

WAYNE COUNTY EMPLOYEES' RETIREMENT SYSTEM
ANNUAL ACTUARIAL VALUATION REPORT
SEPTEMBER 30, 2010

CONTENTS

<i>Section</i>	<i>Page</i>	
	1	Introduction
A		VALUATION RESULTS AND COMMENTS
	1	Funding Objectives
	2	Computed Contributions
	3-4	Historical Schedules
	5	Short Condition Test
	6	Gain (Loss) Analysis
	7	Comments
	8	Actuarial Balance Sheet
	9	Financing Benefit Promises
B		SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA
	1-9	Summary of Benefit Provisions Evaluated
	10-12	Asset Information
	13-18	Retired Life Data
	19	Inactive Vested Members
	20-36	Active Member Data
C		METHODS AND ASSUMPTIONS
	1-5	Financing Principles
	6	Actuarial Cost Methods
	7-12	Actuarial Assumptions
	13	Miscellaneous and Technical Assumptions
D		FINANCIAL REPORTING
	1-6	Certain Disclosures Required by GASB Statement No. 25

July 22, 2011

The Retirement Commission
Wayne County Employees' Retirement System
Detroit, Michigan

Dear Commission Members:

The results of the Annual Actuarial Valuation of the assets, actuarial present values and contribution rates needed to fund benefits provided by the Wayne County Employees' Retirement System are presented in this report. The date of the valuation was September 30, 2010. The report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. The results of this valuation may not be applicable for other purposes. This report may be provided to parties other than the Retirement System only in its entirety and only with the permission of the Board. The valuation was based upon data, furnished by County staff, concerning financial operations and active members, vested former members, retirees, and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data.

Valuation results and comments are presented in Section A.

The purpose of the valuation is to measure the System's funding progress, to determine the County and Airport contribution rates for the fiscal year ending September 30, 2012, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statements No. 25 and No. 27. The date of the valuation was September 30, 2010. The results of the valuation may not be applicable for other purposes.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This report was prepared by actuaries who have substantial experience valuing public employee retirement plans. 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.

Both of the undersigned actuaries submitting this report are Members of the American Academy of Actuaries (M.A.A.A.) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



Judith A. Kermans, EA, MAAA, FCA



Norman L. Jones, FSA, EA, MAAA, FCA

NLJ/JAK:clh

SECTION A

VALUATION RESULTS AND COMMENTS

FUNDING OBJECTIVE

The funding objective for the Retirement System is to establish and receive percent of payroll contributions which, when invested at the assumed rate of return, will accumulate assets over each member's working years that will be sufficient to pay expected retirement benefits.

CONTRIBUTION RATES

The Retirement System is supported by member contributions, employer contributions and investment income on Retirement System assets. Members contribute percentages of their pay (by Ordinance and/or collective bargaining agreement) and the employer contributes the actuarially determined remainder needed to meet the funding objective.

Contributions are determined by the actuarial valuation and are sufficient to:

- (1) cover the actuarial costs allocated to the current year by the actuarial cost method (the normal cost); and
- (2) finance over a period of future years the actuarial costs not covered by present assets and anticipated future normal costs (unfunded actuarial accrued liability).

Contribution requirements for the fiscal year beginning October 1, 2011 are shown on page A-2.

**CONTRIBUTIONS TO FINANCE DEFINED BENEFIT PLANS
OF THE RETIREMENT SYSTEM
FOR THE FISCAL YEAR BEGINNING OCTOBER 1**

Defined Benefit Plans - Contributions for	2011		2010	
	County	Airport	County	Airport
Normal Cost				
Service allowances	10.34 %	4.83 %	9.20 %	4.84 %
Disability allowances	1.71 %	0.79 %	1.70 %	0.79 %
Survivor allowances	0.54 %	0.42 %	0.55 %	0.43 %
Termination benefits				
Deferred service allowances	0.53 %	0.28 %	0.57 %	0.29 %
Refunds of member contributions	0.26 %	0.01 %	0.26 %	0.01 %
Total Normal Cost	13.38 %	6.33 %	12.28 %	6.36 %
Less Portion Paid by Members*	2.32 %	0.05 %	2.20 %	0.05 %
County Defined Benefit Normal Cost	11.06 %	6.28 %	10.08 %	6.31 %
Unfunded Actuarial Accrued Liability#	28.62 %	10.07 %	20.18 %	8.60 %
Total Computed Employer Rate	39.68 %	16.35 %	30.26 %	14.91 %

* Weighted average of the various contribution rates.

Amortized as a level percent of pay over a period of 29 years.

Historical contribution rates for prior fiscal years are shown on page A-3. The total computed employer contribution rates shown on this page are meant to be applied to Defined Benefit Plan payroll to determine dollar contributions from the County and the Airport into the Retirement System.

Beginning with the September 30, 2007 valuation, separate contribution rates were calculated for the County and Airport Authority.

**HISTORICAL SCHEDULE OF NORMAL COST RATES
AND UNFUNDED ACTUARIAL ACCRUED LIABILITIES
CONTRIBUTION AMOUNTS FOR DEFINED BENEFIT PLANS**

Fiscal Year Beginning	Valuation Date September 30+	County			Airport		
		Normal Cost Rate	UAAL Contribution Rate	Total Contribution Rate	Normal Cost Rate	UAAL Contribution Rate	Total Contribution Rate
2000	1999	13.14 %	(8.35)%	4.79 %	13.14 %	(8.35)%	4.79 %
2001	2000	13.14 %	(13.14)%	0.00 %	13.14 %	(13.14)%	0.00 %
2002	2001*	14.49 %	(11.35)%	3.14 %	14.49 %	(11.35)%	3.14 %
2003	2002	12.39 %	(4.33)%	8.06 %	12.39 %	(4.33)%	8.06 %
2004	2003	11.10 %	1.20 %	12.30 %	11.10 %	1.20 %	12.30 %
2005	2004#	10.08 %	3.72 %	13.80 %	10.08 %	3.72 %	13.80 %
2006	2005	9.32 %	6.71 %	16.03 %	9.32 %	6.71 %	16.03 %
2007	2006*	7.60 %	8.22 %	15.82 %	7.60 %	8.22 %	15.82 %
2008	2007!	9.93 %	13.74 %	23.67%*	6.40 %	7.08 %	13.48 %
2009	2008	10.09 %	17.73 %	27.82%*	6.49 %	7.31 %	13.80 %
2010	2009	10.08 %	20.18 %	30.26%a	6.31 %	8.60 %	14.91 %
2011	2010	10.18 %	28.40 %	38.58 %b	6.28 %	10.07 %	16.35 %
2011	2010	11.06 %	28.62 %	39.68 %a	6.28 %	10.07 %	16.35 %

* Benefit changes are reflected in this valuation.

After assumption changes.

@ Adjustment made to funding value of assets.

+ Valuations before 1998 were based on a fiscal year ending November 30.

! Beginning with the September 30, 2007 valuation, separate contribution rates were calculated for the County and the Airport.

The results above are displayed as follows:

b) Base benefits, without Plan 4 to Plan 5 member transfers

a) Includes benefit changes (if any) and Plan 4 to Plan 5 member transfers

Note: Hybrid Plan 5 exists September 30, 2003 and later.

FUNDING PROGRESS INDICATORS

The funding progress and status of the defined benefit plans is measured by the following indicators:

- ***The ratio of the funding value of assets to accrued liabilities.*** The ratio is expected to hold steady or gradually move toward 100% in the absence of benefit changes, assumption changes or valuation method changes. However, due to market losses from prior years that have not yet been fully recognized, the ratio is likely to decline over the next few years (see Comment 1 on page A-7).
- ***The ratio of the unfunded actuarial accrued liability to member payroll.*** In a soundly financed retirement system, the amount of the unfunded actuarial accrued liabilities will be controlled and prevented from increasing in the absence of benefit improvements. The ratio is a relative indicator of the condition in an inflationary environment.

Valuation Date September 30	Accrued Liability	Funding Value of Assets @	Funded Ratio	Member Payroll +	Unfunded Actuarial Accrued Liability	
					Dollars	% of Payroll
(\$ in thousands)						
<u>County</u>						
2007*	\$1,090,515	\$ 891,423	82%	\$ 276,681	\$ 199,092	72 %
2008*	1,256,869	926,432	74%	281,035	330,437	118 %
2009*	1,350,826	907,238	67%	256,379	443,588	173 %
2010*	1,403,934	839,740	60%	235,195	564,195	240 %
<u>Airport</u>						
2007	\$ 79,007	\$ 56,441	71%	\$ 48,702	\$ 22,566	46 %
2008	81,927	58,594	72%	49,035	23,333	48 %
2009	93,490	63,707	68%	41,088	29,783	72 %
2010	98,239	61,102	62%	42,195	37,137	88 %
<u>Total</u>						
2001*	\$ 979,176	\$1,041,645	106%	\$ 294,128	\$ (62,469)	-
2002	1,010,744	1,043,282	103%	308,962	(32,538)	-
2003	1,007,734	996,621	99%	289,250	11,113	4 %
2004#	959,697	910,056	94%	343,330	49,642	14 %
2005	969,333	891,427	92%	298,581	77,906	26 %
2006*	1,000,231	894,499	89%	319,611	105,732	33 %
2007*	1,169,522	947,864	81%	325,383	221,658	68 %
2008*	1,338,796	985,026	74%	330,070	353,770	107 %
2009*	1,444,316	970,975	67%	297,467	473,371	159 %
2010*	1,502,173	900,842	60%	277,390	601,332	217 %

* Benefit changes and/or transfers to Plan 5 are reflected in this valuation.

After changes in assumptions.

+ Includes defined contribution Plan 4 payroll.

@ Reserve for inflation equity not included in this schedule.

Note: Hybrid Plan 5 exists September 30, 2003 and later.

SHORT CONDITION TEST

If the contributions to WCERS are level in concept and soundly executed, the System will *pay all promised benefits when due – the ultimate test of financial soundness*. Testing for level contribution rates is *the long-term test*. A *short condition test* is one means of checking a system's progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with:

- 1) Active member contributions on deposit;
- 2) The liabilities for future benefits to present retired lives;
- 3) The liabilities for service already rendered by active members.

The test is shown below. As of September 30, 2010 the WCERS had 100% of the assets needed to cover liabilities related to member contributions on deposit. Almost every system has assets at least equal to member contributions. Beyond that, the WCERS had 70% of the assets needed to cover retiree liabilities. While many systems have assets sufficient to cover 100% of retiree liabilities, particularly in the current economy, many also do not. Lack of assets allocated to funding active member liabilities does indicate a need for increased funding.

Valuation Date	Aggregate Actuarial Accrued Liabilities For			Valuation Assets (Funding Value)	Portion of Accrued Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Member Contributions	Retirees and Beneficiaries	Members (Employer Financed Portion)				
	(... \$1,000s ...)						
9/30/2008	\$ 84,632	\$ 833,330	\$ 338,907	\$ 926,432	100%	100%	2%
9/30/2009	112,841	936,287	301,698	907,238	100%	85%	0%
9/30/2010	103,483	1,044,945	255,506	839,740	100%	70%	0%

DERIVATION OF EXPERIENCE GAIN (LOSS)
YEAR ENDED SEPTEMBER 30, 2010

Actual experience will never (except by coincidence) coincide exactly with 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.

