

City of Taylor Police and Fire Retirement System
Actuarial Information for GASB Statements 67/68
June 30, 2015





November 16, 2015

The Retirement Board
The City of Taylor Police and Fire Retirement System
Taylor, Michigan 48180-4116

Dear Board Members:

This document contains actuarial information required for Plan reporting purposes pursuant to Governmental Accounting Standards Board Statements No. 67/68 effective for the Fiscal Year ended June 30, 2015.

Respectfully submitted,

A handwritten signature in black ink that reads 'Denise M. Jones'.

Denise M. Jones
Senior Consultant

A handwritten signature in black ink that reads 'Sandra W. Rodwan'.

Sandra W. Rodwan
Member, American Academy of Actuaries

Net Pension Liability

The components of the net pension liability at June 30, 2015 were as follows:

Total pension liability	\$208,842,575
Plan fiduciary net position	119,332,220
City's net pension liability	89,510,355
Plan fiduciary net position as a percentage of the total pension liability	57.14%
Covered payroll	\$9,148,649
City's net pension liability as a percentage of covered payroll	978.4%

Actuarial assumptions. The total pension liability was determined based on the annual actuarial valuation as of June 30, 2014, rolled forward to June 30, 2015. The following actuarial assumptions were applied to compute the total pension liability:

Actuarial cost method	Entry Age
Inflation	4.0%
Salary Increases	0.0%-6.5% (includes inflation)
Cost of living assumption adjustments	None

Mortality rates were based on the RP 2014 Healthy Annuitant Mortality Table.

Discount rate. The discount rate used to measure the total pension liability was 5.87%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate and that City Contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the 5.87% discount rate is the single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the actuarial present values determined in conformity with GASB 67, paragraph 44.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the City’s net pension liability, calculated using the discount rate of 5.87%, as well as what the City’s net pension liability would be if it were calculated using a discount rate that is 1% lower (4.87%) or 1% higher (6.87%) than the current rate:

	1% Decrease Rate 4.87%	Computed GASB 67/68 Rate 5.87%	1% Increase Rate 6.87%
City’s net pension liability	\$115,657,932	\$89,510,355	\$67,973,049

Schedule of Changes in the City's Net Pension Liability and Related Ratios

	Year Ended 6/30/2015
Total pension liability (TPL)	
Service cost	\$3,241,963
Interest	11,718,402
Changes in benefit terms	-
Differences between expected and actual experience	(2,254,916)
Changes in assumptions used for TPL	
Discount rate assumption	7,560,374
Mortality assumption	6,941,456
Total due to TPL assumption changes	14,501,830
Benefit payments, including refunds of member contributions	(11,500,428)
Net change in total pension liability	15,706,851
Total pension liability-beginning	193,135,724*
Total pension liability-ending (a)	208,842,575
Plan fiduciary net position	
Contributions-employer	5,409,465
Contributions-member	802,920
Net investment income	7,010,053
Benefit payments, including refunds of member contributions	(11,500,428)
Administrative Expense	(104,875)
Other	-
Net change in plan fiduciary net position	1,617,135
Plan fiduciary net position-beginning	117,715,085
Plan fiduciary net position-ending (b)	119,332,220
City's net pension liability-ending (a)-(b)	\$89,510,355
Plan fiduciary net position as a percentage of the total pension liability	57.14%
Covered employee payroll	\$9,148,649
City's net pension liability as a percentage of covered employee payroll	978.4%
*6-30-14 restated TPL at a 6.20% discount rate	

Additional Required Disclosures

Total expected remaining service lives	
Active Participants	949.2
Inactive Participants	0
(a) Total expected remaining service lives	949.2
Number of Participants	
Active	113
Retired	210
Vested	11
(b) Total	334
(c) Average of expected remaining service lives of all active and inactive participants (a)/(b)	2.8
(d1) Difference between expected and actual demographic experience	\$(2,254,916)
(d2) Portion allocated to expense 6/30/2015 (d1)/(c)	(805,327)
(d3) Deferred portion (d1)-(d2)	(1,449,589)
(e1) Changes in assumptions	14,501,830
(e2) Portion allocated to expense 6/30/2015 (e1)/(c)	5,179,225
(e3) Deferred portion (e1)-(e2)	9,322,605
(f1) Difference between expected and actual investment experience	121,102
(f2) Portion allocated to expense 6/30/2015 (f1)/5	24,220
(f3) Deferred portion (f1)-(f2)	96,881
(g) Total Deferred Portion	\$7,969,897

