

CITY OF SIOUX FALLS EMPLOYEE'S RETIREMENT SYSTEM SIXTY-FIFTH ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2015

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March 15, 2016

The Board of Trustees City of Sioux Falls Employee's Retirement System Sioux Falls, South Dakota

Ladies and Gentlemen:

The results of the December 31, 2015 actuarial valuation of the City of Sioux Falls Employee's Retirement System are presented in this report. Both this report and the Power Point presentation comprise the valuation results. The purpose of the valuation was to measure the System's funding progress, provide actuarial information in connection with applicable Governmental Accounting Standards Board Statements and to determine the employer contribution for the fiscal year beginning January 1, 2017. This report should not be relied upon for any other purpose. This report may be distributed to parties other than the Retirement Board only in its entirety and only with the permission of the Board.

The valuation was based upon the assumptions and methods adopted by the Board, information, furnished by the System, concerning Retirement System benefits, financial transactions, individual members, terminated members, retirees and beneficiaries. Data was checked for internal and year to year consistency, but was not otherwise audited by us. As a result, we are unable to assume responsibility for the accuracy or completeness of the data provided.

Future actuarial measurements may differ significantly from those presented in this report due to such factors as experience differing from that anticipated by actuarial assumptions, changes in plan provisions, actuarial assumptions/methods or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements.

To the best of our knowledge, this report is complete and accurate and the valuation was conducted in accordance with standards of practice prescribed by the Actuarial Standards Board and in compliance with the applicable state statutes. Louise M. Gates and James D. Anderson are independent of the plan sponsor and are members of the American Academy of Actuaries (MAAA) who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. It is our opinion that the actuarial assumptions used for the valuation produce results which are reasonable.

Respectfully submitted,

Louise M. Gates, ASA, MAAA

James D. Anderson, FSA, EA, MAAA

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LMG/MB:mrb

SECTION A

VALUATION RESULTS

FINANCIAL OBJECTIVE

The financial objective of the Retirement System is to establish and receive contributions which will accumulate reserves during members' working lifetimes which will be sufficient to pay promised benefits throughout retirement.

CONTRIBUTION RATES

The Retirement System is supported by member contributions, City contributions and investment income from Retirement System assets.

Contributions which satisfy the financial objective are determined by an annual actuarial valuation and are sufficient to:

- (1) cover the actuarial present value of benefits assigned to the current year by the actuarial cost methods described in Section C (the normal cost); and
- (2) amortize over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (unfunded actuarial accrued liability).

Pension contribution requirements for the year beginning January 1, 2017 are shown on page A-2.

PENSION CONTRIBUTIONS COMPUTED TO MEET THE FINANCIAL OBJECTIVE OF THE RETIREMENT SYSTEM FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2017

	Contribution Requirements				
Contributions for	General/Management	Police			
		*** *** * * * * * * *			
Total Normal Cost	\$5,296,715	\$3,471,181			
Employee Portion	1,815,187	1,372,551			
City Portion	3,481,528	2,098,630			
Unfunded Actuarial Accrued					
Liabilities (UAAL) Contribution	\$3,755,688	\$2,275,122			
Total Computed City-State Contribution	\$7,237,216	\$4,373,752			

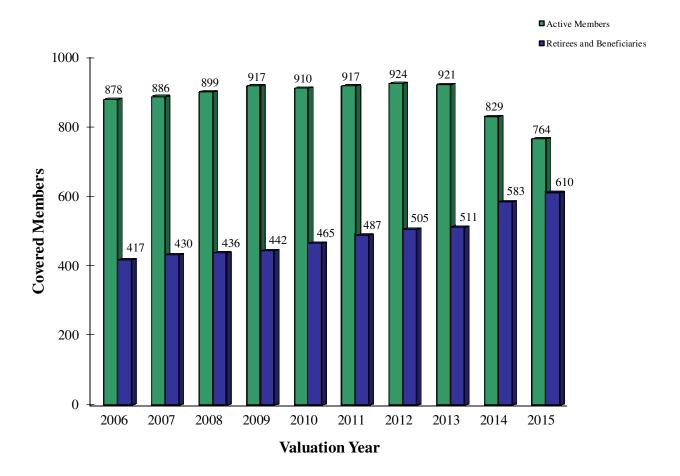
City General, Management and Police employees hired on or after July 1, 2013 will become members of the South Dakota Retirement System (SDRS) instead of joining the Retirement System. Contributions are expressed in terms of dollars in this report instead of as percents of payroll. This is due to the use of the level dollar amortization method (appropriate for systems closed to new hires) to finance the Retirement System's unfunded actuarial accrued liabilities (UAAL).

The Pension Plan's UAAL was amortized as a level dollar amount over a period of 22 years.

The Police employee contribution to the Pension Plan shown above was based on an employee contribution rate of 10.0% and plan member payroll projected to 2017. General and Management members will contribute 5.0% of pay during 2017.

The employer contribution shown above includes contributions for the stipend benefit which became effective January 1, 2014.

ACTIVE AND RETIRED PENSION PLAN MEMBERS GENERAL & POLICE COMBINED



The chart above shows current and future pension benefit recipients on each valuation date during the last 10 years.

COMPUTED CITY PENSION CONTRIBUTIONS COMPARATIVE STATEMENT

T 7 1		
Val	luation	

Fiscal	Date	% of Payroll	Contributions	Weighted	Level Dollar Contributions		ibutions
Year	December 31	General	Police	Average	General	Police	Total
2003	2001 **	7.77 %	14.42 %	9.45 %			
2004	2002	8.68	15.68	10.48			
2005	2003	9.43	13.96	10.65			
2006	2004 @	9.80	14.84	11.21			
2007	2005	10.38	14.96	11.67			
2008	2006	9.50	13.36	10.43			
2009	2007 **@	9.33	14.58	10.80			
2010	2008	10.93	17.66	12.73			
2011	2009	13.17	20.78	15.15			
2012	2010	12.86	20.72	14.91			
2013	2011 @	12.56	18.94	14.25			
2014	2012 @#				\$7,702,379	\$3,860,628	\$11,563,007
2015	2013 @				7,535,363	3,861,898	11,397,261
2016	2014 @				7,549,458	3,868,415	11,417,873
2017	2015 @				7,237,216	4,373,752	11,610,968

[@] After changes in actuarial assumptions or methods.

[#] After changes in benefit provisions.

^{**} Reflects full funding credit.

ACTUARIAL BALANCE SHEET - DECEMBER 31, 2015

Present Pension Resources and Expected Future Pension Resources

	General	Police	Total
A. Valuation assets	\$223,724,242	\$139,480,056	\$363,204,298
B. Actuarial present value of expected future employer contributions			
1. For normal costs	31,745,530	19,954,082	51,699,612
2. For unfunded actuarial accrued liabilities	42,456,808	25,034,270	67,491,078
3. Total	74,202,338	44,988,352	119,190,690
C. Actuarial present value of expected			
future member contributions	17,099,354	13,114,151	30,213,505
D. Total actuarial present value of present and expected future resources	\$315,025,934	\$197,582,559	\$512,608,493
and expected future resources	\$313,023,934	\$197,362,339	φ312,000,493
Actuarial Present Value of Expected Future	re Pension Be	nefit Payments	and Reserves
A. To retirees and beneficiaries	\$145,669,849	\$ 101,283,980	\$246,953,829
B. To vested terminated members	5,597,848	350,478	5,948,326
C. To present active members			
1. Allocated to service rendered prior			
to valuation date	114,913,353	62,879,868	177,793,221
2. Allocated to service likely to be			
rendered after valuation date	48,844,884	33,068,233	81,913,117
3. Total	163,758,237	95,948,101	259,706,338
D. Total actuarial present value of expected			
future benefit payments and reserves	\$315,025,934	\$197,582,559	\$512,608,493

DERIVATION OF ACTUARIAL GAIN (LOSS) YEAR ENDED DECEMBER 31, 2015

The actuarial gains or losses realized in the operation of the Retirement System's Pension Plan provide an experience test. Gains and losses are expected to cancel each other over a period of years but sizable year-to-year fluctuations are common. Details of the derivation of the actuarial gain (loss) are shown below.

