

**REGIONAL TRANSPORTATION AUTHORITY PENSION PLAN** ACTUARIAL VALUATION AS OF JANUARY 1, 2012

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September 28, 2012

Board of Trustees Regional Transportation Authority Pension Plan Chicago, Illinois

Dear Trustees:

We are pleased to provide our formal annual Actuarial Valuation Report as of January 1, 2012, for the Regional Transportation Authority Pension Plan ("Plan"). The actuarial valuation was performed at the request of the Regional Transportation Authority ("RTA") and is intended for use by the RTA and those designated by the RTA. This report may be provided to parties other than the RTA only in its entirety and only with the permission of the RTA.

This report provides, among other things, the recommended annual contribution of the Plan for the Plan Year commencing January 1, 2012, and ending on December 31, 2012. The investment return assumption was decreased from 8.25 percent to 7.75 percent since the prior valuation. In addition, there was a change in the method for reporting the market value of assets and using that asset value to develop the actuarial value of assets to accrual accounting to be consistent with the asset value shown in the Plan's financial statement. This change resulted in an increase in the assets and therefore partially offset the increase in liabilities and in the contribution requirement resulting from the change in the investment return assumption. The other actuarial assumptions and the actuarial cost method used in this valuation are the same as those used in the prior actuarial valuation.

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Regional Transportation Authority Pension Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report should not be relied on for any purpose other than the purpose stated.

The signing actuaries are independent of the plan sponsor.

Board of Trustees Regional Transportation Authority Page 2

The valuation was based upon information furnished by the Regional Transportation Authority agencies and Reed-Ramsey, concerning benefits provided by the Regional Transportation Authority Pension Plan, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the Regional Transportation Authority agencies or Reed-Ramsey.

We will be pleased to review this report with you at your convenience.

Respectfully submitted, Gabriel, Roeder, Smith & Company

Lance Weiss, E.A., F.C.A., M.A.A.A.

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**VALUATION RESULTS** 

### COMMENTS ON THE VALUATION

At your request we have performed the actuarial valuation of the Regional Transportation Authority Pension Plan as of January 1, 2012.

The purposes of this actuarial valuation are as follows:

- To determine the funding status of the Plan as of the valuation date;
- To determine the recommended contribution for the current fiscal year; and
- To provide accounting and other data required by the Plan.

We received the data from the Regional Transportation Authority ("RTA" or "Plan Sponsor"). We performed certain checks for reasonableness and found the data to be complete and reliable for valuation purposes. However, we did not audit the data.

A total of 1,031 active members were included in the valuation as of January 1, 2012. Between the 2011 and 2012 valuations, the number of active employees decreased by 5 members, or 0.5 percent. The average annual valuation pay increased by 1.5 percent, from \$64,180 to \$65,156 between the 2011 and 2012 valuation. The number of benefit recipients increased from 481 to 518, or 7.7 percent, since the last valuation. The average monthly benefit increased by 3.3 percent, from \$1,288 to \$1,331.

Section B outlines the principal benefit provisions of the Plan. There have been no changes in the plan provisions since the actuarial valuation at January 1, 2011.

The investment return assumption was decreased from 8.25 percent to 7.75 percent since the prior valuation. In addition, the expense assumption was decreased from \$950,000 to \$900,000. The actuarial cost method and other assumptions used in this valuation are the same as those used in the actuarial valuation at January 1, 2011.

During the plan year ending December 31, 2011, the unfunded actuarial accrued liability ("UAAL") increased from \$58,030,806 as of January 1, 2011, to \$59,457,062 as of January 1, 2012, which is an increase of \$1,426,256. The key factors contributing to the change in UAAL are summarized below:

Source	Change in UAAL
UAAL at January 1, 2011	\$ 58,030,806
Normal Cost and Interest on UAAL and Normal Cost	12,057,386
Contributions at End of Year	(12,547,000)
(Gain) Loss on Assets <sup>1</sup>	6,683,638
Change Due to Using Accrual Accounting Assets <sup>2</sup>	(11,108,228)
Demographic (Gain) Loss <sup>3</sup>	(3,578,838)
Change Due to Decrease in Investment Return Assumption	9,919,298
UAAL at January 1, 2012	\$ 59,457,062

<sup>&</sup>lt;sup>1</sup>Includes gains and losses on an actuarial value of assets basis.

<sup>&</sup>lt;sup>2</sup>Market value of assets as of December 31, 2011, used to develop actuarial value of assets based on accrual accounting and consistent with asset value shown in the Plan's financial statement.

 $<sup>^3</sup>$ Includes difference in actuarial accrued liability due to change in actuary and valuation software.

## COMMENTS ON THE VALUATION (CONTINUED)

On a market value basis, the Plan assets had an investment return of approximately -0.3 percent. Continued recognition of the fiscal year end 2007 and fiscal year end 2008 investment losses and partial recognition of the 2011 investment loss, which was partially offset by recognition of investment gains during fiscal years ending 2009 and 2010, resulted in an estimated net asset rate of return of 3.0 percent on an actuarial basis which compares to the assumed rate of return of 8.25 percent for fiscal year 2011.

### **Statutory and Recommended Employer Contributions**

The minimum employer contribution is defined in Chapter 40, Section 5/22-103 of the Illinois Compiled statutes. This section states:

- 1. An "under-funded pension plan" is defined as a pension plan which has a funded ratio of less than 90% at the last actuarial valuation.
- 2. An "under-funded pension plan" shall contribute, in addition to amounts otherwise required, amounts sufficient to bring the funded ratio up to 90% over a maximum period of 50 years from January 1, 2009.
- 3. The additional contributions shall be in substantially equal annual amounts over the funding period.