**SCHEDULE OF CITY CONTRIBUTIONS
LAST 10 FISCAL YEARS**

Year Ended June 30

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Actuarially determined contribution	\$5,409,465	\$5,145,379	\$6,070,834	\$6,059,600	\$5,917,992	\$5,613,904	\$5,483,018	\$4,977,904	\$4,023,065	\$2,943,025
Contributions in relation to the actuarially determined contribution	5,409,465	5,145,379	6,070,834	6,059,600	5,917,992	5,613,904	5,483,018	4,977,904	4,023,065	2,943,025
Contribution excess (deficiency)	-	-	-	-	-	-	-	-	-	-
Covered employee payroll	\$9,739,971	\$9,328,103	\$7,846,245	\$12,007,248	\$12,813,161	\$13,889,065	\$13,999,934	\$14,262,553	\$13,476,011	\$12,606,578
Actuarially determined contributions as a percentage of covered employee payroll	55.54%	55.16%	77.37%	50.47%	46.19%	40.42%	39.16%	34.90%	29.85%	23.35%

Notes to Schedule

Valuation date: Actuarially determined contribution rates are calculated as of the June 30, two years prior to the end of the fiscal year in which contributions are reported.
Covered employee payroll is as of June 30 of the prior fiscal year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, open
Remaining amortization period	25
Asset valuation method	5 years smoothed market
Inflation	0%-3.5%
Salary increases	0% - 6.5%, including inflation
Investment rate of return	7.6%, net of pension plan investment expense, including inflation
Mortality Table	RP 2000 Combined Healthy Mortality

Table 1
Projection of Total Contributions*
Assuming 25 Year Open Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	25 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2015	\$169,052,240	\$119,332,220	\$49,720,020	\$3,108,517	\$1,535,831	\$4,644,348	\$751,572	\$5,395,920
2016	172,226,241	121,288,997	50,937,244	3,184,619	1,528,300	4,712,919	752,623	5,465,542
2017	175,429,104	123,232,833	52,196,271	3,263,334	1,408,797	4,672,131	716,879	5,389,010
2018	178,226,758	124,716,283	53,510,475	3,345,498	1,345,251	4,690,749	690,415	5,381,164
2019	180,751,961	125,870,184	54,881,777	3,431,233	1,201,742	4,632,975	625,672	5,258,647
2020	182,388,556	126,054,462	56,334,094	3,522,032	938,030	4,460,062	498,792	4,958,854
2021	182,609,383	124,734,969	57,874,414	3,618,334	766,755	4,385,089	418,173	4,803,262
2022	182,077,144	122,591,429	59,485,715	3,719,073	672,939	4,392,012	373,753	4,765,765
2023	180,988,535	119,819,139	61,169,396	3,824,337	513,161	4,337,498	298,040	4,635,538
2024	178,989,238	116,053,187	62,936,051	3,934,789	340,988	4,275,777	212,293	4,488,070
2025	176,106,016	111,323,196	64,782,820	4,050,250	225,969	4,276,219	155,324	4,431,543
2026	172,616,270	105,914,657	66,701,613	4,170,214	184,055	4,354,269	134,907	4,489,176
2027	168,876,686	100,195,923	68,680,763	4,293,951	149,346	4,443,297	118,849	4,562,146
2028	164,919,817	94,200,900	70,718,917	4,421,378	122,362	4,543,740	106,233	4,649,973
2029	160,781,095	87,966,760	72,814,335	4,552,384	114,564	4,666,948	103,524	4,770,472
2030	156,580,274	81,618,872	74,961,402	4,686,620	117,286	4,803,906	106,172	4,910,078
2031	152,384,949	75,228,610	77,156,339	4,823,848	120,562	4,944,410	109,135	5,053,545
2032	148,211,187	68,813,937	79,397,250	4,963,951	123,876	5,087,827	112,134	5,199,961
2033	144,071,511	62,389,461	81,682,050	5,106,797	127,286	5,234,083	115,221	5,349,304
2034	139,978,316	55,969,872	84,008,444	5,252,245	130,758	5,383,003	118,368	5,501,371

