

Delaware County & Municipal Employees' Pension Plan

Actuarial Valuation as of June 30, 2010

**Produced by Cheiron** 

May 2011



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May 4, 2011

Board of Pension Trustees State of Delaware McArdle Building 860 Silver Lake Boulevard, Suite 1 Dover, Delaware 19904

Dear Members of the Board:

At your request, we have conducted the annual actuarial valuation of the Delaware County & Municipal Employees' Pension Plan as of June 30, 2010. The results of the valuation are contained in this report. The purpose of the valuation is discussed in the Foreword.

This report contains information on Plan assets, as well as analyses which combine asset and liability performance and projections. The report also discloses employer contribution levels, and required disclosures under the Governmental Accounting Standards Board Statement No. 25.

Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions on which our findings are based. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief. The results of this report are only applicable to the County and Municipal contributions for Fiscal Year ending 2012 and rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

We hereby certify that, to the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board, and that as Members of the American Academy of Actuaries, we meet the Qualification Standards to render the opinions contained herein.

Sincerely, Cheiron

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Fiona E. Liston, FSA Principal Consulting Actuary

Margaret A. Tempkin, FSA Consulting Actuary

### FOREWORD

Cheiron has performed the actuarial valuation of the Delaware County & Municipal Employees' Pension Plan as of June 30, 2010. The purpose of this report is to:

- 1) Measure and disclose, as of the valuation date, the financial condition of the Plan;
- 2) Indicate trends in the financial progress of the Plan;
- 3) **Determine the contribution rate** to be paid by the participating employers for Fiscal Year 2012; and
- 4) **Provide specific information** and documentation required by the Governmental Accounting Standards Board (GASB).

An actuarial valuation establishes and analyzes Plan assets and liabilities on a consistent basis, and traces the progress of both from one year to the next. It includes measurement of the Plan's investment performance as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our findings and disclosing important trends experienced by the Plan in recent years.

Section II contains details on various asset measures, together with pertinent performance measurements.

Section III shows similar information on Plan liabilities, measured for actuarial, accounting, and government reporting purposes.

Section IV develops the employer contribution rate determined using actuarial techniques.

Section V includes the required disclosures under GASB Statement number 25.

The appendices to this report contain a summary of the Plan's membership at the valuation date, a summary of the major provisions of the Plan, and the actuarial methods and assumptions used in the valuations.

In preparing our report, we relied without audit, on information (some oral and some written) supplied by the Office of Pension's staff. This information includes, but is not limited to, plan provisions, employee data, and financial information.

The actuarial assumptions reflect our understanding of the likely future experience of the Plan and the assumptions as a whole represent our best estimate for the future experience of the Plan. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the Plan could vary from our results.

Finally, in preparing this report, we have conformed to generally accepted actuarial principles and practices which are consistent with the Code of Professional Conduct, and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board.



# SECTION I BOARD SUMMARY

# **General Comments**

The actuarially determined contribution rate increased from 6.20% for FY 2011 to 6.5% for FY 2012. During the year ended June 30, 2010, the Plan's assets earned 13.1% on a market value basis. However, due to the Plan's asset-smoothing technique and an accumulation of past asset gains and losses, the return on the actuarial asset value was positive 5.2%. This return was below the assumed rate of return of 8.0% and resulted in an actuarial loss on investments of \$440 thousand.

The plan experienced an actuarial loss on Plan liabilities resulting from salary increases different than assumed and members retiring, terminating, becoming disabled, and dying at rates different from the actuarial assumptions. The loss increased by \$383 thousand the actuarial liability that would have otherwise developed. This type of activity is normal in the course of plan experience. The Plan will experience actuarial gains and losses over time because we cannot predict exactly how people will behave. When a plan experiences alternating gains and losses that are small compared to the total actuarial liability, then the plan's actuarial assumptions are reasonable.

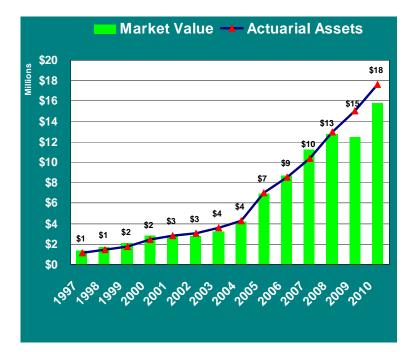
As of the June 30, 2010 actuarial valuation, the Plan's unfunded actuarial liability was \$2,231 thousand. This is an increase from last year's unfunded actuarial liability of \$1,713 thousand.



# SECTION I BOARD SUMMARY

# Trends

# Growth in Assets



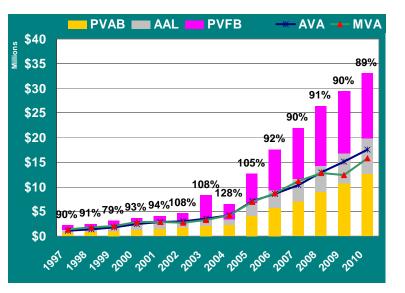
The market value of assets (MVA) returned 13.1% over the last year. The determination of the plan's actuarial value of assets reflects only a portion of the return above 8%, so an additional recognition of the 2008-2009 losses dampened the impact on the actuarial assets.

Over the period July 1, 1997 to June 30, 2010 the Plan's assets returned approximately 8.6% per year measured at actuarial value, compared to a valuation assumption of 8% per year.

# Assets and Liabilities

The three colored bars represent the three different measures of liability mentioned in this report. For funding purposes, the target amount is represented by the top of the gray bar. We compare the actuarial value of assets to this measure of liability in developing the funded percent. These are the percentages shown in the graph labels.

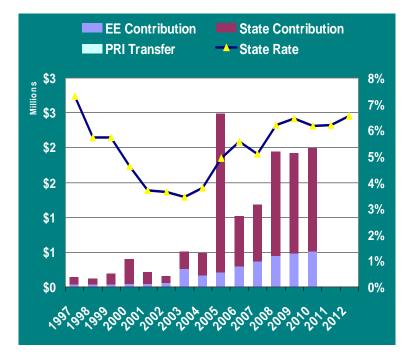
The amount represented by the top of the pink bars, the Present Value of Future Benefits (PVFB), is the amount needed to provide all benefits for the current participants and their beneficiaries. If the Plan had assets equal to the PVFB no contributions would, in theory, be needed for the current members.



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# SECTION I BOARD SUMMARY

# **Contribution Rates**



The stacked bars in this graph show the contributions made by the participating employers and the members (left hand scale). The black line shows the employer contribution rate as a percent of payroll (right hand scale).

