

Lancaster County Employees' Retirement System

Report on 2012 Actuarial Valuation Including
Determination of County Annual Required
Contribution for 2012

HayGroup®



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for

Lancaster County Employees' Retirement Board

| | |
|-----------------------|-----------------------|
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June 6, 2012

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Table of Contents

| <u>Section</u> | <u>Page</u> |
|---|-------------|
| I. Introduction | 1 |
| II. Findings | 2 |
| III. Schedules | 3 |
| <ul style="list-style-type: none"> • Schedule A – Disclosure of Pension Information in Accordance with Statement No. 25, Statement No. 27 and Statement No. 50 of Governmental Accounting Standards Board | 3 |
| <ul style="list-style-type: none"> • Schedule B – Allocation of Assets and Liabilities - January 1, 2012 | 9 |
| <ul style="list-style-type: none"> • Schedule C- Unfunded Actuarial Liability and Normal Cost | 10 |
| <ul style="list-style-type: none"> • Schedule D – Actuarial Gain (Loss) for One Year Period Ending December 31, 2011 | 11 |
| <ul style="list-style-type: none"> • Schedule E - Amortization Schedule | 12 |
| <ul style="list-style-type: none"> • Schedule F - Determination of Certified Annual Required Contribution (ARC) | 13 |
| <ul style="list-style-type: none"> • Schedule G – Notes for Schedule B and I and the Ratio of Market Value to Cost Value of Assets | 14 |
| <ul style="list-style-type: none"> • Schedule H – Approximate Rate of Return for 2011 | 16 |
| <ul style="list-style-type: none"> • Schedule I – Determination of Reserve Balances | 17 |
| <ul style="list-style-type: none"> • Schedule J – Membership History | 18 |
| <ul style="list-style-type: none"> • Schedule K – Changes in Plan Participation from January 1, 2011 to January 1, 2012 | 19 |
| <ul style="list-style-type: none"> • Schedule L – Age, Service and Average Salary Profile | 20 |

Table of Contents (cont.)

| <u>Section</u> | <u>Page</u> |
|---|--------------------|
| • Schedule M – Actuarial Assumptions and Actuarial Cost Method for Funding Purposes, January 1, 2012 | 21 |
| • Schedule N – Summary of Plan Provisions | 25 |
| • Schedule O – Historical Trend Information | 29 |

I. Introduction

The primary purpose of this report is to investigate and fully and fairly disclose the actuarial position of the System as of January 1, 2012 and to establish the proper appropriation for the 2012 plan year, in accordance with the funding standards of Section 6 of Act 96, 1971 of the Commonwealth of Pennsylvania as amended.

On the basis of the actuarial methods, assumptions and major plan provisions summarized in this report and in reliance on the member data and statement of the Fund's assets furnished by the County, to the best of our knowledge the information in this report is complete and accurate.

In our opinion, this report presents fairly the financial and actuarial position for the Lancaster County Employees' Retirement Plan as of January 1, 2012 in accordance with generally accepted actuarial principles, and on the basis of actuarial assumptions and methods which, in the aggregate, are reasonable (taking into account past experience under the System and reasonable expectations) and which in combination represent our best estimate of anticipated experience.

Respectfully submitted,

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II. Findings

Certified Annual Required Contribution (ARC)

Please note that the certified Annual Required Contribution which is reported on page 13 of this report and which must be funded in 2012 is \$7,142,834. This is required to be made by the County from the General Fund.

Actuarial Adjustments

Also note that the balances in the Reserve Accounts on page 9 reflect the following transfers which are necessary to keep the balance in the Retired Member's Reserve Account equal to the liability for the retired lives and to reflect the difference between the amount of interest credited to the respective reserves and the interest rate assumed in the valuation of the liabilities. Please make these transfers in your records:

| | DEBIT | CREDIT |
|---|-----------------|-----------------|
| County Annuity Reserve Account | \$ 6,562,074.22 | |
| Retired Members Annuity Reserve Account | | \$ 6,562,074.22 |

Assumption Changes

Effective January 1, 2012, the asset valuation method has been changed from a five year smoothing method based on ratio of market to cost value to a five year smoothing method based on an increasing percentage of recognized gains and losses relative to expected return. The effect of this change is that the actuarial value of assets has increased by \$12,790,377. Also, the mortality table has been changed from 83 GAM to the RP 2000 table for males and females projected to 2012. The effect of this change is an increase in the Actuarial Accrued Liability of \$4,026,526.

III. Schedules

Schedule A

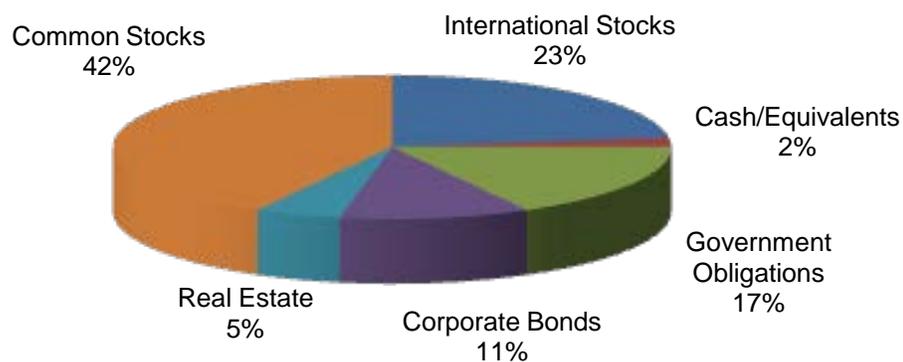
Disclosure of Pension Information in Accordance with
Statement No. 25, Statement No. 27 and Statement No. 50 of
the Governmental Accounting Standards Board