Table 1
(Continued)
Projection of Total Contributions*
Assuming 25 Year Open Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	25 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2035	\$135,944,035	\$49,570,210	\$86,373,825	\$5,400,129	\$134,286	\$5,534,415	\$121,559	\$5,655,974
2036	131,980,456	43,204,858	88,775,598	5,550,289	137,815	5,688,104	124,751	5,812,855
2037	128,043,860	36,829,492	91,214,368	5,702,762	126,038	5,828,800	115,181	5,943,981
2038	123,963,377	30,267,399	93,695,978	5,857,913	90,970	5,948,883	82,742	6,031,625
2039	119,648,585	23,429,214	96,219,371	6,015,677	67,465	6,083,142	61,326	6,144,468
2040	115,131,636	16,350,388	98,781,248	6,175,847	36,838	6,212,685	33,585	6,246,270
2041	110,429,271	9,051,929	101,377,342	6,338,156	22,871	6,361,027	20,670	6,381,697
2042	105,653,408	1,651,766	104,001,642	6,502,228	15,387	6,517,615	14,043	6,531,658
2043	100,840,399	-	100,840,399	6,304,586	6,559	6,311,145	5,945	6,317,090
2044	96,006,303	-	96,006,303	6,002,356	4,258	6,006,614	3,852	6,010,466
2045	91,188,101	-	91,188,101	5,701,120	380	5,701,500	341	5,701,841
2046	86,396,681	-	86,396,681	5,401,558	-	5,401,558	-	5,401,558
2047	81,659,740	-	81,659,740	5,105,403	-	5,105,403	-	5,105,403
2048	76,988,507	-	76,988,507	4,813,355	-	4,813,355	-	4,813,355
2049	72,391,100	-	72,391,100	4,525,923	-	4,525,923	-	4,525,923
2050	67,876,377	-	67,876,377	4,243,661	-	4,243,661	-	4,243,661
2051	63,453,929	-	63,453,929	3,967,167	-	3,967,167	-	3,967,167
2052	59,133,969	-	59,133,969	3,697,082	-	3,697,082	-	3,697,082
2053	54,927,194	-	54,927,194	3,434,072	-	3,434,072	-	3,434,072
2054	50,844,726	-	50,844,726	3,178,834	-	3,178,834	-	3,178,834

Table 1
Projection of Total Contributions*
Assuming 25 Year Open Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	25 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2055	\$46,897,615	\$ -	\$46,897,615	\$2,932,059	\$ -	\$2,932,059	\$ -	\$2,932,059
2056	43,096,609	-	43,096,609	2,694,419	-	2,694,419	-	2,694,419
2057	39,451,912	-	39,451,912	2,466,551	-	2,466,551	-	2,466,551
2058	35,972,911	-	35,972,911	2,249,042	-	2,249,042	-	2,249,042
2059	32,667,875	-	32,667,875	2,042,410	-	2,042,410	-	2,042,410
2060	29,543,630	-	29,543,630	1,847,081	-	1,847,081	-	1,847,081
2061	26,605,417	-	26,605,417	1,663,382	-	1,663,382	-	1,663,382
2062	23,856,660	-	23,856,660	1,491,529	-	1,491,529	-	1,491,529
2063	21,298,954	-	21,298,954	1,331,620	-	1,331,620	-	1,331,620
2064	18,931,991	-	18,931,991	1,183,636	-	1,183,636	-	1,183,636
2065	16,753,696	-	16,753,696	1,047,448	-	1,047,448	-	1,047,448
2066	14,760,270	-	14,760,270	922,819	-	922,819	-	922,819
2067	12,946,281	-	12,946,281	809,407	-	809,407	-	809,407
2068	11,304,855	-	11,304,855	706,784	-	706,784	-	706,784
2069	9,827,883	-	9,827,883	614,444	-	614,444	-	614,444
2070	8,506,236	-	8,506,236	531,814	-	531,814	-	531,814
2071	7,329,909	-	7,329,909	458,269	-	458,269	-	458,269
2072	6,288,314	-	6,288,314	393,148	-	393,148	-	393,148
2073	5,370,450	-	5,370,450	335,763	-	335,763	-	335,763
2074	4,565,308	-	4,565,308	285,425	-	285,425	-	285,425