The member contribution rate is set by State law, depending on which plan the member participates in. The employer contribution rate is set by the actuarial process. When new employers opt to provide prior service, there is an assessment made at the time of entry. Some employers pay this immediately, resulting in the erratic history of dollar contributions.

# Participant Trends

The graph at the right shows the rapid growth in this Plan in the early part of the decade as more employers opt to participate. Since this is a relatively young pension plan, there are still far more active participants than retirees.

The black line shows the covered compensation and is read using the right-hand scale.

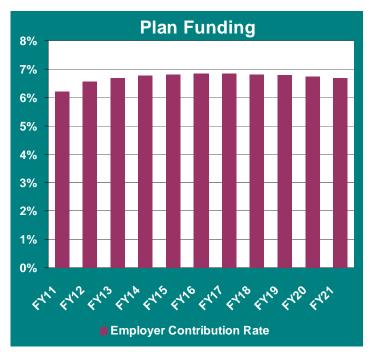




# SECTION I BOARD SUMMARY

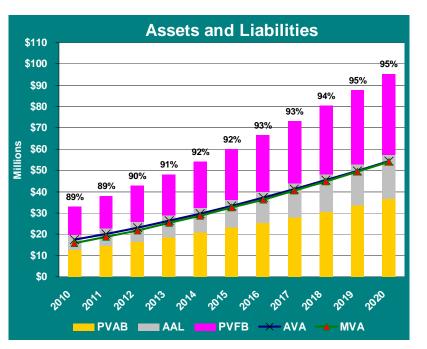
# **Future Outlook**

# **Base Line Projections**



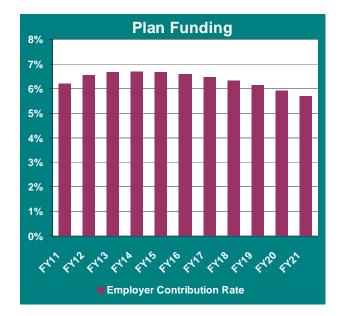
These graphs show the expected progress of the Plan over the next ten years assuming the Plan's assets earn 8% on their *market value*. The chart entitled "Plan Funding" shows that the employer rate is expected to increase slightly and then remain relatively level at just under 7% of payroll over the decade.

The "Assets and Liabilities" graph shows the projected funding status over the next ten years. The Plan's funded status is projected to improve by the end of the decade, even after the remaining unrecognized investment losses have been fully integrated.





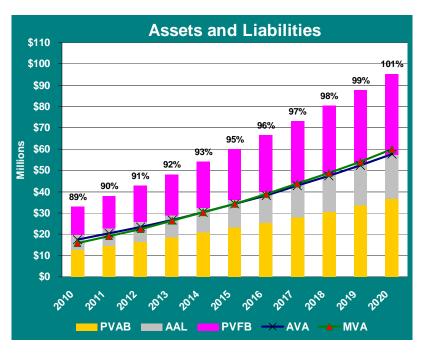
### SECTION I BOARD SUMMARY



### Projections With Asset Returns of 9.5%

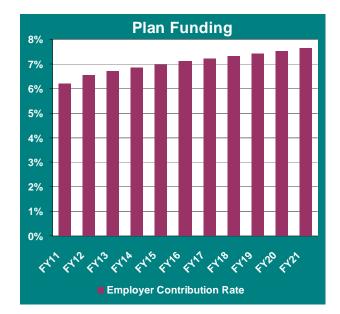
The future funding status of this Plan will be influenced by the investment earnings. Relatively minor changes in market returns can have significant effects on the Plan's status. The next two charts show what the next ten years would look like with a 9.5% annual return in each year. The Plan has earned an average 7.0% per year over the tenyear period ending June 30, 2010.

As you can see, the Plan would reach 101% funding by 2020. The contribution rate drops to below 6% of payroll by fiscal year 2020.





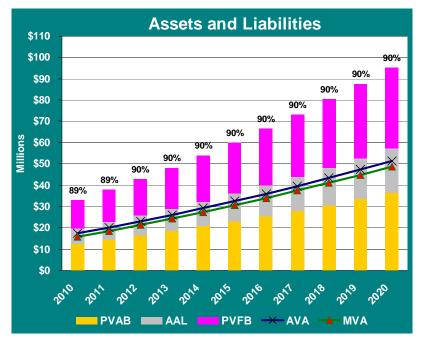
### SECTION I BOARD SUMMARY



### Projections With Asset Returns of 6.5%

To further demonstrate how the future funding of this Plan could be impacted by investment earnings, we show the anticipated plan funding projections if the invested assets earn 6.5% per year over the entire ten year period.

Under this scenario the employer contribution rate increases slightly as the funding level remains level.





# SECTION I BOARD SUMMARY

Delaware County & Municipal Employees' Pension Plan Summary of Principal Plan Results						
Valuation as of:	June 30, 2009	June 30, 2010	% Change			
Participant Counts						
Active Participants	429	459	6.99%			
Disabled Participants	3	3	0.00%			
Retirees and Beneficiaries	27	35	29.63%			
Terminated Vested Participants	7	10	42.86%			
Inactive Participants	15	12	(20.00%)			
Total	481	519	7.90%			
Annual Salaries of Active Members*	\$ 19,046,300	\$ 20,590,700	8.11%			
Annual Retirement Allowances for Retired Members and Beneficiaries	\$ 216,500	\$ 274,500	26.79%			
Assets and Liabilities						
Actuarial Accrued Liability (AAL)	\$ 16,786,700	\$ 19,827,000	18.11%			
Actuarial Value of Assets	15,074,000	17,596,300	<u>    16.73%  </u>			
Unfunded AAL	\$ 1,712,700	\$ 2,230,700	30.24%			
Funded Ratio	89.8%	88.7%				
Present Value of Accrued Benefits (PVAB)	\$ 10,814,100	\$ 12,640,400	16.89%			
Market Value of Assets	12,406,900	15,836,900	27.65%			
Unfunded PVAB	\$ (1,592,800)	\$ (3,196,500)	100.68%			
Accrued Benefit Funding Ratio	114.7%	125.3%				
Contributions as a Percentage of Payroll	Fiscal Year 2011	Fiscal Year 2012				
Normal Cost Contribution	5.14%	5.14%				
Unfunded Actuarial Liability Contribution	0.66%	1.01%				
Administrative Expense	0.40%	0.40%				
Total State Contribution	6.20%	6.55%				

\* Assumes one year of payroll projection.

