Western Conference of Teamsters Pension Plan

January 1, 2017 Actuarial Valuation

Prepared by:

Milliman, Inc.

Principal and Consulting Actuary

Peter R. Sturdivan, FSA, EA, MAAA

Consulting Actuaries:

Grant Camp, FSA, EA, MAAA

Noah A. Llanda, FSA, EA, MAAA

Kirk W. Parson, ASA, EA, MAAA

Actuarial Analysts:

David A. Moonitz

Eric J. Hong

Penny L. Horan

Milliman, Inc.
2400 E Katella Avenue, Suite 660
Anaheim CA 92806-5984

Tel +1 714 634 8337
Fax +1 714 634 4458

milliman.com

August 2017

Milliman

2400 E Katella Avenue
Suite 660
Anaheim, CA 92806
USA

Tel +1 714 634 8337
Fax +1 714 634 4458

milliman.com

August 22, 2017

Board of Trustees
Western Conference of Teamsters Pension Plan

Dear Trustees:

As requested, we performed an actuarial valuation of the Western Conference of Teamsters Pension Plan as of January 1, 2017, for the Plan Year ending December 31, 2017. Our findings are set forth in this actuary's report.

In preparing this report, we relied, without audit, on information supplied by the administrative office, the Plan's independent auditor and the Plan's attorney. This information includes, but is not limited to, Plan documents and provisions, employee data, and financial information. The financial information was taken from a draft of the audit report and is, hence, subject to finalization. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

For actuarial requirements under ERISA, all costs, liabilities, rates of interest, and other factors under the Plan (except when mandated directly by the Internal Revenue Code and its regulations) have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations) and which, in combination, offer our best estimate of anticipated experience under the Plan. We completed this actuarial valuation in accordance with our understanding of IRS minimum funding requirements as amended by subsequent legislation, including the Pension Protection Act of 2006 (PPA), the Pension Relief Act of 2010 (PRA) and the Multiemployer Pension Reform Act of 2014 (MPRA), and reflecting all proposed regulations and guidance issued to date.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including: 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. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. Actuarial computations under ERISA are to determine the minimum required, and maximum allowable funding amounts, and the unfunded vested benefit liability for purposes of withdrawal liability for an ongoing plan. The calculations in the enclosed report have been made on a basis consistent with our understanding of ERISA.

For actuarial requirements under FASB ASC Topic 960, all liabilities, rates of interest, and other factors under the Plan have been determined on the basis of actuarial assumptions and methods which are reasonable and consistent with our understanding of FASB ASC Topic 960. Results for other purposes may be significantly different than the results in this report; other calculations may be needed for other purposes, such as judging benefit security at plan termination.

Milliman's work is prepared solely for the internal business use of the Trust and its Trustees and employees (for their use in administering the Trust). Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release; subject to the following exceptions:

(a) The Trust may provide a copy of Milliman's work, in its entirety to the Trust's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Trust.

(b) The Trust may distribute certain work products that Milliman and the Trust mutually agree is appropriate for distribution to participating employers, pension participants and other parties as may be required by PPA and MPRA.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We respectfully submit the following report, and we look forward to discussing it with you.

Sincerely,

Peter R. Sturdivan, FSA, EA, MAAA
Principal and Consulting Actuary

PRS:ccg

Table of Contents

Summary of Valuation Results

Overview of Results ($ in thousands)	Actuarial Valuation for Plan Year Beginning January 1, 2016	 January 1, 2017
Assets		
Market Value of Assets	$36,288,138	$38,020,891
Actuarial Value of Assets	$37,692,694	$38,840,852
Investment Return (non-dedicated assets)		
Market Value of Assets	2.22%	7.95%
Actuarial Value of Assets	5.47%	5.97%
Funded Status		
Actuarial Accrued Liability	$40,074,199	$42,566,769
Market Funded Percentage	88.3%	89.3%
Actuarial (Pension Protection Act) Funded Percentage	91.7%	91.2%
Withdrawal Liability		
Present Value of Vested Benefits	$39,234,177	$40,720,221
Assets for Withdrawal Liability	$35,963,376	$37,976,193
Unfunded Vested Benefit Liability (UVBL)	$3,270,801	$2,744,028
Credit Balance and Contribution Requirements		
Actuarial Accrued Liability	$41,074,199	$42,566,769
Actuarial Value of Assets	$37,692,694	$38,840,852
Unfunded Actuarial Accrued Liability	$3,381,505	$3,725,917
Credit Balance at End of Prior Year	$3,727,967	$4,177,724
Normal Cost (including expenses)	$890,316	$959,764
Anticipated Contributions	$1,617,000	$1,735,000
Contribution to Maintain Credit Balance (Middle of Year)	$1,261,812	$1,416,001
Actual Contributions	$1,705,556	To Be Determined
Amortization Period		
Actuarial Value of Assets	6.0 years	6.3 years
Market Value of Assets	9.5 years	8.1 years
Participant Data		
Retirees & Beneficiaries[(1)]	223,971	226,870
Vested Inactive Participants	165,920	164,640
Active Participants	202,940	206,340
Total Participants in Valuation	592,831	597,850
Certification Status	Green	Green

[(1)]The figures above are estimated counts. The retired life valuation included 261,743 and 266,773 records as of January 1, 2016, and January 1, 2017, respectively.

A. Purpose of this Report

This report has been prepared for the Western Conference of Teamsters Pension Plan as of January 1, 2017 to:

- Review the Plan's funded status as of January 1, 2017.
- Review the experience for the plan year ending December 31, 2016, including the Plan's trust fund activity and investment return, and changes in plan participant demographics that impact liabilities.
- Calculate the Plan's funding requirements under ERISA for the plan year beginning January 1, 2017.
- Determine the Plan's Amortization Period as of January 1, 2017.
- Determine the Plan's Unfunded Vested Benefit Liability for withdrawal liability purposes as of December 31, 2016, in accordance with the Multiemployer Pension Plan Amendments Act of 1980.
- Determine the actuarial present value of accumulated plan benefits as of December 31, 2016, for purposes of disclosing the Plan's liabilities under FASB ASC Topic 960.

B. Plan Provisions

The valuation reflects the plan provisions in effect on January 1, 2017. There were no changes to the plan provisions during the year that affected the valuation.

C. Actuarial Methods and Assumptions

Changes in Assumptions

Other than the assumptions mandated by the IRS, the following changes were made to the assumptions for this valuation in order to reflect recent and anticipated plan experience:

- The mortality assumptions for healthy and disabled males and females were updated based on the results of our 2017 Post-Retirement Mortality Study. The impact of changing the mortality assumptions was an increase in liabilities of approximately $1.16 billion.
- The following other demographic assumptions were based on the results of our 2017 Demographic Experience Study.
    - The retirement rate assumptions for both active and vested terminated participants were updated resulting in a decrease in liabilities of approximately $834 million.
    - The termination rate assumptions for active participants were updated resulting in an increase in liabilities of approximately $71 million.
    - The probability of marriage assumption was updated resulting in an increase in liabilities of approximately $55 million.
- The discount rate used for the SBA Dedication was changed to 4.34% for 2017 from 4.69% for 2016 resulting in an increase in liabilities of approximately $66 million.
- In addition, the anticipated annual employer contributions were increased to $1.735 billion for purposes of projecting the 2017 Funding Standard Account and determining the Amortization Period.

Details on the updated assumptions can be found in Appendix C of this report.

Changes in Actuarial Methods

On behalf of the Board, we filed a request with the IRS for a change in actuarial funding method on March 10, 2017. The request is to change the treatment of the FDA and 82/84AA dedicated asset accounts. Under the prior method, these accounts, and the SBA, were held out of the smoothing method for actuarial value of assets. Effective January 1, 2017, the FDA and 82/84 AA assets are treated as non-dedicated assets for purpose of calculating the actuarial value of assets. The SBA assets will still be held out of the smoothing method. This change in actuarial funding method has been reflected in this valuation. The net change in the unfunded liability due to the method change was a decrease of approximately $5 million.

Effective January 1, 2017, the valuation software used to produce valuation results for the Plan was changed from Milliman's proprietary valuation system to a commercially available software system. The IRS generally requires that a change in valuation software generates a net charge to the funding standard account (all other factors being held constant) within 2% of that produced by the prior valuation system.

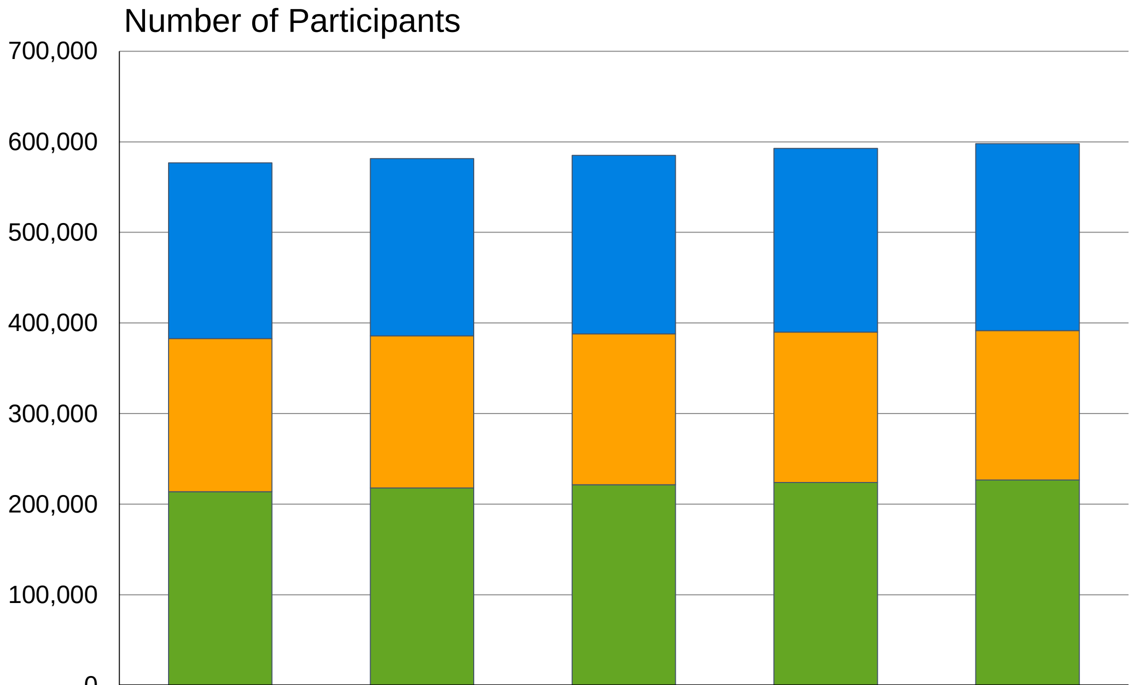
The impact of the valuation system change can be measured on the current or prior valuation. As of January 1, 2016, the impact of changing the valuation software was as follows:

- The impact of the software change on the present value of accrued benefits (plan liabilities) was less than 0.002%.
- The impact of the software change on the normal cost was less than 0.1%.
- The impact of the software change on the net charge to the funding standard account was less than 0.05%.

D. Participant Information

Participant Counts

The following chart shows the number of participants included in this valuation, along with comparable information from the last several valuations.

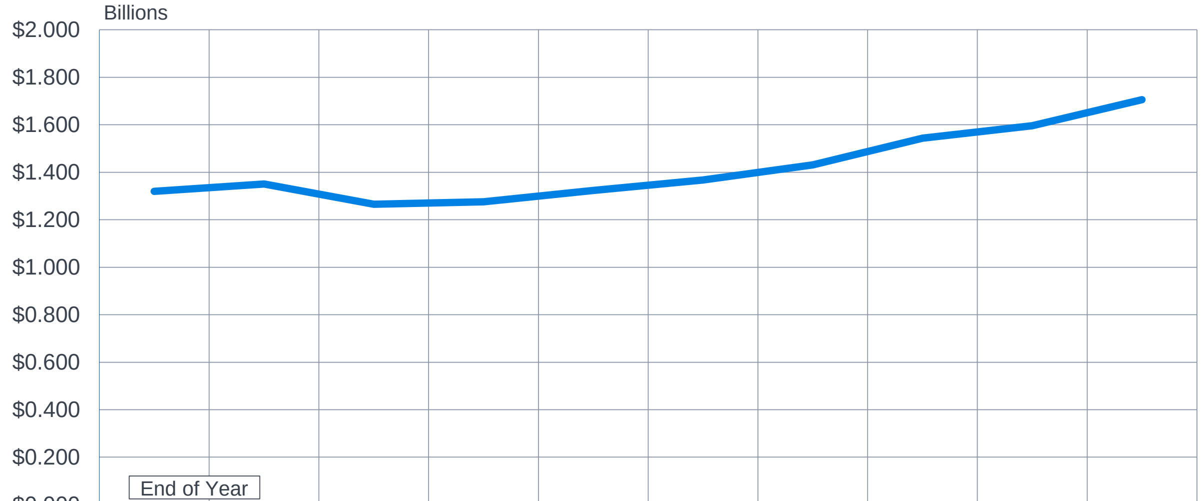


	2013	2014	2015	2016	2017
Active	194,080	195,620	197,120	202,940	206,340
Vested Inactive	169,020	167,940	166,440	165,920	164,640
In Pay	213,780	217,924	221,502	223,971	226,870
Totals	576,880	581,484	585,062	592,831	597,850

For valuation purposes, an active participant is not retired, terminated or deceased on the valuation date, has satisfied the participation requirements of the Plan, and worked at least 250 hours in the plan year immediately prior to the valuation date, or worked at least one hour in the plan year immediately prior to the valuation date and worked at least 250 hours in the second plan year preceding the valuation date.

Contributions

Based on the hours assumptions and the contribution rates in effect for December 31, 2016, contributions for the plan year beginning January 1, 2017, are expected to be $1,735,000,000. The graph below shows how this level compares with the Plan's historical level of contributions.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Contributions	$1.320	$1.351	$1.265	$1.276	$1.323	$1.367	$1.431	$1.544	$1.596	$1.706

E. Plan Assets

The Plan's market value of assets is the value of net assets available for benefits as shown on the Plan's financial statements. The Plan's assets are split into dedicated assets and non-dedicated assets.