(1) UAAL* at start of year	\$473,371,126
(2) Normal Cost from last valuation	13,371,355
(3) Actual employer contributions	35,400,544
(4) Interest Accrual $(1 + 1/2 (2 - 3)) \times 8\%$	36,988,523
(5) Expected UAAL Before Changes: (1) + (2) - (3) + (4)	488,330,459
(6) Change from revised actuarial assumptions/method	0
(7a) Change due to transfers/upgrades	29,548,942
(7b) Contributions received	8,744,567
(7c) Net change from transfers/upgrades: (7a) - (7b)	20,804,375
(8) Expected UAAL after changes: (5) + (6) + (7c)	509,134,834
(9) Actual UAAL at end of year	601,331,194
(10) Gain (loss): (8) - (9)	\$ (92,196,360)
(11) Gain (loss) as percent of actuarial accrued liabilities at start of year	(6.4%)

* *Unfunded actuarial accrued liability.*

COMMENTS ON THE ACTUARIAL VALUATION

- 1. Experience:** The Market Value rate of return during fiscal year 2010 was 6.6%, which is less than the assumed rate of 8.0%. Under the asset valuation method, gains and losses are spread over a 4-year period. The net result of this year's Market Value loss, and carryover gains and losses from prior years, is a net loss of \$73.4 million. As of September 30, 2010, the Funding Value of assets exceeds the Market Value by \$127.7 million. Given this, and the fact that the remainder of this year's asset losses will be recognized during each of the next three years under the asset valuation method, the computed contribution rates will likely increase significantly over the next three years. **GRS could model potential changes in contribution requirements under a variety of economic environments if the Retirement Commission so desires.**
- 2. Status:** Computed actuarial accrued liabilities exceed the Funding Value of assets by \$564.2 million for the County and \$37.1 million for the Airport. Unfunded actuarial accrued liabilities are currently being amortized over a closed 30-year period in accordance with Retirement Commission policy. The closed 30-year amortization period was first adopted for the September 30, 2009 valuation; there are currently 29 remaining years in the schedule. The County group of the Wayne County Employees' Retirement System (WCERS) is 60% funded, and the Airport is 62% funded, both based upon the Funding Value of Assets (see page B-10). Based on the Market Value of Assets, the County group is 51% funded and the Airport group is 53% funded.
- 3. Benefit Changes:** Early Retirement Incentives (ERI) and transfers from Plan 4 to Plan 5 and Plan 5 to Plan 6 at subsidized service purchase rates contributed to the increase in the County contribution rate. With the exception of the Executive groups, we do not have sufficient data in order to determine how much the ERIs increased the contribution rate this year.
- 4. Experience Study:** The last comprehensive study of plan experience in the WCERS was completed after the September 30, 2003 valuation. We strongly suggest that a similar study be undertaken for the 5-year period ending September 30, 2010.
- 5. Other Comments:** As mentioned in the September 30, 2007 valuation report, with the County and the Airport now making separate contributions, the WCERS may no longer be considered a cost sharing plan. We recommend that your auditor review the status of the plan and the Governmental Accounting Standards Board (GASB) reporting requirements.
- 6. Requested Data for Measurement of Assumed Age and Service Increase:** As indicated on page C-13, certain adjustments are incorporated into the valuation to account for: 1) Missing data for individuals who elected the pop-up; the straight life amount is not included in the data furnished by the retirement system. 2) Lump sums included in Average Final Compensation at retirement. We continue to request that this information be provided as part of the data request process so that we may verify that these assumptions are in line with experience. In particular, item 2 can be reviewed as part of the next experience study.

ACTUARIAL BALANCE SHEET - SEPTEMBER 30, 2010

Present Resources and Expected Future Resources

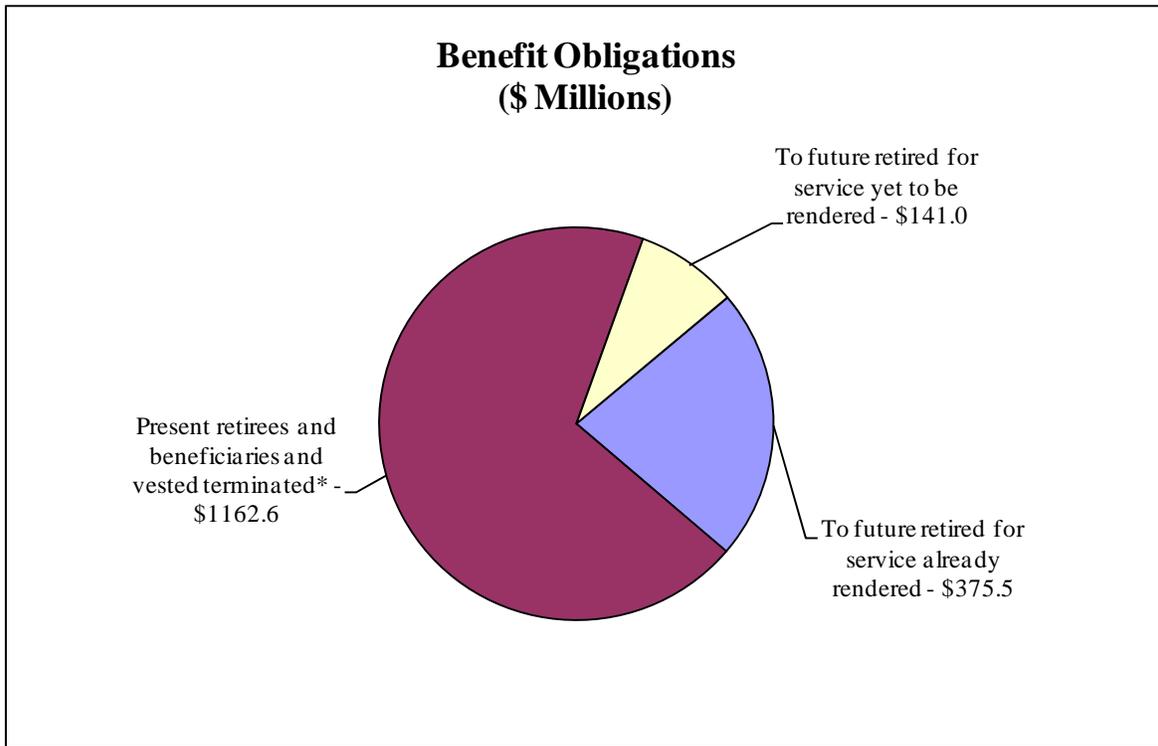
A. Valuation assets	
1. Net assets from system financial statements (market value)	\$808,600,303
2. Valuation adjustment	127,718,139
3. Valuation assets	936,318,442
B. Actuarial present value of expected future employer contributions	
1. For normal costs	117,644,860
2. For unfunded actuarial accrued liabilities	601,331,194
3. Total	718,976,054
C. Actuarial present value of expected future member contributions	23,840,494
D. Total Actuarial Present Value of Present and Expected Future Resources	\$1,679,134,990

Actuarial Present Value of Expected Future Benefit Payments and Reserves

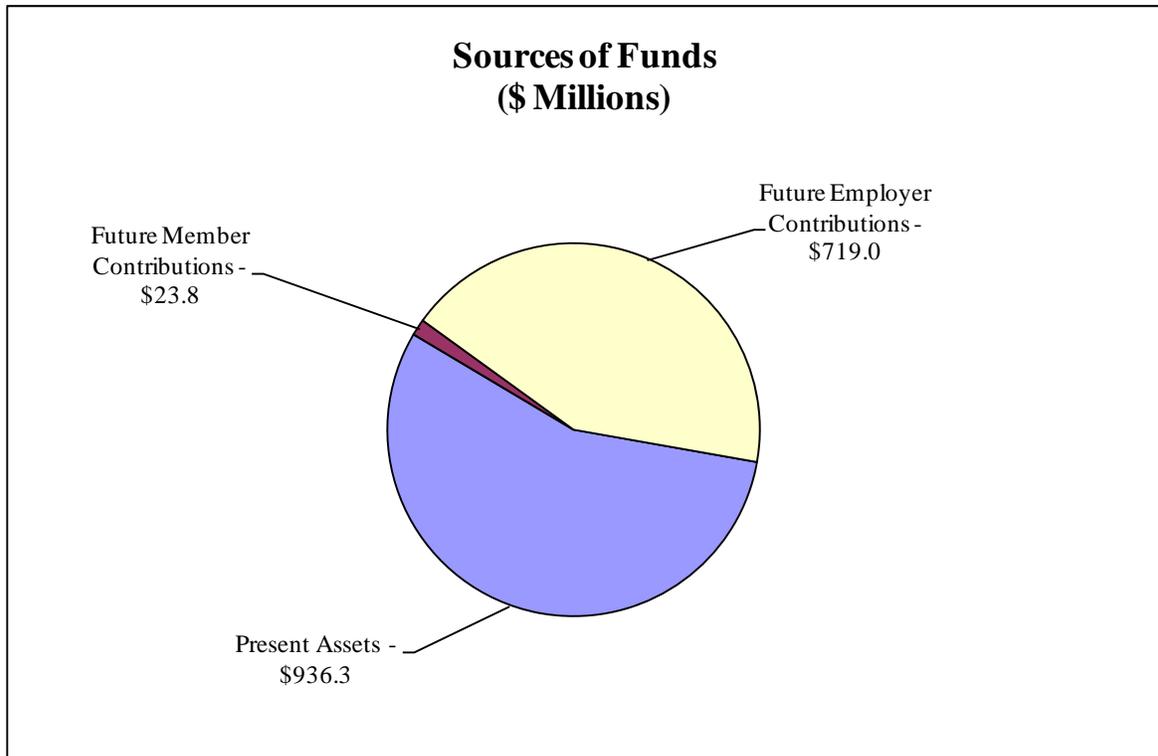
A. To retired members and beneficiaries	\$ 1,113,574,742
B. To vested terminated members	4,845,466
C. To present active members	
1. Allocated to service rendered prior to valuation date*	375,532,246
2. Allocated to service likely to be rendered after valuation date	140,961,939
3. Total	516,494,185
D. Total Actuarial Present Value of Expected Future Benefit Payments	1,634,914,393
E. Inflation Equity Benefits	44,220,597
F. Total Actuarial Present Value of Expected Future Benefit Payments and Reserves	\$1,679,134,990

* Net of post-valuation member payments for benefit upgrades and Plan 5 & 6 transfers.

**FINANCING \$1,679.1 MILLION OF BENEFIT PROMISES
SEPTEMBER 30, 2010**



* Includes Inflation Equity Fund



SECTION B

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

BRIEF SUMMARY OF BENEFIT PROVISIONS
DEFINED BENEFIT PLAN 1
(SEPTEMBER 30, 2010)

Availability

Defined Benefit Plan 1 was closed to new hires on August 15, 1983 (or on the date in a negotiated agreement).

Normal Retirement (no reduction factor for age):

Eligibility - Sheriff: 25 years of service.

Others: Age 50 with 25 years of service, age 60 with 5 years of service or any age with 30 years of service.

Pension Amount – Total service times 2.65% of average final compensation.

Maximum pension is 75% of AFC (less worker's compensation payments). Minimum monthly pension is \$5 times years of service.

Average Final Compensation (AFC) - Monthly average of covered compensations for best 4 years of credited service. Some lump sums, overtime & premium pay are included.

Vested Termination (deferred retirement):

Eligibility - 8 years of service. Pension begins at age 60.

Pension Amount - Computed as normal retirement but based upon service and AFC at time of termination.

Duty Disability Retirement:

Eligibility - No age or service requirements.

Pension Amount - Computed as normal retirement with additional service credit granted from date of retirement to age 60. Minimum pension is \$4,800 annually. Maximum pension is the lesser of 75% of AFC, and 100% of AFC less outside earnings and social security disability benefits. Worker's compensation payments offset the maximum.

Non-Duty Disability Retirement:

Eligibility - 10 years of service.

Pension Amount - Computed as normal retirement but based on service and AFC at time of retirement.

BRIEF SUMMARY OF BENEFIT PROVISIONS
DEFINED BENEFIT PLAN 1
(SEPTEMBER 30, 2010)

Duty Death Before Retirement:

Eligibility - No age or service requirements.

Pension Amount - Pension to the spouse is computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election. Additional service credit is granted from date of death to date the deceased member would have attained 60 years of age. If there is no eligible spouse, unmarried children under age 18 receive equal shares of 50% of normal retirement pension. Spouse's pension shall not be less than \$4,800. Worker's compensation payments and social security offset the maximum.

Non-Duty Death Before Retirement:

Eligibility - 10 years of service.

Pension Amount - Pension to the spouse is computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election. If there is no eligible spouse, unmarried children under age 18 receive equal shares of 50% of normal retirement pension.

Post-Retirement Cost-of-Living Adjustment:

Eligible for distributions from Reserve for Inflation Equity.

Member Contributions:

Sheriff Command Officers and Deputies: 5.00% of annual compensation.

Others:

<u>Credited Service</u>	<u>Contribution Rate*</u>
0 yrs. thru 8 yrs.	6.00% or 6.58% of compensation
9 yrs. thru 12 yrs.	4.00% or 4.58% of compensation
13 yrs. thru 16 yrs.	3.00% or 3.58% of compensation
17 yrs. or more	2.00% or 2.58% of compensation

* Contribution rate is determined by coverage group from collective bargaining agreement (CBA).

