SECTION I – ACTUARIAL ASSUMPTIONS AND METHODS

1. Actuarial Assumptions

a. Investment Earnings Assumptions

i. Fixed Dollar Account: The assumed investment return for these assets, which is used to value the pension benefits[1] for Pensioners and Beneficiaries whose benefits commenced on or before August 1, 1982 (as identified by Prudential Investments), is determined by a schedule of rates that varies by calendar year, starting at 6.7% in 2013 and decreasing to 6.5% in 2015 and thereafter.

ii. 1982/1984 Annuity Account: The assumed rate of return for these assets, which is used to value the pension benefits[1] for Pensioners and Beneficiaries whose benefits commenced from September, 1982 through December, 1984 (as identified by Prudential Investments), is 3.55%.

iii. Strategic Bond Account (SBA): The assumed rate of return for these assets is 4.99%. This assumption is used to value 85.2% of the pension benefits[1] related to service through December 31, 1985, based on December 31, 1984 Plan provisions and not covered by the prior asset dedications.

iv. Remaining Assets/Benefits: The assumed rate of investment return which is used to value all benefits expected to be paid out of remaining assets and future contributions is 7.0%.

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[1]Single sum death benefits are not valued using the investment earnings assumptions described above. Instead, the "Remaining Assets" assumption is used.

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b. Mortality Rates

The assumed mortality rates for non-retired participants and for age retirees and beneficiaries are based on various RP-2000 mortality tables and adjustment factors - modified and projected (using Scale AA) to reflect recent Plan experience. Special mortality tables, reflecting Plan experience, are used for disabled pensioners.

Examples of mortality rates used are shown in the table below:

Annual Probability of Death						
	Non-Retired Participants		Age Retirees & Beneficiaries		Disabled Retirees	
Age Last Birthday	Male	Female	Male	Female	Male	Female
25	0.0004	0.0002	0.0004	0.0002	0.0244	0.0176
40	0.0014	0.0009	0.0014	0.0009	0.0244	0.0176
55	0.0036	0.0029	0.0046	0.0040	0.0252	0.0182
70	0.0178	0.0141	0.0222	0.0199	0.0336	0.0242
85	0.1133	0.0824	0.1086	0.0797	0.1362	0.0981

c. Provision for Expenses

$85 million of employer contributions per year.

d. Age Retirement Rates

Age retirement rates apply only to retirement eligible participants.

We use five retirement rate tables. Their values are displayed in the three columns of table (1), and the fourth and fifth columns of table (2), below. (Note that the first two columns of table (1), and the first two columns of table (2), represent the same two tables).

For a given participant in a PEER unit, two or more of these tables may be accessed during a single run, with the lower rates applying until the participant is projected to attain the required number of age plus service points, (80, 82, or 84).

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(1) Participants with fewer than 25 Years of Service

Age Last Birthday	Non-PEER Eligible Actives	PEER Eligible Actives	Non-PEER Eligible Vested Terminated
49	0.030	0.150	NA
50	0.030	0.150	NA
51	0.030	0.150	NA
52	0.030	0.150	NA
53	0.030	0.150	NA
54	0.080	0.160	0.160
55	0.060	0.120	0.120
56	0.060	0.120	0.060
57	0.060	0.120	0.060
58	0.060	0.120	0.060
59	0.100	0.200	0.100
60	0.100	0.200	0.100
61	0.350	0.350	0.300
62	0.350	0.350	0.200
63	0.150	0.150	0.150
64	0.300	0.300	0.300
65	0.300	0.300	0.200
66	0.200	0.200	0.060
67	0.200	0.200	0.060
68	0.200	0.200	0.060
69	1.000	1.000	1.000

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(2) Participants with 25 or more Years of Service

Age Last Birthday	Non-PEER Eligible Actives	PEER Eligible Actives	Non-PEER Eligible Vested Terminated	PEER Eligible Vested Terminated
49	0.030	0.150	0.150	0.230
50	0.030	0.150	0.150	0.230
51	0.030	0.150	0.150	0.230
52	0.030	0.150	0.150	0.230
53	0.030	0.150	0.150	0.230
54	0.080	0.160	0.160	0.350
55	0.060	0.120	0.120	0.250
56	0.060	0.120	0.090	0.200
57	0.060	0.120	0.090	0.180
58	0.060	0.120	0.090	0.180
59	0.100	0.200	0.150	0.300
60	0.100	0.200	0.150	0.300
61	0.350	0.350	0.350	0.350
62	0.350	0.350	0.350	0.350
63	0.150	0.150	0.150	0.150
64	0.300	0.300	0.300	0.300
65	0.300	0.300	0.300	0.300
66	0.200	0.200	0.200	0.200
67	0.200	0.200	0.200	0.200
68	0.200	0.200	0.200	0.200
69	1.000	1.000	1.000	1.000

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e. Disability Retirement

Disability rates apply only to employees with 4 or more years of vesting service.