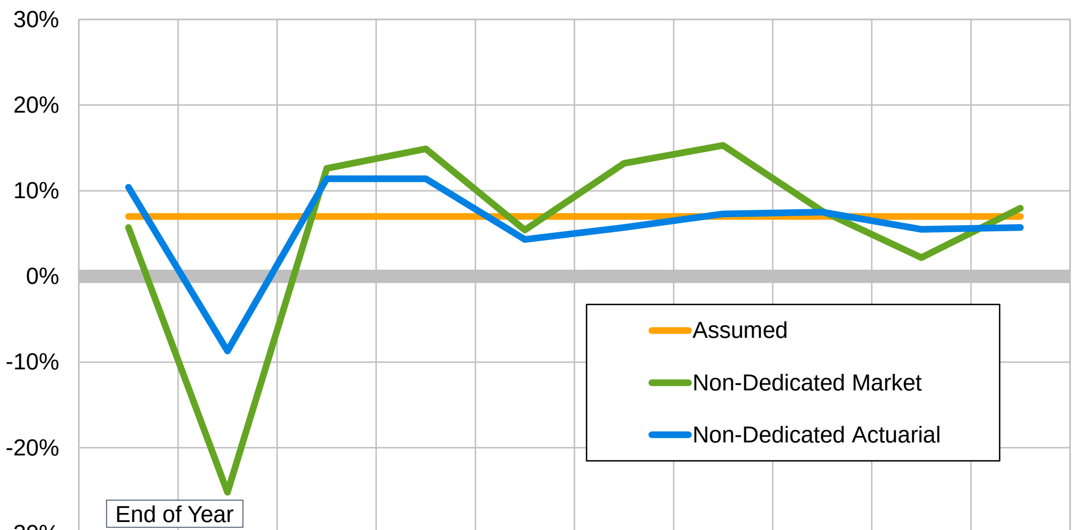
As of January 1, 2017, the dedicated assets include only the Strategic Bond Account (SBA). The market value of the FDA and 1982/84 Annuity Account (82/84 Account) are combined with non-dedicated assets for purposes of determining the actuarial value of assets.

The Plan uses an asset smoothing method on the non-dedicated portion of the assets that recognizes market value investment gains and losses over a period of five years, except that the Trustees elected to recognize the 2008 investment loss over 10 years under the Pension Relief Act of 2010. For purposes of developing the Unfunded Vested Benefit Liability, the Pension Relief Act of 2010 election is ignored.

The sum of the dedicated assets and the smoothed value of non-dedicated assets is called the actuarial value of assets, and is used for determining the PPA funded percentage, the minimum and maximum contributions under ERISA, and computation of the Amortization Period. The table below shows these values along with the Plan's rate of investment return, net of investment expenses, over the past five years.

January 1,	Prior Year Rate of Return: Market	Prior Year Rate of Return: Actuarial	($ in thousands): Market Value of Assets	($ in thousands): ERISA Actuarial Value of Assets	($ in thousands): UVBL Actuarial Value of Assets
2017	7.95%	5.97%	$38,820,891	$38,840,852	$37,976,193
2016	1.78	5.26	36,288,138	37,692,694	35,963,376
2015	7.56	7.08	36,739,196	36,878,833	34,284,858
2014	12.59	7.33	35,193,014	35,478,550	32,019,915
2013	11.93	5.82	32,309,867	34,132,485	29,809,192

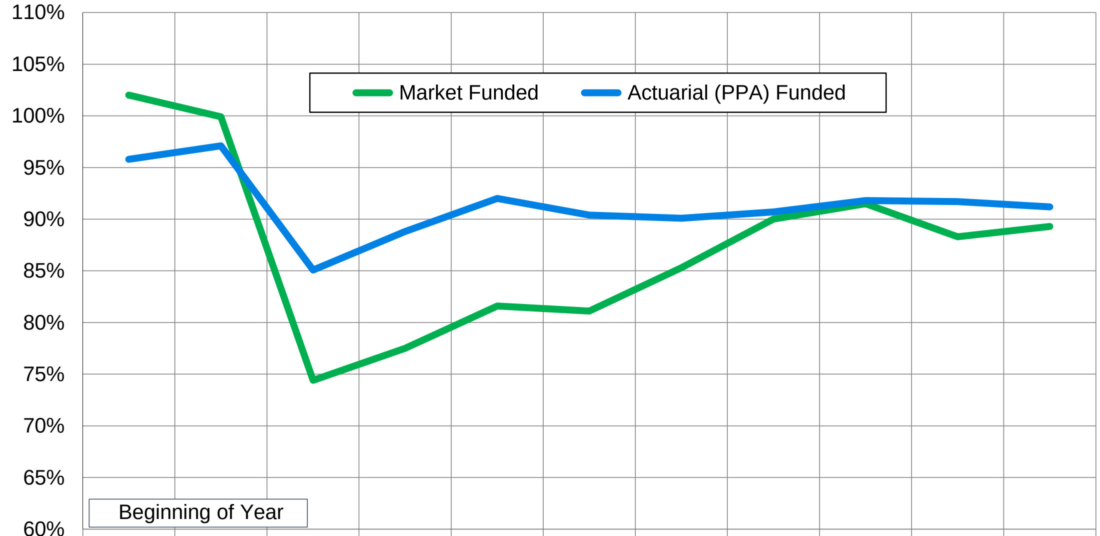
Over the past 20 years, the Plan's total assets have averaged a 6.90% return on a market value basis, net of investment expenses. The Plan's non-dedicated assets have averaged a 7.29% return on a market value basis, net of investment expenses over the same time period. The numerical history can be found on Exhibit 3.3 in this report. The graph below shows the Plan's annual returns on the non-dedicated assets over the last ten years, compared with the Plan's investment return assumption.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Assumed	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Non-Dedicated Market	5.7%	-25.2%	12.6%	14.9%	5.4%	13.2%	15.3%	7.6%	2.2%	8.0%
Non-Dedicated Actuarial	10.4%	-8.7%	11.4%	11.4%	4.3%	5.7%	7.3%	7.5%	5.5%	5.7%

F. Funded Status

An important indicator of the Plan's funded status is the ratio of the Plan's *market value of assets* to the Plan's liability for all benefits earned to date, called the actuarial accrued liability. For purposes of determining the Plan's zone status under the PPA, the Plan's *actuarial value of assets* is compared with this liability measurement. Below is a chart showing a historical comparison of these measurements



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Market Funded	102.0%	99.9%	74.4%	77.5%	81.6%	81.1%	85.3%	90.0%	91.5%	88.3%	89.3%
Actuarial (PPA) Funded	95.8%	97.1%	85.1%	88.8%	92.0%	90.4%	90.1%	90.7%	91.8%	91.7%	91.2%

Below is a table that details the relevant information for the past several valuations.

	Actuarial Accrued Liability ($ in thousands)					
January 1,	Retirees & Beneficiaries	Vested Inactive	Active	Total	Market Value Funded %	Actuarial Value (PPA) Funded %
2017	$24,522,851	$4,626,792	$13,417,126	$42,566,769	89.3%	91.2%
2016	23,289,314	4,591,771	13,193,114	41,074,199	88.3	91.7
2015	22,796,728	4,494,421	12,876,462	40,167,611	91.5	91.8
2014	22,111,382	4,422,913	12,581,733	39,116,028	90.0	90.7
2013	20,981,370	4,465,074	12,419,003	37,865,447	85.3	90.1

The **Annual Funding Notice** to participants must be distributed within 120 days of the end of the plan year and will include the actuarial (PPA) funded percentage for 2015, 2016, and 2017, as shown above.

G. Contribution Requirements

Actuarial Accrued Liability

For computing ERISA minimum and maximum funding requirements, the actuarial cost method takes into account benefits that are earned to date. The resulting liability is called the actuarial accrued liability, and is compared with the actuarial value of assets, as shown below.

	($ in thousands)		
January 1,	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability
2017	$42,566,769	$38,840,852	$3,725,917
2016	41,074,199	37,692,694	3,381,505
2015	40,167,611	36,878,833	3,288,778
2014	39,116,028	35,478,550	3,637,478

Development of Minimum Required Contribution and Credit Balance

The Plan's minimum required contribution consists of two components:

- Gross normal cost, which includes the cost of benefits allocated to the next plan year and administrative expenses expected to be paid in the next plan year, and
- Amortization payments to the unfunded actuarial accrued liability.

If contributions do not meet these costs, the Plan's credit balance, which was created by contributions in excess of minimum required contributions in past years, may be used to offset the costs. The table below summarizes the Plan's contribution requirements, actual contributions, and credit balance over the last several years.

($ in thousands)						
December 31,	Normal Cost	Net Amortization Payment	Annual Cost, Beginning of Year	Contribution To Maintain Credit Balance	Actual Contribution	Credit Balance, End of Year
2017	$959,764	$683,228	$1,642,992	$1,416,001	$1,735,000(1)	4,497,516
2016	890,316	574,107	1,464,423	1,261,812	1,705,556	4,177,724
2015	849,190	505,410	1,354,600	1,176,945	1,596,395	3,727,967
2014	798,458	490,486	1,288,944	1,136,983	1,544,129	3,304,054
2013	767,700	494,331	1,262,031	1,129,715	1,431,091	2,891,317
(1) Expected based on hours assumption for valuation.						

H. Amortization Period

The Plan's amortization period is a measure of the long-term financial solvency of the Plan. The amortization period is the number of years necessary for a level excess of anticipated employer contributions over the normal cost and administrative expenses to pay off the unfunded actuarial liability or funding shortfall. The unfunded actuarial liability is the difference between the actuarial liability and the actuarial value of assets. The funding shortfall is the difference between the actuarial liability and the market value of assets.

PPA requires plans to amortize changes in the unfunded actuarial liability (i.e. annual experience gains and losses, changes in assumptions and plan amendments) over a 15-year period. The average amortization period at any point in time under PPA is about 10 years. Therefore, based on the unfunded actuarial liability, an amortization period of less than 10 years is desired.

Amortization Period ($ in thousands)		
	January 1, 2016	January 1, 2017
Unfunded Actuarial Liability (UAL)	$ 3,381,505	$ 3,725,917
Expected Employer Contributions	1,617,000	1,735,000
Expected Expenses	97,000	101,000
Normal Cost (payable monthly)	826,375	894,402
Excess Contributions	$ 693,625	$ 793,598
Years to Amortize UAL	6.0	6.3
Funding Shortfall on a Market Value basis	$ 4,786,061	$ 4,545,878
Years to Amortize Market Funding Shortfall	9.5	8.1

I. Unfunded Vested Benefit Liability

Withdrawing employers are assessed a portion of the Plan's unfunded vested benefit liability for withdrawal liability, which is determined by subtracting the Plan's assets for withdrawal liability purposes (calculated in Exhibit 3.5) from the liability for all *vested* benefits earned to date. The assets for withdrawal liability are identical to the actuarial value of assets except that the 2008 investment loss is recognized over five years rather than 10 years. The table below summarizes this information for the past several years.

	($ in thousands)		
December 31,	**Present Value of Vested Benefits**	**Assets For Withdrawal Liability**	**Unfunded Vested Benefit Liability**
2016	$40,720,221	$37,976,193	$2,744,028
2015	39,234,177	35,963,376	3,270,801
2014	38,337,368	34,284,858	4,052,510
2013	37,280,381	32,019,915	5,260,466
2012	36,108,886	29,809,192	6,299,694

J. Zone Status

Zone Status

The following chart shows the Plan's Zone Status that has been reported in the Actuarial Certification since PPA became effective beginning in 2008.

Plan Year Beginning January 1,	Zone Status
2017	**Green**
2016	**Green**
2015	**Green**
2014	**Green**
2013	**Green**
2012	**Green**
2011	**Green**
2010	**Green**
2009	**Green**
2008	**Green**

As shown above, the Plan is neither endangered nor critical for the plan year beginning January 1, 2017.

K. Plan Experience

Initial Observations

We note the following comparisons from last year's valuation:

- Employer contributions in 2016 (exclusive of withdrawal liability payments) increased by 6.0% to $1.673 billion from $1.577 billion in 2015.
- Benefit payments increased by 2.7% to $2.67 billion in 2016 from $2.60 billion in 2015.
- Operating expenses in 2016 amounted to 5.9% of total employer contributions; compared with 5.9% in 2015.
- The net assets available for plan benefits on a market value basis increased by approximately $1.7 billion during 2016, compared with a decrease of approximately $450 million during the previous year.

Impact of Plan Experience during Prior Plan Year

Actuarial gains are produced from more favorable experience than assumed in the previous valuation. On the other hand, actuarial losses are produced from experience less favorable than assumed. The most important of these gains and losses are shown below and described in the paragraphs that follow.

Investment Return

The estimated investment return on the net market value of assets was approximately 7.84% for 2016. The corresponding returns for 2015 and 2014 were 1.78% and 7.65% respectively.

The estimated market value investment return for 2016 on non-dedicated assets was about 7.95%, resulting in an approximate $309 million gain over the assumed net investment return of 7.0%. In the same year, the net investment return on the actuarial value of non-dedicated assets was approximately 5.71%, resulting in an approximate $440 million loss. The investment return on the actuarial value of non-dedicated assets trails the investment return on the market value of non-dedicated assets because of the smoothing of investment gains and losses. Due to the election of PRA 2010 relief, the 2008 investment loss continues to be recognized at about $865 million annually (over ten years) while other non-dedicated investment gains and losses are recognized over five years. The last portion of the 2008 investment loss will be fully recognized by January 1, 2018.

The investment return on the actuarial value of total assets was estimated to be 5.97%. This resulted in an actuarial loss of about $320 million.

Demographic Experience

The gains and losses due to all non-investment experience during 2016 increased the Plan's actuarial liability by approximately $78 million. The commentary below identifies the major components of the demographic gains and losses experienced during 2016.

<u>**Contribution Rates and Hours Expectations**</u>

Various bargaining parties negotiated increases in contribution rates which, due to the Plan's benefit formula, increased benefits earned during 2016. We estimated that the increase in the Plan's liabilities was about $8 million.

Continuing active participants earned larger benefits during 2016 due to higher hours than expected under the current assumptions. Also, actual new entrants displayed different demographic characteristics than expected, and likely earned larger benefits that expected under the new entrant assumption.