| LANCASTER COUNTY EMPLOYEES' RETIREMENT SYSTEM | | | | |
|--|-------------------|------------------------------|-------------------|------------------------------|
| STATEMENT OF CHANGES IN PLAN NET ASSETS FOR THE YEAR ENDED DECEMBER 31, 2011 AND 2010 | | | | |
| Additions | | | | |
| | <u>2011 Total</u> | | <u>2010 Total</u> | |
| Contributions | | | | |
| County | \$ | 7,554,873.00 | \$ | 8,000,000.00 |
| Plan Members | \$ | 4,392,243.10 | \$ | 4,599,396.77 |
| Miscellaneous | \$ | 3,962.87 | \$ | 9,687.22 |
| Total Contributions | \$ | <u>11,951,078.97</u> | \$ | <u>12,609,083.99</u> |
| Investment Income | | | | |
| Realized Gain | \$ | <u>7,394,746.65</u> | | |
| Unrealized Loss | \$ | <u>(11,393,653.79)</u> | | |
| Net Loss in Fair Value | \$ | (3,998,907.14) | \$ | 15,133,681.16 |
| Interest/Dividends | \$ | 4,945,896.69 | \$ | 4,358,305.17 |
| Net Accrued Interest | \$ | 23,751.18 | \$ | (41,673.32) |
| Investment Income | \$ | <u>970,740.73</u> | \$ | <u>19,450,313.01</u> |
| Less Investment Expense | \$ | 601,332.33 | \$ | 600,324.29 |
| Net Investment Income | \$ | <u>369,408.40</u> | \$ | <u>18,849,988.72</u> |
| Total Additions | \$ | <u>12,320,487.37</u> | \$ | <u>31,459,072.71</u> |
| Deductions | | | | |
| Benefits | \$ | 12,478,619.57 | \$ | 7,858,725.36 |
| Refunds of Member Contributions | \$ | 1,031,011.22 | \$ | 819,402.43 |
| Administrative Expense | \$ | 43,124.28 | \$ | 48,396.00 |
| Miscellaneous | \$ | <u>102,220.09</u> | \$ | <u>13,960.82</u> |
| Total Deductions | \$ | <u>13,654,975.16</u> | \$ | <u>8,740,484.61</u> |
| Net Increase/(Decrease) | \$ | <u>(1,334,487.79)</u> | \$ | <u>22,718,588.10</u> |
| Net Assets Held In Trust For Pension Benefits | | | | |
| Beginning of Year | \$ | <u>180,901,603.05</u> | \$ | <u>158,183,014.95</u> |
| End of Year | \$ | <u><u>179,567,115.26</u></u> | \$ | <u><u>180,901,603.05</u></u> |

Schedule A--Continued

| LANCASTER EMPLOYEES' RETIREMENT SYSTEM | | | | |
|---|------------|----------------|------------|----------------|
| STATEMENT OF PLAN ASSETS AS OF DECEMBER 31, 2011 AND 2010 | | | | |
| Assets | | | | |
| | 2011 Total | | 2010 Total | |
| Cash and Short-Term Investments | \$ | 3,501,253.90 | \$ | 3,465,929.82 |
| Receivables | \$ | (134,836.16) | \$ | 239,829.38 |
| Investments, at fair market value | | | | |
| Government Obligations | \$ | 30,016,438.65 | \$ | 30,463,345.10 |
| Corporate Bonds | \$ | 20,120,924.71 | \$ | 20,489,141.23 |
| Common Stocks | \$ | 75,404,926.04 | \$ | 84,024,239.47 |
| International Stocks | \$ | 41,086,881.67 | \$ | 34,201,376.15 |
| Real Estate | \$ | 9,571,526.45 | \$ | 8,017,741.90 |
| Total Investments | \$ | 176,200,697.52 | \$ | 177,195,843.85 |
| Total Assets | \$ | 179,567,115.26 | \$ | 180,901,603.05 |
| Liabilities | | | | |
| Refunds Payable and Other | \$ | 0.00 | \$ | 0.00 |
| Net Assets Held In Trust For Pension Benefits | | | | |
| | \$ | 179,567,115.26 | \$ | 180,901,603.05 |

TOTAL ASSETS (MARKET VALUE 12-31-2011)



Schedule A -- Continued

Lancaster County Employees' Retirement System

Notes to the Financial Statements for the Fiscal Year Ended December 31, 2011

Summary of Significant Accounting Policies

Basis of Accounting: The Lancaster County Employees' Retirement System financial statements are prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions to each plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan.

Method Used to Value Investments: Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported at estimated fair value.

Plan Descriptions and Contribution Information

Membership of the plan consisted of the following at December 31, 2011, the date of the latest actuarial valuation:

| | |
|--|-------|
| Retirees and Beneficiaries Receiving Benefits | 1,098 |
| Terminated Plan Members Entitled to but not yet Receiving Benefits | 169 |
| Active Plan Members | 1,767 |
| Total | 3,034 |
| Number of Participating Employers | 1 |

Schedule A--Continued

Lancaster County Employes' Pension System

Plan Description: The Lancaster County Employes' Pension Plan is a single-employer defined benefit pension plan that covers all employees of the County. The plan provides retirement, disability, and death benefits to plan members and their beneficiaries. Cost-of-living adjustments (COLA) are provided at the discretion of the Lancaster County Employes' Retirement Board. Act 96 of 1971, as amended cited as the County Pension Law provides for the creation, maintenance and operation of this plan.

Contributions: Plan members are required to contribute 5% of their annual covered salary. The County is required to contribute at an actuarially determined rate. Per Act 96 of 1971, as amended, contribution requirements of the plan members and the County are established and may be amended by the General Assembly of the Commonwealth of Pennsylvania. Administrative costs may be financed through investment earnings.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF EMPLOYER CONTRIBUTIONS

| Year | Annual Required Contribution | County Contribution |
|------|------------------------------|---------------------|
| 2003 | \$ 4,775,487 | \$ 5,500,000 |
| 2004 | \$ 5,827,903 | \$ 5,500,000 |
| 2005 | \$ 7,534,558 | \$ 7,400,000 |
| 2006 | \$ 5,578,535 | \$ 5,578,535 |
| 2007 | \$ 4,859,915 | \$ 4,859,915 |
| 2008 | \$ 3,333,575 | \$ 4,000,000 |
| 2009 | \$ 7,171,189 | \$ 7,421,189 |
| 2010 | \$ 7,216,063 | \$ 8,000,000 |
| 2011 | \$ 7,304,873 | \$ 7,554,873 |
| 2012 | \$ 7,142,834 | \$ |

Note: Effective in 2010 the Entry Age Funding Method was used to determine the annual required contribution. Prior to 2010 the Aggregate Method was used.