# SECTION II ASSETS

Pension Plan assets play a key role in the financial operation of the Plan and in the decisions the Trustees may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact upon benefit levels, employer contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets at June 30, 2009 and June 30, 2010;
- Statement of the **changes** in market values during the year;
- Development of the Actuarial Value of Assets;
- An assessment of investment performance; and
- A projection of the plan's expected **cashflows** for the next ten years.

# Disclosure

The market value of assets represents "snap-shot or cash-out" values which provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not suitable for long-range planning.

The actuarial values are market values which have been smoothed and are the actuary's best estimate of long-term asset values. They are used for evaluating the Plan's ongoing liability to meet its obligations.

Current methods employed by this Plan set the actuarial value equal to the expected value plus 20% of the difference between the expected value of assets and the actual market value where the expected value is equal to the prior year's actuarial value, rolled forward with actual contributions and benefit payments plus interest imputed at 8%.



# SECTION II ASSETS

Changes in Market Values					
Value of Assets – June 30, 2009		\$ 12,406,900			
Additions					
Member Contributions	\$ 508,500				
Employer Contributions	1,489,300				
Investment Return	1,741,400				
Total Additions	\$ 3,739,200				
Deductions					
Benefit Payments	\$ 265,900				
Administrative Expenses	43,300				
Total Deductions	\$ 309,200				
Value of Assets – June 30, 2010		\$ 15,836,900			



# SECTION II ASSETS

	Development of Actuarial Value of Assets					
1.	Actuarial Value of Assets at June 30, 2009	\$	15,074,000			
2.	Amount in (1) with interest to June 30, 2010		16,279,900			
3.	Employer and member contributions for the Plan Year ended June 30, 2010		1,997,800			
4.	Interest on contributions assuming payments made uniformly throughout the year to June 30, 2010 at 8.00% per year		79,900			
5.	Disbursements from Trust except investment expenses, July 1, 2009 through June 30, 2010		309,200			
6.	Interest on disbursements to June 30, 2010 at 8.00% per year		12,300			
7.	Expected Actuarial Value of Assets at June 30, 2010 = $(2) + (3) + (4) - (5) - (6)$		18,036,100			
8.	Actual Market Value of Assets at June 30, 2010		15,836,900			
9.	Excess of (8) over (7)		(2,199,200)			
10.	Actuarial Value of Assets at June 30, $2010 = (7) + 20\%$ of (9)	\$	17,596,300			

# **Actuarial Value of Assets**

The actuarial value of assets represents a "smoothed" value developed by the actuary to reduce, or eliminate, erratic results which could develop from short-term fluctuations in the market value of assets. For this Plan, the actuarial value has been calculated by adding 20% of the difference between market value and expected value to the expected value. The above table illustrates the calculation of actuarial value of assets for the June 30, 2010 valuation.



# SECTION II ASSETS

# **Investment Performance**

The market value of assets (MVA) returned 13.1% during 2010, which is more than the assumed 8% return. A return of 5.2% on the actuarial value of assets (AVA) is primarily the result of the asset smoothing method being utilized for the calculation of the Actuarial Value of Assets. Since only 20% of the gain or loss from the performance of the Plan is recognized in a given year, in periods of very good performance, the AVA can lag significantly behind the MVA. In a period of negative returns, the AVA does not decline as rapidly as the MVA.

Year Beginning July 1,	<b>Expected Benefit Payments</b>	Expected Contributions*
2010	\$ 396,000	\$ 1,908,000
2011	490,000	1,979,000
2012	591,000	2,054,000
2013	716,000	2,131,000
2014	857,000	2,210,000
2015	1,018,000	2,293,000
2016	1,196,000	2,379,000
2017	1,393,000	2,469,000
2018	1,614,000	2,561,000
2019	1,844,000	2,657,000

\* Expected contributions include participating employer contributions and member contributions. For illustration purposes, we have assumed the employer contribution rate will remain level and that payroll will increase at the actuarially assumed rate of 3.75% per year.

Expected benefit payments are projected for the closed group valued at June 30, 2010. Projecting any farther than ten years using a closed-group would not yield reliable predictions due to the omission of new hires.



# SECTION III LIABILITIES

In this section, we present detailed information on Plan liabilities including:

- **Disclosure** of Plan liabilities at June 30, 2009 and June 30, 2010; and
- Statement of **changes** in these liabilities during the year;

# Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them.

- **Present Value of Benefits:** Used for analyzing the financial outlook of the Plan, this represents the amount of money needed today to fully pay off all future benefits and expenses of the Plan, assuming participants continue to accrue benefits.
- Actuarial Accrued Liability: Used for funding calculations and GASB disclosures, this liability is calculated taking the Present Value of Benefits and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. This method is referred to as the Entry Age Normal funding method.
- **Present Value of Accrued Liabilities:** Used for communicating the current level of liabilities, this liability represents the total amount of money needed today to fully pay off the current accrued obligations of the Plan, assuming no future accruals of benefits. These liabilities are also required for accounting purposes (Topic No. 960) and used to assess whether the Plan can meet its current benefit commitments.

The following table discloses each of these liabilities for the current and prior valuations. With respect to each disclosure, a subtraction of the appropriate value of Plan assets yields, for each respective type, a **net surplus** or an **unfunded liability**.



# SECTION III LIABILITIES

Liabilities/Net (Surplus)/Unfunded						
Liabilities/Net (Surplus)/O		ine 30, 2009	Ju	ne 30, 2010		
Present Value of Benefits						
Active Participant Benefits	\$	27,203,900	\$	30,185,400		
Retiree and Inactive Benefits	φ	2,193,800	φ	2,822,700		
Present Value of Benefits (PVB)	\$	<b>29,397,700</b>	\$	<b>33,008,100</b>		
resent value of Denents (rvb)	φ	29,391,100	φ	33,000,100		
Market Value of Assets (MVA)	\$	12,406,900	\$	15,836,900		
Future Member Contributions		4,231,200		4,556,400		
Future Employer Contributions		12,759,600		12,614,800		
Total Resources	\$	29,397,700	\$	33,008,100		
Actuarial Accrued Liability						
Present Value of Benefits (PVB)	\$	29,397,700	\$	33,008,100		
Present Value of Future Normal Costs (PVFNC)	·	8,379,800		8,624,700		
Present Value of Future Member Contributions (PVFEEC)		4,231,200		4,556,400		
Actuarial Accrued Liability (AAL=PVB-PVFNC-PVFEEC)		16,786,700		19,827,000		
Actuarial Value of Assets (AVA)		15,074,000		17,596,300		
Net (Surplus)/Unfunded (AAL – AVA)	\$	1,712,700	\$	2,230,700		
Present Value of Accrued Liability						
Present Value of Benefits (PVB)	\$	29,397,700	\$	33,008,100		
Present Value of Future Benefit Accruals (PVFBA)		18,583,600		20,367,700		
Present Value of Accrued Liability (PVAB=PVB-PVFBA)		10,814,100		12,640,400		
Market Value of Assets (MVA)		12,406,900		15,836,900		
Net Unfunded (PVAB – MVA)	\$	(1,592,800)	\$	(3,196,500)		



# SECTION III LIABILITIES

# **Changes in Liabilities**

Each of the Liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in Plan assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

In each valuation, we report on those elements of change which are of particular significance, potentially affecting the long-term financial outlook of the Plan. Below we present key changes in liabilities since the last valuation.

