

CITY OF DEARBORN CHAPTER 22 RETIREMENT SYSTEM
44TH ANNUAL ACTUARIAL VALUATION
JUNE 30, 2010

February 11, 2011

Board of Trustees
City of Dearborn Chapter 22 Retirement System
Dearborn, Michigan

Re: City of Dearborn Chapter 22 Retirement System Actuarial Valuation as of June 30, 2010

Dear Board Members:

The results of the 44th Annual Actuarial Valuation of the City of Dearborn Chapter 22 Retirement System are presented in this report. The purpose of the valuation was to measure the System's funding progress and to determine the employer contribution for the next fiscal year.

The valuation was based upon information, furnished by the City, concerning Retirement System benefits, financial transactions, and active members, terminated members, retirees and beneficiaries. Data was checked for internal and year-to-year consistency, but was not otherwise audited.

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. All of the undersigned 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. It is our opinion that the actuarial assumptions used for the valuation produce results which are reasonable.

Respectfully submitted,



Mark Buis, FSA, MAAA



Curtis Powell, EA, MAAA

MB/CP:mrb

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EXECUTIVE SUMMARY/BOARD SUMMARY

1. Required Employer Contributions to Support Retirement Benefits

The computed employer contribution for the fiscal year beginning July 1, 2011 is shown below.

Contribution	Amount
All Divisions	12.80% of payroll Plus \$2,125,679

2. Contribution Rate Comparison

The chart below compares the results of this valuation of the Retirement System with the results of the prior year's valuation:

Valuation Date	6/30/2009	6/30/2010
All Divisions	12.89% of payroll Plus \$1,963,856	12.80% of payroll Plus \$2,125,679

3. 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 used to predict future occurrences. The third is the difference during the year between the plan's actual experience and what the assumptions predicted.

EXECUTIVE SUMMARY/BOARD SUMMARY

There were no benefit changes reported to the actuary for the year ended June 30, 2010. In addition, there were no assumption changes. Experience for the year ended June 30, 2010 was unfavorable and is described in detail in Item 4.

4. Plan Experience

As indicated above, System experience for the year ended June 30, 2010 was unfavorable. During the year ended June 30, 2010, the return on fund assets was lower than expected. The market value smoothing techniques used in this valuation of the System recognize both past and present investment gains over a 5 year period. The resulting actuarial asset yield for the year ended June 30, 2010 was 3.61%. Losses due to unfavorable investment return were partially offset by gains from pay increases lower than expected. Detailed information related to System experience is shown on page B-2.

5. Looking Ahead

Due to the asset smoothing method used in the valuation, only a portion of the gains and losses from prior years was recognized this year. If the Market Value of Assets were used in this valuation (instead of the smoothed value), the estimated employer contribution would be approximately \$5.6 million (instead of \$4.2 million) and the funded status would be about 75.4% (instead of 84.9%). The June 30, 2011 valuation will likely show an increase in the employer contribution amount, as the remaining unrecognized losses work their way through the asset smoothing method.

EXECUTIVE SUMMARY/BOARD SUMMARY

6. Recommendation

Useful and reliable valuation results are dependent on an underlying set of appropriate actuarial assumptions. From time to time the assumptions should be reevaluated in the light of emerging experience – the plan’s own and the experience of similar groups – and expected future experience. With a plan the size of the City of Dearborn Chapter 22 Retirement System, credible experience is limited and can vary significantly from year to year. Over an extended period, however, some trends can be detected. We believe that it is timely for an analysis to be made of the Retirement System’s experience during the last 5 years. **Additionally, the GFOA recommends that a study be performed at least once every 5 years.** Such a study would:

- Analyze retirement probabilities, termination probabilities, probabilities of disablement, mortality rates and pay changes;
- look at economic and demographic experience separately;
- suggest appropriate changes in economic and demographic assumptions and show their effect on computed contribution rates; and
- review the amortization policy.

It is recommended that an experience study be conducted prior to the next regular annual actuarial valuation.

SECTION A
INTRODUCTION

FUNDING OBJECTIVE

The funding objective of the Retirement System is to establish and receive contributions which will accumulate assets during each member's working years which, together with regular interest, will be sufficient to pay promised benefits after retirement.

CONTRIBUTION RATES

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

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

- (1) Cover the actuarial present value of benefits allocated to the current year by the actuarial cost method described in Section G (the normal cost); and
- (2) Finance over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (the unfunded actuarial accrued liability).

Computed contribution rates for the fiscal year beginning July 1, 2011 are shown on page A-2.

