

**Actuarial Valuation Report as of
January 1, 2014 for the
ERIE COUNTY
EMPLOYEES'
RETIREMENT SYSTEM**

Prepared by:

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SECTION 1

HIGHLIGHTS

This report contains a detailed description and the results of a valuation by Northwest Retirement Services of the Erie County Employees' Retirement System as of January 1, 2014. The contents of this report include a summary of the actuarial position of the System as of January 1, 2014 and the proper contribution for the 2014 plan year, in accordance with the funding standards of Section 6 of Act 96, 1971 of the Commonwealth of Pennsylvania as amended.

Annual Required Contribution

The Annual Required Contribution for the plan year ending December 31, 2014 is \$5,580,680. See Section 5 for the history of employer contributions.

Plan Changes

There have been no changes in the plan benefit provisions since the date of the last report.

Assumption Changes

There have been no changes in the actuarial assumptions since the date of the last report.

Actuarial Experience

During 2013, the Plan experienced an actuarial gain due primarily to investment returns on an actuarial value basis greater than anticipated. The investment yield on an actuarial value basis, net of expenses, was approximately 12.45%. The investment yield on a market value basis was approximately 19.85%.

Funded Status of the Plan

The funded status of the Plan is measured by the "benefit security ratio" which is the ratio of the plan assets to the present value of accumulated benefits. As of January 1, 2014, the benefit security ratio is 110%, which means the plan is adequately funded.

This percentage compares to 98% on the prior valuation date.

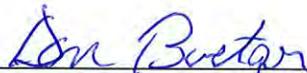
Cost of Living Increase

Effective January 1, 2014, the Retirement Board elected not to grant a cost-of-living increase to the Retirees of the System.

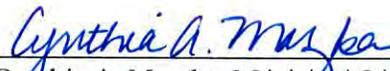
In our opinion, this report presents fairly the financial and actuarial position for the Erie County Employees' Retirement System as of January 1, 2014 in accordance with generally accepted actuarial principles, and on the basis of actuarial assumptions and methods which, in the aggregate, are reasonable (taking into account past experience under the System and reasonable expectations) and which in combination represent our best estimate of anticipated experience.

We are available to provide further information or answer any questions with respect to this report.

April, 2014



Don J. Boetger, MAAA, FSPA
Actuary and Consultant



Cynthia A. Marzka, MAAA, ASA
Actuary and Consultant

SECTION 2
SUMMARY OF VALUATION RESULTS

Section 2.1
Assets of the Plan

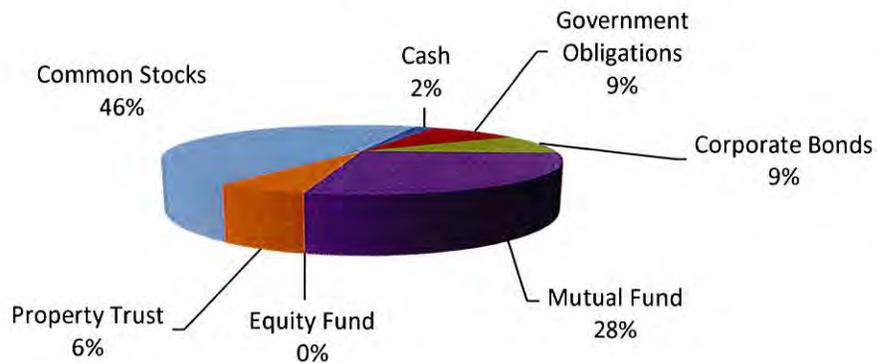
Below is a statement of changes in plan net assets for 2013 as well as a list of the total assets by classification, as provided by the County, for January 1, 2014.

| STATEMENT OF CHANGES IN PLAN NET ASSETS FOR 2013 | |
|--|----------------|
| Total Assets (cost value) – January 1, 2013 | \$ 173,867,336 |
| Additions | |
| Member contributions (including member share of military and leave of absence buybacks) | \$ 2,844,809 |
| County contributions | 6,812,406 |
| Investment Income: | |
| Interest | 481,629 |
| Dividends | 4,323,684 |
| Realized Capital Gains (Losses) | 17,674,495 |
| Securities Lending | 35,162 |
| Loss Recovery | 11,410 |
| Miscellaneous | 0 |
| Total Additions | \$ 32,183,595 |
| Deductions | |
| Member contributions refunded | \$ 218,318 |
| Retirement allowances paid (includes C-O-L and accum. deduct.w/d under Opt. 4) | 10,598,652 |
| Death benefits | 546,024 |
| Administrative Expenses | 182,111 |
| Investment Expenses | 857,230 |
| Miscellaneous Expenses | 0 |
| Total Deductions | \$ 12,402,335 |
| Net Increase | \$ 19,781,260 |
| Total Assets (cost value) January 1, 2014 | 193,648,596 |
| Unrealized appreciation | 33,791,639 |
| Total Assets (market value) January 1, 2014 | \$ 227,440,235 |

