

## ST. CLAIR COUNTY EMPLOYEES RETIREMENT SYSTEM

TWENTY-FOURTH ANNUAL ACTUARIAL VALUATION OF THE RETIREE HEALTH BENEFITS

DECEMBER 31, 2008

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October 2, 2009

The Retirement Board
St. Clair County Employees
Retirement System
St. Clair County
Port Huron, Michigan

Dear Board Members:

*Submitted in this report* are the results of the Twenty-Fourth Annual Actuarial Valuation of the assets, benefit values and contribution requirements associated with the retiree health benefits provided by St. Clair County. The results of the valuation of the basic retirement benefits provided by the Retirement System and the County are the subject of a separate report.

The actuarial calculations were prepared at the request of the Retirement Board and the County. This valuation was prepared for the purpose of calculating a contribution rate that would fund the program on an actuarial basis. In addition, we calculated the Annual Required Contribution (ARC) as required by GASB Statements No. 43 and No. 45. Determinations of the liability associated with the benefits described in this report for purposes other than those stated above may be significantly different than the values shown in this report. This report may be provided to parties other than the Board of the St. Clair County Employees Retirement System or St. Clair County only in its entirety and only with the permission with the Board or the County.

*The valuation was based upon information*, furnished by your Secretary, concerning Retirement System benefits, financial transactions, and individual members, terminated members, retirees and beneficiaries. Data was checked for internal consistency, but was not otherwise audited. This information is summarized in Section E.

Valuation methods and assumptions are summarized in Section F.

The valuation was performed by or under the supervision of a Member of the American Academy of Actuaries with substantial experience valuing public employee retirement plans. The valuation uses generally accepted actuarial principles and is in accordance with the standards of practice prescribed by the Actuarial Standards Board. To the best of our knowledge, this report is complete and accurate and the methods and assumptions employed produce results which are reasonable.

The Retirement Board St. Clair County Employees Retirement System October 2, 2009 Page 2

The actuaries submitting this report are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Cathy Nagy, FSA, MAAA W. James Koss, ASA, MAAA Brian T. Morris, FSA, MAAA

CN/WJK:sc

# SECTION A EXECUTIVE SUMMARY

### 1. Computed Contributions - Fiscal Year Beginning January 1, 2010

The following table shows a comparison of the computed contribution rates from last year to this year.

	December 2007*		December 2008**			
Division	5.3% 22 year amortization	5.3% 30 year amortization	5.3% 21 year amortization	5.3% 30 year amortization		
General ^	28.92%	23.96%	29.03%	23.79%		
Mental Health	23.36	20.19	23.01	19.39		
Road Commission	52.95	44.36	59.03	47.84		
Sheriff	32.79	28.96				
Total	31.32	26.55	31.00	25.46		

<sup>\*</sup> The December 2007 valuation calculated the contribution rate for the fiscal year beginning January 1, 2009.

## 2. Reasons for Change

There are three general reasons why contribution rates change from one valuation to the next. The first is a change in the benefits or eligibility conditions of the plan. The second is a change in the valuation assumptions or methods used to predict future occurrences. The third is the difference during the year between the plan's actual experience and what the assumptions predicted.

There were some changes in plan provisions. Certain bargaining units have employee contributions. The health inflation assumption was decreased to better reflect anticipated future experience.

In addition, during the 2008 plan year, the retiree health plan received lower contributions than the recommended amount. When the plan receives less than the recommended amount in contributions during a given year, it increases the need for the future contributions, resulting in a higher future contribution rate.

<sup>\*\*</sup> The December 2008 valuation calculated the contribution rate for the fiscal year beginning January 1, 2010.

<sup>^</sup> General County includes the Sheriff division starting with the December 31, 2008 valuation.

### 3. Year 2008 Experience Gain (Loss)

One way the plan's experience influences costs is the effect it has on the unfunded accrued liability. This is referred to as the experience gain or loss for the year. There was a gain from all causes of \$11,115,845 during 2008. This represents 5.2% of the 2007 accrued liabilities. The gain (loss) development is shown on page B-5.

Gain (Loss) on Investment Income	\$ (2,641,381)
Remaining Gains (Losses)	13,757,226
Total Gain (Loss)	\$ 11,115,845

### 4. Effect of County Contributions

A computed contribution rate will remain level from year to year if experience matches the assumptions and if the plan receives contributions in accordance with the computed contribution rate from the prior valuation. This year the plan received less in contributions than developed in the 2006 valuation.

12/2006 Computed Contribution Rate	27.81%
Actual 2008 Payroll	\$45,511,253
Implied Contributions	12,656,680
Actual Contributions	3,317,417
Shortfall	\$ 9,339,263

### 5. 2008 Funding Position

Funding for retiree health benefits began 23 years ago. This year, valuation assets represent 17.9% of accrued liabilities; last year the ratio was 18.3%. The decrease in the funding ratio is attributable to County contributions that are lower than the recommended amount offset slightly by a liability gain from better than expected medical claims experience.

#### 6. Context

Contributing on the basis of valuation results allows the County to level out somewhat the cost of retiree health benefits. However, due to the volatility of health care inflation, the results of the retiree health valuation are likely to fluctuate more from year to year than the results of the basic benefits valuation. The Sensitivity Tests in Section D demonstrate how these costs may vary depending upon future experience.

#### 7. Conclusions

As long as contributions are made at the recommended level, experience matches the assumptions and there are no changes in benefits, the contribution rate should remain close to the percent of payroll shown in this report. The key assumption is the future rate of increase in per capita health expenditures. If the rate of increase does not moderate from recent levels, it will place all health benefit plans in jeopardy, whether funded or unfunded.

#### 8. Recommendation

For several years we have discussed with the Board the regulatory issues involved in funding retiree health benefits in a qualified pension plan. We believe these issues to be very important and of current concern. The Internal Revenue Code limits the dollar amounts that can be contributed to a 401(h) account on behalf of retiree health benefits. Gabriel, Roeder, Smith & Company has not been retained to do an analysis if the 401(h) rules are met. It is our understanding that the Board and the County has been working with legal counsel to address this issue and as a result a new trust fund has been established separate from the Retirement System. All future employer and employee contributions will be made to this trust fund.

### 9. GASB Statements No. 43 and No. 45

As requested by the County we calculated the Annual Required Contribution using a 5.3% interest rate assumption.

If the County had a funding policy of contributing the recommended amount, an interest rate assumption such as 7.5% could be used in the calculations. Using a 7.5% assumption, the contribution for fiscal year beginning January 1, 2009 would be 21.45% of payroll.

# **SECTION B**VALUATION RESULTS AND COMMENTS

## FINANCIAL OBJECTIVE

The financial objective of the Retiree Health Care Plan is to establish and receive contributions, expressed as a percentage of active member payroll, which will permit the accumulation of assets to pay for these retirement benefit promises.

Your annual retiree health benefit valuations determine how well the objective is being met.

#### **CONTRIBUTION RATES**

The retiree health benefits are supported by contributions from the County, some of the members and by the investment income earned on assets.

County contributions cover both (i) normal cost, and (ii) the financing of the unfunded accrued liability over a period of future years. The normal cost is the portion of costs allocated to the current year by the valuation method described in Section F. The unfunded accrued liability is the portion of costs not covered by present assets and future normal costs.

The contribution requirements for retiree health benefits for the fiscal year beginning January 1, 2010 are presented on page B-2. We have developed and shown in a separate report the costs of basic retirement benefits.

# CONTRIBUTIONS TO PROVIDE RETIREE HEALTH BENEFITS DECEMBER 31, 2008 VALUATION

	% of Active Payroll				
		Mental	Road		
Contributions for	General	Health	Commission	Total	
Normal cost of benefits:					
Age & service	11.37%	9.99%	19.39%	11.95%	
Disability	0.32%	0.32%	0.70%	0.36%	
Death before retirement	0.27%	0.25%	0.51%	0.29%	
Total	11.96%	10.56%	20.60%	12.60%	
Member contributions:					
Total	1.15%	0.00%	0.00%	0.77%	
Future refunds	0.24%	0.00%	0.00%	0.16%	
Available	0.91%	0.00%	0.00%	0.61%	
Employer normal cost	11.05%	10.56%	20.60%	11.99%	
21 year amortization					
Unfunded accrued liability	17.98%	12.45%	38.43%	19.01%	
Computed Employer Rate	29.03%	23.01%	59.03%	31.00%	
30 year amortization					
Unfunded accrued liability	12.74%	8.83%	27.24%	13.47%	
Computed Employer Rate	23.79%	19.39%	47.84%	25.46%	

Unfunded actuarial accrued liabilities were financed as a level percent of member payroll.

