,940	1,454,647	2,679	1,457,325	
4705	(1,595,864)	1,081,476	3,014,800	119,193	4,215,469	118,672	1,279,800	735,094	118,572	2,252,138	1,971,772	2,396	1,974,167	
4854	(1,521,688)	1,031,209	2,874,672	59,882	3,965,763	113,156	1,220,315	700,926	139,677	2,174,074	1,880,124	(20,141)	1,859,983	
4855	(471,607)	319,596	890,929	98,901	1,309,426	35,070	378,205	217,234	—	630,508	582,695	20,665	603,360	
4857	(3,101,500)	2,101,807	5,859,148	117,447	8,078,403	230,634	2,487,243	1,428,626	448,139	4,594,641	3,832,062	(87,532)	3,744,530	
4862	(2,768,036)	1,875,827	5,229,189	213,026	7,318,043	205,837	2,219,822	1,275,024	55,580	3,756,263	3,420,050	33,533	3,453,583	
4863	(3,376,079)	2,287,862	6,377,864	251,531	8,917,278	251,052	2,707,441	1,555,104	111,173	4,624,770	4,171,319	38,499	4,209,817	
4877	(1,423,180)	964,453	2,688,578	36,655	3,689,685	105,830	1,141,317	655,551	156,155	2,058,854	1,758,412	(25,170)	1,733,243	
4879	(1,032,758)	699,874	1,951,019	76,401	2,727,293	76,798	828,219	475,714	2,831	1,383,562	1,276,026	17,644	1,293,670	
4883	(36,961)	25,048	69,825	20,554	115,427	2,749	29,641	17,025	7,789	57,204	45,668	3,438	49,106	
4884	(455,396)	308,610	860,305	5,333	1,174,248	33,864	365,204	209,767	60,250	669,085	562,666	(12,923)	549,742	
4885	(1,178,853)	798,878	2,227,011	133,297	3,159,186	87,662	945,379	543,008	49,179	1,625,229	1,456,533	16,180	1,472,713	
4890	(1,863,155)	1,262,612	3,519,748	139,250	4,921,610	138,548	1,494,154	858,214	90,070	2,580,986	2,302,023	19,193	2,321,217	
4892	(1,681,095)	1,139,235	3,175,814	65,476	4,380,525	125,010	1,348,152	774,353	48,083	2,295,598	2,077,079	(650)	2,076,430	
4894	(1,695,791)	1,149,194	3,203,576	201,839	4,554,609	126,102	1,359,937	781,123	12,824	2,279,986	2,095,237	46,787	2,142,024	
4901	(1,122,261)	760,528	2,120,101	201,663	3,082,291	83,454	899,995	516,941	141,250	1,641,639	1,386,611	22,463	1,409,074	
4905	(478,440)	324,226	903,836	143,693	1,371,756	35,578	383,684	220,381	161,394	801,036	591,137	(3,470)	587,667	
4906	(1,538,678)	1,042,723	2,906,769	122,524	4,072,016	114,419	1,233,941	708,753	60,478	2,117,590	1,901,116	14,687	1,915,803	
4907	(2,436,656)	1,651,260	4,603,170	65,491	6,319,921	181,195	1,954,073	1,122,383	168,474	3,426,124	3,010,614	(24,331)	2,986,283	
4908	(665,899)	451,263	1,257,973	42,626	1,751,862	49,518	534,017	306,729	23,697	913,961	822,753	3,679	826,432	
4909	(1,800,491)	1,220,147	3,401,369	42,366	4,663,883	133,888	1,443,901	829,350	120,598	2,527,737	2,224,600	(14,017)	2,210,583	
4910	(858,199)	581,580	1,621,253	138,734	2,341,566	63,817	688,231	395,307	192,799	1,340,155	1,060,349	(8,777)	1,051,571	
4976	(410,922)	278,471	776,287	20,803	1,075,561	30,557	329,538	189,281	29,879	579,255	507,715	(3,057)	504,658	
4978	(454,561)	308,044	858,727	17,120	1,183,891	33,802	364,535	209,382	71,821	679,539	561,634	(12,703)	548,931	
4979	(628,709)	426,060	1,187,715	75,427	1,689,202	46,752	504,192	289,599	11,595	852,138	776,802	10,557	787,359	
4980	(327,523)	221,954	618,734	51,190	891,878	24,355	262,656	150,865	12,416	450,293	404,671	10,638	415,309	
4981	(412,157)	279,308	778,620	38,606	1,096,534	30,649	330,529	189,849	94,646	645,672	509,241	(16,383)	492,858	
4982	(592,262)	401,361	1,118,862	14,689	1,534,912	44,042	474,964	272,810	52,007	843,823	731,770	(10,183)	721,587	
4983	(469,362)	318,074	886,687	80,469	1,285,230	34,903	376,404	216,199	103,400	730,906	579,920	(5,350)	574,570	
5001	(885,881)	600,339	1,673,547	108,924	2,382,810	65,876	710,431	408,058	132,929	1,317,294	1,094,551	(14,113)	1,080,438	
5002	(590,551)	400,201	1,115,630	108,116	1,623,948	43,915	473,592	272,022	203,849	993,377	729,656	(12,625)	717,031	
5003	(697,917)	472,961	1,318,459	63,292	1,854,712	51,898	559,694	321,478	52,163	985,233	862,313	(4,287)	858,026	
5026	(532,120)	360,604	1,005,245	39,256	1,405,105	39,569	426,732	245,107	60,740	772,149	657,461	81	657,542	
5027	(977,638)	662,520	1,846,889	299,595	2,809,004	72,699	784,015	450,324	197,713	1,504,751	1,207,922	5,530	1,213,452	
5028	(453,967)	307,642	857,604	151,120	1,316,366	33,758	364,058	209,108	29,913	636,837	560,899	26,511	567,410	
5076	(1,326,230)	898,752	2,505,426	126,141	3,530,319	98,621	1,063,568	610,894	17,628	1,790,711	1,638,625	27,244	1,665,870	
5078	(1,018,295)	690,073	1,923,696	135,224	2,748,992	75,722	816,620	469,051	7,346	1,368,740	1,258,156	21,432	1,279,587	
5102	(3,374,020)	2,286,487	6,373,976	118,571	8,779,034	250,899	2,705,790	1,554,156	68,301	4,579,146	4,168,775	14,250	4,183,025	
5103	(1,782,905)	1,208,229	3,368,145	96,212	4,672,586	132,580	1,429,798	821,249	10,204	2,393,831	2,202,870	19,710	2,222,580	
5107	(1,222,453)	828,425	2,309,378	11,102	3,148,905	90,904	980,345	563,092	46,262	1,680,602	1,510,404	(10,198)	1,500,206	
5108	(1,086,032)	735,976	2,051,660	75,945	2,863,582	80,759	870,942	500,253	95,298	1,547,252	1,341,849	1,082	1,342,931	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
5251	\$ (834,253)	565,352	1,576,015	1,360	2,142,727	62,037	669,028	384,277	140,823	1,256,164	1,030,762	(29,796)	1,000,966	
5253	(1,133,631)	768,233	2,141,581	13,876	2,923,689	84,299	909,114	522,178	86,592	1,602,182	1,400,659	(16,508)	1,384,151	
