# Retirement Plan For CTA Employees

January 1, 2011 Actuarial Valuation

Prepared by PricewaterhouseCoopers LLP

September 2011

September 22, 2011

Board of Trustees and Executive Director Retirement Plan for CTA Employees 10 S. LaSalle Suite 1100 Chicago, IL 60602

#### Re: Actuarial Valuation Report and Actuarial Certification as of January 1, 2011

This report presents the results of the annual valuation of the assets and liabilities of The Retirement Plan for Chicago Transit Authority Employees ("the Plan") as of January 1, 2011, prepared in accordance with 40 ILCS 5/22-101(e). In addition, it includes disclosure information as of December 31, 2010, as required under GASB Statements No. 25 and 27. The actuarial valuation of the Plan is performed annually and the Plan retained PricewaterhouseCoopers LLP to perform the valuation as of January 1, 2011. This valuation has been conducted in accordance with the required Actuarial Standards of Practice issued by the American Academy of Actuaries.

Public Act 94-839, effective June 6, 2006, requires that the Plan's pension and retiree healthcare programs be separated into two distinct trusts by December 31, 2008. This January 1, 2011 valuation report for the Plan does not reflect the liabilities and assets that were spun off in the healthcare trust.

Public Act 95-708, effective January 18, 2008, allowed the Chicago Transit Authority to issue pension obligation bonds and deposit \$1.1105 billion into the pension trust. Public Act 95-708 revised the level-percent-of-pay policy to the contribution rates that produce no less than 60 percent funding for each year up to and including fiscal year 2039 and 90 percent funding by fiscal year end 2059.

This valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees, including a valuation interest rate of 8.50% per annum, compounded annually. Please see Section IV of this report for a description of the assumptions and methods used.

#### **Actuarial Assumptions**

The actuarial assumptions and methods comply with the parameters set forth in Governmental Accounting Standards No. 25. The demographic assumptions, including the withdrawal, active death, retirement, and retiree mortality rates reflect the past experience and the expected future experience of the System.

#### **Assets and Membership Data**

The Retirement Plan for CTA Employees reported to the actuary the individual data for Plan participants as of the valuation date. While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared by the Retirement Plan for CTA Employees.

In preparing the results presented in this report, we have relied upon information provided to us regarding the benefit provisions, Plan participants, unaudited plan assets, and benefit payments. The census data and plan asset information used in determining the results herein were collected as of January 1, 2011. While the scope of our engagement did not call for us to perform an audit or independent verification of this information, we have reviewed this information for reasonableness. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

Board of Trustees and Executive Director Retirement Plan for Chicago Transit Authority Employees Page 2

#### **Actuarial Certification - Public Act 95-708**

This actuarial valuation has been performed to satisfy the requirements of 40 ILCS 5/22-101(e), relating to the development of contribution rates for Plan members and the Chicago Transit Authority ("Authority"), for the plan year beginning January 1, 2012 and ending December 31, 2012. This valuation also includes disclosure information as required under GASB Statements No. 25 and 27.

Contribution rates were determined using the projected unit credit cost method and provide for no less than 60 percent funding of total actuarial liabilities for each year on a projected basis through fiscal year end 2039 and 90 percent funding by fiscal year end 2059. Contribution rates reflect the issuance of bond or notes by the Authority, as defined in 70 ILCS 3605/12c. Authority contribution rates are adjusted by a debt service credit, for debt service paid in the prior year, of up to six percent of compensation per year from 2009 to 2040, as defined in 40 ILCS 5/22-101(e)(2).

Based on the preceding provisions, the sum of current assets, net bond proceeds, future contributions, and investment earnings, less benefit payments and expenses, is projected to be at least equal to 60 percent of actuarial liabilities through fiscal year end 2039, and 90 percent of actuarial liabilities by fiscal year end 2059, if the following contributions, expressed as a percentage of compensation, are made to the Plan and the Plan experiences no actuarial gains or losses in the future:

	Annual Contributions to the Plan (Percentage of Compensation)					
Fiscal Year	Authority	Employees				
2012 to 2039	11.300%	8.650%				
2040 to 2059	10.830%	5.415%				

The results documented in this report are estimated based on data that may be imperfect and on assumptions about future events. Certain plan provisions may be approximate or deemed insignificant and therefore are not valued. Assumptions may have been made about participant data or other factors. Reasonable efforts were made in this valuation to ensure that items that were significant in the context of the actuarial liabilities or costs are treated appropriately, and not excluded or included inappropriately. We believe that the use of approximation in our calculations, if any, has not resulted in a significant difference relative to the results we would have obtained using more detailed calculations.

A range of results, different from those presented in this report could be considered reasonable, the numbers are not rounded, but this is for convenience only and should not imply precision, which is not inherent in actuarial calculations.

Future actuarial measurements may differ significantly from the current measurement presented in this report due to such factors as: plan experience differing from that anticipated by the economic and demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

The undersigned actuaries are members of the Society of Actuaries and other professional actuarial organizations and meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to pension plans. To the best of our knowledge, the individuals involved in this engagement have no relationship with the Retirement Plan for CTA Employees or Chicago Transit Authority that may impair, or appear to impair, our objectivity of our work.

Board of Trustees and Executive Director Retirement Plan for Chicago Transit Authority Employees Page 3

In our opinion, the assumptions and methods used for this valuation are individually reasonable and consistent in aggregate and conform with Actuarial Standards of Practice issued by the Actuarial Standards Board, and generally accepted actuarial principles and practices.

In our opinion, the calculations also comply with the requirements of Illinois state law and, where applicable, the Internal Revenue Code, ERISA and the Statements of the Governmental Accounting Standards Board. We certify that the information presented herein is accurate and fairly portrays the actuarial position of the Plan as of January 1, 2011.

Respectfully submitted,

PricewaterhouseCoopers LLP

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Our Services were performed and this Report was developed in accordance with our engagement letter dated July 9, 2010 and are subject to the terms and conditions included therein. Our Services were performed in accordance with Standards for Consulting Services. Accordingly, we are providing no opinion, attestation or other form of assurance with respect to our work and we did not verify or audit any information provided to us. Our work was limited to the specific procedures and analysis described herein and was based only on the information made available through September 22, 2011. Accordingly, changes in circumstances after this date could affect the findings outlined in this Report. This information has been prepared solely for the use and benefit of, and pursuant to a client relationship exclusively with Retirement Plan for Chicago Transit Authority Employees and its Board of Directors. PwC disclaims any contractual or other responsibility to others based on its use and, accordingly, this information may not be relied upon by anyone other than Retirement Plan for Chicago Transit Authority Employees and its Board of Directors. This document was not intended or written to be used, and it cannot be used, for the purpose of avoiding U.S. federal, state or local tax penalties. This includes penalties that may apply if the transaction that is the subject of this document is found to lack economic substance or fails to satisfy any other similar rule of law. This document has been prepared pursuant to an engagement between PricewaterhouseCoopers LLP and its Client and is intended solely for the use and benefit of that Client and not for reliance by any other person.

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#### SECTION I - SUMMARY

#### Introduction

This report presents the results of the actuarial valuation as of January 1, 2011 for the Retirement Plan for CTA Employees (the "Plan").

The principal valuation results include:

- The funded status of the Plan as of January 1, 2011;
- The statutory contribution requirements for Plan year 2012, as defined by 40 ILCS 5/22-101(e)(2);
- Annual disclosure as of January 1, 2011 as required by Statement No. 25 of the Governmental Accounting Standards Board.

The valuation was completed based upon membership and financial data submitted by the System.

#### **Funded Status**

The funded status of the Plan decreased from 74.8% as of January 1, 2010 to 70.1% as of January 1, 2011. The decrease is primarily due to the amortization of deferred asset losses into the actuarial value of assets and the decrease in the valuation interest rate assumption from 8.75% to 8.50% per annum.