The procedure for determining dollar contribution amounts is shown on page B-3.

Page B-4 displays the unfunded accrued liabilities that are amortized by the contribution rate shown above.

### CONVERTING CONTRIBUTION RATES TO DOLLAR AMOUNTS

For any period of time, the percent-of-payroll contribution rate needs to be converted to dollar amounts. We recommend the following procedures.

Contribute dollar amounts for a period which are equal to the computed percent-of-payroll contribution requirement multiplied by the covered active member payroll for the period. Since pay data used is submitted for the retirement system valuation, the contribution percentages developed refer to payroll as defined for Retirement System benefits.

## TIMING OF CONTRIBUTION PAYMENTS

The contributions in this report anticipate regular payments throughout the year. Examples would be at each payroll date or in 12 monthly installments. If the employer contribution pattern is significantly different, an adjustment to the costs may be appropriate. For example, a lump sum contribution at the beginning of the year is available for investment throughout the year and, therefore, ought to be somewhat smaller than 12 monthly payments. Similarly, a lump sum contribution at the end of the year will not generate any investment income that year and so must be greater than 12 monthly payments.

# DETERMINATION OF UNFUNDED ACCRUED LIABILITY RETIREE HEALTH BENEFITS DECEMBER 31, 2008 VALUATION

		General	Mental Health	Road Commission	Total
A.	Accrued Liability	General	<u> </u>	Commission	1000
	1. For retirees and beneficiaries	\$66,912,330	\$ 9,821,499	\$28,071,548	\$104,805,377
	2. For vested terminated members	14,965,346	8,400,760	2,176,564	25,542,670
	3. For present active members				
	a. Value of expected future benefit payments	103,592,792	29,415,451	29,652,841	162,661,084
	b. Value of future normal costs	50,723,029	14,938,403	12,558,571	78,220,003
	c. Active member liability: (a) - (b)	52,869,763	14,477,048	17,094,270	84,441,081
	4. Total	134,747,439	32,699,307	47,342,382	214,789,128
B.	Valuation Assets	23,721,049	6,850,978	7,924,935	38,496,962
C.	Unfunded Accrued Liability: (A.4) - (B)	\$111,026,390	\$25,848,329	\$39,417,447	\$176,292,166

# DEVELOPMENT OF 2008 EXPERIENCE GAIN (LOSS) RETIREE HEALTH BENEFITS

Actual experience will never (except by coincidence) exactly match assumed experience. It is hoped that gains and losses will cancel each other over a period of years, but sizable year to year fluctuations are common. Detail on the derivation of the experience gain (loss) is shown below.

	2007	2008
(1) UAAL* at start of year	\$ 154,792,821	\$175,367,666
(2) Normal cost from last year	5,601,783	6,166,775
(3) Actual contributions	1,909,403	3,491,209
(4) Net interest accrual on (1), (2) and (3)	8,301,025	9,364,779
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	166,786,226	187,408,011
(6) Changes from amendments	0	0
(7) Change from revised assumptions/methods	0	0
(8) Expected UAAL after changes: $(5) + (6) + (7)$	166,786,226	187,408,011
(9) Actual UAAL at end of year	175,367,666	176,292,166
(10) Gain (Loss): (8) - (9)	(8,581,440)	11,115,845
(11) Gain (Loss) as percent of actuarial accrued liabilities at start of year	(4.44)%	5.18 %

<sup>\*</sup> Unfunded actuarial accrued liabilities.

# DEVELOPMENT OF VALUATION INVESTMENT GAIN (LOSS) YEAR ENDED DECEMBER 31, 2008

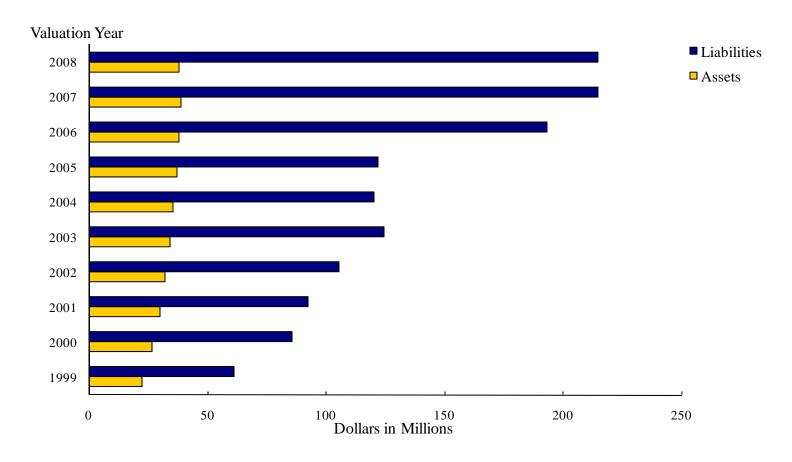
The 2008 valuation assumed an average 7.5% return on valuation assets (these are the assets in the trust). Net investment return in excess of 7.5% represents a gain. If net investment return falls short of 7.5%, the difference between an income of 7.5% and the net return represents a loss.

(1) Total 2008 valuation investment income:	\$ 1,474,747
(2) Average Valuation Assets (Pension & Health)	214,037,491
(3) Expected investment income: (.075) x (2)	16,052,812
(4) Gain (Loss): (1) - (3)	(14,578,065)
(5) Portion of System assets for retiree health benefits	0.181189
(6) Gain (loss) attributable to retiree health benefit assets: (4) $x$ (5)	(2,641,381)
(7) Valuation rate of return for 2008: (1) / (2)	0.69%

Please note that this analysis uses asset values and investment income as defined for the actuarial valuation. It is not, therefore, appropriate as a measure of manager performance.

During 2008 the approximate market value rate of return was (29.58)%.

# **Assets & Accrued Liabilities Retiree Health Benefits**



1999 assets equaled 36.8% of accrued liabilities.

2008 assets equaled 17.9% of accrued liabilities.

# COMPUTED EMPLOYER CONTRIBUTIONS RETIREE HEALTH BENEFITS COMPARATIVE STATEMENT

Computed Employer Contributions as

		Covered Active	Members		Covered		Percent	of Covered Payr	oll^	
Valuation		Valua	tion Payroll		Retirees &		Mental	Road		
Date	No.	Total	Average	% Incr.	Beneficiaries	General*	Health	Commission	Sheriff	Total
12/31/1993	732	\$23,711,156	\$32,392	5.9	335					12.17 %
12/31/1994	747	24,769,097	33,158	2.4	347					10.97
12/31/1995#	766	25,861,302	33,761	1.8	361					10.61
12/31/1996#	783	27,934,157	35,676	5.7	375					11.77
12/31/1997	791	28,402,628	35,907	0.6	376					12.59
12/31/1998	798	29,161,115	36,543	1.8	394					13.41
12/31/1999	827	31,051,406	37,547	2.7	406					16.14
12/31/2000@	825	32,044,333	38,842	3.4	410					24.39
12/31/2001	833	32,744,255	39,309	1.2	426					26.49
12/31/2002	883	35,716,619	40,449	2.9	435					28.96
12/31/2003**	914	38,047,803	41,628	3.0	455					19.24
12/31/2004	924	39,609,752	42,868	3.0	462					17.84
12/31/2005@^	996	42,622,922	42,794	(0.2)	462	17.11 %	11.68 %	26.69 %	16.21 %	17.11
12/31/2006	985	44,015,666	44,686	4.4	507	17.91	13.45	32.43	18.88	19.02
12/31/2006@	985	44,015,666	44,686	4.4	507	25.75	20.73	44.3	29.34	27.81
12/31/2006@**	985	44,015,666	44,686	4.4	507	22.02	18.34	38.25	26.46	24.24
12/31/2007	986	44,600,186	45,233	1.2	537	28.92	23.36	52.95	32.79	31.32
12/31/2007**	986	44,600,186	45,233	1.2	537	23.96	20.19	44.36	28.96	26.55
12/31/2008	986	45,511,253	46,157	2.1	555	29.03	23.01	59.03		31.00
12/31/2008**	986	45,511,253	46,157	2.1	555	23.79	19.39	47.84		25.46

<sup>@</sup> Revised actuarial assumptions.