BRIEF SUMMARY OF BENEFIT PROVISIONS
DEFINED BENEFIT PLAN 2
(SEPTEMBER 30, 2010)

Availability - Defined Benefit Plan 2 was available to persons hired after August 15, 1983 and to DBP 1 and DBP 3 members who elect to be covered by DBP 2. **Eligibility to enter this Plan ceased as of October 1, 2001.**

Normal Retirement (no reduction factor for age):

Eligibility - Age 55 with 25 years of service or age 60 with 15 or 20 years of service; or, age 65 with 8 years of service.

Pension Amount - Average final compensation multiplied by the sum of a) 1% of credited service up to 20 years; and, b) 1.25% of credited service over 20 years. Maximum County financed portion is 75% of AFC.

Average Final Compensation (AFC) - Monthly average of covered compensation for the best 5 years of credited service. Covered compensation includes overtime, premium and holiday pay, but not lump sums.

Vested Termination (deferred retirement):

Eligibility - 8 years of service. Pension begins at age 65.

Pension Amount - Computed as normal retirement based on service and AFC at time of termination.

Duty Disability Retirement:

Eligibility - No age or service requirements.

Pension Amount - Computed as normal retirement with additional service credit granted from date of retirement to age 60. Maximum pension is the lesser of 75% of AFC, and 100% of AFC less outside earnings and social security disability benefits. Worker's compensation payments, social security benefit payments, and outside earnings offset the maximum. Minimum pension for select unions is 75% of AFC.

Non-Duty Disability Retirement:

Eligibility - 10 years of service.

Pension Amount - Computed as normal retirement but based on service and AFC at time of termination. Social security benefit payments and outside earnings offset the maximum.

Death Before Retirement:

Eligibility - 10 years of service; or age 65 and 8 years of service (any amount of service if Duty related).

Pension Amount - Pension to the spouse is computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election. If there is no eligible spouse, unmarried children under 18 receive equal shares of 50% of normal retirement pension.

Post-Retirement Cost-of-Living Adjustment:

Eligible for distributions from the Reserve for Inflation Equity.

Member Contributions:

None.

BRIEF SUMMARY OF BENEFIT PROVISIONS
DEFINED BENEFIT PLAN 3
(SEPTEMBER 30, 2010)

Availability - Plan 3 was available to persons last hired after August 15, 1983; and, to other persons if offered by collective bargaining agreement. **Eligibility to enter this Plan ceased as of March 31, 1986.**

Normal Retirement (no reduction factor for age):

Eligibility - Age 55 with 25 years of service; or age 60 with 15 or 20 years of service; or age 65 with 5 years of service. Sheriff Command Officers may retire with 25 years of service regardless of age.

Pension Amount – Average final compensation multiplied by the sum of:

For select negotiated CBAs: a) 2.0% of credited service up to 20 years; and b) 2.5% of credited service between 20 and 25 years; and c) 3.0% of credited service over 25 years. Certain CBA's also had the option to upgrade (via purchase) to a 2.5% multiplier for the first 20 years of service.

Others: a) 1.5% of credited service up to 20 years; and b) 2.0% of credited service between 20 and 25 years; and, c) 2.5% of credited service over 25 years.

Maximum County financed portion is 75% of AFC (less worker's compensation payments).

Average Final Compensation (AFC) – Monthly average of covered compensation for the best 5 years of credited service.

For select negotiated CBAs: Covered compensation includes overtime, premium and holiday pay, 75% of accumulated sick leave and 100% of accumulated vacation time.

Others: Covered compensation includes overtime, premium and holiday pay, up to 320 hours of lump sum payments for unused sick leave and up to 120 hours of lump sum payments for unused vacation time.

Vested Termination (deferred retirement):

Eligibility - 8 years of service. Pension begins at age 65.

Pension Amount - Computed as normal retirement but based upon service and AFC at time of termination.

Duty Disability Retirement:

Select Unions (Sheriff Command Officers) receive 75% of AFC. Worker's compensation, social security benefit payments, and outside earnings may offset pension.

Others: covered outside of Retirement System.

Non-Duty Disability Retirement:

Covered outside of Retirement System.

Death Before Retirement:

Eligibility - 10 years of service; or, age 65 with 5 years of service (any amount of service if Duty related).

Pension Amount - Pension to the spouse is computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election. If there is no eligible spouse, unmarried children under age 18 receive equal shares of 50% of normal retirement pension.

Post-Retirement Cost-of-Living Adjustment:

Eligible for distributions from the Reserve for Inflation Equity.

Member Contributions:

3% of covered compensation.

BRIEF SUMMARY OF BENEFIT PROVISIONS
DEFINED CONTRIBUTION PLAN 4
(SEPTEMBER 30, 2010)

Defined Contribution Plan 4 is not included in this valuation with the exception of the following provision covered under the Defined Benefit Plans:

Duty Disability Retirement:

Eligibility – No age or service requirements.

The Duty Disability benefit is partially funded by the member's account balance. For select negotiated CBAs, benefit is equal to 75% of the employee's average final compensation as otherwise provided in Defined Benefit Plan 1. The employee is required to surrender all funds in Defined Contribution Plan 4 and pay any outstanding loans.

Members in Plan 4 are eligible to roll account balances into Defined Benefit Plan 5 to receive a defined benefit during periods as specified in CBAs. This benefit would be based on the amount of service that can be purchased by the member's account balance.

BRIEF SUMMARY OF BENEFIT PROVISIONS
HYBRID PLAN 5
(SEPTEMBER 30, 2010)

Availability - Hybrid Plan 5 is obligatory for persons hired after October 1, 2001. Exempt employees may choose between Plan 5 and DC Plan 4. Members may transfer from Plan 4 into this Plan when allowed by CBA.

DEFINED BENEFIT PROVISIONS

Normal Retirement (no reduction for age):

Eligibility - Age 55 with 25 years of service; or age 60 with 20 years of service; or age 65 with 8 years of service; or 30 years of service regardless of age.

Pension Amount –

For select negotiated CBAs – Average final compensation multiplied by 2.0% for all years of credited service. Maximum pension is 75% of AFC (less worker's compensation payments).

Others – Average final compensation multiplied by the sum of a) 1.25% of credited service up to 20 years; and b) 1.5% of credited service over 20 years. Maximum pension is 75% of AFC (less worker's compensation payments).

Average Final Compensation (AFC) - Monthly average of covered compensation for the last 5 years of credited service, with the exception of Sheriff Command Officers and Executives where AFC is for the best 5 years of credited service. Covered compensation includes overtime and premium pay, and also includes payout of sick and annual leave banks for select negotiated CBAs.

Vested Termination (deferred retirement):

Eligibility - 8 years of service. Pension begins at age 65.

Pension Amount - Computed as normal retirement but based upon service and AFC at time of termination.

Duty Disability Retirement:

Eligibility - No age or service requirements.

Pension Amount - Computed as normal retirement with additional service credit granted from date of retirement to age 60. Worker's compensation payments, Social Security benefit payments and outside earnings offset the defined benefit portion of the pension. For select negotiated CBAs, the benefit is equal to 75% of AFC as otherwise provided in Defined Benefit Plan 1. The employee is required to surrender all Defined Contribution funds in Hybrid Plan 5 and pay any outstanding loans.

Non-Duty Disability Retirement:

Eligibility - 10 years of service.

Pension Amount - Computed as normal retirement but based on service and AFC at time of termination. Social security benefit payments and outside earnings offset the maximum.

BRIEF SUMMARY OF BENEFIT PROVISIONS
HYBRID PLAN 5
(SEPTEMBER 30, 2010)

Duty Death Before Retirement:

Eligibility - No age or service requirements.

Pension Amount - Pension to the spouse is computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election. Additional service credit is granted from date of death to date the deceased member would have attained 60 years of age. If there is no eligible spouse, unmarried children under age 18 receive equal shares of 50% of normal retirement pension. Worker's compensation payments offset the maximum.

Non-Duty Death Before Retirement:

Eligibility - 10 years of service, or age 65 with 8 years of service.

Pension Amount - Pension to the spouse is computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election. If there is no eligible spouse, unmarried children under age 18 receive equal shares of 50% of normal retirement pension.

Post-Retirement Cost-of-Living Adjustment:

Eligible for distributions from the Reserve for Inflation Equity, except for members hired after execution of certain CBAs, who will not be eligible for distributions upon retirement.

Member Contributions:

Individuals with 1.25%/1.5% multiplier contribute 0% of covered compensation, depending on CBA. Individuals with 2% multiplier contribute 1% or 5% of covered compensation, depending on CBA.

DEFINED CONTRIBUTION PROVISIONS

Contributions:

Either 4% of base compensation (2% member (contribution rate is determined by coverage group from collective bargaining agreement (CBA)) plus 2% employer) or voluntary amount for members (subject to IRS regulations) plus 0% employer for County. 6% of base compensation (3% member plus 3% employer) for Airport Authority and Circuit Court. Contributions are invested by the members based on investment options established by the Retirement Commission. Contribution balances are credited with actual net market rates of return of the selected investments.

Vesting:

Member portion – 100% immediately.

Employer portion – 50% after 1 year of total service; 75% after 2 years; 100% after 3 years.

Distribution Options:

Terminating members may choose between:

- Lump sum distribution of vested account balance, or
- Rollover of vested account balance to a qualified plan, or
- Annuitized vested account balance if the member is also eligible for a defined benefit pension.

BRIEF SUMMARY OF BENEFIT PROVISIONS
HYBRID PLAN 6
(SEPTEMBER 30, 2010)

Availability - Hybrid Plan 6 is available effective October 1, 2008 for County members of Hybrid Plan 5 who are allowed to transfer and pay the required contribution for each year of service, when allowed by CBA.

DEFINED BENEFIT PROVISIONS

Normal Retirement (no reduction for age):

Eligibility - Age 55 with 25 years of service; or age 60 with 20 years of service; or age 65 with 8 years of service; or 30 years of service regardless of age.

Pension Amount - Average final compensation multiplied by 2.5% for all years of credited service. Maximum pension is 75% of AFC (less worker's compensation payments).

Average Final Compensation (AFC) - Monthly average of covered compensation for the best 5 years of the last 7 years of credited service. Covered compensation includes overtime and premium pay, and also includes payout of sick and annual leave banks for select negotiated CBAs.

Vested Termination (deferred retirement):

Eligibility - 8 years of service. Pension begins at age 65.

Pension Amount - Computed as normal retirement but based upon service and AFC at time of termination.

Duty Disability Retirement:

Eligibility - No age or service requirements.

Pension Amount - Computed as normal retirement with additional service credit granted from date of retirement to age 60. Worker's compensation payments, Social Security benefit payments and outside earnings offset the defined benefit portion of the pension. For select negotiated CBAs, the benefit is equal to 75% of AFC as otherwise provided in Defined Benefit Plan 1. The employee is required to surrender all Defined Contribution funds in Hybrid Plan 6 and pay any outstanding loans.

Non-Duty Disability Retirement:

Eligibility - 10 years of service.

Pension Amount - Computed as normal retirement but based on service and AFC at time of termination. Social security benefit payments and outside earnings offset the maximum.

BRIEF SUMMARY OF BENEFIT PROVISIONS
HYBRID PLAN 6
(SEPTEMBER 30, 2010)

Duty Death Before Retirement:

Eligibility - No age or service requirements.

Pension Amount - Pension to the spouse is computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election. Additional service credit is granted from date of death to date the deceased member would have attained 60 years of age. If there is no eligible spouse, unmarried children under age 18 receive equal shares of 50% of normal retirement pension. Worker's compensation payments offset the maximum.

Non-Duty Death Before Retirement:

Eligibility - 10 years of service, or age 65 with 8 years of service.

Pension Amount - Pension to the spouse is computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election. If there is no eligible spouse, unmarried children under age 18 receive equal shares of 50% of normal retirement pension.

Post-Retirement Cost-of-Living Adjustment:

Eligible for distributions from the Reserve for Inflation Equity, except for members hired after execution of certain CBAs, who will not be eligible for distributions upon retirement.

Member Contributions:

4.0% of covered compensation.