The pension plan document defines the employers' funding policy as contributions at least equal to an amount determined advisable by the Plan's actuary to maintain the Plan on a sound actuarial basis.

In the recent past, this contribution has been defined as equal to the Annual Required Contribution (ARC) used for accounting purposes under the Governmental Accounting Standards Board (GASB). (This will change under the new GASB Standards.) This contribution is equal to the normal cost plus 30-year level dollar amortization of the unfunded liability. The amortization period has been open – which means that the period is reset to 30 years at each valuation. This contribution policy satisfies the minimum employer contribution as defined in the statutes, which defines a remaining amortization period of 47 years as of January 1, 2012, and targets a funded ratio of 90% at the end of the period, compared with a 30-year period that targets a funded ratio of 100%. The contribution has been made with a one year lag. Therefore, the contribution for fiscal year 2012 which is developed in the valuation as of January 1, 2012, is expected to be contributed in fiscal year 2013.

We recommend performing projections under different funding policies in order to help illustrate the funding progress that is projected to be made under the funding policy that has been used and alternate policies.

The recommended contribution using a 30-year open period level dollar amortization period increased by \$946,395, from \$12,547,000 for fiscal year 2011 (to be contributed during fiscal year 2012) to \$13,493,395 for fiscal year 2012 (to be contributed during fiscal year 2013). The increase is primarily due to the decrease in the investment return assumption from 8.25 percent to 7.75 percent, which was partially offset by the change to accrual accounting in reporting the market value of assets used to develop the actuarial value of assets.

The actuarial value of assets is currently 105 percent of the market value of assets. There is \$7,362,429 in net losses currently being deferred that will need to be phased into the actuarial value of assets over the next four years. This will put upward pressure on the recommended employer contribution rate.

## SUMMARY OF ACTUARIAL VALUATION RESULTS

		Ja	nuary 1, 2011 Results	Ja	nuary 1, 2012 Results
Membership Data	Active Members		1,036		1,031
Data	Retirees and Beneficiaries		481		518
	Deferred Vested		431		442
	TOTAL		1,948		1,991
Plan					
Liabilities	Actuarial Accrued Liability:				
	Active Members	\$	98,415,355	\$	103,978,576
	Retirees and Beneficiaries		73,423,585		82,155,667
	Deferred Vested		13,534,903		14,710,723
	TOTAL	\$	185,373,843	\$	200,844,966
	Actuarial Value of Assets at Valuation Date	\$	127,343,037	\$	141,387,904
	Unfunded (Overfunded) Actuarial				
	Accrued Liability	\$	58,030,806	\$	59,457,062
	Funded Position of Plan's Actuarial Accrued Liability <sup>1</sup>		68.7 %		70.4 %

Recommended
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Annual Contribution Requirements	]	Fiscal Year 2011	]	Fiscal Year 2012
Annual Normal Cost as of Valuation Date <sup>2</sup>	\$	5,766,000	\$	6,836,471
Normal Cost Expense Load		950,000		900,000
Interest on Normal Cost to End of Year <sup>3</sup>		554,000		599,577
30-Year Level Dollar Amortization of Unfunde Actuarial Accrued Liability at End of Year	d 	5,277,000		5,157,347
Total Recommended Annual Contribution				
for the Current Plan Year	\$	12,547,000	\$	13,493,395
Total Covered Payroll	\$	66,490,058	\$	67,176,064
Recommended Annual Contribution (As a percentage of pay)		18.870%		20.087%

<sup>&</sup>lt;sup>1</sup> Equals the ratio of the actuarial value of assets to the total actuarial accrued liability. <sup>2</sup> Unrounded normal cost of \$5,765,792 shown in prior actuary's report.

<sup>&</sup>lt;sup>3</sup> Assumes the contribution will be made at the end of the current fiscal year. The contribution is actually expected to be made at the end of the following fiscal year. Therefore, an additional year of interest, equal to \$1,045,738 for the fiscal year 2012 contribution may be contributed in order to avoid an actuarial loss due to the one year lag in the payment.

# SUMMARY OF ACTUARIAL VALUATION RESULTS (CONTINUED)

Allocation of Recommended Annual Contribution Requirements

Contribution				Allocat	ed Recommended
ents	201	1 Pensionable	Allocated	Ann	ual Contribution
		Payroll 1	Percent	R	Requirements
Metra	\$	31,227,197	49.0%	\$	6,615,046
Pace		25,018,461	39.3%		5,299,812
RTA		7,451,693	11.7%		1,578,537
Total	\$	63,697,351	100.0%	\$	13,493,395

<sup>&</sup>lt;sup>1</sup> 2011 pensionable payroll for members active during 2011 and active, retired, or terminated with a vested benefit in 2012.

### DERIVATION OF EXPERIENCE (GAIN) LOSS YEAR ENDED JANUARY 1, 2012

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is expected that gains and losses will cancel each other over a period of years, but year-to-year fluctuations are not uncommon. Detail on the derivation of the experience (gain) loss is shown below, along with a year-by-year comparative schedule.

