A Defined Benefit
Actuarial Valuation

For:
Knox County Employee Benefit System Knox County Board of Education Retirement Plan

As of:
January 1, 2011

## CONFIDENTIAL

Knox County Employee Benefit System

## RE: KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN

Gentlemen:
We are pleased to present our Actuarial Valuation Report for the Plan Year beginning January 1,2011. A summary of the principal results of the report is provided for your convenience on pages one through three. Details supporting the cost calculations are also included, as well as other information designed to assist you and your accountants in preparing your reports.

The suggested employer contribution for the fiscal year is $\$ 1,046,949$.
We would be happy to answer any questions you may have regarding this report.
Sincerely,
USI CONSULTING GROUP

Bob Cross, ASA, MAAA, FCA
President, Southeast

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# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

VALUATION AS OF 1/1/2011

## PRINCIPAL RESULTS OF THE VALUATION

Below is a summary of the principal results of this year's valuation compared with the previous valuation. Amounts for each valuation period reflect the actuarial cost method, assumptions and plan benefits in effect at that time.

As of

January 1, 2010

As of
January 1, 2011

## CONTRIBUTION LIMITATIONS

Recommended Contribution

## Percentage of Payroll

Expected Employee Contribution

## SUPPORTING INFORMATION

Market Value of Assets $\quad \$ \quad 63,175,855 \quad \$ \quad 66,954,807$
Actuarial Value of Assets
Present Value of Accumulated Benefits
Funding Ratio - Actuarial Value of Assets as a
Percentage of Present Value of Accumulated Benefits
Funding Ratio - Market Value of Assets as a
Percentage of Present Value of Accumulated Benefits
Funding Ratio Discount Rate
Number of Lives Included in the Valuation 485
$\$ \quad 79,245,634 \quad \$ \quad 78,340,833$

# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

## VALUATION AS OF 1/1/2011

EXECUTIVE SUMMARY

## Purpose and Scope

The principal purposes of this actuarial valuation report are:

1. To present our calculation of the Plan contributions under the Knox County Employee Benefit System funding policy,
2. To review plan experience during the year ended December 31, 2010, and the funded status of the plan as of January 1, 2011, and
3. To determine the funded status of accumulated plan benefits, accumulated vested benefits, and plan funding progress in accordance with Governmental Accounting Standards Board Statements No. 25, 27 and other Financial Accounting Standards.

The valuation is based upon employee data and financial information provided by Knox County. This data was not audited or otherwise verified by us other than for tests of reasonable consistency with prior year data.

## Actuarial Methods and Assumptions

For the January 1, 2011 plan year, all assumptions remained the same as those used in the January 1, 2010 valuation. The period over which the Unfunded Accrued Liability is amortized is 11 years.

## Plan Experience

During 2010 the market value of plan assets increased from $\$ 63,175,855$ to $\$ 66,954,807$ with an investment return of approximately $14.26 \%$. This investment performance was above the $7.5 \%$ assumption, creating an asset gain of about $\$ 4,103,000$. The actuarial value of plan assets increased from $\$ 69,493,440$ to $\$ 70,428,532$ with an investment return of approximately $8.67 \%$. This resulted in an asset gain of about $\$ 786,000$. The plan also experienced a liability gain of approximately $\$ 903,000$, due largely to benefit increases that were less than expected, resulting in a net actuarial gain of about $\$ 1,689,000$.

Recall that the asset smoothing method recognizes each year's investment gains and losses over a five year period. See page 5 for more details of the method. In this way, the actuarial value of assets methodology smoothes out much of the volatility of annual changes in the market value of assets. Note that in a future year, the smoothed actuarial value of assets could be less than the market value.

## Contribution Requirements

The suggested employer contribution for the 2011 fiscal year is $\$ 1,046,949$. Please see page 7 for more details.

# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

## VALUATION AS OF 1/1/2011 <br> EXECUTIVE SUMMARY <br> (Continued)

## Funding Status

The plan's funding ratio as shown on page 1 increased from $88.4 \%$ in 2010 to $90.4 \%$ in 2011.
This report has been prepared in accordance with generally accepted actuarial standards and procedures, and conforms to the Guidelines for Professional Conduct of the American Academy of Actuaries. It is based upon the employee and financial data submitted to USI Consulting Group by the plan sponsor and the retirement plan provisions as outlined herein.

I, Dennis E. Jacobs, FSA, EA, MAAA, am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.


Dennis E. Jacobs, FSA, EA, MAAA
Vice President and Actuary


Jaime Packer, ASA
Assistant Team Leader and Actuary

## KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN

FINANCIAL STATEMENT AS OF 1/1/2011
ASSETS 1/1/2010 ..... 1/1/2011
Cash (and money market funds) ..... 0 ..... 0
Accrued Income ..... 0
Receivables ..... 0 ..... 0
Investments
Bond Funds00
Corporate (debt and equity instruments) ..... 63,175,855Real Estate Equity Fund0
Other - Cash Equivalents ..... ㅇ ..... $\underline{0}$0
Total Investments ..... 63,175,855
Buildings \& Other Property used in Plan Operation ..... 0Insurance Contracts0ㅇ
0Other Assets
Total Assets ..... 63,175,855 ..... 67,009,745
LIABILITIES AND NET ASSETS
Payables ..... 54,938
Acquisition Indebtedness ..... 0
Other Liabilities ..... 0 ..... ㅇ
Total Liabilities ..... 0 ..... 54,938
NET ASSETS ..... 63,175,855 ..... 66,954,807
STATEMENT OF RECEIPTS AND DISBURSEMENTS
Net Assets at Beginning of Year ..... $63,175,855$
Contributions Received or ReceivableEmployer1,217,506
Employees ..... 97,824
Others ..... 0
Total Contributions ..... $0 \quad 1,315,330$
Dividends and Income ..... 636,004
Other Income ..... 0
Net Realized Gain (Loss) ..... 942,684
Net Unrealized Gain (Loss) ..... 7,079,871
Total Income ..... 9,973,889
Distribution of Benefits
Directly to Participants or Beneficiaries ..... 5,749,469
Other ..... $0 \quad 5,749,469$
Fees and Commissions ..... 445,467
Other Expenses ..... ㅇ
Total Expenses ..... 6,194,936
Net Income (loss) ..... 3,778,953
NET ASSETS AT END OF YEAR ..... 66,954,807

# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

## DETERMINATION OF VALUATION ASSETS AS OF 1/1/2011

## 1. ASSET GAIN/(LOSS) AS OF $1 / \mathbf{1 / 2 0 1 1}$

(1) Expected market value of assets as of 1/1/2011:
(a) Market value of assets as of $1 / 1 / 2010$
(b) Expected return on assets at $7.5 \%$
(c) Contributions
(d) Benefit Payments and Expenses
(e) Net interest on (c) - (d), weighted for timing
(f) Total: $($ a $)+(b)+(c)+(d)+(e)$
\$ 63,175,855
\$ 4,738,189
\$ 1,315,330
\$ $(6,194,936)$

- (182,985)
\$ 62,851,452
(2) Actual Market value of assets as of $1 / 1 / 2011$ :
\$ 66,954,807
(3) Asset gain/(loss) as of 1/1/2011: (2)-(1)(f)
\$ 4,103,355


## 2. DETERMINATION OF VALUATION ASSETS AS OF 1/1/2011

(1) Market value of assets as of $1 / 1 / 2011$ :
\$ 66,954,807
(2) Recognition of asset gain/(loss) over a five year period:

| Year Ending | Asset | Portion Not <br> December 31 | $\underline{\text { Gain/(Loss) }}$ |
| :---: | :---: | :---: | :---: |$\quad$| Amount |
| :---: |
| Yet Recognized |$\quad$| Deferred |
| :--- |


| 2010 | $\$$ | $4,103,355$ | $4 / 5$ | $\$$ | $3,282,684$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2009 | $\$ 7,573,242$ | $3 / 5$ | $\$$ | $4,543,945$ |  |
| 2008 | $\$(28,250,884)$ | $2 / 5$ | $\$(11,300,354)$ |  |  |