5276	(1,411,067)	956,244	2,665,695	73,023	3,694,962	104,930	1,131,603	649,972	64,881	1,951,386	1,743,446	(4,352)	1,739,094	
5281	(491,050)	332,772	927,659	130,135	1,390,566	36,515	393,797	226,190	34,574	691,075	606,718	25,484	632,202	
5282	(562,536)	381,216	1,062,706	155,662	1,599,585	41,831	451,125	259,118	58,078	810,153	695,042	30,927	725,969	
5301	(615,609)	417,182	1,162,967	33,746	1,613,896	45,778	493,686	283,564	39,821	862,850	760,616	1,760	762,376	
5303	(324,565)	219,950	613,147	100,603	933,700	24,135	260,285	149,503	4,443	438,365	401,017	17,402	418,419	
5305	(429,978)	291,385	812,286	51,152	1,154,824	31,974	344,820	198,508	4,585	579,438	531,260	12,848	544,108	
5306	(712,475)	482,826	1,345,961	77,049	1,905,836	52,981	571,368	328,183	6,490	959,023	880,300	17,422	897,721	
5307	(973,168)	659,491	1,838,444	148,543	2,646,478	72,367	780,430	448,265	136,968	1,438,029	1,202,399	8,229	1,210,627	
5308	(711,596)	482,230	1,344,300	47,154	1,873,685	52,916	570,663	327,778	23,309	974,666	879,213	9,253	888,466	
5309	(294,356)	199,478	556,078	66,335	821,891	21,889	236,059	135,588	10,227	403,762	363,692	9,395	373,087	
5351	(4,276,513)	2,898,084	8,078,906	219,155	11,196,144	318,010	3,429,543	1,969,866	118,392	5,835,811	5,283,852	27,250	5,311,102	
5352	(43,451)	29,445	82,084	6,617	118,147	3,231	34,845	20,014	4,037	62,128	53,686	605	54,291	
5353	(464,353)	314,680	877,224	42,157	1,234,061	34,530	372,387	213,892	3,854	624,663	573,732	7,934	581,666	
5354	(1,393,312)	944,212	2,632,154	107,202	3,683,567	103,609	1,117,365	641,794	263,824	2,126,591	1,721,509	(42,293)	1,679,216	
5355	(2,724,096)	1,846,050	5,146,181	107,373	7,099,605	202,569	2,184,584	1,254,785	157,879	3,799,817	3,365,760	(5,385)	3,360,375	
5356	(875,793)	593,502	1,654,489	192,477	2,440,469	65,126	702,340	403,411	80,111	1,250,988	1,082,087	18,804	1,100,890	
5357	(3,969,412)	2,689,969	7,498,751	528,812	10,717,532	295,173	3,183,264	1,828,408	475,904	5,782,749	4,904,413	36,025	4,940,437	
5358	(8,026,478)	5,439,339	15,163,090	247,873	20,850,302	596,865	6,436,821	3,697,190	406,370	11,137,246	9,917,125	(58,892)	9,858,233	
5359	(720,735)	488,423	1,361,564	44,547	1,894,535	53,595	577,992	331,988	45,789	1,009,364	890,505	(1,005)	889,500	
5360	(483,065)	327,361	912,574	115,183	1,355,117	35,922	387,393	222,511	7,268	653,094	596,851	22,047	618,898	
5361	(3,752,389)	2,542,898	7,088,765	259,940	9,891,603	279,035	3,009,222	1,728,441	—	5,016,699	4,636,269	53,874	4,690,144	
5362	(451,147)	305,731	852,277	53,249	1,211,256	33,548	361,796	207,809	130,558	733,712	557,415	(8,763)	548,652	
5363	(3,379,193)	2,289,993	6,383,747	176,524	8,850,264	251,283	2,709,938	1,556,538	205,148	4,722,908	4,175,166	(8,041)	4,167,126	
5364	(932,127)	631,678	1,760,912	2,166	2,394,756	69,315	747,518	429,360	218,372	1,464,564	1,151,690	(46,541)	1,105,150	
5365	(32,908)	22,301	62,168	25,764	110,233	2,447	26,390	15,158	1,770	45,766	40,659	5,217	45,877	
5367	(905,275)	613,482	1,710,186	113,183	2,436,851	67,318	725,984	416,992	74,332	1,284,625	1,118,514	15,889	1,134,402	
5368	(755,916)	512,265	1,428,027	36,832	1,977,124	56,211	606,206	348,193	115,834	1,126,445	933,973	(9,349)	924,624	
5369	(232,902)	157,832	439,984	13,160	610,976	17,319	186,776	107,281	79,398	390,774	287,763	(15,085)	272,678	
5371	(273,339)	185,235	516,374	24,631	726,240	20,326	219,204	125,907	32,273	397,710	337,724	(1,152)	336,572	
5372	(1,876,931)	1,271,948	3,545,774	292,581	5,110,304	139,572	1,505,202	864,560	117,298	2,626,632	2,319,045	38,609	2,357,654	
5375	(2,525,501)	1,711,468	4,771,010	510,287	6,992,765	187,801	2,025,322	1,163,307	—	3,176,430	3,120,387	106,189	3,226,576	
5376	(1,116,834)	756,850	2,109,850	82,499	2,949,199	83,050	895,644	514,441	238,624	1,731,759	1,379,906	(45,516)	1,334,390	
5379	(80,924)	54,840	152,876	29,014	236,729	6,018	64,897	37,275	92,246	200,435	99,985	(7,833)	92,152	
5380	(525,034)	355,802	991,859	46,646	1,394,306	39,043	421,050	241,843	50,476	752,411	648,706	2,838	651,544	
5403	(5,976,607)	4,050,194	11,290,610	476,185	15,816,989	444,432	4,792,931	2,752,970	232,579	8,222,912	7,384,405	37,163	7,421,567	
5406	(2,582,304)	1,749,961	4,878,317	123,194	6,751,472	192,025	2,070,874	1,189,472	252,348	3,704,719	3,190,569	(16,407)	3,174,162	
5407	(3,906,600)	2,647,403	7,380,090	506,220	10,533,713	290,502	3,132,892	1,799,475	65,413	5,288,282	4,826,805	81,478	4,908,283	
5408	(4,091,488)	2,772,697	7,729,367	615,203	11,117,267	304,251	3,281,162	1,884,638	93,425	5,563,476	5,055,243	89,962	5,145,205	
5409	(5,005,152)	3,391,864	9,455,402	42,554	12,889,820	372,193	4,013,874	2,305,495	122,535	6,814,097	6,184,123	(11,331)	6,172,792	
5415	(2,750,968)	1,864,260	5,196,946	192,041	7,253,247	204,567	2,206,134	1,267,162	26,231	3,704,095	3,398,962	39,173	3,438,135	
5416	(1,070,349)	725,348	2,022,032	77,433	2,824,812	79,593	858,364	493,029	116,250	1,547,236	1,322,471	(1,301)	1,321,170	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources				Deferred inflows of resources				Pension expense				
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	Total pension expense
