

February 2011

**Montgomery County Public Schools  
July 1, 2010 Actuarial Valuation for  
GASB 45 Liabilities Associated with  
Post Retirement Benefits**

## Purposes of Actuarial Valuation

- Determine Annual Required Contribution (ARC) and Net OPEB Obligation under GASB 45

## MCPS Net OPEB Obligation (\$000s)

	Year Beginning July 1, 2008	Year Beginning July 1, 2009	Year Beginning July 1, 2011
MCPS Normal Cost	\$52,300	\$56,322	\$64,716
Amortization	<u>\$70,500</u>	<u>\$75,368</u>	<u>\$92,265</u>
MCPS ARC	\$122,800	\$131,690	\$156,981
Annual OPEB Cost	\$124,022	\$134,292	<u>?</u>
Actual MCPS Contribution	\$61,639	\$45,525	

## MCPS ARC (As a Percentage of Payroll)

	<u>Year Beginning July 1, 2008</u>	<u>Year Beginning July 1, 2009</u>	<u>Year Beginning July 1, 2011</u>
MCPS Normal Cost	4.08%	4.24%	4.67%
Amortization	<u>5.49%</u>	<u>5.66%</u>	<u>6.65%</u>
MCPS ARC	9.57%	9.90%	11.32%

## Reconciliation of ARC

**\$131,690,000**

20,721,000

1,459,000

10,421,000

(7,310,000)