Separated by division from 2005 forward.

<sup>#</sup> Retirement System Amended.

<sup>\*\*</sup> Amortization period changed.

<sup>\*</sup> General County includes Sheriff starting with the December 31, 2008 valuation.

#### RETIREE PREMIUM RATE DEVELOPMENT

Initial premium rates were developed separately for each class (pre-65 and post-65). The rates were calculated by using actual incurred retiree claims and exposure date for the period of January 2006 to December 2008 adjusted for catastrophic claims, plus the load for administration and stop loss fees. The self-insured Medical and prescription drug data were provided by St. Clair County. The Medical data was analyzed for the pre-65 and post-65 participants separately since Medicare is available for the post-65 participants and has a significant impact on the claim experience. Furthermore, since the prescription drug claims and the medical claims exhibit different trends and claim payment patterns, we analyzed these claims separately as well.

Age graded and sex distinct premiums are utilized in this valuation. The premiums developed by the preceding process are 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 for each specific age/sex combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.

# RETIREE PREMIUM RATE DEVELOPMENT (CONTINUED)

The tables below show the resulting medical, and prescription drug one-person monthly premiums at select ages. The premium (or per capita costs) rates shown below reflect the use of age grading.

## For General County and Mental Health

NOT ELIGIBLE FOR MEDICARE				
AGE	MALE	FEMALE		
40	\$ 180.34	\$ 282.55		
50	331.50	375.61		
60	544.31	523.30		
64	633.55	587.24		

ELIGIBLE FOR MEDICARE				
AGE	MALE	FEMALE		
65	\$ 470.90	\$ 433.64		
75	603.02	535.17		
85	672.42	590.35		

### For Road Commission

NOT ELIGIBLE FOR MEDICARE				
AGE	MALE	FEMALE		
40	\$ 258.27	\$ 404.64		
50	474.74	537.91		
60	779.50	749.28		
64	907.31	840.98		

Eligible for Medicare				
AGE	MALE	FEMALE		
65	\$ 470.78	\$ 433.52		
75	602.87	535.03		
85	672.24	590.19		

## RETIREE PREMIUM RATE DEVELOPMENT (CONCLUDED)

The dental and vision premium rates used in this valuation of the Plan were not "age graded" since these claims do not vary significantly by age. The monthly one person dental and vision premiums used in this valuation are \$20.73 for County and Mental Health and \$20.45 for Road Commission.

# RETIREE HEALTH BENEFITS COMMENTS

**Comment A:** As requested by the County beginning with the December 31, 2008 actuarial valuation, we calculated the contribution rates separately for the following divisions: General including Sheriffs, Mental Health, and Road Commission. Our calculations were based on the demographics of each group and the benefit provisions of each group. The assets information for each division was provided to us by the County. The assets remain commingled for investment purposes.

**Comment B:** Providing health care benefits to retired employees involves significant additional risks when compared to providing pensions to retired employees. The additional risks include the rate at which current medical costs will increase or decrease in the future, changes in utilization and changes in Medicare. As a result, contributions for a retiree health plan are more volatile. This volatility is shown in Section D of this report.

**Comment C:** This valuation allows the County to level out the cost of retiree health benefits somewhat. Even though the contribution rate may not remain as level as pension contribution rates, a program of pre-funding will help the County avoid much of the increasing cost that results from a pay-as-you-go approach. This valuation also helps in understanding the very substantial value of retiree health benefits.

**Comment D:** In order for a contribution requirement to remain level from one valuation to the next, experience must be similar to the valuation assumptions, and the plan must receive contributions at the rate computed in the valuation. If the plan receives contributions at a lower level, (i) funding will be slowed down and (ii) the need for future contributions will increase. Moreover, the valuations anticipate that contributions, as they are received, will be available for investment. While budgetary constraints may argue for a reduced level of current funding, it should be understood that the "cost" of reducing contributions is not only an increased need for County contributions in the future to make up

# RETIREE HEALTH BENEFITS COMMENTS (CONTINUED)

for the contributions that the plan is not receiving currently, but also an increased need for County contributions in the future to make up for the investment return the plan would have realized on these missed contributions.

In addition, the new accounting standards, GASB Statements No. 43 and 45 require the use of a lower interest rate in calculating the Annual Required Contribution (ARC) if the County is not contributing the actuarially determined amount. As a result, the calculations in this report were based on a 5.3% interest rate assumption as requested by the County.

# SECTION C CASH FLOW PROJECTIONS

### BACKGROUND

Until a retirement program reaches a mature state, the number of members receiving benefits will continue to increase, with commensurate increases in the amount of benefit disbursements. When the retirement benefits being paid are health benefits, health costs can be expected to increase as the result of medical care inflation, changes in utilization and Medicare cost shifting. When both of these reasons for increased disbursements apply, as they do for the St. Clair County Retiree Health Program, it is reasonable to expect that the amount of the System's annual health disbursements will increase for years to come.

We have projected the retiree health disbursements over the next 20 years. The projections are based upon the same assumptions as were used in the actuarial calculations. The schedule on the next page displays the anticipated disbursements.

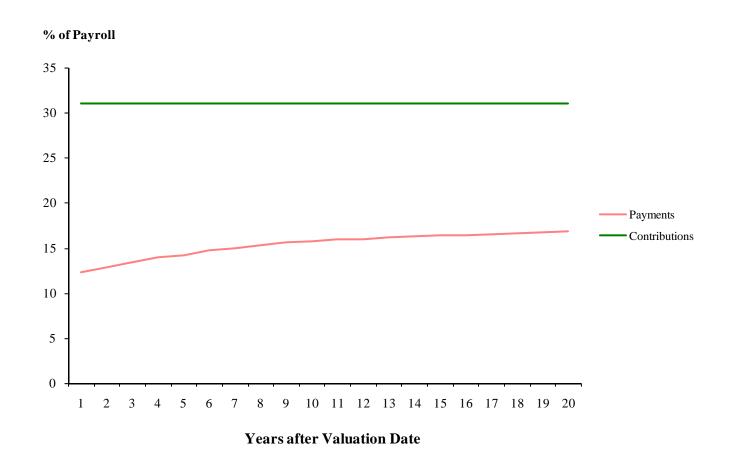
Please note that these projections anticipate that the retiree health plan will receive contribution income equal to the computed cost requirements.

## 20 YEAR PROJECTION OF BENEFIT DISBURSEMENTS

					Benefit
Year	Retiree Retirees	Health Payment Employees	s on Behalf of l	Present Total	Disbursements As a % of Payroll
2009	\$5,424,900	\$ 67,100	\$ 87,900	\$ 5,579,900	12.26%
2010	5,714,500	233,100	165,400	6,113,000	12.79%
2011	6,019,200	443,800	251,500	6,714,500	13.38%
2012	6,250,300	683,000	393,100	7,326,400	13.91%
2013	6,438,200	968,000	436,800	7,843,000	14.18%
2014	6,640,900	1,300,400	574,300	8,515,600	14.66%
2015	6,806,600	1,673,800	620,300	9,100,700	14.92%
2016	6,916,600	2,085,300	774,400	9,776,300	15.27%
2017	6,987,000	2,507,100	967,100	10,461,200	15.56%
2018	7,057,700	2,943,800	1,119,000	11,120,500	15.75%
2019	7,100,500	3,409,500	1,268,600	11,778,600	15.89%
2020	7,156,700	3,928,600	1,356,300	12,441,600	15.98%
2021	7,195,300	4,512,000	1,479,700	13,187,000	16.13%
2022	7,211,900	5,119,400	1,591,900	13,923,200	16.22%
2023	7,212,600	5,798,600	1,719,500	14,730,700	16.35%
2024	7,198,700	6,558,200	1,778,700	15,535,600	16.42%
2025	7,167,000	7,339,000	1,897,700	16,403,700	16.51%
2026	7,116,600	8,213,900	2,039,200	17,369,700	16.65%
2027	7,045,800	9,182,100	2,102,100	18,330,000	16.74%
2028	6,946,600	10,196,100	2,199,600	19,342,300	16.82%

This is a closed group projection assuming no new entrants into the plan over the projection period. Benefit payments are projected based on the per-person health care costs developed as a result of our claims analysis, and will be different from the actual benefits paid from the plan.