#### **Statutory Minimum Contribution Rates**

In accordance with Public Act 95-708, the statutory minimum contribution rates applicable for plan year 2012 are 11.30% for the Authority and 8.65% for CTA employees. Based on the actuarial assumptions and methods described in Section IV of this report, this rate is expected to keep the projected funded ratio of the Plan above 60% in all years through 2039. For years 2040 through 2059, it is expected that contribution rates of 10.83% for the Authority and 5.415% for CTA employees will be required to bring the funded ratio to 90% by plan year end 2059. These contribution rates take into account the repayment of the pension obligation bond through 2040.

### **Changes Since Last Year**

#### **Legislative and Administrative Changes**

There were no legislative or administrative changes that affected the funding of the Plan. Section V of this report outlines the benefit and contribution provisions of the Plan.

#### **Actuarial Assumptions and Methods**

The valuation interest rate assumption was changed from 8.75% per annum, compounded annually, to 8.50% per annum, compounded annually. The assumption was reduced in order to better reflect the expected long-term investment return on plan assets. All other actuarial assumptions and methods are unchanged from the prior year. Section IV of the report outlines the assumptions and methods used by the System.

Effective December 31, 2008, a healthcare trust was established to pay for postretirement healthcare benefits for CTA employees. The health care assets and liabilities are reported separately in accordance with GASB 45, and are not reflected in this report. However, transfer payments to the healthcare trust expected to occur after the valuation date are reflected in the actuarial projections.

#### **Summary of Principal Results**

The table below summarizes the principal financial results based upon the actuarial valuation as of January 1, 2011. Comparable results from the January 1, 2010 valuation are also shown.

	January 1, 2010	January 1, 2011
1. Investment Return Assumption	8.75 %	8.50 %
2. Membership Data		
a. Active Employees		
Number <sup>1</sup>	9,865	8,932
Annualized Salaries (in thousands) <sup>2</sup>	\$ 567,173	\$ 528,288
Average Pay <sup>2</sup>	\$ 57,493	\$ 59,499
b. Terminated Participants with Vested Benefits		
Number	51	60
Total Monthly Accrued Benefit	\$ 67,474	\$ 114,901
Average Monthly Accrued Benefit	\$ 1,323	\$ 1,915
c. Retirees and Beneficiaries		
Number	8,362	8,397
Total Monthly Pension	\$ 16,223,447	\$ 16,857,491
Average Monthly Pension	\$ 1,940	\$ 2,008
d. Disabled Recipients		
Number	913	913
Total Monthly Pension	\$ 1,043,412	\$ 1,082,689
Average Monthly Pension	\$ 1,143	\$ 1,186
3. Statutory Minimum Contribution Rates (as a Percentage of Payroll) 3 a. Employer Contribution Rate:		
Gross Employer Rate	16.340 %	17.300 %
Credit for debt repayment	 (6.000) %	 (6.000) %
Net Employer Rate	10.340 %	11.300 %
b. Employee Contribution Rate:	8.170 %	8.650 %
4. Adopted Contribution Rates		
(as a percentage of Payroll) <sup>3</sup>		
a. Net Employer Contribution Rate:	10.690 %	11.300 %
b. Employee Contribution Rate:	8.345 %	8.650 %
5. Actuarial Funded Status (\$ in thousands) 4		
a. Investment Return Assumption	8.75 %	8.50 %
b. Actuarial Accrued Liability	\$ 2,588,462	\$ 2,724,191
c. Actuarial Value of Assets (AVA)	1,936,729	1,909,967
d. Unfunded Accrued Liability	\$ 651,733	\$ 814,224
e. Funded Ratio	74.8 %	70.1 %
f. Market Value of Assets (MVA)	\$ 1,716,317	\$ 1,794,742
g. Return on MVA (prior year)	6.6 %	11.8 %
h. Return on AVA (prior year)	4.1 %	4.8 %

<sup>1.</sup> Active statistics for 2011 include all participants who are actively employed which includes 14 participants who are on leave and 53 participants who have opted out of participating in the Plan and are only entitled to a return of their contributions.

<sup>2.</sup> The salary information for the 53 participants who have opted out of participating in the Plan is not included.

<sup>3.</sup> Contribution rate applicable for the plan year following the year of valuation.

<sup>4.</sup> Excludes health care assets.

#### **Funded Ratio**

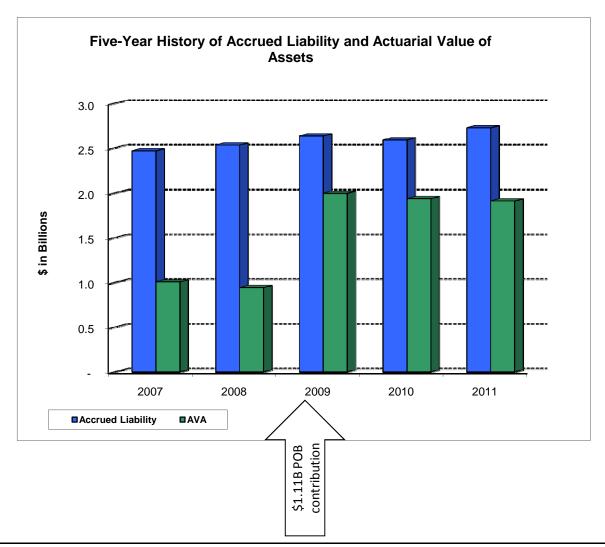
The Plan's funded status is measured by comparing the actuarial value of assets with the accrued liability. The accrued liability is the present value of benefits accumulated to date under the Plan's funding method and reflects future pay increases for active employees.

Five-Year History of Funded Ratio

(\$ amounts in thousands
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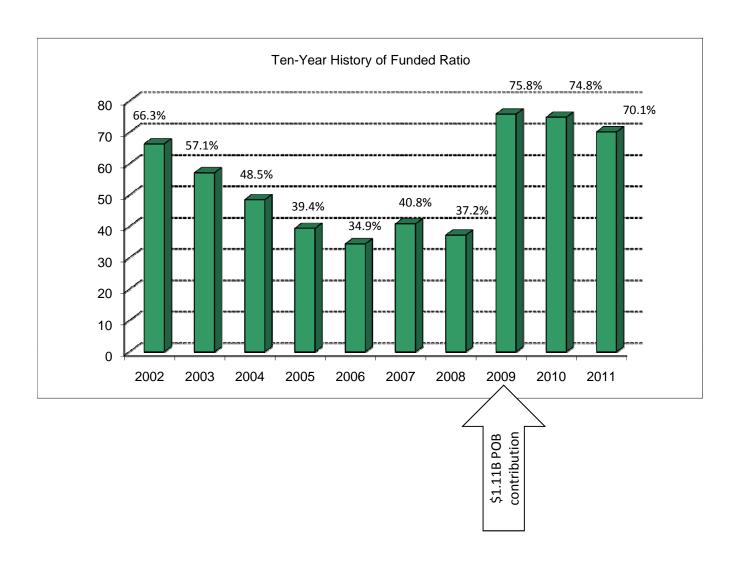
Valuation as of January 1	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
2011	2,724,191	1,909,967	814,224	70.1%
2010	2,588,462	1,936,729	651,733	74.8%
2009	2,632,356	1,995,953	636,403	75.8%
2008	2,531,440	941,864	1,589,576	37.2%
2007	2,466,106	1,007,305	1,458,801	40.8%

The following chart shows a five-year history of the accrued liability and the valuation assets:



# **Funded Ratio**

The following chart shows a 10-year history of the funded ratio:



#### Projection of Funded Status

#### A. Statutory Minimum Contribution Rates Using 8.50% Investment Return Assumption

Year (a)	Actuarial Accrued <u>Liability</u> (b)	Actuarial Value of <u>Assets</u> (c)	Funded Ratio (d) =(c)/(b)	Normal Cost (e)	Benefit Payments (f)	Payroll (g)	Active Members (h)	Employee Contribution Percent	Employer Contribution Percent (j)	Total Percent (k) =(i)+(j)	Employee Contributions (I) =(g)*(i)	Employer <u>Contributions</u> (m) =(g)*(j)	Total Contributions (n) =(l)+(m)	Debt Service (paid in prior year) (o)	Percent of Pay (p) =(0)/(g)
2011	2,724,190,616	1,909,967,120	70.11%	50,362,189	222,705,308	528,287,879	8,879	8.345%	10.690%	19.035%	44,085,624	56,473,974	100,559,598	87,981,000	16.7%
2012	2,775,275,980	1,873,201,902	67.50%	52,587,183	227,253,183	526,454,895	8,879	8.650%	11.300%	19.950%	45,538,348	59,489,403	105,027,752	87,981,000	16.7%
2013	2,828,259,255	1,834,226,078	64.85%	54,937,640	231,464,408	523,521,549	8,879	8.650%	11.300%	19.950%	45,284,614	59,157,935	104,442,549	94,691,000	18.1%
2014	2,883,781,051	1,861,784,023	64.56%	57,436,300	235,208,769	520,833,663	8,879	8.650%	11.300%	19.950%	45,052,112	58,854,204	103,906,316	104,862,000	20.1%
2015	2,942,701,755	1,894,051,605	64.36%	59,766,039	239,510,706	540,470,493	8,879	8.650%	11.300%	19.950%	46,750,698	61,073,166	107,823,863	104,866,000	19.4%
2016	3,004,566,147	1,917,762,458	63.83%	61,909,458	244,215,560	562,291,483	8,879	8.650%	11.300%	19.950%	48,638,213	63,538,938	112,177,151	104,865,000	18.6%
2017	3,069,002,513	1,943,122,226	63.31%	63,848,300	249,324,629	585,525,753	8,879	8.650%	11.300%	19.950%	50,647,978	66,164,410	116,812,388	104,862,000	17.9%
2018	3,135,602,003	1,970,143,604	62.83%	65,605,524	255,086,230	608,953,793	8,879	8.650%	11.300%	19.950%	52,674,503	68,811,779	121,486,282	104,863,000	17.2%
2019	3,203,675,304	1,998,327,864	62.38%	67,346,787	261,114,104	635,108,477	8,879	8.650%	11.300%	19.950%	54,936,883	71,767,258	126,704,141	104,863,000	16.5%
2020	3,273,051,210	2,028,063,346	61.96%	69,065,712	267,920,420	661,560,012	8,879	8.650%	11.300%	19.950%	57,224,941	74,756,281	131,981,222	104,861,000	15.9%
2021	3,343,016,415	2,058,732,117	61.58%	70,777,204	275,792,048	689,016,029	8,879	8.650%	11.300%	19.950%	59,599,887	77,858,811	137,458,698	104,863,000	15.2%
2022	3,412,495,470	2,089,511,829	61.23%	72,399,968	283,709,842	717,893,635	8,879	8.650%	11.300%	19.950%	62,097,799	81,121,981	143,219,780	104,862,000	14.6%
2023	3,481,291,474	2,120,659,445	60.92%	74,125,120	291,280,257	749,006,417	8,879	8.650%	11.300%	19.950%	64,789,055	84,637,725	149,426,780	104,863,000	14.0%
2024	3,549,807,024	2,153,033,248	60.65%	75,960,331	298,878,037	780,857,947	8,879	8.650%	11.300%	19.950%	67,544,212	88,236,948	155,781,160	104,866,000	13.4%
2025	3,618,118,486	2,186,862,581	60.44%	78,141,848	306,867,749	814,330,480	8,879	8.650%	11.300%	19.950%	70,439,587	92,019,344	162,458,931	104,864,000	12.9%
2026	3,686,154,453	2,222,199,707	60.29%	80,532,085	314,948,719	848,939,395	8,879	8.650%	11.300%	19.950%	73,433,258	95,930,152	169,363,409	104,861,000	12.4%
2027	3,754,015,239	2,259,313,997	60.18%	82,687,883	323,532,777	884,351,040	8,879	8.650%	11.300%	19.950%	76,496,365	99,931,668	176,428,032	104,864,000	11.9%
2028	3,820,921,964	2,297,998,990	60.14%	84,653,902	332,217,396	922,212,785	8,879	8.650%	11.300%	19.950%	79,771,406	104,210,045	183,981,451	104,864,000	11.4%
2029	3,886,471,544	2,338,792,931	60.18%	87,031,060	339,767,587	963,368,759	8,879	8.650%	11.300%	19.950%	83,331,398	108,860,670	192,192,067	104,861,000	10.9%
2030	3,952,153,757	2,383,742,851	60.32%	90,098,748	346,223,771	1,006,758,250	8,879	8.650%	11.300%	19.950%	87,084,589	113,763,682	200,848,271	104,862,000	10.4%
2031	4,019,854,719	2,434,807,035	60.57%	93,654,798	351,482,779	1,053,390,880	8,879	8.650%	11.300%	19.950%	91,118,311	119,033,169	210,151,481	104,863,000	10.0%
2032	4,091,494,183	2,494,427,754	60.97%	97,696,772	355,146,524	1,103,118,650	8,879	8.650%	11.300%	19.950%	95,419,763	124,652,407	220,072,171	104,865,000	9.5%
2033	4,169,585,009	2,565,639,100	61.53%	102,041,447	358,006,558	1,154,096,463	8,879	8.650%	11.300%	19.950%	99,829,344	130,412,900	230,242,244	104,862,000	9.1%
2034	4,255,851,777	2,650,524,127	62.28%	106,950,140	360,141,815	1,208,989,563	8,879	8.650%	11.300%	19.950%	104,577,597	136,615,821	241,193,418	104,864,000	8.7%
2035	4,352,314,996	2,751,814,973	63.23%	112,732,699	360,601,991	1,267,612,029	8,879	8.650%	11.300%	19.950%	109,648,441	143,240,159	252,888,600	104,861,000	8.3%
2036	4,462,499,356	2,873,428,036	64.39%	119,336,659	359,644,482	1,329,338,411	8,879	8.650%	11.300%	19.950%	114,987,773	150,215,240	265,203,013	104,861,000	7.9%
2037	4,589,918,492	3,019,214,187	65.78%	126,833,887	357,763,308	1,393,810,548	8,879	8.650%	11.300%	19.950%	120,564,612	157,500,592	278,065,204	104,863,000	7.5%
2038	4,737,937,529	3,192,762,120	67.39%	135,287,069	354,667,740	1,461,111,648	8,879	8.650%	11.300%	19.950%	126,386,158	165,105,616	291,491,774	104,866,000	7.2%
2039	4,910,575,223	3,398,285,956	69.20%	143,984,165	352,141,575	1,528,043,758	8,879	8.650%	11.300%	19.950%	132,175,785	172,668,945	304,844,730	104,861,000	6.9%