**\$156,981,000**

### **Fiscal Year 2010 ARC**

Expected increase based on 2008 Assumptions

New Participant Data

Change in Pension Assumptions

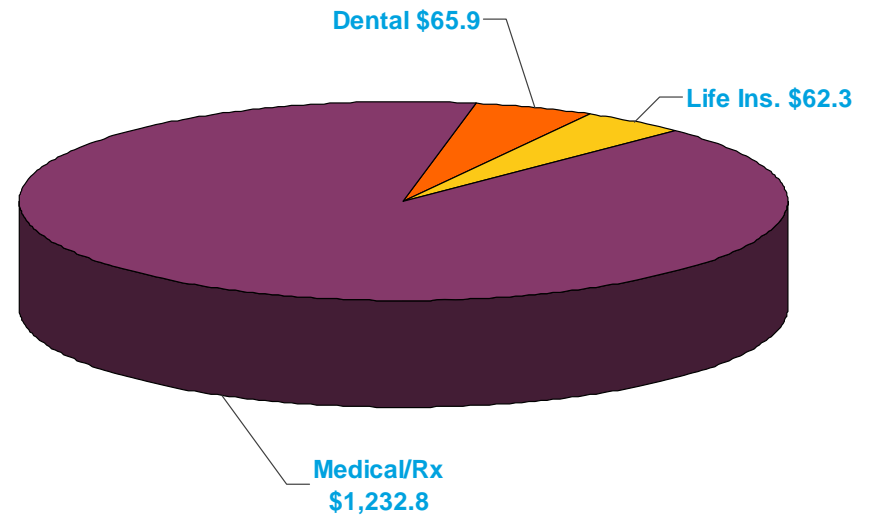
Change in Claims and Trend

### **Fiscal Year 2012 ARC**

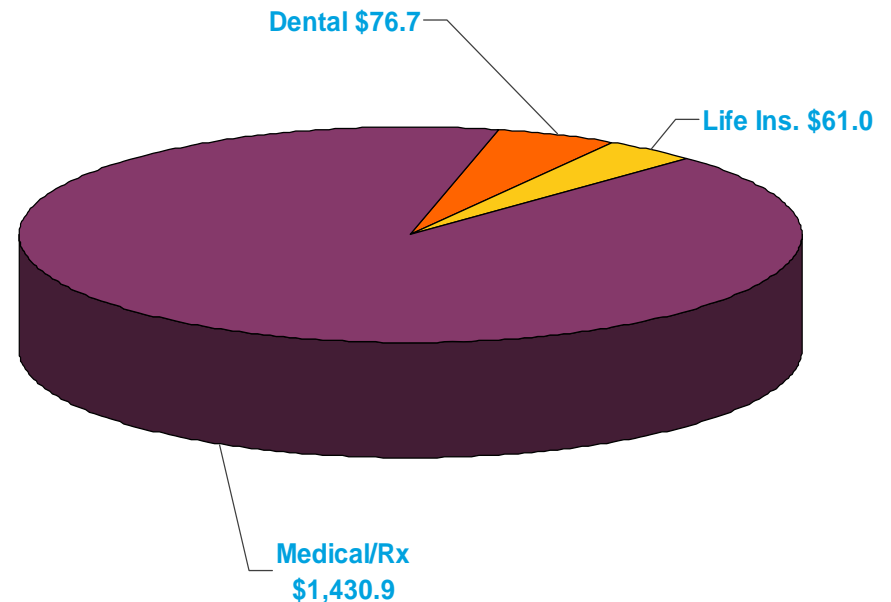
# Actuarial Accrued Liability

\$ Millions

Projected to  
07/01/2009: \$1,361.0



Projected to  
07/01/2011: \$1,568.6



## Actuarial Accrued Liabilities (AAL) and Funded Status

\$ Millions

Projected AAL	July 1, 2009	July 1, 2011
Total	\$1,361.0	\$1,568.6
Assets	\$34.6	\$33.2
Funded Ratio	2.5%	2.1%

## National Health Care Reform

- Liabilities and ARC in this report do not reflect the impact because decisions have not been made.
- Plan may be subject to the "Cadillac Tax"
  - Could pass this to retirees
  - Could change plan to avoid



## Participant Data

<u>Participant Group</u>	<u>July 1, 2008</u>	<u>July 1, 2010</u>
Number of Actives	21,916	22,330
Number of Retirees and Beneficiaries*	8,471	9,155
Number of Spouses of Current Retirees*	3,450	3,654

\* Counts include anyone with any type of coverage

## Eligibility Requirements

	ERS	EPS
Normal Retirement	Age 60; or 30 years of service	62 & 5 years of svc; 63 & 4 years of svc; 64 & 3 years of svc; 65 & 2 years of svc; or 30 years of service
Early Retirement	55 & 15 years of svc	55 & 15 years of svc

*Full Plan Provisions are shown in the July 1, 2010 GASB45 Report for Postretirement Medical and Life Insurance Benefits*

## Retiree Contributions

	Pre-7/2000 Retiree	Post-6/2000 Retiree
Life Insurance	None	30% for most retirees;  None for disability retirees until age 62, then 30%
Medical/Prescription Drug/Dental	36%	36%

*Full Plan Provisions are shown in the July 1, 2010 GASB45 Report for Postretirement Medical and Life Insurance Benefits*

# Actuarial Assumptions

## Economic Assumptions

▪ Investment Return	7.5%	
▪ Administrative Expenses	Included in claims cost	
▪ Salary Scale*	<u>2010-2014</u>	<u>Thereafter</u>
– 0-9 Years of Service	8.25%	9.00%
– 10-14 Years of Service	6.75%	7.50%
– 15-24 Years of Service	5.00%	5.50%
– 25 or more Years of Service	3.25%	4.00%

\*Updated this year

# Actuarial Assumptions

## Non-Economic Assumptions

- Active Mortality\* 70% RP-2000 white collar projected to 2020 (sex distinct)
- Healthy Inactive Mortality\* 100% RP-2000 white collar projected to 2020 (sex distinct)
- Disabled Mortality\* RP-2000 Disabled (sex distinct)

