



CONSULTING GROUP

A Defined Benefit
Actuarial Valuation

For:

**Knox County Employee Benefit System
Knox County Board of Education
Retirement Plan**

As of:

January 1, 2014

Prepared by:
The USI Consulting Group



CONSULTING GROUP

April 21, 2014

CONFIDENTIAL

Ms. Kim Bennett
Executive Director
Knox County Retirement and Pension Board
City-County Bldg, Room 371
400 Main Street
Knoxville, TN 37902-2409

RE: KNOX COUNTY BOARD OF EDUCATION RETIREMENT PLAN

Dear Kim:

We are pleased to present our Actuarial Valuation Report for the Plan Year beginning January 1, 2014. 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 actuarially determined contribution for the fiscal year is \$1,134,241 calculated as payable on July 1, 2014.

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 and Midwest

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

VALUATION AS OF 1/1/2014

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.

	<u>As of January 1, 2013</u>	<u>As of January 1, 2014</u>
<u>CONTRIBUTION LIMITATIONS</u>		
Recommended Contribution	\$ 1,726,537	\$ 1,134,241
Expected Employee Contribution	\$ 5,227	\$ 0
<u>SUPPORTING INFORMATION</u>		
Market Value of Assets	\$ 64,852,718	\$ 67,989,964
Actuarial Value of Assets	\$ 60,384,664	\$ 62,406,385
Entry Age Normal Accrued Liability	\$ 79,037,520	\$ 76,462,290
Present Value of Accumulated Benefits	\$ 79,011,455	\$ 76,462,290
Funding Ratio – Actuarial Value of Assets as a Percentage of Present Value of Accumulated Benefits	76.4%	81.6%
Funding Ratio – Market Value of Assets as a Percentage of Present Value of Accumulated Benefits	82.1%	88.9%
Funding Ratio Discount Rate	7.0%	7.0%
Number of Lives Included in the Valuation	466	457
Present Value of All Future Benefits	\$ 79,044,062	\$ 76,462,290

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

VALUATION AS OF 1/1/2014

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 Knox County Board of Education funding policy,
2. To review plan experience during the year ended December 31, 2013 and the funded status of the plan as of January 1, 2014.

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

This valuation report is based on the cost method, assumptions, and plan provisions outlined on pages 10 through 14. In addition, the amortization period for the Unfunded Accrued Liability decreased from 19.5 years to 19 years. The actuarially determined contribution is calculated in accordance with the Knox County Board of Education Retirement Plan funding policy.

In our opinion, all costs, liabilities, rates of interest and other factors under the plan have been determined on the basis of actuarial assumptions and methods, which are each reasonable, taking into account the experience of the plan in addition to future expectations and which, when combined, represent our best estimate of anticipated experience under the plan.

Plan Experience

During 2013, the market value of plan assets increased from \$64,852,718 to \$67,989,964 with a net investment return of approximately 12.79%. This investment performance is above the 7.0% assumption, creating a market value gain of about \$3,615,000. On a gross return basis, the gain is approximately \$4,437,000 and this gain is used in the asset smoothing calculation. The actuarial value of plan assets increased from \$60,384,664 to \$62,406,385 with a net investment return of approximately 11.85%. This resulted in an asset gain of about \$2,800,000. The plan also experienced a liability gain of approximately \$1,300,000. The net actuarial gain to the plan was about \$4,100,000.

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 smooths out much of the volatility of annual changes in the market value of assets. Note that this year, the actuarial value of assets is less than the market value of assets.

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

VALUATION AS OF 1/1/2014

EXECUTIVE SUMMARY

(Continued)

Contribution Requirements

The actuarially determined contribution for the 2014 fiscal year is \$1,134,241, calculated as payable on July 1, 2014. Please see page 8 for more details.

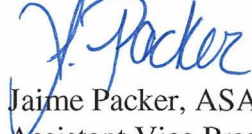
Funding Status

The plan's funding ratio, on an actuarial value of assets basis, as shown on page 1 increased from 76.4% in 2013 to 81.6% in 2014. Note that the funding ratio on a market value basis increased from 82.1% in 2013 to 88.9% in 2014.

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.