Table 1
Projection of Total Contributions*
Assuming 25 Year Open Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	25 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2075	\$3,862,080	\$ -	\$3,862,080	\$241,459	\$ -	\$241,459	\$ -	\$241,459
2076	3,250,434	-	3,250,434	203,219	-	203,219	-	203,219
2077	2,720,692	-	2,720,692	170,099	-	170,099	-	170,099
2078	2,263,923	-	2,263,923	141,541	-	141,541	-	141,541
2079	1,871,958	-	1,871,958	117,036	-	117,036	-	117,036
2080	1,537,427	-	1,537,427	96,121	-	96,121	-	96,121
2081	1,253,684	-	1,253,684	78,381	-	78,381	-	78,381
2082	1,014,699	-	1,014,699	63,439	-	63,439	-	63,439
2083	814,946	-	814,946	50,951	-	50,951	-	50,951
2084	649,389	-	649,389	40,600	-	40,600	-	40,600
2085	513,372	-	513,372	32,096	-	32,096	-	32,096
2086	402,664	-	402,664	25,175	-	25,175	-	25,175
2087	313,389	-	313,389	19,593	-	19,593	-	19,593
2088	242,050	-	242,050	15,133	-	15,133	-	15,133
2089	185,546	-	185,546	11,600	-	11,600	-	11,600
2090	141,162	-	141,162	8,826	-	8,826	-	8,826
2091	106,581	-	106,581	6,663	-	6,663	-	6,663
2092	79,831	-	79,831	4,991	-	4,991	-	4,991
2093	59,290	-	59,290	3,707	-	3,707	-	3,707
2094	43,652	-	43,652	2,729	-	2,729	-	2,729

Table 1

Projection of Total Contributions*
Assuming 25 Year Open Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	25 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2095	\$31,842	\$ -	\$31,842	\$1,991	\$ -	\$1,991	\$ -	\$1,991
2096	23,000	-	23,000	1,438	-	1,438	-	1,438
2097	16,436	-	16,436	1,028	-	1,028	-	1,028
2098	11,630	-	11,630	727	-	727	-	727
2099	8,145	-	8,145	509	-	509	-	509
2100	5,659	-	5,659	354	-	354	-	354
2101	3,888	-	3,888	243	-	243	-	243
2102	2,639	-	2,639	165	-	165	-	165
2103	1,769	-	1,769	111	-	111	-	111
2104	1,165	-	1,165	73	-	73	-	73
2105	753	-	753	47	-	47	-	47
2106	478	-	478	30	-	30	-	30
2107	296	-	296	19	-	19	-	19
2108	179	-	179	11	-	11	-	11
2109	106	-	106	7	-	7	-	7
2110	61	-	61	4	-	4	-	4
2111	37	-	37	2	-	2	-	2
2112	22	-	22	1	-	1	-	1
2113	12	-	12	1	-	1	-	1
2114	-	-	-	-	-	-	-	-

*The Projection of Contributions uses the plan's actuarial valuation interest and mortality assumptions.