Schedule A--Continued

| REQUIRED SUPPLEMENTARY INFORMATION | | | | | | |
|------------------------------------|-------------------------------|---|---------------------------|--------------------|---------------------|---|
| SCHEDULES OF FUNDING PROGRESS | | | | | | |
| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) - Entry Age (b) | Unfunded AAL (UAAL) (b-a) | Funded Ratio (a/b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a)/c) |
| 1/1/2008 | 175,412,278 | 185,818,519 | 10,406,241 | 94.4% | 73,915,189 | 14.1% |
| 1/1/2009 | 159,134,908 | 199,653,516 | 40,518,608 | 79.7% | 78,717,769 | 51.5% |
| 1/1/2010 | 158,074,015 | 213,374,965 | 55,300,950 | 74.1% | 79,444,845 | 69.6% |
| 1/1/2011 | 169,788,390 | 221,658,694 | 51,870,304 | 76.6% | 78,838,153 | 65.8% |
| 1/1/2012 | 189,541,657 | 239,432,154 | 49,890,497 | 79.2% | 76,433,494 | 65.3% |

Schedule A--Continued

NOTES TO THE REQUIRED SCHEDULES

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 | 12/31/2011 |
| Actuarial Cost Method | Entry Age |
| Asset Valuation Method | Market Value Adjusted For Unrecognized Gains And Losses From Prior Years |
| Actuarial Assumptions: | |
| Investment Rate of Return * | 7.5% |
| Projected Salary Increases * | 4.5% |
| * Includes Inflation at | 3% |

ACCOUNTING PROCEDURES FOR CALCULATING - NET PENSION OBLIGATION (NPO)

| (1) Year | (2) ARC | (3) Interest On NPO *** | (4) ARC Adjustment ** | (5) Pension Cost (2+3-4) | (6) Contribution | (7) Change in NPO (5-6) | (8) NPO Balance * (BB+7) |
|-------------|------------|-------------------------------|-----------------------------|-----------------------------------|---------------------|----------------------------------|-----------------------------------|
| 2003 | 4,775,487 | 377,044 | 626,988 | 4,525,543 | 5,500,000 | (974,457) | 4,052,800 |
| 2004 | 5,827,903 | 303,960 | 496,600 | 5,635,263 | 5,500,000 | 135,263 | 4,188,063 |
| 2005 | 7,534,558 | 314,105 | 509,148 | 7,339,515 | 7,400,000 | (60,485) | 4,127,578 |
| 2006 | 5,578,535 | 309,568 | 493,756 | 5,394,347 | 5,578,535 | (184,188) | 3,943,390 |
| 2007 | 4,859,915 | 295,754 | 478,783 | 4,676,886 | 4,859,915 | (183,029) | 3,760,361 |
| 2008 | 3,333,575 | 282,027 | 460,275 | 3,155,327 | 4,000,000 | (844,673) | 2,915,688 |
| 2009 | 7,171,189 | 218,677 | 358,080 | 7,031,786 | 7,421,189 | (389,403) | 2,526,285 |
| 2010 | 7,216,063 | 189,471 | 308,565 | 7,096,969 | 8,000,000 | (903,031) | 1,623,254 |
| 2011 | 7,304,873 | 121,744 | 198,939 | 7,227,678 | 7,554,873 | (327,195) | 1,296,059 |
| 2012 | 7,142,834 | 97,204 | 154,289 | 7,085,749 | | | |

* BB = Beginning balance for the year.

** ARC Adjustment - Amortization factor based upon level percentage of projected payroll.

*** Interest on the balance of the NPO at the beginning of the year using the investment return rate assumed in determining ARC. The interest is an estimate of the investment earnings lost to the plan on any contributions that were not made (7.5% when applicable).

Schedule B

Schedule B shows the allocation of the assets among the Fund's reserve accounts (see Schedule I for Determination of Reserve Balances) and the Fund's liabilities as of January 1, 2012. The liabilities were determined from the actuarial valuation of the System based upon the data submitted by the County.

| ASSETS | |
|--|--------------------------|
| Members' Annuity Reserve Account | \$ 56,489,501.61 |
| County Annuity Reserve Account | \$ 27,954,743.68 |
| Retired Members' Reserve Account | \$ 89,883,874.00 |
| Unrealized Appreciation of Assets | \$ 5,238,995.97 |
| <i>Total Assets, (Market Value) of the Lancaster County Employees' Retirement Fund</i> | <i>\$ 179,567,115.26</i> |
| LIABILITIES | |
| Actuarial Present Value of: | |
| Accumulated Plan Benefits | |
| Vested (1,162) | \$ 42,199,920.00 |
| Nonvested (605) | \$ 827,602.00 |
| Future Benefit Accruals | \$ 59,489,510.00 |
| Terminated Vested Benefits | \$ 6,865,494.00 |
| Retired Benefits | \$ 91,550,627.00 |
| Member Accumulated Deductions | \$ 56,489,501.61 |
| <i>Total Liabilities of the Lancaster County Employees' Retirement Fund</i> | <i>\$ 257,422,654.61</i> |

Schedule C

Unfunded Actuarial Liability and Normal Cost

Schedule C shows the development of the unfunded actuarial liability and the normal cost for 2012.