	General	Police
(1) UAAL at start of year	\$46,392,289	\$20,146,610
(2) Normal cost	5,092,156	3,207,731
(3) Contributions *	11,294,900	6,422,799
(4) Interest accrual	3,382,922	1,460,626
(5) Expected UAAL before changes	43,572,467	18,392,168
(6) Change from benefit changes	0	0
(7) Change from revised actuarial assumptions	4,662,863	3,077,170
(8) Expected UAAL after changes	48,235,330	21,469,338
(9) Actual UAAL at end of year	42,456,808	25,034,270
(10) Gain (loss) (8) - (9)	5,778,522	(3,564,932)
(11) Gain (loss) as percent of AAL at start of year	2.28%	(2.38)%

^{*} Includes an end of year asset transfer of \$2,968,698 from the Unallocated Income Reserve

COMMENTS

Comment A: Retirement System pension experience was overall favorable during the 2015 plan year. During the year, the return on assets was lower than long term expectations. However, the market smoothing techniques used in this valuation of the System recognize both past and present investment experience. As a result the recognized rate of return for the year was 8.22% on total pension assets. Details of this asset smoothing method are shown on page B-5. In addition, actual post retirement cost of living adjustments were lower than assumed which contributed to the favorable experience. The transfer of employees between the two employment groups resulted in an experience loss for the Police division and a corresponding gain for the General division.

Comment B: There were no benefit changes reported to the actuary in connection with this report. There was however, a change made to the investment return assumption. Specifically, the investment return assumption was reduced from 7.65% to 7.50%. This change increased the actuary's assessment of plan liabilities.

Comment C: This valuation of the plan reflects a transfer of assets (\$2,968,698) from the Unallocated Income Reserve (URI) to the Pension Reserve for use in determining employer contributions to the pension plan. As of the valuation date, the value of assets in the URI is \$0.

Comment D: The Appendix of this report includes the results of the actuarial valuation of the retiree health program using assumptions and methods required by the Governmental Accounting Standards Board (GASB). The City's policy is to make contributions to the retiree health plan at 100% of the contributions recommended by the actuary. The Appendix of this report includes additional information about this valuation.

Comment E: During the 2015 plan year, the return on retiree health plan assets was lower than long term expectations. This valuation of the plan also reflects a change in the investment return assumption and a minor change in the health inflation assumption. Although the health plan experience during 2015 and the assumption changes reduced the level of funding surplus from the prior year, the health plan continues to have a funding surplus as of the valuation date. As a result of the funding surplus, no City contribution is recommended to the retiree health plan for the 2017 fiscal year.

COMMENTS

Comment F: The pension plan's funding percent based on the actuarial value of assets is 84.3% as of the valuation date. If the market value of pension assets were used to determine the funding percent, the result would be 83.7% as of the valuation date.

Unless otherwise indicated, the pension funding status measurement presented in this report is based upon the actuarial accrued liability and the actuarial value of assets. With regard to the funding status measurement presented in this report, it is important to note the following:

- The measurement is inappropriate for assessing the sufficiency of pension plan assets to cover the estimated cost of settling the plan's benefit obligations
- The measurement is inappropriate for assessing the need for or the amount of future employer contributions
- The measurement will produce different results if the market value of assets is used instead of
 the actuarial value of assets, unless the actuarial value of assets equals the market value of
 assets.

CONTRIBUTION SUMMARY FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2017

General/Management
Computed Employer Contributions

	Computed	Computed Employer Contributions			
Contributions for	Pension	Health	Total		
	ΦΞ 22Ξ 21 6	40	ΦΞ 22Ξ 21 (
Total Computed City Contribution	\$7,237,216	\$0	\$7,237,216		

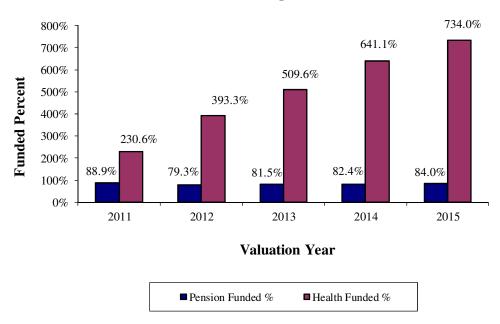
The pension contribution was based on a 22 year amortization of the UAAL. The retiree Health plan surplus resulted in a \$0 contribution for the 2017 fiscal year.

		Police			
	Computed	Computed Employer Contributions			
Contributions for	Pension	Health	Total		
Total Computed City Contribution	\$4,373,752	\$0	\$4,373,752		

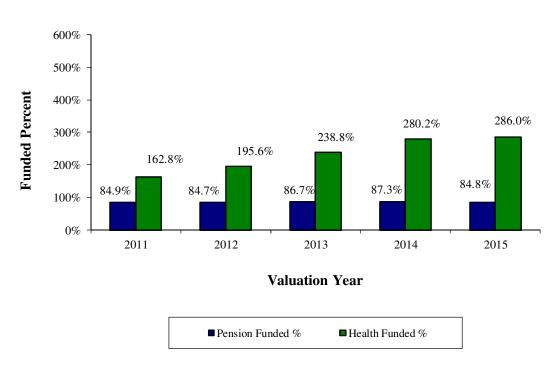
The pension contribution was based on a 22 year amortization of the UAAL. The retiree Health plan surplus resulted in a \$0 contribution for the 2017 fiscal year.

PENSION AND RETIREE HEALTH FUNDED RATIO HISTORY

General/Management



Police



SECTION B SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

BENEFIT PROVISIONS EVALUATED AND/OR CONSIDERED (DECEMBER 31, 2015)

Retirement System Eligibility:

New City employees (General, Management and Police) hired on or before June 30, 2013 will become members of this Retirement System. Individuals hired or rehired after June 30, 2013 will become members of the South Dakota Retirement System.

Regular Unreduced Retirement:

Eligibility - General members: age 55 with 30 or more years of service, or age 60 with 5 years of service.

Police: age 50 with 25 years of service, or age 60 with 15 years of service.

Mandatory Retirement Age - Police: age 60 (age 65 with employer consent).

Annual Amount - General members: 1.8% of final average pay times years of service.

Police: final average pay times the sum of a) 2.5% times the first 25 years of service, plus b) 1.5% times service in excess of 25 years.

Type of Final Average Pay - Highest 3 consecutive years out of last 10. Some lump sums are included.

Early Reduced Retirement:

Eligibility - 20 or more years of service.

Annual Amount - Same as regular retirement except that the benefit is actuarially reduced.

Deferred Retirement (vested benefit):

Eligibility - General Members: 5 years of service. Benefit commences at deferred retirement age.

Police: 15 years of service. Benefit commences at deferred retirement age.

Annual Amount - Computed as a regular retirement benefit based on service and final average pay at termination.

Duty Disability Retirement:

Eligibility - No age or service requirement.

Annual Amount - Computed as a regular retirement benefit. If disabled before eligible for regular retirement, additional service is credited for the period between disability and the time member would have been eligible for regular retirement if he had not been disabled. Minimum benefit is 12.5% of final average pay for general members and 20% of final average pay for police. Worker's Compensation payments are offset.

BENEFIT PROVISIONS EVALUATED AND/OR CONSIDERED (DECEMBER 31, 2015)

Non-Duty Disability Retirement:

Eligibility - 10 years of service.

Annual Amount - Computed as a regular retirement benefit based on service and final average pay at time of disability. Worker's Compensation payments are offset.

Duty Death Before Retirement:

Eligibility - No age or service requirement. Worker's Compensation must be payable.

Annual Amount - Refund of accumulated contributions. Spouse receives pension of 1/3 of final average pay until death. Unmarried children under age 18 or an eligible handicapped child each receive an equal share of 1/6 of final average pay (if no spouse each child receives 1/4 to a maximum of 1/2). If no spouse or eligible children, dependent parents each receive 1/6 of final average pay (each parent's pension limited to \$600 annually). Worker's Compensation payments are offset.