#### Projection of Funded Status

#### A. Statutory Minimum Contribution Rates Using 8.50% Investment Return Assumption

Year (a)	Actuarial Accrued <u>Liability</u> (b)	Actuarial Value of <u>Assets</u> (c)	Funded Ratio (d) =(c)/(b)	Normal <u>Cost</u> (e)	Benefit Payments (f)	Payroll (g)	Active Members (h)	Employee Contribution Percent	Employer Contribution Percent (j)	Total Percent (k) =(i)+(j)	Employee Contributions (I) =(g)*(i)	Employer <u>Contributions</u> (m) =(g)*(j)	Total <u>Contributions</u> (n) =(l)+(m)	Debt Service (paid in prior year)	Percent of Pay (p) =(0)/(g)
2040	5,109,622,369	3,637,833,301	71.20%	152,786,702	351,894,355	1,596,643,774	8,879	5.415%	4.830%	10.245%	86,458,260	77,117,894	163,576,155	104,863,000	6.6%
2041	5,335,043,748	3,750,727,407	70.30%	159,088,623	353,215,390	1,666,277,360	8,879	5.415%	4.830%	10.245%	90,228,919	80,481,196	170,710,116	104,863,000	6.3%
2042	5,584,834,214	3,879,277,488	69.46%	167,071,924	361,463,865	1,731,987,451	8,879	5.415%	10.830%	16.245%	93,787,120	187,574,241	281,361,361	-	0.0%
2043	5,855,626,455	4,125,509,215	70.45%	174,838,321	375,025,606	1,800,665,206	8,879	5.415%	10.830%	16.245%	97,506,021	195,012,042	292,518,063	-	0.0%
2044	6,143,351,323	4,390,163,384	71.46%	182,232,430	391,393,998	1,870,758,027	8,879	5.415%	10.830%	16.245%	101,301,547	202,603,094	303,904,641	-	0.0%
2045	6,446,132,263	4,672,119,618	72.48%	189,170,478	410,158,226	1,943,191,087	8,879	5.415%	10.830%	16.245%	105,223,797	210,447,595	315,671,392	-	0.0%
2046	6,762,263,087	4,970,747,261	73.51%	196,102,095	431,705,229	2,017,941,611	8,879	5.415%	10.830%	16.245%	109,271,538	218,543,076	327,814,615	-	0.0%
2047	7,089,970,566	5,284,954,813	74.54%	203,074,130	457,112,602	2,092,785,733	8,879	5.415%	10.830%	16.245%	113,324,347	226,648,695	339,973,042	-	0.0%
2048	7,426,228,515	5,612,057,981	75.57%	210,213,834	484,113,255	2,172,514,674	8,879	5.415%	10.830%	16.245%	117,641,670	235,283,339	352,925,009	-	0.0%
2049	7,770,278,045	5,952,319,163	76.60%	217,322,663	513,447,953	2,254,600,731	8,879	5.415%	10.830%	16.245%	122,086,630	244,173,259	366,259,889	-	0.0%
2050	8,120,308,971	6,304,822,734	77.64%	224,535,774	544,078,875	2,340,516,424	8,879	5.415%	10.830%	16.245%	126,738,964	253,477,929	380,216,893	-	0.0%
2051	8,475,570,968	6,669,906,551	78.70%	231,862,754	576,177,246	2,429,757,908	8,879	5.415%	10.830%	16.245%	131,571,391	263,142,781	394,714,172	-	0.0%
2052	8,835,096,265	7,047,673,353	79.77%	239,321,447	609,584,873	2,522,770,424	8,879	5.415%	10.830%	16.245%	136,608,018	273,216,037	409,824,055	-	0.0%
2053	9,198,010,694	7,438,474,936	80.87%	246,981,100	643,871,419	2,619,768,566	8,879	5.415%	10.830%	16.245%	141,860,468	283,720,936	425,581,404	-	0.0%
2054	9,563,884,587	7,843,177,964	82.01%	254,915,580	678,740,235	2,721,048,708	8,879	5.415%	10.830%	16.245%	147,344,788	294,689,575	442,034,363	-	0.0%
2055	9,932,641,413	8,263,082,219	83.19%	263,116,350	714,347,841	2,826,487,219	8,879	5.415%	10.830%	16.245%	153,054,283	306,108,566	459,162,849	-	0.0%
2056	10,304,038,163	8,699,413,853	84.43%	271,625,783	750,870,390	2,936,164,847	8,879	5.415%	10.830%	16.245%	158,993,326	317,986,653	476,979,979	-	0.0%
2057	10,677,654,200	9,153,333,278	85.72%	280,523,350	787,836,858	3,050,770,486	8,879	5.415%	10.830%	16.245%	165,199,222	330,398,444	495,597,665	-	0.0%
2058	11,053,613,352	9,626,707,248	87.09%	289,807,219	825,132,820	3,170,418,214	8,879	5.415%	10.830%	16.245%	171,678,146	343,356,293	515,034,439	-	0.0%
2059	11,432,171,990	10,121,699,802	88.54%	299,626,046	862,071,774	3,296,198,705	8,879	5.415%	10.830%	16.245%	178,489,160	356,978,320	535,467,480	-	0.0%
2060	11,814,467,867	10,641,559,308	90.07%	310,157,428	897,951,495	3,428,396,783	8,879	5.415%	10.830%	16.245%	185,647,686	371,295,372	556,943,057	-	0.0%

#### Projection Assumptions

<sup>1.</sup> Results shown as of the beginning of the fiscal year for pension benefits only.

<sup>2.</sup> Benefit payments are for pension only.

<sup>3.</sup> Employer contributions are net of debt service credit of 6.0 percent of compensation for fiscal years 2011 through 2040. Contribution rate requirements, in excess of the statutory minimum of 6.0 percent for employees and 12.0 percent for the employer (before the debt service credit), are allocated one-third to employees and two-thirds to the employer.

# **SECTION II - VALUATION RESULTS**

# A. Actuarial Valuation Summary as of January 1, 2011

Membership data	1/1/2010	1/1/2011
·		
1. Active Employees 1,2		
a. Number of Employees	9,865	8,932 <sup>1</sup>
b. Average Age	46.2	47.0 <sup>1</sup>
c. Average Past Service	12.9	13.7 <sup>1</sup>
d. Total Expected Annual Pay	567,173,247	528,287,879 <sup>2</sup>
e. Average Expected Annual Pay	57,493	59,499 <sup>2</sup>
2. Terminated Vested		
a. Number of Employees	51	60
b. Average Age	53.6	54.9
c. Total Annual Accrued Benefit	809,682	1,378,815
d. Average Annual Accrued Benefit	15,876	22,980
3. Retirees and Beneficiaries		
a. Number of Retirees	8,362	8,397
b. Average Age	68.9	69.2
c. Total Annual Retirement Benefit	194,681,359	202,289,889
d. Average Annual Retirement Benefit	23,282	24,091
4. Disabled Retirees		
a. Number of Disabled Retirees	913	913
b. Average Age	62.8	63.1
c. Total Annual Disability Benefit	12,520,943	12,992,263
d. Average Annual Disability Benefit	13,714	14,230

<sup>1.</sup> Active statistics for 2011 include all participants who are actively employed which includes 14 participants who are on leave and 53 participants who have opted out of participating in the Plan and are only entitled to a return of their contributions.

<sup>2.</sup> For 2011, the salary information for the 53 participants who have opted out of participating in the Plan is not included.

# **SECTION II - VALUATION RESULTS**

# A. Actuarial Valuation Summary as of January 1, 2011 (Continued)

Valuation results					
(\$ in Thousands)		1/1/2010	1/1/2011		
1. Return on Assets Assumption		8.75 %		8.50 %	
2. Annual Normal Cost					
a. Age/Service Pensions	\$	44,419	\$	45,682	
b. Disability Allowance		1,746		1,891	
c. Pre-Retirement Death Benefits		722		736	
d. Total	\$	46,887	\$	48,309	
3. Actuarial Accrued Liability					
a. Active Employees					
Age/Service Pensions	\$	761,369	\$	803,886	
Optout Return of Contributions		N/A		171	
Disability Allowance		18,869		22,720	
Pre-Retirement Death Benefits		10,121		10,814	
Total - Active Employees	\$	790,359	\$	837,591	
b. Inactive Employees					
Terminated Vested Employees	\$	3,074		4,932	
Retired Employees and Survivors		1,681,849		1,762,572	
Disabled Retirees	l _	113,180		119,096	
Total - Inactive Employees	\$	1,798,103		1,886,600	
c. Total Actuarial Accrued Liability		2,588,462		2,724,191	
4. Actuarial Funded Status					
a. Total Actuarial Accrued Liability	\$	2,588,462	\$	2,724,191	
b. Actuarial Value of Assets <sup>2</sup>	_	1,936,729		1,909,967	
c. Unfunded Actuarial Accrued Liability	\$	651,733	\$	814,224	
d. Funded Ratio		74.8 %		70.1 %	
5. Statutory Minimum Contribution Rates					
(as a Percentage of Payroll) <sup>1</sup>					
a. Employer Contribution Rate:					
Gross Employer Rate		16.340 %		17.300 %	
Credit for debt repayment	l _	(6.000) %	_	(6.000) %	
Net Employer Rate		10.340 %		11.300 %	
b. Employee Contribution Rate:		8.170 %		8.650 %	

- 1. Contribution rate applicable for the plan year following the year of valuation.
- 2. Excludes health care assets.