The undersigned actuaries are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

USI CONSULTING GROUP



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Senior Actuarial Consultant

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

FINANCIAL STATEMENT AS OF 1/1/2014

ASSETS	<u>1/1/2013</u>	<u>1/1/2014</u>
Cash Equivalent	0	1,962,222
Participants' Contributions Rec	0	0
Prepaid Expenses	0	0
Investment Securities	64,911,857	2,721,328
Mutual Funds	0	56,356,303
Corporate Bonds	0	679,918
US Treasuries	0	2,184,699
Federal Agency Debt Securities	0	1,550,895
Federal Agency Mortgage	<u>0</u>	<u>2,688,100</u>
Total Assets	64,911,857	68,143,465
 LIABILITIES AND NET ASSETS		
Payables	59,139	153,501
Acquisition Indebtedness	0	0
Other Liabilities	<u>0</u>	<u>0</u>
Total Liabilities	59,139	153,501
 NET ASSETS	 64,852,718	 67,989,964
 STATEMENT OF RECEIPTS AND DISBURSEMENTS		
Net Assets at Beginning of Year		64,852,718
Contributions Received or Receivable		
Employer	1,726,537	
Employees	17,099	
Others	0	
Total Contributions	0	1,743,636
Dividends and Income		332,757
Other Income		0
Net Realized Gain (Loss)		1,929,015
Net Unrealized Gain (Loss)		<u>6,517,843</u>
Total Income		10,523,250
Distribution of Benefits		
Directly to Participants or Beneficiaries	6,591,870	
Other	0	6,591,870
Fees and Commissions		454,341
Other Expenses		<u>339,795</u>
Total Expenses		7,386,005
Net Income (loss)		3,137,246
 NET ASSETS AT END OF YEAR		 67,989,964
 Net Investment Return		 12.79%
Gross Investment Return		14.15%

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

DETERMINATION OF VALUATION ASSETS AS OF 1/1/2014

1. ASSET GAIN/(LOSS) AS OF 1/1/2014

(1) Expected market value of assets as of 1/1/2014:	
(a) Market value of assets as of 1/1/2013	\$ 64,852,718
(b) Expected return on assets at 7.0%	\$ 4,539,690
(c) Contributions	\$ 1,743,636
(d) Benefit Payments and Expenses	\$ (7,386,005)
(e) Net interest on (c) - (d), weighted for timing	\$ (197,483)
(f) Total: (a) + (b) + (c) + (d) + (e)	\$ 63,552,557
 (2) Actual Market value of assets as of 1/1/2014:	 \$ 67,989,964
 (3) Asset gain/(loss) as of 1/1/2014: (2) - (1)(f)	 \$ 4,437,407

2. DETERMINATION OF VALUATION ASSETS AS OF 1/1/2014

(1) Market value of assets as of 1/1/2014:		\$ 67,989,964	
 (2) Recognition of asset gain/(loss) over a five year period:			
Year Ending	Asset	Portion Not	Amount
<u>December 31</u>	<u>Gain/(Loss)</u>	<u>X Yet Recognized =</u>	<u>Deferred</u>
2013	\$ 4,437,407	4/5	\$ 3,549,925
2012	\$ 5,074,098	3/5	\$ 3,044,459
2011	\$ (4,578,691)	2/5	\$ (1,831,476)
2010	\$ 4,103,355	1/5	\$ 820,671
Total:			\$ 5,583,579
 (3) Accrued contributions as of 1/1/2014:			 \$ -
 (4) Valuation assets as of 1/1/2014: (1) - (2) + (3)			 \$ 62,406,385

3. VALUATION ASSETS AS OF 1/1/2014

(1) Valuation assets as of 1/1/2013: (1) + (2) + (3) + (4) + (5)	\$ 60,384,664
(2) Contributions, including receivables:	\$ 1,743,636
(3) Benefit payments:	\$ (6,591,870)
(4) Plan expenses:	\$ (794,135)
(5) Return on assets:	\$ 7,664,090
(6) Valuation assets as of 1/1/2014: (1) + (2) + (3) + (4) + (5)	\$ 62,406,385
(7) 90% of Market Value	\$ 61,190,968
(8) Final Actuarial Value of Assets, no less than (7)	\$ 62,406,385

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

VALUATION RESULTS AS OF JANUARY 1, 2014

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 disability decrements.

	<u>Lives</u>	<u>Retirement</u>	<u>Death</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Total</u>
Active	4	1,655,978	0	0	0	1,655,978
Terminated	7	524,752	4,765	0	0	529,517
Retired	<u>446</u>	<u>74,276,795</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>74,276,795</u>
Totals	457	76,457,525	4,765	0	0	76,462,290

2. ENTRY AGE ACCRUED LIABILITY

The portion of the present value of future benefit attributable to prior normal costs.