I. Unfunded Actuarial Liability January 1, 2012

| | | |
|---|----|-------------|
| 1. Actuarial Liability: | | |
| (a) Active Participants | | |
| Retirement Benefits | \$ | 73,206,782 |
| Termination Benefits | | 7,610,853 |
| Death Benefits | | 3,708,896 |
| Total | \$ | 84,526,531 |
| (b) Terminated Vested Participants | \$ | 6,865,494 |
| (c) Retired Members and Beneficiaries | | |
| Retirement Benefits | \$ | 82,635,295 |
| Cost-of-Living Benefits | | 8,915,332 |
| Total | \$ | 91,550,627 |
| (d) Member Accumulated Deductions | \$ | 56,489,502 |
| (e) Total (a) + (b) + (c) + (d) | \$ | 239,432,154 |
| 2. Actuarial Value of Plan Assets (see page 15) | \$ | 189,541,657 |
| 3. Unfunded Actuarial Liability as of January 1, 2012: (1e) – (2) | \$ | 49,890,497 |

II. Normal Cost for 2012

| | | |
|---|----|-----------|
| 1. Normal Cost for: | | |
| (a) Retirement Benefits | \$ | 1,910,068 |
| (b) Termination Benefits | | 282,279 |
| (c) Death Benefits | | 100,918 |
| (d) Normal Cost as of January 1, 2012 | \$ | 2,293,265 |
| (e) Normal Cost with interest to end of year: (d) x 1.075 | \$ | 2,465,260 |

Schedule D

Actuarial Gain(Loss) for One Year Period Ending December 31, 2011

Schedule D shows the development of the actuarial gain (loss) for the 2011 plan year.

| | | |
|----|---|---------------|
| 1. | Unfunded Actuarial Liability as of January 1, 2011 | \$ 51,870,304 |
| 2. | Normal Cost as of January 1, 2011 | 2,354,782 |
| 3. | Interest at 7.50% Per Year to December 31, 2011 on (1) and (2) | 4,066,881 |
| 4. | Employer Contributions for the 2011 Plan Year | 7,554,873 |
| 5. | Change in Unfunded Actuarial Liability Due to Change in Mortality Table | 4,026,526 |
| 6. | Change in Unfunded Actuarial Liability Due to Change in Asset Valuation | (12,720,377) |
| 7. | Expected Unfunded Actuarial Liability as of January 1, 2012: (1) + (2) + (3) - (4) + (5) + (6) | 41,973,243 |
| 8. | Unfunded Actuarial Liability as of January 1, 2012 | 49,890,497 |
| 9. | Actuarial Gain (Loss) for 2011 Plan Year: (7) – (8) | (7,917,254) |

Schedule E

Amortization Schedule

Schedule E provides a record of the amortization amounts. Actuarial gains (losses) will be amortized over 15 years from the date determined; increases or decreases created by pension plan establishing an unfunded actuarial accrued liability will be amortized over 30 years from the effective establishment date; increases or decreases created by a modification in the benefit plan applicable to active members will be amortized over 20 years beginning with the January 1st coinciding with or next following the effective date of change; increases or decreases created by a modification in the benefit plan applicable to retired members will be amortized over 10 years beginning with the January 1st coinciding with or next following the effective date of change; increase in actuarial accrued liability attributable to the special early retirement provision will be amortized over 5 years beginning with the January 1st coinciding with or next following the end of the early retirement period; and increases or decreases created by changes in actuarial assumptions will be amortized over 15 years from the effective date of change.

Amortization Record for 2012

| | | As of January 1, 2012 | | | | |
|-----------------------------------|----------------------------|---------------------------|---------------------------|-----------------------------|--------------------------------|--|
| | | <u>Initial Amount</u> | <u>Effective Date</u> | <u>Remaining Period</u> | <u>Outstanding Balance</u> | <u>Amortization Charge or Credit</u> |
| 1. Amortization of Liability for: | | | | | | |
| (a) | Initial unfunded liability | \$ 55,300,950 | 1/1/2010 | 28 years | \$ 54,191,179 | \$4,682,400 |
| (b) | Early ret. incentive | \$ 2,467,411 | 1/1/2011 | 4 years | \$ 2,042,610 | \$ 609,857 |
| (c) | Experience gain | \$ (4,579,291) | 1/1/2011 | 14 years | \$ (4,403,961) | \$ (518,775) |
| (d) | Experience loss | \$ 7,917,254 | 1/1/2012 | 15 years | \$ 7,917,254 | \$ 896,924 |
| (e) | Change in mort. table | \$ 4,026,526 | 1/1/2012 | 15 years | \$ 4,026,526 | \$ 456,154 |
| (f) | Change in asset val. | \$(12,790,377) | 1/1/2012 | 15 years | <u>\$(12,790,377)</u> | <u>\$(1,448,986)</u> |
| (g) | Total | | | | \$ 50,983,231 | \$ 4,677,574 |

Schedule F

Schedule F determines the certified Annual Required Contribution (ARC) of \$7,142,834 for 2012 for the Lancaster County Employees' Retirement System.

| | | |
|----|--|-------------|
| 1. | Total Amortization Charge/(Credit) (page 12 1(g)) | \$4,677,574 |
| 2. | Normal Cost with interest to end of year (page 10 II 1(e)) | \$2,465,260 |
| 3. | Total Funding Requirement for 2012 (Annual Required Contribution (ARC) for 2012): (1) + (2) | \$7,142,834 |

Notes:

The Annual Required Contribution (ARC) for 2012 as a percentage of the estimated 2012 compensation (\$76,433,494) for active members is 9.35%.

The equivalent normal cost accrual rate to be applied to actual 2011 salaries to determine reimbursable expenses is 9.77%.

Schedule G

The following are notes to Schedules B and I:

Members' Annuity Reserve Account

The balance of \$56,489,501.61 in this account is the total of the contributions deducted from the salaries of the active and terminated vested members of the retirement system and the IRC 414(h)(2) pickup contributions together with the interest additions as of January 1, 2012. Since these accumulations represent the present value as of January 1, 2012, of future benefits, the reserve balance and liability are identical.

County Annuity Reserve Account

The balance of \$26,287,990.68 in this account as of January 1, 2012 and the amounts expected to be credited in the future, plus investment earnings, represent the reserves set aside for the payment of the county's share of the retirement allowances.

This is the account out of which regular interest is credited to the member's annuity and retired members' reserve account, administrative expenses may be paid and the pension obligations of the County are funded.

When a County Annuity is scheduled to commence for a particular member, sufficient monies are transferred from the County Annuity Reserve Account to the Retired Members' Reserve Account to provide for such County Annuities actually entered upon.