Table 2: Projection of the Pension Plan's Fiduciary Net Position

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2015	\$119,332,220	\$5,395,920	\$(12,143,137)	\$(104,875)	\$8,808,869	\$121,288,997
2016	121,288,997	5,465,542	(12,367,016)	(106,356)	8,951,666	123,232,833
2017	123,232,833	5,389,010	(12,871,996)	(110,699)	9,077,135	124,716,283
2018	124,716,283	5,381,164	(13,286,684)	(114,265)	9,173,686	125,870,184
2019	125,870,184	5,258,647	(14,175,138)	(121,906)	9,222,675	126,054,462
2020	126,054,462	4,958,854	(15,327,645)	(131,818)	9,181,116	124,734,969
2021	124,734,969	4,803,262	(15,864,704)	(136,436)	9,054,338	122,591,429
2022	122,591,429	4,765,765	(16,272,487)	(139,943)	8,874,375	119,819,139
2023	119,819,139	4,635,538	(16,891,243)	(145,265)	8,635,018	116,053,187
2024	116,053,187	4,488,070	(17,392,477)	(149,575)	8,323,991	111,323,196
2025	111,323,196	4,431,543	(17,641,199)	(151,714)	7,952,831	105,914,657
2026	105,914,657	4,489,176	(17,602,007)	(151,377)	7,545,474	100,195,923
2027	100,195,923	4,562,146	(17,523,117)	(150,699)	7,116,647	94,200,900
2028	94,200,900	4,649,973	(17,403,395)	(149,669)	6,668,951	87,966,760
2029	87,966,760	4,770,472	(17,178,958)	(147,739)	6,208,337	81,618,872
2030	81,618,872	4,910,078	(16,897,034)	(145,314)	5,742,008	75,228,610
2031	75,228,610	5,053,545	(16,598,703)	(142,749)	5,273,234	68,813,937
2032	68,813,937	5,199,961	(16,287,571)	(140,073)	4,803,207	62,389,461
2033	62,389,461	5,349,304	(15,964,598)	(137,296)	4,333,001	55,969,872
2034	55,969,872	5,501,371	(15,630,314)	(134,421)	3,863,702	49,570,210

Table 2: Projection of the Pension Plan's Fiduciary Net Position
(Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2035	\$49,570,210	\$5,655,974	\$(15,286,254)	\$(131,462)	\$3,396,390	\$43,204,858
2036	43,204,858	5,812,855	(14,989,280)	(128,908)	2,929,967	36,829,492
2037	36,829,492	5,943,981	(14,834,835)	(127,580)	2,456,341	30,267,399
2038	30,267,399	6,031,625	(14,709,084)	(126,498)	1,965,772	23,429,214
2039	23,429,214	6,144,468	(14,554,412)	(125,168)	1,456,286	16,350,388
2040	16,350,388	6,246,270	(14,351,258)	(123,421)	929,950	9,051,929
2041	9,051,929	6,381,697	(14,052,855)	(120,855)	391,850	1,651,766
2042	1,651,766	6,531,658	(13,724,765)	(118,033)	-	-
2043	-	6,317,090	(13,374,040)	(115,017)	-	-
2044	-	6,010,466	(12,997,419)	(111,778)	-	-
2045	-	5,701,841	(12,607,844)	(108,427)	-	-
2046	-	5,401,558	(12,200,222)	(104,922)	-	-
2047	-	5,105,403	(11,787,056)	(101,369)	-	-
2048	-	4,813,355	(11,371,886)	(97,798)	-	-
2049	-	4,525,923	(10,954,567)	(94,209)	-	-
2050	-	4,243,661	(10,534,916)	(90,600)	-	-
2051	-	3,967,167	(10,112,667)	(86,969)	-	-
2052	-	3,697,082	(9,687,626)	(83,314)	-	-
2053	-	3,434,072	(9,259,413)	(79,631)	-	-
2054	-	3,178,834	(8,828,068)	(75,921)	-	-