# RETIREE HEALTH BENEFITS PROJECTED PAYMENTS AND CONTRIBUTIONS\* (PERCENTS OF PAYROLL)



<sup>\*</sup> Based on a 21 year amortization period

# SECTION D SENSITIVITY TESTS

### **BACKGROUND**

Actuarial valuations deal with the cost of benefits to be paid in the future. The payments considered will range from one month in the future to decades from the valuation date (for a young, newly hired employee who may retire many years from now and live many years after that). In order to establish a present day cost for these future benefit obligations, the actuary bases the valuation on a number of assumptions about future occurrences. The occurrences that must be considered include employee turnover, pay increases, disablements, retirements, deaths and investment income on plan assets.

When the benefits being valued are health benefits, a key factor is the future cost of the goods and services being promised. This is projected using the current cost of the health benefits and assumed rates of future health cost increases. The final cost of providing retiree health benefits will depend upon how the charges for medical services actually increase in the future.

In order to demonstrate how the computed cost of these benefits can vary depending upon future health care inflation, we have performed additional valuations based upon alternative health care inflation assumptions. The schedules on pages D-2 through D-4 compare (i) the computed cost of the retiree health benefits using the valuation assumptions to (ii) results of alternate valuations. One of the alternate valuations is based upon a more optimistic health cost increase assumption than was used for the valuation. The other valuation is based upon a pessimistic health cost increase assumption.

The schedule on page D-5 illustrates health cost increase assumptions used in each of the valuations.

# RETIREE HEALTH BENEFITS SENSITIVITY TESTS - MEDICAL INFLATION GENERAL\*\*

**Future Medical Inflation** 

15.82%

25.56%

19.65%

31.69%

Valuation **Optimistic Pessimistic Assumption Computed Cost** Assumption Assumption Normal cost 11.05% 9.74% 12.04% Accrued liability \$134,747,439 \$121,421,582 \$145,092,955 Valuation assets 23,721,049 23,721,049 23,721,049 Unfunded liability 111,026,390 97,700,533 121,371,906

17.98%

29.03%

Amortization payment\*

Contribution rate

<sup>\*</sup> Unfunded actuarial accrued liabilities were financed as a level percent of member payroll over a period of 21 years.

<sup>\*\*</sup> General County includes the Sheriff department starting with the December 31, 2008 valuation.

<sup>%&#</sup>x27;s refer to costs as a percentage of covered member payroll.

# RETIREE HEALTH BENEFITS SENSITIVITY TESTS - MEDICAL INFLATION MENTAL HEALTH

**Future Medical Inflation** Valuation **Optimistic Pessimistic Computed Cost** Assumption Assumption **Assumption** Normal cost 10.56% 9.41% 11.44% Accrued liability \$32,699,307 \$29,346,136 \$35,291,745 Valuation assets 6,850,978 6,850,978 6,850,978 Unfunded liability 25,848,329 22,495,158 28,440,767 Amortization payment\* 12.45% 10.84% 13.70% Contribution rate 23.01% 20.25% 25.14%

<sup>\*</sup> Unfunded actuarial accrued liabilities were financed as a level percent of member payroll over a period of 21 years.

<sup>%&#</sup>x27;s refer to costs as a percentage of covered member payroll.

# RETIREE HEALTH BENEFITS SENSITIVITY TESTS - MEDICAL INFLATION ROAD COMMISSION

**Future Medical Inflation** Valuation **Optimistic Pessimistic Computed Cost** Assumption **Assumption Assumption** Normal cost 20.60% 18.32% 22.32% Accrued liability \$47,342,382 \$42,871,480 \$50,829,020 Valuation assets 7,924,935 7,924,935 7,924,935 Unfunded liability 39,417,447 34,946,545 42,904,085 Amortization payment\* 38.43% 34.07% 41.83% Contribution rate 59.03% 52.39% 64.15%

<sup>\*</sup> Unfunded actuarial accrued liabilities were financed as a level percent of member payroll over a period of 21 years.

<sup>%&#</sup>x27;s refer to costs as a percentage of covered member payroll.

# RETIREE HEALTH BENEFITS SENSITIVITY TESTS - HEALTH COST INCREASE ASSUMPTION

	<b>Assumed Rate of Medical Inflation</b>			
Year	Valuation	Optimistic	Pessimistic	
2009	9.00 %	7.00 %	11.00 %	
2010	8.50	6.50	10.25	
2011	8.00	6.00	9.50	
2012	7.50	5.50	8.75	
2013	7.00	5.25	8.00	
2014	6.50	5.00	7.25	
2015	6.00	5.00	6.50	
2016	5.50	5.00	5.75	
2017	5.00	5.00	5.00	
2018	5.00	5.00	5.00	

5.00

5.00

2019 & after

5.00

# **SECTION E**

# SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

# BRIEF SUMMARY OF RETIREE HEALTH ELIGIBILITY DECEMBER 31, 2008

Covered Person	Group	Eligibility Conditions
Retired Member	Modified plan member	Age 55 (age 50 for Sheriff's Dept.) with 25 years of service or age 60 with 20 years of service. After 25 years when age plus service equals 80.
	Original plan member	Age 55 (age 50 for Sheriff's Dept.) with 25 years of service or age 60 with 8 years of service.  After 25 years when age plus service equals 80.
Spouse of Retiree	Any	Retiree alive and covered, or spouse receiving continuation of deceased retiree's pension.
Spouse of Deceased Employee	Any	Spouse receives a survivor pension.

All new hires are expected to be covered by the modified plan. Members are not currently required to contribute to the health care plan except for the following units:

- Public Service Employees and Prosecuting Attorney Clerical Employees:
  - Member contributions for employees hired before July 1, 2006:
    - July 1, 2006 0.83%
    - July 1, 2007 1.50%
    - July 1, 2008 2.17%
  - Member contributions for employees hired after July 1, 2006:
    - July 1, 2006 1.25%
    - July 1, 2007 2.25%
    - July 1, 2008 3.25%

# BRIEF SUMMARY OF RETIREE HEALTH ELIGIBILITY DECEMBER 31, 2008

- Probate Court and Circuit Court Family Division Clerical Employees
  - Member contributions

July 1, 2010

- July 1, 2006
  July 1, 2007
  July 1, 2008
  July 1, 2009
  2.60%
- 31<sup>st</sup> Judicial Circuit Court Friend of Court Supervisors; Bailiff and Court Security Officers Association:

3.25%

- Member contributions for employees hired before January 1, 2007:
  - January 1, 2007 0.50%
  - January 1, 2008 1.00%
  - January 1, 2009 1.50%
  - January 1, 2010 2.00%
  - January 1, 2011 2.50%
- Member contributions for employees hired after January 1, 2007:
  - January 1, 2007 0.65%
  - January 1, 2008 1.30%
  - January 1, 2009 1.95%
  - January 1, 2010 2.60%
  - January 1, 2011 3.25%
- District Court Employees:
  - Member contributions for employees hired before January 1, 2008:
    - January 1, 2008 0.67%
    - July 1, 2008 1.50%
    - July 1, 2009 2.17%

# BRIEF SUMMARY OF RETIREE HEALTH ELIGIBILITY DECEMBER 31, 2008

- Member contributions for employees hired after January 1, 2008:

January 1, 2008 - 1.25%
 July 1, 2008 - 2.25%
 July 1, 2009 - 3.25%

- Sheriff Department Supervisors:
  - Member contributions for employees hired before January 1, 2007:
    - January 1, 2007 0.50%
      July 1, 2007 1.00%
      July 1, 2008 1.50%
      July 1, 2009 2.00%
      July 1, 2010 2.50%
  - Member contributions for employees hired after January 1, 2007:
    - January 1, 2007 0.65%
      July 1, 2007 1.30%
      July 1, 2008 1.95%
      July 1, 2009 2.60%
      July 1, 2010 3.25%
- Human Resources Clerks and Specialists; Professional Nurse and Professional Nurse Supervisors:
  - Member contributions for employees hired before January 1, 2009:
    - January 1, 2009 0.50%
      July 1, 2009 1.00%
      January 1, 2010 1.50%
      July 1, 2010 2.00%
      January 1, 2011 2.50%

Members of the Sheriff's Department, who retire prior to age 50, pay the cost of coverage until attainment of age 50.