We note that, the increase in liability due to higher contribution rates and higher hours is offset by higher contributions to the Trust and in aggregate, the unfunded actuarial liability is reduced due to contributions exceeding the value of the additional benefits.

The following is a summary of the remaining major demographic gains and losses.

Demographic Losses

A continuing source of demographic loss was the Plan's experience for mortality for healthy male retirees and both male and female disabled retirees. Participants continue to live longer than expected under the prior assumptions.

Another continuing source of demographic loss was the Plan's experience for termination from active status. During 2016, individuals were not terminating as quickly as assumed.

Demographic Gains

The largest source of demographic gain was from retirement from active status and inactive status. Individuals chose to work and/or delay retirement when compared with the current assumptions. The gain from retirement is consistent with the Plan's retirement experience in recent years.

Comments

The overall loss is small indicating that, in the aggregate, the prior assumptions produced reasonable results. However, based on the results of our demographic experience study and the post-retirement mortality study, the following demographic assumptions were updated to better match recent and anticipated plan experience:

- Retirement from active and inactive status
- Termination from active status
- Postretirement and preretirement male and female mortality
- Postretirement disability mortality
- Probability of marriage

Sensitivity of Results

The results presented in this report are dependent upon the actuarial assumptions being realized in the future. To the extent that actual Plan experience differs from the assumptions, future actuarial costs will differ from those presented in this report. For example, actuarial gains and losses emerge in plan years where actual contribution amounts differ from those anticipated by our assumptions.

SECTION 2
Introduction

The purpose of this actuarial valuation of the Western Conference of Teamsters Pension Plan is to review last year's activity, compute this year's cost, and test the Plan's funded status. Specifically:

- In Section 3, we summarize the Plan's trust fund activity and measure its investment return.
- In Section 4, we evaluate the Plan's contribution requirements, determine the appropriate charges and credits to the ERISA minimum Funding Standard Account for the plan year ending December 31, 2016, and estimate the credit balance at the end of this year. We also calculate the maximum tax-deductible contribution for the plan year ending December 31, 2017, and the Amortization Period as of January 1, 2017.
- In Section 5, we test the Plan's funded status by comparing the market value of assets with the actuarial present value of accumulated plan benefits, computed in accordance with FASB ASC Topic 960. We also summarize the Plan's Present Value of Vested Benefits in Exhibit 5.3 and calculate the Plan's Unfunded Vested Benefit Liability for withdrawal liability purposes.
- In Section 6, we compare the significant results of this valuation with those of the last four valuations, and provide a 20-year projection of the Plan's expected benefit payments.

The appendices present a summary of the Plan, participant statistics (active, retired, inactive vested), a description of the unit credit actuarial cost method, and a summary of our actuarial assumptions.

SECTION 3
Trust Fund Activity

In this section, we show the present status of the Plan's trust fund, trust activity over the past year, and historical investment return.

Exhibit 3.1 lists the types of assets held and their market value.

Exhibit 3.2 summarizes the fund's receipts and disbursements during the past year.

Exhibit 3.3 summarizes the fund's investment return, net of investment-related expenses. The exhibit displays annual rates of return at market value on all assets and non-dedicated assets for each of the last 20 years. For the plan year ended December 31, 2016, the assets of the fund experienced a 7.84% investment return, net of investment-related expenses, when measured at market value. The non-dedicated assets experienced a 7.95% investment return, net of investment expenses for the plan year ending December 31, 2016. This should be compared with our assumed rate of 7.00% net of investment expenses.

Exhibit 3.4 develops the actuarial value of assets as of December 31, 2016, and reflects 10-year smoothing of the 2008 net investment loss, as elected under the Pension Relief Act of 2010.

Operation of the Actuarial Asset Valuation Method for Non-Dedicated Assets presents the recognition of investment gains and losses on a market value basis over actuarial expectation.

Exhibit 3.5 develops the assets as of December 31, 2016, for the purpose of determining employer liability upon withdrawal from the Plan during 2017. The 2008 net investment loss has been fully recognized.

Exhibit 3.6 presents the progress of the fund balance for the past 20 years in terms of employer contributions, benefit payments, operating expenses, and net investment income.

Exhibit 3.1

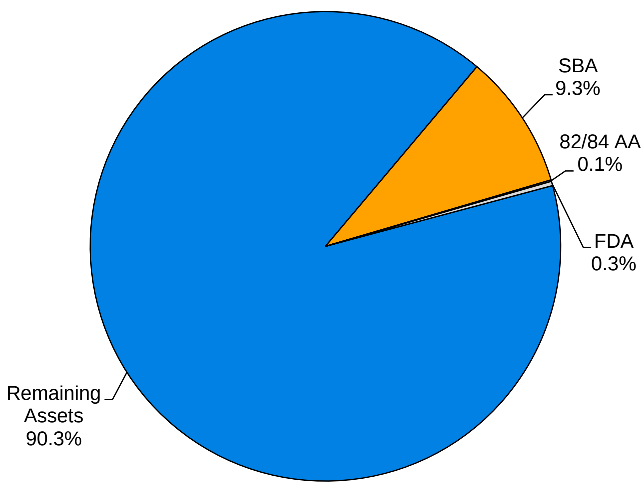
Market Value of Assets
(December 31, 2016)

ASSETS	2016
INVESTMENTS - at fair value	
103-12 investment entities	$ 1,212,766,405
Cash and cash equivalents	1,563,402,366
Common/collective trusts	10,468,298,611
Corporate debt securities	2,585,886,422
Equity securities	4,305,985,074
Insurance company contracts	8,523,995,898
Limited partnerships	4,401,069,779
Mutual fund	364,395,113
Other private equity	1,478,982,200
Pooled separate account	51,901,290
Real estate	1,246,343,826
U.S. Government and Government Agency obligations	472,209,855
	36,675,236,839
Securities on loan	
Corporate debt securities	20,443,658
Equity securities	622,904,040
Insurance company contracts	2,028,569,161
U.S. Government and Government Agency obligations	71,325,577
	2,743,242,436
Fair value of collateral held for securities on loan	2,688,322,464
Total investments	42,106,801,739
RECEIVABLES	
Due from broker for securities sold	164,211,831
Contributions due from employers - net	133,800,000
Withdrawal liability receivable - net	0
Accrued investment income	61,642,400
Swaps receivable from counterparties	6,270,065
Forward foreign currency contracts	12,223,624
Total receivables	378,147,920
OTHER ASSETS	3,963,987
CASH	8,040,747
Total assets	42,496,954,393
LIABILITIES AND NET ASSETS	
LIABILITIES	
Liability to return collateral held for securities on loan	2,799,861,122
Securities sold, not yet purchased	1,256,893,053
Due to broker for securities purchased	384,834,418
Accounts payable and accrued expenses	22,906,772
Swaps payable to counterparties	7,422
Forward foreign currency contracts	11,560,775
Total liabilities	4,476,063,562
NET ASSETS AVAILABLE FOR BENEFITS	$ 38,020,890,831

Exhibit 3.1
(Continued)

($ in thousands)			
		Year Ending December 31, 2015	Year Ending December 31, 2016
a.	Fixed Dollar Account (Including Supplemental Bond Account)	$ 98,223	$ 0*
b.	1982/1984 Annuity Account	44,447	0*
c.	Strategic Bond Account	3,378,254	3,282,070
d.	All Remaining Assets	32,767,214	34,738,821
e.	Net Assets Available for Plan Benefits	$ 36,288,138	$ 38,020,891

December 31, 2015



December 31, 2016

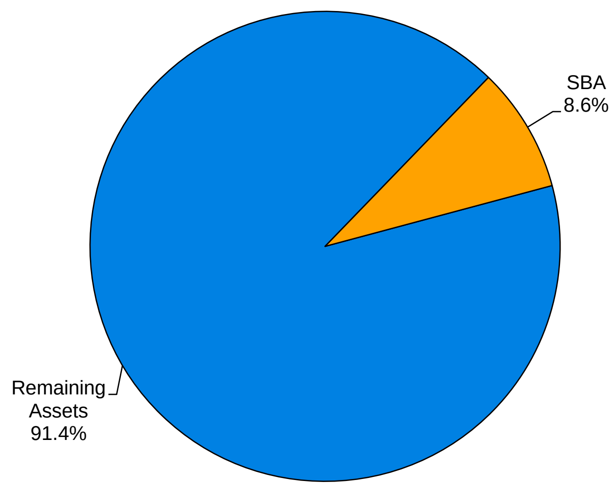


Exhibit 3.2

Receipts and Disbursements
(Year Ended December 31, 2016)

	2016
ADDITIONS	
Investment income	
Interest, dividends and other investment income	$ 779,804,184
Net appreciation/(depreciation) in fair value of investments	2,193,627,195
Net appreciation/(depreciation) in fair value of collateral held for securities on loan	357,932
	2,973,789,311
Less investment expenses	(187,929,344)
Investment income - net	2,785,859,967
Employer contributions	1,672,814,194
Employer withdrawal liability income	32,742,250
Other income	389,136
Total additions	4,491,805,847
DEDUCTIONS	
Pension benefits	2,673,830,481
Administrative expenses	98,840,568
Income tax expense	287,999
Total deductions	2,772,959,048
NET CHANGE	1,718,846,499
TRANSFER OF ASSETS TO UNRELATED PLAN	(2,789,868)
NET ASSETS AVAILABLE FOR BENEFITS	
Beginning of year	36,288,137,982
Adjustment to beginning of year assets	16,696,218
End of year	$ 38,020,890,831

Exhibit 3.3

Investment Return

Market Value of Assets Annual Rate of Investment Return					
Annual Rate for One-Year Period			Average Annual Rate for Period Ending December 31, 2016		
Plan Year Ending December 31,	All Assets	Non-Dedicated Assets	Period	All Assets	Non-Dedicated Assets
2016	7.84%	7.95%	1	7.84%	7.95%
2015	1.78%	2.22%	2	4.77%	5.05%
2014	7.56%	7.56%	3	5.69%	5.88%
2013	12.59%	15.25%	4	7.37%	8.15%
2012	11.93%	13.15%	5	8.27%	9.13%
2011	6.26%	5.35%	6	7.93%	8.49%
2010	13.53%	14.87%	7	8.72%	9.38%
2009	10.96%	12.60%	8	8.99%	9.78%
2008	-20.58%	-25.23%	9	5.23%	5.19%
2007	5.41%	5.67%	10	5.25%	5.24%
2006	10.61%	12.98%	11	5.72%	5.92%
2005	6.05%	6.55%	12	5.75%	5.97%
2004	9.49%	10.22%	13	6.03%	6.29%
2003	16.33%	20.76%	14	6.74%	7.27%
2002	-2.29%	-7.56%	15	6.11%	6.21%
2001	2.05%	0.89%	16	5.85%	5.87%
2000	3.35%	0.46%	17	5.70%	5.54%
1999	8.08%	14.06%	18	5.83%	6.00%
1998	14.86%	16.28%	19	6.29%	6.52%
1997	19.22%	23.21%	20	6.90%	7.29%

All rates reflect total investment return, net of investment-related expenses.

Exhibit 3.4

Actuarial Value of Assets
(January 1, 2017)

Non-Dedicated Asset Reconciliation
($ in thousands)

Year	(1) Market Value of Assets beginning of year	(2) Contributions	(3) Benefit Payments	(4) Operating Expenses	(5) Other Transactions	(6) Cash Flow (2)-(3)-(4)+(5)	(7) Actual Investment Income	(8) Market Value of Assets End of Year (1)+(6)+(7)
2016	$32,767,214	$1,705,556	$2,350,054	$98,841	$138,287	($605,052)	$2,576,658	$34,738,820
2015	32,808,706	1,596,395	2,254,987	93,897	(7,636)	(760,125)	718,633	32,767,214
2014	31,170,197	1,544,129	2,169,123	88,635	20,755	(692,874)	2,331,383	32,808,706
2013	27,575,124	1,431,091	2,079,846	87,541	169,439	(566,857)	4,161,930	31,170,197

Development of the Actuarial Value of Assets
($ in thousands)

Year	Market Investment Rate of Return	Market Investment Return	Expected Investment Return	Difference between Actual and Expected
2016	7.95%	$2,576,658	$2,267,579	$309,079
2015	2.22%	718,633	2,270,005	(1,551,372)
2014	7.56%	2,331,383	2,157,663	173,720
2013	15.25%	4,161,930	1,904,668	2,257,262

Market Value of Non-Dedicated Assets on January 1, 2017	$	34,738,820
Subtract 80% of $309,079 gain		(247,263)
Add back 60% of $1,551,372 loss		930,823
Subtract 40% of $173,720 gain		(69,488)
Subtract 20% of $2,257,262 gain		(451,452)
Add back 10% of 2008 investment loss of $8,646,585*		864,659
Actuarial Value of Non-Dedicated Assets on January 1, 2017	$	35,766,099
Preliminary Actuarial Value as a Percentage of Market Value		103%
Actuarial Value of Non-dedicated Assets (limited to 80%-120% of Market Value)	$	35,766,099
Actuarial Value of Dedicated Funds: SBA (see Appendix C)		3,074,753
Actuarial Value of Assets on January 1, 2017	$	38,840,852

* Investment loss for 2008 is recognized over 10 years as elected under the Pension Relief Act of 2010.