	Present Value of Benefits	Actuarial Accrued Liability	Present Value of Accrued Liability
Liabilities June 30, 2009	\$ 29,397,700	\$ 16,786,700	\$ 10,814,100
Liabilities June 30, 2010	33,008,100	19,827,000	12,640,400
Liability Increase (Decrease)	3,610,400	3,040,300	1,826,300
Change Due to:			
Plan Change	N/A	N/A	N/A
Actuarial (Gain)/Loss	NC*	382,700	NC*
Benefits Accumulated and			
Other Sources	3,610,400	2,657,600	1,826,300

\* NC = not calculated



# SECTION III LIABILITIES

	Actuarial Liabilities for Funding					
		June 30, 2009				
1.	Actuarial Liabilities					
	Retiree and Inactive Benefits	\$	2,193,800	\$	2,822,700	
	Active Members		14,592,900		17,004,300	
	Total Actuarial Liability	\$	16,786,700	\$	19,827,000	
2.	Actuarial Value of Assets	\$	15,074,000	\$	17,596,300	
3.	Unfunded Actuarial Liability	\$	1,712,700	\$	2,230,700	
4.	Allocation of Unfunded Actuarial Liability Unpaid UAL from Participating Municipalities	\$	703,900	\$	547,000	
5.	Net Gain Base for 10 Year Amortization (3-4)	\$	1,008,800	\$	1,683,700	



# SECTION IV CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the Plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

For this Plan, the funding method employed is the **Entry Age Actuarial Cost Method**. Under this method, there are three components to the total contribution: the **normal cost rate**, the **unfunded actuarial liability rate** (UAL rate), and the **administrative expense rate**. The normal cost rate is determined in the following steps. First, for a typical new entrant an individual normal cost rate is determined by taking the value, as of entry age into the plan, of that member's projected future benefits. This value is then divided by the value, also at entry age, of the member's expected future salary. Finally, the total normal cost rate is reduced by the member contribution rate to produce the employer normal cost rate.

The net unfunded actuarial liability (after subtracting payments due from municipalities paying for prior service) is amortized over a rolling ten year period. All payments are determined assuming total pay increases by the annual inflation rate.

The assumed administrative expense rate is 0.40% of payroll. This rate, when applied to payroll, is intended to provide an allowance above the cost of funding the benefits to pay for the expense of operating the Plan.

The table below presents and compares the employer contribution rates for the Plan for this valuation and the prior one.

Employer Contribution Rate							
	June 30, 2009	June 30, 2010					
Entry Age Normal Cost Rate	5.14%	5.14%					
Amortization Payment	0.66%	1.01%					
Expense	0.40%	0.40%					
Actuarially Determined Contribution	6.20%	6.55%					



# SECTION IV CONTRIBUTIONS

Γ	Development of Plan Cost as of June 30, 2010							
In Dollars As % of Pay								
1.	Present value of projected benefits attributable to:							
	a. Total Normal Cost	\$	1,618,400	7.86%				
	b. Expected Members Contribution		560,000	2.72%				
	c. Employer Paid Normal Cost (a) – (b)	\$	1,058,400	5.14%				
2.	Amortization of Unfunded Liability	\$	208,900	1.01%				
3.	Allowance for Expense	\$	82,400	0.40%				
4.	Total Employer Contribution Rate $(1) + (2) + (3)$	\$	1,349,700	6.55%				



# SECTION V ACCOUNTING STATEMENT INFORMATION

ASC Topic No. 960 of the Financial Accounting Standards Board requires the Plan to disclose certain information regarding its funded status. Statement No. 25 of the Governmental Accounting Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

The FASB ASC Topic No. 960 disclosures provide a quasi "snap shot" view of how the Plan's assets compare to its liabilities if contributions stopped and accrued benefit claims had to be satisfied. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if the Plan were to terminate.

The GASB-25 actuarial accrued liability is the same as the actuarial liability amount calculated for funding purposes.

Both the present value of accrued benefits (Topic No. 960) and the actuarial accrued liability (GASB-25) are determined assuming that the Plan is on-going and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 8% per annum.

FASB ASC Topic No. 960 specifies that a comparison of the present value of accrued (accumulated) benefits with the market value of the assets as of the valuation date must be provided. GASB Statement No. 25 requires the actuarial accrued liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2010 are exhibited in Table V-1. Finally, Table V-2 reconciles the Topic No. 960 liabilities determined as of the prior valuation, July 1, 2009, to the liabilities as of June 30, 2010.

Tables V-3 through V-5 are exhibits to be used with the State CAFR report. Table V-3 is the Note to Required Supplementary Information, Table V-4 is a history of gains and losses in Accrued Liability, and Table V-5 is the Solvency Test which shows the portion of Accrued Liability covered by Assets.



# SECTION V ACCOUNTING STATEMENT INFORMATION

	Table V-1							
		Accounting Statement I		nation une 30, 2009	$\mathbf{J}_1$	une 30, 2010		
<b>A.</b>		<b>ASB ASC Topic No. 960 Basis</b> Present Value of Benefits Accrued and Vested to Date		,				
		<ul><li>a. Members Currently Receiving Payments</li><li>b. Former Vested Members</li><li>c. Active Members</li></ul>	\$	2,091,200 102,600 8,620,300	\$	2,636,900 185,800 <u>9,817,700</u>		
	2.	Total Present Value of Accrued Benefits $(1 (a) + 1(b) + 1(c))$	\$	10,814,100	\$	12,640,400		
	3.	Assets at Market Value		12,406,900		15,836,900		
	4.	Unfunded Present Value of Accrued Benefits (2 – 3)	\$	(1,592,800)	\$	(3,196,500)		
	5.	Ratio of Assets to Present Value of Benefits (3 / 2)		114.7%		125.3%		
B.	GA	ASB No. 25 Basis						
	1.	Actuarial Accrued Liabilities for retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$	2,193,800	\$	2,822,700		
	2.	Actuarial Accrued Liabilities for current employees		14,592,900		17,004,300		
	3.	Total Actuarial Accrued Liability (1 + 2)	\$	16,786,700	\$	19,827,000		
	4.	Net Actuarial Assets available for benefits		15,074,000		17,596,300		
	5.	Unfunded Actuarial Accrued Liability (3 – 4)	\$	1,712,700	\$	2,230,700		