DEFINED CONTRIBUTION PROVISIONS

Contributions:

Voluntary for member (subject to IRS regulations), 0% employer. Contributions are invested by the members based on investment options established by the Retirement Commission. Contribution balances are credited with actual net market rates of return of the selected investments.

Vesting:

Member portion – 100% immediately.

Distribution Options:

Terminating members may choose between:

- Lump sum distribution of vested account balance, or
- Rollover of vested account balance to a qualified plan, or
- Annuitized vested account balance if the member is also eligible for a defined benefit pension.

DEVELOPMENT OF FUNDING VALUE OF RETIREMENT SYSTEM ASSETS

Year Ended September 30:	2008	2009	2010	2011	2012	2013
A. Funding Value Beginning of Year	\$967,359,485	\$997,508,337	\$999,301,644			
B. Market Value End of Year	859,527,777	823,428,019	808,600,303			
C. Market Value Beginning of Year	1,037,978,404	859,527,777	823,428,019			
D. Non-Investment Net Cash Flow	(22,532,418)	(13,989,263)	(66,843,536)			
E. Investment Income						
E1. Market Total: B - C - D	(155,918,209)	(22,110,495)	52,015,820			
E2. Amount for Immediate Recognition	76,487,462	79,241,096	77,270,390			
E3. Amount for Phased-In Recognition: E1-E2	(232,405,671)	(101,351,591)	(25,254,570)			
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.25 x E3	(58,101,418)	(25,337,898)	(6,313,643)			
F2. First Prior Year	16,342,903	(58,101,418)	(25,337,898)	\$(6,313,643)		
F3. Second Prior Year	3,637,887	16,342,903	(58,101,418)	(25,337,898)	\$(6,313,643)	
F4. Third Prior Year	14,314,436	3,637,887	16,342,903	(58,101,418)	(25,337,898)	\$(6,313,639)
F5. Total Recognized Investment Gain	(23,806,192)	(63,458,526)	(73,410,056)	(89,752,959)	(31,651,541)	(6,313,639)
G. Funding Value End of Year: A + D + E2 + F5	\$997,508,337	\$ 999,301,644	\$936,318,442			
H. Difference between Market & Funding Value	(137,980,560)	(175,873,625)	(127,718,139)	(37,965,180)	(6,313,639)	0
I. Recognized Rate of Return	5.5%	1.6%	0.4%			
J. Market Value Rate of Return	(15.2)%	(2.6)%	6.6%			
K. Ratio of Funding Value to Market Value	116.1%	121.4%	115.8%			

The Funding Value of Assets recognizes assumed investment income (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased in over a closed 4-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 assumed rates are exactly realized for 3 consecutive years, it will become equal to Market Value.

DEVELOPMENT OF ASSET ALLOCATION FOR COUNTY AND AIRPORT AUTHORITY

	County	Airport Authority	WCERS	Inflation Equity Fund	Total (WCERS + IEF)
(1) Market Value BOY	\$ 722,303,568	\$ 51,913,870	\$ 774,217,438	\$49,210,581	\$823,428,019
(2) Employee Contributions	28,856,470	642,614	29,499,084		29,499,084
(3) Employer Contributions	32,495,296	2,905,248	35,400,544		35,400,544
(4) Benefit Payments & Refunds	120,121,096	6,632,084	126,753,180	4,989,984	131,743,164
(5) Average Balance: (1) + 1/2 (2+3-4)	692,918,903	50,371,759	743,290,662		790,006,251
(6) Net Investment Income Allocation	48,490,781	3,525,039	52,015,820		52,015,820
(7) Market Value EOY: (1)+(2)+(3)-(4)+(6)	\$ 712,025,019	\$ 52,354,687	\$ 764,379,706	\$ 44,220,597	\$808,600,303
(8) Market Value Rate of Return: (6)/(5)	7.00 %	7.00 %	7.00 %	0.0%	6.58 %
(9) Percentage of WCERS Market Value	93.15%	6.85%	100.00%		
(10) Funding Value Allocation: (Total-IEF) x (9)	\$830,995,355	\$61,102,490	\$892,097,845	\$44,220,597	\$936,318,442

DERIVATION OF RESERVE FOR INFLATION EQUITY FUND (IEF)

	September 30, 2010	September 30, 2009
Rate of investment return		
(1) Actual return on funding value of assets	0.40 %	1.59 %
(2) Threshold return	9.00 %	9.00 %
(3) Excess, if any, of (1) over (2)	0.00 %	0.00 %
Actuarial present value of pensions	\$1,113,574,742	\$1,003,697,202
Dollars available for allocation to IEF	0	0
Reserve balance - start of year	49,210,581	58,666,868
Disbursements during year	4,989,984	9,456,287
Transfer for minimum pensions	0	0
Current year addition	0	0
Reserve balance - end of year	\$ 44,220,597	\$ 49,210,581
Reserve for year end transfer	N/A	N/A

RETIRED MEMBERS AND BENEFICIARIES ADDED AND REMOVED

Year Ended Sept. 30	Added		Removed		Net Increase		End of Year	
	No.	Annual Pensions	No.	Annual@ Pensions	No.	Annual Pensions	No.	Annual Pensions
1970	298	\$1,887,508	148	\$ 307,186	150	\$1,580,322	2,454	\$ 7,067,753
1975	323	2,300,782	129	575,157	194	1,725,625	3,277	14,532,239
1980	322	3,629,866	140	1,009,861	182	2,620,005	4,359	28,307,255
1985	329	4,609,633	204	2,002,018	125	2,607,615	5,861	53,297,557
1990	176	3,004,814	172	1,986,571	4	1,018,243	6,149	59,607,315
1991	169	2,531,422	154	1,868,781	15	662,641	6,164	60,269,956
1992	195	3,876,810	148	1,831,565	47	2,045,245	6,211	62,315,201
1993	172	3,914,864	173	1,885,010	(1)	2,029,854	6,210	64,345,055
1994	191	3,626,150	163	1,844,072	28	1,782,078	6,238	66,127,133
1995	150	3,481,882	171	2,223,393	(21)	1,258,489	6,217	67,385,622
1996	212	6,445,919	210	3,101,236	2	3,344,683	6,219	70,730,305
1997	171	4,593,132	188	1,328,817	(17)	3,264,315	6,202	73,994,620
1998	112	3,428,743	174	1,823,043	(62)	1,605,700	6,140	75,600,320
1999	133	3,496,500	221	2,143,122	(88)	1,353,378	6,052	76,953,698
2000	136	4,414,263	204	2,481,571	(68)	1,932,692	5,984	78,886,390
2001	131	4,993,401	221	2,733,398	(90)	2,260,003	5,894	81,146,393
2002	125	4,462,475	186	2,247,194	(61)	2,215,281	5,833	83,361,674
2003	177	7,530,715	201	2,267,018	(24)	5,263,697	5,809	88,625,371
2004	96	3,645,959	309	3,569,564	(213)	76,395	5,596	88,701,766
2005	264	10,505,300	225	2,768,648	39	7,736,652	5,635	96,438,418
2006	135	4,004,469	273	2,922,793	(138)	1,081,676	5,497	97,520,094
2007	163	4,746,709	187	2,589,568	(24)	2,157,141	5,473	99,677,235
2008	177	6,300,153	202	2,974,301	(25)	3,325,852	5,448	103,003,087
2009	295	14,354,073	155	2,017,870	140	12,336,203	5,588	115,339,290
2010	315	14,240,898	276	3,687,346	39	10,553,552	5,627	125,892,842

@ Includes benefit adjustments.

RETIRED MEMBERS AND BENEFICIARIES COMPARATIVE SCHEDULE

Valuation Date Sept. 30	Pensions Being Paid					Average Pension	Active Member Ratio(2)
	No.	Amount (\$ Thousands)	% of Member Payroll#	Annual % Increase(1)			
				No.	Amount		
1950	477	\$ 450	2.0 %	37.9 %	44.4 %	\$ 943	11.9
1955	931	1,166	3.6 %	14.3 %	21.0 %	1,252	6.9
1960	1,487	2,454	5.9 %	9.3 %	14.7 %	1,565	4.7
1965	1,949	4,025	7.8 %	7.4 %	14.2 %	2,065	3.8
1970	2,454	7,068	8.7 %	6.5 %	11.9 %	2,880	3.3
1975	3,277	14,532	12.5 %	6.3 %	15.5 %	4,435	2.4
1980	4,359	28,307	15.9 %	5.9 %	14.3 %	6,494	1.6
1985	5,861	53,298	41.0 %	6.1 %	13.5 %	9,094	0.8
1990	6,149	59,607	37.9 %	1.0 %	2.3 %	9,694	0.8
1995	6,217	67,386	85.0 %	0.2 %	2.5 %	10,839	0.9
1996	6,219	70,730	94.9 %	0.0 %	5.0 %	11,373	0.9
1997	6,202	73,995	103.2 %	(0.3)%	4.6 %	11,931	0.9
1998	6,140	75,600	112.1 %	(1.0)%	2.2 %	12,313	0.9
1999	6,052	76,954	113.3 %	(1.4)%	1.8 %	12,715	1.0
2000	5,984	78,886	118.0 %	(1.1)%	2.5 %	13,183	1.0
2001	5,894	81,146	128.7 %	(1.5)%	2.9 %	13,768	1.0
2002	5,833	83,362	97.4 %	(1.0)%	2.7 %	14,291	1.0
2003	5,809	88,625	106.5 %	(0.4)%	6.3 %	15,257	1.0
2004	5,596	88,702	89.8 %	(3.7)%	0.1 %	15,851	1.2
2005	5,635	96,438	113.9 %	0.7 %	8.7 %	17,114	1.0
2006	5,497	97,520	104.4 %	(2.4)%	1.1 %	17,741	1.1
2007	5,473	99,677	74.6 %	(0.4)%	2.2 %	18,213	1.0
2008	5,448	103,003	63.4 %	(0.5)%	3.3 %	18,907	1.0
2009	5,588	115,339	77.3 %	2.6 %	12.0 %	20,641	0.9
2010	5,627	125,893	89.4 %	0.7 %	9.2 %	22,373	0.8

(1) For 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1985, 1990 and 1995 the percentage increase shown is the average of the 5 annual increases ending with the stated year.

(2) Number of active members (including defined contribution plan members) divided by number of retired members and beneficiaries.

EXCLUDES Defined Contribution Plan payroll after 1991.

RETIRED MEMBERS AND BENEFICIARIES SEPTEMBER 30, 2010
BY ATTAINED AGE GROUPS

Attained Age Grouping	County		Airport		WCERS Total	
	Number	Annual Pensions	Number	Annual Pensions	Number	Annual Pensions
Under 35	3	\$ 45,843	1	\$ 9,589	4	\$ 55,432
35-39	5	132,722	0	0	5	132,722
40-44	58	2,369,641	0	0	58	2,369,641
45-49	149	7,071,959	6	185,057	155	7,257,016
50-54	205	8,920,335	17	882,695	222	9,803,030
55-59	427	17,793,256	40	2,027,550	467	19,820,806
60-64	767	25,115,416	40	2,197,861	807	27,313,277
65-69	776	17,545,139	25	938,764	801	18,483,903
70-74	637	11,352,745	9	412,338	646	11,765,083
75-79	713	10,790,859	1	59,672	714	10,850,531
80-84	747	9,150,903	2	145,724	749	9,296,627
85-89	647	6,159,288	0	0	647	6,159,288
90-94	264	2,112,040	0	0	264	2,112,040
95-99	73	412,491	0	0	73	412,491
100 & Over	15	60,955	0	0	15	60,955
Totals	5,486	\$119,033,592	141	\$6,859,250	5,627	\$125,892,842

Average age now:	72.6 yrs.	61.0 yrs.	72.3 yrs.
Average age at retirement:	54.8 yrs.	56.4 yrs.	54.8 yrs.
Average service at retirement:	24.3 yrs.	27.5 yrs.	24.4 yrs.