- Withdrawal\*

Service	Rate
0-4	8.6%
5-9	4.2%
10-14	2.2%
15-19	1.2%
20+	0.6%

\*Updated this year

# Actuarial Assumptions

## Non-Economic Assumptions

- Disability\*

Age	Rate
25	.04%
35	.06%
45	.20%
55	.39%

\*Updated this year

# Actuarial Assumptions

## Non-Economic Assumptions

Retirement rates*	Retirement**	Pension***
Age 45-50	7.0%	7.0%
Age 51-54	7.0%	7.0%
Age 55-59	11.0%	6.0%
Age 60-61	17.0%	10.0%
Age 62	20.0%	20.0%
Age 63	16.0%	16.0%
Age 64	14.0%	14.0%
Age 65	25.0%	25.0%
Age 66-67	18.0%	18.0%
Age 68-69	15.0%	15.0%
Age 70+	100.0%	100.0%
Rate when first eligible for unreduced pension benefits	24.0%	24.0%

\*Updated this year

\*\*Including Pension members hired on 7/1/95 or later

\*\*\*Including Pension members hired before 7/1/95

# Actuarial Assumptions

## Non-Economic Assumptions

- Health Care Cost Trend Rates:

***This year's rates:***

Medical Pre-65	8.00% annual rate of increase grading down to 4.50% over 18 years
Medical Post-65	7.00% annual rate of increase grading down to 4.50% over 18 years
Prescription Drugs	8.50% annual rate of increase grading down to 4.50% over 18 years
Dental	5.50% annual rate of increase grading down to 4.50% over 17 years
Vision	Flat 0.00% for all years

*In all cases above, the first increase applies to the 2010-2011 to 2011-2012 year*

***Last valuation rates:***

Medical Pre-65	8.50% annual rate of increase grading down to 5.00% over 7 years
Medical Post-65	7.00% annual rate of increase grading down to 5.00% over 7 years
Prescription Drugs	10.00% annual rate of increase grading down to 5.50% over 7 years
Dental	6.50% annual rate of increase grading down to 4.50% over 6 years
Vision	Flat 3.5% for all years



## Actuarial Assumptions

- Dependents of Future Retirees

80% of all future retirees are assumed to have covered spouses. Male (Female) spouses are assumed to be three years older (younger) than female (male) spouses.

- Participation Rate

90% of all active employees will participate in the plan. Inactives not currently participating will not participate in the future.

### Changes Since Last Valuation

The medical, drug and dental trend rates were updated to reflect current market trends. Mortality, salary scale, withdrawal rates, retirement rates, and disability rates were also updated to reflect current assumptions. Claims costs were updated to reflect current experience.

## Actuarial Assumptions – Claim Costs - 2010 Valuation

Age	Medical	Prescription Drugs	Vision	Dental
55	\$7,164	\$1,955	\$12	\$395
60	\$8,105	\$2,211	\$12	\$395
65	\$2,058	\$2,453	\$12	\$395
70	\$2,328	\$2,776	\$12	\$395
75	\$2,627	\$3,131	\$12	\$395
80	\$2,844	\$3,390	\$12	\$395
85	\$2,971	\$3,542	\$12	\$395

## Actuarial Assumptions – Claim Costs - 2008 Valuation

Age	Medical	Prescription Drugs	Vision	Dental
55	\$6,554	\$1,920	\$12	\$377
60	\$7,415	\$2,172	\$12	\$377
65	\$1,886	\$2,410	\$12	\$377
70	\$2,134	\$2,726	\$12	\$377
75	\$2,407	\$3,076	\$12	\$377
80	\$2,606	\$3,330	\$12	\$377
85	\$2,722	\$3,479	\$12	\$377

# Important Notices

Mercer has prepared this report exclusively for the Montgomery County Public Schools (MCPS); Mercer is not responsible for reliance upon this report by any other party. Subject to this limitation, MCPS may direct that this report be provided to its auditors. This report may not be used for any other purpose; Mercer is not responsible for the consequences of any unauthorized use.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security and/or benefit-related issues should not be made on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic and societal factors, including financial scenarios that assume future sustained investment losses.

MCPS is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Mercer's actuaries have not provided any investment advice to MCPS.