CONTRIBUTION REQUIREMENTS

Development of Employer Contributions for the Indicated Valuation Date

Computed Employer Contributions for	June 30,	
	2009	2010
Current Cost (Normal Cost):		
Age and service annuities	12.19 %	12.11 %
Disability annuities	0.39 %	0.39 %
Death-in-service annuities	0.31 %	0.30 %
Total Current Cost*	12.89 %	12.80 %
Accrued Liabilities Amortization	\$1,963,856	\$2,125,679

* Effective 6/30/99 the Board of Trustees set a minimum employer contribution rate of 10% of total normal cost. The current cost when reduced by the accrued liability credit (if any) should not fall short of the minimum contribution.

The employer contributions expressed as dollars are to be determined by multiplying the above normal cost percents by the amount of covered payroll at each pay date for the coming fiscal year and adding the Accrued Liability Amortization amount. Such covered payroll includes not only base pay but also all other types of pay usable in computing the member’s final average pay.

For example, based on estimated payroll for Fiscal Year 2012 of \$16,350,926, the contribution would be developed as follows:

Normal Cost **	\$ 2,092,919
Accrued Liability	<u>2,125,679</u>
Total	\$ 4,218,598
Contribution as a % of Estimated Payroll	25.8%

**12.80% x \$16,350,926 = \$2,092,919

SECTION B
FUNDING RESULTS

PRESENT VALUE OF FUTURE BENEFITS AND ACCRUED LIABILITY

Determination of Unfunded Accrued Liability

	June 30,	
	2009	2010
A. Accrued Liability		
1. For retirees and beneficiaries	\$ 88,431,912	\$ 88,390,536
2. For vested terminated members	11,426,365	11,537,960
3. For present active members		
a. Value of expected future benefit payments	80,369,921	79,397,904
b. Value of future normal costs	16,882,241	15,247,035
c. Active member accrued liability: (a) - (b)	<u>63,487,680</u>	<u>64,150,869</u>
4. Total accrued liability	163,345,957	164,079,365
B. Present Assets (Funding Value)	<u>140,164,523</u>	<u>139,370,456</u>
C. Unfunded Accrued Liability: (A.4) - (B)	<u>23,181,434</u>	<u>24,708,909</u>
D. Funding Ratio: (B) / (A.4)	<u>85.8%</u>	<u>84.9%</u>
E. Funding Ratio: Market Value Basis	<u>70.6%</u>	<u>75.4%</u>

Dearborn Chapter 22 Retirement System Annual Actuarial Valuation

DERIVATION OF EXPERIENCE GAIN/(LOSS)

Actual experience will never (except by coincidence) exactly match assumed experience. Gains and losses often 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, along with a year-by-year comparative schedule.

	June 30,	
	2009	2010
(1) UAAL* at start of year	\$17,783,766	\$23,181,434
(2) Normal cost from last valuation	2,372,034	2,254,276
(3) Actual contributions	3,922,488	3,715,449
(4) Interest accrual	1,233,119	1,627,686
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	17,466,431	23,347,947
(6) Change from benefit increases	0	0
(7) Change in actuarial method	0	0
(8) Expected UAAL after changes: (5) + (6) + (7)	17,466,431	23,347,947
(9) Actual UAAL at end of year	23,181,434	24,708,909
(10) Gain (loss): (8) - (9)	\$ (5,715,003)	\$ (1,360,962)

* *Unfunded actuarial accrued liabilities.*

Valuation Date	Experience Gain (Loss)
June 30	As % of Beginning Accrued Liability
2008	(0.1)%
2009	(3.6)%
2010	(0.8)%

SECTION C
FUND ASSETS

Dearborn Chapter 22 Retirement System Annual Actuarial Valuation

DEVELOPMENT OF FUNDING VALUE OF ASSETS (5-YEAR SMOOTHING)

Development of Funding Value of Assets (5 Year Smoothing)					
Year Ended June 30:	2010	2011	2012	2013	2014
A. Funding Value Beginning of Year	\$ 140,164,523				
B. Market Value End of Year	123,750,127				
C. Market Value Beginning of Year	115,246,255				
D. Non Investment Net Cash Flow					
D1. Non Investment Net Cash Flow Before Asset Transfer	(5,744,303)				
D2. Asset Transfer	0				
D3. Non Investment Net Cash Flow After Asset Transfer: (D1 + D2)	(5,744,303)				
E. Investment Income					
E1. Total: B-C-D	14,248,175				
E2. Amount for Immediate Recognition (7.25%)	9,953,697				
E3. Amount for Phased in Recognition: E1-E2	4,294,478				
F. Phased in Recognition of Investment Income					
F1. Current Year: 0.20 x E3	858,896				
F2. First Prior Year	(5,495,194)	\$ 858,896			
F3. Second Prior Year	(2,203,170)	(5,495,194)	\$ 858,896		
F4. Third Prior Year	1,836,007	(2,203,170)	(5,495,194)	\$ 858,896	
F5. Fourth Prior Year	0	1,836,009	(2,203,169)	(5,495,193)	\$ 858,894
F6. Total Recognized Investment Gain	\$ (5,003,461)	\$ (5,003,459)	\$ (6,839,467)	\$ (4,636,297)	\$ 858,894
G. Funding Value End of Year					
G1. Preliminary Funding Value End of Year: (A+D3+E2+F6)	139,370,456				
G2. Upper Corridor Limit: 120% x B	148,500,152				
G3. Lower Corridor Limit: 80% x B	99,000,102				
G4. Funding Value End of Year	139,370,456				
H. Difference Between Market Value & Funding Value	(15,620,329)	(10,616,870)	(3,777,403)	858,894	0
I. Market Rate of Return	12.7%				
J. Ratio of Funding Value to Market Value	112.6%				

