

Genesee County Employees Retirement System
Actuarial Information for GASB Statement 67
December 31, 2014





May 7, 2015

The Retirement Commission
1101 Beach Street
Flint, Michigan 48502-1453

Dear Retirement Commission:

This document contains actuarial information required for Plan reporting purposes pursuant to Governmental Accounting Standards Board Statement No. 67 effective for the Fiscal Year ended December 31, 2014.

Respectfully submitted,

A handwritten signature in dark ink that reads 'Sandra W. Rodwan'. The signature is written in a cursive, flowing style.

Sandra W. Rodwan
Member, American Academy of Actuaries

Net Pension Liability

The components of the net pension liability at December 31, 2014 were as follows:

Total pension liability	\$634,562,688
Plan fiduciary net position	444,707,729
County's net pension liability	\$189,854,959
Plan fiduciary net position as a percentage of the total pension liability	70.08%

Actuarial assumptions. The total pension liability was determined based on the annual actuarial valuation as of January 1, 2015. The following actuarial assumptions were applied to compute the total pension liability:

Actuarial Cost Method	Entry Age
Inflation	3.00%
Salary Increases	3.0%-7.03% (includes inflation)
Cost of Living Adjustments	Varies depending on Benefit Group

Mortality rates were based on the RP 2000 Combined Healthy Mortality Table.

Discount rate. The discount rate used to measure the total pension liability was 6.88%. 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 County Contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the 6.88% 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 County's net pension liability, calculated using the discount rate of 6.88%, as well as what the County's net pension liability would be if it were calculated using a discount rate that is 1% lower (5.88%) or 1% higher (7.88%) than the current rate:

	1% Decrease Rate 5.88%	Computed GASB 67 Rate 6.88%	1% Increase Rate 7.88%
County's net pension liability	\$258,304,185	\$189,854,959	\$131,719,557

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

	Year Ended 12/31/2014
Total pension liability	
Service cost	\$6,001,515
Interest	42,282,096
Changes in benefit terms	-
Differences between expected and actual experience	8,006,213
Changes of assumptions	75,417,626
Benefit payments, including refunds of member contributions	(45,340,416)
Net change in total pension liability	86,367,034
 Total pension liability-beginning	 548,195,654
Total pension liability-ending (a)	634,562,688
 Plan fiduciary net position	
Contributions-employer	15,642,214
Contributions-member	2,632,710
Net investment income	N/A
Benefit payments, including refunds of member contributions	(45,340,416)
Administrative Expense	513,671
Other	(23,465)
Net change in plan fiduciary net position	N/A
 Plan fiduciary net position-beginning	 N/A
Plan fiduciary net position-ending (b)	444,707,729
 County's net pension liability-ending (a)-(b)	 189,854,959
 Plan fiduciary net position as a percentage of the total pension liability	 70.1%
 Covered-employee payroll	 \$43,723,698
 County's net pension liability as a percentage of covered- employee payroll	 434.2%

SCHEDULE OF COUNTY CONTRIBUTIONS
LAST 10 FISCAL YEARS
(\$ in thousands)

	Year Ended December 31									
	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially determined contribution	\$15,414	\$13,576	\$14,354	\$11,942	\$12,728	\$12,096	\$11,950	\$12,997	\$12,482	\$10,788
Contributions in relation to the actuarially determined contribution	15,414	13,576	14,354	11,942	12,728	12,096	11,950	12,997	12,482	10,788
Contribution excess (deficiency)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Covered-employee payroll	\$43,724	\$47,628	\$49,737	\$52,237	\$57,795	\$65,511	\$67,721	\$68,341	\$70,205	\$70,433
Actuarially determined contributions as a percentage of covered employee payroll	35.25%	28.50%	28.86%	22.86%	22.02%	18.46%	17.65%	19.02%	17.78%	15.32%

Notes to Schedule

Valuation date: Actuarially determined contribution rates are calculated as of the December 31, the year prior to the end of the fiscal year in which contributions are reported.
Covered employee payroll is as of December 31 of the current fiscal year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll for Water, Roads, Mt. Morris and Library; Level dollars for General and Mental Health
Remaining amortization period	25 years, open
Asset valuation method	4 years smoothed market
Inflation	3.00%
Salary increases	3.0%-7.03%, including inflation
Investment rate of return	8.0%, net of pension plan investment expense, including inflation