Members who retire as a result of a disability, terminated vested members and survivors of members who die while actively employed receive health care coverage.

# REPORTED FINANCIAL INFORMATION AT MARKET VALUE YEAR ENDED DECEMBER 31, 2008 TOTAL SYSTEM ASSETS (INCLUDES HEALTH CARE TRUST)

#### **Revenues and Disbursements**

#### **Revenues:**

a.	Member contributions	\$ 2,596,157
b.	Employer contributions	7,696,833
c.	Interest and dividends	5,117,079
d.	Gain on investments	(68,302,224)
e.	Total	(52,892,155)

#### **Disbursements:**

a. Refunds of member contributions	\$ 502,659
b. Pensions paid	8,936,702
c. Death benefits paid	49,000
d. Health benefits	4,594,065
e. Investment expenses	1,176,939
f. Administrative expenses	58,671
	\$15,318,036

#### **Reserve Increase:**

Total revenues minus total disbursements (68,210,191)

#### **Assets**

a. Cash and equivalents*	\$ 3,904,297
b. Stocks	103,384,063
c. Corporate Bonds	43,979,194
d. U.S. Government Securities	20,910
Total	\$151,288,464

<sup>\*</sup> Adjusted for accruals and receivables, net of payables.

# REPORTED FINANCIAL INFORMATION AT MARKET VALUE YEAR ENDED DECEMBER 31, 2008 TOTAL SYSTEM ASSETS

Year Ended December 31:	2007	2008	2009	2010	2011	2012
A. Funding Value Beginning of Year	\$203,277,276	\$215,961,544				
B. Market Value End of Year	216,741,883	151,288,464				
C. Market Value Beginning of Year	213,372,880	219,498,655				
D. Non-Investment Net Cash Flow	(6,576,592)	(3,848,107)				
<ul> <li>E. Investment Income</li> <li>E1. Market Total: B - C - D</li> <li>E2. Amount for Immediate Recognition (7.5%)</li> <li>E3. Amount for Phased-In Recognition: E1-E2</li> <li>F. Phased-In Recognition of Investment Income</li> <li>F1. Current Year: 0.2 x E3</li> <li>F2. First Prior Year</li> <li>F3. Second Prior Year</li> <li>F4. Third Prior Year</li> </ul>	9,945,595 14,999,174 (5,053,579) (1,010,716) 2,548,715 (1,109,725)	(64,362,084) 16,052,812 (80,414,896) (16,082,979) (1,010,716) 2,548,715 (1,109,725)	\$ (16,082,979) (1,010,716) 2,548,715	\$ (16,082,979)	\$ (16,082,979)	
F5. Fourth Prior Year		(1,109,723)	(1,109,726)	2,548,713		\$ (16,082,980)
F6. Start-up Phase In	1,076,640	1,076,640	1,076,642	0	0	0
G. Total	1,504,914	(14,578,065)	(14,578,064)	(14,544,982)	(17,093,694)	(16,082,980)
H. Funding Value End of Year: A + D + E2 + G	213,204,772	213,588,184				
I. Difference between Market & Funding Value	3,537,111	(62,299,720)	(47,721,656)	(33,176,674)	(16,082,980)	0
J. Recognized Rate of Return - Funding Value Basis	8.25%	0.69%				
K. Recognized Rate of Return - Market Value Basis	4.73%	(29.58%)				

# RETIREE HEALTH BENEFITS RETIREES AND BENEFICIARIES - DECEMBER 31, 2008 TABULATED BY ATTAINED AGE

	General		Mental Health		Road C	Road Commission		Sheriff's Dept.		Total	
Attained	No. of	No. Covered	No. of	No. Covered	No. of	No. Covered	No. of	No. Covered	No. of	No. Covered	
Ages	Retirees*	Per Retiree	Retirees*	Per Retiree	Retirees*	Per Retiree	Retirees*	Per Retiree	Retirees*	Per Retiree	
40-44	2	3							2	3	
45-49					1	1	1	1	2	2	
50-54	7	13	1	2			6	8	14	23	
55-59	26	38	7	11	14	24	17	22	64	95	
60-64	67	102	18	23	27	45	24	41	136	211	
65-69	56	71	11	17	22	36	7	9	96	133	
70-74	36	48	8	10	16	24	4	7	64	89	
75-79	37	56	2	2	25	36	5	7	69	101	
80	2	2			3	3			5	5	
81	6	6			4	6			10	12	
82	8	9			5	6	2	4	15	19	
83	6	7			7	12			13	19	
84	3	3			6	9			9	12	
85	4	7			3	4	1	1	8	12	
86					4	6	1	2	5	8	
87	4	5			4	4			8	9	
88	3	3			1	1			4	4	
89	4	5							4	5	
90 and Over	20	23			7	7			27	30	
Totals	291	401	47	65	149	224	68	102	555	792	
Average		1.4		1.4		1.5		1.5		1.4	

<sup>\*</sup> Actual number of retirees, including those that do not have retiree health care coverage.

# RETIREE HEALTH BENEFITS RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS COMPARATIVE STATEMENT

Year Ended	Added to	Removed from	Rolls End	Present Value of
December 31	Rolls@	Rolls	of Year	Health Benefits
1989	17	10	305	\$ 6,316,089
1990	17	10	312	9,630,842
1991	18	13	317	11,724,732
1992	18	10	325	12,872,407
1993	20	10	335	11,984,980
1994	24	12	347	11,361,828
1995	33	19	361	12,523,024
1995	15	19	375	14,524,383
1990	30	29	376	16,413,460
				, , , , , , , , , , , , , , , , , , ,
1998	30	12	394	19,258,663
1999	28	16	406	25,109,990
2000	22	18	410	33,481,392
2001	34	18	426	38,921,495
2002	33	24	435	45,665,396
2003	36	16	455	55,715,393
2004	37	30	462	55,663,190
2005	51	16	497	58,087,415
2006	44	34	507	86,904,970
2007	55	25	537	100,614,920
2008	39	21	555	104,805,377

<sup>@</sup> Includes survivors of deceased retirees.

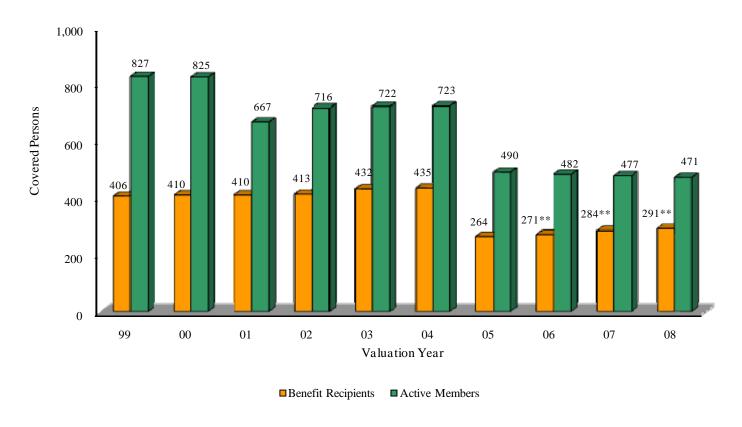
## **INACTIVE MEMBER DATA**

There were 91 inactive members as of December 31, 2008. An inactive member is a person who has left County employment with entitlement to a benefit after attainment of his voluntary retirement age.