1.	Unfunded Actuarial Accrued Liability at 01/01/2011	\$58,030,806
2.	Normal Cost Due at 01/01/2011	6,715,792
3.	Interest on (1) and (2) to 01/01/2012 (at 8.25% per annum)	5,341,594
4.	Contributions Applicable to 2011 Plan Year, as of 12/31/2011	12,547,000
5.	Expected Unfunded Actuarial Accrued Liability at $01/01/2012$ [(1) + (2) + (3) - (4)]	\$57,541,192
6.	Effect of Lowering Investment Return Assumption	\$ 9,919,298
7.	Expected Unfunded Actuarial Accrued Liability at 01/01/2012 [(5) + (6)]	\$67,460,490
8.	Actual Unfunded Actuarial Accrued Liability at 01/01/2012	\$59,457,062
9.	(Gain) Loss at 01/01/2012 [(8) - (7)]	\$ (8,003,428)

Loss due to timing of contribution (one year lag) is not included in amount above.

Year Ending December 31	Experience (Gain) Loss As % of Beginning of Year Accrued Liability	Estimated Rate of Return on Market Value of Assets	Estimated Rate of Return on Actuarial Value of Assets
2006	N/A	13.91 %	7.95 %
2007	N/A	5.38 %	10.31 %
2008	N/A	(22.24)%	(6.40)%
2009	N/A	24.40 %	12.68 %
$2010^{\ 1}$	N/A	11.14 %	5.06 %
2011	1.67 %	(0.31)%	3.01 %

<sup>&</sup>lt;sup>1</sup>Amounts prior to 2011 from prior actuary's valuation report as of January 1, 2011. 2011 experience loss of 1.67% is net of change due to accrual accounting of market value of assets.

### RECONCILIATION OF UNFUNDED LIABILITY

Actual Unfunded Actuarial Accrued Liability at 01/01/2011	\$ 58,030,806
Expected Unfunded Actuarial Accrued Liability at 01/01/2012 (Old Assumptions)	57,541,192
Effect of Lowering Investment Return Assumption	9,919,298
Expected Unfunded Actuarial Accrued Liability at 01/01/2012 (New Assumptions)	\$ 67,460,490
(Gains) Losses During the Year Attributable to:	
(Gain) Loss on Assets <sup>1</sup>	\$ 6,683,638
Change due to using Accrual Accounting Asset Value <sup>2</sup>	(11,108,228)
(Gain) Loss from New Actives	203,247
(Gain) Loss from Salary Changes	(1,739,695)
(Gain) Loss from Other Demographic Experience <sup>3</sup>	 (2,042,390)
Composite Actuarial (Gain) Loss	\$ (8,003,428)
Actual Unfunded Actuarial Accrued Liability at 01/01/2012	\$ 59,457,062

<sup>&</sup>lt;sup>1</sup>Includes gains and losses on an actuarial value of assets basis.
<sup>2</sup>Market value of assets as of December 31, 2011, used to develop actuarial value of assets based on accrual accounting and consistent with asset value shown in the Plan's financial statement.

<sup>&</sup>lt;sup>3</sup>Includes difference in actuarial accrued liability due to change in actuary and valuation software.

### RECONCILIATION OF MARKET VALUE OF ASSETS

	Dec	ember 31, 2010	Dec	ember 31, 2011
Net Assets Available for Benefits - Beginning of Year	\$	119,918,128	\$	135,095,184
Additions				
Investment Gain Net (depreciation) appreciation in fair value of investments Interest and dividends Total investment (loss) return		10,400,565 1,961,973 12,362,538		(2,426,347) 2,057,238 (369,109)
Less investment expenses Investment managers Trust fees Investment advisor		278,182 45,797 71,000		236,402 10,680 90,000
Total investment expenses		394,979		337,082
Net investment loss (gain)		11,967,559		(706,191)
Contributions  METRA pension contributions  PACE pension contributions  RTA pension contributions  Total contributions	\$	5,802,000 4,210,000 1,276,000 11,288,000	\$	6,462,000 4,605,000 1,480,000 12,547,000
Total Additions	\$	23,255,559	\$	11,840,809
Deductions				
Benefit Payments Administrative Expenses	\$	7,449,076 629,427	\$	12,324,267 586,251
Total Deductions	\$	8,078,503	\$	12,910,518
Net Increase in Net Assets Available for Benefits	\$	15,177,056	\$	(1,069,709)
Net Assets Available for Benefits - End of Year	\$	135,095,184	\$	134,025,475

Assets are based on accrual accounting and consistent with asset values shown in the Plan's financial statement. Amounts for year ending December 31, 2010, are restated from prior actuary's valuation report to be consistent with the Plan's financial statement.