Exhibit 3.4
(Continued)

Operation of the Actuarial Asset Valuation Method for Non-Dedicated Assets ($ in thousands)

Investment Gain / (Loss) Recongized as of January 1, 2017											
	Investment Gain / (Loss) Market over Actuarially Expected	Investment Gain / (Loss) Recognition in Past Years					Investment Gain / (Loss) Recognized in Current Year	Investment Gain / (Loss) Recognized in Future Years			
Year		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2008	($8,646,585)	($864,659)	($864,659)	($864,659)	($864,659)	($864,659)	($864,659)	($864,659)			
2012	$1,517,265		$303,453	$303,453	$303,453	$303,453	$303,453				
2013	$2,257,262			$451,452	$451,452	$451,452	$451,452	$451,452			
2014	$173,720				$34,744	$34,744	$34,744	$34,744	$34,744		
2015	($1,551,372)					($310,274)	($310,274)	($310,274)	($310,274)	($310,274)	
2016	$309,079						$61,816	$61,816	$61,816	$61,816	$61,816
Net Gains / (Losses) Recognized by Year							($323,468)	($626,921)	($213,715)	($248,459)	$61,816
Interest on Prior Year Gains / (Losses)							($116,188)	($71,910)	($28,025)	($13,065)	$4,327
Additional Gains / (Losses) Recognized in Current year because of 80% - 120% Corridor							$0				
Total Gain / (Loss) Recognized by year							($439,655)	($698,830)	($241,740)	($261,524)	$66,143
Total Gains / (Losses) Deferred and to be Recognized in Future Years							($1,027,278)	($400,357)	($186,643)	$61,816	$0

Exhibit 3.5

Assets for Withdrawal Liability
(January 1, 2017)

Non-Dedicated Asset Reconciliation
($ in thousands)

Year	(1) Market Value of Assets beginning of year	(2) Contributions	(3) Benefit Payments	(4) Operating Expenses	(5) Other Transactions	(6) Cash Flow (2)-(3)-(4)+(5)	(7) Actual Investment Income	(8) Market Value of Assets End of Year (1)+(6)+(7)
2016	$32,767,214	$1,705,556	$2,350,054	$98,841	$138,287	($605,052)	$2,576,658	$34,738,820
2015	32,808,706	1,596,395	2,254,987	93,897	(7,636)	(760,125)	718,633	32,767,214
2014	31,170,197	1,544,129	2,169,123	88,635	20,755	(692,874)	2,331,383	32,808,706
2013	27,575,124	1,431,091	2,079,846	87,541	169,439	(566,857)	4,161,930	31,170,197

Development of the Actuarial Value of Assets
($ in thousands)

Year	Market Investment Rate of Return	Market Investment Return	Expected Investment Return	Difference between Actual and Expected
2016	7.95%	$2,576,658	$2,267,579	$309,079
2015	2.22%	718,633	2,270,005	(1,551,372)
2014	7.56%	2,331,383	2,157,663	173,720
2013	15.25%	4,161,930	1,904,668	2,257,262

Market Value of Non-Dedicated Assets on January 1, 2017	$	34,738,820
Subtract 80% of $309,079 gain		(247,263)
Add back 60% of $1,551,372 loss		930,823
Subtract 40% of $173,720 gain		(69,488)
Subtract 20% of $2,257,262 gain		(451,452)
Actuarial Value of Non-Dedicated Assets on January 1, 2017	$	34,901,440
Preliminary Actuarial Value as a Percentage of Market Value		100%
Actuarial Value of Non-dedicated Assets (limited to 80%-120% of Market Value)	$	34,901,440
Actuarial Value of Dedicated Funds: SBA (see Appendix C)		3,074,753
Actuarial Value of Assets on January 1, 2017	$	37,976,193

Exhibit 3.6

Net Cash Flow

($ in thousands)

December 31,	Contributions	Operating Expenses	Benefit Payments	Net Cash Flow	Net Investment Income	Net Cash Flow + Investment Income
1997	800,461	43,259	1,109,959	(352,757)	3,211,930	2,859,173
1998	873,273	48,964	1,174,440	(350,131)	2,892,689	2,542,558
1999	912,445	50,024	1,230,062	(367,641)	1,776,796	1,409,155
2000	981,425	52,791	1,352,093	(423,459)	784,219	360,760
2001	1,008,409	54,737	1,437,374	(483,702)	893,971	410,269
2002	1,030,563	57,454	1,557,808	(584,699)	(550,761)	(1,135,460)
2003	1,068,717	59,761	1,649,918	(640,962)	3,741,095	3,100,133
2004	1,117,378	59,232	1,746,603	(688,457)	2,466,296	1,777,839
2005	1,199,154	64,061	1,838,524	(703,431)	1,679,009	975,578
2006	1,258,898	71,638	1,919,384	(732,124)	3,045,672	2,313,548
2007	1,320,358	73,833	1,996,396	(749,871)	1,677,254	927,383
2008	1,350,530	80,375	2,059,601	(789,446)	(6,570,632)	(7,360,078)
2009	1,264,683	87,502	2,154,335	(977,154)	2,683,399	1,706,245
2010	1,276,476	84,716	2,232,529	(1,040,769)	3,537,349	2,496,580
2011	1,322,549	83,757	2,305,404	(1,066,612)	1,792,951	726,339
2012	1,367,269	83,759	2,367,600	(1,084,090)	3,502,770	2,418,680
2013	1,431,091	87,541	2,458,053	(1,114,503)	3,974,410	2,859,907
2014	1,544,129	88,635	2,530,265	(1,074,771)	2,620,954	1,546,183
2015	1,596,395	93,897	2,598,766	(1,096,268)	645,209	(451,058)
2016	1,705,556	98,841	2,676,620	(1,069,905)	2,802,657	1,732,752
20-year total as of 12/31/16	$24,429,759	$1,424,777	$38,395,734	($15,390,752)	$36,607,237	$21,216,486

SECTION 4
Contribution Requirements and Amortization Period

In this section, we calculate the projected ERISA minimum Funding Standard Account and the maximum tax-deductible limit under the Internal Revenue Code. Under the law, an Enrolled Actuary must calculate costs using an approved actuarial cost method and actuarial assumptions which, in combination, are his best estimate of future Plan experience. We also determine the Plan's Amortization Period which provides the Trustees an additional indication of the Plan's ability to pay all benefits expected to be paid for by the Plan. Our actuarial cost method and assumptions are fully explained in Appendices C and D: the following discussion explains only the highlights of our cost method.

The actuarial present value of projected plan benefits is made up of liabilities for benefits being paid to current retirees and their beneficiaries and of liabilities that are projected to be paid to future retirees. The chart below illustrates the allocation of the actuarial present value of projected plan benefits among these categories of participants.

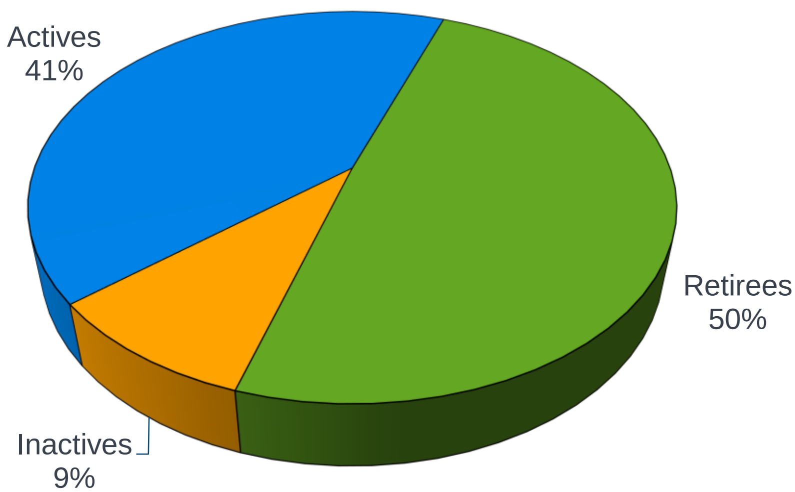


Exhibit 4.1 contains information on the actuarial balance sheet. Plan requirements consist of the actuarial present value of projected plan benefits on January 1, 2017. As illustrated above, 59% of the Plan's liabilities are for benefits to be paid to participants for whom contributions are no longer being made to the Plan. Plan resources consist of the actuarial value of assets and expected contributions to pay for projected future normal costs and expected future payments to eliminate the Plan's unfunded actuarial liability.

Exhibit 4.2 details the changes in the value of the Plan's unfunded actuarial liability from January 1, 2016, to January 1, 2017. Unfunded actuarial (accrued) liability changes during the year result from benefit accruals, contributions to the Plan, and actuarial gains and losses, which arise from actual experience different from expected. Changes to Plan provisions, actuarial assumptions, or the Plan's funding method can also impact the unfunded actuarial liability.

This year's normal cost is shown in Exhibit 4.3. The normal cost is the annual cost of benefits allocated to a plan year by the cost method and includes an allowance for operating expenses expected during the plan year.

ERISA Minimum Funding Requirements

Exhibit 4.4 details the entries to the Plan's Funding Standard Account for the plan year ending December 31, 2016.

Exhibit 4.5 projects the Plan's Funding Standard Account through December 31, 2017, and provides detail on the amortization charges and credits. A positive credit balance is produced by cumulative contributions sufficient to pay normal costs and to amortize the unfunded actuarial liability faster than required.

Maximum Deductible Contribution

Exhibit 4.6 calculates the maximum deductible contribution for the 2017 plan year. The anticipated contributions are less than the maximum deductible contribution, and are therefore expected to be fully deductible.

Amortization Period

Exhibit 4.7 displays the calculation of the period to amortize the Plan's unfunded actuarial liability using the actuarial value of assets and the market value of assets.

Exhibit 4.1

Actuarial Balance Sheet
(January 1, 2017)

Requirements
($ in thousands)

Present Value of Projected Benefits				
Retired Participants			$	24,522,851
Vested Inactive Participants				4,626,792
Active Participants				
Retirement	$	18,190,107		
Vested Withdrawal		1,307,920		
Death		481,014		
Disability		661,489		20,640,530
Total Present Value of Projected Benefits			$	49,790,173

Resources
($ in thousands)

Actuarial Value of Assets	$	38,840,852
Present Value of Future Normal Costs		7,223,404
Unfunded Actuarial Liability		3,725,917
Total	$	49,790,173

Exhibit 4.2

Analysis of Change in the Unfunded Actuarial Liability (January 1, 2017)

Expected Unfunded Actuarial Liability on January 1, 2017			**($ in thousands)**
Unfunded Actuarial Liability as of January 1, 2016			$ 3,381,505
Normal Cost, Including Expenses			890,316
Interest on the above items			299,027
Contributions			(1,705,556)
Interest on Contributions			(50,175)
Expected Unfunded Actuarial Liability as of January 1, 2017			$ 2,815,117
Changes			
Assumption changes	$ 452,699		
Discount rate changes on dedicated funds	66,355		
Method Change	(5,490)		
Demographic (Gain)/Loss	77,558		
Asset (Gain)/Loss	319,678		
Total			910,800
Unfunded Actuarial Liability on January 1, 2017			$ 3,725,917

Exhibit 4.3

Normal Cost
(January 1, 2017)

	($ in thousands)			
Unit Credit Normal Cost				
Retirement	$	695,112		
Vested Withdrawal		92,685		
Death		19,389		
Disability		30,789	$	837,975
New Entrant Adjustment				24,405
Expenses ($101,000,000 Payable Mid-Year)				97,384
Total Normal Cost (Beginning of Year)			$	959,764

Exhibit 4.4

Funding Standard Account
(Year Ending December 31, 2016)

Charges to Funding Standard Account	($ in thousands)
Prior Year Fund Deficiency, if any	$ 0
Normal Cost for Year	890,316
Amortization Charges	673,646
Interest on Fund Deficiency, Normal Cost, and Amortization Charges	109,477
Total Charges	$ 1,673,439
Credits to Funding Standard Account	
Prior Year Credit Balance, if any	$ 3,727,967
Employer Contributions	1,705,556
Amortization Credits	99,539
Interest on Credit Balance, Amortization Credits, and Contributions	318,101
Total Credits	$ 5,851,163
Balance	
Projected Credit Balance, if any	$ 4,177,724

Exhibit 4.5

Projected Funding Standard Account
(Year Ending December 31, 2017)

Charges to Funding Standard Account	($ in thousands)	
Prior Year Fund Deficiency, if any	$	0
Normal Cost for Year		959,764
Amortization Charges*		683,228
Interest on Fund Deficiency, Normal Cost, and Amortization Charges		115,009
Total Charges	$	1,758,001
Credits to Funding Standard Account		
Prior Year Credit Balance, if any	$	4,177,724
Expected Employer Contributions		1,735,000
Amortization Credits*		0
Interest on Credit Balance, Amortization Credits, and Contributions		342,793
Total Credits	$	6,255,517
Balance		
Projected Credit Balance, if any	$	4,497,516
Minimum Required Contribution	$	0

* *See table on the following page for detail.*

Amortization Bases

The following table depicts the various entries used to establish the year-by-year charges and credits with respect to the Funding Standard Account.

Before Combine/Offset

($ in thousands)	Year Established	Original Balance	01/01/2017 Balance	Years Remaining	Amortization Payment
Charges					
2008 Net Investment Loss	2009	$4,407,752	$3,890,014	21.000	$335,519
2008 Net Investment Loss	2010	$588,120	$525,051	21.000	$45,286
2008 Net Investment Loss	2011	$671,272	$606,800	21.000	$52,338
2008 Net Investment Loss	2012	$467,560	$428,407	21.000	$36,951
2008 Net Investment Loss	2013	$875,912	$814,426	21.000	$70,245
2008 Net Investment Loss	2014	$1,635,968	$1,545,563	21.000	$133,307
Experience Loss	2017	$397,236	$397,236	15.000	$40,761
Assumption Changes	2017	$519,054	$519,054	15.000	$53,261
Total Charges		$9,562,874	$8,726,551		$767,668
Credits					
Prior Combined/Offset Base	2016	$863,483	$817,420	11.397	$99,538
Method Change	2017	$5,490	$5,490	10.000	$731
Total Credits		$868,973	$822,910		$100,269
Net Charges/(Credits)			$7,903,641		$667,399

Combined/Offset

($ in thousands)	Year Established	Original Balance	01/01/2017 Balance	Years Remaining	Amortization Payment
Charges					
2008 Net Investment Loss	2009	$4,407,752	$3,890,014	21.000	$335,519
2008 Net Investment Loss	2010	$588,120	$525,051	21.000	$45,286
2008 Net Investment Loss	2011	$671,272	$606,800	21.000	$52,338
2008 Net Investment Loss	2012	$467,560	$428,407	21.000	$36,951
2008 Net Investment Loss	2013	$875,912	$814,426	21.000	$70,245
2008 Net Investment Loss	2014	$1,635,968	$1,545,563	21.000	$133,307
Combined/Offset Base	2017	$93,380	$93,380	15.000	$9,582
Total Charges		$8,739,964	$7,903,641		$683,228
Credits					
		$0	$0		$0
Total Credits		$0	$0		$0
Net Charges/(Credits)			$7,903,641		$683,228

Exhibit 4.6

Maximum Tax-Deductible Contribution
(Plan Year Ending December 31, 2017)

1. Ten Year Amortization Limitation: (IRC Section 404(a)(1)(A)(iii))		**($ in thousands)**		
Normal Cost	$	959,764		
Amortization of Unfunded Actuarial Liability	+	495,782		
Interest	+	101,888	$	1,557,434
2. Full Funding Limitation: (IRC Section 412(c)(7)(A)(i))				
Actuarial Liability at Beginning of Year	$	42,566,769		
Unit Credit Normal Cost, including expenses, at Beginning of Year	+	959,764		
Test Value of Assets, at Beginning of Year	-	38,020,891		
Interest	+	385,395	$	5,891,037
3. Unfunded Current Liability				
90% of RPA Current Liability, at End of Year	$	65,299,951		
Actuarial Value of Assets Projected to End of Year	-	37,860,468	$	27,439,483
4. Unfunded Current Liability Limitation: (IRC Section 404(a)(1)(D))				
140% of Current Liability at Year End	$	101,577,701		
Actuarial Value of Assets at Year End	-	38,633,292		
Unfunded Current Liability			$	62,944,409
5. Maximum Tax-Deductible Contribution Lesser of (1) or (2), but not less than (3) or (4)			$	62,944,409

There are alternative calculations of the Maximum Deductible Contribution under IRC Section 404 that may produce a different amount than illustrated above. Please consult your tax advisors regarding the deductibility of cash contributions.

