



OAG

Office of the Auditor General

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Doug A. Ringler, CPA, CIA
Auditor General

April 28, 2017

The Honorable Phil Pavlov
Michigan State Senate
6200 Connie B. Binsfeld Building
Lansing, Michigan

Dear Senator Pavlov:

Enclosed is the Michigan Public School Employees' Retirement System (MPERS) information requested in your letter dated January 11, 2017. We have also summarized the required employer unfunded actuarial accrued liability (UAAL) contributions by the various MPERS participating employers and have presented this information in the following exhibits:

Exhibit #1 - A complete listing alphabetically of the Required Employer UAAL Contributions and State Supplemental.

Exhibit #2 - Summarizes Non-University Employer Contributions by Employer Group.

Exhibit #3 - Depicts the Ten K-12 Public School Districts with Highest Combined UAAL Contributions and School Aid Fund Supplemental.

Exhibit #4 - Lists the Intermediate School Districts Employer UAAL Contributions and School Aid Fund Supplemental.

Exhibit #5 - Lists the Community Colleges Employer UAAL Contributions and State Supplemental.

Exhibit #6 - Lists the Charter Schools Employer UAAL Contributions and School Aid Fund Supplemental.

Exhibit #7 - List the Public Libraries Employer UAAL Contributions and General Fund Supplemental.

We appreciate the opportunity to assist you regarding this topic. If you have any further questions or a request for other services, please do not hesitate to contact our office.

Sincerely,

A handwritten signature in black ink that reads 'Doug Ringler'. The signature is written in a cursive, flowing style.

Doug Ringler
Auditor General

Enclosures

Background

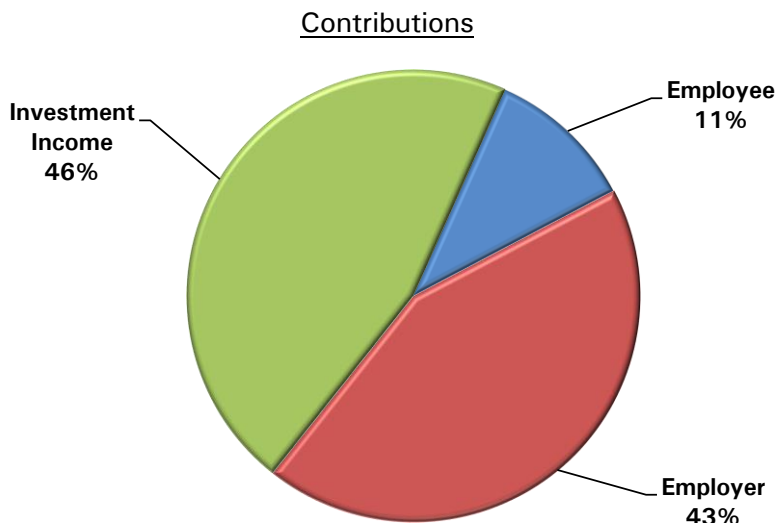
The Michigan Public School Employees' Retirement System (System) is a cost-sharing, multiple employer, statewide, defined benefit public employee retirement plan governed by the State of Michigan and administered by the Office of Retirement Services within the Michigan Department of Technology, Management, and Budget. The State Treasurer serves as the investment officer and custodian for the System. The State established the System's pension plan to provide retirement, survivor and disability benefits to public school employees. Additionally, the System's other postemployment benefit (OPEB) plan provides retirees with the option of receiving health, prescription drug, dental and vision coverage.

Key legislation related to the System includes:

<u>Public Act</u>	<u>Description</u>
Act 300 of 1980	<ul style="list-style-type: none">• The Public School Employees Retirement Act of 1979.• Primary legislation for the System.• Provides that employees of the following may be System members:<ul style="list-style-type: none">○ K-12 public school districts.○ Intermediate school districts.○ Charter schools.○ District libraries.○ Tax-supported community colleges.○ Seven Universities.
Act 91 of 1985	<ul style="list-style-type: none">• Effective July 10, 1985, amended Act 300 of 1980 to create the Member Investment Plan (MIP) benefit structures.• System members could opt to remain in one of the basic pension plan benefit structures or elect one of the MIP benefit structures.
Act 194 of 1989	<ul style="list-style-type: none">• Employees hired on or after January 1, 1990 were required to enroll in one of the MIP benefit structures.
Act 272 of 1995	<ul style="list-style-type: none">• Effective January 1, 1996, amended Act 300 of 1980 to exclude new university employees from System.
Act 75 of 2010	<ul style="list-style-type: none">• Effective May 19, 2010, amended Act 300 of 1980 to create the Pension Plus Plan (PPP) benefit structure.• Employees hired on or after July 1, 2010 required to enroll in one of the PPP defined benefit and/or defined contribution benefit structures.
Act 300 of 2012	<ul style="list-style-type: none">• Effective fiscal year 2013 and each subsequent fiscal year, amended Act 300 of 1980 to cap the non-university employer Unfunded Actuarial Accrued Liability (UAAL) contribution rate at 20.96%.• Required employer UAAL contributions in excess of 20.96% are funded by the School Aid Fund.
Act 94 of 1979	<ul style="list-style-type: none">• Amended annually to provide appropriations for funds required per Act 300 of 2012.

System Funding Analysis

Employee contributions, employer contributions, and investment earnings provide the financing for the System. Contributions and investment earnings for fiscal year 2016 totaled approximately \$7.4 billion with the financing sources allocated as follows:



Employer contributions to the System are determined on an actuarial basis using the entry age normal actuarial cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the actuarial valuation is allocated on a level basis over the service of the individual between entry age and assumed exit age. The portion of this cost allocated to the current valuation year is called the normal cost. The remainder is called the actuarial accrued liability (AAL). This calculation can be depicted as follows:

$$\text{Present Value of Future Benefits} - \text{Present Value of Future Normal Costs} = \text{AAL}$$

The AAL is the amount of liabilities attributed to the member's service as of the valuation date. The UAAL is the amount of retirement benefit that is owed to an employee in future years that exceed current assets and their projected growth. The gap between the AAL and the actuarial value of existing assets is the UAAL, which is determined as follows:

$$\text{AAL} - \text{Actuarial Value of Assets} = \text{UAAL}$$

As of September 30, 2016, the UAAL for System pension and OPEB plans totaled \$29.1 billion and \$9.5 billion, respectively¹.

Employee contribution rates are fixed and can only change through legislative actions. However, employer contributions are based on an actuarial determined percentage of applicable employer payroll. Normal cost is funded on a current basis and is expressed as a percentage of defined benefit participating active member payroll and the UAAL is expressed as a percentage of total MPSERS active member (including defined contribution only members) payroll.

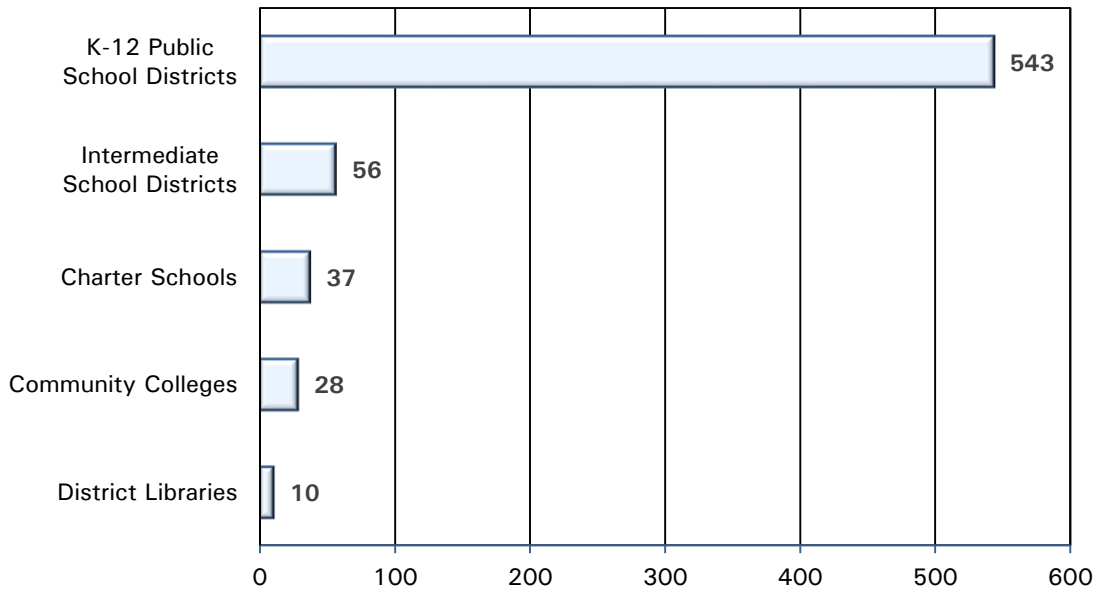
The actuary annually computes the amount needed to finance the unfunded liability. For pension and OPEB, the UAAL as of the September 30, 2016 valuation will be amortized over a 20 year period¹. In fiscal year 2008, the required employer normal and UAAL contribution rates for the MIP/Basic pension plan was 5.3% and 4.9%, respectively. In fiscal year 2016, the normal rate for the combined MIP/Basic pension and OPEB plans was 4.8%, but the UAAL rate had risen to 31.6%². This increase demonstrates that more current employer funding is necessary to fund retirement benefits earned in the past.

- 1 ORS provided the September 30, 2016 UAAL data on April 13, 2017. The OAG will audit the UAAL and the underlying census data during the annual audit of the MPSERS Comprehensive Annual Financial Report for the fiscal year ended September 30, 2017. The estimated release date for this audit will be early 2018.
- 2 OPEB costs were not prefunded until fiscal year 2013; therefore, OPEB rates were not a component of normal & UAAL rates until that fiscal year. For perspective, fiscal year 2016 normal cost and UAAL rates exclusive to OPEB were 0.36% and 7.57%, respectively.

Summary

During fiscal year 2016, 674 non-university employers participated in the System.

Non-University Participating Employers



In fiscal year 2016, \$2.7 billion was set aside to fund the System's UAAL. The following exhibits summarize the pension and OPEB UAAL payments provided by each non-university employer along with the portion of the School Aid Fund and General Fund supplemental appropriation required per Public Act 94 of 1979 allocated to that employer. The exhibits show that employers were required to contribute \$1.7 billion for past pension and OPEB liabilities and that the supplemental appropriation provided the remaining \$1.0 billion to employers to help fund the System. **The \$2.7 billion represents 84% of the total \$3.2 billion in current employer contributions for funding pension and OPEB earned benefits.**

Supplemental Information

Below is a brief description of each exhibit based on a summary of required employer UAAL contributions and State Supplemental for the fiscal year ended September 30, 2016.

