

CITY OF KNOXVILLE
PENSION SYSTEM
VALUATION AND REPORT
AS OF JULY 1, 2010

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October 14, 2010

Mr. Michael Cherry
Executive Director
City of Knoxville Pension Board
917B E. Fifth Avenue
Knoxville, TN 37917-7737

Dear Mike:

The attached report summarizes the results of the actuarial valuation as of July 1, 2010 for the City of Knoxville Pension System. The report sets forth annual funding levels during the Pension System fiscal year beginning July 1, 2010. We trust this report will be helpful in the formulation of policy with respect to the operation and financing of the plan.

The opportunity to serve the Pension Board is appreciated, and we will be pleased to supplement this report in any way, as you request.

The actuarial valuation summarized in this report has been performed utilizing generally accepted actuarial principles and is based on actuarial assumptions, each of which we consider to be reasonable taking into account the experience of the plan and which, in combination, represent our best estimate of the anticipated experience of the Plan. It is our opinion that the results fully and fairly disclose the actuarial position of the plan on the valuation date.

Actuarial computations under Statements 25 and 27 are for purposes of fulfilling employer governmental accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of the statements. The undersigned is an actuary at BPS&M with professional actuarial credentials, and has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein.

Sincerely,

Alan C. Pennington, F.S.A.

Alan C. Pennington, F.S.A.

/mec

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Summary of Key Results

An actuarial valuation of the benefits provided under the City of Knoxville Pension System was performed as of July 1, 2010. The purpose of the valuation was to determine the funding requirements of the various components of the System, with the intention that funding requirements indicated by the valuation be used as the basis for contributions to the System for the fiscal year commencing July 1, 2010.

Below are key results from the valuation.

	Gen. Gov.	Uniformed	Bd. of Ed.	Total
Active Participants	782	720	7	1,509
Active with Frozen Benefit (Teachers)			30	30
Deferred Vested Participants	52	20	17	89
Retired Participants	501	696	1,007	2,204
Total Number of Participants	1,335	1,436	1,061	3,832
2010-2011 Projected Payroll	31,631,192	32,164,113	181,828	63,977,133
Actuarial Value of Assets	147,898,017	292,512,749	72,533,085	512,943,851
Market Value of Assets	115,920,331	229,579,535	53,578,865	399,078,731
Recommended City Contributions				
Beginning July 1, 2011 (\$)	3,707,176	6,960,335	638,967	11,306,478
Beginning July 1, 2011 (%)	11.72%	21.64%	n/a	
Beginning July 1, 2010 (\$)	2,982,685	5,491,056	259,822	8,733,563
Beginning July 1, 2010 (%)	9.72%	18.57%	n/a	

Present Value of Accrued and Projected Benefits

	Gen. Gov.	Uniformed	Bd. of Ed.	Total
Active Accrued Benefits	68,570,688	97,394,638	268,563	166,233,889
Inactive Accrued Benefits	93,064,265	235,996,232	77,736,050	406,796,547
Defined Contribution Account	5,150,390	0	0	5,150,390
Total	166,785,343	333,390,870	78,004,613	578,180,826
Benefits for Future Service	26,151,219	58,698,385	2,929	84,852,533
Total Value of Projected Benefits	192,936,562	392,089,255	78,007,542	663,033,359

Summary of Gains and Losses**Gains/(Losses) in Millions(\$)**

Type	General Government	Uniformed Bodies	Board of Education	Total
Assets (Actual minus Expected MV)	\$ 6.02	\$ 13.68	\$ 3.49	\$ 23.19
Plan Experience				
Retirement/Termination	\$ 0.24	\$ (1.43)	\$ 0.00	\$ (1.19)
Deaths	\$ (0.06)	\$ (1.90)	\$ (0.70)	\$ (2.66)
New Entrants	\$ (0.86)	\$ (3.07)	\$ 0.00	\$ (3.93)
Salary Increases	\$ 0.20	\$ (0.28)	\$ 0.01	\$ (0.07)
Inactive Data Adjustments *	\$ (0.09)	\$ 0.88	\$ 1.43	\$ 2.22
Disabled	\$ (0.10)	\$ (0.12)	\$ 0.00	\$ (0.22)
DROP Elections	\$ (0.29)	\$ (0.18)	\$ 0.00	\$ (0.47)
G1 to G2 Transfers	\$ (0.14)	\$ 0.00	\$ 0.00	\$ (0.14)
Other	\$ (0.17)	\$ 0.06	\$ 0.03	\$ (0.08)
	\$ (1.27)	\$ (6.04)	\$ 0.77	\$ (6.54)
Plan Changes				
None	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Assumption Changes				
None	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Net Changes	\$ 4.75	\$ 7.64	\$ 4.26	\$ 16.65

* changes to benefit amount, benefit form of payment, spouse age, etc.

Participant Data by Number**ACTIVE PLAN PARTICIPANTS**

	07/01/2010	07/01/2009	07/01/2008
General Government			
Division A	12	13	14
Division B	1	1	1
Division G-1	471	480	449
Division G-2	298	288	276
Total	782	782	740
Board of Education			
Division A - Teachers	30	36	56
Division A - Non-Teachers	7	13	36
Total	37	49	92
Uniformed Bodies			
Division C	720	683	690
Division F	0	0	1
Total	720	683	691
Totals by Division			
Division A	49	62	106
Division B	1	1	1
Division C	720	683	690
Division F	0	0	1
Division G-1	471	480	449
Division G-2	298	288	276
Grand Total	1,539	1,514	1,523

INACTIVE PLAN PARTICIPANTS

	07/01/2010	07/01/2009	07/01/2008
General Government			
Division A	142	151	158
Division B	51	54	55
Division G-1	66	54	51
Division G-2	275	261	246
Drop Elections G-1*	1	2	1
Drop Elections G-2*	18	17	20
Total	553	539	531
Board of Education			
Division A	732	740	739
Division B	292	311	325
Total	1,024	1,051	1,064
Uniformed Bodies			
Division C	546	530	528
Drop Elections*	14	22	16
Division F	156	165	176
Total	716	717	720
Totals by Division			
Division A	874	891	897
Division B	343	365	380
Division C	560	552	544
Division F	156	165	176
Division G-1	67	56	52
Division G-2	293	278	266
Grand Total	2,293	2,307	2,315

* Delayed Retirement Option (DROP) participants are treated as inactive at the time they elect the DROP option. See Summary of Plan Provisions, sections 30 and 54 for further details concerning the DROP program.

Schedule of Vesting - Active Participants

	Vesting Schedule	Total	Vested	Non-Vested
General Government				
Division A	5 year	12	12	0
Division B	5 year	1	1	0
Division G-1	5 year	471	216	255
Division G-2	5 year	298	298	0
Total		782	527	255
Board of Education				
Division A - Teachers	5 year	30	30	0
Division A - Non-Teachers	5 year	7	7	0
Total		37	37	0
Uniformed Bodies				
Division C	5 year	720	535	185
Division F	5 year	0	0	0
Total		720	535	185
Totals by Division				
Division A	5 year	49	49	0
Division B	5 year	1	1	0
Division C	5 year	720	535	185
Division F	5 year	0	0	0
Division G-1	5 year	471	216	255
Division G-2	5 year	298	298	0
Grand Total		1,539	1,099	440

Payroll Information

	07/01/2010	07/01/2009	07/01/2008
General Government			
Divisions A & B	467,551	487,622	511,947
Division G-1	17,699,624	17,603,904	16,259,351
Division G-2	13,464,016	12,594,531	11,880,520
Total	31,631,191	30,686,057	28,651,818
Board of Education*			
Division A	181,828	332,428	791,890
Uniformed Bodies			
Division C	32,164,113	29,567,384	28,713,597
Division F	0	0	68,948
Total	32,164,113	29,567,384	28,782,545
Totals by Division			
Divisions A & B	649,379	820,050	1,303,837
Division C	32,164,113	29,567,384	28,713,597
Division F	0	0	68,948
Division G-1	17,699,624	17,603,904	16,259,351
Division G-2	13,464,016	12,594,531	11,880,520
Grand Total	63,977,132	60,585,869	58,226,253

* Board of Education payroll excludes Teachers.

Reconciliation of Active Participant Data

	Gen. Gov.	G1	G2	Bd. of Ed.	Uniform	Total
Included in July 1, 2009 Valuation	14	480	288	49	683	1,514
Change due to:						
New Entrants	-	55	-	-	56	111
Retirement	(1)	(3)	(4)	(10)	(4)	(22)
Drop Elections	-	-	(12)	-	(4)	(16)
Termination with Vested Benefit	-	(6)	(2)	-	-	(8)
Termination Non-Vested / Refund	-	(24)	(1)	(2)	(10)	(37)
Transfer	-	(31)	29	-	2	-
Death	-	-	-	-	-	-
Disabled	-	-	-	-	(3)	(3)
Rehire	-	-	-	-	-	-
Net Change	(1)	(9)	10	(12)	37	25
Included in July 1, 2010 Valuation	13	471	298	37	720	1,539

Note: above numbers are estimates only.

Reconciliation of Inactive Participant Data

	Gen. Gov.	Bd. of Ed.	Uniform	Total
Included in July 1, 2009 Valuation	539	1,051	717	2,307
Change due to:				
New Retirees	8	10	4	22
Drop Elections	12	-	4	16
Termination with Vested Benefit	8	-	-	8
Death	(14)	(37)	(12)	(63)
Disabled	-	-	3	3
Net Change	14	(27)	(1)	(14)
Included in July 1, 2010 Valuation	553	1,024	716	2,293

Note: above numbers are estimates only.