The funding value of assets recognizes assumed investment return (line E2) fully each year. Differences between actual and assumed investment return (line E3) are phased in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, funding value of assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, funding value of assets will tend to be greater than market value. The funding value of assets is **unbiased** with respect to market value. At any time it may be either greater or less than market value. If actual and assumed rates of investment return are exactly equal for 4 consecutive years, the funding value will become equal to market value.

SECTION D
CENSUS DATA

JUNE 30, 2010 VALUATION DATA SUMMARY

For purposes of the June 30, 2010 valuation, information on 941 covered persons was furnished. This data may be briefly summarized as follows.

	No.	Averages			
		Age	Service	Annual Pay or Retirement Allowance	
				2010	2009
Actives	309	50.5	17.9	\$56,597	\$57,553
Retirees & Beneficiaries	562	74.2		16,761	16,444
Inactive Vested	70	53.6		19,927	19,163
	941				

Active member covered pays used in the valuation are developed in the following manner:

- (1) Each member's covered pay during the past fiscal year is determined by the Controller's staff and reported to the actuary. Covered pay is the total, paid in the year ended with the June 30 valuation date, of (a) base pay plus (b) a variety of specified supplemental payments such as vacation pay, sick pay, holiday pay and so forth.
- (2) The covered pay (1) is converted by the actuary to the equivalent annual rate as of the June 30 valuation date.
- (3) If there is a pay increase amount that becomes known during the July 1 to October 1 period (when actuarial valuation data is being assembled), covered pay (2) is increased to reflect that known increase. Similarly, if pay negotiations are taking place at October 1, which will later change pays retroactive to June 30 or earlier, covered pay (2) is increased by the lower of the pay increase proposals in negotiation.

More detailed information regarding the covered persons is presented on the following pages.

ACTIVE MEMBERS

**Members in Active Service as of June 30, 2010
by Years of Service**

Age	Years of Service							Total Count	Total Pay	Average Pay
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & Up			
30 - 34		2	4					6	\$ 326,293	\$54,382
35 - 39		3	8	3				14	758,694	54,192
40 - 44		8	22	9	9			48	2,488,379	51,841
45 - 49	1	5	18	20	31	5		80	4,869,696	60,871
50 - 54		9	16	18	21	6		70	3,966,053	56,658
55 - 59		1	20	10	15	4	5	55	3,173,061	57,692
60 - 64		1	5	7	3	3	8	27	1,464,917	54,256
65 - 69			2	2	2		3	9	441,477	49,053
Total	1	29	95	69	81	18	16	309	\$ 17,488,570	\$56,597

RETIRANTS AND BENEFICIARIES

Attained Ages	Males		Females		Total	
	No.	Monthly Annuities	No.	Monthly Annuities	No.	Monthly Annuities
24 & Under	2	\$ 2,781	3	\$ 2,375	5	\$ 5,156
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	0	0	2	1,186	2	1,186
45-49	1	1,959	1	1,651	2	3,610
50-54	3	7,026	9	20,455	12	27,481
55-59	18	48,187	9	22,679	27	70,866
60-64	59	148,644	39	73,661	98	222,305
65-69	38	86,038	28	42,855	66	128,893
70-74	26	45,038	37	49,296	63	94,334
75-79	29	37,732	46	45,405	75	83,137
80-84	49	50,095	52	36,993	101	87,088
85-89	34	23,917	37	17,964	71	41,881
90-94	12	8,121	19	8,074	31	16,195
95-99	0	0	9	2,839	9	2,839
100 +	0	0	0	0	0	0
Totals	271	\$459,538	291	\$325,433	562	\$784,971