Exhibit #1 - A complete listing alphabetically of the Required Employer UAAL Contributions and State Supplemental.

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Exhibit #7 - List the Public Libraries Employer UAAL Contributions and General Fund Supplemental.

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
60280	AGBU Alex & Marie Manoogian School	\$ 234,496	\$ 103,075	\$ 177,234	\$ 514,806
16390	Adams Township School District	239,608	105,322	198,002	542,932
17020	Adams-Sigel #3 School	16,729	7,354	10,456	34,539
23360	Addison Community School	613,816	269,809	485,263	1,368,889
23250	Adrian Public Schools	2,233,439	981,731	1,793,917	5,009,087
25920	Airport Community Schools	1,754,457	771,190	1,322,514	3,848,161
40110	Akron-Fairgrove Schools	186,851	82,132	146,742	415,726
14140	Alanson Public Schools	167,835	73,774	132,032	373,640
7230	Alba Public Schools	98,407	43,256	81,146	222,808
10790	Albion Public Schools	247,657	108,860	347,723	704,241
5900	Alcona Community Schools	506,703	222,726	388,991	1,118,420
32420	Algonac Community Schools	1,104,184	485,355	914,713	2,504,253
6000	Allegan Area Educational Service Agency	1,378,402	605,891	1,014,339	2,998,632
7000	Allegan Public Schools	1,790,597	787,075	1,379,869	3,957,541
36920	Allen Park Public Schools	3,028,879	1,331,375	2,228,950	6,589,204
39100	Allendale Public Schools	1,917,635	842,916	1,429,426	4,189,977
16060	Alma Public Schools	1,489,603	654,771	1,223,144	3,367,517
22690	Almont Community Schools	886,996	389,889	743,681	2,020,566
47930	Alpena Community College	1,084,451	476,682	879,834	2,440,967
7120	Alpena Public Schools	2,744,741	1,206,480	2,045,886	5,997,107
7090	Alpena-Montmorency-Alcona ESD	507,823	223,219	380,309	1,111,350
23870	Anchor Bay School District	4,563,129	2,005,771	3,489,267	10,058,167
70070	Ann Arbor District Library	92,589	40,698	75,789	209,077
36590	Ann Arbor Public Schools	16,632,063	7,310,797	12,168,711	36,111,570
7470	Arenac-Eastern High School	114,653	50,397	98,460	263,510
23850	Armada Area Schools	1,293,873	568,735	995,709	2,858,318
61960	Arts Academy In The Woods	180,582	79,377	134,433	394,391
7520	Arvon Township Schools	18,208	8,003	11,673	37,884
16070	Ashley Community School	184,236	80,983	137,044	402,262
10800	Athens Area School	369,269	162,316	282,251	813,835
14330	Atherton Community Schools	513,670	225,789	385,281	1,124,740
26660	Atlanta Community Schools	165,183	72,608	132,001	369,791
7480	Au Gres-Sims School District	244,063	107,281	186,262	537,606
5930	Autrain-Onota Public Schools	64,702	28,441	48,565	141,708
27980	Avondale School District	2,654,933	1,167,003	2,191,532	6,013,468
70010	Bacon Memorial District Library	5,897	2,592	4,932	13,420
17200	Bad Axe Public Schools	716,320	314,866	557,598	1,588,783
22110	Baldwin Community Schools	475,561	209,038	414,794	1,099,392
36100	Bangor Public Schools	894,822	393,328	698,566	1,986,717
8630	Bangor Township Schools	1,699,570	747,064	1,275,420	3,722,054
7540	Baraga Township Schools	360,684	158,542	282,317	801,544
13120	Bark River - Harris Schools	473,277	208,034	361,462	1,042,773
7570	Barry Intermediate S D	435,284	191,334	308,311	934,930
12930	Bath Community Schools	801,282	352,212	613,091	1,766,584
10810	Battle Creek Public Schools	3,979,560	1,749,257	3,137,927	8,866,743
8640	Bay City Public Schools	5,719,824	2,514,208	4,485,007	12,719,040
41710	Bay De Noc Community College	687,782	302,322	633,809	1,623,913
60110	Bay-Arenac Community High School	88,557	38,926	74,779	202,262
8040	Bay-Arenac Isd	2,358,734	1,036,806	1,964,186	5,359,726
19240	Beal City Schools	443,867	195,106	337,719	976,693
24250	Bear Lake School	185,145	81,382	151,642	418,169
11560	Beaver Island Community School	124,527	54,737	91,124	270,388
14790	Beaverton Rural School District	748,486	329,005	550,656	1,628,147

This exhibit continues on next page.

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
25930	Bedford Public Schools	\$ 3,380,888	\$ 1,486,105	\$ 2,600,453	\$ 7,467,446
14510	Beecher Community School District	716,394	314,898	674,223	1,705,515
18700	Belding Area Schools	1,247,496	548,350	959,294	2,755,140
7250	Bellaire Public Schools	246,183	108,212	186,572	540,968
13890	Bellevue Community Schools	384,600	169,055	299,507	853,161
14310	Bendle Public Schools	783,193	344,261	626,968	1,754,422
14320	Bentley Community Schools	492,873	216,647	388,458	1,097,978
42490	Benton Harbor Area Schools	1,259,576	553,660	1,334,742	3,147,978
41450	Benzie County Central Schools	1,013,393	445,448	821,165	2,280,006
28180	Berkley School District	4,243,076	1,865,089	3,174,566	9,282,731
8830	Berrien Regional Educ Serv Agency	2,125,084	934,103	1,571,002	4,630,188
9810	Berrien Springs Public Schools	1,793,966	788,556	1,240,014	3,822,536
14830	Bessemer Area School District	267,874	117,747	218,302	603,923
42870	Big Bay De Noc School District	141,029	61,991	114,441	317,461
16610	Big Burning-Colfax #1f School	15,600	6,857	10,935	33,393
27690	Big Jackson School District	17,371	7,636	12,829	37,835
24880	Big Rapids Public Schools	1,243,022	546,383	984,465	2,773,870
31650	Birch Run Area Schools	1,133,989	498,457	838,842	2,471,288
27990	Birmingham Public Schools	9,582,875	4,212,253	7,244,124	21,039,252
23260	Blissfield Community S D	670,421	294,691	515,082	1,480,194
28000	Bloomfield Hills School District	7,399,738	3,252,632	5,975,733	16,628,102
36120	Bloomington Public Schools	805,549	354,088	593,056	1,752,693
62950	Blue Water Middle College Academy	45,268	19,898	34,677	99,842
19290	Bois Blanc Pines School District	6,123	2,691	4,948	13,762
47190	Boyne City Public Schools	891,727	391,968	711,811	1,995,506
11570	Boyne Falls Public School	176,396	77,537	130,905	384,838
9870	Branch County Intermediate S D	1,504,948	661,516	1,129,370	3,295,834
28020	Brandon School District	1,725,703	758,551	1,425,548	3,909,802
9800	Brandywine Public Schools	852,193	374,590	686,956	1,913,739
16120	Breckenridge Community Schools	464,603	204,221	381,594	1,050,418
13250	Breitung Township Schools	1,289,539	566,831	938,940	2,795,310
31670	Bridgeport-Spaulding Community S D	978,108	429,938	769,396	2,177,442
9760	Bridgman Public Schools	694,951	305,473	542,250	1,542,674
23680	Brighton Area Schools	4,985,257	2,191,322	3,577,419	10,753,999
12000	Brimley Public Schools	405,814	178,380	316,960	901,154
23330	Britton Deerfield Schools	499,263	219,456	424,663	1,143,383
10150	Bronson Community School	664,694	292,173	519,521	1,476,388
33430	Brown City Community Schools	545,940	239,974	453,846	1,239,760
9720	Buchanan Community Schools	1,056,221	464,273	816,429	2,336,923
37410	Buckley Community School	238,821	104,976	191,207	535,003
25610	Bullock Creek School District	1,416,752	622,748	1,080,321	3,119,822
32830	Burr Oak Community Schools	179,361	78,840	141,547	399,748
5950	Burt Township School District	58,903	25,891	49,514	134,308
34650	Byron Area School	675,576	296,957	528,337	1,500,870
21670	Byron Center Public Schools	2,913,437	1,280,631	2,173,777	6,367,845
37390	Cadillac Area Public Schools	1,988,229	873,947	1,598,539	4,460,715
21680	Caledonia Community Schools	3,693,303	1,623,430	2,750,742	8,067,474
10200	Calhoun County Intermediate S D	3,320,843	1,459,711	2,663,695	7,444,249
16400	Calumet Public Schools	904,615	397,633	717,124	2,019,371
16280	Camden-Frontier School	333,680	146,673	269,939	750,292
32470	Capac Community Schools	692,774	304,516	569,329	1,566,619
14400	Carman-Ainsworth Community S D	3,582,032	1,574,520	2,824,768	7,981,320
25070	Carney-Nadeau Public School	196,537	86,390	167,178	450,105