RETIRED MEMBERS AND BENEFICIARIES SEPTEMBER 30, 2010
BY TYPE OF RETIREMENT – COUNTY

<u>Type of Pension Being Paid</u>	<u>Benefits Paid</u>	<u>Number</u>
Age & Service Pensions		
S.S. Equated		
Straight Life	\$ 33,358,908	1,321
Option 1	1,638,137	52
Option 2	19,742,431	626
Option 3	16,959,406	467
Total	71,698,882	2,466
Not S.S. Equated		
Straight Life	\$ 15,286,018	1,067
Option 1	1,391,911	41
Option 2	7,538,397	277
Option 3	7,823,889	327
Total	32,040,215	1,712
Survivor beneficiary of deceased retired member	8,280,784	741
Total Age and Service Pensions	\$112,019,881	4,919
Casualty Pensions		
Duty Disability	\$ 3,502,178	185
Non-Duty Disability	1,645,487	164
Survivor beneficiary of deceased retired member	853,109	97
Duty Death	74,633	9
Non-Duty Death	938,303	112
Total Casualty Pensions	7,013,710	567
Total Pensions Being Paid	\$119,033,591	5,486

RETIRED MEMBERS AND BENEFICIARIES SEPTEMBER 30, 2010
BY TYPE OF RETIREMENT – AIRPORT

<u>Type of Pension Being Paid</u>	<u>Benefits Paid</u>	<u>Number</u>
Age & Service Pensions		
S.S. Equated		
Straight Life	\$ 1,811,710	35
Option 1	29,454	1
Option 2	1,628,837	34
Option 3	1,906,556	33
Total	5,376,557	103
Not S.S. Equated		
Straight Life	\$ 109,446	3
Option 1	113,452	2
Option 2	331,101	8
Option 3	460,682	7
Total	1,014,681	20
Survivor beneficiary of deceased retired member	183,980	6
Total Age and Service Pensions	\$ 6,575,218	129
Casualty Pensions		
Duty Disability	\$ 197,324	8
Non-Duty Disability	75,597	3
Survivor beneficiary of deceased retired member	-	0
Duty Death	11,111	1
Non-Duty Death	-	0
Total Casualty Pensions	284,032	12
Total Pensions Being Paid	\$ 6,859,250	141

RETIRED MEMBERS AND BENEFICIARIES SEPTEMBER 30, 2010
BY PENSION AMOUNT AND YEAR OF RETIREMENT

Annual Pension Range	Year of Retirement													Totals	Average Service at Retirement
	Before 1970	1970s	1980-84	1985-89	1990-94	1995-99	2000-04	2005	2006	2007	2008	2009	2010		
\$0-999	8	11	10	5	13	5	2						1	55	10
1,000-1,999	13	16	19	20	17	17	17	5	5	2	5		1	137	12
2,000-2,999	8	25	19	28	35	36	27	9	5	4	6	4	5	211	14
3,000-3,999	5	28	28	28	25	33	30	5	2	5	6	8	2	205	17
4,000-4,999	1	41	34	30	27	21	24	7	5	10	1	4	6	211	18
5,000-5,999	1	45	52	36	42	24	27	4	6	7	6	4	6	260	19
6,000-6,999		30	78	48	38	26	22	5	2	2	9	4	6	270	20
7,000-7,999	2	29	76	42	32	19	18	3	6	6	7	8	3	251	20
8,000-8,999		32	62	23	36	24	14	2	8	5	7	5	5	223	22
9,000-9,999		21	73	42	33	21	18	3	5	6	6	4	2	234	22
10,000-10,999		17	65	36	38	22	20	2	6	1	2	4		213	23
11,000-11,999		17	58	33	33	24	10	7	4	5	11	1	3	206	24
12,000-12,999	1	12	70	35	31	23	14	5	4	2	4	3	6	210	24
13,000-13,999		13	35	41	35	26	11	3	4	3	4	2	2	179	25
14,000-14,999		8	42	26	25	16	13	4	1	3	4	2	8	152	25
15,000-15,999		3	30	21	32	14	12	3	3		2	6	2	128	25
16,000-16,999		5	23	16	24	21	19		2	1	1			112	27
17,000-17,999		3	35	9	22	12	12	1	4	1	2	4	1	106	27
18,000-18,999			20	12	12	15	9	4	2	5	1	2	2	84	27
19,000-19,999		2	15	13	20	9	8	4			3	2	1	77	27
20,000-20,999			11	9	19	17	5	3	3		1	7		75	27
21,000-21,999		1	11	10	22	22	4		2	1	1	1	1	76	27
22,000-22,999		1	10	6	6	19	7		1		1	1	1	53	28
23,000-23,999		1	13	9	11	17	10	2	1		4	1		69	29
24,000-24,999		1	10	2	11	12	10	1	1	1	2	2		53	28
25,000-25,999			6	4	8	13	6	1	2	1	3	2	1	47	28
26,000-26,999		1	3	8	9	21	11		1	2	2	1	1	60	28
27,000-27,999			2	2	9	11	8	2		1	8	6	2	51	28
28,000-28,999			2	4	3	11	10			2	3	5		40	26
29,000-29,999			4	5	8	16	12	2	3	2	2	7	1	62	29
30,000-39,999			9	11	38	110	102	10	17	15	46	59	14	431	29
40,000-49,999	1	1	1	2	19	67	111	16	20	12	49	102	9	410	28
50,000-59,999					3	38	93	10	8	2	32	68	4	258	30
60,000-69,999					2	8	74	6	7	5	32	47	7	188	29
70,000-79,999						3	42	2	8	4	22	25	3	109	30
80,000-89,999						2	29	2	2	1	9	13		58	30
90,000-99,999							12	2	2		2	11		29	31
100,000-109,999							6	1			2	6	2	17	34
110,000-119,999							3				1	5		9	34
120,000 & Up							2			1		4	1	8	34
Totals	40	364	926	616	738	795	884	136	152	118	309	440	109	5,627	

VESTED FORMER MEMBERS SEPTEMBER 30, 2010
TABULATED BY ATTAINED AGE GROUPS

Attained Ages	No.	Estimated Annual Allowances
40-44	8	\$ 36,160
45-49	19	175,388
50-54	18	137,616
55-59	29	213,579
60-64	26	162,232
65-69	10	38,591
70 & Up	4	14,719
Totals	114	\$778,285

A vested former member is a person who has left the employ of the County after acquiring credited service sufficient for a vested pension and has not withdrawn their accumulated member contributions from the Reserve for Accumulated Member Contributions. A vested former member may retire upon satisfying the conditions for normal retirement.

ACTIVE MEMBERS SEPTEMBER 30, 2010 – COUNTY

Plan	No.	Valuation Payroll	Average		
			Pay	Age	Service
				(in years)	
Defined Benefit Plan 1					
General & DPS	104	\$ 6,662,187	\$64,059	59.7	30.9
Sheriff	5	393,727	78,745	57.9	30.9
Total	109	7,055,914	64,733	59.6	30.9
Defined Benefit Plan 2					
General & DPS	49	2,527,188	51,575	53.1	21.5
Sheriff	21	1,304,642	62,126	43.8	16.4
Total	70	3,831,830	54,740	50.3	20.0
Defined Benefit Plan 3					
General & DPS	20	1,154,458	57,723	55.4	24.8
Sheriff	13	924,771	71,136	52.1	25.6
Total	33	2,079,229	63,007	54.1	25.1
Hybrid Plan 5					
General & DPS	794	41,085,223	51,745	45.7	10.4
Sheriff	249	13,717,560	55,091	37.5	8.8
Total	1,043	54,802,783	52,543	43.7	10.0
Hybrid Plan 6					
General & DPS	308	26,646,260	86,514	50.3	19.0
Sheriff	374	24,521,353	65,565	42.1	16.3
Total	682	51,167,613	75,026	45.8	17.5
Defined Benefit Sub-total*	1,937	118,937,369	61,403	45.8	14.5
Defined Contribution Plan 4	2,067	116,258,008	56,245	47.1	13.8
Total	4,004	\$235,195,377	\$58,740	46.5	14.1

* Includes Plan 4 members that transferred into Plan 5 after the valuation date.

ACTIVE MEMBERS SEPTEMBER 30, 2010 – AIRPORT

Plan	No.	Valuation Payroll	Average		
			Pay	Age	Service
Defined Benefit Plan 1				(in years)	
General & DPS	2	\$ 186,912	\$93,456	55.0	31.9
Sheriff	0	n/a	n/a	n/a	n/a
Total	2	186,912	93,456	55.0	31.9
Defined Benefit Plan 2					
General & DPS	2	81,845	40,923	35.6	12.2
Sheriff	2	143,555	71,778	37.8	9.3
Total	4	225,400	56,350	36.7	10.8
Defined Benefit Plan 3					
General & DPS	0	n/a	n/a	n/a	n/a
Sheriff	3	251,930	83,977	50.0	26.4
Total	3	251,930	83,977	50.0	26.4
Hybrid Plan 5					
General & DPS	257	15,447,875	60,108	44.3	10.1
Sheriff	79	5,797,043	73,380	41.0	15.5
Total	336	21,244,918	63,229	43.5	11.4
Defined Benefit Sub-total	345	21,909,160	63,505	43.6	11.6
Defined Contribution Plan 4	269	20,285,481	75,411	48.1	14.4
Total	614	\$42,194,641	\$68,721	45.6	12.8

This Page was Intentionally Left Blank

**ACTIVE AND INACTIVE MEMBERS IN VALUATION
HISTORICAL SCHEDULE – ALL WCERS
PLAN 1 ONLY**

Valuation Date September 30	Inactive		Active Members				
	No.	Estimated Pensions	No.	Valuation Payroll	Average		
					Pay	Age	Service
Defined Benefit Plan 1							
1970	283	N/A	8,170	\$ 81,395,280	\$ 9,963	41.8 yrs.	10.2 yrs.
1975	254	\$ 579,747	7,906	115,811,211	14,649	42.0	10.5
1980	323	1,107,547	6,832	178,221,092	26,086	42.8	12.1
1985	245	1,229,467	3,520	104,007,698	29,548	43.6	13.4
1990	181	985,556	2,212	83,199,604	37,613	47.7	18.2
1995	110	700,859	1,454	67,055,260	46,118	50.3	22.1
1999	74	529,010	981	55,641,299	56,719	51.8	23.9
2000	72	519,980	874	53,822,371	61,582	52.3	24.2
2001	69	490,230	773	49,891,050	64,542	52.7	24.7
2002	64	454,657	686	46,125,812	67,239	53.4	25.3
2003	60	419,316	525	34,354,679	65,437	53.3	26.3
2004	58	410,561	493	32,695,112	66,319	54.4	27.2
2005	36	236,163	308	20,380,626	66,171	53.7	27.5
2006	56	450,126	307	20,424,223	66,528	54.7	27.4
2007	51	419,300	243	16,492,157	67,869	56.3	28.1
2008	47	395,524	199	14,132,826	71,019	57.3	29.3
2009	38	312,602	137	10,188,214	74,366	58.1	29.9
2010	38	330,001	111	7,242,826	65,251	59.5	30.9

**ACTIVE AND INACTIVE MEMBERS IN VALUATION
HISTORICAL SCHEDULE – ALL WCERS
PLANS 2, 3, 4 AND 5**

Valuation Date September 30	Inactive		Active Members				
	No.	Estimated Pensions	No.	Valuation Payroll	Average		
					Pay	Age	Service
Defined Benefit Plan 2							
2004	55	\$ 253,284	123	\$ 5,633,831	\$45,804	44.8 yrs.	14.5 yrs.
2005	47	386,506	113	5,212,864	46,132	46.2	15.1
2006	77	478,758	105	5,398,717	51,416	46.6	16.4
2007	75	435,103	101	5,402,969	53,495	47.6	17.2
2008	70	538,486	94	5,316,825	56,562	48.1	18.1
2009	60	266,065	80	4,467,910	55,849	48.9	18.8
2010	55	185,567	74	4,057,230	54,827	49.6	19.5
Defined Benefit Plan 3							
2004	0	\$ 0	106	\$ 6,097,671	\$57,525	49.7 yrs.	19.1 yrs.
2005	0	0	122	7,083,769	58,064	51.1	19.3
2006	5	21,656	89	5,616,210	63,103	50.3	21.5
2007	6	43,334	85	5,544,204	65,226	50.9	22.4
2008	6	43,334	82	5,758,801	70,229	51.7	24.7
2009	6	43,334	47	2,993,520	63,691	53.2	24.6
2010	7	69,430	36	2,331,159	64,755	53.8	25.2
Defined Contribution Plan 4							
2004	NA	NA	4,842	\$244,543,363	\$50,505	44.4 yrs.	10.7 yrs.
2005	NA	NA	4,123	213,910,414	51,882	44.3	11.7
2006	NA	NA	3,983	226,219,515	56,796	45.2	12.5
2007	NA	NA	3,331	191,770,414	57,571	46.2	12.8
2008	NA	NA	2,800	167,715,252	59,899	46.4	13.0
2009	NA	NA	2,517	148,343,850	58,937	47.2	13.7
2010	NA	NA	2,336	136,543,489	58,452	47.2	13.9
Hybrid Plan 5							
2004	NA	NA	1,423	\$ 54,359,556	\$38,201	38.4 yrs.	5.6 yrs.
2005	NA	NA	1,201	51,992,978	43,291	39.9	7.1
2006	1	\$ 12,178	1,291	61,952,245	47,988	40.7	7.7
2007	7	68,077	1,907	106,173,315	55,675	41.9	10.1
2008	7	68,077	2,173	122,245,821	56,256	42.9	10.9
2009	14	153,120	1,407	76,940,045	54,684	43.4	10.1
2010	14	193,287	1,379	76,047,701	55,147	43.7	10.3
Hybrid Plan 6							
2008	NA	NA	160	\$ 14,899,900	\$93,124	48.1 yrs.	22.8
2009	2	\$ 58,858	750	54,534,000	72,712	45.6	18.7
2010	0	0	682	51,167,613	75,026	45.8	17.5