Non-Duty Death Before Retirement:

Eligibility - 10 years of service.

Annual Amount - Spouse (or some other dependent if an Option B election was in force) receives a benefit computed as regular retirement benefit but actuarially reduced in accordance with a 100% joint and survivor election. Minimum benefit is \$360 annually. If no Option B election is in force, each unmarried child under age 18 or an eligible handicapped child receives \$2,400 annually. If no Option B election is in force and there is no eligible spouse, member contributions are refunded.

Post-Retirement Cost-of-Living Adjustments: Annual increase equal to 100% of the June CPI of each year (with a cap of 3%) applied to the member's current benefit. The first increase will be granted after 36 months of retirement.

Employee Contributions:

Division	On or Before December 31, 2013	As of January 6, 2014	As of January 5, 2015
General/Management	3% of Compensation	4% of Compensation	5% of Compensation
Police	8% of Compensation	9% of Compensation	10% of Compensation

BENEFIT PROVISIONS EVALUATED AND/OR CONSIDERED (DECEMBER 31, 2015)

Stipend Benefit:

Eligibility – Members who retire from City employment (regular, early reduced or disability retirement) after December 31, 2013 are eligible to receive a monthly stipend benefit payable from the Retirement System until age 65 (or Medicare eligibility) in lieu of retiree health plan benefits.

Annual Amount - \$40 per month times years of service at retirement. Benefit is payable to the member only until he/she becomes eligible for Medicare or dies (if earlier). No benefit is payable to a surviving spouse or child of a deceased Retirement System Member. Benefit increases by 3% each year beginning in January 2015.

Retiree Health Plan Benefit:

Eligibility – Eligible Retirement System members (and their eligible spouses) who retire from the City employment on or before December 31, 2013 are eligible to join the City Sponsored Retiree Health Plan at retirement.

Annual Amount – Medical, prescription drug and dental benefits are provided to eligible retirees and spouses until attainment of age 65 (or Medicare eligibility). The benefit recipient pays for 50% of the monthly premium amount.

REPORTED FUND BALANCES (MARKET VALUE)

	Fund Balances as of
Reserves	December 31, 2015
Annuity Savings Fund	
General division	\$ 23,137,780
Police division	17,310,309
Totals	40,448,089
Employer Reserve Fund	
General division	106,298,152
Police division	45,691,711
Totals	151,989,863
Retirement Reserve Fund	
General division	92,782,922
Police division	75,190,736
Totals	167,973,658
Unallocated Income	
General division	0
Police division	0
Totals	0
IRC 401(h)	
General division	17,266,966
Police division	7,250,763
Totals	24,517,729
Income Fund	0
Expense Fund	234,976
Total Balances	\$385,164,315

DERIVATION OF VALUATION ASSETS

			Unallocated			
	Pension	Health	Sub-Total	Income	Grand Total	
A. Funding Value, 12/31/14	\$336,318,027	\$26,129,460	\$362,447,487	\$2,968,698	\$365,416,185	
B. Market Value, Beginning of Year			387,620,887	2,968,698	390,589,585	
C. Non-Investment Net Cash Flow	(722,949)	(615,920)		(2,968,698)		
D. Net Investment Income (Market total)	(121,892)					
E. Market Value, End of Year			385,164,315	0	385,164,315	
F. Phase-in Factor	20%					
G. Expected Income**	25,587,124	(995,811)				
H. Market Value Gain (Loss): [(D) – (G)]	(25,709,016)					
I. Method Change						
J. Recognition of Gain/(Loss)						
1. Year One	(5,141,803)					
2. Year Two	163,279					
3. Year Three	7,114,683					
4. Year Four	3,290,305					
J5. Year Five	(3,404,368)					
6. Total (J1J5)	2,022,096					
K. Funding Value, 12/31/15						
	262 204 200	24,517,729	387,722,027	0	387,722,027	
[(A) + (C) + (G) + (J6)]	363,204,298	24,317,729	307,722,027	O	,	
[(A) + (C) + (G) + (J6)] L. Net Funding Value Rate of Return	363,204,298 8.22%	(3.86)%	301,122,021	v		