# SECTION V ACCOUNTING STATEMENT INFORMATION

Table V-2 Statement of Changes in Total Actuarial Present Value of All Accrued Benefits	 mulated Benefit ation (FASB 35)
Actuarial Present Value of Accrued Benefits at June 30, 2009	\$ 10,814,100
Increase (Decrease) During Years Attributable to: Passage of Time	854,500
Benefit Paid – FY 2010 Plan Change	(265,900)
Benefits Accrued, Other Gains/Losses Net Increase (Decrease)	\$ 1,237,700 1,826,300
Actuarial Present Value of Accrued Benefits at June 30, 2010	\$ 12,640,400



# SECTION V ACCOUNTING STATEMENT INFORMATION

# Table V-3 NOTE TO REQUIRED SUPPLEMENTARY INFORMATION

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

Valuation date	July 1, 2010
Actuarial cost method	Entry age
Amortization method	Level percent open
Remaining amortization period	Ten years
Asset valuation method	5-Year smoothed market
Actuarial assumptions: Investment rate of return* Projected salary increases* *Includes inflation at Cost-of-living adjustments	8.0% 4.3%-10.1% 3.75% ad hoc

The actuarial assumptions used have been recommended by the actuary and adopted by the Plan's Board of Trustees based on the most recent review of the Plan's experience, completed in 2004.

The rate of employer contributions to the Plan is composed of the normal cost, amortization of the unfunded actuarial accrued liability and an allowance for administrative expenses. The normal cost is a level percent of payroll cost which, along with member contributions, will pay for projected benefits at retirement for the average plan participant. The actuarial accrued liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial accrued liability. The allowance for administrative expenses is based upon the Plan's actual administrative expenses.



# SECTION V ACCOUNTING STATEMENT INFORMATION

Table V-4 ANALYSIS OF FINANCIAL EXPERIENCE	
Gain and Loss in Accrued Liability During Years Ended June 30	

#### Gain and Loss in Accrued Liability During Years Ended June 30 Resulting from Differences Between Assumed Experience and Actual Experience

		Gain (or Loss) for Year ending Ju (expressed in thousands)									
Type of Activity	2006		2006 2007		2008		2009		2010		
Investment Income on Actuarial Assets	\$	36	\$	196	\$	(60)	\$	(667)	\$	(440)	
Combined Liability Experience		(1, 289)		(446)		(613)		17		(383)	
(Loss)/Gain During Year from Financial Experience	\$	(1,253)	\$	(250)	\$	(673)	\$	(650)	\$	(823)	
Non-Recurring Items	_	0		0		0		0		0	
Composite Gain (or Loss) During Year	\$	(1,253)	\$	(250)	\$	(673)	\$	(650)	\$	(823)	

	Table V-5         SOLVENCY TEST         Aggregate Accrued Liabilities for         (expressed in thousands)										
Valuation Date June 30,	Mem Active Emplo aluation Date Member Retirants & Finan June 30, Contributions Beneficiaries Contrib		Active lember nployer nanced tributions (3)	V: Re	ctuarial alue of eported Assets		on of Accrued Liak red by Reported A (2)				
2010	\$	2,653	\$	2,637	\$	14,537	\$	17,596	100%	100%	85%
2010	ψ	2,033	ψ	2,037	Ψ	12,524	ψ	15,074	100%	100%	86%
2008		1,756		1,302		11,250		12,980	100%	100%	88%
2007		1,303		1,136		9,139		10,405	100%	100%	87%
2006		1,005		860		7,357		8,529	100%	100%	91%
2005		773		876		5,073		7,048	100%	100%	91%
2004		626		649		2,065		4,275	100%	100%	145%

# APPENDIX A MEMBERSHIP INFORMATION

# Delaware County and Municipal Pension Plan Distribution of Active Members by Age and Service as of June 30, 2010

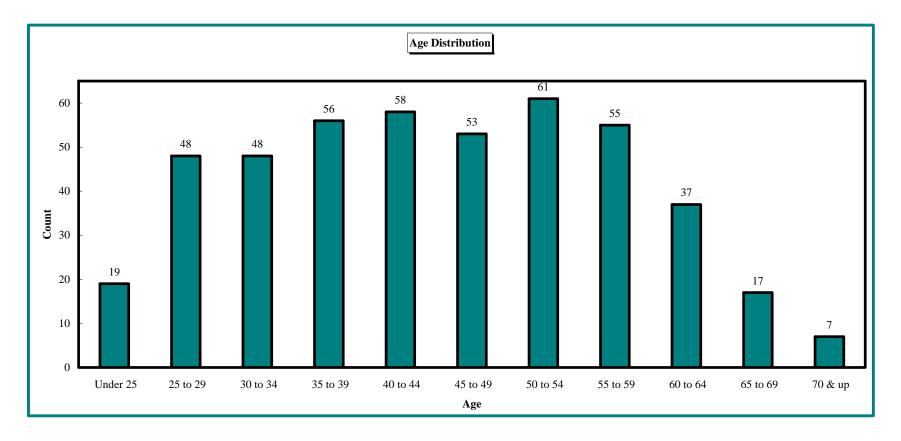
				00	UNISDIAG	LIDERVICE				-	
					Servic	e					
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	8	10	1	0	0	0	0	0	0	0	19
25 to 29	4	34	10	0	0	0	0	0	0	0	48
30 to 34	8	21	16	3	0	0	0	0	0	0	48
35 to 39	3	23	22	6	2	0	0	0	0	0	56
40 to 44	4	26	17	7	1	3	0	0	0	0	58
45 to 49	2	17	17	8	3	3	3	0	0	0	53
50 to 54	5	21	18	8	4	3	0	2	0	0	61
55 to 59	7	13	23	4	0	6	1	1	0	0	55
60 to 64	5	11	11	6	1	1	1	1	0	0	37
65 to 69	2	3	9	2	1	0	0	0	0	0	17
70 & up	1	0	2	1	2	1	0	0	0	0	7
Total	49	179	146	45	14	17	5	4	0	0	459