Total:
\$ $(3,473,724)$
(3) Accrued contributions as of $1 / 1 / 2011$ :
(4) Valuation assets as of 1/1/2011: (1)-(2) + (3)
\$ 70,428,532

## 3. VALUATION ASSETS AS OF 1/1/2011

| (1) Valuation assets as of $1 / 1 / 2010:(1)+(2)+(3)+(4)+(5)$ | $\$ 69,493,440$ |
| :--- | :--- |
| (2) Contributions, including receivables: | $\$ 1,315,330$ |
| (3) Benefit payments: | $\$(5,749,469)$ |
| (4) Plan expenses: | $\$(445,467)$ |
| (5) Return on assets: | $\$ 5,814,698$ |
| (6) Valuation assets as of $1 / 1 / 2011:(1)+(2)+(3)+(4)+(5)$ | $\$ 70,428,532$ |
| (7) $110 \%$ of Market Value | $\$ 73,650,288$ |
| (8) Final Actuarial Value of Assets, no more than (7). | $\$ 70,428,532$ |

## KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN

## VALUATION RESULTS AS OF JANUARY 1, 2011

## 1. PRESENT VALUE OF FUTURE BENEFITS

The value of all projected retirement, death, disability, and vested termination benefits expected to be paid to all current plan participants, discounted to the valuation date with interest, mortality, withdrawal, and disablility decrements.

|  | Lives | Retirement | Death | Withdrawal | Disability | $\underline{T o t a l}$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  | 29 | $10,433,074$ | 12,067 | 315,652 | 182,035 | $10,942,828$ |
| Active | 10 | 738,905 | 6,711 | 0 | 0 | 745,616 |  |
| Terminated | $\underline{443}$ | $\underline{66,652,389}$ | $\underline{0}$ | $\underline{0}$ | $\underline{0}$ | $\underline{66,652,389}$ |  |
| Retired | 482 | $77,824,368$ | 18,778 | 315,652 | 182,035 | $78,340,833$ |  |

## 2. ENTRY AGE ACCRUED LIABILITY

The portion of the present value of future benefit attributable to prior normal costs.
Active
10,869,702
Terminated
745,616
Retired
66,652,389
Total
78,267,707
3. ACTUARIAL VALUE OF ASSETS
70,428,532
4. UNFUNDED ACCRUED LIABILITY (2-3)
7,839,175
5. DEVELOPMENT OF CREDIT BALANCE
(1) Minimum Contribution as of 7/1/2010 - prior year $1,217,506$
(2) Actual Employer Contribution - 7/1/2009-6/30/2010 1,217,506
(3) Interest on Employer Contribution 0
(4) Credit Balance $(2+3-1) \quad 0$

## 6. ENTRY AGE NORMAL COST

The amount required to fund the present value of benefits as a level percent of pay from entry age to retirement age.
A. Total Normal Cost ..... 50,654
B. Expected Employee Contributions ..... 38,380
C. Employer Normal Cost ..... 12,274

## KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN

## CONTRIBUTION REQUIREMENTS FOR PLAN YEAR ENDING DECEMBER 31, 2011

With recent experience, the Plan now shows an Unfunded Accrued Liability using the Individual Entry Age Normal cost method. The Recommended Employer contribution will be the Plan's Normal Cost reduced by Expected Employee Contributions (see pg. 6) plus an 11 year amoritization of the Past Service Base in effect on January 1, 2011 (see below) reduced by the Plan's Credit Balance (also on page 6).