Exhibit 4.6
(Continued)

The current liability defined under IRC Section 404(a)(1)(D) is developed in the following table. Current liability is determined using a 3.05% interest assumption and mortality as specified by the IRS. The 3.05% interest assumption is within the required corridor of the weighted average of 30-Year Treasury Bond Rates published by the IRS.

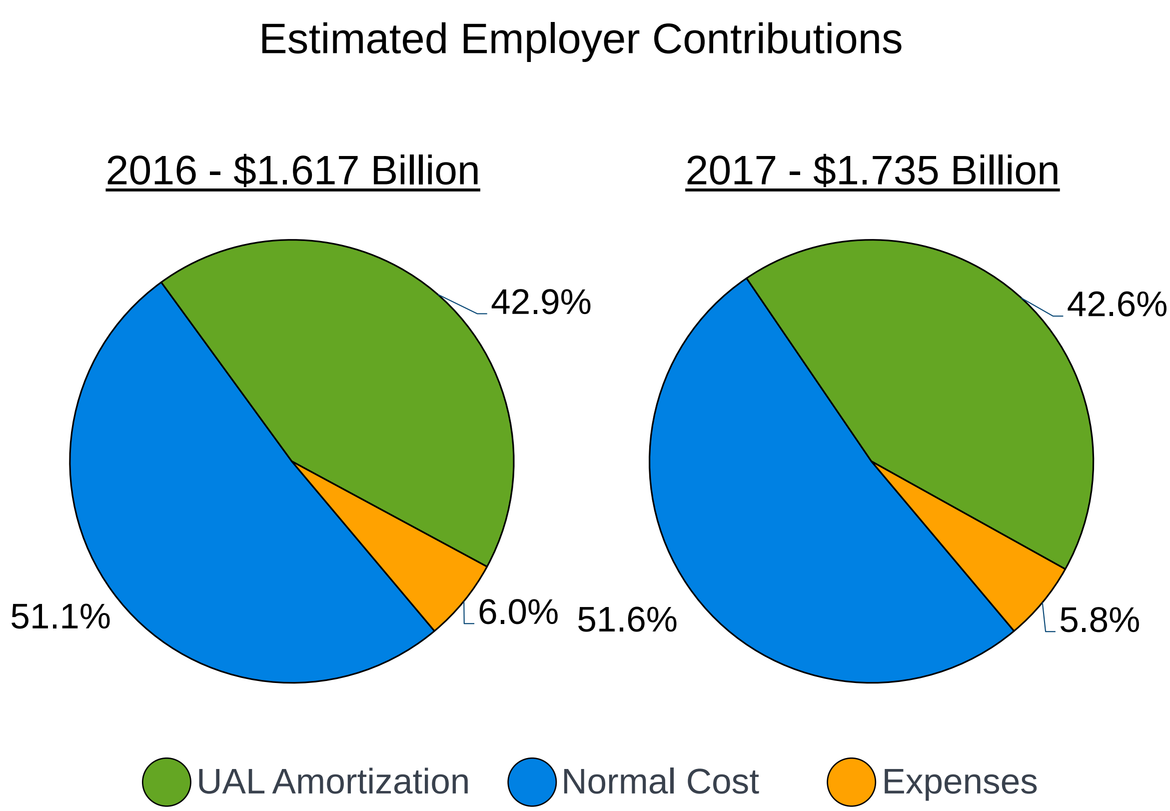
		($ in thousands)
Current Liability, Beginning of Year		
Retirees	$	34,197,469
Vested Inactive Participants		9,592,698
Active Participants		27,356,306
Total	$	71,146,473
Changes Expected During 2017 Plan Year		
Accrual of Benefits	$	1,947,693
Expected Benefit Payments	-	2,726,459
Interest	+	2,187,794
Total	$	1,409,028
Current Liability, End of Year	$	72,555,501

The amortization limitation required by IRC Section 404(a)(1)(A)(iii) is based on a 10-year level dollar amortization of the Unfunded Actuarial Liability of $1,557,434.

Exhibit 4.7
Amortization Period

Exhibit 4.7 shows the amortization periods as of the current and prior valuation dates.

($ in thousands)		
	January 1, 2016	January 1, 2017
a. Estimated Employer Contributions	$1,617,000	$1,735,000
b. Expenses	$97,000	$101,000
c. Normal Cost (payable monthly)	$826,375	$894,402
d. Estimated Employer Contribution to Amortize Unfunded Actuarial Liability (a.-b.-c.)	$693,625	$739,598
e. Unfunded Actuarial Liability	$3,381,505	$3,725,317
f. Amortization Period	6.0 years	6.3 years
g. Estimated Period to Amortize the Unfunded Actuarial Liability using Market Value of Assets	9.5 years	8.1 years



SECTION 5
Funded Status

In this section, we provide the Plan's funded status by comparing the Fund's Market Value of Assets with the Actuarial Present Value of Accumulated Plan Benefits and the Plan's Present Value of Vested Benefits under FASB ASC Topic 960. As shown on Exhibit 5.1, the Market Value of the Plan's Assets is less than the Present Value of Accumulated Plan Benefits as of December 31, 2016. Exhibit 5.2 shows the change in the Present Value of Accumulated Plan Benefits from December 31, 2015, to December 31, 2016.

Exhibit 5.3 shows the Plan's Unfunded Vested Benefits Liability for purposes of determining withdrawal liability. As of December 31, 2016, the Assets for Withdrawal Liability are less than the Present Value of Vested Benefits. This determination will impact withdrawal liability calculations for employers withdrawing from the Plan during the 2017 plan year.

Exhibit 5.1

Statement of Actuarial Present Value of Accumulated Plan Benefits

	FASB ASC Topic 960 ($ in thousands)	
	December 31, 2015	December 31, 2016
Vested Benefits		
Retirees & Beneficiaries	$ 23,282,149	$ 24,516,762
Vested Inactive Participants	4,591,771	4,626,756
Active Participants	11,360,257	11,576,703
Total	$ 39,234,177	$ 40,720,221
Non-Vested Benefits		
Active and Other Non-Vested Benefits	1,840,022	1,846,548
Total	$ 1,840,022	$ 1,846,548
Actuarial Present Value of Accumulated Plan Benefits	$ 41,074,199	$ 42,566,769
Assets		
Market Value of Assets (MV)	$ 36,288,138	$ 38,020,891
Actuarial Value of Assets (AV)	$ 37,692,694	$ 38,840,852
Funding Ratios		
Ratio of MV to Present Value of Vested Benefits	92.5%	93.4%
Ratio of MV to Present Value of Accumulated Plan Benefits	88.3%	89.3%
PPA Funding Ratio		
Ratio of AV to Present Value of Accumulated Plan Benefits	91.7%	91.2%

Exhibit 5.2

Statement of Changes in Actuarial Present Value of Accumulated Plan Benefits

	($ in thousands)
Value as of December 31, 2015	$ 41,074,199
Changes	
Benefits Accumulated	796,789
Actuarial (Gain)/Loss	77,558
Actuarial Method Change	(4,507)
Interest	2,780,296
Benefit Payments	(2,676,620)
Assumption Changes	519,054
Net Change	$ 1,492,570
Value as of December 31, 2016	$ 42,566,769

Exhibit 5.3

Unfunded Vested Benefit Liability

	($ in thousands)	
	December 31, 2015	December 31, 2016
Actuarial Present Value of Vested Benefits		
Active Participants	$ 11,360,257	$ 11,576,703
Vested Inactive Participants	4,591,771	4,626,756
Retirees & Beneficiaries	23,282,149	24,516,762
Total	$ 39,234,177	$ 40,720,221
UVBL Asset Value*	$ 35,963,376	$ 37,976,193
Unfunded Vested Benefit Liability	$ 3,270,801	$ 2,744,028
Excess of the Actuarial Value of Assets over the Vested Benefit Liability	NA	NA
Percentage Funded	91.7%	93.3%

*The UVBL Asset Values were determined without regard to the Pension Relief Act election previously mentioned – i.e., for this calculation, five-year smoothing was used for all market value gains and losses.

SECTION 6
History and Projections

Exhibit 6.1 shows five years of the more important Plan statistics.

- **Investment Return.** Investment return often represents the largest source of actuarial gain or loss.
- **Participant Statistics.** Changes, if any, in the active and inactive participants' characteristics over time can cause significant changes in costs.

Exhibit 6.2 provides a projection of benefit payments. This can be useful for the investment manager in planning future liquidity requirements.

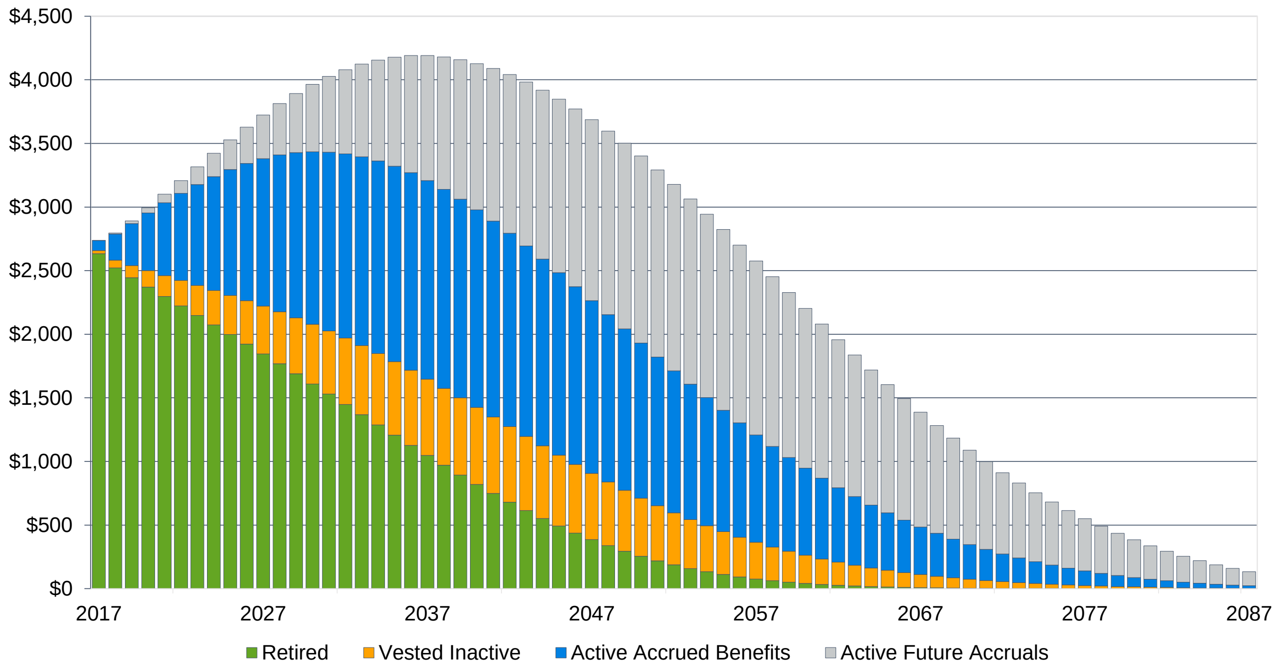
Exhibit 6.1

Historical Statistics
($ in thousands)

	January 1, 2013	January 1, 2014	January 1, 2015	January 1, 2016	January 1, 2017
Actuarial Present Value of Accumulated Plan Benefits					
Vested Benefits					
Retirees	$ 20,973,585	$ 22,103,238	$ 22,789,078	$ 23,282,149	$ 24,516,762
Inactives	4,464,195	4,422,913	4,494,421	4,591,771	4,626,756
Actives	10,671,106	10,754,230	11,053,869	11,360,257	11,576,703
Total	$ 36,108,886	$ 37,280,381	$ 38,337,368	$ 39,234,177	$ 40,720,221
Non-Vested Benefits	$ 1,756,561	$ 1,835,647	$ 1,830,243	$ 1,840,022	$ 1,846,548
Accumulated Plan Benefits	$ 37,865,447	$ 39,116,028	$ 40,167,611	$ 41,074,199	$ 42,566,769
Assets					
Market Value of Fund	$ 32,309,867	$ 35,193,014	$ 36,739,196	$ 36,288,138	$ 38,020,891
Market Value Return in Prior Year	11.93%	12.95%	7.56%	1.78%	7.95%
Actuarial Value for Funding	$ 34,132,485	$ 35,478,550	$ 36,878,833	$ 37,692,694	$ 38,840,852
Participant Statistics					
Retired Participants and Beneficiaries					
Number of Retirees and Beneficiaries	213,780	217,924	221,502	223,971	226,870
Total Annual Benefits	$ 2,367,600	$ 2,458,053	$ 2,530,265	$ 2,598,766	$ 2,599,401
Active Participants					
Number of Participants	194,080	195,620	197,120	202,940	206,340
Average Age	43.6	43.7	43.4	43.3	43.3
Average Credited Service	12.3	12.4	12.3	12.0	11.9
Vested Inactive Participants					
Number of Participants	169,020	167,940	166,440	165,920	164,640
Actuarial Assumptions					
Interest Assumption	7.00%	7.00%	7.00%	7.00%	7.00%
Expected Contributions	$ 1,375,000	$ 1,401,000	$ 1,500,000	$ 1,617,000	$ 1,735,000
Actual Contributions	$ 1,431,091	$ 1,544,129	$ 1,596,395	1,705,556	TBD

Exhibit 6.2

Projected Benefit Payments
($ in millions)



Detail of Total Projected Payments for Next 20 Years
($ in thousands)

Plan Year	Estimated Payout of Retirement Benefits	Plan Year	Estimated Payout of Retirement Benefits
2017	$2,714,953	2027	$3,723,437
2018	2,734,406	2028	3,812,648
2019	2,796,400	2029	3,892,749
2020	2,864,860	2030	3,964,863
2021	2,936,217	2031	4,027,100
2022	3,007,358	2032	4,079,551
2023	3,079,151	2033	4,123,135
2024	3,151,532	2034	4,155,451
2025	3,221,835	2035	4,178,523
2026	3,287,264	2036	4,190,785

Appendix A

Summary of the Plan

1. Active Participation

Non-Seasonal employees for whom contributions are required to be made to the Trust under the terms of a pension agreement become “Active Participants” on the day on which they first accumulate 750 covered hours in the current and immediately preceding calendar years. Seasonal employees become “Active Participants” if they satisfy one-half of the covered hour requirement of Non-Seasonal employees.