MARKET VALUE OF ASSETS REPORTED FOR VALUATION COMPARATIVE STATEMENT

Assets	Revenues			Expenses			
Beginning	Employee	Employer	Investment	Retirement	Contrib.	Misc.	Assets
of Year	Contrib.	Contrib. #	Income	Benefits	Refunds	Expenses*	Year-End
\$ 158,159,427	\$1,359,825	\$3,537,191	\$ (1,535,524)	\$6,190,412	\$ 237,070	\$ 541,518	\$ 154,551,919
154,551,919	1,442,154	3,896,795	(14,929,083)	6,600,911	182,350	664,456	137,514,068
137,514,068	1,593,939	4,373,347	36,238,185	6,915,649	132,505	703,505	171,967,880
171,967,880	1,718,969	5,261,202	24,644,820	7,403,924	188,094	758,667	195,242,186
195,242,186	1,829,649	5,769,159	17,035,074	8,014,168	182,999	1,055,818	210,623,083
210,623,083	1,907,951	5,975,325	33,030,851	8,662,750	189,338	1,253,516	241,431,606
241,431,606	2,001,290	7,896,489	19,937,351	9,262,791	199,779	1,416,037	260,388,129
260,388,129	2,065,615	7,710,786	(71,138,091)	10,005,006	275,474	1,429,420	187,316,539
187,316,539	2,272,170	8,433,917	46,453,891	10,471,659	90,776	1,292,212	232,621,870
232,621,871	2,241,213	9,554,056	32,715,573	11,150,501	197,614	938,610	264,845,988
264,845,988	2,252,998	10,599,328	5,091,133	12,037,530	115,034	1,102,784	269,534,099
269,534,099	2,335,451	11,346,909	39,210,054	12,972,156	300,274	1,130,962	308,023,121
308,023,121	2,428,547	11,778,953	61,515,708	13,508,748	264,954	1,037,143	368,935,484
368,935,484	2,966,452	10,670,106	25,331,700	16,145,874	237,783	930,500	390,589,585
390,589,585	3,331,128	11,417,873	(922,260)	18,173,306	267,342	811,363	385,164,315
	\$ 158,159,427 154,551,919 137,514,068 171,967,880 195,242,186 210,623,083 241,431,606 260,388,129 187,316,539 232,621,871 264,845,988 269,534,099 308,023,121 368,935,484	Beginning of YearEmployee Contrib.\$ 158,159,427\$1,359,825154,551,9191,442,154137,514,0681,593,939171,967,8801,718,969195,242,1861,829,649210,623,0831,907,951241,431,6062,001,290260,388,1292,065,615187,316,5392,272,170232,621,8712,241,213264,845,9882,252,998269,534,0992,335,451308,023,1212,428,547368,935,4842,966,452	Beginning of YearEmployee Contrib.Employer Contrib. #\$ 158,159,427\$1,359,825\$3,537,191\$ 154,551,9191,442,1543,896,795\$ 137,514,0681,593,9394,373,347\$ 171,967,8801,718,9695,261,202\$ 195,242,1861,829,6495,769,159\$ 210,623,0831,907,9515,975,325\$ 241,431,6062,001,2907,896,489\$ 260,388,1292,065,6157,710,786\$ 187,316,5392,272,1708,433,917\$ 232,621,8712,241,2139,554,056\$ 264,845,9882,252,99810,599,328\$ 269,534,0992,335,45111,346,909\$ 308,023,1212,428,54711,778,953\$ 368,935,4842,966,45210,670,106	Beginning of YearEmployee Contrib.Employer Contrib. #Investment Income\$ 158,159,427 154,551,919 1,342,154 137,514,068 195,242,186\$1,359,825 1,718,969 1,718,969 1,829,649\$3,896,795 5,261,202 24,644,820 5,769,159\$14,929,083 36,238,185 171,967,880 1,718,969 5,261,202 5,769,159\$17,035,074210,623,083 241,431,606 241,431,606 241,431,606 241,431,606 241,431,639 241,431,639 241,431,639 241,431,639 241,431,639 241,431,639 241,431,639 241,431,639 241,431,639 	Beginning of YearEmployee Contrib.Employer Contrib. #Investment IncomeRetirement Benefits\$ 158,159,427\$1,359,825\$3,537,191\$ (1,535,524)\$6,190,412\$ 154,551,9191,442,1543,896,795(14,929,083)6,600,911\$ 137,514,0681,593,9394,373,34736,238,1856,915,649\$ 171,967,8801,718,9695,261,20224,644,8207,403,924\$ 195,242,1861,829,6495,769,15917,035,0748,014,168\$ 210,623,0831,907,9515,975,32533,030,8518,662,750\$ 241,431,6062,001,2907,896,48919,937,3519,262,791\$ 260,388,1292,065,6157,710,786(71,138,091)10,005,006\$ 187,316,5392,272,1708,433,91746,453,89110,471,659\$ 232,621,8712,241,2139,554,05632,715,57311,150,501\$ 264,845,9882,252,99810,599,3285,091,13312,037,530\$ 269,534,0992,335,45111,346,90939,210,05412,972,156\$ 308,023,1212,428,54711,778,95361,515,70813,508,748\$ 368,935,4842,966,45210,670,10625,331,70016,145,874	Beginning of YearEmployee Contrib.Employer Contrib. #Investment IncomeRetirement BenefitsContrib. Refunds\$ 158,159,427\$1,359,825\$3,537,191\$ (1,535,524)\$6,190,412\$ 237,070\$ 154,551,919\$1,442,154\$3,896,795\$(14,929,083)\$6,600,911\$182,350\$ 137,514,068\$1,593,939\$4,373,347\$36,238,185\$6,915,649\$132,505\$ 171,967,880\$1,718,969\$5,261,202\$24,644,820\$7,403,924\$188,094\$ 195,242,186\$1,829,649\$5,769,159\$17,035,074\$8,014,168\$182,999\$ 210,623,083\$1,907,951\$5,975,325\$33,030,851\$8,662,750\$189,338\$ 241,431,606\$2,001,290\$7,896,489\$19,937,351\$9,262,791\$199,779\$ 260,388,129\$2,065,615\$7,710,786\$(71,138,091)\$10,005,006\$275,474\$ 187,316,539\$2,272,170\$8,433,917\$46,453,891\$10,471,659\$90,776\$ 232,621,871\$2,241,213\$9,554,056\$32,715,573\$11,150,501\$197,614\$ 264,845,988\$2,252,998\$10,599,328\$5,091,133\$12,037,530\$115,034\$ 269,534,099\$2,335,451\$11,346,909\$39,210,054\$12,972,156\$300,274\$ 308,023,121\$2,428,547\$11,778,953\$61,515,708\$13,508,748\$264,954\$ 368,935,484\$2,966,452\$10,670,106\$25,331,700\$16,145,874\$237,783	Beginning of YearEmployee Contrib.Employer Contrib. #Investment IncomeRetirement BenefitsContrib. RefundsMisc. Refunds\$ 158,159,427\$1,359,825\$3,537,191\$ (1,535,524)\$6,190,412\$ 237,070\$ 541,518\$ 154,551,9191,442,1543,896,795(14,929,083)6,600,911182,350664,456\$ 137,514,0681,593,9394,373,34736,238,1856,915,649132,505703,505\$ 171,967,8801,718,9695,261,20224,644,8207,403,924188,094758,667\$ 195,242,1861,829,6495,769,15917,035,0748,014,168182,9991,055,818\$ 210,623,0831,907,9515,975,32533,030,8518,662,750189,3381,253,516\$ 241,431,6062,001,2907,896,48919,937,3519,262,791199,7791,416,037\$ 260,388,1292,065,6157,710,786(71,138,091)10,005,006275,4741,429,420\$ 187,316,5392,272,1708,433,91746,453,89110,471,65990,7761,292,212\$ 232,621,8712,241,2139,554,05632,715,57311,150,501197,614938,610\$ 264,845,9882,252,99810,599,3285,091,13312,037,530115,0341,102,784\$ 269,534,0992,335,45111,346,90939,210,05412,972,156300,2741,130,962\$ 308,023,1212,428,54711,778,95361,515,70813,508,748264,9541,037,143\$ 368,935,4842,966,452

^{*} Includes retiree health benefits

Note: Employer contributions in 2013 include contributions to the unallocated income reserve Employer contributions in 2014 exclude amounts transferred from the unallocated income reserve

[#] Pension and retiree health

ADDITIONS TO AND REMOVALS FROM RETIRED/SURVIVOR MEMBERSHIP COMPARATIVE STATEMENT

	Additions	R	emovals	Er	nd of Year	Average	Present	
	Annual		Annual		Annual	Annual	Value of	Expected
No.	Benefits*	No.	Benefits	No.	Benefits	Benefits	Benefits	Removals
22	\$ 561,207	23	\$ 274,403	368	\$ 6,443,668	\$ 17,510	\$ 80,195,604	11.3
21	397,601	15	140,349	374	6,700,920	17,917	82,787,796	11.2
37	566,899	28	280,190	383	6,987,629	18,244	85,924,411	11.2
24	749,117	11	159,821	396	7,576,925	19,134	90,336,864	11.3
33	1,007,507	20	246,108	409	8,338,324	20,387	100,153,352	12.4
25	802,970	17	281,824	417	8,859,470	21,246	105,705,500	12.5
25	920,591	12	100,174	430	9,679,887	22,511	116,479,480	12.7
21	707,365	15	251,647	436	10,135,605	23,247	124,265,687	13.0
16	715,776	10	155,652	442	10,695,729	24,198	130,284,387	13.5
39	1,183,836	16	258,781	465	11,620,784	24,991	140,993,607	14.3
37	1,069,943	15	295,874	487	12,394,854	25,451	150,800,949	15.1
26	978,426	8	141,390	505	13,231,890	26,202	168,103,297	15.6
21	670,763	15	335,453	511	13,567,200	26,550	174,649,168	13.8
83	3,078,647	11	224,445	583	16,421,402	28,167	221,871,914	13.3
54	1,943,715	27	527,439	610	17,837,678	29,242	246,953,829	14.6
	22 21 37 24 33 25 25 21 16 39 37 26 21 83	No.Annual Benefits*22\$ 561,20721397,60137566,89924749,117331,007,50725802,97025920,59121707,36516715,776391,183,836371,069,94326978,42621670,763833,078,647	Annual No. 22 \$ 561,207 23 21 397,601 15 37 566,899 28 24 749,117 11 33 1,007,507 20 25 802,970 17 25 920,591 12 21 707,365 15 16 715,776 10 39 1,183,836 16 37 1,069,943 15 26 978,426 8 21 670,763 15 83 3,078,647 11	No.Annual Benefits*Annual No.Annual Benefits22\$ 561,20723\$ 274,40321397,60115140,34937566,89928280,19024749,11711159,821331,007,50720246,10825802,97017281,82425920,59112100,17421707,36515251,64716715,77610155,652391,183,83616258,781371,069,94315295,87426978,4268141,39021670,76315335,453833,078,64711224,445	Annual Annual No. Benefits No. 22 \$ 561,207 23 \$ 274,403 368 21 397,601 15 140,349 374 37 566,899 28 280,190 383 24 749,117 11 159,821 396 33 1,007,507 20 246,108 409 25 802,970 17 281,824 417 25 920,591 12 100,174 430 21 707,365 15 251,647 436 16 715,776 10 155,652 442 39 1,183,836 16 258,781 465 37 1,069,943 15 295,874 487 26 978,426 8 141,390 505 21 670,763 15 335,453 511 83 3,078,647 11 224,445 583	No.Annual No.Annual BenefitsNo.Annual Benefits22\$ 561,20723\$ 274,403368\$ 6,443,66821397,60115140,3493746,700,92037566,89928280,1903836,987,62924749,11711159,8213967,576,925331,007,50720246,1084098,338,32425802,97017281,8244178,859,47025920,59112100,1744309,679,88721707,36515251,64743610,135,60516715,77610155,65244210,695,729391,183,83616258,78146511,620,784371,069,94315295,87448712,394,85426978,4268141,39050513,231,89021670,76315335,45351113,567,200833,078,64711224,44558316,421,402	No. Annual Benefits* Annual No. Annual Benefits Annual Benefits Annual Benefits 22 \$ 561,207 23 \$ 274,403 368 \$ 6,443,668 \$ 17,510 21 397,601 15 140,349 374 6,700,920 17,917 37 566,899 28 280,190 383 6,987,629 18,244 24 749,117 11 159,821 396 7,576,925 19,134 33 1,007,507 20 246,108 409 8,338,324 20,387 25 802,970 17 281,824 417 8,859,470 21,246 25 920,591 12 100,174 430 9,679,887 22,511 21 707,365 15 251,647 436 10,135,605 23,247 16 715,776 10 155,652 442 10,695,729 24,198 39 1,183,836 16 258,781 465 11,620,784 24,991 <	No. Annual Benefits* Annual No. Annual Benefits Annual Benefits Annual Benefits Value of Benefits 22 \$ 561,207 23 \$ 274,403 368 \$ 6,443,668 \$ 17,510 \$ 80,195,604 21 397,601 15 140,349 374 6,700,920 17,917 82,787,796 37 566,899 28 280,190 383 6,987,629 18,244 85,924,411 24 749,117 11 159,821 396 7,576,925 19,134 90,336,864 33 1,007,507 20 246,108 409 8,338,324 20,387 100,153,352 25 802,970 17 281,824 417 8,859,470 21,246 105,705,500 25 920,591 12 100,174 430 9,679,887 22,511 116,479,480 21 707,365 15 251,647 436 10,135,605 23,247 124,265,687 16 715,776 10 155,652 442