Age Last Birthday	Examples of Annual Probability of Disability Retirement
32	0.0006
37	0.0008
42	0.0011
47	0.0017
52	0.0030
57	0.0052

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f. Employee Termination Rates

The termination rates shown below exclude death, disability and retirement rates. Termination rates are not applied when an individual is eligible for age retirement. Below are examples of annual probabilities of employment termination for active employees with less than 9 years of coverage.

Non-Seasonal Employees				
Age Last Birthday	Years Since First Covered Hour			
At First Covered Hour	0	1	2	8
22	0.0945	0.1795	0.2272	0.1120
32	0.0844	0.1478	0.1914	0.0896
42	0.0776	0.1214	0.1674	0.0784
52	0.0641	0.0898	0.1435	0.0784
62	0.0574	0.0686		
Seasonal Employees				
Age Last Birthday	Years Since First Covered Hour			
At First Covered Hour	0	1	2	8
22	0.7004	0.5443	0.3039	0.1600
32	0.6254	0.4482	0.2559	0.1280
42	0.5754	0.3682	0.2240	0.1120
52	0.4753	0.2721	0.1920	0.1120
62	0.4253	0.2081		

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Examples of annual probabilities for termination are listed below for Non-Seasonal and Seasonal Active employees with 9 or more years of coverage.

Non-Seasonal and Seasonal Employees		
Age Last Birthday At First Covered Hour	After 9 or more Years Since First Covered Hour	
	Non-Seasonal	Seasonal
32	0.0734	0.0978
42	0.0435	0.0790
52	0.0422	0.0562
62	0.0077	0.0102

g. Benefit Projection Assumptions

Although this assumption is the same as in our prior report, under our current Unit Credit actuarial cost method this assumption is relevant only for 2012.

Projected benefit amounts for 2013 were calculated assuming that: (a) Active Non-Seasonal employees work an average of 1800 hours per year; (b) Active Seasonal employees work an average of 600 hours per year; and (c) contribution rates would continue at the December 31, 2012 levels. A non-retired participant was considered Active as of January 1, 2013 if he or she earned at least 250 covered hours during 2012, or at least 1 covered hour in 2012 and at least 250 covered hours in 2011.

h. Expected Annual Employer Contributions

The annual employer contributions expected during 2013 have been assumed to be $1.375 billion. This amount is used to determine the expected amortization period for the UAL.

i. Sample Valuation Data

We have relied on data supplied by Prudential Investments and Northwest Administrators. The actuarial values for non-retired participants are based on a sample of the employees covered under the Plan, as described in Section H. The actuarial values for records with valid data are adjusted for sampling and incomplete data, and the results are assumed to represent the values of the entire covered group. We also adjusted the vested inactive data to remove any participants who were over age 74 on the valuation date. We assume that any such participants do not have and will not create any liability for the Plan.

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j. Past Employment

Total past employment (continuous past employment plus special past employment) for each employee was calculated as the number of years from year of union membership until year of coverage, but not less than the known continuous past employment for the employee.

k. Survivor Benefit Costs

The family composition of covered employees was assumed to be similar to that tabulated in the 15th Actuarial Valuation published by the Railroad Retirement Board. This assumption was used to estimate the probability that an employee will be survived by a beneficiary eligible for a survivor benefit and to establish the probable duration of the benefit.

l. Expected Distribution of New Active Participants

Based on the prior year's experience, a number of covered employees on the valuation date who had not met the Plan's participation requirements are expected to become participants during the current year. The assumed age distribution at first participation for these expected new participants is illustrated in Table 2013-4.

2. Actuarial Methods

a. Actuarial Value of Assets

The Prudential Investments Fixed Dollar Account (FDA), in general, was valued at book value. However, to the extent that cash flows from the FDA are not sufficient to provide the projected FDA benefits, certain bonds valued at amortized cost were assigned to the FDA so that all projected FDA benefits were supported by dedicated assets. When book value is referenced, such value is equal to amounts deposited, plus interest credited less amounts disbursed. The 1982/1984 Annuity Account and the SBA were valued on an amortized cost basis, running from cost at purchase to par value at maturity or earliest call date.

The remaining assets were valued using a smoothing procedure under which the 2008 market value is recognized at the rate of 10% per year for ten years. All other market value gains and losses are recognized at the rate of 20% per year over five years. The actuarial value of the remaining assets may not be greater than 120% or less than 80% of the market value.

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b. Actuarial Cost Method

The Unit Credit actuarial cost method was used for this valuation. Under this method, the Actuarial Liability is the Accrued Benefit Liability for all participants included on the valuation date. The Normal Cost is: (i.) the expected increase in Accrued Benefit Liability for these participants resulting from benefits earned during the current year, plus (ii.) the expected increase in Accrued Benefit Liabilities resulting from new participants who are covered employees on the valuation date.

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