TERMINATED VESTED MEMBERS

Attained Ages	Number	Estimated Annual Annuities
38	1	\$ 10,886
42	3	42,241
43	2	26,946
44	1	16,582
45	1	21,571
46	3	31,650
47	3	43,985
48	2	42,285
49	2	41,224
50	4	64,010
51	2	36,680
52	7	132,528
53	3	34,481
54	2	30,631
55	7	156,834
56	2	17,183
57	4	114,486
58	9	245,694
59	10	201,927
66	1	39,504
67	1	43,583
Totals	70	\$1,394,911

SECTION E
METHODS AND ASSUMPTIONS

**SUMMARY OF ASSUMPTIONS USED
FOR THE JUNE 30, 2010 ACTUARIAL VALUATION
(ASSUMPTIONS ADOPTED BY BOARD OF TRUSTEES
AFTER CONSULTING WITH ACTUARY)**

The assumptions were revised for the June 30, 2005 valuation, unless a different date is indicated for a particular assumption. It is anticipated that non-economic assumptions will be reviewed periodically after sufficient data have accumulated.

ECONOMIC ASSUMPTIONS

The investment return rate assumed in the valuations was 7.25% per year, compounded annually (net after administrative expenses).

The **Wage Inflation Rate** assumed in this valuation was 3.75% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macro economic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes rated to individual merit and seniority effects.

No specific **Price Inflation** assumption is required to perform this valuation, since there are no benefits that are linked to price increases. However, a price inflation assumption on the order of 2.5% to 3.5% would be consistent with other economic assumptions.

The assumed real rate of return over wage inflation is defined to be the portion of total investment return that is more than the assumed total wage growth rate. Considering other economic assumptions, the 7.25% investment return rate translates to an assumed real rate of return over wage inflation of 3.50%. The assumed real rate of return over price inflation would be higher – on the order of 3.75% to 4.75%, considering both an inflation assumption and an average expense provision.

(continued on next page)

**SUMMARY OF ASSUMPTIONS USED
FOR THE JUNE 30, 2010 ACTUARIAL VALUATION
(CONTINUED)**

Pay increase assumptions for individual active members are shown for sample ages on page E-5. Part of the assumption for each age is for merit and/or seniority increase, and the other 3.75% recognizes wage inflation, including price inflation, productivity increases, and other macro economic forces.

NON-ECONOMIC ASSUMPTIONS

The mortality table used to measure retired life mortality was the 1994 Group Annuity Mortality Male Table for men and the 1994 Group Annuity for women. 100% of the rates are used for post-retirement purposes, 60% for pre-retirement purposes. Related values are shown on page E-4.

The probabilities of age/service retirement for members eligible to retire are shown on page E-4.

The probabilities of separation from service (including *death-in-service* and *disability*) are shown for sample ages on page E-5.

The actuarial cost method of valuation used in determining all benefit liabilities and normal cost was the entry age normal actuarial cost method. Differences between assumed experience and actual experience (“actuarial gains and losses”) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized over periods of future years to produce contribution amounts (principal & interest) which are level dollar contributions.

The unfunded actuarial accrued liability (UAAL) was determined using the funding value of assets and actuarial accrued liability calculated as of the valuation. The UAAL amortization payment (one component of the contribution requirement), is the level dollar amount required to fully amortize the UAAL over a 24-year period beginning on the valuation date. This UAAL payment does not reflect any payments expected to be made between the valuation date and the date contributions determined by this report are scheduled to begin.

(concluded on next page)

**SUMMARY OF ASSUMPTIONS USED
FOR THE JUNE 30, 2010 ACTUARIAL VALUATION
(CONCLUDED)**

Employer contribution dollars were assumed to be *paid in equal installments throughout* the employer fiscal year.

Present assets (cash and investments) are valued on a market-related basis effective June 30, 1994. At each year end (June 30), the funding asset value is moved toward market value, by immediate recognition of assumed earnings and a five year phase in of the difference between actual and assumed earnings. Effective June 30, 2003, the funding value must be within a range of 80% - 120% of the market value. However, as adopted by the Board, the 20% corridor did not apply for the June 30, 2009 valuation.

The data about persons now covered and about present assets were furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA).

**SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2010**

Single Life Retirement Values

Sample Attained Ages	Single Life Retirement Values			
	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
	50	\$144.28	\$151.03	30.69
55	135.55	143.96	26.15	30.17
60	124.83	134.87	21.83	25.59
65	112.49	124.03	17.84	21.28
70	99.13	111.62	14.29	17.30
75	84.57	96.94	11.12	13.60
80	69.37	80.88	8.37	10.31
Ref:	261 x 1.00	262 x 1.00		

Probabilities of Retirement for Members Eligible to Retire

Attained Ages	Percent of Eligible Members Retiring Within Next Year				
	General Members		Police Dispatch Members		Operative Members
	Males	Females	Males	Females	
50			30%	30%	
51			30%	30%	
52			30%	30%	
53			30%	30%	
54			30%	30%	
55	40%	35%	40%	35%	30%
56	25%	20%	25%	20%	30%
57	25%	20%	25%	20%	30%
58	25%	20%	25%	20%	30%
59	25%	20%	25%	20%	30%
60	35%	30%	35%	30%	30%
61	25%	20%	25%	20%	30%
62	30%	25%	30%	25%	40%
63	30%	25%	30%	25%	40%
64	30%	25%	30%	25%	40%
65	60%	55%	60%	55%	40%
66	30%	25%	30%	25%	40%
67	35%	30%	35%	30%	40%
68	45%	45%	45%	45%	40%
69	50%	45%	50%	45%	40%
70	100%	100%	100%	100%	100%
Ref:	1027	1028	1409	1410	1026

Effective 6/30/99, if a person has the maximum years of credited service for benefit purposes, the assumed probability of retirement is the greater of 25% or the rate in the retirement table.

**SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2010**

Rates of Separation from Active Employment before Normal Retirement

Sample Ages	% of Active Members Separating Within Next Year								
	Death		Non-Duty Disability				Withdrawal		
	Males	Females	General		Operative		General		Operative
			Males	Females	Males	Females	Males	Females	
25	0.04%	0.02%	0.04%	0.03%	0.06%	0.08%	10.00%	10.00%	4.00%
30	0.05%	0.02%	0.04%	0.03%	0.06%	0.08%	8.80%	8.80%	4.00%
35	0.05%	0.03%	0.04%	0.03%	0.06%	0.08%	6.80%	6.80%	4.00%
40	0.06%	0.04%	0.10%	0.09%	0.15%	0.27%	4.50%	4.80%	3.40%
45	0.09%	0.06%	0.13%	0.10%	0.20%	0.30%	2.60%	3.40%	2.40%
50	0.15%	0.09%	0.25%	0.14%	0.37%	0.43%	1.40%	2.40%	1.40%
55	0.27%	0.14%	0.45%	0.19%	0.67%	0.57%	0.70%	1.40%	0.70%
Ref	0.6 x 261	0.6 x 262	0.50 x 9	0.25 x 10	0.75 x 9	0.75 x 10	1 x 685	1 x 686	1 x 263

The interest rate currently being credited on refunds of accumulated contributions paid to terminating members was assumed to be 0% per annum, in accordance with the Board of Trustees resolution.

Pay Increase Assumptions for Individual Members

GENERAL			
Sample Ages	Percent Increase in Pay During Next Year		
	Base Portion	Merit & Seniority	Total
25	3.75%	3.30%	7.05%
30	3.75%	1.60%	5.35%
35	3.75%	1.20%	4.95%
40	3.75%	0.90%	4.65%
45	3.75%	0.80%	4.55%
50	3.75%	0.60%	4.35%
55	3.75%	0.50%	4.25%
60	3.75%	0.40%	4.15%
65	3.75%	0.40%	4.15%
Ref		131	

OPERATIVE			
Sample Ages	Percent Increase in Pay During Next Year		
	Base Portion	Merit & Seniority	Total
25	3.75%	2.88%	6.63%
30	3.75%	1.98%	5.73%
35	3.75%	1.52%	5.27%
40	3.75%	1.10%	4.85%
45	3.75%	0.66%	4.41%
50	3.75%	0.32%	4.07%
55	3.75%	0.14%	3.89%
60	3.75%	0.00%	3.75%
65	3.75%	0.00%	3.75%
Ref		92	

SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2010
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	80% of males and 25% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Pay Increase Timing:	Reported pays were adjusted by 2% (1% for some units) to account for an increase scheduled to take effect on July 1, 2010. Future pay increases are thereafter assumed to occur at the end of the fiscal year. This means that the reported pay with the 2% adjustment is assumed to be the pay that will be paid during the fiscal year following the valuation date.
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.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and turnover decrements do not operate during retirement eligibility.
Service Credit Accruals:	It is assumed that members accrue one year of service credit per year.
Miscellaneous Loading Factors:	The normal cost and liabilities for all decrements were increased by 0.8% to account for the additional cost resulting from participants electing to receive benefits in a form other than the normal form.
Option Factors:	Option factors are based upon 7.25% interest and the 1994 Group Annuity with an 85% Unisex Blend.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Normal Form of Benefit:	A straight life payment is the assumed normal form of benefit.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.

SECTION F
PLAN PROVISIONS

SUMMARY OF PROVISIONS (2010) EVALUATED AND/OR CONSIDERED

1. **Voluntary Retirement.** A member may retire after either: completing 25 years of service and attaining age 55 (age 50 for Police Dispatch members); or attaining age 60 and completing 10 years of service. Department Heads and the Mayoral Assistant need 24 years of service to qualify at age 55.