RECOMMENDED PLAN CONTRIBUTION
CHARGES:
(1) Employer Normal Cost
12,274
(2) Outstanding Charge Base
$7,839,175$
(3) Amortization of Outstanding Charge Base 996,833
(4) Credit Balance
0
(5) Total Charges $=(1)+(3)-(4)$, not less than zero
1,009,107
(6) Interest Charge on (1) and (3) and (4)
37,842

|  | Annual Contributions |  |
| :---: | :---: | :---: |
|  | $\underline{2010}$ | $\underline{2011}$ |
| Total Recommended Employer Contribution as of Beginning of the Plan Year | 1,173,500 | 1,009,107 |
| Total Recommended Employer Contribution as of Beginning of fiscal year starting July 1 | 1,217,506 | 1,046,949 |
| Expected Employee Contributions for the Plan Year | 50,652 | 38,380 |

## AMORTIZATION SCHEDULE

Description

|  | Year <br> Est. | Initial <br> Amount | Outstanding Balance | Amortization Payment | Years <br> Remaining |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Past Service Base | 2010 | 7,839,175 | 7,839,175 | 996,833 | 11 |
|  |  |  | 7,839,175 | 996,833 |  |

## KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN

PARTICIPANT DATA AS OF 1/1/2011
Active employees under assumed retirement age
Number ..... 12
Total annual compensation ..... 823,283
Average accrued benefit ..... 1,830.62
Average projected benefit ..... 2,494.27
Average attained age ..... 57.86
Average prior service ..... 35.70
Other active and inactive employees
Number ..... 17
Average accrued benefit ..... 2,576.11
Average attained age ..... 62.53
Terminated deferred vested, deceased and disabled employees Number ..... 10
Average accrued benefit ..... 536.35
Average attained age ..... 58.98
Retired employees, beneficiaries and contingent annuitants Number ..... 443
Average monthly benefit ..... 1,098.33
Average attained age ..... 68.60

## RECONCILIATION OF PARTICIPANT STATUS

|  | Active | Inactive | Deferred Vested | Pay Status | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Prior Valuation | 36 | 0 | 15 | 434 | 485 |
| Terminated - vested | 0 | 0 | 0 | 0 | 0 |
| Cashed Out | 0 | 0 | 0 | 0 | 0 |
| Death | 0 | 0 | 0 | (4) | (4) |
| Entered as Beneficiary | 0 | 0 | 0 | 0 | 0 |
| Retired | (7) | 0 | (5) | 12 | 0 |
| Rehired |  | 0 | 0 | 0 | 0 |
| Data Corrections | 0 | 0 | 0 | 1 | 1 |
| Current Valuation | 29 | 0 | 10 | 443 | 482 |

# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

## SUMMARY OF PLAN PROVISIONS

## Effective Date

## Eligibility

Participation

Shall mean for credited service July 1, 1987 and for all other purposes June 26, 1990.

Any person who is a "teacher" as defined by the Court of Appeals in its opinion of December 30, 1987 in the case of Knox County v. The City of Knoxville, et al, and who is entitled to maintain membership in a local pension system as a result of their membership in any applicableplan of the City of Knoxville Pension System on June 30, 1987, and who thereafter is employed as a result of the City of Knoxville ceasing to operate a separate school system and is so regularly employed by the Knox County Board of Education.

## Normal Retirement

 EligibilityEach member shall be eligible to retire at age 62 or on the first day of any of the thirty-five months next following age 62 .

A monthly benefit payable for life, computed as of normal retirement date as one-twelfth of credited service multiplied by the sum of $(A)$ and (B):
(A) Benefit Rate A times average base earnings
(B) Benefit Rate B times average excess earnings

Benefit Rate A and Benefit Rate B shall vary according to the member's last birthday at time benefit payments are to commence, as follows:

| Age | Benefit <br> Rate A | Benefit |
| :--- | ---: | ---: |
| Rate B |  |  |
| 63 | $.75 \%$ | $1.50 \%$ |
| 64 | $.84 \%$ | $1.58 \%$ |
| 65 or later | $.88 \%$ | $1.66 \%$ |
|  | $1.76 \%$ |  |

This amount is then reduced by the benefit accrued under the applicable City of Knoxville retirement plan as of June 30, 1987.

# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

## SUMMARY OF PLAN PROVISIONS

## (Continued)

| Minimum Benefit | The monthly benefit, including $50 \%$ of the primary Social Security benefit, shall not be less than $\$ 10$ per year of credited service, with a maximum of $\$ 250$. |
| :---: | :---: |
| Earnings | Total compensation |
| Base Earnings | That part of earnings in any calendar year which does not exceed $\$ 4,800.00$ per annum. |
| Excess Earnings | That part of earnings in any calendar year which are in excess of base earnings. |
| Credited Service | Years and completed calendar months of service as an employee of either the City of Knoxville or Knox County. |
| Average Earnings | A 3-year arithmetic average determined for the number of full calendar years of credited service during which the earnings were the highest, or number of full calendar years actually completed if less than 3. |
| Accrued Benefit | Normal retirement benefit based on service and compensation up to the determination date less that benefit accrued under the applicable City of Knoxville retirement plan as of June 30, 1987. |
| Early Retirement |  |
| Eligibility | Completion of 25 years of credited service. |
| Benefit | Upon early retirement, a member may elect to receive either (a) a deferred monthly benefit equal to his accrued benefit commencing at normal retirement date, or (b) a reduced benefit equal to the actuarially equivalent benefit described in (a) above, commencing immediately. |
| Disability Not In Line of Duty |  |
| Eligibility | Completion of 15 years of credited service. |
| Benefit | Accrued benefit, based on credited service at time of disablement, payable immediately, plus a lump sum equal to six times the accrued monthly benefit. |

# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

## SUMMARY OF PLAN PROVISIONS <br> (Continued)

Disability in Line of Duty
Eligibility
Disablement in the course of performance of duty as an employee.
Benefit
Accrued benefit, based on credited service projected to age 62,payable immediately and reduced by any workers' compensationbenefits paid.
Death BenefitEligibility
Benefit
Completion of 15 years of credited service.
$50 \%$ of the monthly benefit that the participant wouldhave been entitled to if he/she had elected the $50 \%$ jointand survivor form of payment, payable at the earliest timebenefits could have commenced to the participant.
Deferred Vested
Eligibility Completion of 10 years of credited service.
Benefit A deferred monthly benefit equal to the accrued benefitcommencing at normal retirement date, determined as ofthe date of termination, provided the member leaves hiscontributions in the fund.
Return of EmployeeContribution
Normal Form ..... of Annuity
Optional Forms Certain and Life, Joint and Survivor, Cash Refund. Suchof Annuity
A minimum of employee contributions with interest ispaid on death, termination, or retirement.
Life Annuityoptions will be actuarially equivalent to a life annuity.
Employee Contributions

Each employee who is a member shall contribute to the
fund an amount equal to (a) plus (b) where:
(a) The contribution rate shall be 3 percent of base earnings, and
(b) The contribution rate shall be 5 percent of excess earnings.

# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

## SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

## ACTUARIAL COST METHOD

Individual Entry Age Normal Cost.

Under this method, the annual cost is equal to the normal cost, plus amortization of unfunded accrued liabilities over a fixed period of years selected within the minimum (10 years) and maximum ( 5 to 30 years) periods permitted by law.

The normal cost is the sum of individual normal costs, determined as a level percentage of compensation which would have been necessary to fund the employee's projected retirement, death and withdrawal benefits, from entry age (the age at which the employee would have entered the plan had it been in effect on his employment date), to his retirement age. Thus, the dollar normal cost is expected to increase with the salary projection assumption.