5418	\$ (5,118,482)	3,468,665	9,669,498	387,728	13,525,890	380,620	4,104,759	2,357,697	77,157	6,920,233	6,324,148	54,616	6,378,763
5420	(4,809,435)	3,259,231	9,085,666	327,371	12,672,269	357,639	3,856,919	2,215,342	36,665	6,466,565	5,942,304	69,619	6,011,923
5427	(243,138)	164,769	459,321	6,132	630,221	18,080	194,984	111,995	7,124	332,184	300,410	(165)	300,245
5457	(4,328,628)	2,933,401	8,177,357	127,411	11,238,169	321,885	3,471,336	1,993,871	1,519,747	7,306,840	5,348,242	(277,167)	5,071,075
5458	(4,066,444)	2,755,725	7,682,057	426,289	10,864,071	302,389	3,261,078	1,873,103	131,302	5,567,872	5,024,300	63,991	5,088,291
5501	(1,608,791)	1,090,237	3,039,222	193,312	4,322,771	119,633	1,290,168	741,048	6,353	2,157,202	1,987,744	37,404	2,025,148
5504	(1,524,678)	1,033,235	2,880,320	233,218	4,146,773	113,378	1,222,713	702,304	11,745	2,050,140	1,883,818	50,057	1,933,875
5505	(434,198)	294,245	820,259	81,447	1,195,951	32,288	348,205	200,002	20,370	600,865	536,474	12,704	549,178
5506	(739,762)	501,318	1,397,510	53,461	1,952,290	55,010	593,251	340,753	51,943	1,040,957	914,014	(2,317)	911,697
5507	(685,336)	464,435	1,294,691	397,421	2,156,548	50,963	549,604	315,682	24,203	940,452	846,768	64,131	910,898
5527	(906,894)	614,579	1,713,245	96,214	2,424,037	67,438	727,282	417,738	30,915	1,243,374	1,120,514	17,783	1,138,298
5528	(1,011,302)	685,334	1,910,485	100,687	2,696,506	75,202	811,012	465,830	105,701	1,457,746	1,249,516	(8,960)	1,240,556
5530	(1,342,096)	909,504	2,535,400	70,292	3,515,196	99,801	1,076,292	618,202	220,617	2,014,912	1,658,229	(29,827)	1,628,402
5533	(506,852)	343,480	957,511	177,727	1,478,718	37,690	406,469	233,468	13,125	690,752	626,241	31,277	657,518
5534	(926,293)	627,725	1,749,891	64,786	2,442,402	68,881	742,839	426,673	135,323	1,373,716	1,144,483	(7,929)	1,136,554
5535	(1,562,813)	1,059,078	2,952,362	15,844	4,027,285	116,214	1,253,295	719,869	26,645	2,116,024	1,930,935	(3,928)	1,927,007
5541	(862,211)	584,298	1,628,832	29,661	2,242,791	64,116	691,449	397,155	88,941	1,241,661	1,065,306	(14,311)	1,050,996
5601	(2,389,840)	1,619,534	4,514,728	4,730	6,138,992	177,713	1,916,529	1,100,818	95,346	3,290,406	2,952,770	(21,824)	2,930,947
5676	(626,839)	424,793	1,184,183	35,320	1,644,295	46,613	502,692	288,737	12,632	850,675	774,492	4,336	778,828
5677	(553,656)	375,199	1,045,931	8,373	1,429,503	41,171	444,004	255,028	63,471	803,673	684,071	(13,604)	670,467
5678	(676,437)	458,404	1,277,880	148,201	1,884,485	50,301	542,467	311,583	142,820	1,047,172	835,773	(2,128)	833,644
5679	(1,260,833)	854,434	2,381,881	175,363	3,411,679	93,758	1,011,123	580,770	2,401	1,688,052	1,557,823	33,664	1,591,488
5680	(1,178,072)	798,349	2,225,536	194,440	3,218,326	87,604	944,753	542,649	4,286	1,579,292	1,455,569	44,053	1,499,622
5681	(597,776)	405,098	1,129,280	17,000	1,551,377	44,452	479,386	275,350	48,162	847,350	738,583	(3,893)	734,690
5682	(718,491)	486,903	1,357,325	4,442	1,848,670	53,428	576,193	330,954	68,826	1,029,402	887,732	(13,930)	873,802
5683	(1,101,953)	746,765	2,081,736	21,803	2,850,305	81,943	883,709	507,586	52,597	1,525,836	1,361,519	(8,238)	1,353,281
5684	(455,298)	308,544	860,119	21,473	1,190,135	33,857	365,125	209,721	3,708	612,411	562,544	4,978	567,522
5685	(706,325)	478,659	1,334,343	164,035	1,977,036	52,524	566,436	325,351	16,919	961,230	872,701	29,799	902,500
5687	(1,327,006)	899,278	2,506,891	58,474	3,464,642	98,679	1,064,190	611,251	35,190	1,809,310	1,639,583	893	1,640,476
5688	(467,581)	316,868	883,324	72,739	1,272,931	34,770	374,976	215,379	—	625,126	577,721	17,261	594,982
5691	(216,737)	146,877	409,446	7,336	563,659	16,117	173,812	99,835	62,103	351,866	267,790	(10,466)	257,324
5692	(1,080,543)	732,257	2,041,291	50,662	2,824,209	80,351	866,540	497,724	29,044	1,473,660	1,335,067	8,441	1,343,507
5693	(321,299)	217,736	606,977	70,385	895,098	23,892	257,665	147,998	5,093	434,648	396,981	16,416	413,398
5694	(261,424)	177,161	493,865	81,071	752,097	19,440	209,649	120,418	1,621	351,128	323,003	17,046	340,049
5695	(283,636)	192,213	535,826	36,475	764,514	21,092	227,461	130,650	17,842	397,045	350,447	2,135	352,582
5801	(3,779,568)	2,561,317	7,140,110	53,579	9,755,006	281,056	3,031,019	1,740,961	263,388	5,316,424	4,669,851	(60,777)	4,609,074
5806	(2,212,914)	1,499,636	4,180,491	47,769	5,727,896	164,557	1,774,643	1,019,322	145,726	3,104,248	2,734,169	(17,266)	2,716,903
5807	(739,184)	500,926	1,396,418	401,744	2,299,089	54,967	592,788	340,486	91,263	1,079,504	913,300	97,930	1,011,230
5812	(905,069)	613,342	1,709,796	26,271	2,349,408	67,303	725,818	416,897	105,118	1,315,136	1,118,259	(15,683)	1,102,576
5813	(951,436)	644,764	1,797,389	396,087	2,838,240	70,751	763,002	438,254	5,689	1,277,696	1,175,548	76,415	1,251,963
5817	(3,067,407)	2,078,704	5,794,743	444,535	8,317,982	228,098	2,459,902	1,412,922	99,224	4,200,147	3,789,939	52,500	3,842,439
5820	(900,027)	609,925	1,700,271	569,200	2,879,397	66,928	721,775	414,574	12,860	1,216,137	1,112,030	135,209	1,247,238
5821	(1,633,015)	1,106,653	3,084,984	43,385	4,235,022	121,434	1,309,594	752,206	350,398	2,533,632	2,017,674	(60,579)	1,957,095