Inactive Members December 31, 2008
Tabulated by Attained Age

Attained	General County	Mental Health	Road Commission	Sheriff's Dept.	Total	
Ages	No.	No.	No.	No.	No.	
31	1				1	
35	1				1	
36	1				1	
37	1				1	
39		1			1	
40	1	1			2	
42	2				2	
43	2				2	
44	1				1	
45		1			1	
46	1	4			5	
47	2	1			3	
48	2	2			4	
49	4				4	
50	2	2	1	1	6	
51	2	1	1		4	
52	5	3		2	10	
53	3	1	1	1	6	
54	1			1	2	
55	2	3	1		6	
56		2	2		4	
57	1	4			5	
58	4	2		1	7	
59	6	2			8	
60	2				2	
67	1				1	
70	1				1	
Total	49	30	6	6	91	

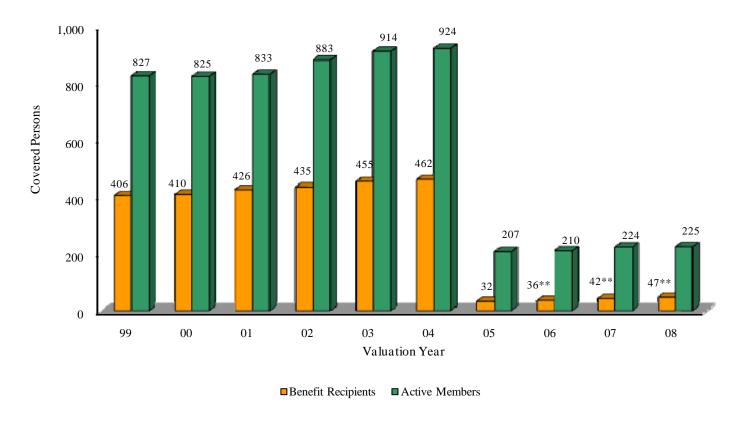
#### GENERAL ACTIVE MEMBERS & BENEFIT RECIPIENTS\*



<sup>\*</sup> For years prior to 2005, the numbers include all active and retired members for all divisions.

<sup>\*\*</sup> Includes retirees who do not receive health care benefits.

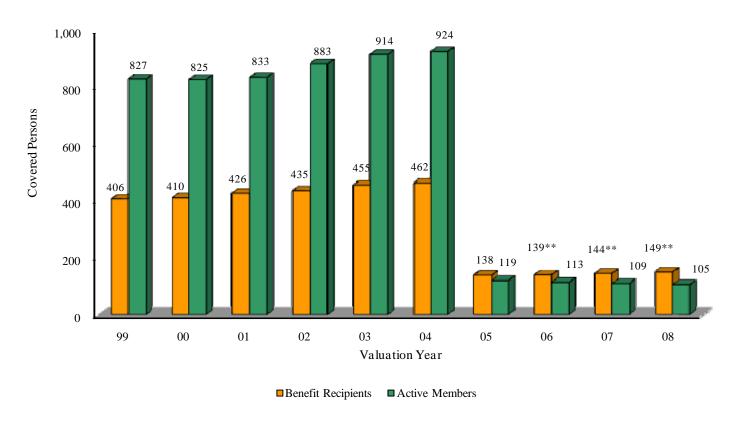
## MENTAL HEALTH ACTIVE MEMBERS & BENEFIT RECIPIENTS\*



<sup>\*</sup> For years prior to 2005, the numbers include all active and retired members for all divisions.

<sup>\*\*</sup> Includes retirees who do not receive health care benefits.

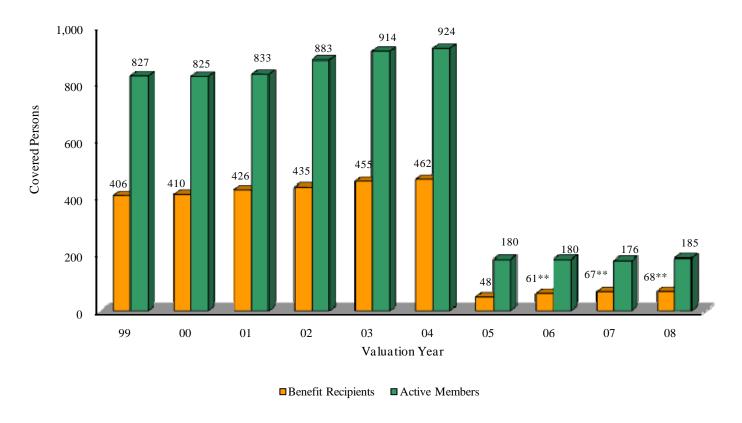
### **ROAD COMMISSION ACTIVE MEMBERS & BENEFIT RECIPIENTS\***



<sup>\*</sup> For years prior to 2005, the numbers include all active and retired members for all divisions.

<sup>\*\*</sup> Includes retirees who do not receive health care benefits.

### SHERIFF'S DEPT. ACTIVE MEMBERS & BENEFIT RECIPIENTS\*



<sup>\*</sup> For years prior to 2005, the numbers include all active and retired members for all divisions.

<sup>\*\*</sup> Includes retirees who do not receive health care benefits.

# ACTIVE MEMBERS COMPARATIVE SCHEDULE

Valuation										
Date Active		Valuation	Valuation			Average				
December 31	Members	Payroll		Age	Service	Pay	% Inc.			
1994	747	\$24,769,097		43.6	11.4	\$33,158	2.4 %			
1995	766	25,861,302		43.6	11.2	33,761	1.8			
1996	783	27,934,157	*	43.6	11.5	35,676	5.7			
1997	791	28,402,628		43.7	11.5	35,907	0.6			
1998	798	29,161,115		43.9	11.4	36,543	1.8			
1999	827	31,051,406		44.1	11.2	37,547	2.7			
2000	825	32,044,333		44.3	11.5	38,842	3.4			
2001	833	32,744,255		44.6	11.4	39,309	1.2			
2002	883	35,716,619		44.6	11.0	40,449	2.9			
2003	914	38,047,803		44.5	10.7	41,628	2.9			
2004	924	39,609,752		44.6	10.8	42,868	3.0			
2005	996	42,622,922		44.1	10.0	42,794	(0.2)			
2006	985	44,015,666		44.1	10.2	44,686	4.4			
2007	986	44,600,186		44.2	10.2	45,233	1.2			
2008	986	45,511,253		44.8	10.3	46,157	2.0			

<sup>\*</sup> Reduced for effect of retroactive pay during 1996.

### ACTIVE MEMBERS ADDED TO AND REMOVED FROM ROLLS

Year	Number Added		Active Members				
<b>Ended</b>	Ended During Normal		Disability Died-in Vested				End of
December 31	Year	Retirement	Retirement	Service	Term.	Other	Year
1994	59	15	1		9	19	747
1995	72	21	3	1	5	23	766
1996	62	13		1	12	19	783
1997	62	23	1	2	5	23	791
1998	77	20	1	1	15	33	798
1999	91	18		2	12	30	827
2000	52	11	1		11	31	825
2001	78	21	1		11	37	833
2002	94	16		2	10	16	883
2003	96	25			12	28	914
2004	71	21	1		6	33	924
2005	134	29	1		7	25	996
2006	67	28		1	8	41	985
2007	80	34	1		5	39	986
2008	54	23	1	1	7	22	986