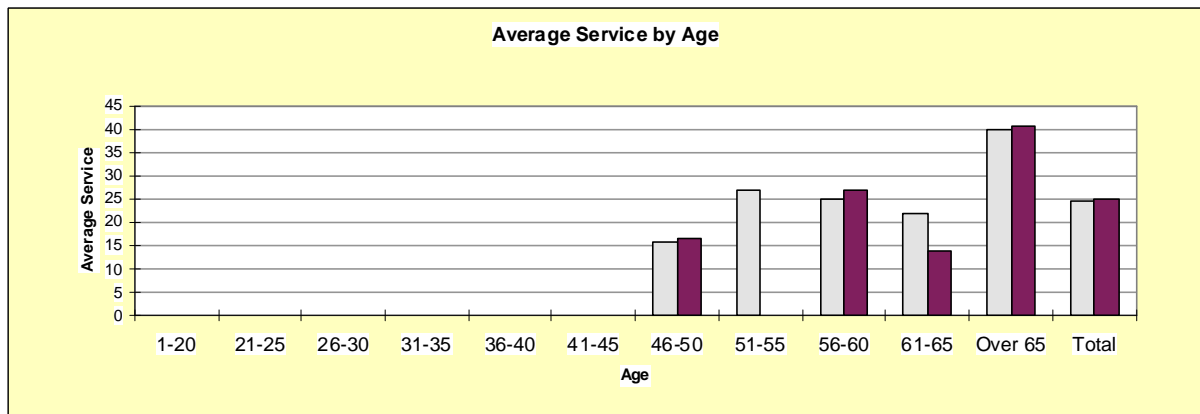
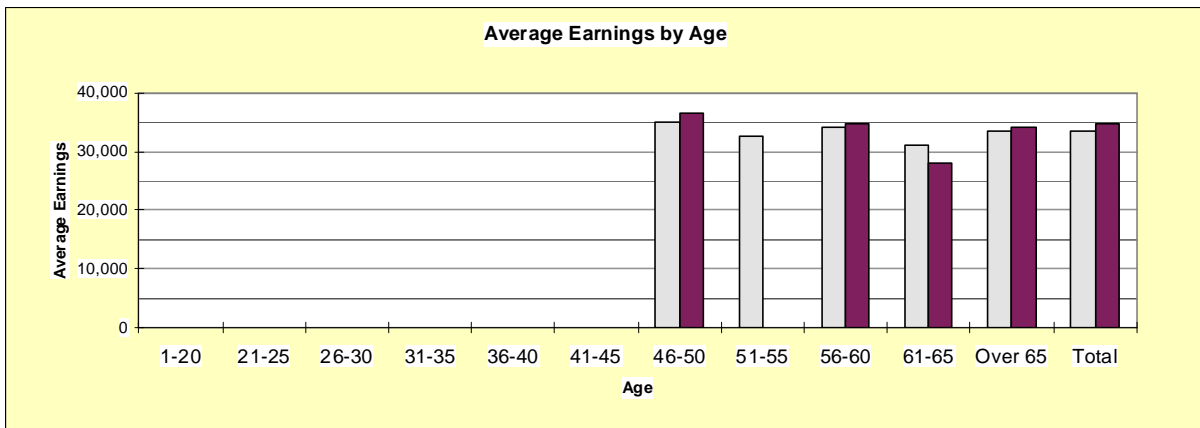
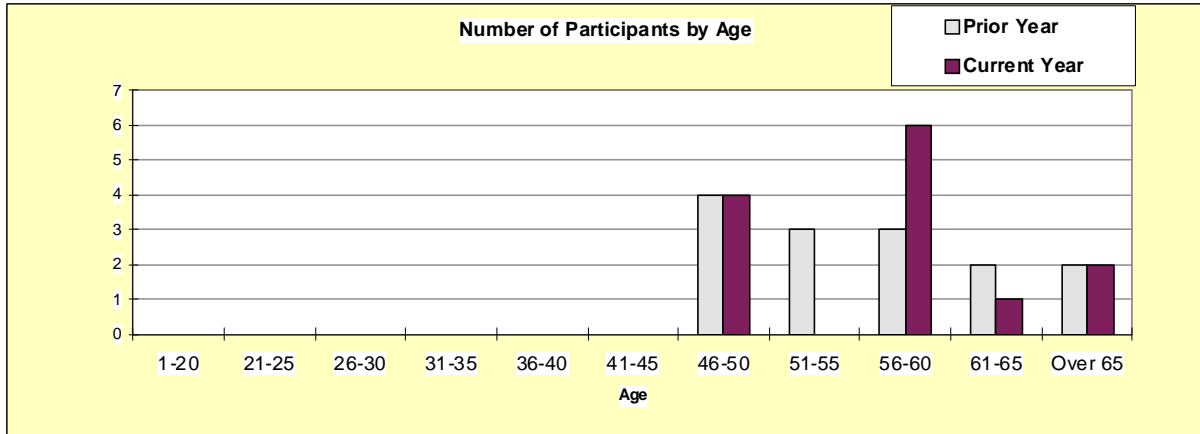
Schedule of Retiree Optional Forms

Retirement Option	General Government	Board of Education	Uniformed Bodies	Total
No Option (SLA)	309	764	376	1,449
Option A				
Without Reinstatement				
50% Joint and Survivor	27	22	47	96
60% Joint and Survivor	-	-	69	69
75% Joint and Survivor	7	13	16	36
100% Joint and Survivor	56	70	89	215
With Reinstatement				
50% Joint and Survivor	33	36	5	74
75% Joint and Survivor	11	12	26	49
100% Joint and Survivor	29	57	55	141
Option B				
5 Year Certain	5	13	5	23
10 Year Certain	7	6	3	16
15 Year Certain	7	9	2	18
Option C				
Cash Refund	10	5	3	18
Totals	501	1,007	696	2,204

Member Profile

General Government - Division A and B Excludes G1 and G2

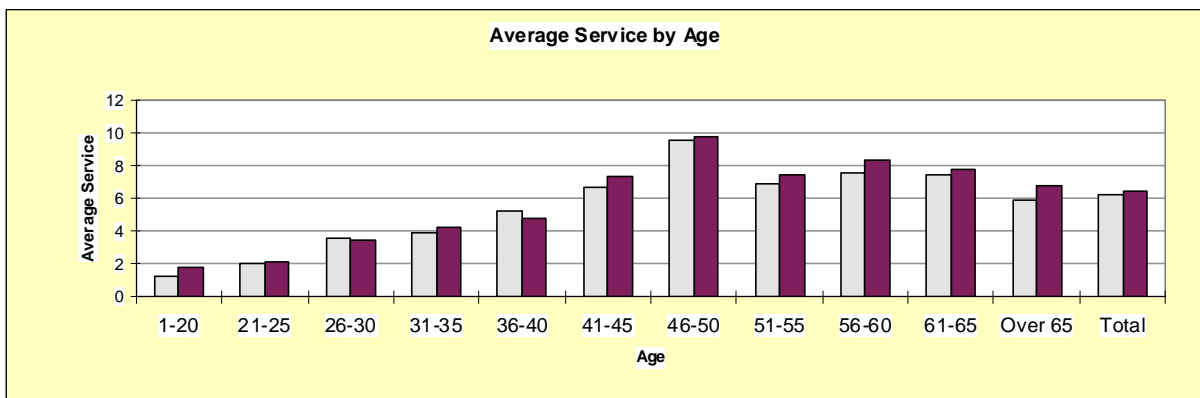
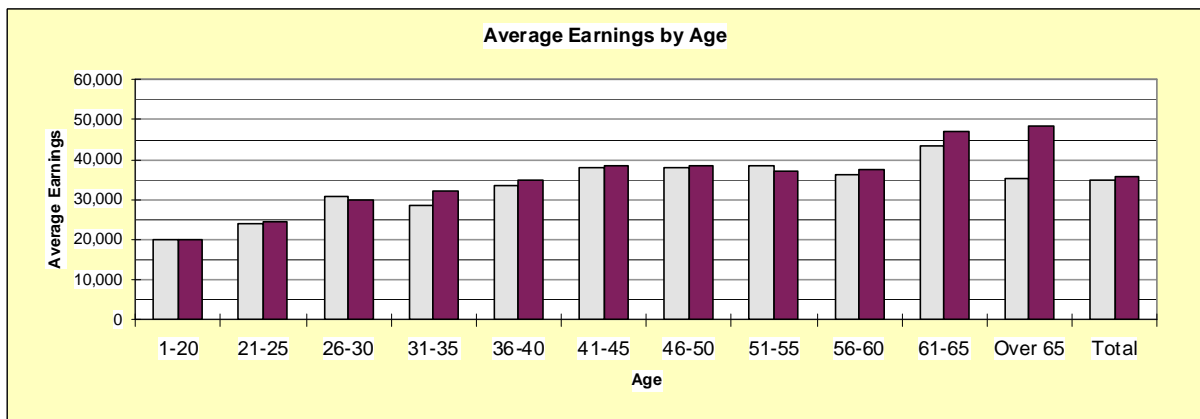
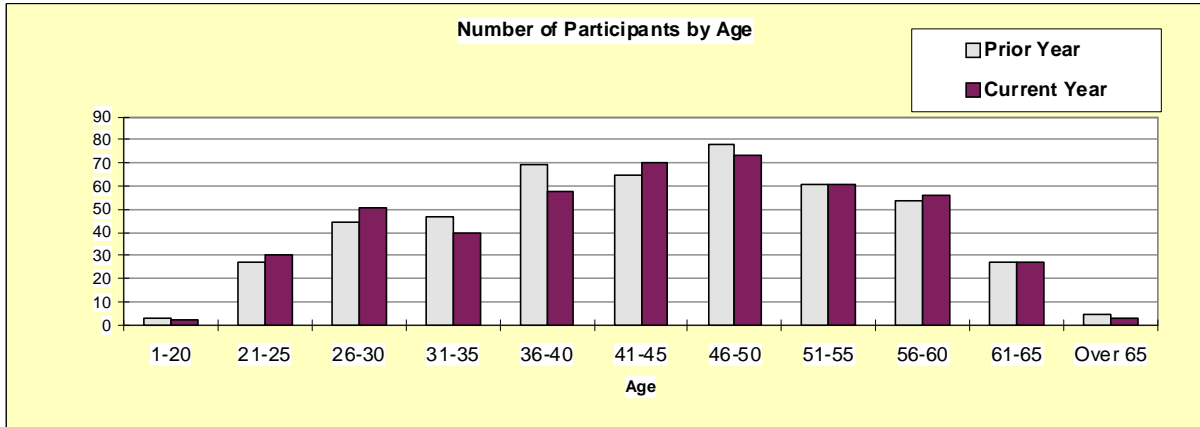
13 Participants