Retired Members' Reserve Account

This is the account out of which monthly retirement allowances including cost-of-living increases and death benefits are paid.

The assets allocated to this reserve account as of January 1, 2012 amount to \$91,550,627.00. The corresponding liability for those annuitants on the roll is identical.

Schedule G--Continued

Actuarial Value of Assets as of January 1, 2012

The Actuarial Value of Assets equals the Market Value of Assets adjusted for unrecognized gains and losses from prior years. Gains and losses are determined by calculating the expected asset return based on Plan assumptions and subtracting the actual Plan return. Gains and losses are phased in 20% per year over a 5-year period. The Actuarial Value of Assets is adjusted, if necessary, to fall within a corridor of 80% to 120% of Market Value of Assets.

| | | | |
|------|--|----|--------------|
| (1) | Market Value of Assets as of January 1, 2011 | \$ | 180,901,603 |
| (2) | Contributions for 2011 | | 11,951,079 |
| (3) | Disbursements during 2011 | | 14,256,307 |
| (4) | Expected Return at 7.5% Interest | | 13,481,174 |
| (5) | Actual Return for 2011 | | 970,741 |
| (6) | Gain/(Loss) for 2011 | | (12,510,433) |
| (7) | Amount Unrecognized for 2011 | | (10,008,346) |
| (8) | Gain/(Loss) Unrecognized for Prior Years: | | |
| | (a) 2010 | | 4,478,416 |
| | (b) 2009 | | 6,807,296 |
| | (c) 2008 | | (11,251,908) |
| (9) | Market Value of Assets as of January 1, 2012 | | 179,567,115 |
| (10) | Actuarial Value of Assets as of January 1, 2012: Equals (9) – (7) – (8) | | 189,541,657 |
| (11) | Value must be not less than 80% or not greater than 120% of Market Value | | 189,541,657 |

Schedule H

| APPROXIMATE RATE OF RETURN FOR 2011 PLAN YEAR | | | |
|--|------------------------|----|---------------------|
| | <u>Actuarial Value</u> | | <u>Market Value</u> |
| 1. Value as of December 31, 2010 | \$ 169,788,390.12 | \$ | 180,901,603.05 |
| 2. Contributions Received During Year | \$ 11,951,078.97 | \$ | 11,951,078.97 |
| 3. Benefits and Expenses Paid During Year | \$ 14,256,307.49 | \$ | 14,256,307.49 |
| 4. Value as of December 31, 2011 | \$ 189,541,657.00 | \$ | 179,567,115.26 |
| 5. Non-Investment Increment: (2) - (3) | \$ (2,305,228.52) | \$ | (2,305,228.52) |
| 6. Investment Increment: (4) - (1) - (5) | \$ 22,058,495.40 | \$ | 970,740.73 |
| 7. Time Weighted Value of Assets: (1) + .5(5) | \$ 168,635,775.86 | \$ | 179,748,988.79 |
| 8. Approximate Rate of Return for 2011: (6) / (7) | 13.08% | | 0.54% |

HISTORY OF RATE OF RETURNS

| Plan Year | Actuarial Value Rate of Return | Market Value Rate of Return |
|--------------------|---|--|
| 2010 | 5.29 % | 12.17 % |
| 2009 | (2.07) % | 20.56 % |
| 2008 | (8.65) % | (25.02) % |
| 2007 | | 7.01 % |
| 2006 | | 12.09 % |
| 2005 | | 6.51 % |
| 2004 | | 10.90 % |
| 2003 | | 23.46 % |
| 2002 | | (8.51) % |
| Five Year Average: | | 1.76 % |
| Ten Year Average: | | 5.02 % |

Schedule I

Determination of Reserve Balances

| | M.A.R.A. | C.A.R.A. | R.M.R.A. | TOTAL |
|---|------------------|------------------|------------------|-------------------|
| Balance 1/1/2011 | \$ 60,455,095.07 | \$ 36,859,189.22 | \$ 66,954,669.00 | \$ 164,268,953.29 |
| County Appropriations | | 7,554,873.00 | | |
| Member Contributions | 4,392,243.10 | | | |
| Miscellaneous | | 3,962.87 | | |
| Net Investment Income | | 12,364,394.52 | | |
| Investment Expenses | | (601,332.33) | | |
| Member Contributions Refunded | (1,031,011.22) | | | |
| Pension Payments | | | (12,431,019.51) | |
| Death Benefits | | | (47,600.06) | |
| Retiree and Death Benefit Transfers | (9,470,142.29) | (18,063,082.20) | 27,533,224.49 | |
| Miscellaneous | | (102,220.09) | | |
| Administrative Expenses | | (43,124.28) | | |
| Adjustment | (9,281.12) | 9,281.12 | | |
| Balance Before Interest | 54,336,903.54 | 37,981,941.83 | 82,009,273.92 | 174,328,119.29 |
| Interest Allocated in 2011 | 2,152,598.07 | (5,131,876.93) | 2,979,278.86 | |
| Balance Before Actuarial Adjustments | 56,489,501.61 | 32,850,064.90 | 84,988,552.78 | 174,328,119.29 |
| Actuarial Adjustments | | (6,562,074.22) | 6,562,074.22 | |
| Ending Balance 12/31/2011 | 56,489,501.61 | 26,287,990.68 | 91,550,627.00 | 174,328,119.29 |
| Unrealized Appreciation | | | | 5,238,995.97 |
| Total Assets (12/31/2011) (Market Value) | | | | 179,567,115.26 |

Schedule J

Membership History

Below is a ten-year history of the Retirement System's membership.