**ACTIVE AND INACTIVE MEMBERS IN VALUATION
HISTORICAL SCHEDULE – ALL WCERS
RETIREMENT SYSTEM TOTALS**

Valuation Date September 30	Inactive		Active Members				
	No.	Estimated Pensions	No.	Valuation Payroll	Average		
					Pay	Age	Service
Retirement System Totals							
1970	283	\$ 461,045	8,170	\$ 81,396,280	\$ 9,963	41.7 yrs.	10.2 yrs.
1975	254	579,747	7,906	115,811,211	14,649	42.0	10.5
1980	323	1,107,547	6,832	178,221,092	26,086	42.8	12.1
1985	245	1,229,467	4,758	129,534,998	27,225	41.1	11.0
1990	251	1,286,311	4,999	157,406,461	31,488	41.0	10.9
1995	198	1,114,099	5,407	192,903,829	35,677	41.1	10.3
1999	153	893,028	5,903	256,378,506	43,432	41.9	10.3
2000	152	885,974	5,995	275,626,572	45,976	42.1	10.3
2001	150	860,061	6,076	294,127,729	48,408	42.6	10.4
2002	145	824,488	6,019	308,961,722	51,331	43.1	10.7
2003	140	786,431	5,995	289,250,256	48,249	43.2	10.8
2004	118	956,869	6,987	343,329,533	49,138	44.0	11.0
2005	83	622,669	5,867	298,580,651	50,892	44.1	11.8
2006	139	962,718	5,775	319,610,910	55,344	44.8	12.4
2007	139	965,814	5,667	325,383,059	57,417	45.3	12.8
2008	130	1,045,421	5,508	330,069,425	59,926	45.6	13.3
2009	120	833,979	4,938	297,467,539	60,241	46.2	14.1
2010	114	778,285	4,618	277,390,018	60,067	46.4	14.0

**DEFINED BENEFIT PLAN 1 – COUNTY
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date*							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
45-49					2	1	1	4	\$ 319,204
50-54				1	3	11	4	19	1,402,674
55-59				5	4	11	13	33	2,544,044
60					1	1	8	10	611,803
61				1				1	27,434
62					2	1	4	7	266,222
63				1			2	3	131,444
64				1			5	6	325,041
65				1	1	1	4	7	500,140
66					1	1	1	3	101,021
67							4	4	211,606
68					1	1	2	4	174,131
69				1			2	3	98,342
70							1	1	68,544
73							1	1	27,434
74							2	2	118,555
79 & Over							1	1	128,275
Totals				11	15	28	55	109	\$7,055,914

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

Age: 59.6 years
Service: 30.9 years
Annual Pay: \$64,733

* Includes purchased service.

**DEFINED BENEFIT PLAN 1 – AIRPORT
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
50-54						1		1	\$ 86,824
55-59							1	1	100,088
Totals						1	1	2	\$186,912

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

Age: 55.0 years
Service: 31.9 years
Annual Pay: \$93,456

**DEFINED BENEFIT PLAN 2 – COUNTY
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date*							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
25-29		1						1	\$ 52,155
30-34			1					1	64,528
35-39			6					6	327,878
40-44		2		2	7			11	528,309
45-49		2		1	7	2		12	742,714
50-54			3	1	8	4		16	978,775
55-59		1	2	1	5	3	1	13	695,599
60			1				1	2	74,113
61			1		3			4	180,723
62							1	1	39,754
65							1	1	58,837
68					1			1	38,609
74						1		1	49,836
Totals		6	14	5	31	10	4	70	\$3,831,830

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

Age: 50.3 years
Service: 20.0 years
Annual Pay: \$54,740

* Includes purchased service.

**DEFINED BENEFIT PLAN 2 – AIRPORT
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
30-34			1					1	\$ 43,244
35-39		2						2	143,555
40-44			1					1	38,601
Totals		2	2					4	\$225,400

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

Age: 36.7 years
Service: 10.8 years
Annual Pay: \$56,350

**DEFINED BENEFIT PLAN 3 – COUNTY
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date*							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
40-44					1			1	\$ 58,938
45-49					3	4		7	485,158
50-54					4	7		11	756,230
55-59					5	4		9	425,231
60					1	1		2	140,203
66					1	1		2	135,587
70						1		1	77,882
Totals					15	18		33	\$2,079,229

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

Age: 54.1 years
Service: 25.1 years
Annual Pay: \$63,007

* Includes purchased service.

**DEFINED BENEFIT PLAN 3 – AIRPORT
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
45-49						2		2	\$181,938
50-54						1		1	69,992
Totals						3		3	\$251,930

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

Age: 50.0 years
Service: 26.4 years
Annual Pay: \$83,977

**DEFINED CONTRIBUTION PLAN 4 – COUNTY
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
20-24	3							3	\$ 107,934
25-29	3	8	3					14	671,498
30-34	15	20	72	3				110	5,394,956
35-39	13	53	163	40	5			274	14,580,697
40-44	13	49	153	109	70	6		400	21,712,607
45-49	17	44	114	105	93	27		400	22,240,003
50-54	24	40	114	75	86	27	5	371	22,161,922
55-59	14	45	71	64	52	12	10	268	16,009,633
60	3	1	20	9	9	2	1	45	2,585,326
61	1	9	12	13	11	2	1	49	2,865,934
62	2	5	2	3	4	1	3	20	1,232,105
63	2	7	12	6	4	2	2	35	2,288,241
64		2	11	3	3			19	1,076,270
65			6		2			8	408,011
66		1	5	4	1		1	12	766,000
67	1	1	6	2	2		1	13	743,620
68		1	3	2	1	1		8	503,372
69			2	2				4	152,249
70			2	3				5	298,070
71			1					1	54,200
72				1	1	1		3	148,227
73			1					1	51,398
74				1				1	35,060
75				2				2	116,475
78		1						1	54,200
Totals	111	287	773	447	344	81	24	2,067	\$116,258,008

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

Age: 47.1 years
Service: 13.8 years
Annual Pay: \$56,245

Excludes members that transferred to Plan 5 after the valuation date.

**DEFINED CONTRIBUTION PLAN 4 – AIRPORT
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
30-34	2	8	10					20	\$ 1,052,760
35-39	4	3	16	7				30	2,003,949
40-44	3	6	16	13	7			45	3,357,186
45-49	2	9	18	11	9	3		52	3,689,483
50-54	4	5	11	13	7	4	2	46	4,130,982
55-59	2	9	16	7	11	4	1	50	3,907,229
60		1		4	3			8	634,123
61	1	1	2		1		1	6	515,138
62		2	1	1		1		5	493,903
63		3	1					4	282,818
64			1					1	137,698
65		1	1					2	80,212
Totals	18	48	93	56	38	12	4	269	\$20,285,481

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

Age: 48.1 years
Service: 14.4 years
Annual Pay: \$75,411

**HYBRID PLAN 5 – COUNTY
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date*							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
20-24	11							11	\$ 376,499
25-29	59	30						89	3,883,995
30-34	70	72	17	4				163	8,105,876
35-39	42	56	21	13				132	7,253,102
40-44	36	48	29	21	16	3		153	8,367,028
45-49	41	39	18	16	28	15		157	8,419,921
50-54	34	35	13	19	25	21	2	149	8,336,814
55-59	23	26	9	20	16	7	1	102	5,565,296
60	3	2	1	3	2	2	1	14	649,627
61	5	3	1	6	1	2		18	950,775
62	4	3		1	1			9	470,885
63	4	2	2	3		1		12	763,485
64	2	1	1		2			6	343,699
65	3	1		1	1	1		7	366,858
66	1	1	1	2			1	6	302,862
67		1	2			1		4	193,152
68				1				1	42,390
69			1		1			2	70,373
70				1	1			2	87,503
71					1			1	30,649
74		1	1	1				3	138,646
76		1						1	31,138
79 & Over							1	1	52,210
Totals	338	322	117	112	95	53	6	1,043	\$54,802,783

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

Age: 43.7 years
Service: 10.0 years
Annual Pay: \$52,543

Includes members that transferred from Plan 4 after the valuation date.

* Includes purchased service.

**HYBRID PLAN 5 – AIRPORT
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
20-24	4							4	\$ 168,552
25-29	21	1						22	1,127,655
30-34	13	25	3					41	2,149,558
35-39	16	9	9	9				43	2,777,571
40-44	8	12	12	17	8	1		58	3,843,476
45-49	14	15	10	18	26	3		86	5,820,372
50-54	10	8	7	3	8	6	1	43	2,744,582
55-59	7	8	1	3	7			26	1,607,697
60	2	4		1	1			8	693,402
62	1				1			2	134,217
63		2						2	116,039
65					1			1	61,797
Totals	96	84	42	51	52	10	1	336	\$21,244,918

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

Age: 43.5 years
Service: 11.4 years
Annual Pay: \$63,229

**HYBRID PLAN 6 – COUNTY
ACTIVE MEMBERS SEPTEMBER 30, 2010
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date*							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Salary
20-24	2							2	\$ 73,661
25-29	6	8						14	726,033
30-34	6	29	22	2				59	3,421,106
35-39	5	18	33	27	4			87	5,787,664
40-44	1	10	21	67	53	6	1	159	11,510,363
45-49	3	6	19	23	71	17		139	10,400,062
50-54	3	7	12	25	36	16	2	101	8,604,365
55-59	1	3	6	19	18	20	4	71	6,103,438
60			1	3	3	4		11	958,968
61		1	1	4	2	1		9	854,511
62			3	2	3	1		9	842,311
63			1	1	1			3	231,498
64				3	1		1	5	372,816
65			1	1		1		3	322,018
66			1	1				2	199,847
67					2	1		3	403,011
68		1			1			2	111,109
69			1					1	65,048
70			1					1	115,345
71						1		1	64,439
Totals	27	83	123	178	195	68	8	682	\$51,167,613

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

Age: 45.8 years
Service: 17.5 years
Annual Pay: \$75,026

* Includes purchased service.

SECTION C

METHODS AND ASSUMPTIONS

BASIC FINANCIAL PRINCIPLES AND OPERATION OF THE RETIREMENT SYSTEM

Benefit Promises Made Which Must Be Paid For. A retirement program is an orderly means of handing out, keeping track of, and financing pension promises to a group of employees. As each member of the retirement program acquires a unit of service credit the member is, in effect, handed an “IOU” which reads: “The Retirement System promises to pay you one unit of retirement benefits, payments in cash commencing when you retire.”

The principal related financial question is: When shall the money required to cover the “IOU” be contributed? This year, when the benefit of the member’s service is received? Or, some future year when the “IOU” becomes a cash demand?

The Constitution of the State of Michigan is directed to the question:

“Financial benefits arising on account of service rendered in each fiscal year shall be funded during that year and such funding shall not be used for financing unfunded accrued liabilities.”