2. **Age & Service Annuity For Service 7-1-1974 & Later.** An annuity equal to (a) 2.50% of final average earnings times the first 26 years of credited service plus 1.25% of final average earnings times the next four years of credited service, which are rendered after 7-1-74.

Final Average Earnings means the average of the member's highest annual pays received during any 3 consecutive years of service contained within the last 10 years of credited service.

3. **Age & Service Annuity For Service Before 7-1-74.** An annuity equal to: 2.75% of indexed average final pay times the first 30 years of credited service rendered before 7-1-74, with a maximum of \$5,900 annually.

Average Final Pay means the average of the highest annual pays received by the member during any 3 consecutive years of service contained within the last 10 years of credited service, with a maximum of \$8,500.

The above \$5,900 and \$8,500 maximums are indexed each July 1 for the coming year, as follows:

(a) The adjusted maximum is the unadjusted maximum increased by 3% compounded annually for each year since July 1, 1974, subject to the maximum in (b).

(b) The adjusted maximum cannot exceed the unadjusted maximum multiplied by the ratio of the average Consumer Price Index for the calendar year immediately preceding retirement to the average Consumer Price Index for calendar 1974.

**SUMMARY OF PROVISIONS (2010) EVALUATED AND/OR CONSIDERED
(CONTINUED)**

For retirements during the period July 1, 2010 to June 30, 2011, \$17,100 is applied in place of \$5,900 and \$24,635 is applied in place of \$8,500. The Total Age & Service Annuity is the total of the post-1974 annuity and the pre-1974 annuity.

4. ***Deferred Annuity.*** A member with 10 or more years of service who leaves City employment before retirement receives an annuity computed in the same manner as an age and service annuity, payments beginning upon application at voluntary retirement age.
5. ***Duty Disability Annuity.*** A member who becomes totally and permanently disabled from duty-connected causes before attaining age 60 receives, subject to offsetting for worker's compensation and Social Security, a duty disability annuity computed in nearly the same manner as an age and service annuity, including service credit for the period from disability to age 60.
6. ***Non-Duty Disability Annuity.*** A member with 10 or more years of service who becomes totally and permanently disabled from other than duty-connected causes receives a non-duty disability annuity computed in nearly the same manner as a service annuity.
7. ***Death-in-Service Benefits.*** Upon the death of a member, the surviving dependents receive, subject to offsetting for worker's compensation and Social Security, the following benefits:
 - (a) The spouse receives an annuity equal to the Option B-100 annuity (joint and 100% survivor actuarial equivalent benefit) which would have been payable had the deceased member retired at the time of death and elected Option B-100. The minimum annuity payable to the spouse is 20% of the member's final average earnings.
 - (b) The dependent children under age 18 (age 23 if they are full-time students) each receive an annuity of 15% of the member's final average earnings until they reach age 18 (23). If there are 4 or more dependent children, each child receives an equal share of 50% of the member's final average earnings until they reach the above ages.
 - (c) If there are neither a spouse nor children, each dependent parent receives an annuity equal to 15% of final average earnings.

**SUMMARY OF PROVISIONS (2010) EVALUATED AND/OR CONSIDERED
(CONCLUDED)**

8. **Annuity Withdrawal.** Upon retirement a member may withdraw a lump sum not to exceed the accumulated member contributions. (Other provisions apply to withdrawal of contributions prior to retirement.)
9. **Optional Benefit Forms.** Retiring members may elect to receive a reduced retirement allowance with the provision that a portion (100%, 75%, or 50%) of the reduced amount will continue to a beneficiary after the death of the retiree. The reduction amount is based upon 7.25% interest, the 1994 Group Annuity Mortality Table with an 85% Unisex blend, and the ages of the retiree and beneficiary on the member's voluntary retirement date. If a member elects an optional form and the beneficiary predeceases the member, the amount payable to the member "pops-up" to the amount that would have been payable if the optional form had not been elected. This "pop-up" benefit is provided at no cost to the retiring member.
10. **Member Contributions.** Members no longer contribute to the Retirement System. If a member terminates employment and will not receive any annuity, then accumulated contributions if any are refunded.
11. **Employer Contributions.** The City contributes the amounts necessary to finance the Retirement System. The minimum employer contribution is 10% of the normal cost.

The plan was closed to new employees effective July 1, 2002.