2. Monthly Pension at Normal Retirement

The monthly pension earned for service prior to 1987 is determined based on the 1986 Plan provisions as outlined in the Actuarial Report as of January 1, 1986. The final five-year average contribution rate used for this determination recognizes contribution rates applicable to all 500 hour years through 1991.

For service after 1986, monthly pension benefits are earned as follows:

Calendar Year	Contribution Percentage	
	First 20 Years	After 20 Years
1987-1991	2.00%	2.65%
1992-1996	2.30%	3.05%
1997-1999	2.46%	3.26%
2000-2002	2.70%	3.58%
1/2003-6/2003	2.20%	2.92%
7/2003-2006	1.20%	1.20%
2007	1.65%	1.65%
2008	2.00%	2.65%
2009+	1.20%	1.20%

3. Past Service Credits

A participant is granted credit for the number of years and months of specified types of unbroken employment rendered prior to his or her first covered hour, subject to limits specified in the Plan.

4. Vesting Service

A Plan member earns a vesting service year for each year after 1975 during which he or she is credited with at least 500 covered hours (250 covered hours for Seasonal Plan members). For service before 1976, a Plan member is credited with a vesting service year for each year of continuous coverage under the Plan.

5. Normal Retirement Age

A participant reaches Normal Retirement Age upon the later of age 65 or an Active participant’s age on the second anniversary of his or her first covered hour.

6. **Normal Pension Form**

The normal form of pension for unmarried participants is a Life Only Pension. In general, married participants who do not elect otherwise receive a reduced Employee and Spouse Pension. This reduced amount is an "actuarial equivalent" of the Life Only Pension. Participants who retired under the Employee and Spouse Pension Option will have their pension restored to the amount payable under the Normal Form if the spouse dies first. In the event that the participant dies first, the amount of spouse pension is 66 2/3% of the retiree's pension for those who retired after 1991 with recent coverage; otherwise the amount of spouse pension is 50% of the retiree's pension. In both instances, the actuarial reduction factor for the Employee and Spouse Pension amount is calculated as though the spouse pension benefit would be 50% of the reduced Employee and Spouse Pension.

7. **Other Pension Forms**

An Optional Employee and Spouse Pension providing a 75% spouse pension is available. Participants retiring under age 65 may elect a Benefit Adjustment Option with or without the regular or Optional Employee and Spouse Pension.

8. **Early Retirement Eligibility Date**

In general, this date is the first day of the month coincident with or immediately following the later of the participant's 55th birthday or the date the individual becomes a vested participant. However, a participant with recent coverage may retire at any age if he or she meets the Rule of 84 (or Rule of 82 or Rule of 80) under the Program for Enhanced Early Retirement (PEER program); that is, the sum of his or her attained age plus years of contributory service is equal to or greater than 84 (or 82 or 80).

9. **Monthly Pension at Early Retirement for a Participant with Recent Coverage**

If a participant meets the Rule of 84 and has recent coverage, the monthly pension benefit is reduced by the sum of 0.45% for each of the first 60 months that the early retirement date precedes his or her 62nd birthday plus 0.33% for each month that the early retirement date precedes his or her 57th birthday.

If a participant has recent coverage but does not meet the Rule of 84, his or her monthly pension benefit is reduced by the sum of 0.60% for each of the first 60 months that the early retirement date precedes his or her 62nd birthday plus 0.40% for each month that the early retirement date precedes his or her 57th birthday.

10. **Monthly Pension at Early Retirement for a Participant with Current PEER Coverage**

If a participant meets the Rule of 84 (or Rule of 82 or Rule of 80), is a member of a bargaining unit which has negotiated PEER 84 (or PEER 82 or PEER 80) contribution surcharges, and has current PEER coverage, the early retirement benefit equals 100% of the earned pension benefits. A participant has current PEER coverage at his or her retirement effective date if the applicable PEER contributions have been paid for at least 1,000 covered hours in the 24-month period immediately preceding his or her retirement effective date.

Note: If a participant is in a category of early retirement where benefits are subsidized (as described in paragraph 1 of Item 9 or in Item 10) and accumulates 25 years of service under the Plan while so covered, then his or her subsidized early retirement benefits are "locked-in" and cannot be forfeited.

11. Disability Benefit

Upon a vested participant's total and permanent disability before age 65, the monthly benefit is the greater of (a) 85% of the earned monthly pension benefit or (b) the early retirement pension otherwise payable, provided the vested participant has met the specified recent coverage requirement on the disability onset date.

12. Vested Benefit Upon Termination of Employment

Upon termination of employment, a participant is vested in his or her accrued pension, based on past and future service credits, if he or she has completed at least 5 years of vesting service, one of which was completed during or after 1991.

A terminated vested participant may elect early commencement of the earned retirement benefit at any time on or after the Early Retirement Eligibility Date. If the participant does not have recent coverage and has not "locked-in" rights to unreduced pension benefits by having completed 25 years of Plan service before termination, the benefit is reduced by the sum of 0.60% per month for each of the first 60 months that the early retirement date precedes the participant's 65^{th} birthday plus 0.40% per month for each month that such early retirement date precedes the participant's 60^{th} birthday.

Vested participants who are not covered by the current Plan provisions may be subject to additional limitations on their benefits.

13. Extra Check

An annual "Extra Check" is payable to: (i.) pre-1985 retirees in the amount of $540 and to (ii.) their eligible survivors in the amount of $450.

14. Death Benefits

Upon the death of a participant or pensioner who has met the specified recent coverage requirement, a temporary monthly pension is payable to the surviving children under conditions specified in the Plan.

A pre-retirement benefit to the surviving spouse is payable upon the death of a vested participant. If a married participant had recent coverage at the time of death, the spouse receives an immediate benefit based on the participant's earned benefit. The earned benefit is reduced to reflect early retirement, as specified in the Plan, and the appropriate Employee and Spouse Pension factor. 66 2/3% of the resulting amount is then payable immediately to the spouse. If the participant does not have recent coverage, the benefit is calculated as described above, but a 50% factor is applied in lieu of the 66 2/3% factor, and, if the participant was not eligible to retire on the date of death, commencement of the pension is deferred until the time the participant would have been first eligible to retire.

A single sum death benefit equal to 50% of contributions, subject to a maximum of $10,000, is payable upon the death of an Active or Terminated participant who has completed at least 5 years of vesting service. In addition, for unmarried vested participants who satisfy the recent coverage requirements and would otherwise be eligible to retire, a death benefit of 48 times the participant's accrued pension, reduced to reflect early retirement as specified in the Plan, is payable as a lump sum amount.

Upon the death of a pensioner with a retirement date before January 1, 1992, a single sum benefit of 12 times the monthly normal form pension (Life Only annuity), subject to a maximum of $10,000 is payable. Beginning with retirements in 1992, beneficiaries of retirees with recent coverage who elect a Life Only or Benefit Adjustment Option (without the Spouse Pension) receive a 4-Year Certain death benefit payment equal to 48 times the pensioner's Life Only benefit minus the total monthly payments already received by the pensioner.

If a pensioner retires after January 1, 1992, he or she may elect an Optional Lump Sum Death Benefit equal to 12 times the monthly normal form pension (Life Only annuity). The Optional Lump Sum Death Benefit is paid for by reducing the pensioner's monthly payment.

15. Transition Provisions

Certain minimum benefits are provided to participants who were covered by prior versions of the Plan.

PLAN AMENDMENT HISTORY

The following is a summary of the Plan changes since 1984 that impact the valuation.

Effective Date	Description of Change
1/1/2011	Annual "Extra Checks" to pre-1985 retirees and their eligible survivors were made a permanent part of the Plan.
1/1/2009	A 75% Optional Employee and Spouse Pension was added. Also, a $40 million reserve for extra check payments was established.
1/1/2008	Effective for calendar year 2008 only, the percentages used to calculate Plan participant account benefits have been increased from 1.20% to 2.00% for participants who have not completed 20 years of service, and from 1.20% to 2.65% for participants who have completed at least 20 years of service. The percentages for years 2009 and later remain at 1.20%.
1/1/2007	Effective for calendar year 2007 only, the percentage used to calculate Plan participant account benefits was increased from 1.20% to 1.65%. The percentages for years 2008 and later remain at 1.20%.
7/1/2003	Effective July 1, 2003, the percentage used to calculate Plan participant account benefits has been reduced to 1.20% for the second half of 2003 and all subsequent years.
1/1/2000	Effective for calendar years 2000, 2001 and 2002, the percentage used to calculate Plan participant account benefits has been increased. An Active participant will earn a monthly pension benefit of 2.70% instead of 2.16% for contributions credited in this period if he/she has not completed 20 year of service. If such participant has completed at least 20 years of contributory service, he/she will earn a monthly pension benefit of 3.58% instead of 2.86% during this same period. Effective for calendar years 2003, 2004 and 2005, the percentage used to calculate Plan participant contribution account benefits has been increased. An Active participant will earn a monthly pension benefit of 2.20% instead of 2.00% for contributions credited in this period, if he/she has not completed 20 years of service. If such participant has completed at least 20 years of contributory service, he/she will earn a monthly pension benefit of 2.92% instead of 2.65% during this same period. Effective with calendar year 2000, all Disability Pensioner benefits have been increased to 85% of his/her Normal Retirement Benefit unless said Disability Pensioner's benefits are already payable in a greater amount. Spouses of certain deceased Disability Pensioners have had their benefits appropriately adjusted, as applicable. The same 85% "floor" monthly pension benefit shall be paid to all Disability Pensioners and, as applicable, to their spouses for Plan participants who become Disabled Pensioners after calendar year 1999.

PLAN AMENDMENT HISTORY

Effective Date	Description of Change
1/1/2000 (Continued)	Effective with calendar year 2000, the maximum Child Survivor Benefits have been increased to $1,000 and such increased benefits shall be payable, in general, upon the death of a person who was an Active Participant on 1/1/1987 or thereafter and who otherwise satisfied the applicable recency of employment requirements at the time of death. Effective with calendar year 2000, PEER eligible participants with 25 years of contributory service “lock-in” PEER coverage by working at least 1,000 covered hours during any consecutive 24 month period that ends on or after completion of 25 years of contributory service.
1/1/1999	Effective with retirements in calendar year 1999, a vested participant who has not suffered a forfeiture of service after 1975 may quality to have pre-1976 forfeited contributory service credit restored.
1/1/1998	Effective for calendar years 1997, 1998 and 1999, the percentage used to calculate Plan participant contribution account benefits has been increased. An Active participant will earn a monthly pension benefit of 2.46% instead of 2.00% for contributions credited in this period if he/she has not completed 20 years of service. If a participant has completed at least 20 years of contributory service, he/she will earn a monthly pension benefit of 3.26% instead of 2.65% during this same period. Effective for calendar years 2000, 2001 and 2002, the percentage used to calculate Plan participant contribution account benefits has been increased. An Active participant will earn a monthly pension benefit of 2.16% instead of 2.00% for contributions credited in this period, if he/she has not completed 20 years of service. If a participant has completed at least 20 years of contributory service, he/she will earn a monthly pension benefit of 2.86% instead of 2.65% of contributions during this same period.
1/1/1994	Effective for calendar years 1994, 1995 and 1996, the percentage used to calculate Plan participant contribution account benefits has been increased. An Active participant will earn a monthly pension benefit of 2.3% instead of 2.00% for contributions credited in 1992 through 1996, inclusive, if he/she has not completed 20 years of contributory service. If a participant has completed at least 20 years of such service, he/she will earn a monthly pension benefit of 3.05% instead of 2.65% during this same period. The “Rule of 85” early retirement test was lowered to a “Rule of 84” test for both the PEER program supported by 6.5% surcharge contributions and regular enhanced early retirement features.

PLAN AMENDMENT HISTORY

Effective Date	Description of Change
1/1/1994 (Continued)	The Program for Enhanced Early Retirement (PEER) was expanded to allow participants who meet the Rule of 82 (or Rule of 80) to retire with no early retirement reduction. To qualify, a participant must have current PEER coverage and must retire from a bargaining unit that has negotiated 11.5% PEER 82 surcharge contributions, effective on or after 8/1/1993, or 16.5% PEER 80 surcharge contributions, effective on or after 8/1/1994. The Plan's recent coverage provisions were liberalized to provide protection to participants with at least 25 years of contributory service. Participants who satisfy the latter condition and who leave covered employment under age 55 now have access to the Plan's enhanced early retirement, death and survivor benefits. The Plan's minimum disability pension has been increased from 55% to 62%.
1/1/1992	A Plan participant is vested in his or her accrued pension if he/she has completed at least 5 years of vesting service, one of which was earned in 1991 or later. Prior to this date, a participant became vested upon completion of 10 years of vesting service. Effective for calendar years 1992 and 1993, Plan participants will receive a 15% increase in the percentage used to calculate his/her Contribution Account Benefit. A participant will earn a monthly pension benefit of 2.3% instead of 2.00% for contributions credited in 1992 and 1993 if he/she has not completed 20 years of service. If a participant has completed at least 20 years of contributory service, he/she will earn a monthly pension benefit of 3.05% instead of 2.65%. Pre-Retirement Death Benefits were modified as follows: • The temporary spouse survivor benefit is eliminated; • For married vested participants who die with recent coverage, a 66-2/3% Spouse Lifetime Pension is payable immediately; and • For non-married vested participants who die with recent coverage, a single sum death benefit is payable to their designated beneficiaries. The lump sum amount equals 48 times the participant's monthly accrued benefit.