# RECONCILIATION OF MARKET VALUE OF ASSETS (CONTINUED)

### Fiscal Year Ending

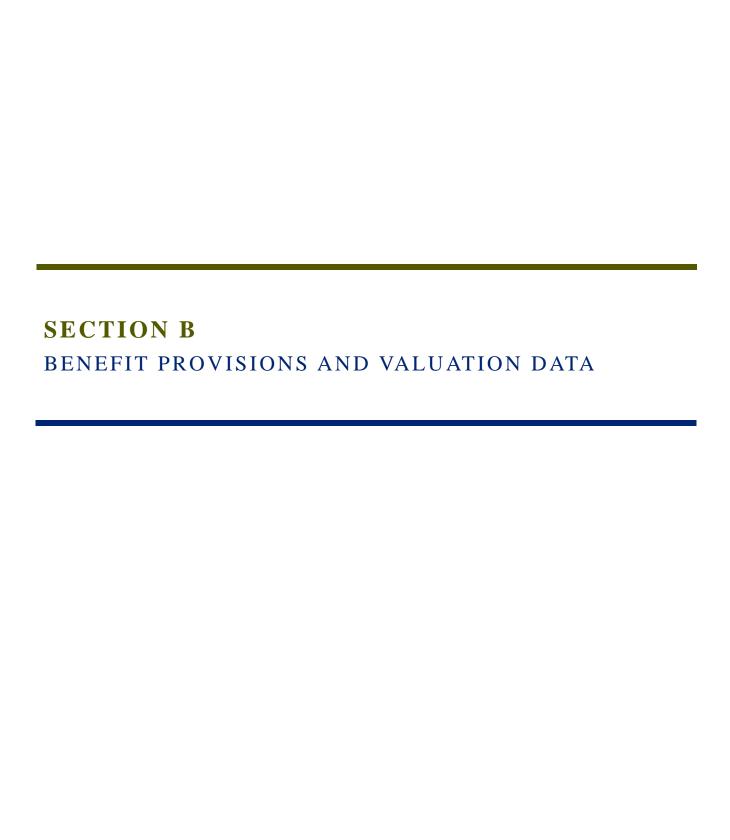
	Dec	ember 31, 2010	Dec	ember 31, 2011
Assets:				
Cash and Cash Equivalents	\$	12,266,185	\$	10,866,791
Investments, at Fair Value				
Corporate Fixed Income and Mutual Funds		36,948,820		38,071,115
Equity Mutual Funds		39,292,363		39,955,545
Common Stocks		24,652,881		22,667,670
Balances Funds		10,826,708		10,037,322
Total Investments		111,720,772		110,731,652
Receivables:				
Accrued Interest		308		401
Accrued Dividends		69,315		13,895
Pension Contribution - METRA		5,802,000		6,462,000
Pension Contribution - PACE		4,210,000		4,605,000
Pension Contribution - RTA		1,276,000		1,480,000
Total Receivables		11,357,623		12,561,296
Total Assets	\$	135,344,580	\$	134,159,739
Liabilities:				
Due to RTA	\$	21,000	\$	-
Accrued Expense		228,396		134,264
Total Liabilities	\$	249,396	\$	134,264
Net Assets Available for Benefits	\$	135,095,184	\$	134,025,475

Assets are based on accrual accounting and consistent with asset values shown in the Plan's financial statement. Amounts for year ending December 31, 2010, are restated from prior actuary's valuation report to be consistent with the Plan's financial statement.

## **DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS**

<u>-</u>	2010	2011	2012	2013	2014	2015
Beginning of Year:						
(1) Market Value of Assets	\$109,210,234	\$123,986,956				
(2) Actuarial Value of Assets	118,805,281	127,343,037				
End of Year:						
(3) Market Value of Assets	123,986,956	134,025,475				
(4a) Contributions	10,827,000	12,547,000				
(4b) Net Disbursements	8,249,076	13,247,600				
(5) Total Investment Income						
=(3)-(1)-(4a)+(4b)	12,198,798	(369,109)				
(6) Projected Rate of Return	8.50%	8.25%				
(7) Projected Investment Income						
$=(1)x(6)-([1+(6)]^{5}-1)x(4b)$	8,904,536	9,693,289				
(8) Asset Adjustment	0	11,108,228 2				
(9) Investment Income in		,, -				
Excess of Projected Income	3,294,262	(10,062,398)				
(10) Excess Investment Income Recognized						
This Year (5 year recognition)						
(10a) From This Year	658,852	(2,012,480)				
(10b) From One Year Ago	2,828,447	658,852	\$ (2,012,480)			
(10c) From Two Years Ago	(6,945,961)	2,828,447	658,852 \$	(2,012,480)		
(10d) From Three Years Ago	(584,908)	(6,945,961)	2,828,447	658,852 \$	(2,012,480)	
(10e) From Four Years Ago	1,098,866	(584,908)	(6,945,961)	2,828,445	658,854 \$	(2,012,47
(10f) Total Recognized Investment Gain/(Loss)	(2,944,704)	(6,056,050)	(5,471,142)	1,474,817	(1,353,626)	(2,012,47
(11) Change in Actuarial Value of Assets						
=(4a)-(4b)+(7)+(8)+(10f)	8,537,756	14,044,867				
End of Year:	122.004.054	124 025 455				
(3) Market Value of Assets	123,986,956	134,025,475				
(12) Preliminary Actuarial Value of Assets = (2)+(11)	127,343,037	141,387,904				
(12a) Upper Corridor Limit 120% x (3)	148,784,347	160,830,570				
(12b) Lower Corridor Limit 80% x (3)	99,189,565	107,220,380				
(13) Adjustment to Remain within 20% Corridor	0	0				
(14) Final Actuarial Value of Assets as of 12/31	127,343,037	141,387,904				
(15) Difference Between Market & Actuarial Values	(3,356,082)	(7,362,429)				
(16) Market Value Rate of Return	11.14%	(0.31)%				
(17) Actuarial Value Rate of Return	5.06%	3.01%				
(18) Ratio of Actuarial Value to Market Value	103%	105%				

<sup>&</sup>lt;sup>2</sup> Adjustment to be consistent with accrual accounting assets in financial statement.



### BRIEF SUMMARY OF PLAN PROVISIONS AS OF JANUARY 1, 2012

Following is a summary of the major plan provisions used in the valuation of this report. The Regional Transportation Authority is solely responsible for the validity, accuracy and comprehensiveness of this information. If any of the plan provisions shown below are not accurate and complete, the valuation results may differ significantly from those shown in this report and may require a revision of this report. Moreover, these plan provisions may be susceptible to different interpretations, each of which could be reasonable, and the different interpretations could lead to different valuation results.