STATEMENT OF PLAN NET ASSETS – JANUARY 1, 2014

| Assets | | |
|-------------------------------------|-----------------------|-----------------------|
| | Cost Value | Market Value |
| Cash and Short Term Investments | \$ 3,558,902 | \$ 3,558,902 |
| Investments: | | |
| U.S. Government Obligations | 21,913,671 | 21,694,678 |
| Corporate Bonds/ Mortgage | 20,131,020 | 19,932,632 |
| Common Stocks | 76,041,529 | 105,595,550 |
| Mutual Funds | 58,736,331 | 62,921,624 |
| Property Trust | 13,128,644 | 13,128,644 |
| Equity Fund | 138,499 | 149,737 |
| Accrued Income | <u>0</u> | <u>458,468</u> |
| Total Assets January 1, 2014 | \$ 193,648,596 | \$ 227,440,235 |

Total Assets (Market Value)



Section 2.2 Allocation of Assets

This Section shows the allocation of the assets among the Fund's reserve accounts (see Section 2.7 for Determination of Reserve Balances) and the Fund's liabilities as of January 1, 2014. The liabilities were determined from the actuarial valuation of the System based upon the data submitted by the County.

| ASSETS | |
|---|-----------------------|
| Members' Annuity Reserve Account | \$ 45,575,578 |
| County Annuity Reserve Account | 47,626,183 |
| Retired Members' Reserve Account | 100,446,835 |
| Unrealized Appreciation in Assets | 33,791,639 |
| <i>Total Assets, (Market Value) of the Eric County Employes' Retirement Fund</i> | \$ 227,440,235 |
| LIABILITIES | |
| Actuarial Present Value of: | |
| Accumulated Plan Benefits | |
| Vested | \$ 52,675,543 |
| Nonvested | 2,615,163 |
| Future Benefit Accruals | 43,776,755 |
| Terminated Vested Benefits | 4,724,889 |
| Retired Benefits | 100,446,835 |
| Member Accumulated Deductions | 45,575,578 |
| <i>Total Liabilities of the Eric County Employes' Retirement Fund</i> | \$ 249,814,763 |

Section 2.3 Annual Required Contribution

This Section determines the certified Annual Required Contribution (ARC) of \$5,580,680 for 2014 for the Erie County Employees' Retirement System.

| 1. Actuarial Present Value of Projected Future Benefits: | | |
|--|---------------|----------------|
| a. Active Participants | | \$ 99,067,461 |
| Retirement Benefits | \$ 88,736,105 | |
| Termination Benefits | 9,075,910 | |
| Death Benefits | 1,255,446 | |
| b. Terminated Vested Participants | | 4,724,889 |
| c. Retired Members and Beneficiaries | | 100,446,835 |
| Retirement Benefits | \$ 97,904,667 | |
| Cost-of-Living Benefits | 2,542,168 | |
| d. Member Accumulated Deductions | | 45,575,578 |
| e. Total (a) + (b) + (c) + (d) | | \$ 249,814,763 |
| 2. Valuation Assets | | |
| Actuarial Value of Plan Assets | | \$ 206,490,099 |
| 3. Unfunded Cost of Early Retirement Provision | | |
| | | 0 |
| 4. Present Value of Future County Normal Costs (1e) - (2) - (3) | | |
| | | 43,324,664 |
| 5. Present Value of Future Compensation of Active Members | | |
| | | 338,236,328 |
| 6. County Normal Cost Accrual Rate (4)/(5) | | |
| | | 12.81% |
| 7. Estimated 2014 Compensation Rate of Members | | |
| | | 43,565,025 |
| 8. County Normal Cost for 2014 (6) x (7) | | |
| | | 5,580,680 |
| 9. Amortized Cost of Early Retirement Provision | | |
| | | 0 |
| 10. Annual Required Contribution (ARC) for 2014 (8) + (9) | | |
| | | 5,580,680 |

Section 2.4
Notes to Sections 2.2 and 2.3

The following are notes to Sections 2.2 and 2.3:

**Members' Annuity
Reserve Account**

The balance of \$45,575,578 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, 2014. Since these accumulations represent the present value as of January 1, 2014 of future benefits, the reserve balance and liability are identical.

**County Annuity
Reserve Account**

The balance of \$81,417,822 in this account as of January 1, 2014 and the amounts expected to be credited in the future, plus investment earnings thereon, represent the reserves set aside for the payment of the county's share of the retirement allowances.

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, 2014 amount to \$100,446,835. The corresponding liability for those annuitants on the roll is identical.