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
35460	Caro Community Schools	\$ 1,210,455	\$ 532,068	\$ 936,321	\$ 2,678,844
31700	Carrollton School District	1,549,572	681,131	1,121,827	3,352,530
41700	Carson City-Crystal Area School	654,250	287,583	502,122	1,443,955
33390	Carsonville-Port Sanilac School	215,122	94,559	187,123	496,804
16600	Caseville Public School	201,459	88,553	142,586	432,598
35420	Cass City Public Schools	712,526	313,198	532,066	1,557,790
11430	Cassopolis Public Schools	567,937	249,643	442,934	1,260,513
21750	Cedar Springs Public Schools	2,407,597	1,058,284	1,787,594	5,253,476
24070	Center Line Public Schools	2,552,009	1,121,762	2,012,771	5,686,543
60440	Central Academy	16,868	7,414	13,903	38,185
7220	Central Lake-Antrim Co Public Sch	264,131	116,102	215,083	595,315
41750	Central Montcalm Public Schools	1,157,938	508,984	831,637	2,498,559
32870	Centreville Public Schools	525,344	230,920	367,084	1,123,348
44920	Charles S. Mott Community College	3,884,779	1,707,595	3,148,058	8,740,432
11580	Charlevoix Public Schools	794,953	349,430	588,458	1,732,841
41810	Charlevoix-Emmet Isd	1,479,084	650,147	1,138,747	3,267,979
13910	Charlotte Public Schools	1,616,085	710,367	1,323,809	3,650,262
16420	Chassell Township Schools	138,970	61,086	104,169	304,225
70000	Cheboygan Area Public Library	12,083	5,311	9,603	26,998
42580	Cheboygan Area School District	1,237,103	543,782	1,011,525	2,792,410
11620	Cheboygan-Otsego-Presque Isle Esd	703,281	309,134	518,908	1,531,323
36670	Chelsea School District	2,154,813	947,171	1,670,728	4,772,711
31710	Chesaning-Union Schools	958,285	421,224	790,363	2,169,872
43020	Chippewa Hills School District	1,466,534	644,630	1,213,582	3,324,746
40370	Chippewa Valley Schools	11,983,253	5,267,364	9,518,399	26,769,016
16780	Church School	17,921	7,877	14,701	40,500
12230	Clare Public Schools	972,088	427,292	769,806	2,169,185
12020	Clare-Gladwin Intermediate S D	891,072	391,680	692,347	1,975,099
28050	Clarenceville School District	1,532,513	673,632	1,238,754	3,444,900
28070	Clarkston Community Schools #3f	6,473,828	2,845,639	4,982,522	14,301,989
28240	Clawson City School District	1,512,156	664,684	1,227,009	3,403,849
20080	Climax-Scotts Community School	369,843	162,568	281,849	814,259
23280	Clinton Community School	707,083	310,805	590,790	1,608,678
12260	Clinton County Intermediate S D	1,101,679	484,255	872,082	2,458,016
23910	Clintondale Community Schools	1,503,400	660,835	1,284,484	3,448,719
14530	Clio Area School District	2,087,472	917,570	1,633,778	4,638,820
10160	Coldwater Community Schools	1,738,733	764,278	1,501,055	4,004,067
25620	Coleman Community Schools	538,965	236,908	401,398	1,177,271
39810	Coloma Community Schools	1,130,226	496,802	903,770	2,530,798
32840	Colon Community School	315,345	138,613	288,117	742,075
19750	Columbia School District	998,368	438,843	707,744	2,144,954
60560	Commonwealth Community Dev Academy	102,074	44,868	106,136	253,077
21800	Comstock Park Public Schools	1,457,486	640,653	1,193,362	3,291,502
20090	Comstock Public Schools	1,291,244	567,580	1,033,825	2,892,648
19760	Concord Community Schools	500,116	219,831	360,601	1,080,549
32850	Constantine Public Schools	833,608	366,421	674,113	1,874,141
17940	Coon-Berlin Township S D #3	15,338	6,742	11,789	33,868
30700	Coopersville Public Schools	1,911,368	840,162	1,428,471	4,180,001
42560	Coor Intermediate S D	483,296	212,438	372,436	1,068,171
16350	Copper Country Intermediate S D	619,218	272,184	441,997	1,333,398
34660	Corunna Public Schools	1,336,617	587,524	1,107,623	3,031,764
60830	Countryside Charter School	343,305	150,903	247,675	741,884
36130	Covert Public Schools	365,427	160,627	284,773	810,827

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
42850	Crawford-Ausable School District	\$ 1,168,019	\$ 513,415	\$ 899,661	\$ 2,581,096
20260	Crawford-Excelsior S D #1	23,518	10,337	17,942	51,797
61240	Creative Technologies Academy	185,254	81,430	139,869	406,554
36840	Crestwood School District	2,960,394	1,301,272	2,215,241	6,476,906
33420	Croswell-Lexington Schools	1,337,894	588,085	1,073,669	2,999,649
60120	Da Vinci Institute	200,691	88,216	155,449	444,356
17750	Dansville Schools	515,753	226,705	415,365	1,157,823
14340	Davison Community Schools	4,048,751	1,779,671	2,896,388	8,724,810
60930	Dearborn Academy	9,155	4,024	6,866	20,045
36850	Dearborn Heights S D #7	1,754,974	771,417	1,370,915	3,897,305
36810	Dearborn Public Schools	18,052,829	7,935,309	13,488,571	39,476,709
36140	Decatur Public Schools	550,590	242,018	438,918	1,231,527
33440	Deckerville Community S D	418,630	184,013	326,093	928,736
40080	Delta College	4,432,131	1,948,189	3,668,195	10,048,515
13070	Delta-Schoolcraft Intermediate S D	681,859	299,718	510,339	1,491,917
7980	Delton-Kellogg Schools	807,286	354,851	639,079	1,801,216
11930	Detour Area Schools	228,033	100,234	167,489	495,756
61400	Detroit Edison Public School Academy	71,299	31,340	55,091	157,730
5880	Detroit Public Schools	37,847,252	16,636,155	33,727,962	88,211,369
5890	Detroit Public Schools Community District	2,889,017	1,269,898		4,158,915
12980	Dewitt Public Schools	2,182,470	959,328	1,635,319	4,777,117
36660	Dexter Community Schools	3,074,566	1,351,458	2,424,485	6,850,510
13220	Dickinson-Iron Intermediate S D	672,661	295,675	500,219	1,468,554
16470	Dollar Bay-Tamarack City Area School	203,924	89,637	159,247	452,808
11410	Dowagiac-Union School District	1,553,581	682,893	1,223,289	3,459,763
22700	Dryden Community Schools	325,076	142,891	263,439	731,406
25940	Dundee Community Schools	962,726	423,176	726,256	2,112,159
41440	Durand Area Schools	955,675	420,077	756,277	2,132,028
32110	East China School District #3	3,215,542	1,413,425	2,556,327	7,185,295
23930	East Detroit School District	2,155,075	947,286	1,701,659	4,804,020
21710	East Grand Rapids Public Schools	2,150,223	945,153	1,721,212	4,816,588
19730	East Jackson Community Schools	784,684	344,916	608,689	1,738,289
47180	East Jordan Public Schools	662,964	291,413	540,485	1,494,861
17740	East Lansing Public Schools	2,707,396	1,190,064	2,060,534	5,957,995
11840	Eastern UP Intermediate S D	667,237	293,291	464,560	1,425,089
13310	Eaton County Intermediate S D	1,238,048	544,197	884,143	2,666,387
13940	Eaton Rapids Public Schools	1,685,202	740,748	1,337,934	3,763,884
9820	Eau Claire Public Schools	680,336	299,049	530,458	1,509,843
17030	Eccles-Sigel #4 School	16,431	7,222	10,511	34,165
36870	Ecorse Public Schools	803,296	353,097	564,089	1,720,483
11450	Edwardsburg Public Schools	1,695,835	745,422	1,271,287	3,712,543
60130	El-Hajj Malik El-Shabazz Academy	110,867	48,733	127,269	286,868
7240	Elk Rapids Schools	933,003	410,111	714,513	2,057,627
7210	Ellsworth Community School	155,426	68,319	114,122	337,866
16440	Elm River Township Schools	23,673	10,406	14,021	48,099
42740	Engadine Consolidated S D #4	186,527	81,990	144,382	412,898
13130	Escanaba Area Public Schools	1,775,846	780,591	1,340,124	3,896,561
8650	Essexville-Hampton Public Schools	1,088,738	478,566	880,079	2,447,383
29550	Ewart Public Schools	638,056	280,464	501,860	1,420,380
43080	Ewen-Trout Creek Consol S/D	157,092	69,052	122,146	348,290
29610	Fairview Area Schools	229,088	100,698	175,154	504,940
28040	Farmington Public Schools	10,851,927	4,770,078	9,265,176	24,887,181
12250	Farwell Area Schools	904,846	397,734	734,712	2,037,292

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
7040	Fennville Public School	\$ 871,694	\$ 383,162	\$ 669,771	\$ 1,924,627
14360	Fenton Area Public Schools	2,582,971	1,135,372	1,998,563	5,716,906
28200	Ferndale City School District	2,256,263	991,764	1,857,281	5,105,307
24100	Fitzgerald Public Schools	2,035,086	894,543	1,695,423	4,625,052
36740	Flat Rock Community Schools	1,200,582	527,728	938,822	2,667,132
14380	Flint Community Schools	3,988,990	1,753,402	3,494,419	9,236,812
70090	Flint Public Library	90,034	39,576	82,831	212,441
14430	Flushing Community Schools	2,936,448	1,290,746	2,338,392	6,565,587
46510	Forest Area Schools	335,699	147,560	284,094	767,353
39420	Forest Hills Public Schools	7,872,958	3,460,641	6,388,408	17,722,007
43040	Forest Park School District	294,385	129,400	232,015	655,800
12950	Fowler Public Schools	323,668	142,272	285,084	751,024
23690	Fowlerville Community Schools	2,026,845	890,921	1,583,108	4,500,874
31720	Frankenmuth School District	873,822	384,097	629,193	1,887,112
41460	Frankfort-Elberta Area Schools	447,354	196,639	339,016	983,009
23920	Fraser Public Schools	4,252,617	1,869,282	3,335,412	9,457,312
31800	Freeland Community Schools	1,099,468	483,283	859,621	2,442,372
27880	Fremont Public Schools	1,657,520	728,580	1,222,550	3,608,650
27080	Fruitport Community Schools	2,123,488	933,401	1,723,226	4,780,116
16080	Fulton Schools	628,975	276,473	513,255	1,418,704
20100	Galesburg-Augusta Community S D	673,756	296,156	520,593	1,490,505
37040	Garden City Public Schools	3,569,444	1,568,986	3,247,275	8,385,706
29650	Gaylord Community Schools	2,002,245	880,108	1,615,199	4,497,551
14180	Genesee County Intermediate S D	5,617,403	2,469,188	4,318,115	12,404,707
14470	Genesee School District	508,962	223,719	413,699	1,146,380
36790	Gibraltar School District	2,245,419	986,997	1,941,575	5,173,991
13170	Gladstone Area Schools	951,578	418,276	716,604	2,086,458
14800	Gladwin Community Schools	1,069,027	469,902	834,185	2,373,114
22770	Glen Lake Community Schools	778,173	342,054	639,293	1,759,520
42680	Glen Oaks Community College	292,760	128,686	246,932	668,378
6370	Glenn-Ganges S D #4	35,273	15,505	30,200	80,977
36110	Gobles Public Schools	497,706	218,772	385,110	1,101,587
21900	Godfrey-Lee Public Schools	1,413,688	621,401	1,073,713	3,108,802
21780	Godwin Heights Public Schools	1,755,054	771,452	1,386,531	3,913,037
42900	Gogebic Community College	504,773	221,878	435,830	1,162,481
42520	Gogebic-Ontonagon Intermediate S D	355,216	156,139	264,498	775,853
14300	Goodrich Area Schools	1,260,315	553,985	1,012,995	2,827,295
14490	Grand Blanc Community Schools	5,619,016	2,469,897	4,380,076	12,468,988
30630	Grand Haven Public Schools	5,433,303	2,388,265	4,002,931	11,824,499
13950	Grand Ledge Public Schools	3,644,228	1,601,858	2,884,032	8,130,118
61810	Grand Rapids Child Discovery Center	165,655	72,815	126,224	364,694
49230	Grand Rapids Community College	7,116,447	3,128,109	6,057,316	16,301,872
21700	Grand Rapids Public Schools	15,334,478	6,740,430	12,405,869	34,480,777
21870	Grandville Public Schools	4,027,554	1,770,354	3,187,089	8,984,997
27830	Grant Public Schools	1,250,343	549,601	957,571	2,757,516
21940	Grant Township School	15,317	6,733	9,572	31,622
19770	Grass Lake Community Schools	877,901	385,891	663,481	1,927,272
15170	Gratiot-Isabella Intermediate S D	1,417,576	623,110	1,045,006	3,085,692
63440	Greater Heights Academy	38,044	16,723	27,170	81,937
26560	Greenville Public Schools	2,754,812	1,210,906	2,103,656	6,069,374
36940	Grosse Ile Township Schools	1,502,702	660,528	1,241,437	3,404,667
70030	Grosse Pointe Public Library	29,565	12,995	26,444	69,004
36950	Grosse Pointe Public Schools	7,897,087	3,471,247	6,297,310	17,665,645