^{*} Includes post-retirement cost-of-living adjustments

RETIREES AND BENEFICIARIES AS OF DECEMBER 31, 2015 TABULATED BY TYPE OF BENEFITS BEING PAID

Type of Benefits Being Paid	No.	Annual Benefits	No.	Annual Stipend
Age and Service Retirement Benefits	512	\$ 15,870,402	100	\$ 1,373,031
Disability Retirement Benefits*	22	509,644	0	0
Survivor Retirement Benefits	76	1,457,632	0	0
Total Retirement Benefits Being Paid	610	\$17,837,678	100	\$1,373,031

^{*} Includes survivors of disabled retirees

RETIREES AND BENEFICIARIES BY AGE AS OF DECEMBER 31, 2015

Age	No.	Annual Benefits	No.	Annual Stipend
45 - 49	5	\$ 176,846	3	\$ 36,462
50 - 54	25	1,149,015	20	269,159
55 - 59	57	2,121,610	30	469,680
60 - 64	141	4,424,125	47	597,730
65 - 69	138	4,036,046	0	0
70 - 74	91	2,614,611	0	0
75 - 79	65	1,628,476	0	0
80 - 84	45	949,113	0	0
85 - 89	30	582,923	0	0
90 & Over	13	154,913	0	0
Totals	610	\$17,837,678	100	\$1,373,031

VESTED FORMER MEMBERS AS OF DECEMBER 31, 2015 TABULATED BY AGE

		Monthly
Age	No.	Benefits
Under 40	13	\$ 113,820
40 - 44	10	118,533
45 - 49	9	77,716
50 - 54	15	214,817
55 - 59		256,011
Totals	68	\$ 780,897

ACTIVE MEMBERS AS OF DECEMBER 31, 2015 TABULATED BY VALUATION DIVISION

		Annual		Average	
Valuation Groups	No.	Payroll	Age	Service	Pay
General/Management Members	582	\$36,165,882	46.4 yrs.	13.8 yrs.	\$62,141
Police Members	182	13,151,828	40.7	13.3	72,263
Total Active Members	764	\$49,317,710	45.0	13.7	\$64,552

ACTIVE MEMBERS INCLUDED IN VALUATION COMPARATIVE SCHEDULE

Valuation								
Date	Acti	ve Memb	ers	Valuation			Average	
December 31	General	Police	Totals	Payroll	Age	Service	Pay	% Incr.
2001	611	178	789	\$31,751,356	42.6	11.7	\$40,243	5.4 %
2002	626	182	808	33,718,220	43.0	11.8	41,730	3.7
2003	636	203	839	36,244,556	42.8	11.7	43,200	3.5
2004	642	212	854	38,539,387	43.1	11.7	45,128	4.5
2005	654	218	872	40,492,380	43.0	11.6	46,436	2.9
2006	664	214	878	42,456,531	43.4	11.9	48,356	4.1
2007	669	217	886	44,646,848	43.5	11.9	50,391	4.2
2008	676	223	899	46,433,304	43.8	12.2	51,650	2.5
2009	698	219	917	51,510,466	44.1	12.5	56,173	8.8
2010	687	223	910	49,893,917	44.1	12.6	54,828	(2.4)
2011	690	227	917	50,604,786	44.1	12.5	55,185	0.7
2012	696	228	924	52,015,637	44.2	12.7	56,294	2.0
2013	694	227	921	54,261,035	44.6	13.2	58,915	4.7
2014	630	199	829	51,346,952	44.6	13.1	61,938	5.1
2015	582	182	764	49,317,710	45.0	13.7	64,552	4.2

ADDITIONS TO AND REMOVALS FROM ACTIVE MEMBERSHIP ACTUAL AND EXPECTED NUMBERS

Year Ended	Du	er Added uring Year	Retii	rement		ability rement_		d-In- rvice	_	other inations	Active Members End of
Dec. 31	A	E	A	E	A	E	A	E	A	E	Year
2006	56	50	14	14.0	0	1.1	0	1.2	36	31.4	878
2007	57	49	22	16.7	0	1.1	1	1.3	26	29.9	886
2008	54	41	11	18.5	1	1.2	0	1.3	29	29.9	899
2009	48	30	12	24.8	0	1.2	0	1.4	18	29.4	917
2010	51	58	30	27.6	0	1.2	0	1.5	28	29.3	910
2011	64	57	27	25.1	0	1.2	0	1.6	30	29.0	917
2012	60	53	19	26.7	1	1.1	0	1.6	33	30.2	924
2013	39	0	12	27.1	2	1.3	0	1.2	28	29.8	921
2014	0	0	72	33.0	0	1.4	0	1.2	20	28.2	829
2015	0	0	41	22.2	0	1.3	0	1.0	24	23.7	764
5-Year Totals	s 163	110	171	134.1	3	6.3	0	6.6	135	140.9	

A represents actual number.

E represents expected number based on assumptions outlined in Section C.

GENERAL/MANAGEMENT ACTIVE MEMBERS - DECEMBER 31, 2015 BY AGE AND YEARS OF SERVICE

		Years	s of Serv	9	Totals				
									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
25.20	25	_						20	ф 1 270 020
25-29	25	5						30	\$ 1,378,029
30-34	22	30	6					58	3,083,961
35-39	19	37	28	11				95	5,743,432
40-44	9	21	19	11	4			64	4,117,405
45-49	9	14	20	21	9	4		77	5,130,698
50-54	6	11	21	17	17	16	13	101	6,616,237
55-59	12	11	17	24	11	22	12	109	6,879,077
60	1	1	2	2	4	3	2	15	1,066,644
61			2	1	1	1	2	7	464,101
62		1		1	2	4		8	579,826
63					1	1	1	3	170,062
64	1	1		2				4	216,640
65		1	2	1				4	242,291
66			2		1	1		4	264,544
67	1				1			2	172,842
68					1			1	40,093
Totals	105	133	119	91	52	52	30	582	\$36,165,882

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 46.4 years Service: 13.8 years Annual Pay: \$62,141

POLICE ACTIVE MEMBERS - DECEMBER 31, 2015 BY AGE AND YEARS OF SERVICE

		Ye	Totals						
									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
25-29	14	4						18	\$ 1,049,419
30-34	3	16	7					26	1,732,326
35-39	3	10	20	2				35	2,463,152
40-44		3	22	15	4			44	3,310,770
45-49			7	13	13	2		35	2,699,620
50-54			3	2	8	4		17	1,396,410
55-59			3	1	3			7	500,131
Totals	20	33	62	33	28	6	0	182	\$13,151,828

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 40.7 years Service: 13.3 years Annual Pay: \$72,263

SECTION C

ACTUARIAL METHODS, ASSUMPTIONS AND DEFINITIONS OF TECHNICAL TERMS

ACTUARIAL METHODS USED FOR THE VALUATION

Actuarial Cost Method

The normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- (i) the annual normal costs for each individual active member, payable from the member's actual date of employment to projected date of retirement, are sufficient to accumulate the actuarial present value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Amortization of Unfunded Actuarial Accrued Liabilities

The Pension Plan unfunded actuarial accrued liability (UAAL) was determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment (one component of the contribution requirement), was developed using a level dollar amortization method that fully amortizes the UAAL over a 22 year period.