PARTICIPANT DATA

General Government - Division G, Option 1

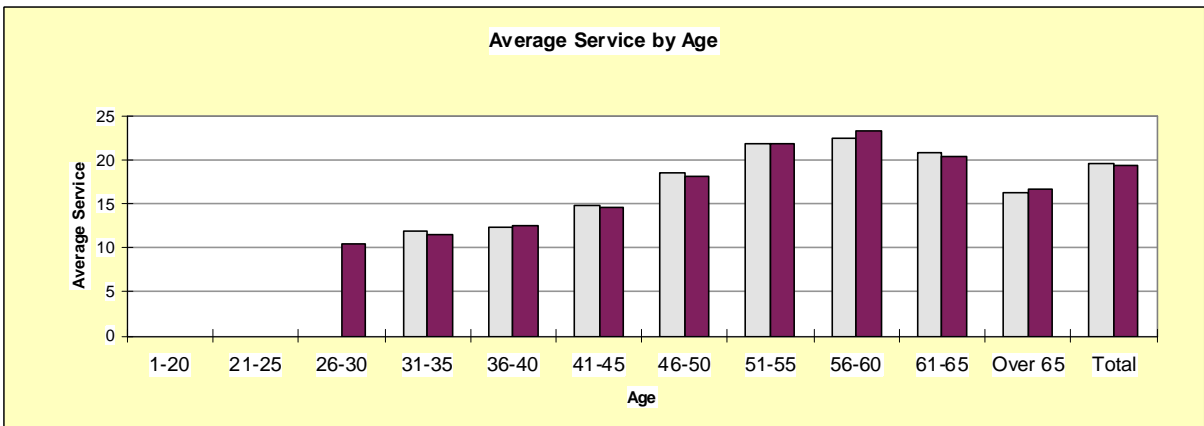
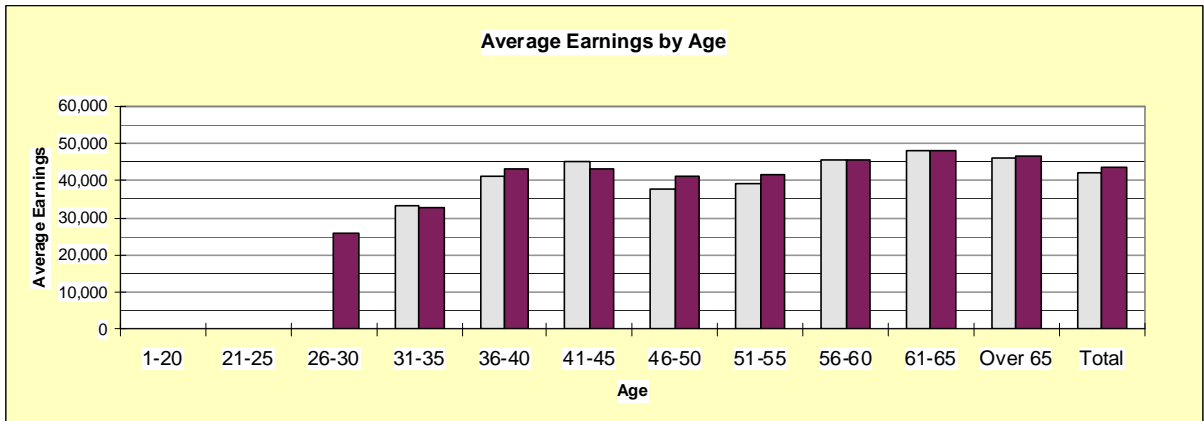
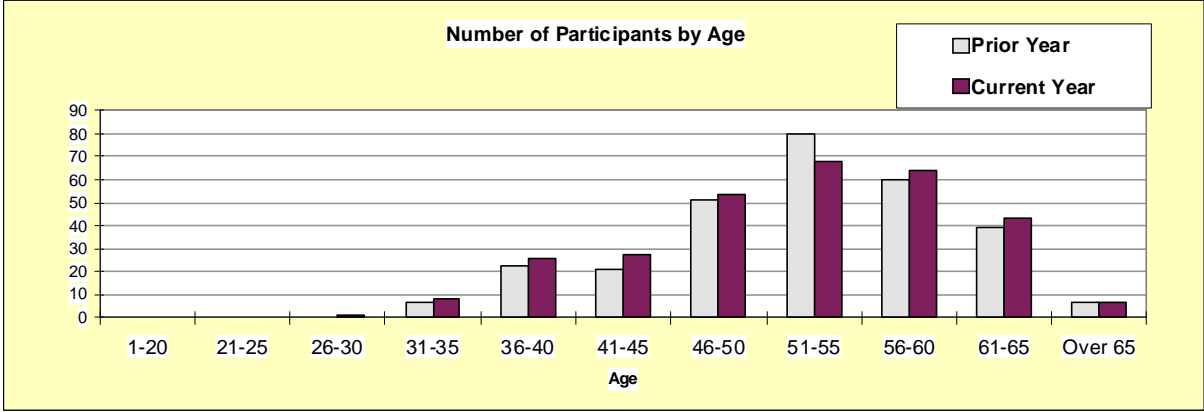
471 Participants



PARTICIPANT DATA

General Government - Division G, Option 2

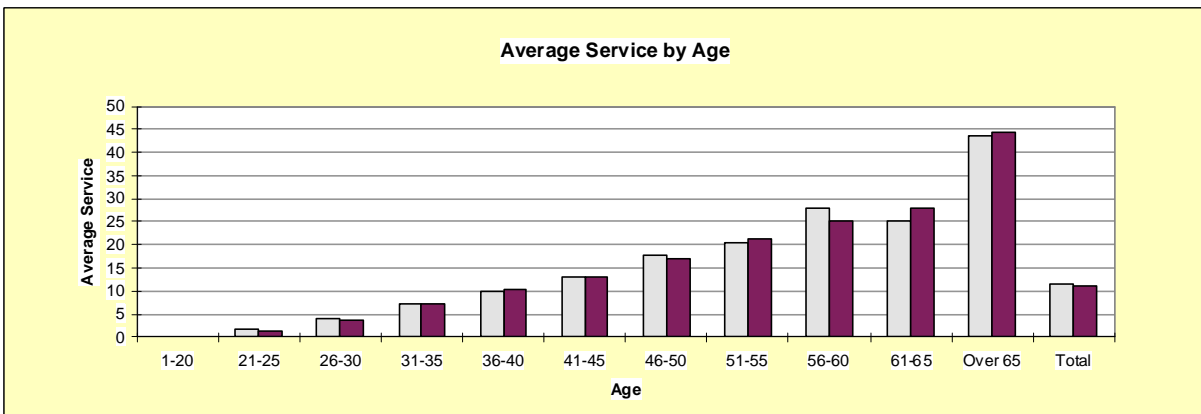
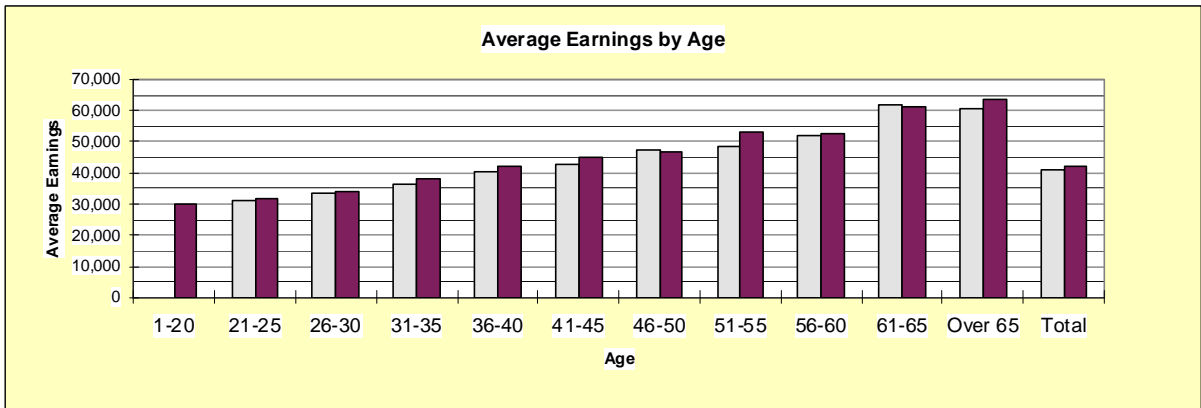
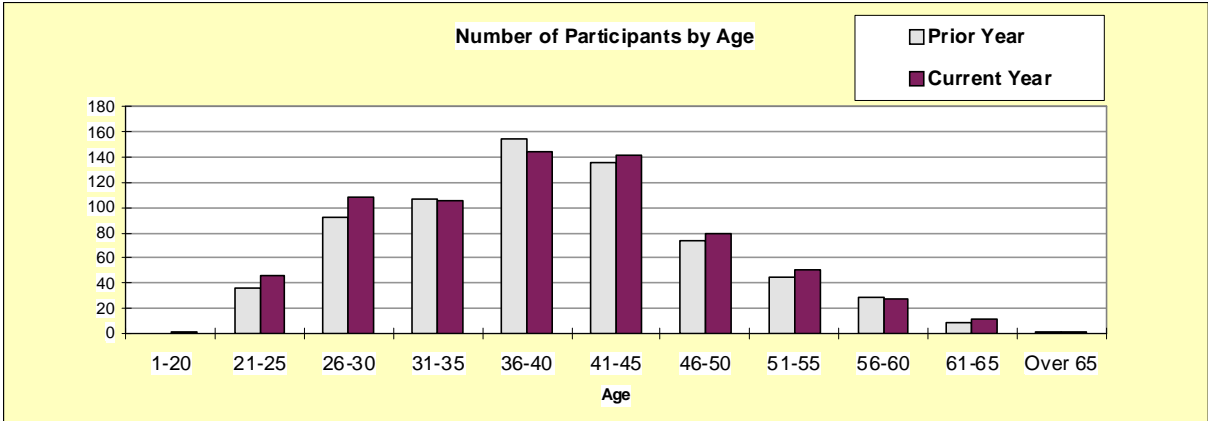
298 Participants



PARTICIPANT DATA

Uniformed Bodies - Division C

720 Participants



Projected Cash Flow - Level Active Population**Projected Benefit Payments**

Plan Year Beginning	General Government	Uniformed Bodies	Board of Education	Total
2010	8,958,738	21,689,013	9,339,522	39,987,273
2011	9,600,247	23,326,713	9,178,215	42,105,175
2012	10,443,666	23,286,588	8,965,327	42,695,581
2013	10,780,489	23,826,348	8,715,178	43,322,015
2014	11,424,387	24,577,534	8,449,626	44,451,547
2015	12,103,403	25,391,008	8,152,308	45,646,719
2016	12,869,547	26,108,323	7,822,244	46,800,114
2017	13,616,445	26,884,823	7,480,008	47,981,276
2018	14,349,585	27,613,938	7,110,990	49,074,513
2019	15,074,567	28,596,500	6,728,425	50,399,492

Projected Contribution Requirements (8% Investment Return)

Plan Year Beginning	General Government	Uniformed Bodies	Board of Education	Total
2010	3,707,176	6,960,335	638,967	11,306,478
2011	4,499,159	8,193,861	1,106,448	13,799,468
2012	5,317,850	9,399,454	1,584,166	16,301,470
2013	6,038,734	10,592,093	2,056,393	18,687,220
2014	6,730,206	11,826,761	2,552,213	21,109,180
2015	7,351,708	13,052,605	3,048,051	23,452,364
2016	8,025,634	14,429,525	3,645,726	26,100,885
2017	8,646,601	15,782,531	4,255,315	28,684,447
2018	8,996,625	16,826,497	4,624,314	30,447,436
2019	8,943,126	17,214,974	4,505,591	30,663,691