Table 2: Projection of the Pension Plan's Fiduciary Net Position

(Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2055	\$ -	\$2,932,059	\$(8,393,791)	\$(72,187)	\$ -	\$ -
2056	-	2,694,419	(7,957,079)	(68,431)	-	-
2057	-	2,466,551	(7,518,716)	(64,661)	-	-
2058	-	2,249,042	(7,079,794)	(60,886)	-	-
2059	-	2,042,410	(6,641,695)	(57,119)	-	-
2060	-	1,847,081	(6,206,080)	(53,372)	-	-
2061	-	1,663,382	(5,774,829)	(49,664)	-	-
2062	-	1,491,529	(5,350,037)	(46,010)	-	-
2063	-	1,331,620	(4,933,899)	(42,432)	-	-
2064	-	1,183,636	(4,528,589)	(38,946)	-	-
2065	-	1,047,448	(4,136,228)	(35,572)	-	-
2066	-	922,819	(3,758,811)	(32,326)	-	-
2067	-	809,407	(3,398,202)	(29,225)	-	-
2068	-	706,784	(3,056,019)	(26,282)	-	-
2069	-	614,444	(2,733,654)	(23,509)	-	-
2070	-	531,814	(2,432,208)	(20,917)	-	-
2071	-	458,269	(2,152,477)	(18,511)	-	-
2072	-	393,148	(1,894,960)	(16,297)	-	-
2073	-	335,763	(1,659,739)	(14,274)	-	-
2074	-	285,425	(1,446,536)	(12,440)	-	-

Table 2: Projection of the Pension Plan's Fiduciary Net Position

(Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2075	\$ -	\$241,459	\$(1,254,692)	\$(10,790)	\$ -	\$ -
2076	-	203,219	(1,083,186)	(9,315)	-	-
2077	-	170,099	(930,808)	(8,005)	-	-
2078	-	141,541	(796,103)	(6,846)	-	-
2079	-	117,036	(677,565)	(5,827)	-	-
2080	-	96,121	(573,649)	(4,933)	-	-
2081	-	78,381	(482,902)	(4,153)	-	-
2082	-	63,439	(403,953)	(3,474)	-	-
2083	-	50,951	(335,543)	(2,886)	-	-
2084	-	40,600	(276,545)	(2,378)	-	-
2085	-	32,096	(225,961)	(1,943)	-	-
2086	-	25,175	(182,880)	(1,573)	-	-
2087	-	19,593	(146,498)	(1,260)	-	-
2088	-	15,133	(116,048)	(998)	-	-
2089	-	11,600	(90,838)	(781)	-	-
2090	-	8,826	(70,226)	(604)	-	-
2091	-	6,663	(53,586)	(461)	-	-
2092	-	4,991	(40,358)	(347)	-	-
2093	-	3,707	(29,970)	(258)	-	-
2094	-	2,729	(21,949)	(189)	-	-

Table 2: Projection of the Pension Plan's Fiduciary Net Position

(Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2095	\$ -	\$1,991	\$(15,854)	\$(136)	\$ -	\$ -
2096	-	1,438	(11,295)	(97)	-	-
2097	-	1,028	(7,922)	(68)	-	-
2098	-	727	(5,481)	(47)	-	-
2099	-	509	(3,728)	(32)	-	-
2100	-	354	(2,502)	(22)	-	-
2101	-	243	(1,651)	(14)	-	-
2102	-	165	(1,066)	(9)	-	-
2103	-	111	(679)	(6)	-	-
2104	-	73	(424)	(4)	-	-
2105	-	47	(256)	(2)	-	-
2106	-	30	(150)	(1)	-	-
2107	-	19	(90)	(1)	-	-
2108	-	11	(49)	-	-	-
2109	-	7	(26)	-	-	-
2110	-	4	(14)	-	-	-
2111	-	2	(8)	-	-	-
2112	-	1	(4)	-	-	-
2113	-	1	(2)	-	-	-
2114	-	-	-	-	-	-

*From Table 1.