Asset Valuation Method

The funding value of assets used in the Pension Plan valuation recognizes assumed investment income fully each year. Differences between actual and assumed investment income are phased in over a 5-year period. During periods when investment performance exceeds the assumed rate, the funding value of assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, the funding value of assets will tend to be greater than market value. This is the result of phasing in differences between actual investment income (market value basis) and expected investment income (funding value basis).

The Retiree Health Plan valuation uses a Market Value of Assets to develop the UAAL.

Investment Return (net of expenses).

7.50% per year, compounded annually. This rate consists of a net real rate of return of 3.25% a year plus a long-term rate of wage inflation of 4.25% a year.

This assumption is used to equate the value of payments due at different points in time and was first used for the December 31, 2015 valuation.

Pay Projections: These assumptions are used to project current pays to those upon which benefits will be based.

	Annual Rate of Pay Increase for Sample Ages						
Sample	Base Management						
Ages	(Economic)	Merit and Longevity	Totals				
20	4.25 %	2.00 %	6.25 %				
25	4.25	2.00	6.25				
30	4.25	1.00	5.25				
35	4.25	1.00	5.25				
40	4.25	0.50	4.75				
45	4.25	0.50	4.75				
50	4.25	0.20	4.45				
55	4.25	0.20	4.45				
60	4.25	0.10	4.35				
65	4.25	0.00	4.25				

Annual Rate of Pay Increase for Indicated Years of Service

	Annual Rate of Pay Increase for Indicated Years of Service							
Years of	Base	General		Police				
Service	(Economic)	Merit and Longevity	Total	Merit and Longevity	Total			
1	4.25 %	3.50 %	7.75 %	5.00 %	9.25 %			
2	4.25	3.50	7.75	5.00	9.25			
3	4.25	3.50	7.75	4.70	8.95			
4	4.25	3.00	7.25	4.50	8.75			
5	4.25	2.50	6.75	2.20	6.45			
6	4.25	2.00	6.25	2.20	6.45			
7	4.25	2.00	6.25	2.10	6.35			
8	4.25	2.00	6.25	2.10	6.35			
9	4.25	2.00	6.25	2.00	6.25			
10	4.25	2.00	6.25	2.00	6.25			
11	4.25	2.00	6.25	2.00	6.25			
12	4.25	2.00	6.25	2.00	6.25			
13	4.25	2.00	6.25	1.00	5.25			
14	4.25	1.00	5.25	0.00	4.25			
15	4.25	0.00	4.25	0.00	4.25			

The base economic assumptions were first used in the December 31, 2007 valuation. The merit and longevity assumptions were first used for the December 31, 2012 valuation.

The assumed rate of price inflation is 3.0% per year.

Mortality Table: The RP2000 Mortality Combined Health Table projected to 2020 using Projection Scale BB was used for both men and women. Sample values follow:

	Future Life					
	Expectan	cy (Years)				
Sample	Genera	ıl/Police				
Ages	Men	Women				
55	28.37	30.90				
60	23.94	26.34				
65	19.74	21.98				
70	15.83	17.93				
75	12.26	14.25				
80	9.13	10.95				

Rates of separation from active membership: The rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment.

			Percent Separating			
S	ample	Years of	within Next Year			
Ages		Service	General/Management	Police		
	ALL	0	11.00 %	7.00 %		
		1	10.00	5.00		
		2	8.00	3.50		
		3	8.00	3.50		
		4	7.00	3.00		
	25	5 & Over	5.00	3.50		
	30		5.00	3.00		
	35		4.50	2.50		
	40		3.50	2.00		
	45		2.50	1.00		
	50		1.50	1.00		
	55		1.00	0.50		
	60		0.50	0.50		

The years of service rates were first used for the December 31, 2012 valuation. The age based rates were first used for the December 31, 2004 valuation.

Rates of Disability: These assumptions represent the probabilities of active members becoming disabled.

Sample	Percent Becoming Disabled			
Ages	within Next Year			
20	0.08 %			
25	0.08			
30	0.08			
35	0.08			
40	0.20			
45	0.27			
50	0.49			
55	0.89			

Rates of Retirement: These rates are used to measure the probabilities of an eligible member retiring under the Regular and Early Reduced retirement provisions during the next year.

	Regular Retire	ement Rates	Early Retirement Rates		
Retirement	General/		Years of	General/	
Ages	Management	Police	Service	Management	Police
50		2501	20	201	0.07
50		35%	20	2%	2%
51		35	21	2	2
52		35	22	2	2
53		30	23	2	2
54		25	24	2	2
55	20%	20	25	2	2
56	20	20	26	2	2
57	20	20	27	2	2
58	20	20	28	2	2
59	20	20	29	2	2
60	30	100	30	2	2
61	20	100	31		2
62	30	100	32		2
63	20	100	33		2
64	20	100	34		2
65	20	100	35		2
66	20	100			
67	20	100			
68	20	100			
69	20	100			
70	100	100			

General and Management members were assumed to be eligible for regular retirement after attaining age 55 with 30 years of service, or age 60 with 5 years of service. These members were assumed to be eligible for early reduced retirement after completing 20 years of service.

A Police member was assumed eligible for retirement after attaining age 50 with 25 years of service, or, after attaining age 60 with 15 or more years of service. Police members were assumed to be eligible for early reduced retirement after completing 20 years of service.

The early retirement rates were first used for the December 31, 2004 valuation. The regular retirement rates were first used for the December 31, 2012 valuation.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption: 80% of participants are assumed to be married for purposes

of death-in-service benefits. In each case the male was

assumed to be 3 years older than the female.

Pay Increase Timing: Beginning of year.

Decrement Timing: Decrements of all types are assumed to occur mid-year.

Eligibility Testing: Eligibility for benefits is determined based upon the age

nearest birthday and service nearest whole year on the date

the decrement is assumed to occur.

Benefit Service: Exact fractional service is used to determine the amount of

benefit payable.

Other: Disability and turnover decrements do not operate during

retirement eligibility.

Miscellaneous Loading Factors: The calculated retirement benefits were increased by 9% for

General/Management and 11% for Police to account for the inclusion of unused sick leave and vacation time in the calculation of Final Average Compensation and by 1% to account for the impact of subsidized optional forms of

payment.

Death/Disability: Fifty percent of disabilities and deaths for Police were

assumed to be duty related. Fifty percent were assumed to be unrelated to duty. Twenty-five percent of disabilities for General/Management were assumed to be duty related. Seventy-five percent were assumed to be unrelated to duty. The recovery rate from disability was assumed to be 0 (i.e., no disabled individual was assumed to recover and return to

work).

Forfeiture Assumption: General and Management members who terminate close to

retirement were assumed to elect a deferred retirement while those terminating with less service were assumed to elect a refund of their contributions in lieu of deferred retirement benefits. All vested terminated Police members were

assumed to elect a deferred retirement benefit.