Average Participant Profile

	General Government			Fire	Police
	Div. A	Plan G1	Plan G2	Div. C	Div. C
Average Age	56	44	52	40	39
Average Service	23	7	19	11	11
Average Earnings	36,300	37,600	45,200	42,500	46,400
Normal Retirement Age	62	62	62	50/25	50/25
Contribution Percentage	3%/5%	6%*	6%	6%	6%
Est. Accrued Benefit (Monthly)	975	252	1,503	974	1063

* 3% to savings account/ 3% to pension plan

Comparison of General Government Benefits**ESTIMATED MONTHLY BENEFITS**

Example 1					
Age = 30; Pay = 25,000; Service = 3	Estimated Benefits Earned			Estimated Social Security Benefit at 62	Replacement Ratio With SS at 62
	7/1/2010	7/1/2015	at 62		
Division A	85	266	2,711	776	65%
Division G - Option 1					
Defined Benefit Portion	72	192	2,046		
Ind. Account Portion*	383	919	2,366		
Total	455	1,111	4,412	776	97%
*Single Sum Value of Ind. Account at 62	41,876	100,541	258,889		
Division G - Option 2	131	350	3,943	776	88%
Example 2					
Age = 40; Pay = 40,000; Service = 12	Estimated Benefits Earned			Estimated Social Security Benefit at 62	Replacement Ratio With SS at 62
	7/1/2010	7/1/2015	at 62		
Division A	564	934	3,155	1,005	65%
Division G - Option 1					
Defined Benefit Portion	498	690	2,114		
Ind. Account Portion*	1,355	1,752	2,574		
Total	1,853	2,442	4,688	1,005	89%
*Single Sum Value of Ind. Account at 62	148,300	191,777	281,717		
Division G - Option 2	840	1,190	4,560	1,005	87%
Example 3					
Age = 50; Pay = 50,000; Service = 20	Estimated Benefits Earned			Estimated Social Security Benefit at 62	Replacement Ratio With SS at 62
	7/1/2010	7/1/2015	at 62		
Division A	1,190	1,736	2,756	1,082	65%
Division G - Option 1					
Defined Benefit Portion	1,073	1,313	1,893		
Ind. Account Portion*	868	1,098	1,340		
Total	1,941	2,411	3,233	1,082	73%
*Single Sum Value of Ind. Account at 62	94,932	120,105	146,682		
Division G - Option 2	1,750	2,188	3,992	1,082	85%

The above estimated monthly benefits are based on the following assumptions:

Investment Return for Individual Account	8.00%
Salary Scale	3.00%
Basis for Individual Account Conversion to Annuity	
Post Retirement Interest	8.00%
Post Retirement Mortality	GA-51 Projected to 1980

Notes: Division G1 annuity amounts funded by the individual account do not receive cost of living increases (COLAs). All other annuity amounts above do receive COLAs. Division G1 individuals accounts are also available in a single sum.

Summary of Plan Provisions

This Section summarizes the provisions of the City of Knoxville Pension System. Items 1-15 of this Section relate to Division A of the System; items 16-27 relate to Division B; and items 28-41 relate to Division C; items 42-53 related to Division G. The references to "Sections" at the end of each heading refer to Sections of the Charter of the City of Knoxville.

DIVISION A

1. Eligibility (Sections 1360.3, 1360.4)

As a condition of employment, each employee hired on or after January 16, 1963 and before December 1, 1996 becomes a member on the first day of the month after he has completed six months of service, provided he meets the minimum health requirements established by the Pension Board. Employees on April 1, 1963 who were members of Division B could elect to transfer to Division A; employees on that date who were not members of Division B could elect to become members of Division A upon satisfaction of the above service and health requirements.

- (a) Any Knoxville Board of Education certificated employee is ineligible, unless he previously participated in Division A or Division B or had rights to benefits thereunder before January 1, 1977.
- (b) Any other Board of Education employee hired on or after January 1, 1977 becomes a member of the Tennessee Consolidated Retirement System, if eligible; otherwise he becomes a member of Division A.
- (c) The following may elect in writing not to participate:
 - (1) Any member of the Tennessee Teachers Retirement System (notice required within 30 days of becoming an employee).
 - (2) Any City employee who is not a classified Civil Service System position, including persons appointed by the Mayor or occupying a policymaking or confidential position relative to the Mayor or any of the Directors.

2. Normal Retirement (Sections 1360.11, 1360.12, 1360.1(C)-(I))

Retirement may be elected at or after age 62, with a monthly benefit for life equal to one-twelfth of the product of (a) and (b):

- (a) Credited service (in years and completed months); and
- (b) X% of average base earnings
plus
Y% of average excess earnings.

Age at Retirement	X%	Y%
62	0.75	1.50
63	0.78	1.58
64	0.83	1.66
65 or later	0.88	1.76

"Base earnings" are annual earnings up to \$4,800. "Excess earnings" are annual earnings over \$4,800. The term "Average" is the highest average earnings over a span of three years. For General Government Employees who terminate after January 3, 1999, "Average" is the highest average earnings over 2, not necessarily consecutive, 12 month periods.

3. Minimum Benefits (Section 1360.13)

The minimum monthly retirement benefit, including 50% of the member's primary Social Security, for a member with at least 5 full years of credited service is

- (a) For a member who retires on or after July 1, 1997, \$10 per year of credited service, subject to a \$250 maximum if he worked at least 1,000 hours in each of 5 years, or
- (b) For a member who retires on or after January 1, 1977 and before July 1, 1997, \$10 per year of credited service, subject to a \$250 maximum if he worked at least 1,000 hours in each of 10 years, or
- (c) For a member who was retired on January 1, 1977, \$5 per year of credited service, subject to a \$125 maximum if he had not worked for at least 1,000 hours in each of 5 years;

provided that the minimum will be reduced actuarially in accordance with the terms of any option elected.

4. Benefit Adjustment (Section 1360.30)

Division A members other than those in general government, prior to January 1, 2001

Retirement benefits payable from the fund to retired members, survivors or beneficiaries are increased or decreased (but not below their initial amount) by the percentage change in the Consumer Price Index for the 12 months ending September 30 of the prior year, but not by more than 3%, of the initial pension or benefit. An additional adjustment of up to 1% of the initial benefit, in an amount equal to one-half of the excess of the percentage change in the Consumer Price Index over 3%, applies to all pensioners and beneficiaries who have reached age 62 in the current year. Adjustments are to be made January 1 of each year, commencing 12 months after benefits start.

Division A members in general government, effective July 1, 2001 for all Division A members

Retirement benefits payable from the fund to retired members, survivors or beneficiaries are increased by 3% of the current benefit. An additional adjustment of up to 1% of the current benefit, in an amount equal to one-half of the excess over 3% of the percentage change in the Consumer Price Index for the 12 months ending September 30 of the prior year, applies to all pensioners and beneficiaries who have reached age 62 in the current year. Adjustments are to be made January 1 of each year, commencing 12 months after benefits start.

5. Early Retirement (Sections 1360.16 and 1360.17)

After completion of 25 years of service, a member is eligible for an early retirement benefit which is either (a) a deferred pension starting at age 62 equal to his accrued benefit as of the date of his early retirement, computed as in item 2 above, or (b) an immediate, reduced pension which is actuarially equivalent to the deferred benefit under (a).

6. Delayed Retirement (Sections 1360.14 and 1360.15)

If a member remains in active employment beyond his 65th birthday, then upon actual retirement he receives a pension computed as in item 1 above, crediting years of service to the delayed retirement date, and subject to the minimum benefit provisions in item 3 above.

7. Vesting (Sections 1360.27, 1360.28, 1350(O) and 1350.9)

- (a) On termination of employment before completing 5 years of service (effective 7/1/97), a member may elect either
- (1) to receive a refund of employee contributions with 4% simple interest, without right to credit for prior service in the event of reemployment, or
 - (2) to leave his contributions in the fund for six years, with right to credit for prior service if reemployed within the six-year period; if he is not reemployed or if he dies, a refund is automatic at the end of six years.

- (b) On termination of employment following completion of at least 5 years of service (effective 7/1/97), a member is eligible to receive a refund (as described in (7)(a) above) or a deferred pension computed as in item 2 above, based on completed service at termination, commencing at age 62 and payable for life. Credit for prior service is given in the event of reemployment.

(c) Reinstatement of Previous Service

A member who terminates with a non-vested benefit, upon reemployment within six years after such termination, has the right to reinstate his previous credited service upon meeting the following conditions:

- (1) written application submitted within six months of a member's first reemployment anniversary date;
- (2) if he had received a refund, payment of his refund with interest computed at the reemployment interest rate (actuarial assumed rate at time of reemployment); and
- (3) completion of one year of employment after his reemployment.

8. Disability - In Line of Duty (Sections 1360.18, 1360.21 and 1360.22)

In the event of disability incurred by a member in the line of duty, the monthly pension commencing on his disability retirement date is computed as in item 2 above as though retirement were occurring at age 62, using service projected to age 62, subject to the minimum benefit set forth in item 3.

9. Disability - Not in Line of Duty (Sections 1360.18, 1360.19 and 1360.20)

After 15 years of credited service, in the event of disability incurred by a member other than in the line of duty, the monthly lifetime pension commencing at his disability retirement date is computed

using the factors in item 2 above for age 62 and the employee's years of service at date of disability, subject to the minimum benefit in item 3 above.

10. Death before Retirement (Sections 1360.24 and 1360.31)

- (a) If a member dies prior to attaining age 62 or completing 5 years of service or commencement of any benefits, his beneficiary receives a lump sum payment of his contributions.
- (b) If a member dies prior to commencement of any benefits, but after the first day of the month following his 62nd birthday or completion of 5 years of service, his surviving spouse or other designated beneficiary receives either
 - (1) a monthly benefit payable in accordance with any option in effect on the date of the member's death, or
 - (2) if no option is in effect, a 50% survivor annuity computed as though the member had retired the day before his death. If the member had not attained age 62 when he died, the benefit shall be calculated as if the member were age 62.
- (c) A refund is payable to the estate of the deceased member if there is no surviving spouse or designated beneficiary.
- (d) If a member who has not elected an option dies after completion of ten years of service (or, if his death results from line of duty injuries, without regard to his service), each of his dependent children shall receive a monthly benefit of \$75.00, payable until the child attains age 19 (or 23 if a full-time student)

11. Death after Retirement (Section 1360.25)

If no option is elected, the retired member's surviving beneficiary or his estate, as applicable, receives the excess of the member's contributions over the pension benefits paid to him.