Section 2.5 Actuarial Value of Assets

The asset valuation method is the “smoothed market value (with phase-in)” method, using a smoothing period of 5 years, as described in paragraph 3.16 of IRS Revenue Procedure 2000-40. When fully phased in, the actuarial value of assets will equal the market value of assets with gains subtracted or losses added at the rate described below:

- a. $4/5$ of the prior year’s gain or loss
- b. $3/5$ of the second preceding year’s gain or loss
- c. $2/5$ of the third preceding year’s gain or loss
- d. $1/5$ of the fourth preceding year’s gain or loss

The gain or loss for a year is determined by calculating the difference between the expected value of assets for the year and the market value of assets at the valuation date. The expected value of assets for the year is market value of assets at the prior-year valuation date brought forward with interest at the valuation interest rate to the current valuation date, plus contributions minus benefit disbursements (benefits and expenses), all adjusted with interest at the valuation rate to the current valuation date. If the expected value is less than the market value, the difference is a gain. If the expected value is greater than the market value, there is a loss.

In the first year, the actuarial value of assets is equal to the market value of assets. In subsequent years, the smoothed value is calculated as described above, except that the only gains or losses recognized are those occurring in the year of the change and later. In general, the actuarial value of assets must fall between 80% and 120% of the market value of assets.

**ACTUARIAL VALUE OF ASSETS
CALCULATION OF ASSET (GAIN) OR LOSS FOR THE YEAR**

| | Expected Value |
|---|-------------------|
| Market Value at Beginning of Year | \$ 192,286,593 |
| Interest Expected Using Valuation Assumption | 14,421,494 |
| Plus Actual Contributions | 9,657,215 |
| Minus Actual Distributions | (12,402,335) |
| Interest Expected on Contributions and Distributions | (111,780) |
| Expected Value at End of Year | \$ 203,851,187 |
| Market Value at End of Year | 227,440,235 |
| (Gain) or Loss for Year | \$ (23,589,048) |

COMPUTATION OF ADJUSTMENT

| <u>Year</u> | <u>(Gain) or Loss</u> | <u>Adjustment Percent</u> | <u>Adjustment Amount</u> |
|----------------------|-----------------------|-------------------------------|------------------------------|
| 2013 | (23,589,048) | .80 | (18,871,238) |
| 2012 | (7,531,587) | .60 | (4,518,952) |
| 2011 | 10,350,690 | .40 | 4,140,276 |
| 2010 | (8,501,110) | .20 | (1,700,222) |
| 2009 | (18,266,876) | .00 | 0 |
| Total Adjustment | | | \$ (20,950,136) |

Determination of Actuarial Value of Assets

| | |
|---------------------------|---------------------|
| Market Value of Assets | \$ 227,440,235 |
| Adjustment | <u>(20,950,136)</u> |
| Actuarial Value of Assets | \$ 206,490,099 |

In general, the Actuarial Value of Assets must fall between 80% and 120% of the Market Value of Assets.

| | |
|---|----------------|
| Lower Limit (80% of Fair Market Value) | \$ 181,952,188 |
| Actuarial Value of Assets | \$ 206,490,099 |
| Upper Limit (120% of Fair Market Value) | \$ 272,928,282 |

Section 2.6
Approximate Rate of Return

| APPROXIMATE RATE OF RETURN FOR 2013 PLAN YEAR (MARKET VALUE) | |
|---|----------------|
| 1.) Market Value as of December 31, 2012 | \$ 192,286,593 |
| 2.) Contributions Received During Year | 9,657,215 |
| 3.) Benefits and Expenses Paid During Year | 12,402,335 |
| 4.) Market Value as of December 31, 2013 | 227,440,235 |
| 5.) Non-Investment Increment: (2) – (3) | (2,745,120) |
| 6.) Investment Increment: (4) – (1) – (5) | 37,898,762 |
| 7.) Time Weighted Value of Assets: (1) + .5(5) | 190,914,033 |
| 8.) Approximate Rate of Return for 2013: (6) / (7) | 19.85% |

| HISTORY OF RATE OF RETURNS | |
|-----------------------------------|-----------------------|
| Plan Year | Rate of Return |
| 2012 | 11.88% |
| 2011 | 1.52% |
| 2010 | 13.46% |
| 2009 | 22.21% |
| 2008 | -23.17% |
| 2007 | 10.15% |
| 2006 | 12.70% |
| 2005 | 9.20% |
| 2004 | 8.30% |
| 2003 | 21.23% |
| 2002 | -7.65% |