**Assumed Mortality for Benefit Payout Projection was based on the RP 2014 Mortality Table.

***Administrative expense was assumed to be 0.86% of pension payroll.

****Long term expected rate of return on pension plan investments was 7.60%.

Table 3: Actuarial Present Values of Projected Benefit Payments

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
1	\$119,332,220	\$12,143,137	\$12,143,137	\$ -	\$11,285,443	\$ -	\$11,470,274
2	121,288,997	12,367,016	12,367,016	-	10,681,700	-	11,034,451
3	123,232,833	12,871,996	12,871,996	-	10,332,587	-	10,848,623
4	124,716,283	13,286,684	13,286,684	-	9,912,142	-	10,577,627
5	125,870,184	14,175,138	14,175,138	-	9,828,018	-	10,659,623
6	126,054,462	15,327,645	15,327,645	-	9,876,471	-	10,887,618
7	124,734,969	15,864,704	15,864,704	-	9,500,492	-	10,644,673
8	122,591,429	16,272,487	16,272,487	-	9,056,403	-	10,313,289
9	119,819,139	16,891,243	16,891,243	-	8,736,775	-	10,112,250
10	116,053,187	17,392,477	17,392,477	-	8,360,625	-	9,835,366
11	111,323,196	17,641,199	17,641,199	-	7,881,214	-	9,423,236
12	105,914,657	17,602,007	17,602,007	-	7,308,276	-	8,881,311
13	100,195,923	17,523,117	17,523,117	-	6,761,637	-	8,351,590
14	94,200,900	17,403,395	17,403,395	-	6,241,115	-	7,834,922
15	87,966,760	17,178,958	17,178,958	-	5,725,491	-	7,305,340
16	81,618,872	16,897,034	16,897,034	-	5,233,764	-	6,787,299
17	75,228,610	16,598,703	16,598,703	-	4,778,213	-	6,298,014
18	68,813,937	16,287,571	16,287,571	-	4,357,480	-	5,837,524
19	62,389,461	15,964,598	15,964,598	-	3,969,400	-	5,404,721
20	55,969,872	15,630,314	15,630,314	-	3,611,788	-	4,998,341
21	49,570,210	15,286,254	15,286,254	-	3,282,792	-	4,617,449
22	43,204,858	14,989,280	14,989,280	-	2,991,650	-	4,276,857
23	36,829,492	14,834,835	14,834,835	-	2,751,696	-	3,998,247
24	30,267,399	14,709,084	14,709,084	-	2,535,661	-	3,744,686

Table 3: Actuarial Present Values of Projected Benefit Payments
(Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
25	\$23,429,214	\$14,554,412	\$14,554,412	\$ -	\$2,331,782	\$ -	\$3,499,995
26	16,350,388	14,351,258	14,351,258	-	2,136,835	-	3,259,910
27	9,051,929	14,052,855	9,051,929	5,000,926	1,252,593	1,860,511	3,015,248
28	1,651,766	13,724,765	1,651,766	12,072,999	212,425	4,330,047	2,781,675
29	-	13,374,040	-	13,374,040	-	4,624,190	2,560,395
30	-	12,997,419	-	12,997,419	-	4,332,372	2,350,414
31	-	12,607,844	-	12,607,844	-	4,051,400	2,153,629
32	-	12,200,222	-	12,200,222	-	3,779,442	1,968,524
33	-	11,787,056	-	11,787,056	-	3,520,148	1,796,476
34	-	11,371,886	-	11,371,886	-	3,274,037	1,637,161
35	-	10,954,567	-	10,954,567	-	3,040,479	1,489,694
36	-	10,534,916	-	10,534,916	-	2,818,860	1,353,243
37	-	10,112,667	-	10,112,667	-	2,608,577	1,227,025
38	-	9,687,626	-	9,687,626	-	2,409,079	1,110,319
39	-	9,259,413	-	9,259,413	-	2,219,794	1,002,437
40	-	8,828,068	-	8,828,068	-	2,040,284	902,780
41	-	8,393,791	-	8,393,791	-	1,870,160	810,807
42	-	7,957,079	-	7,957,079	-	1,709,109	726,032
43	-	7,518,716	-	7,518,716	-	1,556,881	648,020
44	-	7,079,794	-	7,079,794	-	1,413,279	576,380