12. Marriage after Retirement (Section 1360.26)

An unmarried member who is receiving normal, delayed or early retirement benefits and who has not elected an option to apply to his benefit, and who subsequently marries, may at the end of two years of marriage elect an option to provide survivor's benefits to his spouse.

13. Optional Forms of Settlement (Sections 1350.7, 1350.8 and 1360.29)

A member who is entitled to retirement or disability benefits, may elect any of the following:

Option A - A joint and survivor annuity, with 50%, 75% or 100% of the member's benefit continuing to his designated beneficiary after his death.

A modification of this type of option is also available, under which the member receives a smaller initial benefit, but the monthly amount reverts to the level payable if no option had been elected in the event the beneficiary predeceases the member.

Option B - A life annuity, with 60, 120 or 180 monthly payments guaranteed.

Option C - A cash refund annuity.

Option D - Special design: Subject to the Pension Board's approval, any other form of settlement suitable to a member's needs, except lump sum payment, may be elected.

The maximum benefit from the System for a member who is also eligible to receive benefits from the Tennessee Consolidated Retirement System is determined as 100% of the member's final three-year average earnings less the amount of benefit from the Tennessee Consolidated Retirement System.

14. Employee Contributions (Section 1360.9)

Each employee contributes by payroll deduction 3% of the first \$4,800 of his earnings and 5% of the excess of his earnings over \$4,800.

15. Employer Contributions (Section 1360.10)

The required employer contribution rate is based on an annual actuarial valuation. Separate employer contribution rates are calculated for employees of the General Government and the Board of Education.

DIVISION B

16. Eligibility (Sections 1340 and 1350.1)

All employees, except policemen and firemen, who were employees of the City on January 16, 1963, who participated in the City Employees' Pension Fund the day before the effective date, who have not elected to transfer to Division A, and who were not over age 40 when electing to contribute, are eligible to participate.

17. Normal Retirement (Sections 1325 and 1326)

After age 50 and 25 years of service, the immediate monthly pension is 50% of the member's average monthly salary for the three consecutive years, which yield the highest average. To this percentage will be added 1% for each year (and fraction based on completed months) of service worked after January 1, 1979 and after the member has reached age 50 and completed 25 years of service, subject to a maximum addition of 10%. For General Government Employees terminating after January 3, 1999, average salary shall be based on the 2 highest, not necessarily consecutive, 12 month periods.

18. Minimum Benefits (Section 1326)

Commencing July 1, 1982, the minimum monthly retirement benefit for a member with at least 10 full years of credited service is

- (a) \$10 per year of credited service, subject to a \$250 maximum if he worked at least 1,000 hours in each of 10 years, or
- (b) For a member who was retired on January 1, 1977, \$5 per year of credited service, subject to a \$125 maximum if he had not worked for at least 1,000 hours in each of 10 years;

provided that the minimum will be reduced actuarially in accordance with the terms of any option elected by the member.

19. Benefit Adjustment (Section 1339)

Same as in paragraph 4 above.

20. Disability Retirement (Sections 1330, 1331 and 1350.5)

- (a) For disability not in line of duty after 15 years of service, the monthly pension is 50% of the member's average monthly salary for the highest three consecutive years, reduced by the ratio of years of service to 25 years, and subject to a minimum of \$250, reduced by the ratio of years of service to 25 years.
- (b) For disability in line of duty, the immediate monthly pension is 50% of the member's monthly salary as of his date of disability. The disability pension is reduced by any monthly Workmen's Compensation benefit and is not to duplicate vacation pay, sick leave benefits or unpaid compensation for services rendered.

21. Temporary Disability (Section 1334)

Upon temporary disability from injury incurred in line of duty, a member is paid his full and regular salary out of the pension fund during the period of such disability, not to exceed six months. A member is paid 50% of his actual salary base during a period of disability because of sickness, commencing on the fourth day off duty, for not more than 30 days in any six months.

22. Death Before or After Retirement (Section 1333)

- (a) Upon death before or after retirement because of injury received in line of duty, leaving a widow, widower, children under 19, or a dependent parent, the following benefits are payable:
 - (1) the greater of \$250 per month or 50% of the pension to which the deceased member would have been entitled is payable to either widow, widower or dependent parents;
 - (2) \$75 per month is payable per dependent child;provided that the total payable to all survivors does not exceed 50% of the member's salary at the time of his injury and that children's benefits cease at each child's age 19 (or age 23 if he is a full-time student).

Exceptions: Death benefits above are not provided for a widow or widower or children resulting from marriage contracted after retirement.
- (b) Upon death before or after retirement, not in line of duty, after 15 years of service, the same benefits as in (a) above are payable. However, after 15 but less than 25 years of service, any benefits payable to the member's widow, widower, or dependent parents are reduced by the ratio of years of service to 25 years.

A member who has been married for at least two years at his normal retirement date may elect within 90 days prior to such date to have paid, in lieu of his pension and survivor's benefits to a spouse, an Option A benefit commencing at his retirement, with benefits continuing for the lifetime of the spouse. This elected benefit is to have the same actuarial value as the pension otherwise payable for his life plus the value of the spouse's survivor benefit payable during her lifetime pursuant to Section 1333.

23. Vesting (Sections 1328, 1337 and 1350.9)

- (a) On termination of employment after 5 years of service, a member may elect to receive, in lieu of all other benefits, a monthly deferred benefit at his normal retirement date and for life thereafter of 50% of his average monthly salary for the three consecutive years of highest earnings, reduced by the ratio of his years of service at termination to the years that he would have completed at

normal retirement. If the member dies before commencement of the deferred benefit, a refund is made to his surviving beneficiary or his estate.

- (b) A member with 25 years of service may elect to receive, in lieu of a deferred benefit, an immediate monthly early retirement benefit commencing at termination and continuing for life in an actuarially reduced amount. If the member dies before commencement of the deferred benefit and if an option had been elected, payment is made in accordance with the option. If no option had been elected, payment is made as if the member had elected a 50% joint and survivor benefit. If there is no surviving spouse or other designated beneficiary, a refund is payable to the member's estate.

(c) Prior Rights

Any director of a department of the City on leave of absence from a Civil Service position is entitled to credit for years while on such leave, provided he makes the required contributions to the fund.

(d) Reinstatement of Previous Service

A member who terminates with less than ten years of credited service, upon reemployment within six years after such termination, has the right to reinstate his previous credited service upon meeting the following conditions:

- (1) written application submitted within six months of a member's first reemployment anniversary date;
- (2) if he had received a refund, payment of his refund with interest computed at the reemployment interest rate (actuarial assumed rate at time of reemployment); and
- (3) completion of one year of employment after his reemployment.

24. Marriage After Retirement (Section 1329)

An unmarried member who is receiving a normal or vested retirement pension and who has not elected an option to apply to his benefit, and who subsequently marries, may at the end of two years of marriage elect an option to provide survivor's benefits to his spouse.

25. Optional Forms of Settlement (Sections 1327, 1350.7 and 1350.8)

A member who is entitled to retirement or disability benefits, may elect any of the following:

Option A - A joint and survivor annuity, with 50%, 75% or 100% of the member's benefit continuing to his designated beneficiary after his death.

A modification of this type of option is also available, under which the member receives a smaller initial benefit, but the monthly amount reverts to the level payable if no option had been elected in the event the beneficiary predeceases the member.

Option B - A life annuity, with 60, 120 or 180 monthly payments guaranteed.

Option C - A cash refund annuity.

Option D - Special design: Subject to the Pension Board's approval, any other form of settlement suitable to a member's needs, except lump sum payment, may be elected.

The maximum benefit from the System for a member who is also eligible to receive benefits from the Tennessee Consolidated Retirement System is determined as 100% of the member's final three-year average earnings less the amount of benefit from the Tennessee Consolidated Retirement System.

26. Employee Contributions (Section 1321)

Employees contribute 4% of monthly salary by payroll deduction.

27. Employer Contributions (Section 1338)

The required employer contribution rate is based on an annual actuarial valuation. Separate employer contribution rates are calculated for employees of the General Government and the Board of Education.

DIVISION C

28. Eligibility (Sections 1390.1 and 1390.3)

All firemen and policemen regularly employed by the City of Knoxville who were members of Division A on January 2, 1971, the effective date of Division C (except meter maids, park policemen and firemen, crossing guards and auxiliary police), and who elected to transfer to Division C are eligible to participate. Firemen and policemen employed after January 2, 1971 participate in the plan as a condition of employment.

29. Normal Retirement (Sections 1390.1(J), 1390.6, 1390.7, and 1390.8)

A member may retire after completing 25 years of total service and attaining age 50.

The monthly retirement benefit payable for life is as follows:

2.4% of the member's average salary for each year of service, subject to a maximum of 30 years of service, for retirements commencing on or after January 3, 1999 and before January 6, 2001.

2.5% of the member's average salary for each complete year and month of service, subject to a maximum of 30 years of service, for retirements commencing on or after January 6, 2001.

"Average salary" means the member's average annual salary during the two years of service, whether consecutive or not, in which the member received his highest annual salary.

30. Delayed Retirement Option (Section 1390.22)

On or after December 31, 2000, a Division C member eligible for Normal Retirement may elect a delayed retired date, not more than 24 months after the date of election. The monthly benefit payable beginning on the delayed retirement date will be the same as would have been payable had the member retired on the election date except that a single sum amount shall also be paid. The amount of the single sum payment will be equal to the monthly payment times the number of months from the election date to the delayed retirement date plus any cost of living increases which are effective during the DROP period.

31. Minimum Benefits (Section 1390.9)

The minimum monthly retirement benefit for a member with at least 5 full years of credited service is

- (a) For a member who retires on or after July 1, 1997, \$250, reduced pro rata for service less than 25 years, if he had worked at least 1,000 hours in each of 5 years, or
- (b) For a member who retires after January 1, 1977 and before July 1, 1997, \$250, reduced pro rata for service less than 25 years, if he had worked at least 1,000 hours in each of 10 years, or
- (c) For a member who was retired on January 1, 1977, \$125, reduced pro rata for service less than 25 years, if he had not worked for at least 1,000 hours in each of 5 years;

provided that the minimum will be reduced actuarially in accordance with the terms of any option elected.

32. Benefit Adjustment (Section 1390.18)

Retirement benefits payable from the fund to retired members, survivors or beneficiaries are increased by 3% of the current benefit. An additional adjustment of up to 1% of the current benefit, in an amount equal to one-half of the excess over 3% of the percentage change in the Consumer Price Index for the 12 months ending September 30 of the prior year, applies to all pensioners and beneficiaries who have reached age 62 in the current year. Adjustments are to be made January 1 of each year, commencing 12 months after benefits start.