This Retirement System meets this requirement by having as its financial objective the establishment and receipt of contributions, expressed as percents of active member payroll, which will remain approximately level from year to year and will not have to be increased for future generations of taxpayers.

Translated into actuarial terminology, a level percent-of-payroll contribution objective means that the contribution rate must be at least:

Normal Cost (the present value of future benefits assigned to members’ service being rendered in the current year)

. . . plus . . .

Interest on the Unfunded Actuarial Accrued Liability (the difference between the actuarial accrued liability and current system assets).

The accumulation of invested assets is a by-product of level percent of payroll contributions, not the objective. Investment income becomes the third major contributor to the retirement program, and the amount is directly reacted to the amount of contributions and investment performance.

If contributions to the retirement program are less than the preceding amount, the difference, plus investment earnings not realized thereon, will have to be contributed at some later time, or, benefits will have to be reduced, to satisfy the fundamental fiscal equation under which all retirement programs must operate:

$$\mathbf{B} = \mathbf{C} + \mathbf{I} - \mathbf{E}$$

The aggregate amount of **B**enefit payments to any group of members and their beneficiaries cannot exceed the sum of:

The aggregate amount of **C**ontributions received on behalf of the group

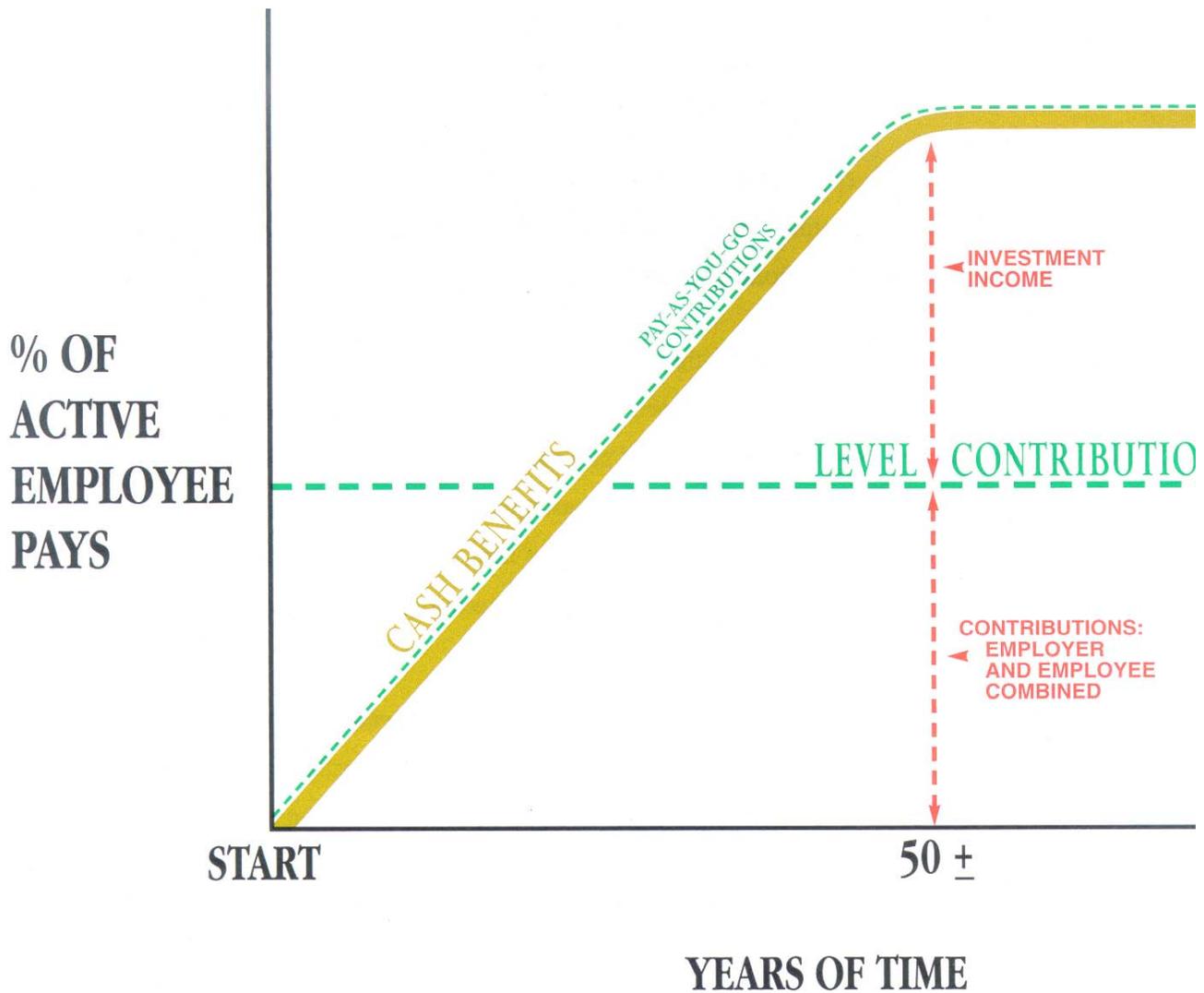
. . . plus . . .

Interest earnings on contributions received and not required for immediate cash payments of benefits

. . . minus . . .

The **E**xpenses of operating the program.

Computed Contribution Rate Needed To Finance Benefits. From a given schedule of benefits and from the data furnished, the actuary calculates the contribution rate *by means of an actuarial valuation* - the technique of assigning monetary values to the risks assumed in operating a retirement program.



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

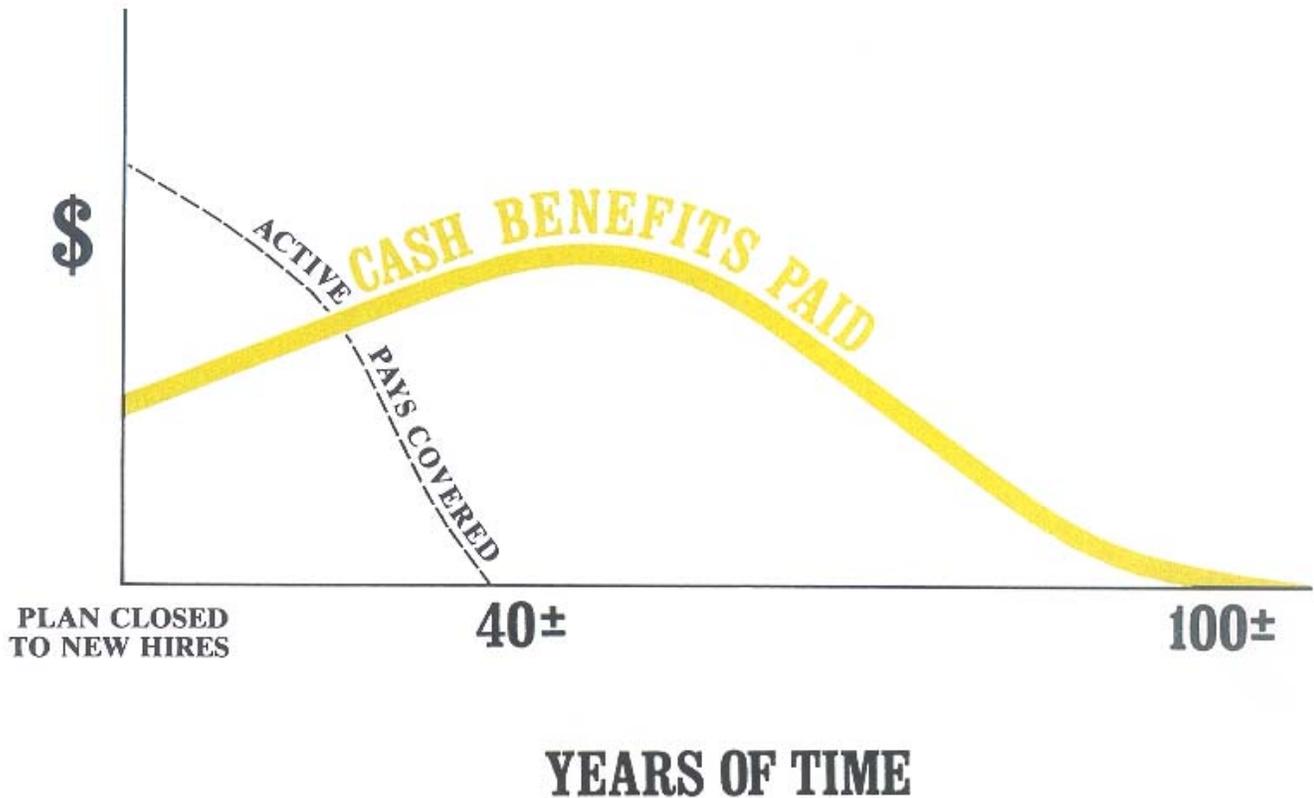
Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

A CLOSED PENSION PLAN



A plan becomes closed when no new hires are admitted to active membership. The persons covered by the plan at the time of closing continue their normal activities and continue to be covered by the plan, until the last survivor dies.

CASH BENEFITS LINE. After a pension plan becomes closed, the usual pattern is for cash benefits to continue to increase for decades of time. Eventually the cash benefits will peak, and then gradually decrease over more decades of time, ultimately to zero. The last cash benefit is likely to occur a century after the time the plan is closed.

The precise amounts of cash benefits cannot be known now, and must be estimated by assumptions of future experiences in a variety of financial risk areas.

THE ACTUARIAL VALUATION PROCESS

The financing diagram on page C-3 shows the relationship between the two fundamentally different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program) which is an *increasing contribution method*; and the *level contribution method* which equalizes contributions between the generations.

The actuarial valuation is the mathematical process by which the level contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

- A. *Census Data*, furnished by plan administrator.
 - Retired lives now receiving benefits
 - Former employees with vested benefits not yet payable
 - Active employees

- B. + *Asset data* (cash & investments), furnished by plan administrator

- C. + *Assumptions concerning future experience in various risk areas*, which assumptions are established by the Retirement System after consulting with the actuary

- D. + *The funding method* (the long-term, planned pattern for employer contributions)

- E. + *Mathematically combining the assumptions, the funding method, and the data*

- F. = Determination of:
 - Plan financial position; and/or
 - New Employer Contribution Rate

ACTUARIAL COST METHODS

Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using the *individual entry-age actuarial cost method* having the following characteristics:

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

Asset Valuation Method. Last year's valuation assets are increased by contributions and reduced by refunds, benefit payments and expenses. An amount equal to the assumed investment return for the year is then added. Differences between actual return on a market value basis and an assumed return are phased in over a four-year period.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting accrued assets from the actuarial accrued liability determines the unfunded actuarial accrued liability.

The base rate of increase in salaries used to calculate the actuarial liability was assumed to be 4.0%.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

Contribution requirements and actuarial present values are calculated by applying estimates of future experience (actuarial assumptions) to the benefit provisions and participant data of the System, using the actuarial cost methods described on page C-6.

The principal areas of activity which require experience estimates are:

- long-term rates of investment return to be generated by the assets of the System
- patterns of pay increases to members
- rates of mortality among members, retired members and beneficiaries
- rates of withdrawal of active members
- rates of disability among active members
- the age patterns of actual retirements

In an actuarial valuation, the monetary effect of each activity is calculated for as long as a present covered person survives - - - a period of time which can be as long as a century.

Actual experience of the System will not coincide exactly with the experience estimates. Each valuation provides a complete recalculation of estimated future experience and takes into account all past differences between estimated and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time to time one or more of the estimates are modified to reflect experience trends but not random or temporary year-to-year fluctuations.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

Investment Return (net of administrative expenses).

8.0% per year, compounded annually. This rate consists of a real rate of return of **4.0%** a year plus a long-term rate of wage inflation of **4.0%** a year.

No specific Price Inflation assumption is made for this valuation. However, the above assumptions would be consistent with a price inflation assumption in the 3% area.

This assumption is used to equate the value of payments due at different points in time and was first used for the September 30, 1998 valuation. Approximate rates of investment return, for the purpose of comparisons with assumed rates, are shown below.