The actuarial accrued liability is the accumulation, based on the actuarial assumptions, of all assumed prior normal costs. Thus, it represents the amount of reserves, which would be held by the plan, had it always been in effect for the present group of participants and had plan experience followed that predicted by the actuarial assumptions. The unfunded accrued liability is the excess, if any, of the accrued liability over the plan assets.

Actuarial gains and losses arising from differences between plan experience and that predicted by the actuarial assumptions, as measured by the difference between actual and expected unfunded accrued liabilities, are amortized over 5 years.

ACTUARIAL ASSUMPTIONS

## Post-Retirement

Mortality - 1983 Group Annuity Mortality Table for Males and Females
Investment Return $-7.5 \%$ per annum.
Assumed benefit increases $-3.00 \%$ per annum on the participant's original benefit

## Pre-Retirement

Mortality - 1983 Group Annuity Mortality Table for Males and Females
Investment Return - 7.5\% per annum.
Salary projection $-3.0 \%$ per annum.

# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

## SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

ACTUARIAL ASSUMPTIONS (Continued)
Expense loading - None
Retirement age -60 or immediately if older.
Disability rates - Rates set forth below.
Withdrawal rates - Rates set forth below.
Pre-retirement Decrement Rates

|  | Mortality |  | Withdrawal |  | Disability |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Male | Female | Male | Female | Male | Female |
|  |  |  |  |  |  |  |
| 20 | $0.038 \%$ | $0.032 \%$ | $0.000 \%$ | $0.000 \%$ | $0.000 \%$ | $0.000 \%$ |
| 25 | $0.046 \%$ | $0.036 \%$ | $6.100 \%$ | $5.925 \%$ | $0.000 \%$ | $0.000 \%$ |
| 30 | $0.061 \%$ | $0.044 \%$ | $5.850 \%$ | $5.460 \%$ | $0.400 \%$ | $0.400 \%$ |
| 35 | $0.086 \%$ | $0.057 \%$ | $5.097 \%$ | $4.861 \%$ | $0.400 \%$ | $0.400 \%$ |
| 40 | $0.124 \%$ | $0.078 \%$ | $2.701 \%$ | $3.891 \%$ | $0.400 \%$ | $0.400 \%$ |
| 45 | $0.218 \%$ | $0.113 \%$ | $2.060 \%$ | $3.444 \%$ | $0.420 \%$ | $0.420 \%$ |
| 50 | $0.391 \%$ | $0.193 \%$ | $2.997 \%$ | $2.889 \%$ | $0.730 \%$ | $0.730 \%$ |
| 55 | $0.613 \%$ | $0.351 \%$ | $3.271 \%$ | $3.015 \%$ | $1.400 \%$ | $1.400 \%$ |
| 60 | $0.916 \%$ | $0.566 \%$ | $6.537 \%$ | $3.372 \%$ | $2.480 \%$ | $2.480 \%$ |

## ASSET VALUATION

Each plan year's investment gain or loss is recognized over five years.

# KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN 

## ACCUMULATED PLAN BENEFITS UNDER FAS 35

| Actuarial Present Values of Accumulated Plan Benefits (Accumulated Benefit Obligation): | 1/1/2010 | 1/1/2011 |
| :---: | :---: | :---: |
| Vested Benefits |  |  |
| Participants currently receiving payments | 64,551,840 | 66,652,389 |
| Other Participants |  |  |
| Active Employees | 12,313,772 | 10,538,753 |
| Deceased and Disabled Employees | 0 | 0 |
| Deferred Vested Terminated Employees | 1,736,834 | 745,616 |
| Total - Other Participants | 14,050,606 | 11,284,369 |
| Total Vested Benefits | 78,602,446 | 77,936,758 |
| Nonvested Benefits | 0 | 0 |
| Total Actuarial Present Values of Accumulated Plan Benefits | 78,602,446 | 77,936,758 |