#### COUNTS BY AGE/SERVICE



# APPENDIX A MEMBERSHIP INFORMATION

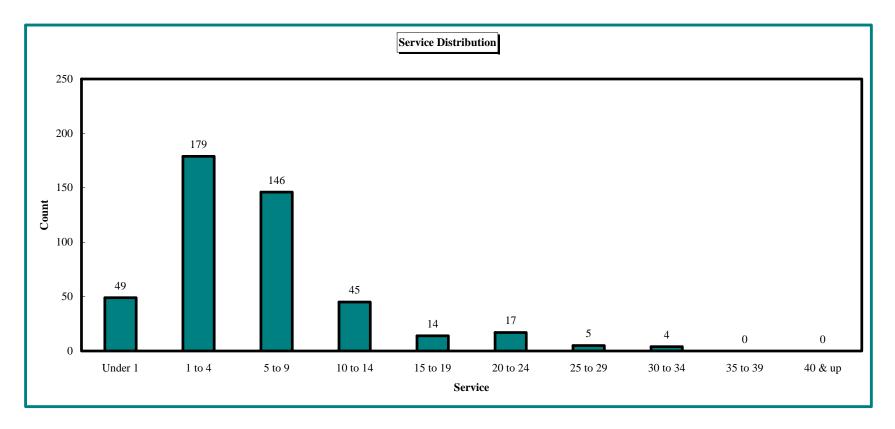
# Delaware County and Municipal Pension Plan Distribution of Active Members by Age as of June 30, 2010





# APPENDIX A MEMBERSHIP INFORMATION

# Delaware County and Municipal Pension Plan Distribution of Active Members by Service as of June 30, 2010



# APPENDIX A MEMBERSHIP INFORMATION

# Delaware County and Municipal Pension Plan Distribution of Active Members by Age and Service as of June 30, 2010

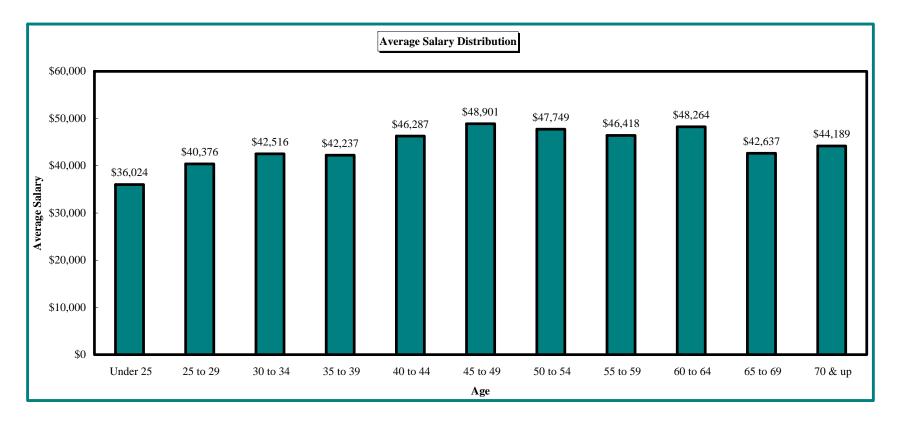
					Servic	e					
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	\$31,786	\$40,123	\$28,930	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$36,024
25 to 29	\$26,864	\$40,305	\$46,023	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40,376
30 to 34	\$36,450	\$41,180	\$48,071	\$38,410	\$0	\$0	\$0	\$0	\$0	\$0	\$42,516
35 to 39	\$28,246	\$34,068	\$45,595	\$66,880	\$46,309	\$0	\$0	\$0	\$0	\$0	\$42,237
40 to 44	\$44,738	\$38,781	\$51,831	\$47,463	\$76,074	\$69,317	\$0	\$0	\$0	\$0	\$46,287
45 to 49	\$28,499	\$42,987	\$47,295	\$53,423	\$53,710	\$78,601	\$58,554	\$0	\$0	\$0	\$48,901
50 to 54	\$45,933	\$42,945	\$43,565	\$51,025	\$59,453	\$71,937	\$0	\$67,604	\$0	\$0	\$47,749
55 to 59	\$33,217	\$44,411	\$47,297	\$51,436	\$0	\$50,929	\$73,693	\$70,307	\$0	\$0	\$46,418
60 to 64	\$25,479	\$49,919	\$35,966	\$79,066	\$55,500	\$49,847	\$40,931	\$92,976	\$0	\$0	\$48,264
65 to 69	\$32,657	\$42,485	\$43,526	\$39,837	\$60,655	\$0	\$0	\$0	\$0	\$0	\$42,637
70 & up	\$45,216	\$0	\$36,599	\$40,749	\$50,908	\$48,345	\$0	\$0	\$0	\$0	\$44,189
Total	\$34,166	\$40,865	\$45,747	\$55,220	\$56,115	\$62,549	\$58,057	\$74,623	\$0	\$0	\$44,860

#### AVERAGE SALARY BY AGE/SERVICE



# APPENDIX A MEMBERSHIP INFORMATION

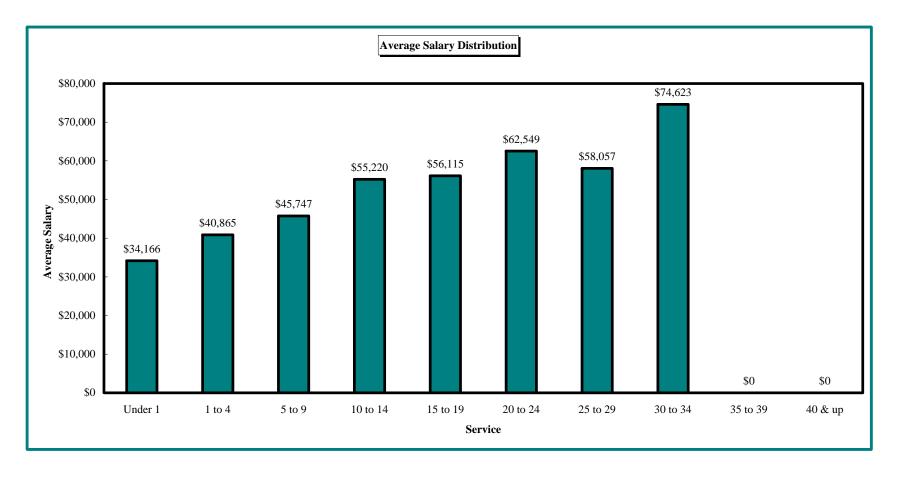
# Delaware County and Municipal Pension Plan Distribution of Active Members by Age as of June 30, 2010