DEFINITIONS OF TECHNICAL TERMS

Accrued Service - Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability - The difference between the actuarial present value of system benefits and the actuarial present value of future normal costs. Also referred to as "past service liability."

Actuarial Assumptions - Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method - A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefit" between future normal costs and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent - One series of payments is said to be actuarially equivalent to another series of payments if the two series have the same actuarial present value.

Actuarial Gain (Loss) - The difference between actual unfunded actuarial accrued liabilities and anticipated unfunded actuarial accrued liabilities -- during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.

DEFINITIONS OF TECHNICAL TERMS

Actuarial Present Value - The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

Amortization - Paying off an interest-discounted amount with periodic payments of interest and (generally) principal -- as opposed to paying it off with a lump sum payment.

Normal Cost - The portion of the actuarial present value of future benefits that is assigned to the current year by the actuarial cost method. Sometimes referred to as "current service cost."

Unfunded Actuarial Accrued Liabilities - The difference between actuarial accrued liabilities and valuation assets. Sometimes referred to as "unfunded past service liability" or "unfunded supplemental present value."

Most retirement systems have unfunded actuarial accrued liabilities. They arise each time new benefits are added and each time an actuarial loss occurs. The existence of unfunded actuarial accrued liabilities is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liabilities do not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liabilities and the trend in their amount (after due allowance for devaluation of the dollar).

SECTION D OTHER DISCLOSURES

SUPPLEMENTARY INFORMATION

Schedule of Pension Funding Progress (Police & General Combined)

Actuarial Valuation Date	Actuarial Value of Assets * (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2006	\$ 213,015,364	\$ 222,363,698	\$ 9,348,334	95.8	\$42,456,531	22.0 %
2007	238,029,788	246,147,797	8,118,009	96.7	44,646,848	18.2
2008	241,784,990	261,167,456	19,382,466	92.6	46,433,304	41.7
2009	248,954,926	283,777,829	34,822,903	87.7	51,510,466	67.6
2010	258,975,306	289,515,368	30,540,062	89.5	49,893,917	61.2
2011	263,827,136	301,723,872	37,896,736	87.4	50,604,786	74.9
2012	282,267,554	347,118,061	64,850,507	81.3	52,015,637	124.7
2013	311,444,880	373,386,564	61,941,684	83.4	54,261,035	114.2
2014	339,286,725	402,856,926	63,570,201	84.2	51,346,952	123.8
2015	363,204,298	430,695,376	67,491,078	84.3	49,317,710	136.8

^{*} Includes assets (if any) held in the Unallocated Income Reserve

Schedule of Employer Pension Contributions

Valuation Year Ended	Fiscal Year Ended]	Contribution Rates as % Iluation Pay		Computed Dollar	Actual	Percent
Dec. 31	Dec. 31	General	Police	Wt. Avg.	Contributions	Contributions	Contributed
2006	2008	9.50 %	13.36 %	10.43 %	\$4,907,566	\$4,889,940	100 %
2007#^	2009	9.33	14.58	10.80	5,238,815	5,459,718	104
2008	2010	10.93	17.66	12.73	6,470,984	6,591,255	102
2009	2011	13.17	20.78	15.15	8,533,571	7,730,986	91
2010	2012	12.86	20.72	14.91	8,149,433	7,928,104	97
2011	2013	12.56	18.94	14.25	7,897,193	7,917,354	100
2012^	2014				11,563,007	11,563,007	100
2013^	2015				11,397,261	11,417,873	100
2014^	2016				11,417,873		
2015^	2017				11,610,968		

[#] Reflects amortization credit

Computed dollar contributions before the 2012 valuation year are based on contribution rates and projected valuation payroll. Actual contributions were provided by the City. Deviations between actual and computed contributions may be attributable to differences between projected and actual payroll.

[^] New methods or assumptions adopted



RETIREE HEALTH VALUATION BASED ON ASSUMPTIONS AND METHODS PRESCRIBED BY THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

RETIREE HEALTH PREMIUM RATES

Background

Health care premiums are an important part of a retiree health valuation. Eligible City retirees (and their spouses) may elect to receive benefits from health plans offered by Sanford and Avera. All benefits provided by the City sponsored retiree health program (plan) are self-funded. This means that the City pays claims and takes the risk associated with the health care program. The City buys stop loss insurance to help manage this risk. Dental insurance benefits are also self-funded.

Retiree health benefit recipients pay for a portion of their benefits based on premium rates established by the City (illustrative premiums). These premiums were used in the actuarial valuation of the retiree health program. A summary of these premiums is shown in this section of the report.

Retirees who participate in the retiree health program pay 50% of the reported illustrative premiums. These rates are developed based upon blended active and retiree experience and we assumed that this practice will continue even when there are no actives on the plan. The City pays the remaining portion of the retiree health care cost. Since the retirees are responsible for a significant portion of the costs, there may be anti-selection in this plan (healthy retirees may decline coverage which increases the average cost for the remaining retirees). Health insurance coverage terminates upon Medicare eligibility (age 65). At this time, each retiree must make his or her own arrangements for health care coverage.

The current actuarial standard covering the valuation of retiree medical liability became effective for measurements on or after March 31, 2015. The standard includes the development of facsimile premiums based on the actual claims experience and the use of age grading. The combination of these two techniques produces "premiums" at each age during the retiree's lifetime based on the group's actual, historical claims experience.

We believe that using illustrative premium rates alone to determine retiree medical liability will likely understate the value of retiree health benefits and will fail to comply with both current actuarial standards of practice and governmental accounting standards. A summary of the facsimile health care "premium" rates used in the December 31, 2015 valuation of the retiree health program are shown on Appendix page 3. The actuarial assumptions and methods used in the retiree health program valuation are shown in this section of the report and in Section C.

PREMIUM RATE DEVELOPMENT METHOD MONTHLY PER PERSON HEALTH CARE RATES

Initial premiums were developed for pre-65 retirees only. These premiums were developed using retiree

claims experience from the following periods January 2013 - November 2013, January 2014 -

December 2014, and January 2015 – December 2015 in conjunction with exposure data for the retired

members of the health care program. These claims were projected on a paid claim basis, adjusted for

plan design changes, large claims and loaded for administrative expenses.

Age graded and sex distinct premiums are utilized by this valuation. The premium developed by the

preceding process is appropriate for the unique age and sex distribution currently existing. Over the

future years covered by this valuation, the age and sex distribution will most likely change. Therefore,

our process "distributes" the average premium over all age/sex combinations and assigns a unique

premium to each combination. This process more accurately reflects health care costs in the retired

population over the projection period. The tables in this section of the report show the combined medical

and prescription drug one-person monthly premiums at selected ages effective January 1, 2015 to

December 31, 2015.

James E. Pranschke is a Member of the American Academy of Actuaries (MAAA) and meets the

Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health

care rates shown in this report.

James E. Pranschke, FSA, MAAA

PREMIUM RATE DEVELOPMENT METHOD MONTHLY PER PERSON HEALTH CARE RATES

Facsimile Health Care Premiums Used in the 2015 Valuation

	Monthly Pre-65 Rates at Sample Ages				
Age	Male	Female			
50	\$ 907.20	\$ 1,027.91			
55	1,185.70	1,218.79			
60	1,489.57	1,431.81			

The rates above reflect the total medical and prescription drug retiree cost without considering any applicable retiree contributions.

Monthly Dental Premiums Used in the 2015 Valuation

Coverage for	Monthly Rate
1-person	\$42.96
2-person	82.04

The dental premium rates used in the valuation were not "age graded' since dental claims do not vary significantly by age.

The chart below shows the retiree paid premiums (50% of the total illustrative premiums) reported to the actuary in connection with this valuation of the program.