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
41490	Gull Lake Community Schools	\$ 2,209,940	\$ 971,402	\$ 1,667,028	\$ 4,848,370
24390	Gwinn Area Community Schools	794,022	349,021	606,437	1,749,480
70100	Hackley Public Library	78,261	34,401	67,513	180,175
18770	Hale Area Schools	224,488	98,676	176,623	499,787
39910	Hamilton Community Schools	1,981,160	870,840	1,515,238	4,367,237
36960	Hamtramck Public Schools	2,132,529	937,376	1,647,706	4,717,611
16450	Hancock Public Schools	460,360	202,356	356,053	1,018,769
19780	Hanover Horton School District	796,425	350,077	655,158	1,801,661
17180	Harbor Beach Community S D	332,423	146,120	252,840	731,383
14150	Harbor Springs Public Schools	854,953	375,804	663,414	1,894,170
10860	Harper Creek Community Schools	1,883,924	828,098	1,461,558	4,173,580
36970	Harper Woods Public Schools	1,224,734	538,345	865,550	2,628,629
12240	Harrison Community Schools	841,319	369,810	702,169	1,913,298
28820	Hart Public Schools	921,799	405,186	708,543	2,035,528
36150	Hartford Public Schools	904,953	397,781	729,252	2,031,986
23700	Hartland Consolidated Schools	3,779,935	1,661,510	2,898,282	8,339,728
17850	Haslett Public Schools	2,095,676	921,176	1,516,436	4,533,288
8000	Hastings Area School District	1,769,933	777,993	1,329,501	3,877,427
18140	Haynor- Easton Township S D #6	18,256	8,025	12,738	39,019
28190	Hazel Park Public Schools	2,781,409	1,222,597	2,497,663	6,501,669
31740	Hemlock Public Schools	806,565	354,534	596,241	1,757,341
60890	Henry Ford Academy	307,463	135,149	228,603	671,215
36811	Henry Ford College	5,680,545	2,496,943	4,511,629	12,689,117
27860	Hesperia Community Schools	705,247	309,999	580,807	1,596,053
36980	Highland Park School District	9,352	4,111		13,463
26670	Hillman Community School	330,335	145,202	264,447	739,983
16300	Hillsdale Community Schools	938,585	412,565	766,579	2,117,728
16130	Hillsdale County ISD	820,775	360,780	670,039	1,851,594
30640	Holland Public Schools	3,318,268	1,458,579	2,592,234	7,369,081
61670	Holly Academy	521,046	229,031	418,073	1,168,151
28060	Holly Area Schools	2,389,142	1,050,172	1,912,552	5,351,866
17710	Holt Public Schools	4,335,047	1,905,515	3,424,419	9,664,980
27100	Holton Public Schools	534,399	234,901	406,619	1,175,918
10880	Homer Community Schools	750,305	329,804	588,689	1,668,798
60100	Honey Creek Community School	217,766	95,721	151,357	464,844
7030	Hopkins Public School	1,049,917	461,502	795,632	2,307,051
31030	Houghton Lake Community Schools	1,082,309	475,740	786,961	2,345,010
16480	Houghton-Portage Twp. School Dist	813,533	357,597	644,031	1,815,161
23710	Howell Public Schools	5,004,077	2,199,594	3,776,282	10,979,953
23300	Hudson Area Schools	706,475	310,538	540,299	1,557,312
30620	Hudsonville Public Schools	5,180,062	2,276,951	3,795,097	11,252,110
16510	Huron Intermediate S D	965,150	424,242	717,380	2,106,772
36990	Huron School District	1,909,661	839,411	1,455,553	4,204,626
28090	Huron Valley School Dist #4f	7,554,558	3,320,685	5,691,483	16,566,725
25960	Ida Public Schools	1,061,643	466,656	778,771	2,307,071
22710	Imlay City Community Schools	1,436,990	631,644	1,080,349	3,148,983
17220	Ingham Intermediate S D	3,308,065	1,454,094	2,449,826	7,211,985
11810	Inland Lakes Schools	533,216	234,381	385,882	1,153,479
17920	Ionia County Intermediate S D	1,860,915	817,985	1,471,554	4,150,453
18660	Ionia Public Schools	2,049,639	900,940	1,546,744	4,497,324
18720	Iosco Regional Educational Serv Ag	414,706	182,289	275,402	872,397
13270	Iron Mountain Public Schools	560,885	246,543	485,277	1,292,704
43060	Ironwood-Gogebic City Area Schools	607,365	266,974	482,049	1,356,387

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
24400	Ishpeming Public Schools	\$ 580,733	\$ 255,267	\$ 442,810	\$ 1,278,810
16090	Ithaca Public Schools	823,951	362,176	653,508	1,839,636
42510	Jackson College	1,231,439	541,292	1,062,066	2,834,797
19400	Jackson Intermediate S D	4,195,252	1,844,067	3,212,014	9,251,332
19800	Jackson Public Schools	3,538,870	1,555,547	3,018,923	8,113,339
25950	Jefferson Schools	1,548,085	680,477	1,295,080	3,523,643
43440	Jenison Public Schools	3,933,293	1,728,920	2,889,445	8,551,658
29660	Johannesburg-Lewiston Area Schools	486,231	213,728	376,632	1,076,591
16290	Jonesville Community Schools	1,031,485	453,400	769,960	2,254,845
60380	Joseph K. Lumsden P S Academy	622,715	273,721	468,527	1,364,964
49130	Kalamazoo Public Library	152,429	67,002	137,388	356,820
20110	Kalamazoo Public Schools	10,597,833	4,658,388	8,111,260	23,367,482
19890	Kalamazoo Regional Educ Serv Agency	3,684,582	1,619,596	2,775,813	8,079,991
42980	Kalamazoo Valley Community College	2,806,638	1,233,687	2,330,698	6,371,023
41720	Kaleva Norman Dickson S D	353,687	155,467	284,617	793,771
20390	Kalkaska Public Schools	1,039,263	456,819	814,678	2,310,760
14480	Kearsley Community Schools	2,255,232	991,311	1,828,896	5,075,438
45000	Kellogg Community College	1,864,647	819,625	1,630,146	4,314,419
21910	Kelloggsville Public Schools	1,638,595	720,262	1,267,784	3,626,642
41040	Kenowa Hills Public Schools	2,308,312	1,014,643	1,797,499	5,120,453
21830	Kent City Community Schools	979,019	430,338	783,078	2,192,436
20400	Kent County Intermediate S D	7,664,186	3,368,873	5,674,481	16,707,540
39980	Kentwood Public Schools	7,169,110	3,151,257	5,413,102	15,733,468
15130	Kingsley Area School	801,576	352,341	634,976	1,788,893
35470	Kingston Community School	442,674	194,582	323,014	960,269
17040	Kipper School	9,119	4,008	8,030	21,157
43100	Kirtland Community College	921,801	405,187	778,380	2,105,368
34710	Laingsburg Community Schools	766,096	336,746	572,068	1,674,910
25740	Lake City Area Schools	751,640	330,391	589,594	1,671,624
14350	Lake Fenton Community S D	1,333,328	586,078	1,023,857	2,943,262
16490	Lake Linden-Hubbell Public School	295,179	129,749	227,336	652,264
42080	Lake Michigan College	845,459	371,630	697,668	1,914,757
28110	Lake Orion Community School #3	6,455,811	2,837,719	4,786,243	14,079,772
23980	Lake Shore Public Schools	3,318,850	1,458,835	2,634,573	7,412,258
39880	Laker Schools	646,903	284,353	473,236	1,404,492
39370	Lakeshore Public Schools	2,018,797	887,383	1,525,652	4,431,832
26540	Lakeview Community Schools	784,021	344,625	583,791	1,712,437
23990	Lakeview Public Schools	2,894,553	1,272,331	2,325,977	6,492,861
10820	Lakeview School District	3,001,022	1,319,131	2,290,185	6,610,338
22740	Lakeville Community Schools	748,296	328,921	623,465	1,700,683
41030	Lakewood School District	1,151,692	506,238	965,053	2,622,983
28160	Lamphere Public Schools	2,557,189	1,124,039	2,068,679	5,749,907
23970	Lanse Creuse Public Schools	9,187,202	4,038,330	7,204,253	20,429,785
7560	Lanse Public Schools	471,062	207,060	357,580	1,035,703
42450	Lansing Community College	6,809,269	2,993,085	5,634,910	15,437,265
17760	Lansing Public Schools	10,060,328	4,422,122	8,126,581	22,609,031
22120	Lapeer County Intermediate S D	953,717	419,216	735,737	2,108,670
22720	Lapeer Public Schools	3,721,895	1,635,998	2,979,521	8,337,414
36160	Lawrence Public Schools	413,790	181,886	354,407	950,083
36090	Lawton Community Schools	709,174	311,725	519,655	1,540,553
22800	Leland Public School	465,674	204,692	348,801	1,019,168
22830	Lenawee Intermediate S D	2,356,201	1,035,693	1,788,800	5,180,694
19340	Les Cheneaux Community Schools	165,790	72,875	138,835	377,501