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
5822	\$ (1,618,814)	1,097,029	3,058,156	1,037,095	5,192,280	120,378	1,298,205	745,665	12,509	2,176,757	2,000,128	194,343	2,194,471	
5823	(471,118)	319,265	890,005	89,411	1,298,681	35,033	377,812	217,008	113,606	743,460	582,091	1,536	583,627	
6001	(4,073,302)	2,760,373	7,695,013	715,253	11,170,639	302,899	3,266,578	1,876,262	169,739	5,615,478	5,032,774	141,111	5,173,885	
6005	(3,213,541)	2,177,735	6,070,809	—	8,248,544	238,965	2,577,094	1,480,235	424,132	4,720,427	3,970,495	(94,651)	3,875,844	
6008	(3,137,934)	2,126,498	5,927,977	113,993	8,168,468	233,343	2,516,461	1,445,408	546,086	4,741,299	3,877,078	(78,618)	3,798,461	
6011	(1,635,347)	1,108,233	3,089,390	41,515	4,239,138	121,608	1,311,464	753,281	421,920	2,608,273	2,020,556	(70,781)	1,949,775	
6018	(1,514,466)	1,026,315	2,861,028	285,243	4,172,586	112,619	1,214,523	697,600	173,061	2,197,802	1,871,200	20,144	1,891,345	
6022	(1,564,778)	1,060,410	2,956,075	320,012	4,336,498	116,360	1,254,871	720,775	150,225	2,242,231	1,933,364	38,100	1,971,464	
6026	(2,998,614)	2,032,084	5,664,782	185,333	7,882,199	222,983	2,404,733	1,381,234	251,331	4,260,281	3,704,941	596	3,705,537	
6027	(4,347,338)	2,946,080	8,212,702	460,250	11,619,032	323,277	3,486,340	2,002,489	37,308	5,849,414	5,371,359	96,661	5,468,020	
6028	(3,723,772)	2,523,505	7,034,703	115,953	9,674,161	276,907	2,986,273	1,715,260	472,711	5,451,151	4,600,911	(58,446)	4,542,466	
6036	(711,821)	482,383	1,344,725	302,659	2,129,766	52,932	570,844	327,882	7,802	959,460	879,491	74,733	954,224	
6040	(1,126,985)	763,729	2,129,026	113,432	3,006,186	83,805	903,784	519,117	205,463	1,712,168	1,392,448	(8,929)	1,383,519	
6041	(1,623,662)	1,100,314	3,067,315	46,010	4,213,640	120,739	1,302,093	747,898	244,607	2,415,338	2,006,118	(49,290)	1,956,828	
6042	(1,484,382)	1,005,928	2,804,196	10,983	3,821,107	110,382	1,190,398	683,742	255,054	2,239,576	1,834,030	(48,930)	1,785,100	
6044	(2,261,499)	1,532,560	4,272,275	483,456	6,288,291	168,170	1,813,606	1,041,701	246,086	3,269,563	2,794,199	77,043	2,871,242	
6048	(1,834,420)	1,243,140	3,465,465	224,430	4,933,035	136,411	1,471,110	844,979	68,694	2,262,194	2,266,521	27,438	2,293,958	
6050	(2,140,859)	1,450,805	4,044,369	468,322	5,963,496	159,198	1,716,858	986,131	335,174	3,197,363	2,645,141	32,373	2,677,514	
6051	(5,140,413)	3,483,527	9,710,928	33,270	13,227,725	382,251	4,122,346	2,367,799	754,597	7,626,994	6,351,245	(165,853)	6,185,392	
6052	(3,435,940)	2,328,449	6,490,951	215,189	9,034,589	255,503	2,755,447	1,582,678	276,375	4,870,003	4,245,281	(25,554)	4,219,727	
6056	(14,913,407)	10,106,435	28,173,422	634,411	38,914,268	1,108,990	11,959,784	6,869,477	1,697,292	21,635,543	18,426,281	(135,447)	18,290,833	
6057	(2,976,416)	2,017,041	5,622,849	—	7,639,890	221,332	2,386,932	1,371,010	467,531	4,446,805	3,677,515	(102,622)	3,574,893	
6061	(5,407,214)	3,664,331	10,214,951	45,773	13,925,055	402,091	4,336,307	2,490,694	365,127	7,594,219	6,680,891	(86,731)	6,594,160	
6065	(6,217,448)	4,213,406	11,745,591	206,311	16,165,307	462,342	4,986,073	2,863,907	319,120	8,631,442	7,681,976	(33,934)	7,648,042	
6067	(3,249,618)	2,202,183	6,138,963	129,989	8,471,135	241,648	2,606,026	1,496,853	268,974	4,613,501	4,015,070	(23,939)	3,991,130	
6068	(2,649,808)	1,795,707	5,005,842	—	6,801,549	197,045	2,125,009	1,220,566	1,146,144	4,688,764	3,273,974	(218,426)	3,055,548	
6074	(3,600,094)	2,439,692	6,801,059	203,961	9,444,712	267,710	2,887,090	1,658,291	138,079	4,951,170	4,448,101	25,956	4,474,057	
6075	(2,690,292)	1,823,142	5,082,322	416,513	7,321,977	200,055	2,157,476	1,239,214	146,189	3,742,934	3,323,994	66,067	3,390,061	
6078	(7,163,207)	4,854,322	13,532,255	16,769	18,403,347	532,670	5,744,522	3,299,547	1,026,623	10,603,361	8,850,509	(202,975)	8,647,535	
6079	(2,994,748)	2,029,464	5,657,480	334,843	8,021,787	222,695	2,401,634	1,379,454	30,939	4,034,722	3,700,165	51,520	3,751,685	
6091	(13,864,955)	9,395,926	26,192,755	369,787	35,958,467	1,031,025	11,118,979	6,386,535	813,834	19,350,372	17,130,864	(98,100)	17,032,764	
6093	(6,770,122)	4,587,939	12,789,666	1,337,504	18,715,110	503,439	5,429,289	3,118,482	90,356	9,141,566	8,364,833	292,483	8,657,316	
6094	(4,323,839)	2,930,155	8,168,309	68,410	11,166,875	321,529	3,467,495	1,991,665	254,132	6,034,822	5,342,325	(55,376)	5,286,949	
6095	(1,662,121)	1,126,377	3,139,969	346,806	4,613,151	123,599	1,332,935	765,613	—	2,222,147	2,053,636	75,457	2,129,093	
6097	(1,423,627)	964,756	2,689,423	48,734	3,702,912	105,864	1,141,676	655,757	137,389	2,040,686	1,758,965	(28,679)	1,730,286	
6099	(1,869,329)	1,266,797	3,531,413	548,425	5,346,634	139,007	1,499,106	861,058	318,083	2,817,254	2,309,652	82,269	2,391,921	
6104	(2,892,470)	1,960,153	5,464,263	150,719	7,575,135	215,090	2,319,612	1,332,342	201,161	4,068,205	3,573,795	(9,582)	3,564,213	
6105	(4,994,647)	3,384,745	9,435,556	61,050	12,881,351	371,412	4,005,449	2,300,656	1,024,904	7,702,421	6,171,143	(207,768)	5,963,374	
6109	(4,567,099)	3,095,007	8,627,861	968,583	12,691,451	339,618	3,662,578	2,103,717	168,063	6,273,976	5,642,886	216,044	5,858,930	
6507	(141,181)	95,675	266,710	50,012	412,397	10,499	113,220	65,032	15,318	204,068	174,437	6,621	181,058	
6511	(72,766)	49,312	137,465	30,761	217,539	5,411	58,355	33,518	8,953	106,237	89,907	5,601	95,507	