PLAN AMENDMENT HISTORY

Effective Date	Description of Change
1/1/1992 (Continued)	Post-Retirement Death Benefits were revised as follows: • For participants who retire with recent coverage, the After Retirement Spouse Lifetime Pension is increased from 50% to 66-2/3%. If a participant retires without recent coverage, the After Retirement Spouse Lifetime Pension remains at 50%. • Non-married vested participants or married vested participants who did not elect the Employee and Spouse Pension, who retired with recent coverage and die before receiving 4 years of benefit payments will have the remainder of 4 years benefits paid to their designated beneficiary. Enhanced early retirement benefits became available for participants with recent coverage if the sum of their attained age and years of contributory service is equal to or greater than 85 (the "Rule of 85"). Reduction for early retirement under this provision is cut by approximately 25%. The Program for Enhanced Early Retirement (PEER) also became available. Under this program, participants who meet the Rule of 85, who retire from a bargaining unit that has negotiated 6.5% surcharge PEER contributions, and who have current PEER coverage can retire with no early retirement reduction, regardless of their age. There is a 9 month period (4/1/1991 to 12/31/1991) where members with pension effective dates or application requests (and recent coverage) within this time frame were permitted to rescind their 1991 pension effective dates and defer them until 1/1/1992 in order to benefit from Plan improvements effective on that date. Members electing to rescind and defer their pension effective dates were required to repay any benefit amounts paid to them. Also, pension increases effective after 1991 are governed by the new death and survivor benefit rules.
7/1/1988	The Plan was modified to provide an additional optional pension form: The Employee and Spouse Pension with Benefit Adjustment Option.

PLAN AMENDMENT HISTORY

<table>
<tr><th>Effective Date</th><th>Description of Change</th></tr>
<tr><td>1/1/1987</td><td>Two formulas were used to compute a participant’s retirement benefit: An improved version of the Plan’s pre-1987 5-Year Average Benefit formula (used to determine the retirement benefit for service before January 1, 1987 and applicable only if a participant first became covered by the Plan before 1987) and the Contribution Account Benefit (used to determine the retirement benefit for a participant’s contributory service under the Plan after 1986). Note, participants that are active in the Plan both before and after January 1, 1987 had their retirement benefit based on the sum of their 5-Year Average Benefit <u>and</u> their Contribution Account Benefit. Also, participants who first became covered by the Plan after 1986 might have qualified for a Non-contributory Service benefit based on any past employment either before or after January 1, 1987.

• 5-Year Average Benefit: A participant’s monthly retirement benefit was based on his/her total prior Plan past and future service credits earned as of 12/31/1986 multiplied by his/her 5-year average rate benefit factor. The maximum prior Plan credits were increased from 30 credits to 33-1/3 credits. Also, when determining a participant’s 5-year average contribution rate, the formula recognized employer contributions after 1986 up to the end of 1991 (or participant’s retirement date, if earlier).

• Contribution Account Benefit: A participant’s monthly retirement benefit is based on a percentage of the total Employer Contributions made on his/her behalf for contributory service after 1986. The percentage that applies is:

2% of all the employer contributions made for a participant’s covered employment (after 1986) during the first 20 calendar years of service

PLUS

2.65% of all the employer contributions made for a participant’s covered employment (after 1986) that comes after the end of his/her 20th calendar year of service.</td></tr>
</table>

PLAN AMENDMENT HISTORY

Effective Date	Description of Change
1/1/1987 (Continued)	• Non-contributory Service Benefit: If a participant first started working in covered employment after 1986, the value of this benefit is based on 2% of the participant's average annual contribution in his/her first five 500 covered hour years multiplied by the participant's years of non-contributory service (to a maximum of 10).
1/1/1985	A 25% increase in retirement and survivor benefits calculated under the Plan's 5-year average contribution rate benefit schedule was adopted. To be eligible, a participant must have had a pension effective date on or after January 1, 1985 and have earned 250 or more covered hours in a single calendar year beginning on or after January 1, 1983.
8/1/1984	Pre-retirement spouse benefits were extended to the surviving spouses of all vested participants who die before the effective date of their retirement benefit. Under the old rules, a pre-retirement spouse benefit was only payable if the vested participant attained age 55 and was in active service under the Plan for at least one calendar month ending after his 55th birthday. The rule requiring reduction of the spouse survivor benefit by the amount of any pre-retirement spouse benefit was eliminated.

Appendix B

Participant Statistics

The sources of WCT Plan participant data for our actuarial calculations are: (a) extracts from Prudential Investments' Annuitant Benefit Consolidation (ABC) System file, (b) extracts from the T2 Participant Data File (PDF) maintained by Northwest Administrators and Prudential Investments, and (c) extracts from the Western States Food data base supplied by Northwest Administrators.

The following paragraphs describe how the data were prepared for valuation purposes and present statistical characteristics of the data base.

1. Data Base for Non-Retired Plan Participants

Northwest Administrators sent us a December 31, 2016, valuation data file that included T2 extract records for all non-retired plan participants who have not incurred a permanent break in service, and all claims and deaths for the last ten years.

From this file containing 534,362 records, we selected the 5% sample valuation file for all active participants, (both vested and non-vested), and for all vested inactive participants. A participant was considered Active as of January 1, 2017 if he or she was not included on the ABC file as retired as of the valuation date, and if he/she earned at least 250 covered hours during 2016, or earned at least 1 covered hour in 2016 and at least 250 covered hours in 2015.

9,814 Non-Seasonal Active 5% sample records representing 196,280 participants were included in the valuation. For this purpose, Active participant records with non-seasonal industry codes or with 1,000 or more covered hours in each of the last two years were considered Non-Seasonal.

503 Seasonal Active 5% sample records representing 10,060 participants were included in the valuation. Active participants with a seasonal industry code and less than 1,000 covered hours in one or both of the last two years were considered Seasonal.

8,232 Vested Inactive 5% sample records representing 164,640 participants were included in the valuation.

515,813 T2 extract records were not used for the valuation. These records primarily represent non-5% sample participant records, pre-valuation date claims, and non-vested inactives.

2. Statistical Information

Highlights of the data characteristics for Active Plan participants on January 1, 2017 are shown below, together with corresponding information from the January 1, 2016 and January 1, 2015 Actuarial Reports.

- For actuarial valuation purposes, the Active participant population was 197,120 as of January 1, 2015, 202,940 as of January 1, 2016 and 206,340 as of January 1, 2017. The aggregate proportion of Active participants covered under PEER is 84.1% (including Non-Seasonal and Seasonal employees) on January 1, 2017. All information summarized below was based on 5% sample data.

NUMBER OF ACTIVE PLAN PARTICIPANTS			
Industry	As of 1/1/2015	As of 1/1/2016	As of 1/1/2017
All Actives			
Non-Seasonal	186,620	192,060	196,280
Seasonal	10,500	10,880	10,060
Total	197,120	202,940	206,340
PEER Units			
Non-Seasonal PEER 80	59,740	59,080	59,400
Non-Seasonal PEER 82	4,920	4,960	4,980
Non-Seasonal PEER 84	92,920	97,520	99,920
Seasonal PEER 80	7,580	7,760	7,340
Seasonal PEER 82	400	340	380
Seasonal PEER 84	1,880	1,860	1,460
Total PEER Participants	167,440	171,520	173,480
Non-PEER Units			
Non-Seasonal	29,040	30,500	31,980
Seasonal	640	920	880
Total Non-PEER Participants	29,680	31,420	32,860

- The average attained age of Active Plan participants included in the valuation is 43.1 years for Non-Seasonal participants and 47.9 years for Seasonal participants. The corresponding ages as of January 1, 2016 were 43.1 years for Non-Seasonal employees and 47.6 years for Seasonal employees. The average attained ages for all Active participants for the last three years, including the separate PEER units, are summarized below.

AVERAGE ATTAINED AGES FOR ACTIVE PLAN PARTICIPANTS

Industry	As of 1/1/2015	As of 1/1/2016	As of 1/1/2017
All Actives			
Non-Seasonal	43.2	43.1	43.1
Seasonal	47.5	47.6	47.9
PEER Units			
Non-Seasonal PEER 80	44.7	44.9	44.8
Non-Seasonal PEER 82	45.1	45.5	45.2
Non-Seasonal PEER 84	41.3	40.9	40.9
Seasonal PEER 80	49.0	48.9	48.5
Seasonal PEER 82	46.3	45.4	44.4
Seasonal PEER 84	43.7	43.6	45.7
Non-PEER Units			
Non-Seasonal	46.0	46.1	46.3
Seasonal	42.4	45.8	47.7

- The average number of years of contributory service for Active Plan participants is 11.9 years for Non-Seasonal participants and 12.1 years for Seasonal participants. As of January 1, 2016 the corresponding average number of years of contributory service was 12.0 years for Non-Seasonal employees and 11.8 years for Seasonal employees. The average number of years of contributory service for Active participants during the last three years is compared below.

AVERAGE CONTRIBUTORY SERVICE YEARS FOR ACTIVE PLAN PARTICIPANTS			
Industry	As of 1/1/2015	As of 1/1/2016	As of 1/1/2017
All Actives			
Non-Seasonal	12.3	12.0	11.9
Seasonal	12.0	11.8	12.1
PEER Units			
Non-Seasonal PEER 80	16.2	16.2	16.2
Non-Seasonal PEER 82	13.4	13.4	13.2
Non-Seasonal PEER 84	11.1	10.7	10.5
Seasonal PEER 80	13.9	13.4	13.1
Seasonal PEER 82	8.2	9.1	10.3
Seasonal PEER 84	7.1	6.9	8.0
Non-PEER Units			
Non-Seasonal	8.0	8.1	7.8
Seasonal	5.8	9.8	11.0

- The end of year average basic hourly contribution rate for Non-Seasonal Actives included in the valuation was $4.22 as of December 31, 2015 and $4.40 as of December 31, 2016. The average basic hourly contribution rate for Seasonal Actives included in this valuation was $1.02 as of December 31, 2015 and $1.11 as of December 31, 2016. This information is displayed for Active participants, including separate data for PEER units, in the following table.

AVERAGE BASIC HOURLY CONTRIBUTIONS FOR ACTIVE PLAN PARTICIPANTS			
Industry	As of 12/31/2014	As of 12/31/2015	As of 12/31/2016
All Actives			
Non-Seasonal	$4.05	$4.22	$4.40
Seasonal	$1.00	$1.02	$1.11
PEER Units			
Non-Seasonal PEER 80	$5.43	$5.67	$6.02
Non-Seasonal PEER 82	$4.13	$4.29	$4.62
Non-Seasonal PEER 84	$3.99	$4.20	$4.38
Seasonal PEER 80	$1.22	$1.22	$1.31
Seasonal PEER 82	$0.11	$0.11	$0.11
Seasonal PEER 84	$0.27	$0.23	$0.27
Non-PEER Units			
Non-Seasonal	$1.43	$1.48	$1.47
Seasonal	$1.11	$1.23	$1.28

- The average contribution rates increased by 4% for non-seasonal active participants and 9% for seasonal active participants during 2016.

3. <u>Comparison of Sample Data Characteristics with Full Population Data Characteristics</u>

Each year, we receive Employee Census Reports from the Administrative Office based on the T2 Participant Data File (PDF) for both the full population of the Plan participants and the 5% sample. A comparison of key information from the full population and 5% reports is used to corroborate our assumption that the sample records adequately represent the total population.

4. Procedures to Account for Data with Missing or Invalid Birthdates or Gender Codes

Records with missing or invalid birthdates were accounted for by creating valuation input records with imputed dates of birth. Since the average entry age has been approximately 31 in recent years, we assigned dates of birth 31 years prior to the first covered hour date. All remaining fields were taken from the T2 records provided by the administrative office.

Records with missing gender codes were assumed to represent males in the Non-Seasonal group and females in the Seasonal group. We have concluded that this assumption is reasonable based on the population characteristics illustrated in this section.

There were 176 non-retired valuation records, representing 3,520 participants with missing dates of birth. There were 2,040 Non-Seasonal non-retired sample valuation records with missing or invalid gender codes that are assumed to be males and 122 Seasonal non-retired sample valuation records with missing or invalid gender codes that are assumed to be female.

5. Healthy Retirees, Disabled Retirees, and Healthy Beneficiaries

We based our actuarial calculations for retired lives on extracts from the ABC retired file provided by Prudential Investments. This file contains records for all Pensioners and Beneficiaries.

We received 278,390 records from Prudential. Of these, 11,617 were disregarded as non-liability records (10,252 deaths, 260 expirations, and 1,105 others, such as cancellations, post-valuation date retirements, etc.), resulting in 266,773 records which we valued. These represent all benefits for approximately 226,870 pensioners and beneficiaries. Approximately 78.5% of these records are for Healthy Retirees, 7.8% are for Disabled Pensioners and Beneficiaries, and 13.7% are for Healthy Beneficiaries. There were no missing birthdates in these records.

TABLES OF STATISTICAL DATA

In the process of completing the actuarial valuation, we have compiled a considerable amount of statistical information that may prove useful in understanding the operation of the Plan. This information is illustrated in the following tables:

- **TABLE 2017-1 Active Participant Data Summary**
  Participant counts, average hours and average contribution rates are provided for Active participants. The table provides breakdowns of the data by eighty-cent rate bands through $10.40, and for rates over $10.40.

- **TABLES 2017-2N and 2S Distribution of Non-Seasonal and Seasonal Active Participants in PEER and Non-PEER Units by Contribution Rate**
  These tables show the distribution of Non-Seasonal and Seasonal Actives in PEER and Non-PEER units by their basic hourly contribution rates.