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

Year Beg. 1/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	25 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Current Employee Projected Payroll	Employee Contribution	Total Contributions
2015	\$569,836,295	\$426,294,429	\$143,541,866	\$9,800,505	\$3,463,458	\$15,413,960	\$45,434,037	\$2,668,483	\$18,082,443
2016	576,155,534	451,100,786	125,054,748	8,538,273	3,419,492	11,957,766	44,679,614	2,617,065	14,574,831
2017	581,819,190	453,478,714	128,340,476	8,762,611	3,369,990	12,132,601	43,801,567	2,557,795	14,690,396
2018	586,873,581	455,164,200	131,709,381	8,992,627	3,301,399	12,294,026	42,771,059	2,484,750	14,778,776
2019	591,448,147	456,295,515	135,152,632	9,227,719	3,243,888	12,471,607	41,910,406	2,420,632	14,892,239
2020	595,600,491	456,934,255	138,666,236	9,467,615	3,156,094	12,623,709	40,778,774	2,345,476	14,969,185
2021	599,007,071	456,741,835	142,265,236	9,713,342	3,035,749	12,749,091	39,379,575	2,256,728	15,005,819
2022	601,549,816	455,596,897	145,952,919	9,965,123	2,902,903	12,868,026	37,772,614	2,155,625	15,023,651
2023	603,110,024	453,377,695	149,732,329	10,223,167	2,740,035	12,963,202	35,928,871	2,041,459	15,004,661
2024	603,515,707	449,907,027	153,608,680	10,487,830	2,578,808	13,066,638	34,101,222	1,924,658	14,991,296
2025	602,669,217	445,086,182	157,583,035	10,759,184	2,420,554	13,179,737	32,167,965	1,808,545	14,988,282
2045	312,117,948	61,604,995	250,512,953	17,104,093	93,877	17,197,970	1,584,848	77,354	17,275,324
2065	32,943,480	-	32,943,480	2,249,258	-	2,249,258	-	-	2,249,258
2085	304,563	-	304,563	20,794	-	20,794	-	-	20,794
2105	529	-	529	36	-	36	-	-	36
2114	-	-	-	-	-	-	-	-	-

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

Year Beg. 1/1	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	\$444,707,729	\$18,082,443	\$(45,629,889)	\$(513,671)	\$34,454,174	\$451,100,786
2016	451,100,786	14,574,831	(46,465,345)	(523,076)	34,791,519	453,478,714
2017	453,478,714	14,690,396	(47,418,904)	(533,811)	34,947,804	455,164,200
2018	455,164,200	14,778,776	(48,161,434)	(542,169)	35,056,143	456,295,515
2019	456,295,515	14,892,239	(48,828,047)	(549,674)	35,124,222	456,934,255
2020	456,934,255	14,969,185	(49,743,019)	(559,974)	35,141,388	456,741,835
2021	456,741,835	15,005,819	(50,670,296)	(570,413)	35,089,951	455,596,897
2022	455,596,897	15,023,651	(51,622,284)	(581,129)	34,960,561	453,377,695
2023	453,377,695	15,004,661	(52,624,636)	(592,413)	34,741,720	449,907,027
2024	449,907,027	14,991,296	(53,631,211)	(603,745)	34,422,816	445,086,182
2025	445,086,182	14,988,282	(54,633,192)	(615,024)	33,996,497	438,822,746
2035	309,755,912	15,274,872	(59,268,573)	(667,206)	22,994,037	288,089,041
2045	61,604,995	17,275,324	(46,189,489)	(519,971)	3,751,034	35,921,894
2055	-	8,890,511	(24,192,919)	(272,348)	(622,990)	-
2065	-	2,249,258	(7,871,929)	(88,617)	(228,451)	-
2075	-	285,360	(1,240,164)	(13,961)	(38,751)	-
2085	-	20,794	(98,317)	(1,107)	(3,145)	-
2095	-	1,121	(5,707)	(64)	(186)	-
2105	-	36	(221)	(2)	(8)	-
2114	-	-	-	-	-	-

*Administrative expense was assumed to be 1.13% of pension payroll.

**Assumed rate of investment return was 8.0%.

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) = (d) /(1+8.0%)^(a)	Present Value of "Unfunded" Benefit Payments (g)=(e)/(1+3.8%)^(a)	Present Value Using the Single Discount Rate** (h) = (c)/(1 + 6.88%)^(a)
1	\$444,707,729	\$45,629,889	\$45,629,889	\$ -	\$42,249,897	\$ -	\$42,691,386
2	451,100,786	46,465,345	46,465,345	-	39,836,544	-	40,673,436
3	453,478,714	47,418,904	47,418,904	-	37,642,655	-	38,835,066
4	455,164,200	48,161,434	48,161,434	-	35,400,091	-	36,903,094
5	456,295,515	48,828,047	48,828,047	-	33,231,549	-	35,004,476
6	456,934,255	49,743,019	49,743,019	-	31,346,540	-	33,363,930
7	456,741,835	50,670,296	50,670,296	-	29,565,631	-	31,797,235
8	455,596,897	51,622,284	51,622,284	-	27,889,914	-	30,308,467
9	453,377,695	52,624,636	52,624,636	-	26,325,420	-	28,907,245
10	449,907,027	53,631,211	53,631,211	-	24,841,628	-	27,562,972
20	330,282,461	59,627,596	59,627,596	-	12,792,994	-	15,749,406
30	87,646,334	48,241,441	48,241,441	-	4,794,106	-	6,548,557
40	-	26,278,930	-	26,278,930	-	5,911,716	1,833,333
50	-	9,057,933	-	9,057,933	-	1,403,335	324,767
60	-	1,549,831	-	1,549,831	-	165,365	28,558
90	-	320	-	320	-	11	1
100	-	-	-	-	-	-	-
					\$553,192,381	\$106,808,323	\$661,451,699

* From Table 2.

** 6.88% was the single discount rate (rounded) 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).