7000	(22,582,355)	15,303,486	42,661,090	316,081	58,280,657	1,679,268	18,109,884	10,401,981	6,481,900	36,673,033	27,901,659	(1,356,832)	26,544,828	
7500	(175,620)	119,013	331,769	61,961	512,743	13,059	140,838	80,895	2,980	237,771	216,987	13,440	230,427	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
7501	\$ (372,162)	252,204	703,063	182,481	1,137,749	27,675	298,454	171,427	17,302	514,857	459,825	39,239	499,064	
7502	(78,511)	53,205	148,318	4,226	205,749	5,838	62,962	36,164	75,397	180,361	97,005	(15,939)	81,066	
8000	(2,506,542)	1,698,620	4,735,194	432,754	6,866,568	186,391	2,010,118	1,154,574	24,654	3,375,737	3,096,962	92,105	3,189,067	
8102	(551,488)	373,729	1,041,835	50,084	1,465,648	41,010	442,265	254,029	91,068	828,372	681,392	(12,400)	668,992	
8105	(614,534)	416,454	1,160,937	270,427	1,847,818	45,698	492,825	283,069	119,775	941,366	759,288	49,588	808,877	
8110	(1,156,929)	784,021	2,185,594	78,761	3,048,376	86,032	927,798	532,910	202,297	1,749,036	1,429,445	(38,877)	1,390,569	
8112	(207,577)	140,670	392,141	144,029	676,840	15,436	166,466	95,615	—	277,517	256,472	32,492	288,964	
8113	(283,065)	191,826	534,747	2,890	729,462	21,049	227,003	130,386	23,701	402,140	349,741	(5,282)	344,459	
8115	(302,491)	204,991	571,446	85,759	862,196	22,494	242,582	139,335	36,364	440,775	373,743	14,463	388,206	
8120	(1,075,324)	728,720	2,031,431	—	2,760,150	79,963	862,354	495,320	436,268	1,873,906	1,328,618	(97,510)	1,231,108	
8124	(2,595,347)	1,758,800	4,902,958	168,250	6,830,008	192,995	2,081,335	1,195,480	465,372	3,935,182	3,206,685	(48,155)	3,158,529	
8129	(750,146)	508,355	1,417,126	155,755	2,081,235	55,782	601,578	345,535	14,130	1,017,026	926,844	38,302	965,145	
8130	(3,306,545)	2,240,761	6,246,506	1,674,766	10,162,033	245,881	2,651,678	1,523,075	907,936	5,328,570	4,085,406	122,574	4,207,980	
8131	(491,407)	333,014	928,334	12,369	1,273,718	36,542	394,083	226,354	33,450	690,429	607,159	(6,587)	600,572	
8133	(668,506)	453,030	1,262,898	128,978	1,844,905	49,711	536,108	307,930	33,747	927,496	825,974	18,220	844,194	
8134	(264,804)	179,451	500,250	173,392	853,093	19,691	212,359	121,975	—	354,026	327,179	36,379	363,557	
8135	(1,556,297)	1,054,663	2,940,053	472,564	4,467,280	115,729	1,248,070	716,868	—	2,080,667	1,922,885	94,321	2,017,205	
8140	(378,930)	256,791	715,849	83,777	1,056,417	28,178	303,882	174,544	42,708	549,313	468,187	11,385	479,572	
8142	(712,461)	482,817	1,345,934	278,667	2,107,418	52,980	571,357	328,177	78,219	1,030,733	880,282	34,264	914,546	
8145	(719,793)	487,786	1,359,786	109,811	1,957,383	53,525	577,237	331,554	232,064	1,194,381	889,342	(10,594)	878,748	
8146	(1,630,978)	1,105,272	3,081,135	480,127	4,666,534	121,283	1,307,960	751,268	51,153	2,231,663	2,015,157	79,300	2,094,457	
8149	(236,956)	160,579	447,642	115,837	724,059	17,621	190,027	109,148	61,737	378,532	292,772	16,021	308,792	
8150	(3,421,459)	2,318,635	6,463,593	712,716	9,494,945	254,426	2,743,834	1,576,007	373,029	4,947,295	4,227,388	100,580	4,327,968	
8151	(1,417,232)	960,422	2,677,342	735,947	4,373,711	105,388	1,136,547	652,812	59,106	1,953,853	1,751,063	110,837	1,861,900	
8153	(580,215)	393,197	1,096,103	368,063	1,857,363	43,146	465,302	267,261	291,616	1,067,325	716,885	48,501	765,387	
8155	(932,961)	632,244	1,762,488	206,870	2,601,602	69,377	748,187	429,744	91,936	1,339,244	1,152,721	11,598	1,164,319	
8160	(1,080,539)	732,254	2,041,284	206,842	2,980,380	80,351	866,537	497,723	415,895	1,860,505	1,335,062	(42,790)	1,292,272	
8162	(303,911)	205,953	574,129	113,006	893,087	22,599	243,721	139,989	75,414	481,723	375,498	7,737	383,235	
8166	(4,506,528)	3,053,959	8,513,434	208,411	11,775,803	335,114	3,614,003	2,075,816	177,794	6,202,727	5,568,046	783	5,568,830	
8167	(187,192)	126,855	353,631	52,601	533,088	13,920	150,119	86,225	11,552	261,816	231,286	8,729	240,014	
8168	(298,108)	202,020	563,165	107,792	872,977	22,168	239,067	137,316	51,994	450,545	368,327	4,052	372,379	
8169	(316,094)	214,209	597,144	99,303	910,656	23,505	253,491	145,601	11,501	434,098	390,550	16,687	407,237	
8170	(1,977,269)	1,339,945	3,735,326	282,169	5,357,439	147,034	1,585,668	910,778	1,028,005	3,671,485	2,443,017	(169,856)	2,273,162	
8400	(729,095)	494,089	1,377,359	67,134	1,938,582	54,217	584,697	335,839	193,622	1,168,375	900,835	(37,568)	863,267	
8402	(505,155)	342,330	954,305	42,975	1,339,611	37,564	405,108	232,687	373,095	1,048,453	624,145	(68,320)	555,825	
8403	(491,086)	332,796	927,727	—	1,260,524	36,518	393,826	226,206	312,784	969,334	606,762	(64,758)	542,005	
8406	(258,907)	175,455	489,110	39,016	703,581	19,253	207,630	119,259	60,308	406,450	319,893	(8,439)	311,453	
8407	(1,730,088)	1,172,437	3,268,368	349,413	4,790,218	128,653	1,387,442	796,921	799,888	3,112,903	2,137,613	(123,686)	2,013,927	
8409	(1,028,783)	697,180	1,943,508	503	2,641,191	76,502	825,031	473,882	400,048	1,775,463	1,271,114	(86,086)	1,185,028	
8410	(546,283)	370,202	1,032,002	48,244	1,450,448	40,623	438,091	251,631	493,909	1,224,254	674,961	(84,581)	590,380	
8412	(934,928)	633,577	1,766,205	85,832	2,485,613	69,523	749,764	430,651	492,417	1,742,355	1,155,152	(72,849)	1,082,303	
8415	(899,818)	609,784	1,699,877	24,171	2,333,832	66,912	721,608	414,478	528,350	1,731,348	1,111,772	(113,485)	998,286	
8416	(364,689)	247,140	688,946	146,913	1,082,999	27,119	292,461	167,984	147,689	635,253	450,591	(6,345)	444,246	