33. Permanent Disability (Sections 1390.10, 1390.11 and 1390.12)**(a) Incurring in Line of Duty**

In the event of permanent disability incurred in the line of duty, the member will receive a monthly benefit equal to 50% of his average salary, payable from the date of disability until death or earlier termination of disability.

(b) Incurring Other than in Line of Duty

If a member who has at least 5 years of service becomes disabled after July 1, 1997, as a result of any cause other than an in line of duty injury, he is entitled to a benefit payable during his lifetime or until earlier recovery from disability. The monthly benefit is 2% of the member's average salary for each full year of service not exceeding 25 years, but in no event shall be less than \$250, reduced proportionately if his service is less than 25 years.

34. Death of a Disabled Member (Sections 1390.11 and 1390.15)**(a) Disability Incurred in Line of Duty**

Upon the death of a member who is receiving benefits on account of permanent disability incurred in line of duty, the surviving spouse and dependent children, or dependent parents, if any, are entitled to the death benefit payable upon the death of a member due to line of duty causes, as described in item 35(a) below.

(b) Disability Incurred Other than in Line of Duty

Upon the death of a member who is receiving benefits on account of permanent disability incurred other than in line of duty:

- (1) A surviving spouse receives, until death, a monthly benefit of 50% of the benefit the member was receiving at the date of his death, subject to a minimum of \$250 per month reduced by the proportion that the member's years actually served bear to 25 years.
- (2) Each dependent child receives a monthly benefit of \$75 until age 19, or age 23 if a full-time student.

If benefits payable under (1) and (2) exceed the benefit the member was receiving at his death, the dependents' benefits are reduced proportionately.

- (3) If neither spouse nor dependent child survives the member, \$250 per month for life or the duration of dependency is paid to dependent parents, if any, reduced pro rata for less than 25 years of service. A dependent parent is a parent who received more than 50% of his support from the member.

35. Death of an Active Member Before Retirement (Sections 1390.13 and 1390.14)

Benefits are payable to the named beneficiary in accordance with the alternate retirement option on file with the pension board at the time of the member's death. If no option is on file at the time of the member's death, the following benefits are payable:

(a) In line of Duty

Upon the death of a member while in active service and in the line of duty, benefits to survivors are as follows:

- (1) A surviving spouse receives, until death, a monthly benefit equal to 50% of the member's average salary, reduced proportionately if member's death occurred before completion of 25 years of service, subject to a minimum of \$250 per month.
- (2) Each dependent child receives \$75 per month until age 19, or, if a full-time student, until age 23.
- (3) If there is no surviving spouse or dependent child, but there is a surviving dependent parent or parents, \$250 is paid to the parent or jointly to the parents monthly for life or for the duration of dependency. The benefit is reduced pro rata if the member's death occurred before he had completed 25 years of service.

(b) Other than in Line of Duty

If a member with at least 5 years of service (on or after July 1, 1997) dies while actively employed from causes other than injury in line of duty, survivors' benefits are as follows:

- (1) A surviving spouse receives, until death, a monthly benefit equal to 50% of the monthly benefit the member would have received under item 34(b) above if he had retired as a result of disability not in line of duty, subject to a minimum monthly benefit of \$250 if the member had completed 25 years of service. The minimum is reduced proportionately for less than 25 years of service.
- (2) Each dependent child receives \$75 per month until age 19 (if a full-time student, until age 23).
- (3) Dependent parents receive the same benefit as in item (a)(3) above.

36. Death of Retired Member (Section 1390.15)

Upon the death after his normal retirement of a member who has not elected an optional form of benefit described in item 40 below, his surviving spouse, dependent children and dependent parent or parents receive the same benefits as in item 34(b) above.

A member who has been married for at least two years at his normal retirement date may elect within 90 days prior to such date to have paid, in lieu of his pension and survivor's benefits to a spouse, an Option A benefit commencing at his retirement, with benefits continuing for the lifetime of the spouse. This elected benefit is to have the same actuarial value as the pension otherwise payable for his life plus the value of the spouse's survivor benefit payable during her lifetime.

37. Vesting (Section 1390.16)

- (a) A member with at least 5 years of service (as of July 1, 1997) who terminates employment is eligible to receive a refund of his contribution or a deferred vested retirement benefit for life, commencing on his normal retirement date. The benefit is computed as 2% of the member's average salary for each year of service he would have completed on his normal retirement date, subject to a maximum of 25 years, reduced by the ratio of years of service he had completed at termination to the years of service that he would have completed if he had continued to work until normal retirement. If death occurs prior to commencement of the deferred benefit, a refund of employee contributions plus 4% simple interest is payable to the designated beneficiary or the member's estate, as applicable.
- (b) A member with 25 years of service is entitled to a deferred vested retirement benefit computed as in (a) above, or he may elect in lieu thereof to receive an immediate monthly benefit payable for life. If death occurs prior to commencement of a deferred benefit, payments are made in accordance with any option that was elected by the member. If no option had been elected, a benefit is paid to his surviving spouse as though the member had elected a 50% joint and survivor annuity, or a refund of employee contributions plus 4% simple interest is paid to the member's estate if there is no surviving spouse.

38. Termination Prior to Vesting (Sections 1350(O), 1350.9, and 1390.17)

- (a) Upon termination of employment before becoming vested, a member may elect either
 - (1) to receive a refund of employee contributions with 4% simple interest, without right to credit for prior service in the event of reemployment, or
 - (2) to leave his contributions in the fund for six years, with credit for prior service if reemployed within the six-year period; if he is not reemployed or if he dies a refund is automatic at the end of six years.
- (b) Reinstatement of Previous Service

A member who terminates with a non-vested benefit, upon reemployment within six years after such termination, has the right to reinstate his previous credited service upon meeting the following conditions:

 - (1) written application submitted within six months of a member's first reemployment anniversary date;
 - (2) if he had received a refund, payment of his refund with interest computed at the reemployment interest rate (actuarial assumed rate at time of reemployment); and

(3) completion of one year of employment after his reemployment.

39. Optional Forms of Settlement (Sections 1350.7, 1350.8, 1390.19)

A member who is entitled to retirement or disability benefits, may elect any of the following:

Option A - A joint and survivor annuity, with 50%, 75% or 100% of the member's benefit continuing to his designated beneficiary after his death.

A modification of this type of option is also available, under which the member receives a smaller initial benefit, but the monthly amount reverts to the level payable if no option had been elected in the event the beneficiary predeceases the member.

Option B - A life annuity, with 60, 120 or 180 monthly payments guaranteed.

Option C - A cash refund annuity.

Option D - Special design: Subject to the Pension Board's approval, any other form of settlement suitable to a member's needs, except lump sum payment, may be elected.

The maximum benefit from the System for a member who is also eligible to receive benefits from the Tennessee Consolidated Retirement System is determined as 100% of the member's final three-year average earnings less the amount of benefit from the Tennessee Consolidated Retirement System.

40. Member Contributions (Section 1390.4)

Each member contributes by payroll deduction 6% of his monthly salary by payroll deduction. Effective January 1, 1997, contributions are not required by members with more than 30 years of service.

41. Employer Contributions (Section 1390.5)

The required employer contribution rate is based on an annual actuarial valuation.

DIVISION G

42. Eligibility (Section 1371.2 A)

All general government employees hired on or after January 1, 1997 are eligible on the first day of the month following six months of service. General government employees hired before January 1, 1997 may elect to participate in Division G, effective July 1, 1997.

43. Normal Retirement (Sections 1371.3 and 1371.4)

Eligibility for normal retirement benefit is the earlier of (i) age 62 or (ii) the first of the month coincident or following the date the member's age plus credited service equals eighty (80).

44. Normal Retirement Benefit - Division G1 (Section 1371.3 A1)

The monthly normal retirement benefit for a member of Division G1 is equal to the sum of the following:

- (a) the Division A benefit based on service prior to July 1, 1997,
- (b) one-twelfth of the product of: (i) service after July 1, 1997, (ii) Average Compensation and (iii) the following applicable benefit rate:

Age at Benefit Commencement	Benefit Rates for Retirements Before January 6, 2001	Benefit Rates for Retirements After January 6, 2001
62 or earlier	1.07%	1.15%
63	1.12%	1.21%
64	1.18%	1.27%
65 or later	1.25%	1.35%

and,

- (c) any amounts which have been contributed or allocated to the member's individual account.

Average Compensation is calculated as the highest 2, not necessarily consecutive, 12 month periods.

45. Normal Retirement Benefit - Division G2 (Section 1371.3 A2)

The monthly normal retirement benefit for a member of Division G2 is equal to one-twelfth of the product of (a) credited service (in years and completed months), and (b) 2% of Average Compensation. Average Compensation is calculated as the highest 2, not necessarily consecutive, 12 month periods. For retirements after January 6, 2001, 2% is increased to 2.1%.

46. Minimum Benefits (Section 1371.3 B)

Minimum benefits under Division G are determined according to the same rules used to determine minimum benefits under Division A.

47. Employee Contributions (Section 1371.3 F)

The amount of the employee contribution is 6% of compensation. For members of Division G1, one-half of the employee contribution (or 3% of compensation) is allocated to the employee's individual account.

48. Retirement (Section 1371.4 A)

Early or delayed retirement may be elected under the same provisions as Division A, except that the reduction, if any, shall be 0.25% per month for each month by which the benefit commencement precedes the month of the member's 62nd birthday.

49. Benefit Adjustment (Section 1371.3 C)

Benefit adjustments shall be made as if the member were a Division A member, except that amounts from the member's individual account (under Division G1) shall be excluded and that the first adjustment shall apply on a prorated basis on the January 1 following retirement.

50. Employer Contributions (Section 1371.3 E)

The amount of the employer contribution varies from year to year, and is based on the amount required to meet the funding obligations of the system. In addition, for members of Division G1, the employer will contribute 1.5% of the member's compensation to the member's individual account.

51. Disability (Section 1371.4 B)

Eligibility requirements are the same as for Division A. The amount of the benefit is based on the member's Division G benefit, including, if applicable, the amount of the member's individual account balance.

52. Optional Forms of Settlement (Sections 1371.4D and 1350.7, Section 2.01 of the July 1, 1997 Supplemental Plan Provisions)

Members entitled to receive retirement benefits may elect any of the optional forms available under Division A. A member with an individual account balance may receive that balance in the form of a lump sum.

53. Termination before Retirement (Section 1371.4E, Section 2.02 of the July 1, 1997 Supplemental Plan Provisions)

Members who terminate with a vested benefit will receive that benefit in accordance with the same rules applicable to members of Division A. A member with an individual account balance who terminates with less than 5 years of service may elect to receive a refund of employee contributions. A member with an individual account balance who terminates with more than 5 years of service may elect to receive the amount of the individual account balance as a deferred annuity.