Effective Date and Plan Year The Plan became effective July 1, 1976 and was amended and

restated effective June 1, 1984, January 1, 1987 and January

1, 1996. The plan year is the calendar year.

Most Recent Amendment The plan was most recently amended and restated effective

January 1, 2011.

Plan Year The plan year prior to July 1, 1984 was the twelve-month

period commencing each July 1. There was a Short Plan Year from July 1, 1984 to December 31, 1984. Thereafter, the plan

year is the calendar year.

Employees Eligible to Participate Each employee on and after July 1, 1976, who commences

employment with the Authority or an Affiliate Employer becomes a participant as of the later of July 1, 1976 and the first day of the month coincident with or next following the date of his commencement of employment with the Authority. Effective January 1, 1987, directors may participate if an irrevocable election is filed with the Committee. Special provisions apply to certain PACE employees who entered the plan in 1985 and certain METRA employees who entered the

plan in 1987.

Employee Contributions Employee contributions are neither required nor allowed by

the plan.

Normal Retirement Date First day of the calendar month coincident with or next

following a participant's 65<sup>th</sup> birthday.

Early Retirement Date

An employee may retire early if he has attained age 55 and

has completed 10 years of Vesting Service.

Disability Retirement Date

A participant who becomes disabled may commence

receiving a disability income on the later of (1) his Normal Retirement date and (2) the cessation of long term disability

benefits under the RTA plan.

#### **Compensation**

The amounts actually paid as base salary to salaried employees and the amounts actually paid as regular, hourly wages (excluding overtime or shift differential pay) to non-salaried employees, including, at the time of deferral, amount deferred at the election of a Participant while an Employee under a cafeteria plan, 401(k) qualified cash or deferred arrangement or eligible deferred compensation plan maintained by an Employer which are excludable from such Participant's taxable income under Section 125, 132(f), 402 or 457 of the Code.

#### Average Annual Compensation

The average of the annual compensation received by a Participant in the three completed plan years, whether consecutive or not, of his Continuous Service in which he receives his highest rates of compensation.

#### Service Considered

"Continuous Service", with respect to the period prior to July 1, 1976, is the total number of months of his uninterrupted service with the Authority. If an employee is not employed by the Authority during all months in a play year after July 1, 1976, and does not complete 1,000 hours of service, he is credited with one month of Continuous Service for each 83 hours of service completed during that Plan Year. If he completes 1,000 hours of service during any plan year after July 1, 1976, he will be credited with 12 months of service for that year, with the exception of the Short Plan Year. During the Short Plan Year commencing July 1, 1984 and ending December 31, 1984, an employee is credited with one month of Continuous Service for each month in which he has 83 hours of service.

For purposes of determining Continuous Service for vesting and eligibility for early retirement, service credited for the Short Plan Year is 12 months.

"Credited Service" is the sum of a participant's "Continuous Service" and any "Prior Service Credit" to which he is entitled. This latter term applies to employees who commenced employment prior to June 2, 1984 and also were employed on a full time basis prior to their current employment with the Authority by either 1. or 2. as follows:

1. the United States, any state, or any political subdivision of any State, or any agency created under

an interstate contract approved by the Congress of the United States.

 any entity which, at any time during such Employee's employment with such entity, provided public transportation or freight services by bus or rail in the United States.

The Prior Service Credit is then equal to 4% of the service under the prior plan for each month of continuous service with the Authority which is in excess of 23 months, subject to a maximum credit of 100% of such prior service. Thus, the full credit is granted after 48 months (4 years) of employment with the Authority.

All Prior Service Credits were fully accrued at the valuation date.

Unreduced early retirement is available to participants between ages 55 and 65 if the Rule of 85 is satisfied. The Rule of 85 is satisfied if a participant's vesting service plus age at retirement is greater than or equal to 85 years.

A participant who retires at or after his Normal Retirement Date will receive an annual retirement income equal to the product of 1. And 2. Below:

- 1. Final Average Annual Compensation
- 2. 1.75% times Credited Service (max 70%)

Thus, the maximum Credited Service is 40 years.

A participant who retires at an Early Retirement Date will receive at his Normal Retirement Date an annual retirement income equal to the benefit described in the immediately preceding section. In lieu of the above benefit, a Participant may elect to receive a reduced amount of retirement income commencing on the first day of any month between his Early and Normal Retirement Dates. The reduction will be 2.0% per year for each year that his payment commencement date precedes his Normal Retirement Date. Unreduced early retirement is available to participants between age 55 and 65 if the Rule of 85 is satisfied.

A participant who terminates his employment after completion of five years of Credited Service will be entitled to his accrued benefit commencing at his Normal

### Rule of 85

### Normal Retirement Benefit

#### Early Retirement Benefit

### Deferred Vested Benefit

Retirement Date. A participant who terminates his employment after completion of ten years of Credited Service can elect reduced early retirement at age 55.

Disability Benefit

A disabled participant who is eligible to commence normal retirement benefits is entitled to an amount determined as if Continuous Service continued until the Normal Retirement Date. Compensation is assumed to continue unchanged from the last calendar year worked.

Death Benefit

If an active or inactive participant dies prior to his Retirement Date after completion of 10 years of service and is survived by a spouse to whom he has been married for at least one year, the surviving spouse will receive a monthly benefit equal to 50% of the amount of pension which would have been payable to the participant if his Retirement Date had occurred on his date of death and he had elected a Joint and Survivor Pension. The benefit will commence to the spouse immediately if the employee was age 55 or older at death. If the employee was less than age 55 at death, the benefit will commence on the date that employee would have attained age 55.