# **SECTION II - VALUATION RESULTS**

# B. Reconciliation of Market Value of Plan Assets

	Plan Year Ending					
		12/31/2009		12/31/2010		
1. Market Value of Assets, Beginning of Year	\$	1,743,457,257	\$	1,716,317,106		
2. Contributions for Plan Year						
a. Member contributions	\$	34,973,953	\$	45,265,159		
b. CTA contributions		41,448,419		56,215,939		
c. Pension Obligation Bond Proceeds		-	l	-		
d. Total Contributions	\$	76,422,372	\$	101,481,098		
3. Disbursements for Plan Year		(214,659,109)		(218,345,993)		
4. Investment Return for Plan Year						
a. Gross Investment Return	\$	118,063,277	\$	206,304,225		
b. Administrative Expenses		(2,153,976)		(2,028,205)		
c. Investment Expenses		(4,812,715)	<u> </u>	(8,986,466)		
d. Net Investment Return	\$	111,096,586		195,289,554		
5. Market Value of Assets, End of Year	\$	1,716,317,106		1,794,741,765		
6. Estimated Rate of Return for Plan Year <sup>1</sup>						
a. Gross Rate of Return		7.10 %		12.50 %		
b. Net Rate of Return <sup>2</sup>		6.60 %		11.80 %		

<sup>1.</sup> Method used for calculating rate of return does not reflect specific timing of cash inflows and outflows. All cash flows are assumed to be distributed evenly throughout the year.

<sup>2.</sup> Net of Investment and Administrative Expenses

# C. <u>Development of Actuarial Value of Assets as of January 1, 2011</u> (\$ in thousands)

1. Market Value	of Plan Assets a	s of January 1, 20	11	\$	\$1,794,742
2. Developmen	t of Deferred Gain	(Loss)			
		<u>Inve</u> s	stment Income		
<u>Year</u>	<u>Actual</u>	<b>Expected</b>	<u>Difference</u>	% Deferred	Deferred Amount
2010	\$195,290	\$145,065	\$50,225	80%	\$40,180
2009	\$111,097	\$146,505	(\$35,408)	60%	(\$21,245)
2008	(\$224,883)	\$121,195	(\$346,078)	40%	(\$138,431)
2007	\$112,704	\$91,350	\$21,354	20%	\$4,271
2006	\$132,800	\$97,705	\$35,095	0%	\$0
				\$	(\$115,225)
3. Actuarial Val	ue of Plan Assets	s as of January 1,	2011	\$	\$1,909,967
4. Ratio of Actu	uarial Value to Ma		106.42%		
5. Rate of Retu	rn on Actuarial Va	alue of Assets for	2010		4.80%

The Actuarial Value of Assets recognizes expected investment return fully each year. Differences between actual and expected investment income are recognized over a five-year period at a rate of 20 percent per year. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than Market Value. The Actuarial Value of Assets is unbiased with respect to Market Value. At any time it may be either greater or less than Market Value. If assumed rates are exactly realized for four consecutive years, it will become equal to Market Value.

# D. Analysis of Actuarial Net Gain / (Loss) as of January 1, 2011

(\$ in thousands)

1. Unfunded Accrued Liability as of January 1, 2010	\$ 651,733
2. Expected Increase (Decrease) in Unfunded Accrued Liability during 2010	
a. Interest on Unfunded Liability @ 8.75%	\$ 57,027
b. Contributions in excess of Normal Cost and Interest on Unfunded Liability	(43,108)
c. Pre-2010 Asset Losses (Gains) recognized during 2010	 65,007
d. Net Expected Increase (Decrease) in Unfunded Accrued Liability	\$ 78,926
3. Expected Unfunded Accrued Liability as of January 1, 2011	\$ 730,659
4. Sources of Actuarial Loss (Gain) as of January 1, 2011	
a. Loss (Gain) on Actuarial Assets	\$ (10,045)
b. Loss (Gain) from payroll growth different from expected	10,114
c. Loss (Gain) from Retirement and Other Separation Experience	(1,177)
d. Loss (Gain) from Retirees' Mortality Experience	2,674
e. Loss (Gain) from New Entrants	1,863
f. Other Demographic Loss (Gain), including data	 17,883
g. Total Net Loss (Gain) as of January 1, 2011	\$ 21,312
5. Actual Unfunded Accrued Liability as of January 1, 2011	
(before assumption changes)	\$ 751,971
6. Changes in Actuarial Assumptions as of January 1, 2011 <sup>1</sup>	\$ 62,253
7. Actual Unfunded Accrued Liability as of January 1, 2011 (after assumption changes)	\$ 814,224

<sup>1.</sup> The interest rate assumption was reduced from 8.75% to 8.50% as of January 1, 2011.

# SECTION III - GASB NO. 25

# A. Overview - GASB Statement No. 25 Disclosure

Statement Number 25 of the Governmental Accounting Standards Board established reporting standards for the annual financial reports of defined benefit pension plans. The statement requires disclosure of the "schedule of funding progress" and the "schedule of employer contributions" in the System's financial statements.

The "schedule of funding progress" shows historical trend information about the Plan's actuarial value of assets, the actuarial accrued liability and the unfunded actuarial accrued liability. The actuarial funded status is measured by comparing the actuarial value of assets (based on a five-year smoothed market value) with the accrued liability. The accrued liability is the present value of benefits accumulated to date under the System's funding method and reflects future pay increases for active employees. On this basis, the Plan's funded ratio is 70.1% as of January 1, 2011. The funded ratio is based on an actuarial value of assets of \$1,909,967,120 and an accrued liability of \$2,724,190,616. Exhibit A in Section III shows the schedule of funding progress.

The "schedule of employer contributions" shows historical trend information about the annual required contributions (ARC) of the employer and the percentage of the ARC contributed to the Plan. The ARC is equal to the normal cost plus amortization of the unfunded actuarial accrued liability over 30 years. The employer contributions to the Plan for the plan year ended December 31, 2010, which were based on the January 1, 2010 valuation, were equal to 93.5% of the ARC. Exhibit C in Section III shows the schedule of employer contributions.

# B. <u>Schedule of Funding Progress - GASB Statement No. 25 Disclosure</u>

(\$ in thousands)

Actuarial Valuation Date		Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded Accrued Liability as a Percentage of Covered Payroll
1/1/2011	1	1,909,967	2,724,191	814,224	70.1%	528,288	154.1%
1/1/2010		1,936,849	2,588,462	651,613	74.8%	567,173	114.9%
1/1/2009		1,995,953	2,632,356	636,403	75.8%	594,139	107.1%
1/1/2008	2	941,864	2,531,440	1,589,576	37.2%	571,314	278.2%
1/1/2007	3	1,007,305	2,466,106	1,458,801	40.8%	562,567	259.3%
1/1/2006		810,336	2,354,125	1,543,789	34.4%	547,532	282.0%
1/1/2005		902,117	2,291,162	1,389,045	39.4%	544,442	255.1%
1/1/2004		1,062,399	2,189,666	1,127,267	48.5%	486,626	231.6%
1/1/2003		1,190,087	2,085,723	895,636	57.1%	480,740	186.3%
1/1/2002		1,355,567	2,044,330	688,763	66.3%	459,343	149.9%

<sup>1.</sup> Effective January 1, 2011, the rate of return for disclosure purposes was changed to 8.50 percent.

<sup>2.</sup> Effective January 1, 2008, the rate of return for disclosure purposes was changed to 8.75 percent. Prior year's information is based on a rate of 9.00 percent as defined in the terms of the bargaining agreement.

<sup>3.</sup> Effective January 1, 2007, retiree healthcare assets have been marked to the market value of the retiree healthcare account, and are disclosed under GASB No. 43. Previously, retiree healthcare assets disclosed under GASB No. 25 were allocated in proportion to actuarial accrued liabilities. Note that the increase in funded ratio is predominantly due to this change and without this change the funded ratio would have declined.