Section 2.7
Determination of Reserve Balances

| | Members Annuity Reserve Account | County Annuity Reserve Account | Retired Members Reserve Account | TOTAL |
|--------------------------------------|--|---------------------------------------|--|----------------|
| Balance 1/1/13 | \$ 45,441,967 | \$ 38,523,681 | \$ 89,901,688 | \$ 173,867,336 |
| Member Contributions | 2,836,135 | 8,674 | 0 | 2,844,809 |
| County Appropriations | 0 | 6,812,406 | 0 | 6,812,406 |
| Net Investment Income | 0 | 22,526,380 | 0 | 22,526,380 |
| Miscellaneous Income | 0 | 0 | 0 | 0 |
| Active Death Refunds | (205,399) | 0 | 0 | (205,399) |
| Member Contributions Refunded | (218,318) | 0 | (796,926) | (1,015,244) |
| Pension Payments | 0 | 0 | (9,801,726) | (9,801,726) |
| Death Benefits | 0 | (340,625) | 0 | (340,625) |
| Retiree and Death Benefit Transfers | (4,050,268) | (9,541,006) | 13,591,274 | 0 |
| Cost-of-Living Funding Requirement | 0 | 0 | 0 | 0 |
| Administrative Expenses | 0 | (182,111) | 0 | (182,111) |
| Investment Expenses | 0 | (857,230) | 0 | (857,230) |
| Balance Before Interest | 43,804,117 | 56,950,169 | 92,894,310 | 193,648,596 |
| Interest Allocated in 2013 | 1,771,461 | (8,626,311) | 6,854,850 | 0 |
| Balance Before Actuarial Adjustments | 45,575,578 | 48,323,858 | 99,749,160 | 193,648,596 |
| Actuarial Adjustments | 0 | (697,675) | 697,675 | 0 |
| Ending Balance 1/1/14 | 45,575,578 | 47,626,183 | 100,446,835 | 193,648,596 |
| Unrealized Appreciation | 0 | 33,791,639 | 0 | 33,791,639 |
| Assets (Market Value) 1/1/14 | \$ 45,575,578 | \$ 81,417,822 | \$ 100,446,835 | \$ 227,440,235 |

**SECTION 3
PLAN DEMOGRAPHICS**

**Section 3.1
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 |
| 2014 | 521 | 761 | 1,282 | 224 | 401 | 625 |
| 2013 | 522 | 757 | 1,279 | 211 | 379 | 590 |
| 2012 | 533 | 763 | 1,296 | 197 | 363 | 560 |
| 2011 | 537 | 751 | 1,288 | 187 | 346 | 533 |
| 2010 | 531 | 771 | 1,302 | 171 | 323 | 494 |
| 2009 | 533 | 774 | 1,307 | 157 | 304 | 461 |
| 2008 | 500 | 777 | 1,277 | 152 | 291 | 443 |
| 2007 | 498 | 782 | 1,280 | 150 | 272 | 422 |
| 2006 | 473 | 759 | 1,232 | 148 | 271 | 419 |
| 2005 | 462 | 745 | 1,207 | 142 | 264 | 406 |

Section 3.2
Changes in Plan Participation from January 1, 2013 to January 1, 2014

| ACTIVE PARTICIPANTS | |
|------------------------------|-------|
| Number as of January 1, 2013 | 1,153 |
| Changes During Plan Year: | |
| Retired | (35) |
| Terminated and Vested | (16) |
| Terminated | (36) |
| Died | (5) |
| New Participants | 91 |
| Number as of January 1, 2014 | 1,152 |

| RETIRED PARTICIPANTS | |
|---|------|
| Number as of January 1, 2013 | 590 |
| Changes During Plan Year: | |
| Returned to Active Service | 0 |
| Died | (12) |
| New Retirements from Active Service | 35 |
| New Surviving Annuitants | 2 |
| Vested Terminated Participants | |
| Whose Benefits Commenced | 9 |
| New Retiree due to Domestic Relations Order | 1 |
| Number as of January 1, 2014 | 625 |

| TERMINATED VESTED PARTICIPANTS | |
|---------------------------------------|-----|
| Number as of January 1, 2013 | 126 |
| Changes During Plan Year: | |
| Terminated | 0 |
| Returned to Active Service | (1) |
| Benefits Commenced | (9) |
| Died | (0) |
| Distributions | (2) |
| New Terminations with Vesting | 16 |
| Number as of January 1, 2014 | 130 |

SECTION 4 BASIS OF VALUATION

Section 4.1 Summary of Plan Provisions

| | |
|--|---|
| Effective Date | The effective date of this plan is January 1, 1942. |
| Administration | Retirement Board as designated in Act 96 of 1971, the County Pension Law. |
| Eligibility for Plan Membership | An Employee shall be eligible to become a participant immediately upon becoming an Employee. Part-time Employees may not be covered depending on hours. |
| Employee Contributions | Each member of the retirement system must contribute 5% of his salary. Currently, Employee contributions will be credited with 4.0% interest. The amount of Employee contributions and rate of interest may be changed from time to time at the direction of the Retirement Board. Employee contributions have been picked-up or pre-tax since January 1, 1983. Voluntary contributions, up to another 10% of pay, are allowed. |
| Compensation | Total pay 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. |
| Final "Average" Salary | The average of the member's annual compensation received for the three years which produce the highest such average. |
| Credited Service | Credit is provided for each year, month and day of your service during membership. Non-intervening military service (up to 5 years) may be purchased. |

Section 4.2 Benefit Formula and Retirement Dates

Normal Retirement

Eligibility: Retirement occurs at age 60 or at age 55 if the participant has completed 20 years of service.