A valuation report is only a snapshot of a Plan's estimated financial condition at a particular point in time; it does not predict the Plan's future financial condition or its ability to pay benefits in the future and does not provide any guarantee of future financial soundness of the Plan. Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the period of time over which benefits are paid, plan expenses, and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

To prepare the valuation report, actuarial assumptions, as described in this report, are used in a forward looking financial and demographic model to select a single scenario from a wide range of possibilities; the results based on that single scenario are included in the valuation. The future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward looking projection over a very long period of time, no one projection is uniquely "correct" and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future. A "sensitivity analysis" shows the degree to which results would be different if you substitute alternative assumptions within the range of possibilities for those utilized in this report. We have not been engaged to perform such a sensitivity analysis and thus the results of such an analysis are not included in this report. At the School System's request, Mercer is available to perform such a sensitivity analysis.

Actuarial assumptions may also be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future, and other factors. A change in assumptions is not an indication that prior assumptions were unreasonable when made.

Because valuations are a snapshot in time and are based on estimates and assumptions that are not precise and will differ from actual experience, contribution calculations are inherently imprecise. There is no uniquely "correct" level of contributions for the coming plan year.

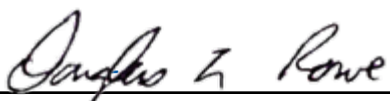
Valuations do not affect the ultimate cost of the Plan, only the timing of contributions into the Plan. Plan funding occurs over time. Contributions not made this year, for whatever reason, including errors, remain the responsibility of the Plan sponsor and can be made in later years. If the contribution levels over a period of years are lower or higher than necessary, it is normal and expected practice for adjustments to be made to future contribution levels to take account of this with a view to funding the plan over time.

Data, computer coding, and mathematical errors are possible in the preparation of a valuation involving complex computer programming and thousands of calculations and data inputs. Errors in a valuation discovered after its preparation may be corrected by amendment to the valuation or in a subsequent year's valuation.


Assumptions used are based on the recent experience study, which has not yet been adopted by the Board. MCPS is responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods, and assumptions used in this report are those that have been so prescribed and are described in the valuation report. MCPS is solely responsible for communicating to Mercer any changes required thereto.

# Actuarial Certification

- To prepare this report Mercer has used and relied on financial data and participant data supplied by MCPS as well as claims information from Aon and summarized in the valuation report. MCPS is responsible for ensuring that such participant data provides an accurate description of all persons who are participants under the terms of the plan or otherwise entitled to benefits as of July 1, 2010 that is sufficiently comprehensive and accurate for the purposes of this report. Although Mercer has reviewed the data in accordance with Actuarial Standards of Practice No. 23, Mercer has not verified or audited any of the data or information provided.
- Mercer has also used and relied on the plan documents, including amendments, and interpretations of plan provisions, supplied by MCPS as summarized in the valuation report. We have assumed for purposes of this report that copies of any official plan document including all amendments and collective bargaining agreements as well as any interpretations of any such document have been provided to Mercer along with a written summary of any other substantive commitments. MCPS is solely responsible for the validity, accuracy and comprehensiveness of this information. If any data or plan provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and that the different interpretations could lead to different valuation results.
- MCPS agrees to notify Mercer promptly after receipt of the valuation report if MCPS disagrees with anything contained in the valuation report or is aware of any information that would affect the results of the valuation report that has not been communicated to Mercer or incorporated therein. The valuation report will be deemed final and acceptable to MCPS unless MCPS promptly provides such notice to Mercer.
- **Professional qualifications**
- We are available to answer any questions on the material contained in this report, or to provide explanations or further details as may be appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest that would impair the objectivity of our work.
- The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

  
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Douglas L. Rowe, FSA, EA, MAAA

February 3, 2011  
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Date

  
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Robin L. Hagerty, ASA, EA, MAAA

February 3, 2011  
\_\_\_\_\_  
Date

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