If an active participant or an inactive participant dies prior to his Retirement Date after completion of five years of service but less than ten years, the eligible spouse will receive a monthly benefit equal to 50% of the amount of pension which would have been payable to the participant at his Normal Retirement Date and he had elected a Joint and Survivor Pension. The benefit will commence on the date the employee would have been eligible for Normal Retirement.

If an active participant dies after his Normal Retirement Date, the Eligible Spouse will receive a monthly benefit payable immediately based on a 100% Joint and Survivor Pension. In lieu of this survivor benefit, the surviving spouse may elect instead to receive a lump sum distribution equal to the lump sum amount the participant would have been entitled to upon the date of his death.

Normal Form and Optional Forms of Retirement Benefits

The normal annuity form for single participant is a single life annuity. The normal annuity form for married participants is a reduced 50% Joint and Survivor annuity. Other available options are a ten year certain annuity, a joint and survivor annuity or any other option offered by the Committee. The lump-sum option is available to

participants who retire on or after their Normal Retirement Date.

### Actuarial Equivalence

Optional payments forms are converted from a single life annuity according to actuarial factors based on the following:

### Mortality

- 1. Participants the 94 GAR Blended mortality table (no rating of ages)
- 2. Beneficiaries the 94 GAR Blended mortality table (age rated down two years)
- 3. Lump-sum payment applicable mortality table under the Pension Protection Act

#### **Interest**

- 1. Optional annuity forms -6.0%
- 2. Lump-sum payments applicable November segmented interest rates under the Pension Protection Act with five-year phase-in.

In no event will the lump sum paid be less than the lump sum amount determined using the interest rate and mortality assumptions for optional annuity forms.

Prior Benefit Offset

Amounts payable from the plan are offset by the percent of the Prior Service Credit attributed to the benefit payable under the current plan multiplied by the sum of all prior benefits.

Changes Since Prior Valuation

There have been no changes in plan provisions since the prior actuarial valuation.

# SUMMARY OF CHANGES IN PARTICIPANT STATUS (JANUARY 1, 2012)

		Deferred			
	Actives	Vested	Retirees <sup>1</sup>	Beneficiaries <sup>2</sup>	Total
Participants at 01/01/2011	1,036	431	410	71	1,948
New Entrants and Rehires	76	(1)	(1)		74
Non-Vested Terminations	(17)				(17)
Vested Terminations	(23)	23			0
Transfers	(7)	7			0
Retirement	(27)	(16)	43		0
Lump Sum Retirement	(5)		(3)		(8)
Deaths	(1)	(1)	(4)		(6)
Benefit Terminations					0
Adjustments	(1)	(1)	(1)	3	0
Participants at 01/01/2012	1,031	442	444	74	1,991

<sup>&</sup>lt;sup>1</sup> Includes three participants as of January 1, 2011 and 0 participants as of January 1, 2012 receiving lump sum payments in the upcoming year.

<sup>&</sup>lt;sup>2</sup> Includes 14 alternate payees as of January 1, 2011 and 16 alternate payees as of January 1, 2012.

### ACTIVE MEMBERS AS OF JANUARY 1, 2012 BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 and Over	Totals	Valuation Payroll
Under 25	12	-	-	-	-	-	-	-	12	\$ 461,782
25-29	50	12	-	-	-	-	_	-	62	3,048,974
30-34	41	26	2	1	-	-	_	-	70	3,954,246
35-39	30	25	18	6	-	-	_	-	<b>79</b>	4,826,015
40-44	40	42	19	12	1	-	_	-	114	7,093,054
45-49	39	33	38	18	17	1	_	-	146	9,619,407
50-54	30	33	34	19	27	17	6	_	166	11,544,069
55-59	36	25	34	22	30	33	14	7	201	15,096,109
60-64	16	23	18	15	26	19	11	6	134	9,404,270
65-69	1	10	4	6	6	2	1	1	31	1,650,220
70-74	3	_	1	2	1	-	2	_	9	291,480
75 and Over	3	-	1	1	-	1	-	1	7	186,438
Total	301	229	169	102	108	73	34	15	1,031	\$ 67,176,064

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Current Valuation		Previous Valuation	
Average Age:	49.4 years	Average Age:	49.2 years
Average Benefit Service	11.6 years	Average Benefit Service	11.5 years
Average Annual Pay:	\$65,156	Average Annual Pay:	\$64,180
Vested Participants	762	Vested Participants	720
v esteu i articipants	702	v esteu i articipants	720
Nonvested Participants	269	Nonvested Participants	316

**Deferred Vested Members** <sup>1</sup>

Age Group	<u>Number</u>	Mon	thly Pension
Under 25	1	\$	8
25-29	6		1,483
30-34	14		5,856
35-39	19		6,833
40-44	45		23,632
45-49	75		32,849
50-54	113		67,351
55-59	109		61,894
60-64	52		29,402
65+	7		2,934
Total	441	\$	232,243

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

	Current Valuation	Previous Valuation
Average Age:	52.2	51.3
Average Monthly Benefit:	\$527	\$553

<sup>&</sup>lt;sup>1</sup> Excludes one member expected to receive a lump sum benefit in 2012.