Pension: Effective March 1, 2007 a monthly pension equal to (a) and (b), as follows:

(a) .833% of 1/12th of Final "Average" Salary multiplied by years of credited service from 1/1/42 to 1/1/50,

1.000% of 1/12th of Final "Average" Salary multiplied by years of credited service from 1/1/50 to 1/1/72,

1.667% of 1/12th of Final "Average" Salary multiplied by years of credited service after 1/1/72,

-- PLUS --

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

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 based on the plan formula,

-- PLUS --

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

Postponed Retirement

A member may work past normal retirement age and continue to accrue pension credits.

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.

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.

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 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.

Section 4.3 Benefit Options and Miscellaneous

Normal Form of Pension Benefits are payable in the form of a life annuity, that is for the member's lifetime only, except that benefits shall never be less than the Employee contribution account plus interest.

Optional Retirement A member may elect to receive the actuarial benefits equivalent of his retirement benefits as a full cash refund annuity 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.

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 in the past as follows:

| <u>PERCENTAGE CHANGE IN C.P.I.</u> | <u>EFFECTIVE DATE OF INCREASE</u> |
|--|---------------------------------------|
| 50 % | 1/1/98 |
| 50 % | 1/1/99 |
| 50 % | 1/1/00 |
| 50 % | 1/1/01 |
| 50 % | 1/1/02 |
| 50 % | 1/1/03 |
| 50 % | 1/1/04 |
| 50 % | 1/1/05 |
| 50 % | 1/1/06 |
| 50 % | 1/1/07 |
| 50 % | 1/1/08 |

Section 4.4 Actuarial Basis

Method for Contributions

Contributions required to fund the plan benefits are determined according to the Aggregate Actuarial Cost method. Under this method, the valuation assets of the plan are subtracted from the present value of all projected benefits. The result, when divided by the present value of future compensation, gives a percentage normal cost factor which is applied to the estimated 2014 compensation of all members to arrive at the normal cost at the beginning of the plan year.

Method for Accrued Benefits

The actuarial present value of accumulated plan benefits is a measure of plan benefits that have been earned to date. This is not only a valuation of retirement benefits, but also of deferred vested, death, and disability benefits. Earnings and service for benefit purposes expected to be earned after the valuation date are excluded from this value.

The actuarial assumptions used to determine this value are identical to those used for the funding purposes.

Method of Asset Valuation

The asset valuation method is the “smoothed market value (with phase-in)” method, using a smoothing period of 5 years, as described in paragraph 3.16 of IRS Revenue Procedure 2000-40. When fully phased in, the actuarial value of assets will equal the market value of assets with gains subtracted or losses added at the rate described below:

- a. $4/5$ of the prior year’s gain or loss
- b. $3/5$ of the second preceding year’s gain or loss
- c. $2/5$ of the third preceding year’s gain or loss
- d. $1/5$ of the fourth preceding year’s gain or loss

The gain or loss for a year is determined by calculating the difference between the expected value of assets for the year and the market value of assets at the valuation date. The expected value of assets for the year is market value of assets at the prior-year valuation date brought forward with interest at the valuation interest rate to the current valuation date, plus contributions minus benefit disbursements (benefits and expenses), all adjusted with interest at the valuation rate to the current valuation date. If the expected value is less than the market value, the difference is a gain. If the expected value is greater than the market value, there is a loss.

In the first year, the actuarial value of assets is equal to the market value of assets. In subsequent years, the smoothed value is calculated as described above, except that the only gains or losses recognized are those occurring in the year of the change and later. In general, the actuarial value of assets must fall between 80% and 120% of the market value of assets.

Data

The valuation results are based upon participant census and financial data provided by the plan sponsor. The data was tested for reasonableness and consistency with the prior valuation.

Actuarial Assumptions

The following actuarial assumptions were employed in the determination of the liabilities and annual contributions of the plan as developed in accordance with the funding methods described in this report.