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
17840	Leslie Public Schools	\$ 1,002,988	\$ 440,874	\$ 766,117	\$ 2,209,979
11470	Lewis Cass Intermediate S D	682,549	300,022	550,640	1,533,211
36600	Lincoln Consolidated School	2,584,369	1,135,986	2,395,894	6,116,250
36890	Lincoln Park Public Schools	4,151,385	1,824,785	3,075,668	9,051,837
14370	Linden Community School	1,924,079	845,749	1,490,076	4,259,903
16310	Litchfield Community Schools	216,075	94,978	154,284	465,337
23370	Livingston Intermediate S D	3,177,030	1,396,497	2,438,453	7,011,980
37000	Livonia Public Schools	13,519,216	5,942,512	10,940,359	30,402,087
21740	Lowell Area Schools	2,529,900	1,112,044	1,938,470	5,580,415
24710	Ludington Area Schools	1,467,835	645,202	1,151,802	3,264,839
19370	Mackinac Island Public School	111,098	48,834	79,864	239,797
11820	Mackinaw City Public Schools	164,898	72,483	135,272	372,653
60000	Macomb Academy	130,506	57,365	106,552	294,423
41790	Macomb Community College	8,720,049	3,832,989	7,059,539	19,612,577
23780	Macomb Intermediate S D	8,107,073	3,563,548	6,293,903	17,964,524
28210	Madison District Public Schools	1,041,150	457,648	788,872	2,287,670
23320	Madison School District #2	1,221,264	536,819	978,272	2,736,355
7270	Mancelona Public Schools	624,066	274,315	468,206	1,366,587
36610	Manchester Community Schools	808,085	355,202	673,177	1,836,464
24110	Manistee Intermediate S D	419,926	184,583	320,806	925,315
24270	Manistee Public Schools	1,084,855	476,859	806,825	2,368,540
33870	Manistique Area Schools	516,343	226,964	451,258	1,194,565
37400	Manton Consolidated School District	619,954	272,507	453,125	1,345,586
41690	Maple Valley Schools	748,262	328,906	555,285	1,632,454
41540	Mar Lee School District	215,063	94,533	173,355	482,951
11440	Marcellus Community Schools	469,597	206,416	350,499	1,026,512
29540	Marion Public School	383,804	168,705	294,834	847,344
33450	Marlette Community School	568,492	249,887	467,904	1,286,282
24420	Marquette Area Public Schools	2,410,329	1,059,485	1,764,459	5,234,274
41820	Marquette-Alger Intermediate S D	747,271	328,471	609,740	1,685,481
10890	Marshall Public Schools	1,712,817	752,886	1,392,490	3,858,193
60390	Martin Luther King Jr.	239,452	105,253	171,580	516,285
7050	Martin Public Schools	390,100	171,472	287,734	849,306
32480	Marysville Public Schools	1,772,820	779,261	1,453,505	4,005,586
25990	Mason Consolidated Schools	768,418	337,766	583,116	1,689,301
24680	Mason County Central S D	703,895	309,404	596,644	1,609,943
24690	Mason County-Eastern-Custer #5 S D	296,666	130,403	229,075	656,144
17900	Mason Public Schools	2,278,972	1,001,746	1,839,157	5,119,875
36080	Mattawan Consolidated School	2,327,577	1,023,111	1,877,330	5,228,018
35450	Mayville Community School	411,617	180,930	351,852	944,400
25750	Mcbain Rural Agricultural Schools	705,441	310,084	518,872	1,534,397
24720	Mecosta-Osceola Intermediate S D	1,460,481	641,970	1,090,131	3,192,581
36930	Melvindale-Northern Allen Park S D	2,138,521	940,009	1,596,799	4,675,329
24020	Memphis Community Schools	599,307	263,431	484,804	1,347,543
32860	Mendon Community School	392,468	172,514	316,733	881,715
25050	Menominee Area Public Schools	1,011,657	444,684	754,812	2,211,153
24930	Menominee County Intermediate S D	326,548	143,538	232,982	703,068
39900	Meridian Public Schools	967,402	425,231	730,593	2,123,226
31730	Merrill Community Schools	438,697	192,834	333,797	965,327
37430	Mesick Consolidated Schools	449,302	197,495	337,161	983,959
19810	Michigan Center School District	1,055,109	463,784	792,070	2,310,963
62620	Michigan Math and Science Academy	11,500	5,055	8,613	25,168
47200	Mid Peninsula Schools	135,720	59,657	106,871	302,248

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
25100	Midland County Ed Service Agency	\$ 1,092,166	\$ 480,073	\$ 860,767	\$ 2,433,006
25600	Midland Public Schools	6,222,496	2,735,163	4,936,851	13,894,510
42730	Mid-Michigan Community College	1,625,085	714,323	1,320,480	3,659,888
36680	Milan Area Schools	1,791,641	787,535	1,429,451	4,008,627
35480	Millington Community S D	791,590	347,952	588,548	1,728,090
29600	Mio-Ausable Schools	397,565	174,754	323,151	895,470
40410	Mona Shores School District #29	2,682,130	1,178,958	2,020,761	5,881,849
42300	Monroe Co Community College	1,673,977	735,814	1,360,249	3,770,041
25760	Monroe County Intermediate S D	3,008,592	1,322,458	2,359,636	6,690,686
25970	Monroe Public Schools	3,740,246	1,644,064	2,832,136	8,216,446
42810	Montabella Community Schools	498,024	218,912	392,107	1,109,043
27120	Montague Area Public Schools	1,086,809	477,718	837,895	2,402,423
26020	Montcalm Area Intermediate S D	1,347,287	592,214	1,018,322	2,957,823
42500	Montcalm Community College	822,355	361,475	700,176	1,884,006
14500	Montrose Community Schools	945,798	415,735	708,099	2,069,632
19310	Moran Township S D	78,747	34,614	56,817	170,178
23340	Morenci Area Schools	449,739	197,688	364,365	1,011,792
39830	Morley-Stanwood Community School	812,725	357,242	629,638	1,799,605
34700	Morrice Area School	378,249	166,263	301,242	845,754
70120	Mount Clemens Public Library	83,122	36,537	67,507	187,167
23890	Mt Clemens Community Schools	786,741	345,820	566,882	1,699,443
14460	Mt Morris Consolidated Schools	1,610,347	707,845	1,259,290	3,577,481
19230	Mt Pleasant Public Schools	2,930,634	1,288,191	2,181,126	6,399,951
5980	Munising Public Schools	495,087	217,620	385,102	1,097,809
26680	Muskegon Area Intermediate S D	2,032,135	893,246	1,448,635	4,374,016
27130	Muskegon City Public Schools	3,137,518	1,379,129	2,552,813	7,069,459
41860	Muskegon Co Community College	1,735,889	763,028	1,425,124	3,924,041
27200	Muskegon Heights City Public Schs	11,726	5,154		16,880
63430	Muskegon Hgts Public School Academy	21,324	9,373	16,147	46,844
60050	Nah Tah Wahsh Public School Academy	203,023	89,241	155,836	448,101
19830	Napoleon Community S D	981,708	431,520	754,577	2,167,805
24450	Negaunee Public School	1,185,455	521,079	875,958	2,582,492
9780	New Buffalo Area Schools	893,975	392,956	690,256	1,977,188
24010	New Haven Community Schools	871,157	382,926	670,173	1,924,256
34670	New Lothrop Area Public Schools	585,576	257,396	448,960	1,291,932
27300	Newaygo County RESA	1,251,474	550,099	968,093	2,769,666
27840	Newaygo Public Schools	1,179,819	518,602	861,511	2,559,932
45780	Nice Community Schools	955,275	419,901	700,951	2,076,127
9790	Niles Public Schools	2,576,895	1,132,701	1,915,032	5,624,629
16270	North Adams-Jerome Public Schools	193,068	84,865	154,359	432,292
22730	North Branch Area Schools	1,439,865	632,908	1,165,738	3,238,511
44960	North Central Area Schools	263,366	115,765	185,623	564,754
40090	North Central Michigan College	619,433	272,278	519,111	1,410,823
42650	North Dickinson School	163,553	71,891	131,887	367,331
17130	North Huron Schools	313,197	137,669	239,096	689,962
18160	North Levalley School #2	8,650	3,802	6,256	18,707
27210	North Muskegon Public Schools	712,933	313,377	518,005	1,544,315
60980	North Star Academy	147,211	64,708	113,717	325,636
22790	Northport Public School	286,100	125,758	223,143	635,001
40660	Northview Public Schools	2,649,542	1,164,634	2,115,313	5,929,488
37090	Northville Public Schools	6,132,406	2,695,563	4,857,570	13,685,540
19840	Northwest School District	2,254,564	991,017	1,657,352	4,902,934
39450	Northwestern Michigan College	2,340,905	1,028,969	1,853,443	5,223,318

This exhibit continues on next page.