## KNOX COUNTY EMPLOYEE BENEFIT SYSTEM KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN

SCHEDULE OF FUNDING PROGRESS

| Actuarial | Actuarial <br> Value of <br> Valuation | Actuarial Accrued <br> Liability (AAL) <br> Entry Age Normal | Unfunded <br> AAL <br> (UAAL) | Funded <br> Ratio | Covered <br> Payroll | UAAL as a <br> Percentage of <br> Covered Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underline{\text { Date }}$ | $\underline{\text { (a) }}$ | (b) to $1 / 1 / 05)$ | $\underline{(\mathrm{b}-\mathrm{a})}$ | $\underline{(\mathrm{a} / \mathrm{b})}$ | $\underline{(c)}$ | $\underline{(b-a) / \mathrm{c})}$ |
| $1 / 1 / 1997$ | $31,532,498$ | $31,532,498$ | 0 | $100.00 \%$ | $16,518,534$ | $0.00 \%$ |
| $1 / 1 / 1998$ | $55,425,760$ | $55,425,760$ | 0 | $100.00 \%$ | $16,280,062$ | $0.00 \%$ |
| $1 / 1 / 1999$ | $62,622,721$ | $62,622,721$ | 0 | $100.00 \%$ | $15,714,131$ | $0.00 \%$ |
| $1 / 1 / 2000$ | $70,243,735$ | $70,243,735$ | 0 | $100.00 \%$ | $14,392,249$ | $0.00 \%$ |
| $1 / 1 / 2001$ | $69,634,862$ | $69,634,862$ | 0 | $100.00 \%$ | $14,009,264$ | $0.00 \%$ |
| $1 / 1 / 2002$ | $72,917,044$ | $72,917,044$ | 0 | $100.00 \%$ | $13,254,219$ | $0.00 \%$ |
| $1 / 1 / 2003$ | $71,458,839$ | $71,458,839$ | 0 | $100.00 \%$ | $12,286,006$ | $0.00 \%$ |
| $1 / 1 / 2004$ | $73,472,465$ | $73,472,465$ | 0 | $100.00 \%$ | $11,014,729$ | $0.00 \%$ |
| $1 / 1 / 2005$ | $74,889,828$ | $82,120,286$ | $7,230,458$ | $91.20 \%$ | $7,595,733$ | $95.19 \%$ |
| $1 / 1 / 2006$ | $75,174,360$ | $83,066,476$ | $7,892,116$ | $90.50 \%$ | $6,274,664$ | $125.78 \%$ |
| $1 / 1 / 2007$ | $84,154,462$ | $84,362,290$ | 207,828 | $99.75 \%$ | $5,236,764$ | $3.97 \%$ |
| $1 / 1 / 2008$ | $83,327,598$ | $84,657,462$ | $1,329,864$ | $98.43 \%$ | $4,102,017$ | $32.42 \%$ |
| $1 / 1 / 2009$ | $61,496,011$ | $83,991,358$ | $22,495,347$ | $73.22 \%$ | $2,018,191$ | $1114.63 \%$ |
| $1 / 1 / 2010$ | $69,493,440$ | $79,131,091$ | $9,637,651$ | $87.82 \%$ | $1,050,650$ | $917.30 \%$ |
| $1 / 1 / 2011$ | $70,428,532$ | $78,267,707$ | $7,839,175$ | $89.98 \%$ | 823,283 | $952.18 \%$ |