Members Currently in Pay Status

Age Group	<u>Number</u>	Mon	thly Pension
Under 55	0	\$	-
55-59	45		56,525
60-64	132		262,933
65-69	145		193,579
70-74	87		86,654
75-79	49		47,640
80-84	39		28,286
85-89	18		12,617
90+	3		1,028
Total	518	\$	689,263

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

	Current Valuation	Previous Valuation
Average Age:	68.9	68.5
Average Monthly Benefit:	\$1,331	\$1,288



### ACTUARIAL COST METHOD

Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using the **Projected Unit Credit** actuarial cost method having the following characteristics:

- The normal cost for each individual active member equals the portion of the actuarial present value of projected benefits allocated to service 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.

*Financing of Unfunded Actuarial Accrued Liabilities.* The unfunded actuarial accrued liability is amortized using a level-dollar 30-year amortization over an open period.

Actuarial Value of Pension Plan Assets. The asset value is the actuarial value of assets which is calculated by recognizing 20% of the investment gain or loss (the difference between the actual investment return and the expected investment return, which is 8.25%) on the market value of assets for each of the five following fiscal years.

### **ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS**

The contribution and benefit values of the Plan are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost method described on the previous page.

The principal areas of financial risk which require assumptions about future experiences are:

- long-term rates of investment return to be generated by the assets of the Plan
- patterns of pay increases to members
- rates of mortality among members, retirees and beneficiaries
- rates of withdrawal of active members
- rates of disability among members
- the age patterns of actual retirement.

In a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives; a period of time which can be as long as a century.

Actual experience of the Plan will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). We recommend that an experience analysis be completed in the coming year to make certain that the assumptions continue to reflect current experience and expected future trends.

### VALUATION ASSUMPTIONS

The assumed rate of price inflation disclosed by the prior actuary was 2.50%. This assumption is not used directly in the valuation. However, the price inflation assumption underlies all of the other economic assumptions (investment return, salary increase, and payroll growth assumption).

**The assumed rate of investment return** used was 7.75%, net of expenses, annually. This assumption was decreased from 8.25% and was adopted for first use in the January 1, 2012 valuation.

The rates of annual salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

#### **Salary Increases**

Age	Rate
20	7.50%
25	7.00%
30	6.50%
35	6.00%
40	5.50%
45	5.00%
50	4.50%
55	4.50%
60	4.00%
65	3.50%

The mortality table used to measure retirement mortality was based on the RP2000 Mortality Table, sex-distinct, with white collar adjustment, projected to the year 2018. This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. We expect that because the mortality table is projected to the year 2018, this provides a margin for future mortality improvement.

Single	T ifa	Retire	mont '	Volue
Single	Life	Keure	ment	v aiues

Sample	Present Value of \$1		Futu	re Life	
<b>Attained</b>	M onthly	Monthly for Life		ncy (years)	
Ages	Men	Women	Men	Women	
50	143.22	144.59	33.40	35.17	
55	136.48	138.29	28.67	30.42	
60	127.60	130.27	24.07	25.84	
65	116.48	120.35	19.69	21.49	
70	103.40	108.68	15.65	17.46	
75	87.74	95.20	11.91	13.78	
80	70.59	79.96	8.65	10.47	

## VALUATION ASSUMPTIONS (CONTINUED)

**Rates of separation from active membership** are represented by the following table (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members terminating employment.

**Employee Withdrawal Rate** 

Age	Males	Females
20	5.4710%	5.4700%
25	5.3295%	5.3205%
30	5.1183%	5.0863%
35	4.7668%	4.6998%
40	4.2708%	4.1768%
45	3.6932%	3.5722%
50	2.7668%	2.5918%
55	1.2610%	1.0310%
60	0.3896%	0.4866%

The following select rates are added to the ultimate withdrawal rates shown above.

Completed Years of Service	Rate
0	10.0%
1	7.5%
2	5.0%
3	2.5%

Members who terminate service with at least 10 years of service are assumed to commence benefits at age 60. Vested terminated members with less than 10 years of service are assumed to commence benefits at age 65.

Rates of disability were as follows:

**Employee Disablement Rate** 

Age	Males	Females
20	0.029%	0.030%
25	0.038%	0.047%
30	0.048%	0.080%
35	0.069%	0.136%
40	0.117%	0.211%
45	0.202%	0.323%
50	0.358%	0.533%
55	0.722%	0.952%
60	1.256%	1.159%

## VALUATION ASSUMPTIONS (CONTINUED)

Rates of retirement for members eligible to retire during the next year were as follows:

Age	Rates_	Age	Rates
55	5 4.0 %	63	10.0 %
56	5 4.0	64	10.0
57	7 4.0	65	35.0
58	3 4.0	66	35.0
59	4.0	67	35.0
60	10.0	68	35.0
61	10.0	69	35.0
62	2 15.0	70+	100.0

Load for Unused Vacation/Sick Time:

A load of 1.5% (3.0% for Pace employees) was applied to projected pay in the

year of decrement to account for increased pay due to unused vacation/sick

time.

**Marital Status:** It is assumed that 85% of males and 50% of females have an eligible spouse.

The male spouse is assumed to be three years older than the female spouse.

**Form of Payment:** 65% of lump sum eligible retirees were assumed to elect the lump sum form of

payment.

Benefit Service: Exact fractional years of service are used to determine the amount of benefit

payable.

**Decrement Timing:** All decrements are assumed to occur mid-year.

**Decrement** Turnover decrements do not operate after the member reaches retirement

**Operation:** eligibility.

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

service on the date the decrement is assumed to occur.

**Pay Increase Timing:** End of (fiscal) year.

# VALUATION ASSUMPTIONS (CONTINUED)

**Expenses:** Expenses estimated by the Plan Administrator of \$900,000 in 2012 were added to

the Normal Cost. (This was changed from \$950,000 in 2011.)