# APPENDIX A MEMBERSHIP INFORMATION

# Delaware County and Municipal Pension Plan Distribution of Active Members by Service as of June 30, 2010



# APPENDIX A MEMBERSHIP INFORMATION

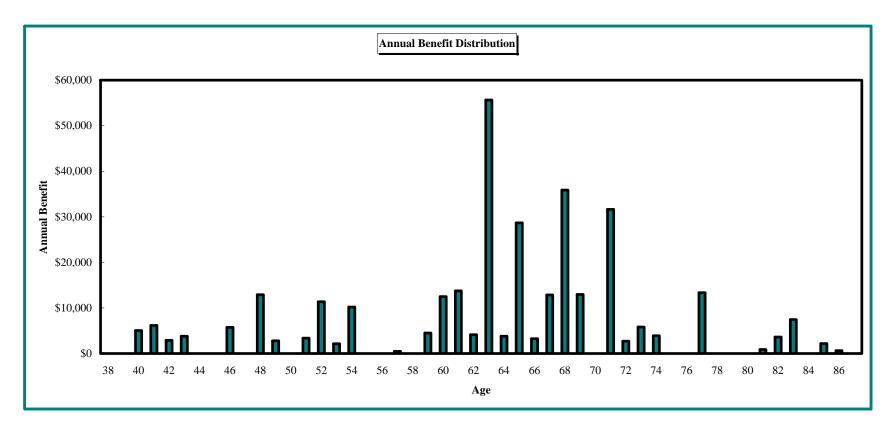
# Delaware County and Municipal Pension Plan Distribution of Retired Members, Survivors, Disabled, and Vested Members as of June 30, 2010

Age	Count	Annual Benefit	Age	Count	Annual Benefit
<25	0	\$0	73	1	\$5,813
25	0	\$0	74	1	\$3,899
26	0	\$0	75	0	\$0
27	0	\$0	76	0	\$0
28	0	\$0	77	2	\$13,337
29	0	\$0	78	0	\$0
30	0	\$0	79	0	\$0
31	0	\$0	80	0	\$0
32	0	\$0	81	1	\$873
33	0	\$0	82	1	\$3,624
34	0	\$0	83	1	\$7,433
35	0	\$0	84	0	\$0
36	0	\$0	85	1	\$2,180
37	0	\$0	86	1	\$619
38	0	\$0	87	0	\$0
39	0	\$0	88	0	\$0
40	1	\$5,035	89	0	\$0
41	1	\$6,168	90	0	\$0
42	1	\$2,898	91	0	\$0
43	1	\$3,780	92	0	\$0
44	0	\$0	93	0	\$0
45	0	\$0	94	0	\$0
46	1	\$5,747	95	0	\$0
47	0	\$0	96	0	\$0
48	2	\$12,895	97	0	\$0
49	1	\$2,798	98	0	\$0
50	0	\$0	99	0	\$0
51	1	\$3,372	100	0	\$0
52	1	\$11,346	101	0	\$0
53	1	\$2,151	102	0	\$0
54	1	\$10,206	103	0	\$0
55	0	\$0	104	0	\$0
56	0	\$0	105	0	\$0
57	1	\$483	106	0	\$0
58	0	\$0	107	0	\$0
59	1	\$4,496	108	0	\$0
60	1	\$12,471	109	0	\$0
61	1	\$13,754	110	0	\$0
62	1	\$4,122	111	0	\$0
63	3	\$55,645	112	0	\$0
64	1	\$3,785	113	0	\$0
65	5	\$28,661	114	0	\$0
66	1	\$3,252	115	0	\$0
67	2	\$12,857	116	0	\$0
68	3	\$35,867	117	0	\$0
69	2	\$12,954	118	0	\$0
70	0	\$0	119	0	\$0
71	4	\$31,629	120	0	\$0
72	1	\$2,692			
			Totals	48	\$326,843
					. , -



# APPENDIX A MEMBERSHIP INFORMATION

# Delaware County and Municipal Pension Plan Distribution of Retired Members, Survivors, Disabled, and Vested Members as of June 30, 2010



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

# A. Long-Term Assumptions Used to Determine Plan Costs and Liabilities

# **1.** Demographic Assumptions

# a. Healthy Inactive Mortality

With Full Generational Mortality Improvements (Projection Scale AA)Male: 85% of RP-2000 MB Mortality TableFemale: 87% of RP-2000 FW Mortality Table

	Rates of Healthy Inactive Mortality Rates (Prior to										
	Proje	ction)	Projecti	on Scale							
Age	Male	Female	Male	Female							
50	0.48%	0.21%	1.80%	1.70%							
55	0.61%	0.30%	1.90%	0.80%							
60	0.90%	0.49%	1.60%	0.50%							
65	1.41%	0.79%	1.40%	0.50%							
70	2.27%	1.32%	1.50%	0.50%							
75	3.67%	2.24%	1.40%	0.80%							
80	6.00%	3.75%	1.00%	0.70%							
85	9.78%	6.45%	0.70%	0.60%							
90	15.45%	10.98%	0.40%	0.30%							

# b. Healthy Active Mortality

Male: 95% of RP-2000 RE Mortality Table Female: 80% of RP-2000 RE Mortality Table

Rates o	Rates of Healthy Active Mortality									
Age	Male	Female								
20	0.03%	0.02%								
25	0.04	0.02								
30	0.04	0.02								
35	0.07	0.04								
40	0.10	0.06								
45	0.14	0.09								
50	0.20	0.13								
55	0.29	0.20								
60	0.46	0.31								



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

# c. Disabled Inactive Mortality

Male: 63% of 1965 Railroad Retirement Board Disabled Mortality Female: 92% of 1981 PBGC Disabled Mortality with Social Security

Rates	of Disabled Inactive N	Aortality
Age	Male	Female
40	2.78%	1.92%
45	2.82%	2.06%
50	3.06%	2.36%
55	3.73%	2.71%
60	4.57%	3.05%
65	5.46%	3.40%
70	6.53%	3.78%
75	7.96%	4.53%
80	9.73%	6.86%

# d. Rates of Active Disability

Rates of Ac	Rates of Active Disability							
Age	Current							
20	0.05%							
25	0.05							
30	0.18							
35	0.27							
40	0.38							
45	0.46							
50	0.62							
55	0.95							
60	1.57							



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

# e. Termination of Employment (Prior to Normal Retirement Eligibility)

10-year Select (age- and service based) & Ultimate (age-based) Tables

Age	Service										
SELECT:	0	1	2	3	4	5	6	7	8	9	ULTIMATE
<55	25.00%	25.00%	25.00%	15.00%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
55+	12.50%	12.50%	12.50%	12.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