SECTION G
GLOSSARY

Dearborn Chapter 22 Retirement System Annual Actuarial Valuation

<i>Actuarial Accrued Liability</i>	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.”
<i>Accrued Service</i>	The service credited under the plan which was rendered before the date of the actuarial valuation.
<i>Actuarial Assumptions</i>	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.
<i>Actuarial Cost Method</i>	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.”
<i>Actuarial Equivalent</i>	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.
<i>Actuarial Present Value</i>	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.
<i>Amortization</i>	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.
<i>Experience Gain (Loss)</i>	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.
<i>Normal Cost</i>	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.

Dearborn Chapter 22 Retirement System Annual Actuarial Valuation

<i>Reserve Account</i>	An account used to indicate that funds have been set aside for a specific purpose and is not generally available for other uses.
<i>Unfunded Actuarial Accrued Liability</i>	The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”
<i>Valuation Assets</i>	The value of current plan assets recognized for valuation purposes. Generally based on market value plus a portion of unrealized appreciation or depreciation.

APPENDIX

ACCOUNTING DISCLOSURES

This information is presented in draft form for review by the System's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the System's financial statements.

**STATEMENT OF PLAN ASSETS
AS OF JUNE 30, 2009 AND 2010**

	2009	2010
Assets		
Cash and short-term investments		
Cash and cash equivalents	\$ 50,535	\$ 67,292
Short-term investments	917,756	9,742,449
Subtotals	968,291	9,809,741
Receivables		
Accounts receivable and miscellaneous	2,580,686	117,231
Accrued interest and dividends	278,102	201,740
Unsettled trades	0	0
Subtotals	2,858,788	318,971
Investments, at fair value		
Fixed income	49,759,740	56,701,341
Stocks	17,498,527	13,035,630
Real estate	4,731,059	4,465,641
Co-mingled and mutual funds	39,524,146	42,098,040
Limited partnerships	0	0
Other	2,728,001	2,440,959
Subtotals	114,241,473	118,741,611
Total Assets	118,068,552	128,870,323
Liabilities		
Payables	2,822,297	5,120,196
Net assets held in trust for pension benefits (A schedule of funding progress for the plan is presented on page Appendix-6.)	\$115,246,255	\$123,750,127

**STATEMENT OF CHANGES IN PLAN ASSETS
FOR THE FISCAL YEARS ENDED JUNE 30, 2009 AND 2010**

	Reconciliation as of June 30	
	2009	2010
Additions		
Contributions		
Employer	\$ 3,922,488	\$ 3,715,449
Plan members	0	0
Other income	0	0
Total contributions	3,922,488	3,715,449
Investment return		
Net appreciation	(22,529,454)	11,765,390
Interest and dividends	5,470,973	2,839,255
Gain on sale of securities	0	0
Miscellaneous income	0	0
	(17,058,481)	14,604,645
Less investment expense	367,590	356,470
Net investment return	(17,426,071)	14,248,175
Total additions	(13,503,583)	17,963,624
Deductions		
Benefits	9,116,098	9,405,126
Refunds of contributions	90,986	54,626
DC transfer	0	0
Other	0	0
Total deductions	9,207,084	9,459,752
Net increase	(22,710,667)	8,503,872
Net assets held in trust for pension benefits		
Beginning of year	\$137,956,922	\$115,246,255
End of year	\$115,246,255	\$123,750,127

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FISCAL YEAR ENDED JUNE 30, 2010**

A. Summary of Significant Accounting Policies

Basis of Accounting. The accompanying financial statements are on the accrual basis of accounting.

Methods Used to Value Investments. Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments, and are discounted at prevailing interest rates for similar instruments. The fair value of real estate investments is based on independent appraisals. Investments that do not have an established market are reported at estimated fair value.

B. Plan Description and Contribution Information

Membership information as of June 30, 2010, the date of the latest actuarial valuation, is as follows:

Retirees and beneficiaries	562
Terminated vested members	70
Active members	<u>309</u>
Total	941

Dearborn Chapter 22 Retirement System Annual Actuarial Valuation

NOTES TO THE FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED JUNE 30, 2010 (CONCLUDED)

Plan Description. The City of Dearborn Chapter 22 Retirement System is a single-employer defined benefit pension plan that covers the General and Operative Unit employees of the City of Dearborn hired before January 1, 2002.

The plan provides retirement, disability, and death benefits to plan members and their beneficiaries.

Contributions. Plan members no longer make contributions to the Fund.

The employer's funding policy provides for periodic employer contributions based upon a *fundamental financial objective of having rates of contribution which remain relatively level from generation to generation of the City of Dearborn citizens.* To determine the employer contribution rates and to assess the extent to which the fundamental financial objective is being achieved, the System has actuarial valuations prepared annually. In preparing those valuations, the entry age actuarial cost method is used to determine normal cost and actuarial accrued liabilities.