| ACTIVE MEMBERS AND VESTED TERMINATED MEMBERS | | | | RETIRED MEMBERS AND BENEFICIARIES | | |
|---|------|--------|-------|-----------------------------------|--------|-------|
| January 1 | Male | Female | Total | Male | Female | Total |
| 2012 | 731 | 1,205 | 1,936 | 345 | 753 | 1,098 |
| 2011 | 756 | 1,272 | 2,028 | 300 | 682 | 982 |
| 2010 | 754 | 1,281 | 2,035 | 297 | 666 | 963 |
| 2009 | 765 | 1,295 | 2,060 | 291 | 662 | 953 |
| 2008 | 752 | 1,246 | 1,998 | 275 | 649 | 924 |
| 2007 | 736 | 1,222 | 1,958 | 267 | 626 | 893 |
| 2006 | 750 | 1,312 | 2,062 | 249 | 473 | 722 |
| 2005 | 796 | 1,631 | 2,427 | 232 | 416 | 648 |
| 2004 | 785 | 1,596 | 2,381 | 214 | 402 | 616 |
| 2003 | 773 | 1,544 | 2,317 | 208 | 386 | 594 |

Schedule K

Changes in Plan Participation From January 1, 2011 to January 1, 2012

| ACTIVE PARTICIPANTS | | |
|------------------------------|-----|-------|
| Number as of January 1, 2011 | | 1,853 |
| Changes During Plan Year: | | |
| Early Retirees | (-) | 85 |
| Retired | (-) | 41 |
| Terminated and Vested | (-) | 17 |
| Terminated | (-) | 104 |
| Died | (-) | 1 |
| New Participants | (+) | 162 |
| Number as of January 1, 2012 | | 1,767 |

| RETIRED PARTICIPANTS | | |
|---|-----|-------|
| Number as of January 1, 2011 | | 982 |
| Changes During Plan Year: | | |
| Returned to Active Service | (-) | 0 |
| Died | (-) | 27 |
| New Retirements from Active Service | (+) | 41 |
| Early Retirees | (+) | 85 |
| New Surviving Annuitants | (+) | 1 |
| Vested Terminated Participants Whose Benefits Commenced | (+) | 15 |
| Additions | (+) | 1 |
| Number as of January 1, 2012 | | 1,098 |

| TERMINATED VESTED PARTICIPANTS | | |
|---------------------------------------|-----|-----|
| Number as of January 1, 2011 | | 175 |
| Changes During Plan Year: | | |
| Returned to Active Service | (-) | 3 |
| Benefits Commenced | (-) | 15 |
| Terminated | (-) | 5 |
| New Termination's with Vesting | (+) | 17 |
| Number as of January 1, 2012 | | 169 |

Schedule L

Age, Service and Average Salary Profile of the Active Members on January 1, 2012.

| MALES -- FULL YEARS OF SERVICE TO JANUARY 1, 2012 | | | | | | | | | |
|---|-----|-----|-------|-------|-------|-------|-----|-------|----------------|
| Age | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | Total | Average Salary |
| 0-19 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | \$ 18,240 |
| 20-24 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | \$ 32,854 |
| 25-29 | 47 | 27 | 0 | 0 | 0 | 0 | 0 | 74 | \$ 35,554 |
| 30-34 | 30 | 39 | 17 | 0 | 0 | 0 | 0 | 86 | \$ 39,978 |
| 35-39 | 19 | 37 | 29 | 11 | 2 | 0 | 0 | 98 | \$ 47,567 |
| 40-44 | 12 | 17 | 15 | 35 | 10 | 0 | 0 | 89 | \$ 53,192 |
| 45-49 | 15 | 14 | 16 | 16 | 31 | 11 | 0 | 103 | \$ 57,563 |
| 50-54 | 4 | 8 | 9 | 10 | 16 | 12 | 4 | 63 | \$ 56,803 |
| 55-59 | 11 | 11 | 18 | 6 | 8 | 10 | 7 | 71 | \$ 57,603 |
| 60-64 | 4 | 13 | 9 | 6 | 3 | 2 | 5 | 42 | \$ 52,877 |
| 65 + | 4 | 9 | 9 | 2 | 6 | 2 | 0 | 32 | \$ 41,086 |
| Total | 178 | 175 | 122 | 86 | 76 | 37 | 16 | 690 | \$ 48,746 |

Average Age: 43.26
Average Service: 11.11

| FEMALES -- FULL YEARS OF SERVICE TO JANUARY 1, 2012 | | | | | | | | | |
|---|-----|-----|-------|-------|-------|-------|-----|-------|----------------|
| Age | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | Total | Average Salary |
| 0-19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$ 0 |
| 20-24 | 47 | 3 | 0 | 0 | 0 | 0 | 0 | 50 | \$ 28,569 |
| 25-29 | 78 | 67 | 1 | 0 | 0 | 0 | 0 | 146 | \$ 34,176 |
| 30-34 | 38 | 69 | 39 | 3 | 0 | 0 | 0 | 149 | \$ 38,973 |
| 35-39 | 27 | 41 | 46 | 27 | 1 | 0 | 0 | 142 | \$ 41,000 |
| 40-44 | 22 | 25 | 28 | 42 | 24 | 2 | 0 | 143 | \$ 43,386 |
| 45-49 | 12 | 25 | 23 | 16 | 24 | 15 | 1 | 116 | \$ 44,346 |
| 50-54 | 14 | 19 | 24 | 14 | 13 | 18 | 9 | 111 | \$ 44,319 |
| 55-59 | 12 | 27 | 16 | 23 | 18 | 8 | 5 | 109 | \$ 41,004 |
| 60-64 | 9 | 11 | 11 | 14 | 12 | 5 | 4 | 66 | \$ 38,883 |
| 65 + | 2 | 17 | 10 | 6 | 7 | 3 | 0 | 45 | \$ 34,195 |
| Total | 261 | 304 | 198 | 145 | 99 | 51 | 19 | 1,077 | \$ 39,823 |

Average Age: 42.50
Average Service: 10.84

Schedule M

Actuarial Assumptions and Actuarial Cost Method for Funding Purposes, January 1, 2012.

Actuarial Assumptions

Mortality Rates: The life expectancy of all members (active and retired) is determined in accordance with the mortality rates set forth in the RP 2000 Mortality Table for males and females projected to 2012.