1. The rates of mortality will be in accordance with the Retired Pensioners Mortality Table (RP-2000).
2. Interest will be earned at the rate of 7.5% per year.
3. Salary projection assumed to equal the following:

| <u>Year</u> | <u>Percent Increase</u> |
|--------------|-------------------------|
| 2014 & after | 3.50% |

4. Withdrawal prior to retirement is assumed to occur in accordance with Crocker Sarason Straight Table T-7.
5. No disability prior to retirement is assumed.
6. Retirement is assumed to occur in accordance to the following rates:

| <u>Age</u> | <u>Percent Retiring</u> |
|------------|-------------------------|
| 55 | 15% |
| 56-59 | 3% |
| 60-61 | 10% |
| 62 | 25% |
| 63-64 | 15% |
| 65 | 100% |

7. All plan participants have been included in the funding.

**SECTION 5
HISTORICAL TREND INFORMATION**

| REVENUES BY SOURCE | | | | | |
|---------------------------|-------------------------------|-------------------------------|--------------------------|----------------------|--------------|
| Fiscal Year | Employee Contributions | Employer Contributions | Investment Income | Miscellaneous | Total |
| 2004 | 2,111,317 | 480,241 | 10,186,763 | 8,633 | 12,786,954 |
| 2005 | 2,259,714 | 1,531,456 | 11,965,484 | 8,381 | 15,765,035 |
| 2006 | 2,435,241 | 1,909,487 | 17,762,750 | 109 | 22,107,587 |
| 2007 | 2,377,797 | 2,818,972 | 15,708,506 | 19,012 | 20,924,287 |
| 2008 | 2,807,483 | 3,682,478 | (39,088,320) | 85,409 | (32,512,950) |
| 2009 | 2,851,636 | 6,067,903 | 28,532,073 | 472 | 37,452,084 |
| 2010 | 2,842,151 | 4,318,312 | 20,937,248 | 0 | 28,097,711 |
| 2011 | 2,829,980 | 5,187,838 | 2,636,165 | 3,968 | 10,657,951 |
| 2012 | 2,790,857 | 5,897,793 | 20,537,768 | 3474 | 29,229,892 |
| 2013 | 2,844,809 | 6,812,406 | 37,898,762 | 0 | 47,555,977 |

| PAYMENTS BY SOURCE | | | | |
|---------------------------|-----------------|----------------|---------------------------------------|--------------|
| Fiscal Year | Benefits | Refunds | Administrative/ Investment | Total |
| 2004 | 4,007,259 | 1,718,534 | 727,987 | 6,453,780 |
| 2005 | 4,607,551 | 219,243 | 980,416 | 5,807,210 |
| 2006 | 5,172,719 | 549,165 | 975,107 | 6,696,991 |
| 2007 | 6,949,393 | 350,970 | 1,015,472 | 8,315,835 |
| 2008 | 6,602,403 | 369,818 | 1,076,697 | 8,048,918 |
| 2009 | 7,967,589 | 174,188 | 861,134 | 9,002,911 |
| 2010 | 8,700,743 | 419,399 | 994,820 | 10,114,962 |
| 2011 | 10,142,131 | 282,138 | 1,070,551 | 11,494,820 |
| 2012 | 9,866,539 | 150,971 | 1,044,986 | 11,062,496 |
| 2013 | 11,144,676 | 218,318 | 1,039,341 | 12,402,335 |

SECTION 6
ACCOUNTING INFORMATION

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

| ERIE COUNTY EMPLOYEES' RETIREMENT PLAN | | |
|---|-------------------|-------------------|
| STATEMENT OF CHANGES IN PLAN NET ASSETS | | |
| FOR THE YEAR ENDED DECEMBER 31, 2013 | | |
| Additions | | |
| | 2013 Total | 2012 Total |
| Contributions | | |
| County | \$ 6,812,406 | \$ 5,897,793 |
| Plan Members | 2,844,809 | 2,790,857 |
| Total Contributions | 9,657,215 | 8,688,650 |
| Investment Income | | |
| Net Appreciation/Depreciation in Fair Value of Investments | 33,046,877 | 16,119,107 |
| Interest | 481,629 | 2,370,761 |
| Dividends | 4,323,684 | 1,984,075 |
| Miscellaneous | 0 | 3,474 |
| Loss Recovery | 11,410 | 21,629 |
| Securities Lending | 35,162 | 42,196 |
| Less Investment Expense | <u>857,230</u> | <u>872,668</u> |
| Net Investment Income | 37,041,532 | 19,668,574 |
| Total Additions | 46,698,747 | 28,357,224 |
| Deductions | | |
| Benefits | 11,144,676 | 9,866,539 |
| Refunds of Contributions | 218,318 | 150,971 |
| Administrative Expense | <u>182,111</u> | <u>172,318</u> |
| Total Deductions | 11,545,105 | 10,189,828 |
| Net Increase | 35,153,642 | 18,167,396 |
| Net Assets Held In Trust For Pension Benefits | | |
| Beginning of Year | 192,286,593 | 174,119,197 |
| End of Year | \$ 227,440,235 | \$ 192,286,593 |