For funding purposes, unfunded actuarial accrued liabilities are amortized by level dollar contributions over a period of future years. Effective June 30, 2010, the remaining unfunded/(overfunded) liabilities are amortized over 24 years.

For accounting purposes, the financing period is also 24 years. On the basis of the June 30, 2010 actuarial valuation, the employer rates were determined to be as follows:

Contributions for	Percents of Active Member Payroll
Normal Cost*	12.80 %
Accrued Liabilities (Credit)	\$2,125,679

* Per Board action, effective 6/30/99 the minimum employer contribution rate is 10% of the total normal cost.

RESERVES AS OF JUNE 30, 2010

The Fund balances were reported as follows:

Annuity Savings Fund	\$ 869,038
Annuity Reserve Fund	122,881,089
Total Market Value	\$123,750,127

Funding value of trust assets. At each year end (June 30), the funding asset value is moved toward market value, by immediate recognition of assumed earnings and a five year phase in of the difference between actual and assumed earnings. The intent is to recognize the long-term validity of market value changes while screening out the market's short-term moods.

The funding value was determined to be \$139,370,456. This asset value is used in actuarial determinations of financial condition and employer contribution rates.

In order to finance the liabilities, assets were applied as follows:

	Retired Lives	Active & Inactive Members	Totals
Annuity Savings Fund	\$ 0	\$ 869,038	\$ 869,038
Annuity Reserve Fund	88,390,536	34,490,553	122,881,089
Funding Adjustment	0	15,620,329	15,620,329
Totals	\$88,390,536	\$50,979,920	\$139,370,456

**REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS**

(Dollar amounts in millions)

Year Ended June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll [(b)-(a)]/(c)
1998@!	\$ 108.72	\$ 99.78	\$ (8.94)	109.0%	\$21.09	-
1999	122.05	106.94	(15.11)	114.1%	23.57	-
2000	134.29	115.28	(19.01)	116.5%	23.16	-
2001	139.92	120.26	(19.66)	116.3%	24.54	-
2002	139.71	125.25	(14.46)	111.5%	26.25	-
2002*	139.71	127.50	(12.21)	109.6%	26.25	-
2003	130.53	134.64	4.11	96.9%	25.49	16.1%
2003*	130.53	134.88	4.35	96.8%	25.49	17.1%
2004	128.39	139.87	11.48	91.8%	22.79	50.4%
2005	129.08	140.02	10.94	92.2%	21.59	50.7%
2005@	129.08	147.05	17.97	87.8%	21.59	83.2%
2006	130.12	151.42	21.30	85.9%	20.14	105.8%
2007	136.76	154.96	18.20	88.3%	19.09	95.4%
2008	141.26	159.05	17.79	88.8%	18.73	95.0%
2009	140.16	163.35	23.19	85.8%	18.36	126.3%
2010	139.37	164.08	24.71	84.9%	17.49	141.3%

* After change in benefit provisions.

@ After change in actuarial assumptions.

! For illustrative purposes only.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended June 30	Annual Required Contribution	Actual Contribution	Percent Contributed
1997	\$2,932,749	\$2,954,093	100.7%
1998	2,785,498	2,837,590	101.9%
1999	2,607,004	2,559,650	98.2%
2000	1,895,576	1,892,804	99.9%
2001	449,049	482,182	107.4%
2002	314,807	308,063	97.9%
2003	317,918	324,874	102.2%
2004	322,560	324,427	100.6%
2005	3,052,666	3,364,143	110.2%
2006	3,493,188	3,581,494	102.5%
2007	3,909,032	4,415,971	113.0%
2008	4,150,451	4,188,718	100.9%
2009	3,867,437	3,922,488	101.4%
2010	3,744,981	3,715,449	99.2%

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2010
Actuarial cost method	Entry Age Normal
Amortization method	Level dollar
Remaining amortization period	24 years
Asset valuation method	5-year smoothed market 80%/120% Corridor
Actuarial assumptions:	
Investment rate of return*	7.25%
Projected salary increases*	3.75%-7.05%
*Includes wage-inflation at	3.75%
Cost-of-living adjustments	N.A.

February 11, 2011

Mr. James J. O'Connor, Finance Director
City of Dearborn Retirement Systems
4500 Maple, City Hall
Dearborn, Michigan 48126

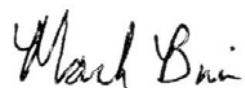
Re: Report of the June 30, 2010 Actuarial Valuation of Chapter 22

Dear Mr. O'Connor:

Enclosed please find 18 copies of this report.

Any questions or comments you may develop will be welcome.

Sincerely,



Mark Buis

MB:mr
Enclosures

cc: Plante & Moran (+1 report)
Attn: Les Pulver
Brian Murphy