Active	1,655,978
Terminated	529,517
Retired	<u>74,276,795</u>
Total	76,462,290

3. ACTUARIAL VALUE OF ASSETS 62,406,385

4. UNFUNDED ACCRUED LIABILITY (2 - 3) 14,055,905

5. DEVELOPMENT OF CREDIT BALANCE

(1) Minimum Contribution as of 7/1/2013 - prior year	1,726,537
(2) Actual Employer Contribution - 7/1/2012 - 6/30/2013	1,726,537
(3) Interest on Employer Contribution	0
(4) Credit Balance (2 + 3 - 1)	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	0
B. Expected Employee Contributions	<u>0</u>
C. Employer Normal Cost	0

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

DETERMINATION OF GAIN/LOSS AS OF 1/1/2014

1. ASSET GAIN/(LOSS) AS OF 1/1/2014

(1) Expected valuation assets as of 1/1/2014:	
(a) Valuation assets as of 1/1/2013	\$ 60,384,664
(b) Expected return on assets at 7.0%	\$ 4,226,926
(c) Contributions	\$ 1,743,636
(d) Benefit Payments	\$ (6,591,870)
(e) Net interest on (c) - (d), weighted for timing	<u>\$ (169,688)</u>
(f) Total: (a) + (b) + (c) + (d) + (e)	\$ 59,593,669
 (2) Actual valuation assets as of 1/1/2014:	 \$ 62,406,385
 (3) Asset gain/(loss) as of 1/1/2014: (2) - (1)(f)	 \$ 2,812,716

2. LIABILITY GAIN/(LOSS) AS OF 1/1/2014

(1) Expected EAN accrued liability as of 1/1/2014:	
(a) EAN accrued liability as of 1/1/2013	\$ 79,037,520
(b) Total normal cost	\$ 7,898
(c) Expected increase in liability at 7.0%	\$ 5,533,179
(d) Benefit Payments	\$ (6,591,870)
(e) Net interest on (c) - (d), weighted for timing	<u>\$ (230,715)</u>
(f) Total: (a) + (b) + (c) + (d) + (e)	\$ 77,756,012
 (2) Actual EAN accrued liability as of 1/1/2014:	 \$ 76,462,290
 (3) Liability gain/(loss) as of 1/1/2014: (1)(f) - (2)	 \$ 1,293,722

3. TOTAL GAIN/(LOSS) AS OF 1/1/2014

(1) Expected Unfunded Accrued Liability (UAL) as of 1/1/2014:	
(a) UAL as of 1/1/2013	\$ 18,652,856
(b) Total normal cost	\$ 7,898
(c) Expected increase in UAL at 7.0%	\$ 1,306,253
(d) Contributions	\$ (1,743,636)
(e) Net interest on (c) - (d), weighted for timing	<u>\$ (61,027)</u>
(f) Total: (a) + (b) + (c) + (d) + (e)	\$ 18,162,343
 (2) Actual UAL accrued liability as of 1/1/2014:	 \$ 14,055,905
 (3) Total gain/(loss) as of 1/1/2014: (1)(f) - (2)	 \$ 4,106,438

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

CONTRIBUTION REQUIREMENTS FOR PLAN YEAR ENDING DECEMBER 31, 2014

The Plan has 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 a 19 year amortization of the Past Service Base in effect on January 1, 2014 (see below) plus a 10 year amortization of the prior year's experience gain or loss (see pg. 7) reduced by the Plan's Credit Balance (also on page 6).

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION

CHARGES:

(1) Employer Normal Cost		0
(2) Outstanding Charge Base	14,055,905	
(3) Amortization of Outstanding Charge Base		1,095,885
(4) Credit Balance		<u>0</u>
(5) Total Charges = (1) + (3) - (4), not less than zero		1,095,885
(6) Interest Charge on (1) and (3) and (4)		38,356

Annual Contributions

	<u>2013</u>	<u>2014</u>
Total Actuarially Determined Employer Contribution as of Beginning of the Plan Year	1,668,152	1,095,885
Total Actuarially Determined Employer Contribution as of Beginning of fiscal year starting July 1	1,726,537	1,134,241
Expected Employee Contributions for the Plan Year	5,227	0

AMORTIZATION SCHEDULE

Description

	Year Est.	Initial Amount	Outstanding Balance	Amortization Payment	Years Remaining
Past Service Base	2013	18,652,856	18,162,343	1,642,300	19.0
(Gain)/Loss Base	2014	(4,106,438)	<u>(4,106,438)</u>	<u>(546,415)</u>	10.0
			14,055,905	1,095,885	