# f. Retirement

Early Retirement: 1-year Select & Ultimate (age-based)

Normal Retirement: 1-year Select & Ultimate (age-based) upon attaining the earliest of:

- a) age 62 with five years of credited service
- b) age 60 with 15 years of credited service
- c) 30 years of credited service

Male Early Retirement			
Age	Select	Ultimate	
< 41	1.00	0.00%	
41-44	1.00	0.50	
45-46	3.00	0.50	
47-49	3.00	2.00	
50-51	3.00	3.00	
52-59	3.00	5.00	

Male Normal Retirement		
Age	Select	Ultimate
< 45	13.00%	0.00%
45-56	13.00	11.00
57	13.00	15.00
58-60	10.00	15.00
61	10.00	26.00
62	20.00	26.00
63	10.00	20.00
64	16.00	20.00
65-66	16.00	26.00
67	16.00	20.00
68-79	16.00	16.00
80 +	100.00	100.00



Female Early Retirement			
Age	Select	Ultimate	
< 41	1.50%	0.00%	
41-48	1.50	2.00	
49-50	2.00	2.00	
51-52	2.00	3.00	
53-54	5.00	3.00	
55	5.00	5.00	
56-57	6.00	5.00	
58-59	7.00	5.00	

# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

Female Normal Retirement			
AGE	SELECT	ULTIMATE	
< 45	15.00%	0.00%	
45-51	15.00	6.00	
52-53	15.00	8.00	
54	15.00	11.00	
55-57	20.00	11.00	
58-59	20.00	14.00	
60	12.00	14.00	
61-62	21.00	24.00	
63	10.00	24.00	
64	10.00	17.00	
65	26.00	24.00	
66	15.00	24.00	
67-70	15.00	21.00	
71-79	15.00	12.00	
80 +	100.00	100.00	



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

# g. Merit/Seniority Salary Increase (in addition to across-the-board increase)

10-year Select (service-based) & Ultimate (age-based) merit tables and an annual inflation rate of 3.75%. Rates shown exclude amount for inflation.

Select

	Service (years)	Increase
	0 - 1	6.14
	2	4.25
	3 – 9	2.66
<u>Ultimate</u>		
	Age	Increase
	<40	1.50
	40 - 49	1.00
	50+	0.50

# h. Family Composition

Female spouses are assumed to be three years younger than males.

70% are assumed married for both male and female employees.

Actual marital characteristics are used for pensioners.

# 2. Economic Assumptions

	Rate of Investment Return: Rate of General Wage Increase:	8.00% 3.75%
	Rate of Increase in Cost of Living	
	for Retirees:	0.00%
d.	Rate of Increase in Total Payroll	
	(for Amortization):	3.75%
e.	Administrative Expenses as a	
	Percentage of Payroll:	0.40%

# 3. Changes Since Last Valuation

None.



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

# **B.** Actuarial Methods

# 1. Funding Method

The Entry Age Normal Actuarial Cost Method is used to determine costs. Under this funding method, a normal cost is determined as a level percent of pay for a typical new entrant. The normal cost rate times payroll equals the normal cost. The normal cost plus member contributions will pay for projected benefits at retirement for the average plan participant.

The actuarial accrued liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability.

The portion of the actuarial accrued liability in excess of plan assets is funded according to a schedule which is intended to amortize such unfunded actuarial liability fully after a period of years. This is in addition to each year's employer normal cost. Under this cost method, actuarial gains and losses are directly reflected in the size of the unfunded actuarial liability.

The net unfunded liability (after subtracting payments due from municipalities paying for prior service) is amortized over a rolling ten year period from each valuation date. The payments are determined so that they will increase by the annual inflation rate.

# 2. Actuarial Value of Assets

For purposes of determining the employer contribution rate to the plan we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

The actuarial value of assets is a weighted average giving 20% weight to the current market value and 80% weight to the prior year's actuarial value increased by expected interest and contributions and decreased by benefit payments and expenses. This is mathematically equivalent to recognizing 100% of the actuarially assumed interest rate, plus contributions, less payments each year, and 20% of the portion of each year's returns that have not already been reflected in asset values.

# 3. Changes Since Last Valuation

None.



# APPENDIX C SUMMARY OF PLAN PROVISIONS

# 1. Membership

The plan covers full-time or regular part-time employees and elected or appointed officials of a county or municipality including state governmental subdivisions.

# 2. Member Contributions

3% of compensation which exceeds \$6,000 per annum.

Interest is credited at the rate of 5% per year.

Member contributions are made through an "employer pick-up" arrangement which results in deferral of taxes on the contributions.

# 3. Credited Service

All service as a member plus certain claimed and purchased service.

# 4. Final Average Compensation

Final Average Compensation is the average over the highest 60 consecutive months (or shorter period of total service).

# 5. Normal Retirement

Eligibility: (i) Age 62 with five years of credited service; or (ii) age 60 with 15 years credited service; or (iii) any age with 30 years of credited service.

Benefit: 1 2/3% of final average compensation for each year of credited service.

# 6. Early Retirement

Eligibility: Age 55 with 15 years of credited service.

Benefit: Normal retirement benefit reduced by 0.4% for each month the member is under age 60 at the time of retirement.

# 7. Disability Benefit

Eligibility: Five years of credited service

Benefit: Normal retirement benefit



# APPENDIX C SUMMARY OF PLAN PROVISIONS

# 8. Survivor's Benefit

- Eligibility: Death while active with five years of credited service or death after retirement.
- Benefit: For eligible survivors of employees who die in active service: 50% of normal retirement benefit employee would have been eligible to receive at age 62.

For eligible survivors of pensioners who die: 50% of pension received immediately prior to death.

Eligible survivors include: (1) widow or widower; (2) child or children under age 18, or between 18 and 22 and attending school on a full-time basis, or over 18 and permanently disabled before 18; or (3) dependent parent or parents.

# 9. Vesting

Eligibility: Five years of credited service

Benefit: Normal retirement benefit payable at age 62 based on final average compensation and service at date of termination. In lieu of a pension, a member may receive a refund of accumulated employee contributions with interest. Upon application for a refund of contributions a member's vested right to a monthly benefit shall be forfeited.

# **10.** Withdrawal of Employee Contributions

Eligibility: Terminates service and is not eligible for other benefits.

Benefit: Accumulated employee contributions with interest.

# **11. Changes Since Last Valuation**

None.