## SCHEDULE OF EMPLOYER CONTRIBUTIONS

| Year <br> Ended <br> June 30 |  | Annual <br> Required <br> Contribution | Actual <br> Contribution | Percentage <br> Contributed |
| :--- | ---: | ---: | ---: | ---: |
|  |  | $2,797,910$ | 697,248 | $24.92 \%$ |
| 1997 |  | $2,522,434$ | $17,366,919$ | $688.50 \%$ |
| 1998 |  | 773,683 | 778,642 | $100.64 \%$ |
| 1999 |  | 357,275 | 343,534 | $96.15 \%$ |
| 2000 |  | 0 | 400,000 | $\mathrm{~N} / \mathrm{A}$ |
| 2001 |  | 344,411 | 600,000 | $174.21 \%$ |
| 2002 |  | 412,445 | 600,000 | $145.47 \%$ |
| 2003 |  | 784,838 | 784,838 | $100.00 \%$ |
| 2004 |  | 781,447 | 881,447 | $100.00 \%$ |
| 2005 |  | 771,370 | 739,370 | $100.00 \%$ |
| 2006 |  | 771,772 | $100.00 \%$ |  |
| 2007 |  | 135,786 | 135,786 | $100.00 \%$ |
| 2008 |  | 198,608 | 250,000 | $125.88 \%$ |
| 2009 |  | $1,898,484$ | $1,898,864$ | $100.02 \%$ |
| 2010 |  | $1,217,506$ | $1,217,506$ | $100.00 \%$ |
| 2011 |  |  |  |  |

## KNOX COUNTY EMPLOYEE BENEFIT SYSTEM

## KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN

GOVERNMENT ACCOUNTING STANDARDS BOARD STATEMENT No. 27

|  | 6/30/2001 | 6/30/2002 | 6/30/2003 | 6/30/2004 | 6/30/2005 | 6/30/2006 | 6/30/2007 | 6/30/2008 | 6/30/2009 | 6/30/2010 | 6/30/2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. NPO: Net Pension Obligation/(Asset) |  |  |  |  |  |  |  |  |  |  |  |
| at beginning of period | 4,360,656 | 3,931,267 | 3,649,183 | 3,437,034 | 3,413,870 | 3,385,016 | 3,356,407 | 3,328,039 | 3,299,911 | 3,220,629 | 3,193,029 |
| 2. Annual Pension Cost: |  |  |  |  |  |  |  |  |  |  |  |
| a. Annual Required |  |  |  |  |  |  |  |  |  |  |  |
| b. Interest on NPO | 348,852 | 314,501 | 291,935 | 274,963 | 256,040 | 253,876 | 251,731 | 249,603 | 247,493 | 241,547 | 239,477 |
| c. Adjustments to ARC * | $(378,242)$ | $(340,997)$ | $(316,529)$ | $(298,127)$ | $(284,894)$ | $(282,486)$ | $(280,098)$ | $(277,731)$ | $(275,383)$ | $(268,767)$ | $(266,464)$ |
| d. Total $=(\mathrm{a})+(\mathrm{b})+(\mathrm{c})$ | $(29,389)$ | 317,916 | 387,851 | 761,674 | 852,594 | 710,761 | 743,404 | 107,658 | 170,718 | 1,871,264 | 1,190,519 |
| 3. Contributions made | 400,000 | 600,000 | 600,000 | 784,838 | 881,447 | 739,370 | 771,772 | 135,786 | 250,000 | 1,898,864 | 1,217,506 |
| 4. Increase in $\mathrm{NPO}=(2)(\mathrm{d})-(3)$ | $(429,389)$ | $(282,084)$ | $(212,149)$ | $(23,164)$ | $(28,853)$ | $(28,609)$ | $(28,368)$ | $(28,128)$ | $(79,282)$ | $(27,600)$ | $(26,987)$ |
| 5. NPO at end of period $=(1)+(4)$ | 3,931,267 | 3,649,183 | 3,437,034 | 3,413,870 | 3,385,016 | 3,356,407 | 3,328,039 | 3,299,911 | 3,220,629 | 3,193,029 | 3,166,042 |
| Amortization Period: | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Interest Rate: | 8.00\% | 8.00\% | 8.00\% | 8.00\% | 7.50\% | 7.50\% | 7.50\% | 7.50\% | 7.50\% | 7.50\% | 7.50\% |