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

PARTICIPANT DATA AS OF 1/1/2014

Active employees under assumed retirement age	
Number	0
Expected total annual compensation	0
Average accrued benefit	0
Average projected benefit	0
Average attained age	0
Average prior service	0
Other active and inactive employees	
Number	4
Average accrued benefit	2,418.46
Average attained age	61.35
Terminated deferred vested, deceased and disabled employees	
Number	7
Average accrued benefit	464.47
Average attained age	61.07
Retired employees, beneficiaries and contingent annuitants	
Number	446
Average monthly benefit	1,239.68
Average attained age	71.08

RECONCILIATION OF PARTICIPANT STATUS

	<u>Active</u>	<u>Inactive</u>	<u>Deferred Vested</u>	<u>Pay Status</u>	<u>Total</u>
Prior Valuation	7	0	8	451	466
Terminated - vested	0	0	0	0	0
Cashed Out	0	0	0	0	0
Death	0	0	0	(6)	(6)
Entered as Beneficiary	0	0	0	1	1
Retired	(3)	0	(1)	4	0
Rehired	0	0	0	0	0
Beneficiary Payments Cease	0	0	0	(4)	(4)
Data Corrections	0	0	0	0	0
Current Valuation	4	0	7	446	457

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

SUMMARY OF PLAN PROVISIONS

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

Eligibility
Participation 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 applicable plan 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
Eligibility Each 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.

Benefit 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:

<u>Age</u>	<u>Benefit Rate A</u>	<u>Benefit Rate B</u>
62 or earlier	.75%	1.50%
63	.78%	1.58%
64	.84%	1.66%
65 or later	.88%	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
(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' compensation benefits paid.

Death Benefit

Eligibility Completion of 15 years of credited service.

Benefit 50% of the monthly benefit that the participant would have been entitled to if he/she had elected the 50% joint and survivor form of payment, payable at the earliest time benefits 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 benefit commencing at normal retirement date, determined as of the date of termination, provided the member leaves his contributions in the fund.

**Return of Employee
Contribution**

A minimum of employee contributions with interest is paid on death, termination, or retirement.

**Normal Form
of Annuity**

Life Annuity

**Optional Forms
of Annuity**

Certain and Life, Joint and Survivor, Cash Refund. Such options 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 10 years.

ACTUARIAL ASSUMPTIONS

Post-Retirement

Mortality - 1983 Group Annuity Mortality Table for Males and Females

Investment Return – 7.0% 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 – 7.0% 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 (for those with 25 years of service)
62 or immediately if older (for those with less than 25 years of service)

Disability rates – Rates set forth below

Withdrawal rates – Rates set forth below

Age	Pre-retirement Decrement Rates					
	Mortality		Withdrawal		Disability	
	Male	Female	Male	Female	Male	Female
20	0.038%	0.019%	0.000%	0.000%	0.000%	0.000%
25	0.046%	0.025%	6.100%	5.925%	0.000%	0.000%
30	0.061%	0.034%	5.850%	5.460%	0.400%	0.400%
35	0.086%	0.048%	5.097%	4.861%	0.400%	0.400%
40	0.124%	0.067%	2.701%	3.891%	0.400%	0.400%
45	0.218%	0.101%	2.060%	3.444%	0.420%	0.420%
50	0.391%	0.165%	2.997%	2.889%	0.730%	0.730%
55	0.613%	0.254%	3.271%	3.015%	1.400%	1.400%
60	0.916%	0.424%	6.537%	3.372%	2.480%	2.480%

ASSET VALUATION

Each plan year's investment gain or loss is recognized over five years, subject to a 10% corridor around the market value of assets.

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

ACCUMULATED PLAN BENEFITS UNDER FASB ASC 960

Actuarial Present Values of Accumulated Plan Benefits (Accumulated Benefit Obligation):	<u>1/1/2013</u>	<u>1/1/2014</u>
Vested Benefits		
Participants currently receiving payments	75,882,051	74,276,795
Other Participants		
Active Employees	2,547,368	1,655,978
Deceased and Disabled Employees	0	0
Deferred Vested Terminated Employees	<u>582,036</u>	<u>529,517</u>
Total - Other Participants	<u>3,129,404</u>	<u>2,185,495</u>
Total Vested Benefits	79,011,455	76,462,290
Nonvested Benefits	<u>0</u>	<u>0</u>
Total Actuarial Present Values of Accumulated Plan Benefits	79,011,455	76,462,290
Discount Rate	7.00%	7.00%