# GENERAL ACTIVE MEMBERS AS OF DECEMBER 31, 2008 BY ATTAINED AGE AND YEARS OF SERVICE

		Totals							
Attained									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
20-24	4							4	\$ 136,045
25-29	15	5						20	780,619
30-34	31	17	2					50	2,180,693
35-39	14	23	8	1	1			47	2,225,336
40-44	21	17	16	10	3	1		68	3,091,296
45-49	19	26	9	6	10	8	1	79	3,470,203
50-54	14	19	14	8	12	8	7	82	3,917,942
55-59	12	14	16	13	7	4	9	75	3,312,261
60	1	3	2	1	2	1		10	441,462
61	2	1	2	2		3	1	11	507,068
62	1	4	1			1	1	8	292,231
63		2	1				1	4	244,824
64		1		1	1			3	137,118
65			2				1	3	154,806
66		1			1			2	65,384
67		1						1	39,474
68		1	1					2	19,923
69				1				1	5,488
72				1				1	27,096
Totals	134	135	74	44	37	26	21	471	\$21,049,269

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

Age: 46.7 years Service: 11.1 years

Annual Pay: \$44,691

# MENTAL HEALTH ACTIVE MEMBERS AS OF DECEMBER 31, 2008 BY ATTAINED AGE AND YEARS OF SERVICE

_			Totals						
Attained									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
20-24	5							5	\$ 166,501
25-29	12	3						15	597,565
30-34	12	11	1					24	977,340
35-39	23	13	6	2				44	2,040,422
40-44	10	7	6	4	1			28	1,224,682
45-49	7	7	9	3	8	1		35	1,683,016
50-54	9	8	5	1	3	4		30	1,331,754
55-59	8	5	2	3	3	5		26	1,197,615
60	1	2	1	1	1	1		7	427,571
61		1	1					2	90,363
62	1		2					3	128,417
63	1							1	82,785
64					1			1	44,323
65		1	1					2	95,393
66		1		1				2	94,998
Totals	89	59	34	15	17	11	0	225	\$10,182,745

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

Age: 44.2 years Service: 8.8 years

Annual Pay: \$45,257

# ROAD COMMISSION ACTIVE MEMBERS AS OF DECEMBER 31, 2008 BY ATTAINED AGE AND YEARS OF SERVICE

		Totals							
Attained									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
25-29	2							2	\$ 81,307
30-34	3	3	1	1				8	388,194
35-39	3	8	1	3				15	676,343
40-44	3	7	5	1	3			19	951,728
45-49	2	3	7	4	1			17	868,112
50-54	1	4	3	2	11	3		24	1,162,424
55-59	1	1	1	2	4	3	1	13	659,921
60					1			1	51,756
61			1			1		2	86,133
62			1					1	8,847
63					1			1	48,109
68		1						1	6,960
Totals	16	27	20	13	21	7	1	105	\$5,031,816

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

Age: 46.2 years Service: 13.4 years Annual Pay: \$47,922

# SHERIFF'S DEPT. ACTIVE MEMBERS AS OF DECEMBER 31, 2008 BY ATTAINED AGE AND YEARS OF SERVICE

	Years of Service to Valuation Date						Totals		
Attained	0.4	<b>7</b> 0	40.44	4 7 40	20.24	27.20	20 PI		Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
20-24	5							5	\$ 204,590
25-29	25	1						26	1,122,530
30-34	16	15	2					33	1,574,266
35-39	15	12	6	1				34	1,730,052
40-44	12	5	9	4	2			32	1,725,724
45-49	3	3	2	6	6	3		23	1,294,083
50-54	4	3	2	3	2	2		16	844,057
55-59	4	2		3	3			12	603,000
61	2		1					3	110,629
64					1			1	38,493
Totals	86	41	22	17	14	5		185	\$9,247,424

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

Age: 39.6 years Service: 8.4 years Annual Pay: \$49,986

# **SECTION F**

ACTUARIAL COST METHODS, ACTUARIAL ASSUMPTIONS AND GLOSSARY

### **VALUATION METHODS**

#### *The normal cost* was computed as follows:

The series of contributions necessary to accumulate the present value at time of retirement of a member's health care benefits was computed so that each contribution in the series, from date of hire to retirement, was a constant percentage of the member's year by year projected covered compensation. This is referred to as the individual entry age actuarial cost method.

#### The accrued liability was computed and financed as follows:

**Retirees and Beneficiaries.** The discounted value of health benefits likely to be paid to eligible retirees and beneficiaries was computed using the investment return, health cost increase and mortality assumptions. This amount was financed by applicable accrued assets, to the extent available.

Active and Inactive Members. The discounted value of health benefits likely to be paid eligible active and inactive members was computed using the assumptions outlined on the following pages and was reduced by the value of normal costs to be paid for service after the valuation date.

#### Asset valuation method. The actuarial value equals:

- (a) Actuarial value of assets from the previous valuation, plus
- (b) employer and member contributions since the last valuation, plus
- (c) benefit payments and refunds since the last valuation, plus
- (d) estimated investment income at the assumed investment return, plus
- (e) portion of gain/(loss) recognized in the current year.

For the above purposes, gain/(loss) is defined as the excess during the period of the investment return on the market value of assets over the expected investment income. 20% of the difference is recognized over a 5 year period in the actuarial value of assets. This method was first adopted for the December 31, 2005 actuarial valuation.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions over 21 years and alternatively over 30 years. Active member payroll was assumed to increase 5% a year for the purpose of determining the level percent contributions.

#### ECONOMIC AND RISK ASSUMPTIONS USED FOR THE VALUATION

The actuary calculates the contribution requirements and benefit values of the plan by applying economic and risk assumptions to the benefit provisions and people information furnished, using the valuation methods described on page F-1.

The principal areas of economic and risk assumptions are:

- (i) long-term rates of investment income likely to be generated by the assets of the Retirement System
- (ii) patterns of salary increases to be experienced by members
- (iii) rates of mortality among members, retirees and beneficiaries
- (iv) rates of withdrawal of active members
- (v) rates of disability among members and their subsequent rates of recovery
- (vi) probabilities of retirement at various ages after benefit eligibility

In making a valuation the actuary must project the monetary effect of each assumption, for each distinct experience group, for the next year and for each year over the next half-century or longer.

Once actual experience has occurred and been observed it will not coincide exactly with assumed experience, regardless of the skill of the actuary and the completeness of the data. Each valuation provides a complete recalculation of system costs based upon assumptions regarding future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of small adjustments of the computed contribution rate.

From time to time it becomes necessary to adjust the package of assumptions to reflect basic experience trends -- but not random year to year fluctuations. We will recommend changes whenever we feel they are appropriate.

### **ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION**

*Investment Return* (net of investment expenses). We calculated the results using a 5.3% investment return assumption as requested by the County.

This assumption is used to equate the value of payments due at different points in time and was first used for the December 31, 2006 valuation. Approximate rates of investment return, for the purpose of comparisons with assumed rates, are shown below. Actual increases in average active member pay are also shown for comparative purposes.

		<b>5 Year</b>				
	2008	2007	2006	2005	^ 2004	Average*
Rate of Investment Return	0.7 %	8.3 %	8.8 %	1.5 %	0.6 %	3.9 %
Average Increase in Pay	2.9 %	2.8 %	5.9 %	3.0 %	4.9 %	3.9 %
Real Rate of Return	(2.2)%	5.5 %	2.9 %	(1.5)%	(4.3)%	0.0 %

<sup>^</sup> Before change in asset valuation method.

The nominal rate of return was computed using the approximate formula i = I divided by 1/2 (A + B - I), where I is actual investment income net of expenses, A is the beginning of year asset value, and B is the end of year asset value.

These rates of return should not be used for measurement of an investment advisor's performance or for comparisons with other systems.

*Pay Projections*. These assumptions are used to project current pays to those upon which benefits will be based. The assumptions were first used for the December 31, 2005 valuation.