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Schedule of Pension Amounts by Employer

As of and for the fiscal year ended June 30, 2019

District code	Deferred outflows of resources					Deferred inflows of resources					Pension expense			
	Net pension liability (asset)	Differences between expected and actual experience	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred outflows of resources	Differences between expected and actual experience	Net difference between projected and actual investment earnings on pension plan investments	Changes of assumptions	Changes in proportion and differences between employer contributions and proportionate share of contributions	Total deferred inflows of resources	Proportionate share of allocable plan pension expense	Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions		Total pension expense
8419	\$ (637,550)	432,052	1,204,418	13,496	1,649,965	47,409	511,282	293,671	618,031	1,470,394	787,726	(108,258)	679,468	
8420	(549,608)	372,455	1,038,283	236,459	1,647,198	40,870	440,757	253,163	210,955	945,745	679,069	4,307	683,376	
8421	(437,914)	296,763	827,277	24,597	1,148,637	32,564	351,184	201,714	199,507	784,969	541,065	(33,893)	507,171	
8423	(272,615)	184,744	515,007	43,222	742,973	20,272	218,623	125,573	59,424	423,892	336,830	(7,936)	328,895	
8424	(199,873)	135,449	377,586	1,384	514,419	14,863	160,288	92,066	65,702	332,919	246,953	(15,171)	231,782	
8425	(489,145)	331,481	924,061	11,532	1,267,074	36,374	392,269	225,312	426,438	1,080,393	604,364	(74,797)	529,567	
8426	(182,764)	123,855	345,266	207,479	676,600	13,591	146,568	84,186	76,983	321,327	225,815	17,826	243,641	
8427	(118,756)	80,478	224,346	23,880	328,704	8,831	95,236	54,702	24,816	183,585	146,729	1,476	148,205	
8428	(626,510)	424,570	1,183,561	—	1,608,131	46,588	502,429	288,586	173,602	1,011,205	774,085	(35,148)	738,937	
8429	(367,509)	249,051	694,273	54,678	998,003	27,329	294,723	169,284	288,316	779,651	454,076	(48,598)	405,478	
8430	(385,881)	261,502	728,980	—	990,482	28,695	309,457	177,746	315,019	830,916	476,776	(66,834)	409,941	
8431	(406,753)	275,646	768,412	—	1,044,058	30,247	326,195	187,360	475,149	1,018,952	502,565	(100,803)	401,762	
8432	(411,560)	278,904	777,492	—	1,056,396	30,604	330,050	189,575	628,213	1,178,442	508,504	(154,415)	354,088	
8433	(115,682)	78,395	218,539	16,182	313,116	8,602	92,771	53,286	231,981	386,641	142,931	(44,087)	98,844	
8434	(241,895)	163,926	456,973	—	620,899	17,988	193,988	111,423	509,398	832,796	298,874	(93,315)	205,559	
8435	(184,353)	124,932	348,268	—	473,200	13,709	147,842	84,918	377,745	624,214	227,778	(70,748)	157,030	
8436	(666,370)	451,582	1,258,863	—	1,710,445	49,553	534,395	306,946	1,365,756	2,256,649	823,335	(255,737)	567,598	
Closed Districts	—	—	—	1,533,016	1,533,016	—	—	—	100,262	100,262	—	310,513	310,513	

See accompanying notes to schedule of employer allocations and schedule of pension amounts by employer.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by Employer

June 30, 2019

(1) Plan Description

The New York State Teachers' Retirement System (NYSTRS or the System) is a public employee retirement system (PERS) that was created and exists, pursuant to Article 11 of the New York State Education Law. The System is the administrator of a cost-sharing, multiple-employer, defined benefit plan, administered by a 10-member Board to provide pension benefits for teachers employed by participating employers in the State of New York, excluding New York City. For additional Plan information please refer to the NYSTRS Comprehensive Annual Financial Report which can be found on the System's website located at www.nystrs.org.

(a) Benefits

The benefits provided to members of the System are established by New York State law and may be amended only by the Legislature with the Governor's approval. Benefit provisions vary depending on date of membership and are subdivided into the following six classes:

(i) Tier 1

Members who last joined prior to July 1, 1973 are covered by the provisions of Article 11 of the Education Law.

(ii) Tier 2

Members who last joined on or after July 1, 1973 and prior to July 27, 1976 are covered by the provisions of Article 11 of the Education Law and Article 11 of the Retirement and Social Security Law (RSSL).

(iii) Tier 3

Members who last joined on or after July 27, 1976 and prior to September 1, 1983 are covered by the provisions of Article 14 and Article 15 of the RSSL.

(iv) Tier 4

Members who last joined on or after September 1, 1983 and prior to January 1, 2010 are covered by the provisions of Article 15 of the RSSL.

(v) Tier 5

Members who joined on or after January 1, 2010 and prior to April 1, 2012 are covered by the provisions of Article 15 of the RSSL.

(vi) Tier 6

Members who joined on or after April 1, 2012 are covered by the provisions of Article 15 of the RSSL.

(b) Service Retirements

Tier 1 members are eligible, beginning at age 55, for a service retirement allowance of approximately 2% per year of credited service times final average salary.

Under Article 19 of the RSSL, eligible Tiers 1 and 2 members can receive additional service credit of one-twelfth of a year for each year of retirement credit as of the date of retirement or death up to a maximum of two additional years.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by Employer

June 30, 2019

Tiers 2 through 5 are eligible for the same but with the following limitations: (1) Tiers 2 through 4 members receive an unreduced benefit for retirement at age 62 or retirement at ages 55 through 61 with 30 years of service or a reduced benefit for retirement at ages 55 through 61 with less than 30 years of service. (2) Tier 5 members receive an unreduced benefit for retirement at age 62 or retirement at ages 57 through 61 with 30 years of service. They receive a reduced benefit for retirement at ages 55 and 56 regardless of service credit, or ages 57 through 61 with less than 30 years of service.