Withdrawal Rates: Members not eligible to retire are assumed to terminate employment in accordance with a percentage of the withdrawal rates set forth in Table T-7 of the Actuary's Handbook. The applicable percentage depends on the member's years of service as follows:

| YEARS OF SERVICE | PERCENTAGE |
|-------------------|------------|
| less than 1 | 300 % |
| 1 but less than 2 | 275 % |
| 2 but less than 3 | 250 % |
| 3 but less than 4 | 225 % |
| 4 but less than 5 | 200 % |
| 5 but less than 6 | 175 % |
| 6 or more | 100 % |

It is further assumed that a percentage of members who terminate after having met the Plan's five year vesting requirement will elect an immediate refund of their own contributions with interest thus forfeiting the County -- provided pension. The applicable percentage is 100% for termination ages up to age 30. After age 30 the applicable percentage is determined as 100% less (age - 30) x 3 1/3%. Illustrative percentages are as follows:

| AGE | PERCENTAGE |
|------------|------------|
| 30 or less | 100.0 % |
| 35 | 83.3 % |
| 40 | 66.7 % |
| 45 | 50.0 % |
| 50 | 33.3 % |
| 55 | 16.7 % |

Schedule M--Continued

The following tables set forth illustrative withdrawal rates as determined in accordance with the methodology described on the previous page.

Probability of Withdrawing During Year:

| LESS THAN FIVE YEARS OF SERVICE | | | | | |
|---------------------------------|------------------|-------|-------|-------|-------|
| Age at Hire | Years of Service | | | | |
| | 0 | 1 | 2 | 3 | 4 |
| 20 | .2982 | .2720 | .2460 | .2202 | .1947 |
| 30 | .2791 | .2532 | .2275 | .2021 | .1770 |
| 40 | .2326 | .2067 | .1814 | .1570 | .1335 |
| 50 | .1267 | .1013 | .0781 | .0577 | .0407 |
| 59 | .0086 | - | - | - | - |

| FIVE OR MORE YEARS OF SERVICE | | |
|-------------------------------|--|---|
| Age at Beginning of Year | Probability of Withdrawing and Forfeiting County Pension | Probability of Withdrawing and Retaining County Pension |
| 30 | .0930 | .0000 |
| 40 | .0517 | .0258 |
| 50 | .0141 | .0281 |
| 59 | .0001 | .0028 |

Schedule M--Continued

Retirement Rates: Members eligible to retire are assumed to retire in accordance with the following rates:

| AGE AT BEGINNING OF YEAR | PROBABILITY OF RETIRING DURING YEAR |
|--------------------------|-------------------------------------|
| 55-59 | .07 |
| 60-61 | .08 |
| 62-64 | .15 |
| 65 | .34 |
| 66-70 | .23 |
| 71-79 | .21 |
| 80 | 1.00 |

- Disability Rates** Disability rates are not used.
- Investment Return** 7.5% per annum, compounded annually.
- Salary Increases** 4.5% per annum.
- Valuation Assets** Market value adjusted for unrecognized gains and losses from prior years.
- Administrative Expenses** Assumed to be paid from the County’s general fund and not from plan assets. However, administrative expenses may from year to year be paid from the fund unless it is determined by the actuary that such payment will impair the actuarial soundness of the fund.
- Actuarial Cost Method** The actuarial cost method used to determine the plan’s funding requirements is the entry age normal method. Under this method, an actuarial accrued liability is determined as the actuarial present value of projected benefits for all participants minus the actuarial present value of future normal costs. The normal cost is determined as the annual amount required to fund between entry age and assumed exit age the actuarial present value of projected benefits for each active participant under the assumed retirement age.

Schedule M--Continued

Changes Since Prior Year

The method of determining valuation assets was changed from a 5 year smoothing method reflecting the ratio of cost to market value of assets to a smoothing method which gradually reflects an increased percentage of gains and losses to expected return.

The mortality table was changed from the GAM83 Group Annuity Mortality table to the RP 2000 Mortality Table for males and females projected to 2012.

There were no other changes in plan provisions since the previous actuarial valuation as of January 1, 2011.

Schedule N

Summary of Plan Provisions

- 1. Effective Date** The effective date of this plan is January 1, 1961.
- 2. Eligibility for Plan Membership** An employee shall be eligible to become a participant immediately upon becoming an employee.
- 3. Accrued Benefit** The Retirement Board has authorized benefits equal to a percentage of the members Final Average Salary for each year of service the member has participated in the following Classes:

| <u>CLASS</u> | <u>PERCENTAGE</u> | <u>EFFECTIVE</u> |
|--------------|-------------------|------------------|
| 1/120 | 0.833% | 01/01/1961 |
| 1/100 | 1.000% | 01/01/1973 |
| 1/80 | 1.250% | 01/01/1977 |

- 4. Normal Retirement (Superannuation)** *Eligibility:* Retirement occurs at age 60 or at age 55 if the participant has completed 20 years of service.

Pension: A monthly pension equal to (a) and (b), as follows:

- (a) 0.833% of 1/12th of Final "Average" Salary multiplied by years of credited service on the 1/120 Class,
 1.000% of 1/12th of Final "Average" Salary multiplied by years of credited service on the 1/100 Class,
 1.250% of 1/12th of Final "Average" Salary multiplied by years of credited service on the 1/80 Class,

PLUS

- (b) a monthly annuity based on the actuarial equivalent of the member's accumulated contributions with credited interest.

Schedule N--Continued

- 5. Final “Average” Salary** The average of the member’s annual compensation received for the three years which produce the highest such average.
- 6. Compensation** Pick-up contributions plus remuneration received as a county employee excluding refunds for expenses, contingency and accountable expense allowances and excluding severance payments or payments for unused vacation or sick leave.
- 7. Early Retirement** ***Eligibility:***
- Voluntary:*** Upon completion of 20 years of service.
- Involuntary:*** Upon completion of 8 years of service.
- Pension:***
- (a) a monthly pension equal to the actuarial equivalent of the benefits calculated in 4(a),
- PLUS
- (b) a monthly annuity based on the actuarial equivalent of the member’s accumulated contributions with credited interest.
- 8. Vesting** One Hundred Percent (100%) upon completion of five years of credited service. A member who terminates employment after five years of credited service will receive a deferred annuity commencing at age 60 (or at age 55 if the member has at least 20 years of service at termination). The deferred benefit shall be calculated using the normal retirement pension formula but based on credited service, final average salary and accumulated contributions at termination.
- If a member terminates employment prior to entitlement to Plan benefits, he will receive his accumulated contributions with interest.
- 9. Postponed Retirement** A member may work past normal retirement age and continue to accrue pension credits.