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
42070	Norway-Vulcan Area Schools	\$ 490,972	\$ 215,812	\$ 382,986	\$ 1,089,770
40330	Nottawa Community School	80,232	35,267	61,724	177,223
28100	Novi Community School District	5,611,529	2,466,606	4,477,434	12,555,569
28150	Oak Park School District	2,636,333	1,158,828	1,953,727	5,748,887
42380	Oakland Community College	8,712,844	3,829,822	7,310,499	19,853,165
27900	Oakland County Intermediate S D	5,985,029	2,630,782	4,423,521	13,039,332
41740	Oakridge Public Schools	1,312,917	577,106	960,074	2,850,097
17860	Okemos Public Schools	3,543,535	1,557,598	2,640,803	7,741,936
13980	Olivet Community Schools	1,048,611	460,928	838,436	2,347,974
30950	Onaway Area Community Schools	438,175	192,605	350,593	981,373
24300	Onkama Consolidated Schools	263,923	116,010	204,331	584,264
23270	Onsted Community School	939,074	412,780	758,620	2,110,474
29180	Ontonagon Area School District	250,411	110,071	192,308	552,789
27160	Orchard View Schools	1,972,018	866,821	1,517,543	4,356,382
18760	Oscoda Area Schools	871,779	383,200	670,245	1,925,224
7060	Otsego Public Schools	1,588,532	698,256	1,188,747	3,475,536
29690	Ottawa Area Intermediate S D	3,432,086	1,508,609	2,502,211	7,442,907
62060	Outlook Academy	58,575	25,747	44,640	128,963
42120	Ovid-Elsie Area Schools	1,065,946	468,548	857,908	2,392,402
39920	Owendale-Gagetown Area Schools	117,371	51,592	91,436	260,399
34680	Owosso Public Schools	2,404,638	1,056,984	1,741,511	5,203,133
28120	Oxford Area Community School	4,011,538	1,763,313	2,931,122	8,705,974
20140	Parchment School District	1,250,604	549,716	890,187	2,690,507
36170	Paw Paw Public Schools	1,430,288	628,698	1,068,813	3,127,799
33400	Peck Community Schools	228,874	100,604	194,965	524,443
14160	Pellston Public Schools	382,072	167,944	300,336	850,352
10900	Pennfield Schools	1,457,686	640,741	1,142,913	3,241,339
28840	Pentwater Public Schools	226,282	99,465	172,039	497,785
34690	Perry Public Schools	771,756	339,233	590,248	1,701,238
14170	Petoskey Public Schools	1,870,812	822,335	1,432,991	4,126,137
18680	Pewamo-Westphalia Community S D	424,241	186,480	319,502	930,223
11950	Pickford Public Schools	372,106	163,563	285,294	820,963
23720	Pinckney Community Schools	2,043,777	898,363	1,679,537	4,621,677
8680	Pinconning Area Schools	884,683	388,872	674,478	1,948,033
42370	Pine River Area Schools	657,892	289,183	525,050	1,472,125
16320	Pittsford Area Schools	390,693	171,733	311,789	874,215
7020	Plainwell Community School	1,830,273	804,516	1,367,756	4,002,545
37100	Plymouth-Canton Community S D	12,336,209	5,422,509	9,926,066	27,684,784
28130	Pontiac City School District	3,550,093	1,560,480	2,665,547	7,776,120
32490	Port Huron Area Schools	6,438,619	2,830,162	5,103,967	14,372,747
20170	Portage Public Schools	6,320,294	2,778,151	4,865,957	13,964,403
18710	Portland Public Schools	1,277,351	561,473	903,824	2,742,647
30970	Posen Consolidated School	173,163	76,116	125,897	375,177
13900	Potterville Public Schools	606,661	266,664	461,371	1,334,695
24460	Powell Township School District	74,240	32,633	54,352	161,225
62040	Presque Isle Academy li	10,297	4,526	5,575	20,398
70040	Public Libraries of Saginaw	84,548	37,164	78,013	199,724
10180	Quincy Community Schools	782,084	343,773	597,764	1,723,622
13190	Rapid River Public Schools	234,787	103,203	176,884	514,874
27270	Ravenna Public Schools #24	783,122	344,230	596,191	1,723,542
16330	Reading Community School	505,164	222,050	427,623	1,154,838
37110	Redford-Union School District #1	2,623,337	1,153,115	1,932,578	5,709,030
29560	Reed City Public School District	934,020	410,558	687,359	2,031,937

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
35410	Reese Public Schools	\$ 529,237	\$ 232,631	\$ 408,154	\$ 1,170,022
27170	Reeths-Puffer Schools	2,696,939	1,185,468	2,130,329	6,012,736
63050	Relevant Academy of Eaton County	16,628	7,309	12,364	36,302
24470	Republic-Michigamme Schools	177,812	78,159	133,655	389,626
24030	Richmond Community Schools	954,871	419,724	789,638	2,164,233
36880	River Rouge Public School	1,288,018	566,162	832,013	2,686,192
9600	River School	48,813	21,456	44,600	114,869
41910	River Valley School District	585,962	257,566	446,830	1,290,357
9250	Riverside-Hager School District #6	44,040	19,358	33,644	97,042
37020	Riverview Public Schools	1,851,963	814,050	1,501,676	4,167,689
27970	Rochester Community Schools	11,796,629	5,185,331	9,541,150	26,523,111
21660	Rockford Public Schools	6,203,147	2,726,658	4,625,604	13,555,409
30980	Rogers City Area Schools	376,535	165,510	287,705	829,750
23860	Romeo Community Schools	3,827,383	1,682,366	3,180,149	8,689,898
37130	Romulus Community Schools	1,886,714	829,325	1,472,133	4,188,171
31020	Roscommon Area Public Schools	743,935	327,005	618,511	1,689,451
23950	Roseville Community Schools	4,163,184	1,829,971	3,104,925	9,098,079
28170	Royal Oak City School District	3,871,782	1,701,882	3,006,335	8,579,999
11970	Rudyard Public Schools	425,168	186,887	335,388	947,442
31750	Saginaw City Schools	4,160,102	1,828,616	3,174,527	9,163,245
31040	Saginaw County Intermediate S D	3,255,342	1,430,919	2,580,420	7,266,681
39990	Saginaw Twp. Community Schools	3,423,945	1,505,031	2,748,924	7,677,900
36650	Saline Area Schools	4,489,794	1,973,536	3,733,096	10,196,425
23310	Sand Creek Community Schools	618,485	271,862	497,141	1,387,488
33460	Sandusky Community Schools	642,849	282,571	488,845	1,414,265
32910	Sanilac County Intermediate S D	567,921	249,636	432,164	1,249,721
18640	Saranac Community Schools	607,700	267,121	501,633	1,376,453
7070	Saugatuck Public Schools	678,173	298,098	528,044	1,504,316
11980	Sault Ste. Marie Public Schools	1,558,140	684,897	1,246,527	3,489,564
41500	Schoolcraft Community College	5,408,306	2,377,277	4,274,788	12,060,371
20210	Schoolcraft Community Schools	708,991	311,644	549,639	1,570,275
28850	Shelby Public Schools	1,083,914	476,446	813,033	2,373,392
19220	Shepherd Public Schools	1,258,485	553,180	926,044	2,737,710
33880	Shiawassee Regional ESD	1,546,125	679,616	1,144,253	3,369,994
36180	South Haven Public Schools	1,509,538	663,533	1,171,390	3,344,461
24000	South Lake Public Schools	1,662,563	730,797	1,329,382	3,722,742
28080	South Lyon Community Schools	5,531,254	2,431,320	4,156,143	12,118,717
37120	South Redford School District	2,446,000	1,075,165	1,807,259	5,328,424
28220	Southfield Public Schools	6,891,001	3,029,012	5,408,002	15,328,015
36910	Southgate Community S D	3,472,449	1,526,351	2,781,882	7,780,681
42310	Southwestern Michigan College	521,881	229,398	462,475	1,213,755
21820	Sparta Area Schools	1,819,069	799,591	1,329,950	3,948,609
30720	Spring Lake Public Schools	1,817,903	799,078	1,427,270	4,044,251
19860	Springport Public School	631,037	277,379	509,952	1,418,368
31780	St. Charles Community Schools	695,761	305,829	519,990	1,521,580
43240	St. Clair County Community College	1,574,768	692,206	1,302,408	3,569,382
31820	St. Clair County RESA	1,934,086	850,148	1,499,749	4,283,984
19390	St. Ignace Public Schools	381,313	167,610	305,915	854,838
12940	St. Johns Public Schools	2,055,599	903,560	1,653,760	4,612,919
32520	St. Joseph County Intermediate S D	1,037,829	456,188	805,393	2,299,410
9830	St. Joseph Public Schools	1,932,349	849,384	1,521,888	4,303,622
16100	St. Louis Public Schools	708,029	311,222	580,756	1,600,007
39350	Standish-Sterling Community S D	1,063,953	467,672	870,169	2,401,795