Tier 6 members are eligible for a service retirement allowance of 1.75% per year of credited service for the first 20 years of service plus 2% per year for years of service in excess of 20 years times final average salary. Tier 6 members receive an unreduced benefit for retirement at age 63. They receive a reduced benefit at ages 55 through 62 regardless of service credit.

(c) Vested Benefits

Retirement benefits vest after 5 years of credited service except for Tiers 5 and 6 where 10 years of credited service are required. Benefits are payable at age 55 or greater with the limitations noted for service retirements above.

(d) Disability Retirement

Members are eligible for disability retirement benefits after 10 years of credited New York State service except for Tier 3 where disability retirement is permissible after 5 years of credited New York State service pursuant to the provisions of Article 14 of the RSSL. The Tier 3 benefit is integrated with Social Security.

(e) Death Benefits

Death benefits are paid to the beneficiary of active members who die in service and certain retirees. The benefit is based on final salary, age and the number of years of credited service. For retired members, it is also based on the number of years in retirement.

(f) Prior Service

After 2 years of membership, members of all tiers may claim and receive credit for prior New York State public or teaching service. Only Tiers 1 and 2 members may, under certain conditions, claim out of state service. Certain members may also claim military service credit prior to or interrupting membership.

(g) Tier Reinstatement

In accordance with Chapter 640 of the Laws of 1998, any active member who had a prior membership may elect to be reinstated to their original date and Tier of membership.

(h) Permanent Cost of Living Adjustment (COLA)

Section 532-a of the Education Law provides a permanent cost-of-living benefit to both current and future retired members. This benefit will be paid commencing September of each year to retired members who have attained age 62 and have been retired for 5 years or attained age 55 and have been retired for 10 years. Disability retirees must have been retired for 5 years, regardless of age, to be eligible. The annual COLA percentage is equal to 50% of the increase in the consumer price index, not to exceed 3.0% nor be lower than 1.0%. It is applied to the first \$18,000 of the annual benefit. The applicable percentage payable beginning September 2019 is 1.0%.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by Employer

June 30, 2019

Members who retired prior to July 1, 1970 are eligible for a minimum benefit of \$17,500 for 35 years of credited full-time New York State service. Certain members who retire pursuant to the provisions of Article 14 of the RSSL are eligible for automatic cost-of-living supplementation based on the increase in the consumer price index with a maximum per annum increase of 3.0%.

(2) Contributions

(a) Employer Contributions

Pursuant to Article 11 of the New York State Education Law, employers are required to contribute at an actuarially determined rate adopted annually by the Retirement Board. The actuarially determined contribution rate applied to 2018-19 salaries is 10.62%. A reconciliation of total required employer contributions presented in the Schedule of Employer Allocations and additions from employer contributions per the System's Statement of Changes in Fiduciary Net Position for fiscal year June 30, 2019 is as follows:

Total required employer contributions	\$	1,772,650,717
Miscellaneous billing adjustments		1,995,438
		<hr/>
Additions from employer contributions	\$	<u>1,774,646,155</u>

(b) Member Contributions

Tier 3 and Tier 4 members are required by law to contribute 3.0% of salary to the System. Effective October 2000, contributions were eliminated for Tiers 3 and 4 members with 10 or more years of service or membership. Effective January 1, 2010, Tier 5 members are required by law to contribute 3.5% of salary throughout their active membership. Effective April 1, 2012, Tier 6 members are required by law to contribute between 3.0% and 6.0% of salary throughout their active membership in accordance with a schedule based upon salary earned. Pursuant to Article 14 and Article 15 of the RSSL, those member contributions are used to help fund the benefits provided by the System. However, if a member dies or leaves covered employment with less than 5 years of credited service for Tiers 3 and 4, or 10 years of credited service for Tiers 5 and 6, the member contributions with interest calculated at 5.0% per annum are refunded to the employee or designated beneficiary. Eligible Tier 1 and Tier 2 members may make member contributions under certain conditions pursuant to the provisions of Article 11 of the Education Law and Article 11 of the RSSL. Upon termination of membership, such accumulated member contributions are refunded. At retirement, such accumulated member contributions can be withdrawn or are paid as a life annuity.

(3) Basis of Presentation

The Schedule of Employer Allocations and Schedule of Pension Amounts by Employer (collectively, the Schedules) present amounts that are elements of the financial statements of the System or of its participating employers. Accordingly, they do not purport to be a complete presentation of the financial position or changes in financial position of either the System or its participating employers. The amounts presented in the Schedules were prepared in accordance with U.S. generally accepted accounting principles. Such preparation requires management of the System to make a number of estimates and assumptions relating to the reported amounts. Due to the inherent nature of these estimates, actual results could differ from those estimates.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Notes to Schedule of Employer Allocations and Schedule of
Pension Amounts by Employer

June 30, 2019

(4) Employer Allocation Percentages

The employer allocation percentages presented in the Schedule of Employer Allocations and applied to amounts presented in the Schedule of Pension Amounts by Employer are based on the ratio of each employer's actuarially determined contribution to the System's total actuarially determined employer contribution for the fiscal year ended June 30, 2019. The employer allocation percentages have been rounded for presentation purposes. Therefore, use of these percentages to recalculate individual employer amounts presented in the Schedule of Pension Amounts by Employer may result in immaterial differences due to this rounding.

(5) Summary of Significant Accounting Policies

The System's financial statements from which the System's fiduciary net position is determined are prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has a legal requirement to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Plan investments are reported at fair value. For detailed information on how investments are valued, please refer to the System's annual report.

(6) Collective Net Pension Liability (Asset) and Actuarial Information

The components of the net pension liability (asset) of the participating school districts at June 30, 2019 are as follows:

Total pension liability	\$ 119,879,473,882
Plan fiduciary net position	<u>\$ 122,477,480,654</u>
School districts' net pension liability (asset)	<u>\$ (2,598,006,772)</u>
Plan fiduciary net position as a percentage of total pension liability	102.2 %

(a) Actuarial Methods and Assumptions

The total pension liability at June 30, 2019 measurement date was determined using an actuarial valuation as of June 30, 2018, with update procedures used to roll forward the total pension liability to June 30, 2019, using the following actuarial methods and assumptions:

Actuarial cost method	Entry age normal										
Inflation	2.20%										
Projected salary increases	Rates of increase differ based on service. They have been calculated based upon recent NYSTRS member experience.										
	<table border="0"> <thead> <tr> <th align="center"><u>Service</u></th> <th align="center"><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td align="center">5</td> <td align="center">4.72%</td> </tr> <tr> <td align="center">15</td> <td align="center">3.46</td> </tr> <tr> <td align="center">25</td> <td align="center">2.37</td> </tr> <tr> <td align="center">35</td> <td align="center">1.90</td> </tr> </tbody> </table>	<u>Service</u>	<u>Rate</u>	5	4.72%	15	3.46	25	2.37	35	1.90
<u>Service</u>	<u>Rate</u>										
5	4.72%										
15	3.46										
25	2.37										
35	1.90										
Projected COLAs	1.3% compounded annually										
Investment rate of return	7.10% compounded annually, net of pension plan investment expense, including inflation.										