Illustrative Monthly Premiums Used in the 2015 Valuation

Coverage for	Monthly Rate
Health Care Premiums (Retiree Only - General)	\$445.50
Health Care Premiums (Retiree Only - Police)	445.50
Health Care Premiums (Retiree & Spouse - General)	\$944.77
Health Care Premiums (Retiree & Spouse - Police)	\$944.77
Dental (Retiree only)	21.48
Dental (Retiree & Spouse)	41.02

HEALTH COST TREND ASSUMPTION

Background

Retiree health care valuations require an assumption about how the health costs that the plan is absorbing will change over the years. This assumption includes more than just "health inflation." It includes the impact of:

- The introduction of new procedures and medications and how they are priced.
- The utilization of services and products by covered retirees and their dependents and how that utilization changes over the years.

Retiree health valuations use a health cost trend assumption that changes over the years. The near term rates reflect the fact that currently employers are seeing sharp increases in the cost of health goods and services. However, they do not anticipate that health costs will increase at these rates indefinitely. To do so would be to ignore the real world implications of this sort of projection. For example, if health costs represent 20% of disposable income initially and grow at 12% per year for the next 10 years while disposable income increases at 4% would imply that after 10 years health would absorb 40% of our disposable income. Over a 20-year period, these rates of increase would imply that at the end of the 20-year period, health costs would absorb almost 80% of our disposable income.

The valuations attempt to deal with the future by recognizing that it is more reasonable to assume that current trends will have to change in the future before we reach the absurd situation of having little or no money to spend on things that are not related to health (including food, shelter, clothes, etc.). Health costs are assumed to increase at rates greater than general inflation for a temporary "cooling off" period. At the end of the cooling off period, health costs are assumed to increase in line with general inflation. As years elapse, there are fewer remaining years in the cooling off period. A summary of the rates of medical inflation used in this valuation of the program are shown on the next page. Retirees pay the premium rates shown at the bottom of the prior page. These premiums were assumed to increase with medical inflation. The assumed rate of increase is shown on the following page.

HEALTH COST TREND AND RELATED ASSUMPTIONS

Rates of Inflation for Medical, Rx and Dental Benefits

Future Health Cost Increases						
Year Beginning						
	Medical &					
December 31,	Rx	Dental				
2016	9.00%	4.25%				
2017	8.50	4.25				
2018	8.00	4.25				
2019	7.50	4.25				
2020	7.00	4.25				
2021	6.50	4.25				
2022	6.00	4.25				
2023	5.50	4.25				
2024	5.00	4.25				
2025 & After	4.25	4.25				

Cumulative Aging Factors at Select Ages

Age	Male	Female
45	0.514	0.673
50	0.696	0.788
55	0.909	0.935
57	1.000	1.000
60	1.142	1.098

COMPUTED RETIREE HEALTH CONTRIBUTION BASED ON ASSUMPTIONS/METHODS PRESCRIBED BY GASB FOR GENERAL AND MANAGEMENT MEMBERS FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2017

Total Actuarial Accrued Liability	\$ 2,352,545		
Asset Value	17,2	66,966	
Unfunded Actuarial Accrued Liability	(14,9	14,421)	
First Year \$ Contribution	\$	0	

Eligible General/Management members of the Retirement System who retire on or before December 31, 2013 may join the Retiree Health Plan. Retirement System members who retire after December 31, 2013 are not eligible to participate in the Retiree Health Plan. As a result, the Plan was closed on, January 1, 2014.

As of the valuation date, the Retiree Health Plan has a surplus. Since Plan assets exceed liabilities as of the valuation date, no City contributions are recommended for fiscal year 2017.

COMPUTED RETIREE HEALTH CONTRIBUTION BASED ON ASSUMPTIONS/METHODS PRESCRIBED BY GASB FOR POLICE MEMBERS FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2017

Total Actuarial Accrued Liability	\$ 2,5	35,491
Asset Value	7,2	50,763
Unfunded Actuarial Accrued Liability	(4,7	15,272)
First Year \$ Contribution	\$	0

Eligible Police members of the Retirement System who retire on or before December 31, 2013 may join the Retiree Health Plan. Retirement System members who retire after December 31, 2013 are not eligible to participate in the Retiree Health Plan. As a result, the Plan was closed on, January 1, 2014.

As of the valuation date, the Retiree Health Plan has a surplus. Since Plan assets exceed liabilities as of the valuation date, no City contributions are recommended for fiscal year 2017.

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF HEALTH FUNDING PROGRESS FOR THE RETIREE HEALTH PLAN (POLICE & GENERAL)

Actuarial Valuation Date Dec. 31	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2006	\$ 5,747,326	\$ 31,127,424	\$ 25,380,098	18.5 %	\$ 42,456,531	59.8 %
2007	8,379,519	31,758,969	23,379,450	26.4	44,646,848	52.4
2008	10,718,920	32,930,510	22,211,590	32.6	46,433,304	47.8
2009	13,473,646	36,173,536	22,699,890	37.2	51,510,466	44.1
2010	16,515,972	40,712,275	24,196,303	40.6	49,893,917	48.5
2011	19,324,446	9,624,374	(9,700,072)	200.8	50,604,786	-
2012	22,807,459	7,582,125	(15,225,334)	300.8	52,015,637	-
2013	25,969,701	6,842,037	(19,127,664)	379.6	54,261,035	-
2014	26,129,460	5,649,835	(20,479,625)	462.5	51,346,952	-
2015	24,517,729	4,888,036	(19,629,693)	501.6	49,317,710	-

SCHEDULE OF EMPLOYER HEALTH CONTRIBUTIONS (POLICE & GENERAL)

Year Ended Dec. 31		_Contribution I	Rate as a % of	Required		
Valuation	Fiscal	<u>Valuation</u>	n Payroll	Contribution	Actual	Percentage
Year	Year	General	Police	(ARC)	Contributions	Contributed
2006	2008	5.49%	7.57%	\$ 2,816,421	\$ 2,820,846	100.2 %
2007^	2009	5.18%	7.36%	2,808,976	2,974,199	105.9
2008	2010	5.03%	7.45%	2,881,839	2,962,801	102.8
2009	2011	4.89%	7.66%	3,160,024	2,868,342	90.8
2010	2012	5.53%	8.95%	3,510,380	3,418,805	97.4
2011^	2013	0.00%	0.00%	0	0	100.0
2012^	2014	0.00%	0.00%	0	0	100.0
2013^	2015	0.00%	0.00%	0	0	100.0
2014^	2016			0		
2015^	2017			0		

[^] New methods/assumptions or plan provisions adopted.

Computed dollar contributions before the 2014 valuation year are based on contribution rates and projected valuation payroll. Actual contributions were based on the financial statements provided by the City. Deviations between actual and computed contributions may be attributable to differences between projected and actual payroll. This information is presented in draft form for review by the City's auditor. Please let us know if there are any items that the auditor changes so that we can maintain consistency with the City's financial statements.

REQUIRED SUPPLEMENTARY INFORMATION FOR THE RETIREE HEALTH PLAN

The following assumptions and methods were used in the December 31, 2015 actuarial valuation for the Retiree Health Plan:

Valuation Date December 31, 2015 Actuarial Cost Method Entry-Age **Amortization Method** Level dollar, closed Remaining Amortization Period 17 years for General 12 years for Police Asset Valuation Method Market value of assets Premium Rate Development Method Please refer to Appendix **Actuarial Assumptions** Annual Rate of Return (Discount Rate) 7.50% per year Rates of Inflation for Medical Benefits 9.0% grading down to 4.25% in the year beginning December 31, 2025 Rate of Inflation for Dental Benefits 4.25% for all years Membership of the Retiree Health Plan is shown below at December 31, 2015, the date of the latest actuarial valuation.

Retirees receiving medical benefits Active plan members 0 Total number of current and former City employees who are members of the Retiree Health Plan 78

78



March 4, 2016

Ms. Angie Uthe City of Sioux Falls Employee's Retirement System City Hall - 224 West 9th Street Sioux Falls, South Dakota 57104-6407

Dear Angie:

Enclosed are six copies of the report of the Sixty-Fifth annual actuarial valuation of the City of Sioux Falls Employee's Retirement System, in addition to a PDF that was also emailed.

Sincerely,

Louise M. Gates, ASA, MAAA

LMG:mrb Enclosures