**Service for** 

**Continuing Actives:** All members active last year and this year earned a full year of service.

## **SECTION D**

GASB STATEMENT NOS. 25 AND 27

This information is presented in draft form for review by the Plan's auditor. Please let us know if there are any changes so that we may maintain consistency with the Plan's financial statements.

## SCHEDULE OF FUNDING PROGRESS FOR GASB #25

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Payroll [(b – a)/c]
1/1/2007	\$ 102,523,735	\$ 133,905,851	\$ 31,382,116	76.6 %	\$ 61,357,214	51.1 %
1/1/2008	114,031,540	146,417,404	32,385,864	77.9	61,364,198	52.8
1/1/2009	106,021,198	153,284,576	47,263,378	69.2	66,010,613	71.6
1/1/2010	118,805,281	166,663,123	47,857,842	71.3	68,389,409	70.0
1/1/2011	127,343,037	185,373,843	58,030,806	68.7	66,490,058	87.3
1/1/2012	141,387,904	200,844,966	59,457,062	70.4	67,176,064	88.5

Amounts prior to 2012 as shown in prior actuary's report.

Market value of assets as of December 31, 2011, used to develop actuarial value of assets based on accrual accounting and consistent with asset value shown in the Plan's financial statement.

Fiscal Year Ended	Annual Required Contribution (a)	Total Employer Contribution (b)	Percentage Contributed (b / a)
12/31/2007 1	\$ 9,137,000	\$ 9,137,000	100.0 %
12/31/2008 1	9,195,000	9,195,000	100.0
12/31/2009 1	10,827,000	10,827,000	100.0
12/31/2010 1	11,288,000	11,288,000	100.0
12/31/2011	12,547,000	12,547,000	<sup>2</sup> 100.0
12/31/2012 3	13,493,395	TBD	TBD

<sup>&</sup>lt;sup>1</sup> Amounts as shown in prior actuary's report.

<sup>2</sup> Amount shown in Plan's financial statement and to be contributed in 2012.

<sup>3</sup> Annual Required Contribution for fiscal year 2012 is calculated based on the market value of assets as of December 31, 2011, used to develop actuarial value of assets based on accrual accounting and consistent with asset value shown in the Plan's financial statement.

## ANNUAL PENSION COST AND CONTRIBUTIONS FOR GASB #27

Fiscal Year	(ARC) Annual Required Contribution	Interes NPC		Ad	NPO ljustment	(APC) Annual Pension Cost	Total Employer Contribution	% of Annual Pension Cost Contributed	Beg. of Year Net Pension Obligation (NPO)	End of Year Net Pension Obligation (NPO)
2007 1	\$ 9,137,000	\$	0	\$	0	\$ 9,137,000	\$ 9,137,000	100.0%	\$ 0	\$ 0
$2008^{\ 1}$	9,195,000		0		0	9,195,000	9,195,000	100.0%	0	0
$2009^{1}$	10,827,000		0		0	10,827,000	10,827,000	100.0%	0	0
$2010^{\ 1}$	11,288,000		0		0	11,288,000	11,288,000	100.0%	0	0
2011	12,547,000		0		0	12,547,000	12,547,000	100.0%	0	0
2012	13,493,395		0		0	13,493,395			0	

<sup>&</sup>lt;sup>1</sup> Amounts as shown in prior actuary's report.

<sup>2</sup> Amount shown in Plan's financial statement and to be contributed in 2012.

<sup>3</sup> Annual Required Contribution for fiscal year 2012 is calculated based on the market value of assets as of December 31, 2011, used to develop actuarial value of assets based on accrual accounting and consistent with asset value shown in the Plan's financial statement.

### SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

The information requested in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date	January 1, 2012
Actuarial Cost Method	Projected Unit Credit
Actuarial Value of Assets	5-year smoothed market
Amortization Method	Level dollar open
Amortization Period	30 years
Actuarial Assumptions:	
Investment Rate of Return	7.75% per year
Projected Salary Increases	Wage inflation of 3.5% per year plus additional age-based increases of up to 4.0%

## **SECTION E**

GLOSSARY OF TERMS

### **GLOSSARY OF TERMS**

Actuarial Value of Assets (AVA). Smoothed value of assets that recognizes the difference between the expected investment return using the valuation assumption of 8.25 percent and the actual investment return over a five-year period. Dampens volatility of asset value over time.

Actuarial Accrued Liability (AAL). The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

**Actuarial Assumptions.** Estimates of future plan experience such as investment return, expected lifetimes and the likelihood of receiving a pension from the Pension Plan. Demographic, or "people" assumptions, include rates of mortality, retirement and separation. Economic, or "money" assumptions, include expected investment return, inflation and salary increases.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Present Value of Future Plan Benefits. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Amortization**. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual Required Contribution. The sum of the normal cost and amortization of the unfunded actuarial accrued liability.

**Asset Return.** The net investment return for the asset divided by the mean asset value. Example: if \$1.00 is invested and yields \$1.08 after a year, the asset return is 8.00 percent.

*Funded Ratio*. The actuarial value of assets divided by the actuarial accrued liability. Measures the portion of the actuarial accrued liability that is currently funded.

Market Value of Assets (MVA). The value of assets currently held in the trust available to pay for benefits of the Pension Plan. Each of the investments in the trust is valued at market price which is the price at which buyers and sellers trade similar items in the open market

**Normal Cost (NC)**. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

*Unfunded Actuarial Accrued Liability (UAAL)*. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."