**Annual Rate of Pay Increase for Sample Ages** 

	Mer	Merit & Longevity			Total		
Base	General*	Road	Sheriff	General	Road	Sheriff	
5.00%	3.50%	5.00%	6.00%	8.50%	10.00%	11.00%	
5.00%	3.50%	5.00%	6.00%	8.50%	10.00%	11.00%	
5.00%	3.00%	5.00%	6.00%	8.00%	10.00%	11.00%	
5.00%	3.00%	5.00%	6.00%	8.00%	10.00%	11.00%	
5.00%	1.00%	0.50%	6.00%	6.00%	5.50%	11.00%	
5.00%	1.00%	0.50%	0.50%	6.00%	5.50%	5.50%	
5.00%	0.50%	0.50%	0.50%	5.50%	5.50%	5.50%	
	5.00% 5.00% 5.00% 5.00% 5.00% 5.00%	Base         General*           5.00%         3.50%           5.00%         3.50%           5.00%         3.00%           5.00%         3.00%           5.00%         1.00%           5.00%         1.00%	Base         General*         Road           5.00%         3.50%         5.00%           5.00%         3.50%         5.00%           5.00%         3.00%         5.00%           5.00%         3.00%         5.00%           5.00%         1.00%         0.50%           5.00%         1.00%         0.50%	Base         General*         Road         Sheriff           5.00%         3.50%         5.00%         6.00%           5.00%         3.50%         5.00%         6.00%           5.00%         3.00%         5.00%         6.00%           5.00%         3.00%         5.00%         6.00%           5.00%         1.00%         0.50%         6.00%           5.00%         1.00%         0.50%         0.50%	Base         General*         Road         Sheriff         General           5.00%         3.50%         5.00%         6.00%         8.50%           5.00%         3.50%         5.00%         6.00%         8.50%           5.00%         3.00%         5.00%         6.00%         8.00%           5.00%         3.00%         5.00%         6.00%         8.00%           5.00%         1.00%         0.50%         6.00%         6.00%           5.00%         1.00%         0.50%         0.50%         6.00%	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	

<sup>\*</sup> Includes Mental Health Authority.

<sup>\*</sup> Compound rate of increase.

If the number of active members remains constant, the total active member payroll is expected to increase 5.0% annually, the base portion of the individual pay increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities.

Average changes actually experienced in pay have been as follows:

	5 Year				
2008	2007	2006	2005	2004	Average*
2.9 %	2.8 %	5.9 %	3.0 %	4.9 %	3.9 %

<sup>\*</sup> Compound rate of increase.

Active Member Group Size: The number of active members was assumed to remain constant.

*Mortality*. The 1994 Group Annuity Mortality Table was first used for the December 31, 2005 valuation. Sample values follow:

	Single Life Retirement Values					
Sample	Present	Value of \$1	Future Life			
Attained	Monthly	Monthly for Life@		ıcy (years)		
Ages	Men	Women	Men	Women		
50	\$342.60	\$387.44	30.69	34.89		
55	293.70	337.18	26.15	30.17		
60	246.58	287.71	21.83	25.59		
65	202.71	240.68	17.84	21.28		
70	163.25	196.90	14.29	17.30		
75	127.66	155.57	11.12	13.60		

<sup>@</sup> These values include 5% annual increases, but do not include the effect of temporarily high health inflation.

This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement.

Future disabled lives were valued using the above table set forward seven years.

**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.

Sample	Years of	% of Active Members Separating within Next Year				
Ages	Service	General*	Road	Sheriff		
ALL	0	10.00%	3.00%	5.00%		
	1	9.00%	3.00%	5.00%		
	2	7.00%	3.00%	5.00%		
	3	6.00%	3.00%	5.00%		
	4	6.00%	3.00%	5.00%		
20	5 & Over	6.00%	3.00%	5.00%		
25		6.00%	3.00%	5.00%		
30		6.00%	3.00%	4.40%		
35		4.80%	2.40%	2.80%		
40		3.40%	1.40%	1.70%		
45		3.00%	1.00%	1.20%		
50		3.00%	1.00%	0.70%		
55		3.00%	1.00%	0.50%		
60		2.40%	1.00%	0.50%		
65		2.00%	1.00%	0.50%		

<sup>\*</sup> Includes Mental Health Authority.

The rates were first used for the December 31, 2005 valuation.

**Rates of Disability.** These rates represent the probabilities of active members becoming disabled.

Sample Ages	Percent Becoming Disabled within Next Year
20	0.08%
25	0.08%
30	0.08%
35	0.08%
40	0.20%
45	0.26%
50	0.49%
55	0.89%
60	1.41%

These rates were first used for the December 31, 1985 valuation. For the Sheriff's Department, the disability assumption is split to reflect 75% as non-duty disability and 25% as duty disability.

**Rates of Retirement**. These rates are used to measure the probability of eligible members retiring during the next year.

Percent of
Active Members Retiring
within Next Year

		VVICILIII I	10210 1041			
Retirement	General	General		_		
Ages	Original*	Modified*	Road	Sheriff	Service	Sheriff
50	5.0%	10.0%	25.0%		25	20.0%
51	5.0%	10.0%	25.0%		26	20.0%
52	5.0%	10.0%	25.0%		27	20.0%
53	5.0%	10.0%	25.0%		28	20.0%
54	5.0%	10.0%	25.0%		29	20.0%
55	5.0%	10.0%	25.0%		30	20.0%
56	10.0%	5.0%	25.0%		31	20.0%
57	10.0%	5.0%	25.0%		32	20.0%
58	10.0%	5.0%	25.0%		33	20.0%
59	10.0%	5.0%	25.0%		34	20.0%
60	20.0%	20.0%	25.0%	25.0%	35+	100.0%
61	20.0%	20.0%	10.0%	25.0%		
62	20.0%	20.0%	30.0%	25.0%		
63	20.0%	20.0%	20.0%	25.0%		
64	20.0%	20.0%	20.0%	25.0%		
65	40.0%	40.0%	100.0%	100.0%		
66	40.0%	40.0%	100.0%	100.0%		
67	40.0%	40.0%	100.0%	100.0%		
68	40.0%	40.0%	100.0%	100.0%		
69	40.0%	40.0%	100.0%	100.0%		
70+	100.0%	100.0%	100.0%	100.0%		

<sup>\*</sup> Includes Mental Health Authority.

A member of the General, Mental Health or Road Commission Divisions was understood to be eligible for retirement after attaining age 55 with 25 or more years of service or age 60 with 8 years of service. A member of the Sheriff's Dept. was understood to be eligible for retirement upon completion of 25 years of service or at age 60 with 8 years of service. Members of groups with "Rule of 80" were understood to be eligible if the sum of their age plus years of service was greater than or equal to 80 and their years of service equaled 25 or more.

*The assumed rate of increase for health care costs* is the assumption used to predict the amount of benefit payments in future years. The assumed rates are shown in the table below:

_	Health Care Trend
Year after	Medical and
Valuation Date	<b>Prescription Drug</b>
1	9.00 %
2	8.50
3	8.00
4	7.50
5	7.00
6	6.50
7	6.00
8	5.50
9	5.00
10	5.00
11+	5.00

#### Marital status at retirement:

	2 Person Coverage	Continuation Percentage
Males	80%	100%
Females	50%	100%

Opt-Out: 20% of future retirees from the groups with member contributions were assumed to opt-out.

*Medicare coverage* was assumed to be available for all covered members on attainment of age 65, or immediately if retired for disability.

Non-investment administration expenses - none.

#### GLOSSARY

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

**Accrued Service**. The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Assumptions. Estimates of future plan 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 plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

**Actuarial Equivalent**. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

**Actuarial Present Value**. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Amortization**. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

**Experience Gain (Loss)**. A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

**Normal Cost.** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Plan Termination Liability**. The actuarial present value of future plan benefits based on the assumption that there will be no further accruals for the future service and salary. The termination liability will generally be less than the liabilities computed on a "going concern" basis and is not normally determined in a routine actuarial valuation.

**Reserve Account**. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

*Unfunded Actuarial Accrued Liability*. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

*Valuation Assets*. The value of current plan assets recognized for valuation purposes. Generally based on book value plus a portion of unrealized appreciation or depreciation.



October 2, 2009

Ms. Tami Rumsey St. Clair County Employees Retirement System 200 Grand River, Suite 206 – County Building Port Huron, Michigan 48060

Dear Tami:

Please find enclosed 20 copies of the report of the Twenty-Fourth Annual Actuarial Valuation of the retiree health care benefits paid by the St. Clair County Employees Retirement System as of December 31, 2008. The basic retirement benefits are the subject of a separate report.

Sincerely,

Cathy Nagy

CN:sc Enclosures