54. Delayed Retirement Option (Section 1371.8)

On or after January 6, 2001, a member eligible for Normal Retirement may elect a delayed retired date, not more than 24 months after the date of election. The monthly benefit payable beginning on the delayed retirement date will be the same as would have been payable had the member retired on the election date except that a single sum amount shall also be paid. The amount of the single sum payment will be equal to the monthly payment times the number of months from the election date to the delayed retirement date plus any cost of living increases which are effective during the DROP period.

DIVISION F**55. Establishment of Division F (Section 1301, 1302(a))**

Effective January 6, 2001, Division F is established and added to the City employees' pension system. On and after January 6, 2001, all liabilities of the firemen and policemen pension fund (formerly known as Plan F) shall be assumed by the city employees' pension fund.

56. Eligibility (Section 1301)

All firemen and policemen regularly employed by the City of Knoxville prior to January 16, 1963 are eligible to participate.

57. Normal Retirement (Section 1304)

A member may retire after completing 25 years of total service and attaining age 50.

The monthly retirement benefit payable for life is one-half of the member's highest monthly salary, increased by 2% of that salary for each year of service in excess of 25, up to a maximum benefit of 60% of salary.

58. Minimum Benefits (Section 1306)

A minimum monthly benefit of \$350 is provided for retirees with at least 25 years of service. This minimum is pro-rated for retirees with less than 25 years of service. Effective January 1, 2001, the minimum monthly benefit of \$350 is increased to \$750.

59. Benefit Adjustment (Section 1307)

Retirement benefits payable from the fund to retired members, survivors or beneficiaries are increased each January 1, commencing with the January 1 following the member's retirement. The benefits are increased as follows:

- (a) The prior year benefit plus 6% of the retiree's base (initial) benefit or, if larger,
- (b) The prior year benefit plus 4% of the retiree's prior year benefit.

60. Permanent Disability (Sections 1303 and 1305)

- (a) Incurred in Line of Duty

In the event of permanent disability incurred in the line of duty, the member will receive a monthly benefit equal to 50% of his salary at the time of his disability, payable from the date of disability until death or earlier termination of disability. A minimum monthly benefit of \$125 is provided.

- (b) Incurred Other Than in Line of Duty

If a member who has at least 10 years of service becomes disabled as a result of any cause other than a line of duty injury, he is entitled to a benefit payable during his lifetime or until earlier recovery from disability. The monthly benefit is 2% of the member's salary at disability for each full year of service not exceeding 25 years, but in no event shall be less than \$125, reduced proportionally if his service is less than 25 years.

61. Member Contributions (Section 1302A)

Each member contributes by payroll deduction 5% of his monthly salary by payroll deduction.

62. Employer Contributions (Section 1302B)

The required employer contribution rate is based on an annual actuarial valuation.

Summary of Actuarial Assumptions

(Sample Values per 1,000 Lives)	20	35	50	60
Mortality Rates				
Divisions A, B and G (including Bd. of Ed.)				
GA-51 Male Projected to 1980	Male: .43	.95	4.50	10.80
(5 year setback for Females)	Female: .37	.69	2.49	7.25
Divisions C and F				
25% GA-51 Projected to 1980/ 75% 1971 Group Annuity Mortality	Male: .48	1.08	5.09	12.54
	Female: .29	0.66	2.24	5.93
Withdrawal Rates				
Estimated Experience (1st Year Select)	171.00	164.70	138.50	109.70
Estimated Experience (2nd Year Select)				
Division A (Bd. Ed. Males); Division C	70.40	68.70	61.50	53.00
All Others	140.80	137.40	123.00	105.90
Estimated Experience (Ultimate)				
Divisions A (Gen. Gov.), B and G	102.60	61.50	23.40	—
Division A (Bd. Ed.)	52.80	29.90	19.20	15.70
Divisions C and F	80.96	46.67	6.00	—
Salary Scale				
Estimated Experience				
Divisions A, B and G	12%	5.2%	4.1%	3.5%
Divisions C and F	12%	6.2%	4.3%	3.5%
Disability Rates				
Divisions A, B and G	0.80	0.80	5.20	7.50
Division C (100% In-Line-of-Duty)	0.00	6.00	8.21	0.00
Rate of Death Among Disabled Lives				
All except Division C Inactives:	Male: 48.30	27.80	38.30	60.30
	Female: 26.30	21.40	25.70	33.10
Division C Inactives:	Male: 32.20	18.53	25.53	40.20
	Female: 26.30	21.41	25.70	33.10
Rate of Transfer from G1 to G2				
80% Transfer Division G1 to Division G2 (at 10 years of service)				

Rate of Normal Retirement

Division A and B: Probability of Retirement:

<u>Age</u>	<u>Percent Retiring</u>	<u>Age</u>	<u>Percent Retiring</u>
53	2	62	35
54	2	63	10
55	2	64	5
56	3	65	8
57	3	66	5
58	5	67	2
59	5	68	2
60	5	69	1
61	5	70	0

Division C: 20% retire at each age beginning with age 50 and 25 years of Credited Service, but in no event later than age 60

Division G: 12.5% retire at each age once the rule of 80 is met from age 50 to age 61
 25% retire at each age from 62 to 69
 100% retire by age 70

Rate of Investment Return

8.0% per annum

Spouse Frequency and Ages

Assume 85% married, with husbands four years older than wives

Actuarial Valuation Method

Pre July 1, 2007:

Frozen initial liability. Groups with no unfunded supplemental liability will revert to Aggregate.

Fire/Police - Unfunded liability will be amortized over a 30 year period beginning July 1, 2007.

Board of Education – Unfunded liability is amortized over 15 years beginning July 1, 2009.

General Government - Unfunded liabilities are amortized over 15 years.

Effective July 1, 2007:

Entry Age Normal

Asset Valuation Method

Market Value, adjusted for 10-year phase-in of each year's difference between actual and expected value.

Actuarial Value of Assets for July 1, 2007 includes a \$9.25 M adjustment for liability losses which happened during the year.

Cost of Living Adjustment

3.5% per annum

Refund of Employee Contributions

For General Government and Fire/Police, it is assumed all members that terminate prior to age 40 will take a refund of employee contributions (whether or not they have 5 years of service).

Establishment of Valuation Assets

	General Government*	Uniformed Bodies	Board of Education	Total System
1. Assets (Market Value July 1, 2009)	\$100,160,463	\$213,011,016	\$ 55,337,128	\$ 368,508,607
2. Expected Contributions				
a. By Employees	\$1,803,082	\$1,593,611	\$ -	\$ 3,396,693
b. By City Dept.	\$2,986,795	\$5,491,056	\$ 261,218	\$ 8,739,069
3. Expected Benefit Payments	\$8,086,209	\$20,691,777	\$9,561,641	\$ 38,339,627
4. Base Established 7/1/2005	\$ 988,739	\$ 2,837,024	\$ 1,381,807	\$ 5,207,570
5. Base Established 7/1/2006	\$ 1,831,639	\$ 5,915,701	\$ 1,852,731	\$ 9,600,071
6. Base Established 7/1/2007	\$ 6,855,917	\$ 17,536,661	\$ 5,814,637	\$ 30,207,215
7. Base Established 7/1/2008	\$ (19,577,231)	\$ (39,569,528)	\$ (12,608,146)	\$ (71,754,905)
8. Base Established 7/1/2009	\$ (34,715,365)	\$ (72,965,521)	\$ (21,085,403)	\$ (128,766,289)
9. Sum of Unrecognized Bases (.8*(8)+.7*(7)+.5*(6)+.3*(5)+.1*(4))	\$ (37,400,030)	\$ (75,244,343)	\$ (22,092,706)	\$ (134,737,079)
10. Net Non-Investment Transactions ((2)-(3))	\$ (3,296,332)	\$ (13,607,110)	\$ (9,300,423)	\$ (26,203,865)
11. Expected Assets July 1, 2010 ((1)*1.08+(10)*1.04)	\$104,745,115	\$215,900,503	\$ 50,091,658	\$ 370,737,276
12. Assets (Market Value July 1, 2010)	\$110,769,941	\$229,579,535	\$ 53,578,865	\$ 393,928,341
13. Base Established July 1, 2010 ((12)-(11))	\$ 6,024,826	\$ 13,679,032	\$ 3,487,207	\$ 23,191,065
14. Valuation Assets July 1, 2010 ((12)-.9*(13)-(9))	\$142,747,627	\$292,512,750	\$ 72,533,085	\$ 507,793,462
15. G1 Supplemental Account	\$ 5,150,390	\$ -	\$ -	\$ 5,150,390
16. Valuation Assets July 1, 2010 ((14) + (15))	\$147,898,017	\$292,512,750	\$ 72,533,085	\$ 512,943,852

*General Government base is calculated excluding the G1 Supplemental Account. See next page for reconciliation.

General Government Asset Reconciliation

	Defined Contribution Assets (G1)	Defined Benefit Assets	Total
1. Assets (Market Value July 1, 2009)	\$ 4,325,465	\$ 100,160,463	\$ 104,485,928
2. Contributions			
a. By Employees	\$ 530,806	\$ 1,289,688	\$ 1,820,494
b. By City Dept.	\$ 265,418	\$ 2,336,728	\$ 2,602,146
3. Investment Income	\$ 571,696	\$ 15,015,879	\$ 15,587,575
4. Disbursements to Employees and Beneficiaries	\$ 542,995	\$ 7,243,997	\$ 7,786,992
5. Expenses	\$ -	\$ 788,820	\$ 788,820
6. Assets (Market Value July 1, 2010) (1)+(2)+(3)-(4)-(5)	\$ 5,150,390	\$ 110,769,941	\$ 115,920,331

Historical Rates of Investment Return

The following table shows the approximate annual rates of total investment return for the indicated plan years:

<u>Plan Year End</u>	<u>Approximate Return</u>	<u>Average Return*</u>
June 30, 2010	15.4%	15.4%
June 30, 2009	-26.1%	-7.7%
June 30, 2008	-6.4%	-7.2%
June 30, 2007	16.3%	-1.8%
June 30, 2006	10.1%	0.4%
June 30, 2005	9.2%	1.8%
June 30, 2004	18.1%	4.0%
June 30, 2003	4.6%	4.1%
June 30, 2002	-2.8%	3.3%
June 30, 2001	6.4%	3.6%

*For 1 year, 2 years, 3 years, etc.