# C. <u>Schedule of Employer Contributions - GASB Statement No. 25 Disclosure</u> (\$ in thousands)

Year Ended 31-Dec	Authority Contribution (a)	Employee Contibution (b)	Total Contribution (a+b)	Annual Required Contribution (c)	Percentage Contributed ([a+b]/c)
2010	56,216	45,265	101,481	108,478	93.5%
2009	41,448	34,974	76,422	118,717	64.4%
2008	1,165,947	27,798	1,193,745	206,670	577.6%
2007	25,038	12,549	37,587	198,457	18.9%
2006	23,931	11,971	35,902	194,926	18.4%
2005	19,850	9,784	29,634	180,227	16.4%
2004	20,210	10,123	30,333	153,253	19.8%
2003	19,570	9,813	29,383	117,305	25.0%
2002	19,766	9,883	29,649	97,044	30.6%
2001	24,081	12,067	36,148	73,387	49.3%

The information presented above was determined as part of the actuarial valuation as of one year prior to the dates indicated (i.e., the contribution rates determined by the valuation completed as of January 1, 2009 were contributed in the fiscal year ending December 31, 2010).

#### Additional information as of the latest actuarial valuation follows:

Valuation Date: January 1, 2011
Actuarial Cost Method: Projected Unit Credit
Asset Valuation Method: 5-year smoothed market

**Actuarial Assumptions:** 

(i) Investment Rate of Return 8.50%

(ii) Salary Increases (including merit increases and wage inflation)

2.75% for 2011, 1.50% for 2012-14, and service-graded table with 5% ultimate rate after 5 years of

service thereafter

#### D. <u>Annual Required Contribution (ARC)</u>

(\$ in thousands)

		Plan Year Ending			
	12	2/31/2010	,	12/31/2011	
Investment Rate of Return Assumption		8.75%		8.50%	
Normal Cost	\$	46,887	\$	48,309	
Amortization of Unfunded Actuarial Liability 1		57,044		69,829	
Interest Adjustment <sup>2</sup>		4,547		5,021	
Total ARC	\$	108,478	\$	123,158	

<sup>&</sup>lt;sup>1</sup> 30 Year Level Dollar Amortization of Unfunded Actuarial Accrued Liability

<sup>&</sup>lt;sup>2</sup> Interest on Normal Cost and Amortization of Unfunded Actuarial Liability to the middle of the year

# E. Solvency Test - GASB Statement No. 25 Disclosure

# Solvency Test - Comparative Summary of Accrued Liability and Actuarial Value of Assets

		Accrued Liability for:				of Accrued Lia by Actuarial V Assets	•
	(1)	(2)	(3)		(1)	(2)	(3)
		Retirees,					
		Beneficiaries,	Active Member				
Valuation as	Active Member	TVRs, and	(Employer	Actuarial Value of			
of January 1	Contributions	Disableds	Financed Portion)	Assets <sup>1</sup>			
2011	242,723,521	1,886,770,851	594,696,243	1,909,967,120	100 %	88.36 %	0.00 %

<sup>1.</sup> Excludes health care assets.

# SECTION IV - ACTUARIAL ASSUMPTIONS AND METHODS

- 1. Rate of Covered Pay: The rate of covered pay for participants has been estimated at \$528,287,879 for 2011. The following adjustments were made to the actual covered earnings for 2010 supplied by the Authority:
  - (a) No earnings or a fractional year of earnings were submitted for employees with a work status date in 2010 who were hired during 2009. We have annualized the 2010 earnings and assumed minimum earnings of \$25,000 per year for this group.
  - (b) For employees on layoff, extended leave of absence, or inactive status, we have assumed minimum earnings of \$25,000 per year.
  - (c) For employees whose 2010 earnings were less than \$20,000, we have assumed an annual rate of \$25,000 per year.
  - (d) For all employees, 2011 salary was assumed to increase 2.75% from 2010.
- **2. Retiree Benefits:** The benefit amounts received for retirees were compared to information received from the Authority for the prior valuation.
- 3. Actuarial Cost Method: The normal cost and actuarial liability were determined using the Projected Unit Credit cost method. The normal cost for each individual active member equals the portion of the actuarial present value of projected benefits allocated to service earned during the current year. The actuarial accrued liability for each individual active member equals the portion of the actuarial present value of projected benefits allocated to service earned during prior plan years. The actuarial accrued liability for retired and inactive members equals the present value of benefits.
- 4. Asset Valuation Method: Under the Plan's asset valuation method, assumed investment return is recognized fully each year. The differences between actual and assumed investment return are phased in over a five-year period with 20 percent of the difference between expected and actual return recognized each year. In any year the actuarial value of assets may be higher or lower than the market value of assets, but if the assumed return is earned for four years, the two will be equal.
- **5. Amortization Method:** Unfunded liabilities are funded as a level dollar. For GASB purposes, a 30-year period is used for the pension liability.
- **6. Earnings on Plan Assets:** 8.50% per annum, compounded annually.

**7. Salary Inflation:** 2011: 2.75% 2012-2014: 1.50%

2015 and after: 4.00%

**8. Compensation Increases:** According to the following table, compounded annually, assumed end of year (includes inflation):

Years of	Year-over-year Compensation Increases			
Service	2011	2012-14	2015 and after	
1	2.75%	1.50%	15.00%	
2	2.75%	1.50%	13.00%	
3	2.75%	1.50%	11.00%	
4	2.75%	1.50%	9.00%	
>=5	2.75%	1.50%	5.00%	

# SECTION IV - ACTUARIAL ASSUMPTIONS AND METHODS

# 9. Mortality:

- (a) Active Members—The 1994 Group Annuity Mortality Table for males and females multiplied by 90 percent.
- (b) Retirees & Survivors—The 1994 Group Annuity Mortality Table for males and females.
- (c) Disabled Employees— The 1994 Group Annuity Mortality Table for males and females multiplied by 110 percent.
- **10. Withdrawals from Service:** According to the following table shown for illustrative ages:

Rates of Termination for Reasons Other

Age	than Death or Disability	
25	7.50%	
30	5.60%	
35	4.60%	
40	3.40%	
45	2.90%	
50	2.40%	
55 & Older	0.50%	

If service is 25 or greater, no withdrawal is assumed.

In addition, active headcount was assumed to remain flat for all years in the future.

11. Recovery from disability without returning to work: Disabled members are assumed to recover according to the following table as shown for illustrative ages:

Sample Attained	Disabled Recovery			
Ages	Men	Women		
30	0.412%	0.461%		
35	0.406%	0.447%		
40	0.382%	0.422%		
45	0.326%	0.393%		
50	0.216%	0.343%		
55	0.013%	0.248%		
60	0.000%	0.012%		
65	0.000%	0.000%		
70	0.000%	0.000%		
75	0.000%	0.000%		
80	0.000%	0.000%		

- 1. Disability recovery after verification of the ability to return to work in the same position as determined by the Plan's Disability manager.
- **12. Disability Allowance:** According to the following table as shown for illustrative ages:

	Rate of
Age	Disability
25	0.10%
30	0.10%
35	0.20%
40	0.30%
45	0.40%
50	0.50%
55	0.60%
60	0.70%
65 & older	0.78%

If service is 25 or greater, no disability is assumed.