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Notes to Schedule of Employer Allocations and Schedule of
Pension Amounts by Employer

June 30, 2019

Annuitant mortality rates are based on plan member experience, with adjustments for mortality improvements based on Society of Actuaries Scale MP2018, applied on a generational basis. Active member mortality rates are based on plan member experience.

The actuarial assumptions were based on the results of an actuarial experience study for the period of July 1, 2009 and June 30, 2014.

The long-term expected rate of return on pension plan investments was determined in accordance with Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*. ASOP No. 27 provides guidance on the selection of an appropriate assumed investment rate of return. Consideration was given to expected future real rates of return (expected returns, net of pension plan investment expense and inflation) for each major asset class as well as historical investment data and plan performance.

The Long Term Expected Real Rates of Return are presented by asset allocation classification, which differs from the financial statement presentation. Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation as of the measurement date of June 30, 2019 are summarized in the following table:

Asset class:	<u>Target allocation</u>	<u>Long-term expected real rate of return*</u>
Domestic equity	33%	6.3 %
International equity	16	7.8
Global equity	4	7.2
Real estate equity	11	4.6
Private equity	8	9.9
Domestic fixed income	16	1.3
Global bonds	2	0.9
High-yield bonds	1	3.6
Private debt	1	6.5
Real estate debt	7	2.9
Cash equivalents	1	0.3
Total	<u>100%</u>	

*Real rates of return are net of the long-term inflation assumption of 2.2% for 2019.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Notes to Schedule of Employer Allocations and Schedule of
Pension Amounts by Employer

June 30, 2019

(b) Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2019 was 7.10%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from school districts will be made at statutorily required rates, actuarially determined. Based on those assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

(c) Sensitivity of the Net Pension Liability (Asset) to Changes in the Discount Rate

The following presents the net pension liability (asset) of the NYSTRS participating school districts calculated using the discount rate of 7.10% for June 30, 2019, as well as what the school districts' net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (6.10%) or 1-percentage-point higher (8.10%) than the current rate:

	1% Decrease (6.10%)	Current discount rate (7.10%)	1% Increase (8.10%)
\$	11,727,131,370	\$ (2,598,006,772)	\$ (14,615,181,127)

(7) Collective Deferred Outflows of Resources and Deferred Inflows of Resources

Annual changes to the net pension liability (asset) resulting from differences between expected and actual experience with regard to economic and demographic factors and from changes of assumptions about future economic or demographic factors or other inputs are deferred and amortized over a closed period equal to the average of the expected service lives of all members and beneficiaries that are provided with pension benefits determined for the period during which the changes occurred. Differences between projected and actual earnings on pension plan investments are amortized over a closed 5-year period. The following presents a summary of changes in the collective deferred outflows of resources and deferred inflows of resources (excluding employer-specific amounts) for the year ended June 30, 2019:

Deferred outflows of resources	Measurement period July 1-June 30	Amortization period	Beginning balance on prior measurement period deferrals	Current measurement period additions	Amortization of amounts recognized in current period pension expense	End of year balance
Changes of assumptions	2016	7.2	\$ 4,133,163,598	\$ —	\$ (984,086,571)	\$ 3,149,077,027
	2017	7.1	2,187,906,617	—	(429,001,298)	1,758,905,319
Total			6,321,070,215	—	(1,413,087,869)	4,907,982,346
Differences between expected and actual experience	2017	7.1	522,854,456	—	(102,520,481)	420,333,975
	2018	7.1	828,446,908	—	(135,810,969)	692,635,939
	2019	7.1	—	753,802,277	(106,169,335)	647,632,942
Total			1,351,301,364	753,802,277	(344,500,785)	1,760,602,856
Total deferred outflows of resources			\$ 7,672,371,579	\$ 753,802,277	\$ (1,757,588,654)	\$ 6,668,585,202

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Deferred inflows of resources	Measurement period July 1-June 30	Amortization period	Beginning balance on prior measurement period deferrals	Current measurement period additions	Amortization of amounts recognized in current period pension expense	End of year balance
Net difference between projected and actual investment earnings on pension plan investments	2015	5	(581,912,715)	—	581,912,715	—
	2016	5	(2,201,589,132)	—	1,100,794,567	(1,100,794,565)
	2017	5	3,289,602,964	—	(1,096,534,321)	2,193,068,643
	2018	5	1,501,210,063	—	(375,302,516)	1,125,907,547
	2019	5	—	(168,392,719)	33,678,544	(134,714,175)
Total			2,007,311,180	(168,392,719)	244,548,989	2,083,467,450
Changes of assumptions	2019	7.1	—	1,392,886,086	(196,181,139)	1,196,704,947
Total			—	1,392,886,086	(196,181,139)	1,196,704,947
Differences between expected and actual experience	2014	9.6	87,128,798	—	(18,941,044)	68,187,754
	2015	9.4	92,514,224	—	(17,132,263)	75,381,961
	2016	7.2	65,130,369	—	(15,507,230)	49,623,139
Total			244,773,391	—	(51,580,537)	193,192,854
Total deferred inflows of resources			\$ 2,252,084,571	\$ 1,224,493,367	\$ (3,212,687)	\$ 3,473,365,251

The collective deferred outflows of resources and deferred inflows of resources (excluding employer-specific amounts) reported in the chart above will be amortized in the collective proportionate share of pension expense as follows:

Year ended June 30:	
2020	\$ 1,172,463,250
2021	71,668,684
2022	1,168,203,007
2023	776,218,467
2024	92,098,434
Thereafter	<u>(85,431,891)</u>
Total	<u>\$ 3,195,219,951</u>

Deferred outflows of resources and deferred inflows of resources resulting from changes in an individual employer's proportion are amortized over a closed period equal to the average of the expected service lives of all members and beneficiaries that are provided with pension benefits determined for the period during which the changes occurred. Because these deferred amounts and their amortization are specific to individual employers and offset on a collective basis, they are not included in the tables above.

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(8) Allocable Plan Pension Expense

The components of allocable plan pension expense, for the period ended June 30, 2019, comprises the following:

Service cost	\$ 1,528,401,661
Interest on total pension liability	8,189,404,659
Changes of benefit terms	814,809
Member contributions	(136,609,525)
Projected earnings on pension plan investments	(8,191,571,225)
Pension plan administrative expense	74,241,839
Other changes in fiduciary net position	(9,087,411)
Amortization of deferred inflows/outflows of resources:	
Amortization of differences between expected and actual experience	292,920,248
Amortization of changes of assumptions	1,216,906,730
Amortization of differences between expected and actual investment earnings on investments	244,548,989
Total allocable plan pension expense	<u>\$ 3,209,970,774</u>