Table 3: Actuarial Present Values of Projected Benefit Payments
(Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
45	\$ -	\$6,641,695	\$ -	\$6,641,695	\$ -	\$1,278,150	\$510,752
46	-	6,206,080	-	6,206,080	-	1,151,373	450,808
47	-	5,774,829	-	5,774,829	-	1,032,841	396,238
48	-	5,350,037	-	5,350,037	-	922,458	346,750
49	-	4,933,899	-	4,933,899	-	820,117	302,060
50	-	4,528,589	-	4,528,589	-	725,678	261,884
51	-	4,136,228	-	4,136,228	-	638,971	225,940
52	-	3,758,811	-	3,758,811	-	559,787	193,946
53	-	3,398,202	-	3,398,202	-	487,885	165,624
54	-	3,056,019	-	3,056,019	-	422,980	140,693
55	-	2,733,654	-	2,733,654	-	364,756	118,879
56	-	2,432,208	-	2,432,208	-	312,864	99,909
57	-	2,152,477	-	2,152,477	-	266,925	83,519
58	-	1,894,960	-	1,894,960	-	226,541	69,453
59	-	1,659,739	-	1,659,739	-	191,285	57,461
60	-	1,446,536	-	1,446,536	-	160,719	47,305
61	-	1,254,692	-	1,254,692	-	134,391	38,757
62	-	1,083,186	-	1,083,186	-	111,849	31,606
63	-	930,808	-	930,808	-	92,658	25,654
64	-	796,103	-	796,103	-	76,399	20,726

Table 3: Actuarial Present Values of Projected Benefit Payments
(Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
65	\$ -	\$677,565	\$ -	\$677,565	\$ -	\$62,685	\$16,662
66	-	573,649	-	573,649	-	51,163	13,325
67	-	482,902	-	482,902	-	41,521	10,596
68	-	403,953	-	403,953	-	33,484	8,372
69	-	335,543	-	335,543	-	26,813	6,569
70	-	276,545	-	276,545	-	21,304	5,114
71	-	225,961	-	225,961	-	16,781	3,947
72	-	182,880	-	182,880	-	13,093	3,018
73	-	146,498	-	146,498	-	10,111	2,283
74	-	116,048	-	116,048	-	7,722	1,708
75	-	90,838	-	90,838	-	5,827	1,263
76	-	70,226	-	70,226	-	4,343	922
77	-	53,586	-	53,586	-	3,195	665
78	-	40,358	-	40,358	-	2,319	473
79	-	29,970	-	29,970	-	1,661	332
80	-	21,949	-	21,949	-	1,172	230
81	-	15,854	-	15,854	-	816	157
82	-	11,295	-	11,295	-	561	105
83	-	7,922	-	7,922	-	379	70
84	-	5,481	-	5,481	-	253	46

Table 3: Actuarial Present Values of Projected Benefit Payments
(Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
85	\$ -	\$3,728	\$ -	\$3,728	\$ -	\$166	\$29
86	-	2,502	-	2,502	-	107	19
87	-	1,651	-	1,651	-	68	12
88	-	1,066	-	1,066	-	42	7
89	-	679	-	679	-	26	4
90	-	424	-	424	-	16	3
91	-	256	-	256	-	9	1
92	-	150	-	150	-	5	1
93	-	90	-	90	-	3	-
94	-	49	-	49	-	2	-
95	-	26	-	26	-	1	-
96	-	14	-	14	-	-	-
97	-	8	-	8	-	-	-
98	-	4	-	4	-	-	-
99	-	2	-	2	-	-	-
100	-	-	-	-	-	-	-
					\$170,934,468	\$61,742,924	\$232,677,392

* From Table 2.

**7.60% was the assumed rate of return used to project the plan's fiduciary net position and is the discount rate used for column (f).

***3.73% S&P Municipal Bond 20 Year High Grade Index as of June 30, 2015 (YTW).

****5.87% was the single discount rate that produces a total actuarial present value that equals the sum of the actuarial present values of "funded" and "unfunded" benefit payments in columns (f) and (g).