The following are comparative rates of return, using standard industry indices:

Annualized Total Rates of Return

Periods Ending 6-30-2010

	<u>One Year</u>	<u>5 Years</u>	<u>10 Years</u>
City of Knoxville Pension Plan	15.40%	0.44%	3.61%
Standard & Poor's 500 Stocks	14.43%	-0.80%	-1.59%
Dow Jones Industrial Average	18.94%	1.66%	1.68%
Citigroup Corp. Bond Index	19.93%	5.09%	8.41%
Lehman Gov./Corp. Bond Index	9.65%	5.26%	6.48%
90 Day U.S. Treasury Bills	0.12%	2.63%	2.56%

Summary of Assets

Assets By Investment

	June 30, 2010	June 30, 2009
US Equity	34.7%	33.3%
Real Estate	10.3%	11.4%
International Equity	29.1%	34.3%
Corporate Bonds	17.5%	15.4%
Government Bonds	6.9%	4.0%
Cash	1.5%	1.6%
	100.0%	100.0%

Summary of Operation

Market Value July 1, 2009		\$ 372,834,072
Increases		
Employee Contributions		3,555,394
Employer Contributions		7,623,930
Investment Return		55,472,763
	Total Increases	66,652,087
Decreases		
Benefit Payments		(37,337,938)
Refunds		(357,109)
Expenses		(2,538,596)
Audit Adjustment		(173,785)
	Total Decreases	(40,407,428)
Market Value July 1, 2010		\$ 399,078,731

Calculation of Required Contribution Rates

Calculation of 2010-2011 Contribution Rates	Gen. Gov.	Uniformed
1. Actuarial Accrued Liability	\$ 166,785,343	\$ 333,390,871
2. Assets on Hand	\$ 147,898,017	\$ 292,512,749
3. Unfunded Accrued Liability	\$ 18,887,326	\$ 40,878,122
4. Amortization Years	15	27
5. Amortization of Unfunded Accrued Liability *	\$ 2,043,146	\$ 2,621,475
6. Entry Age Normal Cost	\$ 1,627,396	\$ 4,076,110
7. Preliminary Contribution ((5)+(6))	\$ 3,670,542	\$ 6,697,585
8. Preliminary Contribution (mid-year payment) ((7) * 1.08 ^{.5})	\$ 3,814,539	\$ 6,960,335
9. 2010-2011 Projected Payroll	\$ 31,631,192	\$ 32,164,113
10. Preliminary Contribution as a Percent of Pay ((8)/(9))	12.06%	21.64%
11. Prior Year Contribution as a Percent of Pay	9.72%	18.57%
12. Contribution Limit Based on 2% /20% Banding Policy	11.72%	22.29%
13. Recommended Contribution as a Percent of Pay (Min((10),(12))	11.72%	21.64%
14. Recommended Contribution (mid-year payment) ((9)*(13))	\$ 3,707,176	\$ 6,960,335

Board of Education

Present Value of Benefits	\$ 78,007,542
Assets on Hand	\$ 72,533,085
Unfunded Liability	\$ 5,474,457
 Total Recommended Contribution (14-year amortization)	 \$ 638,967

* For the Uniformed Bodies, the amortization is a 3% increasing annuity payment.

Schedule of Funding Progress - Historical

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
General Government						
07/01/2006	123,848,618	n/a	n/a	n/a	27,045,333	n/a
07/01/2005	117,282,790	n/a	n/a	n/a	26,124,592	n/a
07/01/2004	111,443,883	n/a	n/a	n/a	25,727,118	n/a
07/01/2003	109,083,158	n/a	n/a	n/a	27,417,367	n/a
07/01/2002	108,231,664	n/a	n/a	n/a	26,274,311	n/a
07/01/2001	103,495,498	n/a	n/a	n/a	25,156,740	n/a
Board of Education						
07/01/2006	85,428,626	n/a	n/a	n/a	925,548	n/a
07/01/2005	88,232,068	n/a	n/a	n/a	1,144,317	n/a
07/01/2004	91,655,768	n/a	n/a	n/a	1,247,404	n/a
07/01/2003	97,523,914	n/a	n/a	n/a	1,352,741	n/a
07/01/2002	103,801,243	n/a	n/a	n/a	1,512,062	n/a
07/01/2001	105,981,275	n/a	n/a	n/a	1,890,770	n/a
Uniformed Bodies						
07/01/2006	261,624,181	303,946,305	42,322,124	86.08%	25,585,467	165.41%
07/01/2005	254,746,885	298,752,660	44,005,775	85.27%	24,743,095	177.85%
07/01/2004	250,066,940	297,330,672	47,263,732	84.10%	24,358,199	194.04%
07/01/2003	252,508,388	287,789,466	35,281,078	87.74%	24,350,147	144.89%
07/01/2002	256,781,273	276,372,256	19,590,983	92.91%	24,466,370	80.07%
07/01/2001	251,483,373	265,729,297	14,245,924	94.64%	23,035,672	61.84%

Schedule of Funding Progress - Current

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability * (b)	Unfunded AAL (UAAL) * (b - a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
07/01/2010	512,943,851	578,180,826	65,236,975	88.72%	63,977,133	101.97%
07/01/2009	523,121,786	561,660,015	38,538,229	93.14%	60,585,868	63.61%
07/01/2008	524,596,859	544,826,299	20,229,440	96.29%	58,226,253	34.74%
07/01/2007	509,837,414	528,228,802	18,391,388	96.52%	56,599,723	32.49%

* Beginning July 1, 2007, the Actuarial Accrued Liability and Unfunded Accrued Liability values are calculated and reported using the Entry Age Normal funding method.

Schedule of Employer Contributions

Year Ended June 30	General Government*		Board of Education		Uniformed Bodies	
	Annual Required Contribution	Percent Contributed	Annual Required Contribution	Percent Contributed	Annual Required Contribution	Percent Contributed
2001	\$ -	100%	\$ 114,721	100%	\$ -	100%
2002	\$ -	100%	\$ -	100%	\$ 807,573	100%
2003	\$ -	100%	\$ -	100%	\$ 870,585	100%
2004	\$ 279,612 **	100%	\$ -	100%	\$ 1,170,919	100%
2005	\$ 610,584	100%	\$ -	100%	\$ 2,302,822	100%
2006	\$ 1,133,337	100%	\$ -	100%	\$ 3,077,456	100%
2007	\$ 1,618,040	100%	\$ -	100%	\$ 3,764,587	100%
2008	\$ 1,991,152	100%	\$ -	100%	\$ 4,702,520	164%
2009	\$ 2,075,498	100%	\$ -	100%	\$ 4,829,576	100%
2010	\$ 2,336,728	100%	\$ 886	100%	\$ 5,020,898	100%

* The General Government began making employer matching contributions to a new defined contribution plan for the year ending June 30, 1998. Employer contributions to the defined contribution plan for the current fiscal year ending June 30, 2010 total \$265,418.

** \$279,612 is a contribution for past service for a judge that transferred to General Government.

Year Ended June 30	Total Pension System		
	Annual Pension Cost	Percentage Contributed	Net Pension Obligation
2001	\$ 114,721	100%	\$ 0
2002	\$ 807,573	100%	\$ 0
2003	\$ 870,585	100%	\$ 0
2004	\$ 1,450,531	100%	\$ 0
2005	\$ 2,913,406	100%	\$ 0
2006	\$ 4,210,794	100%	\$ 0
2007	\$ 5,382,627	100%	\$ 0
2008	\$ 6,693,672	145%	\$ (2,998,600)
2009	\$ 6,935,152	100%	\$ (2,968,521)
2010	\$ 7,385,690	100%	\$ (2,941,343)

Determination of Net Pension Obligation as of June 30, 2010

Employer Disclosure*	
Determination of Annual Pension Cost / Net Pension Obligation for 2010-2011	
Annual Required Contribution (w/interest to middle of year)	\$5,016,895
Interest on net pension obligation	(237,482)
Adjustment to annual required contribution	268,663
Annual pension cost	<u>\$5,048,077</u>
Contributions made	<u>(5,020,898)</u>
Increase (Decrease) in net pension obligation	\$27,178
Net pension obligation beginning of year	<u>(2,968,521)</u>
Net pension obligation end of year	<u>\$(2,941,343)</u>

*Uniformed Bodies only. NPO is \$0 for other groups.

Additional Information Regarding GASB Disclosure

1. Actuarial assumptions have been revised periodically to reflect actual plan experience and expectations regarding future events. The most recent assumption revisions include:
 - changing the cost of living assumption from 4.0% to 3.5%, effective July 1, 1999
 - changing the investment return assumption from 7.75% to 8.0%, effective July 1, 2001
 - changing mortality, turnover, salary scales, rates of disability and rates of retirement as of July 1, 2002 based on the July 1, 2001 experience study
 - changing mortality, turnover, rates of disability, rates of retirement, and transfer rates (G1 to G2) as of July 1, 2007 based on the July 1, 2006 experience study
2. The City continues to pursue a conservative policy regarding contributions to ensure that all benefits are properly funded.
3. For the 1992-93, 1993-94 and 1996-97 plan years, the Fire/Police made a 2%, 1% and 1% of payroll contribution even though the ARC (annual required contribution) was zero for each such year for that group. In addition, the General Government has made negligible contributions since the 1996-97 plan year, despite the ARC of zero. In the aggregate, the effect of this on the plan is negligible and, consistent with prior practice. The City has considered the total NPO to be zero.
4. The City, as authorized by the City Charter, implemented the City of Knoxville Pension System Supplemental Retirement Plan (G1) effective July 1, 1997. G1 is a defined contribution plan available for general government employees. Employee contributions are 3%. Employer contributions are 1.5% (matching). Employees that participate in the defined contribution plan make 6% employee contributions, 3% to the defined contribution plan and 3% to the defined benefit plan. General Government employees that do not participate in the defined contribution plan are required to make a 6% contribution to the defined benefit plan (G2) for which they receive an enhanced defined benefit plan benefit.
5. Effective July 1, 1999, the Knoxville Utilities Board (KUB) split-off into its own plan and is no longer part of the City of Knoxville Pension System. Historical information in this disclosure does reflect KUB, to be consistent with prior disclosures. KUB will not be included in current or future year disclosures for the Pension System.
6. Effective January 6, 2001, Plan F liabilities are combined with Division C. The schedule of funding progress has been broken down by employee group beginning July 1, 2001 to show the specific impact on the unfunded bodies (Division C/Plan F).
7. Effective July 1, 2004, the board adopted a funding policy to contribute at least 40% of the real cost (entry age cost) but no more than a) the prior year percent of payroll plus 2% or b) 120% of the prior year percent of payroll, if more.
8. Effective July 1, 2007, liabilities are calculated for GASB and funding purposes under the Entry Age Normal funding method.
9. Effective July 1, 2007, asset gains and losses are smoothed over 10 years.