Section 6--Continued

| ERIE COUNTY EMPLOYES' RETIREMENT PLAN | | |
|---|-------------------|-------------------|
| STATEMENT OF PLAN ASSETS AS OF DECEMBER 31, 2013 | | |
| Assets | | |
| | 2013 Total | 2012 Total |
| Cash and Short Term Investments | \$ 3,558,902 | \$ 4,766,060 |
| Receivables | <u>0</u> | <u>0</u> |
| Investments, at fair value | | |
| U.S. Government Obligations | \$ 21,694,678 | \$ 23,247,467 |
| Domestic Corporate Bonds | 19,932,632 | 21,207,206 |
| Domestic Common Stocks | 105,595,550 | 86,773,331 |
| High Yield Mutual Funds | 0 | 13,740,377 |
| Mutual Funds | 62,921,624 | 0 |
| Equity Fund | 149,737 | 0 |
| International Equities | 0 | 19,369,493 |
| International Bonds | 0 | 379,812 |
| Real Estate | 13,128,644 | 12,125,957 |
| Certificate of Deposit | 0 | 1,222,995 |
| Vanguard Short Term Fund | 0 | 8,958,639 |
| Accrued Income | 458,468 | 495,137 |
| Accrued Member Contributions | <u>0</u> | <u>119</u> |
| Total Investments | \$ 223,881,333 | \$ 187,520,533 |
| Total Assets | \$ 227,440,235 | \$ 192,286,593 |
| Liabilities | | |
| Refunds Payable and Other | 0 | 0 |
| Net Assets Held In Trust For Pension Benefits | | |
| | \$ 227,440,235 | \$ 192,286,593 |

Section 6--Continued

Erie County Employees' Retirement System

Notes to the Financial Statements for the Fiscal year Ended December 31, 2013

Summary of Significant Accounting Policies

Basis of Accounting: The Erie 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, 2013, the date of the last actuarial valuation:

| | |
|--|--------------|
| Retirees and Beneficiaries Receiving Benefits | 625 |
| Terminated Plan Members Entitled to but not yet receiving benefits | 130 |
| Active Plan members | <u>1,152</u> |
| Total | 1,907 |
| Number of Participating Employers | 1 |

Section 6--Continued

Erie County Employees' Pension System

Plan Description: The Erie County Employees' 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 Erie County Employees' 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 |
|------|---------------------------------|------------------------|
| 1999 | \$ 0 | \$ 0 |
| 2000 | \$ 0 | \$ 0 |
| 2001 | \$ 0 | \$ 0 |
| 2002 | \$ 0 | \$ 0 |
| 2003 | \$ 0 | \$ 0 |
| 2004 | \$ 377,956 | \$ 480,241 |
| 2005 | \$ 1,633,741 | \$ 1,531,456 |
| 2006 | \$ 1,909,487 | \$ 1,909,487 |
| 2007 | \$ 2,818,972 | \$ 2,818,972 |
| 2008 | \$ 3,682,478 | \$ 3,682,478 |
| 2009 | \$ 6,067,903 | \$ 6,067,903 |
| 2010 | \$ 4,318,312 | \$ 4,318,312 |
| 2011 | \$ 5,187,838 | \$ 5,187,838 |
| 2012 | \$ 5,897,793 | \$ 5,897,793 |
| 2013 | \$ 6,812,406 | \$ 6,812,406 |

Section 6--Continued

| NOTES TO THE REQUIRED SCHEDULES | |
|---|---|
| <p>The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated.</p> <p>Additional information as of the latest actuarial valuation follows:</p> | |
| Valuation Date | 12/31/13 |
| Actuarial Cost Method | Aggregate |
| Asset Valuation Method | Smoothed Market Value (with phase-in), using a smoothing period of 5 years. |
| Actuarial Assumptions: | |
| Investment Rate of Return* | 7.50% |
| Projected Salary Increases* | |
| 2014 and after | 3.50% |
| * Includes Inflation at | 3.00% |

| SCHEDULE OF FUNDING PROGRESS | | | | | | |
|-------------------------------------|-------------------------------|--|---------------------------------|--------------------|---------------------|--|
| (Dollar amounts in thousands) | | | | | | |
| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) -Entry Age (b) | Excess of Assets over AAL (a-b) | Funded Ratio (a/b) | Covered Payroll (c) | Excess of Assets over AAL as a Percentage of Covered Payroll ((a-b) / c) |
| 01/01/2008 | \$160,306 | \$157,995 | \$2,311 | 101.5% | \$42,626 | 5.4% |
| 01/01/2009 | \$154,229 | \$177,114 | \$(22,885) | 87.1% | \$44,830 | (51.0%) |
| 01/01/2010 | \$170,697 | \$186,142 | \$(15,445) | 91.7% | \$45,265 | (34.1%) |
| 01/01/2011 | \$177,343 | \$200,552 | \$(23,209) | 88.4% | \$43,890 | (52.9%) |
| 01/01/2012 | \$180,478 | \$209,254 | \$(28,776) | 86.2% | \$43,176 | (66.6%) |
| 01/01/2013 | \$185,418 | \$219,208 | \$(33,790) | 84.6% | \$42,980 | (78.6%) |
| 01/01/2014 | \$206,490 | \$230,140 | \$(23,650) | 89.7% | \$43,565 | (54.3%) |