Schedule N--Continued

10. Disability Retirement

Eligibility: Total and permanent disability prior to Superannuation (Normal Retirement) age and after completion of five years of credited service.

Pension: A total monthly pension commencing on the last day of the month following disability retirement equal to 25% of the 1/12th of Final Average Salary at time of retirement. Such total monthly pension shall include the monthly disability that is actuarially equivalent to the member's accumulated contributions at retirement.

11. Normal Form of Pension

Benefits are payable in the form of a modified cash refund life annuity, that is for the member's lifetime only, except that disability benefits shall cease upon cessation of disability.

12. Optional Retirement Benefits

A member may elect to receive the actuarial equivalent of his retirement benefit as a full cash refund annuity (Option One) or a reduced joint and survivor pension payable for the remainder of his life, with either 100% or 50% of the member's pension continuing after death to the designated beneficiary. A member may also elect to receive, in one payment, the full amount of his accumulated deductions and continue to receive the annuity provided by the county.

13. Death Benefits

(a) Pre-Retirement. If a member dies after having attained age 60 or having completed ten years of credited service, his beneficiary will receive a lump sum equal to the actuarially determined present value of the benefits calculated in (7a) based on the member's Final Average Salary and credited service at time of death plus the member's accumulated contributions with interest at time of death.

(b) Post-Retirement. Upon the death of a terminated or retired member, his beneficiary will receive survivor benefits, if any, in accordance with the form under which benefits were being paid to the member. In any event, the total amount of benefits paid to the deceased member and beneficiary must, at least, equal the member's accumulated contributions with interest.

Schedule N--Continued

14. Employee Contributions

The Retirement Board has authorized each member of the retirement system to individually elect to contribute between 5% and 15% of his salary.

15. Deposit Administrator

Investment Managers:
 C.S. McKee
 Emerald Advisors
 Federated Investors
 Urdang Securities Management

Custodian:
 Fulton Financial Advisors

Financial Consultant:
 Pierce Park Group

16. Administration

Retirement Board as designated in Act 96 of 1971, the County Pension Law.

17. Cost-of-Living

The cost-of-living increase shall be reviewed at least once in every three years by the Retirement Board. The Board has granted cost-of-living increases twenty four times in the past from January, 1972 through January, 1999 and since then as follows:

| PERCENTAGE CHANGE IN C.P.I. | EFFECTIVE DATE OF INCREASE |
|--------------------------------|-------------------------------|
| 100 % | 1/1/2000 |
| 100 % | 1/1/2001 |
| 100 % | 1/1/2002 |
| 100 % | 1/1/2003 |
| 100 % | 1/1/2004 |
| 100 % | 1/1/2005 |
| 100 % | 1/1/2006 |
| 100 % | 1/1/2007 |
| 100 % | 1/1/2008 |
| 95 % | 1/1/2009 |

18. Early Retirement Provision

The Retirement Board has authorized the following Early Retirement Provisions:

| Percent of <u>Additional Service</u> | Early <u>Retirement Period</u> |
|---|-----------------------------------|
| 15% | 07/1/95 – 12/31/95 |
| 15% | 07/1/00 – 12/31/00 |
| 15% | 11/1/10 – 12/20/10 |

Schedule O

Historical Trend Information

| REVENUES BY SOURCE | | | | | |
|--------------------|------------------------|------------------------|-------------------|---------------|--------------|
| Fiscal Year | Employee Contributions | Employer Contributions | Investment Income | Miscellaneous | Total |
| 2002 | \$ 4,057,335 | \$ 473,937 | \$ 1,479,131 | \$ 0 | \$ 6,010,403 |
| 2003 | 4,397,880 | 5,500,000 | 4,890,185 | 0 | 14,788,065 |
| 2004 | 4,643,900 | 5,500,000 | 3,303,458 | 0 | 13,447,358 |
| 2005 | 4,794,182 | 7,400,000 | 9,552,045 | 0 | 21,746,227 |
| 2006 | 3,845,434 | 5,578,535 | 9,920,591 | 28,435 | 19,372,995 |
| 2007 | 4,449,499 | 4,859,915 | 19,396,004 | 34,214 | 28,739,632 |
| 2008 | 4,393,000 | 4,000,000 | (9,217,404) | 127,771 | (696,633) |
| 2009 | 4,531,248 | 7,421,189 | (1,462,817) | 72,880 | 10,562,500 |
| 2010 | 4,599,397 | 8,000,000 | 7,366,685 | 9,687 | 19,975,769 |
| 2011 | 4,392,243 | 7,554,873 | 12,364,395 | 3,963 | 24,315,474 |

| EXPENSES BY TYPE | | | | |
|------------------|--------------|--------------|----------------------------------|--------------|
| Fiscal Year | Benefits | Refunds | Administrative/ Miscellaneous | Total |
| 2002 | \$ 4,004,671 | \$ 1,022,859 | \$ 374,229 | \$ 5,401,759 |
| 2003 | 4,278,349 | 1,103,765 | 372,551 | 5,754,665 |
| 2004 | 4,584,087 | 1,055,863 | 416,730 | 6,056,680 |
| 2005 | 5,831,356 | 2,484,678 | 470,245 | 8,786,279 |
| 2006 | 11,510,773 | 986,315 | 705,080 | 13,202,168 |
| 2007 | 7,100,088 | 1,114,825 | 570,389 | 8,785,302 |
| 2008 | 8,260,950 | 721,727 | 687,282 | 9,669,959 |
| 2009 | 8,614,456 | 592,483 | 559,551 | 9,766,490 |
| 2010 | 7,858,725 | 819,402 | 662,681 | 9,340,808 |
| 2011 | 12,478,620 | 1,031,011 | 746,676 | 14,256,307 |