#### 13. Service Retirements<sup>1,2</sup>:

Age	Pre 9/5/2001 Hires  Age Probability of Retirement				Post 1/18/2008 Hires Probability of Retirement	
	Service<25	Service>25	Service<25	Service>25	Service<25	Service>25
55	1.50%	25.00%	1.50%	25.00%	1.50%	1.50%
56	1.50%	27.50%	1.50%	27.50%	1.50%	1.50%
57	2.00%	30.00%	2.00%	30.00%	2.00%	2.00%
58	2.00%	32.50%	2.00%	32.50%	2.00%	2.00%
59	2.00%	35.00%	2.00%	35.00%	2.00%	2.00%
60	2.50%	37.50%	2.50%	37.50%	2.50%	2.50%
61	4.00%	40.00%	4.00%	40.00%	4.00%	4.00%
62	15.00%	42.50%	15.00%	42.50%	20.00%	20.00%
63	15.00%	45.00%	15.00%	45.00%	15.00%	15.00%
64	20.00%	47.50%	20.00%	47.50%	15.00%	15.00%
65	30.00%	50.00%	30.00%	50.00%	60.00%	60.00%
66	30.00%	50.00%	30.00%	50.00%	25.00%	25.00%
67	30.00%	60.00%	30.00%	60.00%	25.00%	25.00%
68	50.00%	70.00%	50.00%	70.00%	25.00%	25.00%
69	50.00%	80.00%	50.00%	80.00%	25.00%	25.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

- 1. Rates apply only for members with greater than 10 years of service. Members with less than 10 years of service are assumed to defer retirement until eligible for retiree healthcare benefits. For all ages 55 and above, 10% is added to the rate at 10 years of service.
- 2. For ages under 65, the above rates are multiplied by 75% if service is between 22 and 23 years, 50% if service is between 23 and 24 years, and 25% if service is between 24 and 25 years.
- **Spouse Data:** 75% of employees eligible at retirement are assumed to be married, 50% of those married are assumed to elect a spouse option (Option A–50%) and the average equivalency factor to convert their accrued pension to a spouse option (Option A–50%) is assumed to be 85%. A wife is assumed to be 3 years younger than her husband. The valuation assumes 50% of all married retirees will elect healthcare coverage for their dependents. Actual dependent coverage data was used for participants retired as of the valuation date.

# <u>SECTION IV - ACTUARIAL ASSUMPTIONS AND METHODS</u>

#### 15. Miscellaneous and Technical Assumptions:

Pay Increase Timing: End of (Fiscal) year.

Decrement Timing: Decrements of all types are assumed to occur mid-year.

Eligibility Testing: Eligibility for benefits is determined based upon the age nearest birthday and

service nearest whole year on the date the decrement is assumed to occur.

Benefit Service: Exact fractional service from date of participation is used to determine the

amount of benefit payable.

Decrement Relativity: Decrement rates are used directly based on assumptions, without adjustment

for multiple decrement table effects.

Decrement Operation: Disability and turnover do not operate after 25 years of service.

# SECTION V - SUMMARY OF PLAN AND CONTRIBUTION PROVISIONS

**Eligibility**—All non-temporary employees of the Chicago Transit Authority are included in the Plan after completing 12 months of continuous service unless specifically excluded by the terms of a collective bargaining agreement. Exempt non-vested employees may opt out of the plan. Chicago Transit Authority Board members are not included.

**Contributions**—The Chicago Transit Authority will contribute a percent of compensation for all participating employees and each participating employee will contribute a percent of his compensation to the Plan according to the following schedule:

	Contribution	ntribution Percentage		
Dates	Authority	Employees		
July 1, 1997 until January 18, 2008	6%	3%		
January 18 and thereafter	12%	6%		

For years through 2040, the amount paid by the Authority with respect to debt service on bonds issued for contribution to the Retirement Plan shall be treated as a credit against the amount of required contribution up to an amount not to exceed six percent of compensation paid by the Authority in the following year.

Minimum contributions as set forth on page 25 of this report may also apply.

**Normal Retirement**—The normal retirement age is 65. For employees retiring on or after January 1, 2001 the annual normal retirement pension is equal to the sum of (a) and (b) below, but not greater than 70.0% of the employee's average annual compensation:

- (a) 1% of the employee's past service compensation as of May 31, 1948, for each full year of continuous service prior to June 1, 1949, plus
- (b) 2.15% of average annual compensation for each year (and fraction of completed calendar months) of continuous service after June 1, 1949.

Average annual compensation is equal to the highest average compensation over any four calendar years out of the final 10 calendar years prior to normal retirement (or actual retirement, if later). If an employee has at least 20 years of service, his minimum annual pension is \$2,220.

### SECTION V - SUMMARY OF PLAN AND CONTRIBUTION PROVISIONS

#### **Early Retirement:**

Employees hired before January 18, 2008: An employee may retire early after attaining age 55 and completing at least three years of continuous service, or after completion of 25 years of continuous service. The early retirement pension is equal to the accrued normal retirement pension based on compensation and service at early retirement, reduced by 5% for each year or fraction younger than age 65. The 5% per year reduction is not applied if the employee has at least 25 years of service. Employees hired after September 5, 2001 may retire early with unreduced benefits after attaining age 55 and completing at least 25 years of service.

Employees hired on and after January 18, 2008: An employee may retire with unreduced benefits upon attainment of age 64 with 25 years of service. An employee may retire with a benefit reduced as described above upon attainment of age 55 with 10 years of continuous service.

#### **Disability Allowance:**

An employee is eligible for a disability allowance if he becomes disabled after completing 10 years of service, or if his disability after completing five years of service is covered under the Workmen's Compensation Act. An employee is disabled if he either (a) is totally and permanently disabled or (b) is unable to return to work after receiving 26 weeks of benefits under the Authority's Group Accident and Sickness Insurance or from the Authority under the Workmen's Compensation Act. An employee is subject to a 26 week waiting period before disability allowance benefits are provided. The disability allowance is equal to the normal retirement pension based on compensation and service at disability subject to a minimum annual pension of \$4,800.

#### **Death Benefits:**

If an employee dies prior to retirement or disability and after one year of service, his contributions, accumulated with interest, are paid to his beneficiary. "Interest" is equal to the rate of interest earned by the Fund (to a maximum of 2%) prior to January 1, 1971, 1/2 of the rate of interest earned by the Fund (to a maximum of 3%) between January 1, 1971, and January 1, 1980, and 3% after December 31, 1979. If an employee dies after 90 days of service but prior to one year of service, his contributions, without interest, are paid to his beneficiary; and if he dies prior to 90 days of service, his contributions are not refunded.

If an employee is eligible for early retirement, he is automatically covered by a surviving spouse benefit, payable upon his death prior to retirement, in lieu of a return of his contributions. The spouse benefit is equal to 1/2 of the pension which would have been payable to the employee if he had retired on the first day of the month of his death and had elected an optional form of pension providing 1/2 of his reduced pension to his surviving spouse. Employees may elect not to be covered by this option and provide for the payment of their contributions with interest to their beneficiary in lieu thereof.

If an employee dies after his retirement pension has commenced, his beneficiary receives the excess, if any, of his contributions, accumulated with interest to his retirement date, over the sum of the pension payments made to him. However, if his surviving spouse is entitled to a pension after his death, such excess will not be paid to his beneficiary. At the death of the surviving spouse, the excess, if any, of the contributions accumulated with interest to his retirement date over the sum of the pension payments made to him and his surviving spouse will be paid.

A retired employee's beneficiary will receive a death benefit equal to the amount from the following schedule according to the employee's age and service at retirement:

Age	Service	Age+Service	Death Benefit
65	20	N/A	\$8,000
60	N/A	90	\$8,000
N/A	25	N/A	\$8,000
N/A	N/A	94	\$8,000
60-64	20	N/A	\$6,000
55-59	20	N/A	\$5,000
All Others			\$2,000

#### **Termination Benefits:**

If an employee terminates his employment prior to eligibility for retirement or disability and after completing one year of service, he receives a refund of his contributions plus interest (3% after December 31, 1979). If he terminates after 90 days but prior to one year, he receives his contributions without interest, and if he terminates less than 90 days after hire, he receives no refund. If an employee has completed 10 years of continuous service and elects to leave his contributions in the Plan, he remains entitled to his normal retirement pension beginning at age 65 but based on his compensation and service at termination.

#### **Optional Benefit Forms:**

In lieu of a normal pension, an employee may elect an optional annuity of equivalent actuarial value providing payments of 1/2, 2/3, or all of his reduced pension to his spouse after his death (Option A).

Alternatively, an employee may elect an optional annuity of equivalent actuarial value providing payments of 1/2, 2/3, or all of his reduced pension to his spouse after his death with the further provision that his benefit will be restored to the full amount to him after the death of his spouse (Option B).