Section 6--Continued

| 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) |
| 1998 | 0 | 0 | 0 | 0 | 320,000 | -320,000 | -320,000 |
| 1999 | 0 | -24,000 | -36,477 | 12,477 | 0 | 12,477 | -307,523 |
| 2000 | 0 | -23,064 | -36,077 | 13,013 | 0 | 13,013 | -294,510 |
| 2001 | 0 | -22,088 | -34,908 | 12,820 | 0 | 12,820 | -281,690 |
| 2002 | 0 | -21,127 | -33,825 | 12,698 | 0 | 12,698 | -268,992 |
| 2003 | 0 | -20,174 | -33,266 | 13,092 | 0 | 13,092 | -255,900 |
| 2004 | 377,956 | -19,193 | -32,056 | 390,819 | 480,241 | -89,422 | -345,322 |
| 2005 | 1,633,741 | -25,899 | -42,849 | 1,650,691 | 1,531,456 | 119,235 | -226,087 |
| 2006 | 1,909,487 | -16,957 | -28,378 | 1,920,908 | 1,909,487 | 11,421 | -214,666 |
| 2007 | 2,818,972 | -16,100 | -27,492 | 2,830,364 | 2,818,972 | 11,392 | -203,274 |
| 2008 | 3,682,478 | -16,262 | -25,343 | 3,691,559 | 3,682,478 | 9,081 | -194,193 |
| 2009 | 6,067,903 | -15,535 | -25,017 | 6,077,385 | 6,067,903 | 9,482 | -184,711 |
| 2010 | 4,318,312 | -14,777 | -23,576 | 4,327,111 | 4,318,312 | 8,799 | -175,912 |
| 2011 | 5,187,838 | -13,193 | -23,315 | 5,197,960 | 5,187,838 | 10,122 | -165,790 |
| 2012 | 5,897,793 | -12,434 | -21,984 | 5,907,343 | 5,897,793 | 9,550 | -156,240 |
| 2013 | 6,812,406 | -11,718 | -20,124 | 6,820,812 | 6,812,406 | 8,406 | -147,834 |

* *BB = Beginning balance for the year.*

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

*** *Interest rate 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).*

SECTION 7
AGE, SERVICE AND AVERAGE SALARY PROFILE OF THE ACTIVE MEMBERS
ON JANUARY 1, 2014

| FULL YEARS OF SERVICE TO JANUARY 1, 2014 | | | | | | | | | |
|---|------------|------------|--------------|--------------|--------------|--------------|------------|--------------|-----------------------|
| Age | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | Total | Average Salary |
| 0-24 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 26,155 |
| 25-29 | 81 | 11 | 0 | 0 | 0 | 0 | 0 | 92 | 31,256 |
| 30-34 | 66 | 56 | 8 | 0 | 0 | 0 | 0 | 130 | 33,932 |
| 35-39 | 35 | 46 | 32 | 3 | 0 | 0 | 0 | 116 | 35,575 |
| 40-44 | 32 | 44 | 38 | 33 | 6 | 1 | 0 | 154 | 38,338 |
| 45-49 | 24 | 41 | 30 | 21 | 32 | 10 | 1 | 159 | 40,619 |
| 50-54 | 30 | 27 | 30 | 24 | 31 | 25 | 20 | 187 | 41,435 |
| 55-59 | 17 | 26 | 24 | 18 | 17 | 13 | 20 | 135 | 41,481 |
| 60-64 | 9 | 18 | 22 | 16 | 16 | 6 | 21 | 108 | 41,138 |
| 65 + | 3 | 13 | 9 | 12 | 2 | 1 | 4 | 44 | 36,445 |
| Total | 324 | 282 | 193 | 127 | 104 | 56 | 66 | 1,152 | 38,088 |

AVERAGE AGE: 46.2

AVERAGE SERVICE: 12.1

SECTION 8
DEPOSIT ADMINISTRATOR INFORMATION

Boston Advisors, Inc.
Boyd Watterson Asset Management
C.S. McKee & Co., Inc.
Dimension Fund Advisors
Emerald Advisors, Inc.
Multi-Employer Property Trust
Philadelphia Trust Company
PNC
Seix Advisors
Templeton
Vanguard Funds
WHV Investment Management
Wells Capital

Fiduciary Advisor
Morrison Fiduciary Advisors, Inc.