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
16500	Stanton Township Public Schools	\$ 99,110	\$ 43,565	\$ 72,391	\$ 215,066
40360	Stephenson Area Public Schools	367,535	161,554	282,613	811,702
17890	Stockbridge Community Schools	997,293	438,370	789,817	2,225,480
13720	Strange-Oneida School #3	8,952	3,935	6,174	19,061
32880	Sturgis Public School	2,403,450	1,056,462	1,775,798	5,235,710
26000	Summerfield Schools	440,494	193,624	361,555	995,673
60510	Summit Academy	3,072	1,350	6,900	11,323
61220	Summit Academy North	18,434	8,103	9,775	36,313
5990	Superior Central School District	237,452	104,375	171,249	513,075
22810	Suttons Bay Public Schools	444,012	195,170	359,666	998,848
42820	Swan Valley School District	1,144,335	503,004	903,463	2,550,802
14450	Swartz Creek Community Schools	2,584,560	1,136,070	2,065,457	5,786,087
23770	Tahquamenon Area School District	409,381	179,948	365,315	954,643
18780	Tawas Area Schools	829,117	364,447	639,496	1,833,061
37150	Taylor School District	6,450,891	2,835,557	4,760,170	14,046,618
23350	Tecumseh Public Schools	1,664,170	731,503	1,212,406	3,608,080
10910	Tekonsha Community School	164,526	72,319	117,099	353,945
8020	Thornapple-Kellogg School	2,185,272	960,559	1,622,214	4,768,045
62590	Three Lakes Academy	60,216	26,469	49,278	135,963
32890	Three Rivers Public Schools	1,734,279	762,321	1,366,138	3,862,738
14910	Traverse Bay Area Intermediate S D	3,869,882	1,701,047	2,944,187	8,515,115
15150	Traverse City Public Schools	7,267,032	3,194,300	5,670,310	16,131,642
37010	Trenton Public Schools	2,348,888	1,032,478	1,833,743	5,215,110
41470	Tri-County Area Schools	1,242,294	546,063	1,037,054	2,825,412
28230	Troy City School District	10,501,083	4,615,861	8,086,581	23,203,524
34730	Tuscola County Intermediate S D	1,699,979	747,244	1,253,290	3,700,513
17110	Ubyly Community Schools	537,197	236,131	424,871	1,198,199
10190	Union City Community Schools	782,501	343,957	619,627	1,746,085
43310	Unionville-Sebewaing Area Schools	495,269	217,701	365,448	1,078,418
24040	Utica Community Schools	22,492,822	9,886,955	17,760,033	50,139,809
35500	Van Buren County Intermediate S D	3,277,039	1,440,457	2,448,042	7,165,538
37160	Van Buren Public Schools	3,494,005	1,535,827	2,735,261	7,765,093
29670	Vanderbilt Area School	87,413	38,423	60,985	186,821
19880	Vandercook Lake Public Schools	906,684	398,543	714,218	2,019,445
24090	Vandyke Public Schools	2,271,372	998,405	1,713,034	4,982,811
35490	Vassar Public Schools	783,647	344,460	641,605	1,769,712
17060	Verona Mills School	16,437	7,225	12,080	35,742
26600	Vestaburg Community School	409,836	180,147	305,959	895,942
20200	Vicksburg Community Schools	1,917,648	842,922	1,456,909	4,217,480
62610	Virtual Learning Ac of St. Clair	76,923	33,812	64,747	175,483
14890	Wakefield Township Schools	227,008	99,784	177,786	504,579
60020	Walden Green Day School Inc.	16,882	7,421	12,044	36,347
16340	Waldron Area Schools	156,999	69,010	134,218	360,227
28830	Walkerville Public Schools	217,209	95,477	160,311	472,997
28030	Walled Lake Consolidated School	12,121,235	5,328,016	9,587,168	27,036,419
24060	Warren Consolidated Schools	12,567,796	5,524,306	10,248,337	28,340,440
24080	Warren Woods Public Schools	2,853,000	1,254,066	2,318,616	6,425,682
42640	Washtenaw Community College	5,752,887	2,528,742	4,638,492	12,920,121
36190	Washtenaw Intermediate S D	2,717,045	1,194,305	2,492,968	6,404,318
61040	Washtenaw Technical Middle College	200,731	88,234	132,466	421,431
63780	Waterford Montessori Academy	1,149	505		1,655
28250	Waterford School District	7,905,695	3,475,031	6,552,582	17,933,307
14900	Watersmeet Twp School District	246,575	108,384	185,616	540,574

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MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
9850	Watervliet Public Schools	\$ 989,416	\$ 434,908	\$ 728,585	\$ 2,152,909
40650	Waverly Community Schools	2,415,712	1,061,852	1,800,980	5,278,544
7080	Wayland Union Schools	1,943,316	854,205	1,524,730	4,322,252
36710	Wayne County RESA	2,320,859	1,020,158	1,684,741	5,025,757
44010	Wayne County Community College	6,112,694	2,686,899	4,973,505	13,773,098
37080	Wayne-Westland Community Schools	9,797,564	4,306,622	7,740,077	21,844,263
17830	Webberville Community Schools	354,811	155,961	293,613	804,384
24350	Wells Township School #18	19,458	8,553	17,924	45,935
28260	West Bloomfield Schools	4,368,968	1,920,426	3,648,519	9,937,913
42600	West Branch-Rose City Area Schools	1,300,287	571,555	1,006,305	2,878,147
43030	West Iron County Public Schools	583,963	256,687	452,407	1,293,057
40010	West Ottawa Public Schools	5,636,411	2,477,543	4,423,074	12,537,029
43170	West Shore Community College	713,330	313,552	584,240	1,611,122
24500	West Shore Educational Service District	1,322,858	581,476	967,566	2,871,901
61700	West Village Academy	13,104	5,760	13,134	31,998
39890	Western School District	2,042,664	897,874	1,572,334	4,512,873
36860	Westwood Community Schools	1,405,522	617,812	1,131,917	3,155,251
14520	Westwood Heights Schools	756,487	332,522	557,508	1,646,517
37180	Wexford-Missaukee Intermediate S D	1,339,276	588,693	1,029,218	2,957,187
27890	White Cloud Public Schools	675,448	296,900	478,232	1,450,580
32900	White Pigeon Community Schools	523,871	230,273	383,622	1,137,767
12010	Whitefish Township School	53,354	23,452	48,129	124,936
26010	Whiteford Agricultural Schools	439,754	193,298	308,687	941,740
27280	Whitehall District Schools	1,844,377	810,715	1,350,786	4,005,879
36620	Whitmore Lake Public Schools	767,664	337,435	587,612	1,692,711
39410	Whittemore-Prescott Area Schools	516,370	226,976	409,965	1,153,310
70020	Willard Library	47,734	20,982	49,979	118,695
17910	Williamston Community Schools	1,363,611	599,389	1,036,037	2,999,037
60070	Windover High School	7,114	3,127	11,128	21,369
11830	Wolverine Community Schools	238,143	104,678	193,611	536,432
35660	Wood School District #8	14,187	6,236	10,331	30,754
43450	Woodhaven-Brownstown School Dist	3,774,717	1,659,216	2,913,667	8,347,600
60410	Woodland Park Academy	205,594	90,371	156,538	452,503
37170	Wyandotte Public Schools	4,607,387	2,025,225	3,622,155	10,254,768
41330	Wyoming Public Schools	3,286,812	1,444,752	2,548,625	7,280,189
32410	Yale Public School District	1,458,299	641,011	1,142,809	3,242,119
36690	Ypsilanti Community Schools	3,311,489	1,455,600	2,748,664	7,515,752
30740	Zeeland Public Schools	4,844,029	2,129,243	3,747,241	10,720,513
	Total	\$ 1,228,244,695	\$ 539,887,778	\$ 963,000,000	\$ 2,731,132,473

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental
 Non-University Employers
Fiscal Year Ended September 30, 2016

<u>Employer Group</u>	<u>Pension UAAL</u>	<u>OPEB UAAL</u>	<u>State Supplemental</u>	<u>Total</u>
K-12 Public School Districts	\$ 1,026,428,080	\$ 451,177,178	\$ 803,890,144	\$ 2,281,495,403
Intermediate School Districts	111,740,185	49,116,565	85,225,486	246,082,236
Community Colleges	84,497,327	37,141,682	69,500,000	191,139,010
Charter Schools	4,902,841	2,155,095	3,784,369	10,842,305
District Libraries	676,262	297,258	600,000	1,573,520
Total	<u>\$ 1,228,244,695</u>	<u>\$ 539,887,778</u>	<u>\$ 963,000,000</u>	<u>\$ 2,731,132,473</u>

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and School Aid Fund Supplemental
 K-12 Public School Districts
 Ten Districts with Highest Combined UAAL and Supplemental*
Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	School Aid Fund Supplemental	Total
5880	Detroit Public Schools	\$ 37,847,252	\$ 16,636,155	\$ 33,727,962	\$ 88,211,369
24040	Utica Community Schools	22,492,822	9,886,955	17,760,033	50,139,809
36810	Dearborn Public Schools	18,052,829	7,935,309	13,488,571	39,476,709
36590	Ann Arbor Public Schools	16,632,063	7,310,797	12,168,711	36,111,570
21700	Grand Rapids Public Schools	15,334,478	6,740,430	12,405,869	34,480,777
37000	Livonia Public Schools	13,519,216	5,942,512	10,940,359	30,402,087
24060	Warren Consolidated Schools	12,567,796	5,524,306	10,248,337	28,340,440
37100	Plymouth-Canton Community S D	12,336,209	5,422,509	9,926,066	27,684,784
28030	Walled Lake Consolidated School	12,121,235	5,328,016	9,587,168	27,036,419
40370	Chippewa Valley Schools	11,983,253	5,267,364	9,518,399	26,769,016
	Total	<u>\$ 172,887,153</u>	<u>\$ 75,994,353</u>	<u>\$ 139,771,475</u>	<u>\$ 388,652,981</u>

* Total contributions for these 10 districts are approximately 14% of total public school district contributions.

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and School Aid Fund Supplemental
 Intermediate School Districts
Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	School Aid Fund Supplemental	Total
6000	Allegan Area Educational Service Agency	\$ 1,378,402	\$ 605,891	\$ 1,014,339	\$ 2,998,632
7090	Alpena-Montmorency-Alcona ESD	507,823	223,219	380,309	1,111,350
7570	Barry Intermediate S D	435,284	191,334	308,311	934,930
8040	Bay-Arenac ISD	2,358,734	1,036,806	1,964,186	5,359,726
8830	Berrien Regional Educ Serv Agency	2,125,084	934,103	1,571,002	4,630,188
9870	Branch County Intermediate S D	1,504,948	661,516	1,129,370	3,295,834
10200	Calhoun County Intermediate S D	3,320,843	1,459,711	2,663,695	7,444,249
41810	Charlevoix-Emmet ISD	1,479,084	650,147	1,138,747	3,267,979
11620	Cheboygan-Otsego-Presque Isle ESD	703,281	309,134	518,908	1,531,323
12020	Clare-Gladwin Intermediate S D	891,072	391,680	692,347	1,975,099
12260	Clinton County Intermediate S D	1,101,679	484,255	872,082	2,458,016
42560	Coor Intermediate S D	483,296	212,438	372,436	1,068,171
16350	Copper Country Intermediate S D	619,218	272,184	441,997	1,333,398
13070	Delta-Schoolcraft Intermediate S D	681,859	299,718	510,339	1,491,917
13220	Dickinson-Iron Intermediate S D	672,661	295,675	500,219	1,468,554
11840	Eastern U P Intermediate S D	667,237	293,291	464,560	1,425,089
13310	Eaton County Intermediate S D	1,238,048	544,197	884,143	2,666,387
14180	Genesee County Intermediate S D	5,617,403	2,469,188	4,318,115	12,404,707
42520	Gogebic-Ontonagon Intermediate S D	355,216	156,139	264,498	775,853
15170	Gratiot-Isabella Intermediate S D	1,417,576	623,110	1,045,006	3,085,692
16130	Hillsdale County ISD	820,775	360,780	670,039	1,851,594
16510	Huron Intermediate S D	965,150	424,242	717,380	2,106,772
17220	Ingham Intermediate S D	3,308,065	1,454,094	2,449,826	7,211,985
17920	Ionia County Intermediate S D	1,860,915	817,985	1,471,554	4,150,453
18720	Iosco Regional Educational Serv Ag	414,706	182,289	275,402	872,397
19400	Jackson Intermediate S D	4,195,252	1,844,067	3,212,014	9,251,332
19890	Kalamazoo Regional Educ Serv Agency	3,684,582	1,619,596	2,775,813	8,079,991
20400	Kent County Intermediate S D	7,664,186	3,368,873	5,674,481	16,707,540
22120	Lapeer County Intermediate S D	953,717	419,216	735,737	2,108,670
22830	Lenawee Intermediate S D	2,356,201	1,035,693	1,788,800	5,180,694
11470	Lewis Cass Intermediate S D	682,549	300,022	550,640	1,533,211
23370	Livingston Intermediate S D	3,177,030	1,396,497	2,438,453	7,011,980
23780	Macomb Intermediate S D	8,107,073	3,563,548	6,293,903	17,964,524
24110	Manistee Intermediate S D	419,926	184,583	320,806	925,315
41820	Marquette-Alger Intermediate S D	747,271	328,471	609,740	1,685,481
24720	Mecosta-Osceola Intermediate S D	1,460,481	641,970	1,090,131	3,192,581
24930	Menominee County Intermediate S D	326,548	143,538	232,982	703,068
25100	Midland County Ed Service Agency	1,092,166	480,073	860,767	2,433,006
25760	Monroe County Intermediate S D	3,008,592	1,322,458	2,359,636	6,690,686
26020	Montcalm Area Intermediate S D	1,347,287	592,214	1,018,322	2,957,823
26680	Muskegon Area Intermediate S D	2,032,135	893,246	1,448,635	4,374,016
27300	Newaygo County RESA	1,251,474	550,099	968,093	2,769,666
27900	Oakland County Intermediate S D	5,985,029	2,630,782	4,423,521	13,039,332
29690	Ottawa Area Intermediate S D	3,432,086	1,508,609	2,502,211	7,442,907
31040	Saginaw County Intermediate S D	3,255,342	1,430,919	2,580,420	7,266,681
32910	Sanilac County Intermediate S D	567,921	249,636	432,164	1,249,721
33880	Shiawassee Regional ESD	1,546,125	679,616	1,144,253	3,369,994
31820	St. Clair County RESA	1,934,086	850,148	1,499,749	4,283,984
32520	St. Joseph County Intermediate S D	1,037,829	456,188	805,393	2,299,410