### **Retired Employees:**

Benefits for retired employees have been valued according to benefits in effect at time of retirement as modified by subsequent amendments. Such benefits are kept on records maintained by the Authority.

#### **Voluntary Early Retirement Incentive Program:**

During 1997, the Plan was amended to offer enhanced retirement benefits to all employees who have at least 25 years of continuous service on or before December 31, 1999, and who have not retired prior to January 1, 1997. Those eligible on or before June 30, 1997 must elect to participate during the period March 1, 1997, to June 30, 1997. Employees eligible during the period July 1, 1997, to December 31, 1999, must elect to participate between July 1, 1997, and February 28, 1998. All eligible employees who elect to participate must retire no later than December 31, 1999. The benefit is determined based on a formula multiplier of 2.40% of average annual compensation with the benefit cap at 70.0% of such average annual compensation.

# SECTION V - SUMMARY OF PLAN AND CONTRIBUTION PROVISIONS

#### Ad hoc increases in retiree benefits:

As part of the Arbitration Award ruling of November 13, 2003, the following ad hoc increases were given to retirees in payment status as of January 1, 2000:

- (a) \$75 per month for members retired before January 1,1980
- (b) \$50 per month for members who retired on or after January 1, 1980, but before January 1, 1991
- (c) \$40 per month for members who retired on or after January 1, 1991, but before January 1, 2000

# SECTION V - SUMMARY OF PLAN AND CONTRIBUTION PROVISIONS

#### Contribution Requirements Under P.A. 95-0708

Beginning January 18, 2008, the Authority shall make contributions to the Retirement Plan in an amount equal to 12 percent of compensation and participating employees shall make contributions in an amount equal to six percent of compensation. For years through 2040, the amount paid by the Authority with respect to debt service on bonds issued for contribution to the Retirement Plan shall be treated as a credit against the amount of required contribution, up to an amount not to exceed six percent of compensation paid by the Authority in the following year.

If the funded ratio is projected to decline below 60 percent in any year before 2040 using reasonable actuarial assumptions and the projected unit credit funding method, the contribution shall be increased so that the funded ratio is not projected to drop below 60 percent. If the funded ratio actually drops below 60 percent in any year before 2040, the contribution shall be increased so that the funded ratio is projected to reach 60 percent within 10 years. The increase in contributions shall be effective as of the January 1 following the determination, or 30 days following the determination, whichever is later. One-third of the increase in contributions shall be paid by participating employees and two-thirds by the Authority.

Beginning in 2040, the minimum contribution for each fiscal year shall be redetermined each year as the amount required to bring the total assets of the Retirement Plan up to 90 percent of the total actuarial liabilities by the end of 2059, using the projected unit credit funding actuarial cost method and reasonable actuarial assumptions. Participating employees shall be responsible for one-third of the required contribution and the Authority shall be responsible for two-thirds of the required contribution.

Beginning in 2060, the minimum contribution for each year shall be an amount needed to maintain the total assets of the Retirement Plan at 90 percent of the total actuarial liabilities of the Plan and the contribution shall be funded one-third by participating employees and two-thirds by the Authority.

# A. Summary of Membership Data as of January 1, 2011 (\$ in thousands)

### **Active Employees**

Item	Male	Female	Total
Number of Members <sup>1</sup>	6,279	2,653	8,932
Annual Salaries <sup>2</sup>	\$384,150	\$144,138	\$528,288
Average Age <sup>1</sup>	47.43	45.92	46.98
Average Age <sup>1</sup> Average Service <sup>1</sup>	14.35	12.32	13.74

# **Terminated Vested Employees**

Item	Male	Female	Total
Number of Members	46	14	60
Annual Accrued Benefit	\$1,002	\$377	\$1,379
Average Age	55.16	53.96	54.88

#### **Retirees and Beneficiaries**

Item	Male	Female	Total	
Number of Members	6,520	1,877	8,397	
Annual Retirement Benefit	\$169,526	\$32,764	\$202,290	
Average Age	68.87	70.52	69.24	

#### **Disabled Retirees**

ltem	Male	Female	Total
Number of Members	558	355	913
Annual Disability Benefit	\$8,345	\$4,647	\$12,992
Average Age	63.61	62.26	63.09

- 1. Active statistics include all participants who are actively employed which includes 14 participants who are on leave and 53 participants who have opted out of participating in the Plan and are only entitled to a return of their contributions.
- 2. The salary information for the 53 participants who have opted out of participating in the Plan is not included.

# B. Active Membership Data as of January 1, 2011 Number of Participants

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-23	24-29	29-33	35-38	39+	Total
Under 24	33	1	-	-	-	-	-	-	-	34
24-29	220	96	3	-	-	-	-	-	-	319
29-33	240	347	129	5	-	-	-	-	-	721
35-38	233	360	363	103	7	-	-	-	-	1,066
39-44	183	394	436	345	158	3	-	-	-	1,519
44-51	166	317	450	364	375	103	-	-	-	1,775
50-54	126	272	349	278	351	172	72	5	-	1,625
55-59	66	150	212	189	221	91	129	35	4	1,097
60-64	35	87	112	112	113	50	61	26	20	616
Over 64	8	24	25	23	29	15	17	6	13	160
Total	1,310	2,048	2,079	1,419	1,254	434	279	72	37	8,932

# C. Retiree and Beneficiary Census Data as of January 1, 2011

# **Number and Average Annual Allowance**

Age Last Birthday	Number	Ann	ual Allowances	Averag	je Allowa
Retired Annuitants					
Under 50	16	\$	592,112	\$	37,0
50-54	239	\$	8,757,450	\$	36,6
55-59	861	\$	28,465,402	\$	33,0
60-64	1,774	\$	51,964,983	\$	29,2
65-69	1,878	\$ \$ \$	49,159,160	\$ \$ \$	26,1
70-74	1,245	\$	28,787,984	\$	23,1
75-79	744	\$	14,245,326	\$	19,1
Over 79	844	\$	12,603,590	\$	14,9
Total	7,601	\$	194,576,007	\$	25,5
Surviving Spouses					
Under 50	10	\$	118,485	\$	11,8
50-54	22	\$	280,339	\$	12,7
55-59	32	\$	415,080	\$	12,9
60-64	70	\$	1,083,828	\$ \$ \$ \$	15,4
65-69	103	\$	1,104,334	\$	10,7
70-74	107	\$	1,061,944	\$	9,9
75-79	109	\$	1,048,781	\$	9,6
Over 79	343	\$\$\$\$\$\$\$\$ -	2,601,092	\$	7,5
Total	796	\$	7,713,882	\$	9,6
Disability Retirees					
Under 50	67	\$	989,791	\$	14,7
50-54	84	\$	1,320,926	\$	15,7
55-59	150	\$	2,467,745	\$	16,4
60-64	243	\$	3,468,667	\$	14,2
65-69	182	\$	2,509,802	\$	13,7
70-74	114	\$	1,395,699	\$	12,2
75-79	53	\$ \$ \$ \$ \$ \$ \$	645,349	\$	12,1
Over 79	20	\$	194,284	\$ \$ \$	9,7
Total	913	\$	12,992,263	\$	14,2

# D. Terminated Vested Employee Data as of January 1, 2011

# **Number and Average Accrued Benefit**

Age Last Birthday	Number	Annual Accrued Benefit		Average Accrued Benefit		
Terminated Vested						
Under 35	0	\$	-	\$	-	
35-39	1	\$	15,592	\$	15,592	
40-44	1	\$	20,702	\$	20,702	
45-49	8	\$	256,831	\$	32,104	
50-54	19	\$	556,924	\$	29,312	
55-59	19	\$	349,275	\$	18,383	
60-64	12	\$	179,491	\$	14,958	
65-69	0	\$	-	\$	-	
70-74	0	\$	-	\$	-	
Over 74	0	\$	-	\$	-	
Total	60	\$	1,378,815	\$	22,980	