	Year Ended September 30					5-Year Average
	2010	2009	2008	2007	2006	
Recognized Rate of Return	0.4%	1.6%	5.5%	11.7%	10.3%	5.8%

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

Rates of salary increase were as follows:

Merit and Longevity Pay Increases			
Other		Sheriffs	
Age	Increase	Service	Increase
20	3.70%	5	4.22%
25	3.40%	10	3.38%
30	2.50%	15	2.54%
35	1.90%	20	2.18%
40	1.60%	25	2.04%
45	1.20%	30	1.76%
50	1.00%	35	1.06%
55	0.80%	40	0.64%
60	0.50%	60	0.60%
65 & Over	0.00%	61 & Over	0.00%
Ref:	107	Ref:	110

These rates are used to project current salaries to those upon which pension amounts are likely to be based. The current rates were first used for the September 30, 2004 actuarial valuation.

Rates of separation from active membership were as follows:

% of Active Members Separating Within the Next Year							
Other				Sheriffs			
Ages		Service (Plan 5 only)		Ages		Service (Plan 5 only)	
20	6.00%	0 - 1	20%	20	4.70%	0 - 1	15%
21	6.00%	1 - 2	15%	21	4.70%	1 - 2	13%
22	6.00%	2 - 3	12%	22	4.70%	2 - 3	10%
23	6.00%	3 - 4	10%	23	4.70%	3 - 4	7%
24	6.00%	4 - 5	7%	24	4.70%	4 - 5	5%
25	6.00%			25	4.70%		
30	6.00%			30	3.78%		
35	4.50%			35	2.86%		
40	3.50%			40	1.96%		
45	3.00%			45	1.30%		
50	2.00%			50	0.98%		
55	1.00%			55	0.66%		
60 & Over	0.00%			60 & Over	0.21%		
Ref:	290		31	Ref:	660		148

Rates for all divisions were first used for the September 30, 2004 valuation.

The probabilities of retirement for members satisfying the age and service conditions for retirement are as follows:

Percent of Defined Benefit Active Members Retiring Within Next Year									
Retirement Ages	Plan 1 Non-Sheriffs and Plan 3 Sheriffs	Plan 2 Sheriffs	Plans 2, 3, 5, & 6 Non-Sheriffs	Plan 5 Sheriffs	Service Years	Plan 1 Non-Sheriffs	Plans 1 & 3 Sheriffs	Plans 5 & 6 Non-Sheriffs	Plans 5 & 6 Sheriffs
					25		22%		
					26		20%		
					27		20%		
					28		30%		
					29		40%		
50	25%				30	30%	50%	10%	22%
51	25%				31	30%	25%	10%	20%
52	25%				32	30%	25%	10%	20%
53	25%				33	30%	25%	10%	30%
54	25%				34	30%	25%	10%	40%
55	25%	30%	10%	25%	35	30%	100%	10%	50%
56	25%	30%	10%	25%	36	30%	100%	10%	25%
57	25%	30%	10%	25%	37	30%	100%	10%	25%
58	25%	30%	10%	25%	38	30%	100%	10%	25%
59	25%	30%	10%	25%	39	30%	100%	10%	25%
60	25%	25%	10%	25%	40 & Over	100%	100%	100%	100%
61	25%	25%	10%	25%					
62	35%	35%	20%	25%					
63	35%	35%	20%	27%					
64	35%	35%	30%	27%					
65	35%	35%	50%	27%					
66	35%	35%	30%	27%					
67	35%	35%	40%	27%					
68	35%	35%	50%	30%					
69	35%	35%	80%	30%					
70 & Over	100%	100%	100%	100%					
Ref:	560	1704	92	369	Ref:	556	957	54	957

The rates were first used for the September 30, 2004 valuation for Plans 1, 2, and 3, and for the September 30, 2008 valuation for Plans 5 and 6.

Probabilities of retirement were increased to 50% once the member accrues the maximum benefit of 75% of Average Final Compensation.

Rates of disability are represented by the following table:

Sample Ages	Percent Becoming Disabled Within Next Year					
	Non-Sheriffs (Plan 1 only)			Others		
20	0.08%			0.10%		
25	0.08%			0.10%		
30	0.08%			0.07%		
35	0.08%			0.12%		
40	0.20%			0.28%		
45	0.26%			0.51%		
50	0.49%			0.81%		
55	0.89%			1.13%		
60	1.41%			1.44%		
Ref	9	x	1	8	x	1

Number of active members: The number of active members was assumed to remain constant.

The mortality table used to measure pre and post-retirement mortality was the 1983 Group Annuity Mortality Table. This assumption was first used for the September 30, 1998 supplemental actuarial valuation. Rates were set forward 5 years for disabled retirees.

Mortality rates are used to measure the probabilities of members dying before retirement and the probabilities of each pension payment being made after retirement.

Sample Attained Ages	Single Life Retirement Values			
	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
45	\$138.18	\$144.67	33.74	39.69
50	132.10	140.42	29.18	34.92
55	124.57	134.74	24.82	30.24
60	115.04	127.24	20.64	25.67
65	103.26	117.61	16.69	21.29
70	90.18	105.53	13.18	17.13
75	76.40	91.57	10.15	13.37
80	62.65	77.16	7.64	10.20
Ref:	30 x 1.00	31 x 1.00		

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

SEPTEMBER 30, 2010

Marriage Assumption:	100% of males and 100% of females are assumed to be married. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	Beginning of (Fiscal) year.
Decrement Timing:	Decrements are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and the exact fractional service 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 do not operate during retirement eligibility.
Normal Form of Benefit:	The assumed normal form of benefit is the straight life form.
Adjustments:	<p>Age and service benefits were increased by the following percentages to account for lump sum redemptions of unused sick leave, vacation time, and other items at retirement: County Plan One: 5%. County Plan Two: 3%. County Plans Three, Five, and Six: 7%. Airport Plans One and Three, 5%. Airport Plans Two and Five: 2%.</p> <p>Age and service benefits were increased by 1% to account for missing or incomplete data.</p> <p>Straight Life amounts are not provided for retired members who elect the pop-up provision. Retiree liabilities were increased by 2% to account for the plan's pop-up provision.</p>
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.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Option Factors:	Option factors are based upon 7.0% interest and the 1971 Group Annuity Mortality Table projected to 1984, set back six years for females with an 85% Unisex Blend.

SECTION D

FINANCIAL REPORTING

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 MARKET VALUE OF ASSETS
AS OF SEPTEMBER 30, 2009 AND SEPTEMBER 30, 2010**

	2010	2009
Assets:		
Cash and short-term investments	\$ 50,431,093	\$ 26,793,438
Receivables:		
Accrued interest and dividends	1,318,378	1,299,480
Investments, at fair value:		
U.S. Government Bonds	23,463,575	32,953,189
Corporate Bonds	92,647,494	75,460,162
Capital Assets	8,983	11,977
Bond Mutual Funds	0	19,490,729
Mortgages	43,271,772	39,182,442
Stock Mutual Funds	159,797,171	187,284,947
Construction Loans	13,365,920	0
Real Estate Investment Trusts	33,019,528	35,295,335
Investments in Partnerships	85,590,705	107,310,028
Stocks	310,238,861	287,019,246
Other	3,446,956	15,010,648
	764,850,965	799,018,703
Total Assets	\$816,600,436	\$827,111,621
Liabilities		
Payables	8,000,133	3,683,602
Net assets held in trust for pension benefits (A schedule of funding progress for the plan is presented on page D-4.)	\$ 808,600,303	\$823,428,019

**STATEMENT OF CHANGES IN MARKET VALUE OF NET ASSETS FOR THE
FISCAL YEARS ENDED SEPTEMBER 30, 2009 AND SEPTEMBER 30, 2010**

	Reconciliation as of September 30	
	2010	2009
Additions:		
Contributions		
Employer	\$ 35,400,544	\$ 32,558,974
Plan members	29,499,084	74,414,255
Total contributions	64,899,628	106,973,229
Investment Income	59,172,873	(14,882,372)
Total Additions	124,072,501	92,090,857
Deductions:		
Benefits	126,513,769	111,423,313
13th Check and Refunds	5,229,395	9,539,179
Investment Expenses	4,182,844	3,545,039
Administrative Expenses & Other	2,974,209	3,683,084
Total Deductions	138,900,217	128,190,615
Net Increase	(14,827,716)	(36,099,758)
Net assets held in trust for pension benefits:		
Beginning of year	823,428,019	859,527,777
End of year	\$808,600,303	\$823,428,019

Plan Description. The Wayne County Employees' Retirement System is a defined benefit and defined contribution pension plan that covers the employees of Wayne County.

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

Contributions. Plan members' contributions are in accordance with Section B.

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 Wayne County 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 individual entry age normal actuarial cost method is used to determine normal cost and actuarial accrued liabilities.

On the basis of the September 30, 2010 actuarial valuation, the employer contributions were determined to be as follows:

Contributions for	% of Payroll	
	29-year Amortization	
	County	Airport
Normal Cost	11.06 %	6.28 %
Unfunded Accrued Liabilities	28.62 %	10.07 %
Total Employer DB Plan Contributions	39.68 %	16.35 %

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS
(DOLLAR AMOUNTS IN MILLIONS)

TOTAL WCERS

Actuarial Valuation Date	Actuarial Value of Assets* (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll+ (c)	UAAL as a Percent of Covered Payroll [(b)-(a)]/(c)
9/30/2000&	\$1,028.6	\$ 947.6	\$ (81.0)	108.5 %	\$275.6	--
9/30/2001#	1,041.6	979.2	(62.4)	106.4 %	294.1	--
9/30/2002	1,043.3	1,010.7	(32.6)	103.2 %	309.0	--
9/30/2003	996.6	1,007.7	11.1	98.9 %	289.3	3.8 %
9/30/2004#	910.1	959.7	49.6	94.8 %	343.3	14.4 %
9/30/2005	891.4	969.3	77.9	92.0 %	298.6	26.1 %
9/30/2006#	894.5	1,000.2	105.7	89.4 %	319.6	33.1 %
9/30/2007#	947.8	1,169.5	221.7	81.0 %	325.4	68.1 %
9/30/2008#	985.0	1,338.8	353.8	73.6 %	330.0	107.2 %
9/30/2009#	970.9	1,444.3	473.4	67.2 %	297.5	159.1 %
9/30/2010#	900.8	1,502.1	601.3	60.0 %	277.4	216.8 %

After changes in benefit provisions, transfers from DC plan to DB plans (net of contributions), and/or revised actuarial assumptions.

* Excludes reserve for inflation equity.

& Change in Inflation Equity calculation.

+ Includes DC Plan payroll.

Note: Hybrid Plan 5 exists September 30, 2003 and later. Hybrid Plan 6 exists October 1, 2008.

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.

**SCHEDULE OF EMPLOYER CONTRIBUTIONS
DEFINED BENEFIT PLANS ONLY
(\$ IN THOUSANDS)**

Valuation Date	Fiscal Year Ended	Annual Required Contributions		WCERS Total Actual Contributions +
		County	Airport	
	September 30#			
2000	2002	0.0%	0.0%	\$ 45
2001	2003	3.14%	3.14%	3,002
2002	2004	8.06%	8.06%	7,374
2003	2005	12.30%	12.30%	11,106
2004	2006	13.80%	13.80%	12,663
2005	2007	16.03%	16.03%	15,398
2006	2008	15.82%	15.82%	18,420
2007	2009	23.67%	13.48%	32,559
2008	2010	27.82%	13.80%	35,401
2009	2011	30.26%	14.91%	N/A
2010	2012	39.68%	16.35%	N/A

+ Actual contributions are based on a percent of current payroll.

Separate contribution rates for County and Airport begin in the September 30, 2007 valuation.

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.

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	September 30, 2010
Actuarial cost method	Entry Age Normal
Amortization method	Level percent-of-payroll
Remaining amortization period	29 years – closed
Asset valuation method	4-year smoothed market

Actuarial assumptions:

Investment rate of return*	8.0%
Projected salary increases*	4.0% - 8.4%
Cost-of-living adjustments	N/A

* Includes wage inflation at 4.0%

July 25, 2011

Mr. Robert Grden
Executive Director
Wayne County Employees' Retirement System
28 W. Adams, Suite 1900
Detroit, Michigan 48226

Dear Rob:

Enclosed are 45 copies of the September 30, 2010 Actuarial Valuation report for the Wayne County Employees' Retirement System.

Sincerely,

A handwritten signature in black ink that reads "Judith A. Kermans". The signature is written in a cursive style with a large, looping initial "J".

Judith A. Kermans

JAK:clh
Enclosures