This exhibit continues on next page.

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and School Aid Fund Supplemental
 Intermediate School Districts
Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	School Aid Fund Supplemental	Total
14910	Traverse Bay Area Intermediate S D	\$ 3,869,882	\$ 1,701,047	\$ 2,944,187	\$ 8,515,115
34730	Tuscola County Intermediate S D	1,699,979	747,244	1,253,290	3,700,513
35500	Van Buren County Intermediate S D	3,277,039	1,440,457	2,448,042	7,165,538
36190	Washtenaw Intermediate S D	2,717,045	1,194,305	2,492,968	6,404,318
36710	Wayne County RESA	2,320,859	1,020,158	1,684,741	5,025,757
24500	West Shore Educational Service District	1,322,858	581,476	967,566	2,871,901
37180	Wexford-Missaukee Intermediate S D	1,339,276	588,693	1,029,218	2,957,187
Total		<u>\$ 111,740,185</u>	<u>\$ 49,116,565</u>	<u>\$ 85,225,486</u>	<u>\$ 246,082,236</u>

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and State Supplemental*
 Community Colleges
Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	State Supplemental	Total
47930	Alpena Community College	\$ 1,084,451	\$ 476,682	\$ 879,834	\$ 2,440,967
41710	Bay De Noc Community College	687,782	302,322	633,809	1,623,913
44920	Charles S. Mott Community College	3,884,779	1,707,595	3,148,058	8,740,432
40080	Delta College	4,432,131	1,948,189	3,668,195	10,048,515
42680	Glen Oaks Community College	292,760	128,686	246,932	668,378
42900	Gogebic Community College	504,773	221,878	435,830	1,162,481
49230	Grand Rapids Community College	7,116,447	3,128,109	6,057,316	16,301,872
36811	Henry Ford College	5,680,545	2,496,943	4,511,629	12,689,117
42510	Jackson College	1,231,439	541,292	1,062,066	2,834,797
42980	Kalamazoo Valley Community College	2,806,638	1,233,687	2,330,698	6,371,023
45000	Kellogg Community College	1,864,647	819,625	1,630,146	4,314,419
43100	Kirtland Community College	921,801	405,187	778,380	2,105,368
42080	Lake Michigan College	845,459	371,630	697,668	1,914,757
42450	Lansing Community College	6,809,269	2,993,085	5,634,910	15,437,265
41790	Macomb Community College	8,720,049	3,832,989	7,059,539	19,612,577
42730	Mid-Michigan Community College	1,625,085	714,323	1,320,480	3,659,888
42300	Monroe Co. Community College	1,673,977	735,814	1,360,249	3,770,041
42500	Montcalm Community College	822,355	361,475	700,176	1,884,006
41860	Muskegon Co. Community College	1,735,889	763,028	1,425,124	3,924,041
40090	North Central Michigan College	619,433	272,278	519,111	1,410,823
39450	Northwestern Michigan College	2,340,905	1,028,969	1,853,443	5,223,318
42380	Oakland Community College	8,712,844	3,829,822	7,310,499	19,853,165
41500	Schoolcraft Community College	5,408,306	2,377,277	4,274,788	12,060,371
42310	Southwestern Michigan College	521,881	229,398	462,475	1,213,755
43240	St. Clair County Community College	1,574,768	692,206	1,302,408	3,569,382
42640	Washtenaw Community College	5,752,887	2,528,742	4,638,492	12,920,121
44010	Wayne County Community College	6,112,694	2,686,899	4,973,505	13,773,098
43170	West Shore Community College	713,330	313,552	584,240	1,611,122
	Total	<u>\$ 84,497,327</u>	<u>\$ 37,141,682</u>	<u>\$ 69,500,000</u>	<u>\$ 191,139,010</u>

* State supplemental for community colleges is a combination of both School Aid Fund and General Fund appropriations.

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
Summary of Required Employer UAAL Contributions and School Aid Fund Supplemental
Charter Schools
Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	School Aid Fund Supplemental	Total
60280	AGBU Alex & Marie Manoojian School	\$ 234,496	\$ 103,075	\$ 177,234	\$ 514,806
61960	Arts Academy In The Woods	180,582	79,377	134,433	394,391
60110	Bay-Arenac Community High School	88,557	38,926	74,779	202,262
62950	Blue Water Middle College Academy	45,268	19,898	34,677	99,842
60440	Central Academy	16,868	7,414	13,903	38,185
60560	Commonwealth Community Dev Academy	102,074	44,868	106,136	253,077
60830	Countryside Charter School	343,305	150,903	247,675	741,884
61240	Creative Technologies Academy	185,254	81,430	139,869	406,554
60120	Da Vinci Institute	200,691	88,216	155,449	444,356
60930	Dearborn Academy	9,155	4,024	6,866	20,045
61400	Detroit Edison Public School Academy	71,299	31,340	55,091	157,730
60130	El-Hajj Malik El-Shabazz Academy	110,867	48,733	127,269	286,868
61810	Grand Rapids Child Discovery Center	165,655	72,815	126,224	364,694
63440	Greater Heights Academy	38,044	16,723	27,170	81,937
60890	Henry Ford Academy	307,463	135,149	228,603	671,215
61670	Holly Academy	521,046	229,031	418,073	1,168,151
60100	Honey Creek Community School	217,766	95,721	151,357	464,844
60380	Joseph K. Lumsden PS Academy	622,715	273,721	468,527	1,364,964
60000	Macomb Academy	130,506	57,365	106,552	294,423
60390	Martin Luther King Jr.	239,452	105,253	171,580	516,285
62620	Michigan Math And Science Academy	11,500	5,055	8,613	25,168
63430	Muskegon Hgts Public School Academy	21,324	9,373	16,147	46,844
60050	Nah Tah Wahsh Public School Academy	203,023	89,241	155,836	448,101
60980	North Star Academy	147,211	64,708	113,717	325,636
62060	Outlook Academy	58,575	25,747	44,640	128,963
62040	Presque Isle Academy li	10,297	4,526	5,575	20,398
63050	Relevant Academy of Eaton County	16,628	7,309	12,364	36,302
60510	Summit Academy	3,072	1,350	6,900	11,323
61220	Summit Academy North	18,434	8,103	9,775	36,313
62590	Three Lakes Academy	60,216	26,469	49,278	135,963
62610	Virtual Learning Ac of St. Clair	76,923	33,812	64,747	175,483
60020	Walden Green Day School Inc.	16,882	7,421	12,044	36,347
61040	Washtenaw Technical Middle College	200,731	88,234	132,466	421,431
63780	Waterford Montessori Academy	1,149	505		1,655
61700	West Village Academy	13,104	5,760	13,134	31,998
60070	Windover High School	7,114	3,127	11,128	21,369
60410	Woodland Park Academy	205,594	90,371	156,538	452,503
	Total	\$ 4,902,841	\$ 2,155,095	\$ 3,784,369	\$ 10,842,305

MICHIGAN PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
 Summary of Required Employer UAAL Contributions and General Fund Supplemental
 Public Libraries
Fiscal Year Ended September 30, 2016

Employer Number	Employer	Pension UAAL	OPEB UAAL	General Fund Supplemental	Total
70070	Ann Arbor District Library	\$ 92,589	\$ 40,698	\$ 75,789	\$ 209,077
70010	Bacon Memorial District Library	5,897	2,592	4,932	13,420
70000	Cheboygan Area Public Library	12,083	5,311	9,603	26,998
70090	Flint Public Library	90,034	39,576	82,831	212,441
70030	Grosse Pointe Public Library	29,565	12,995	26,444	69,004
70100	Hackley Public Library	78,261	34,401	67,513	180,175
49130	Kalamazoo Public Library	152,429	67,002	137,388	356,820
70120	Mount Clemens Public Library	83,122	36,537	67,507	187,167
70040	Public Libraries of Saginaw	84,548	37,164	78,013	199,724
70020	Willard Library	47,734	20,982	49,979	118,695
	Total	<u>\$ 676,262</u>	<u>\$ 297,258</u>	<u>\$ 600,000</u>	<u>\$ 1,573,520</u>