- **TABLES 2017-3N, 3S and 3VI Distributions of Non-Seasonal and Seasonal Active Participants by Attained Age and Contributory Service, and of Vested Inactive Participants by Attained Age.**
  The first two tables show how Non-Seasonal and Seasonal active life participants are distributed by attained age and length of service. The third table shows how PEER and Non-PEER vested inactive participants are distributed by attained age, and shows average monthly accrued benefits by age band.

- **TABLE 2017-4 Data Build-Through Report/Participant Reconciliation**
  This table exhibits data reconciliation by status for Active and Vested Terminated participants.

- **TABLE 2017-5 Recent History of New Pensioners**
  Table 2017-5 shows counts, average monthly pensions, and average ages for Healthy Pensioners, Disabled Pensioners and Beneficiaries and Healthy Beneficiaries who were new to the December 31, 2016, retiree data file. The data for Healthy Pensioners is shown by option election.

- **TABLE 2017-6 Historical Statistics by Year of Retirement for Healthy Pensioners**
  For this table, all records representing Healthy Pensioners were analyzed by year of retirement.

- **TABLE 2017-7 through 2017-9 Age/Longevity of Healthy Pensioners, Healthy Beneficiaries, and Disabled Pensioners and Beneficiaries**
  These tables show the distribution of Pensioners and Beneficiaries by attained age group and number of years since retirement or pension commencement, as applicable.

  The count for Disabled Pensioners and Beneficiaries is somewhat inflated by the existence of record pairs for many of the Disabled Retirees receiving an increase because of the increase in the floor percentage from 62% to 85%, effective January 1, 2000.

TABLE 2017-1 Active Participant Data Summary			
	5% Sample		
Contribution Rates	No. of Participants (Times 20)	Avg. 2016 Hrs. per Participant	Avg. 2016 Contrib. Rate
Seasonals - Food Processing			
All Contribution Rates	10,060	571	$1.11
Regulars - Food Processing			
All Contribution Rates	7,840	1,918	$1.94
Non-Seasonals - Non-Food Processing			
$0.80 and under	12,240	1,670	$0.41
Over $0.80 but not more than $1.60	27,660	1,703	$1.22
Over $1.60 but not more than $2.40	19,940	1,810	$1.98
Over $2.40 but not more than $3.20	14,280	1,801	$2.81
Over $3.20 but not more than $4.00	23,940	1,863	$3.59
Over $4.00 but not more than $4.80	16,680	1,880	$4.39
Over $4.80 but not more than $5.60	12,020	1,929	$5.13
Over $5.60 but not more than $6.40	4,780	1,852	$5.96
Over $6.40 but not more than $7.20	6,760	1,745	$6.86
Over $7.20 but not more than $8.00	15,100	1,244	$7.84
Over $8.00 but not more than $8.80	10,940	1,476	$8.45
Over $8.80 but not more than $9.60	17,540	1,796	$9.08
Over $9.60 but not more than $10.40	5,800	1,861	$9.90
Over $10.40	760	2,023	$10.64
Total Non-Seasonals - Non-Food Processing	188,440	1,740	$4.51

TABLE 2017-2N Distribution of Non-Seasonal Active Participants in PEER and Non-PEER Units by Contribution Rate			
End of Year Contribution Rate	Number of PEER Actives	Number of Non-PEER Actives	Total Number of Actives
$0.80 and under	2,900	9,680	12,580
Over $0.80 but not more than $1.60	19,060	11,200	30,260
Over $1.60 but not more than $2.40	16,160	5,480	21,640
Over $2.40 but not more than $3.20	13,980	3,320	17,300
Over $3.20 but not more than $4.00	22,560	1,560	24,120
Over $4.00 but not more than $4.80	16,440	240	16,680
Over $4.80 but not more than $5.60	11,780	240	12,020
Over $5.60 but not more than $6.40	4,540	240	4,780
Over $6.40 but not more than $7.20	6,760	0	6,760
Over $7.20 but not more than $8.00	15,080	20	15,100
Over $8.00 but not more than $8.80	10,940	0	10,940
Over $8.80 but not more than $9.60	17,540	0	17,540
Over $9.60 but not more than $10.40	5,800	0	5,800
Over $10.40	760	0	760
Total for All Rates	164,300	31,980	196,280

PEER Eligibility Statistics (Non-Seasonal Actives)			
PEER Unit	Number of Actives	Percentage of Non-Seasonal Actives by PEER Unit	Prior Year's Percentage of Non-Seasonal Actives by PEER Unit
Non-PEER	31,980	16.3%	15.9%
PEER 84	99,920	50.9%	50.7%
PEER 82	4,980	2.5%	2.6%
PEER 80	59,400	30.3%	30.8%

TABLE 2017-2S **Distribution of Seasonal Active Participants** **in PEER and Non-PEER Units by Contribution Rate**			
End of Year Contribution Rate	Number of PEER Actives	Number of Non-PEER Actives	Total Number of Actives
$0.40 and under	2,040	160	2,200
Over $0.40 but not more than $0.80	0	0	0
Over $0.80 but not more than $1.20	120	80	200
Over $1.20 but not more than $1.60	6,760	540	7,300
Over $1.60 but not more than $2.00	180	40	220
Total for Rates $2.00 and under	9,100	820	9,920
Over $2.00 but not more than $2.40	0	0	0
Over $2.40 but not more than $2.80	80	20	100
Over $2.80 but not more than $3.20	0	40	40
Over $3.20 but not more than $3.60	0	0	0
Over $3.60 but not more than $4.00	0	0	0
Total for Rates over $2.00 but not more than $4.00	80	60	140
Total for Rates over $4.00	0	0	0
Total for All Rates	9,180	880	10,060

PEER Eligibility Statistics (Seasonal Actives)			
PEER Unit	Number of Actives	Percentage of Seasonal Actives by PEER Unit	Prior Year's Percentage of Seasonal Actives by PEER Unit
Non-PEER	880	8.7%	8.5%
PEER 84	1,460	14.5%	17.1%
PEER 82	380	3.8%	3.1%
PEER 80	7,340	73.0%	71.3%

TABLE 2017-3N

Distribution of Non-Seasonal Active Participants by Attained Age and Contributory Service

Age Last Birthday	Years of Contributory Service							
	Less than 5	5 – 9	10 - 14	15 - 19	20 – 24	25 – 29	30 and Over	Total
Under 20	660	0	0	0	0	0	0	660
20 - 24	11,660	800	0	0	0	0	0	12,460
25 - 29	12,520	5,220	1,500	0	0	0	0	19,240
30 - 34	11,420	5,240	6,020	1,020	0	0	0	23,700
35 - 39	6,660	4,660	6,100	4,440	520	0	0	22,380
40 - 44	5,500	3,280	5,580	4,620	3,640	620	0	23,240
45 - 49	5,160	3,760	5,240	4,820	4,100	3,900	360	27,340
50 - 54	3,760	2,940	4,560	4,960	4,040	4,360	2,560	27,180
55 - 59	2,720	2,780	4,020	3,840	2,160	3,140	4,420	23,080
60 - 64	1,700	1,740	2,100	2,560	1,420	1,580	3,540	14,640
65 - 69	460	360	320	280	100	180	300	2,000
70 and Over	200	80	20	40	0	0	20	360
Total	62,420	30,860	35,460	26,580	15,980	13,780	11,200	196,280

TABLE 2017-3S

Distribution of Seasonal Active Participants by Attained Age and Contributory Service

Age Last Birthday	Years of Contributory Service							
	Less than 5	5 - 9	10 - 14	15 - 19	20 – 24	25 - 29	30 and Over	Total
Under 20	40	0	0	0	0	0	0	40
20 - 24	540	80	0	0	0	0	0	620
25 - 29	480	80	20	0	0	0	0	580
30 - 34	420	100	120	0	0	0	0	640
35 - 39	340	160	100	80	0	0	0	680
40 - 44	340	180	120	220	20	0	0	880
45 - 49	240	200	320	200	100	80	0	1,140
50 - 54	360	220	340	400	260	240	20	1,840
55 - 59	340	220	260	320	340	240	100	1,820
60 - 64	40	100	200	260	160	260	340	1,360
65 - 69	80	100	20	20	40	40	20	320
70 and Over	40	40	20	20	0	0	20	140
Total	3,260	1,480	1,520	1,520	920	860	500	10,060

TABLE 2017-3VI

Distribution of Vested Inactive Participants by Attained Age

Ages	Number PEER	Average Monthly Benefit	Number Non PEER	Average Monthly Benefit
20 - 24	0	$0	40	$4
25 - 29	0	$0	2,360	$317
30 - 34	0	$0	7,100	$352
35 - 39	0	$0	11,540	$446
40 - 44	0	$0	17,540	$491
45 - 49	100	$2,215	27,840	$508
50 - 54	340	$1,818	34,780	$545
55 - 59	500	$1,853	30,900	$534
60 - 64	380	$1,692	22,420	$462
65 - 69	140	$727	6,220	$288
70 and over	40	$2,621	2,400	$172
Total	1,500	$1,744	163,140	$486

TABLE 2017-4 Data Build-Through Report Participant Reconciliation		
Active Participants 1/1/2016		**202,940**
New Participants		
	Non-Vested	22,980
	Vested	620
	Rehires	1,380
Terminations		
	Non-Vested	(10,260)
	Vested	(6,340)
Retirements		(4,420)
Deaths		(180)
Data Adjustments		(380)
Active Participants 1/1/2017		**206,340**
Vested Terminations 1/1/2016		**165,920**
	New Vested Terminations	6,780
	Rehires	(1,380)
	Retirements	(4,620)
	Deaths	(160)
	Data Adjustments	(1,900)
Vested Terminations 1/1/2017		**164,640**

TABLE 2017-5

Recent History of New Pensioners
Option Elections, Average Monthly Pensions and Average Ages
(Based on Number of Participants)

Option	2015 Count	2015 Average Monthly Pension	2015 Average Age As of January 1 2016	2016 Count	2016 Average Monthly Pension	2016 Average Age As of January 1 2017
Life Only	2,622	$899	64.0	2,773	$953	64.2
Benefit Adjustment	2,294	$1,374	59.4	2,280	$1,536	59.5
Employee and Spouse	1,998	$1,106	64.4	2,080	$1,147	64.5
Employee and Spouse with Benefit Adjustment	1,479	$1,705	60.0	1,567	$1,718	60.1
All Healthy Pensioners	8,393	$1,220	62.1	8,700	$1,290	62.3
Disabled Pensioners and Beneficiaries	615	$1,126	55.8	595	$1,092	56.5
Healthy Beneficiaries	370	$483	53.4	345	$576	54.3
Total	9,378	$1,184	61.4	9,640	$1,252	61.7

Notes: This exhibit includes all pensions associated with participants new to the ABC files as of December 31, 2015 and 2016.

The average monthly pension amount shown for the Benefit Adjustment Option and the Employee and Spouse with Benefit Adjustment Option is the sum of the lifetime portion of the benefit, plus any temporary benefit remaining as of December 31, 2015 and 2016.

TABLE 2017-6 Historical Statistics by Year of Retirement for Healthy Pensioners (Based on Number of Records)				
Year of Retirement	Number of Surviving Retirees	Average Age at Retirement	Average Age as of 1/1/2017	Average Monthly Pension
1991 and prior	18,398	58.7	88.1	$414
1992 – 1996	21,155	59.2	81.5	$769
1997 – 2001	30,753	59.7	76.9	$853
2002 – 2006	43,891	60.3	72.7	$955
2007 – 2011	49,555	61.4	68.7	$859
2012 – 2016	45,756	61.5	64.1	$1,098
Total	209,508	60.5	72.7	$882
Total Last Year	204,658	60.4	72.6	$876

TABLE 2017-7

Age / Longevity of Healthy Pensioners
(Based on Number of Records)

Attained Age Group	Years Since Pension Commencement						
	Less than 1	1 – 4	5 - 9	10 - 14	15 - 19	Greater than 19	Total
Under 50	14	48	31	9	2	0	104
50 - 54	405	709	116	28	10	1	1,269
55 - 59	1,355	6,112	1,733	150	20	4	9,374
60 - 64	2,180	10,028	9,353	2,373	109	26	24,069
65 - 69	2,346	19,056	12,349	10,554	1,438	62	45,805
70 - 74	80	3,366	21,961	11,927	9,015	750	47,099
75 - 79	0	55	3,834	15,418	10,545	7,363	37,215
80 - 84	0	2	146	3,316	7,591	11,634	22,689
85 - 89	0	0	17	100	1,979	11,680	13,776
90 - 94	0	0	12	14	30	6,219	6,275
95 - 99	0	0	3	2	12	1,620	1,637
100 and Over	0	0	0	0	2	194	196
Total	6,380	39,376	49,555	43,891	30,753	39,553	209,508

TABLE 2017-8

Age / Longevity of Healthy Beneficiaries
(Based on Number of Records)

Attained Age Group	Years Since Pension Commencement							
	Deferred	Less than 1	1 - 4	5 - 9	10 - 14	15 - 19	Greater than 19	Total
39 and Under	7	80	435	385	225	53	0	1,185
40 - 44	22	10	45	66	30	10	4	187
45 - 49	41	21	118	138	80	47	19	464
50 - 54	81	46	238	220	185	117	90	977
55 - 59	38	42	442	573	435	267	253	2,050
60 - 64	14	39	444	941	789	505	513	3,245
65 - 69	1	14	270	951	1,369	1,065	1,009	4,679
70 - 74	0	7	98	602	1,350	1,703	2,224	5,984
75 - 79	0	0	18	197	764	1,674	3,814	6,467
80 - 84	0	0	2	45	233	582	4,320	5,182
85 - 89	0	0	0	14	34	183	3,373	3,604
90 - 94	0	0	1	3	7	36	1,939	1,986
95 - 99	0	0	0	0	0	7	482	489
100 and Over	0	0	0	0	0	1	80	81
Total	204	259	2,111	4,135	5,501	6,250	18,120	36,580

TABLE 2017-9

Age / Longevity of Disabled Pensioners and Beneficiaries
(Based on Number of Records)

Attained Age Group	Years Since Pension Commencement						
	Less than 1	1 - 4	5 - 9	10 - 14	15 - 19	Greater than 19	Total
39 and Under	2	34	50	24	33	24	167
40 - 44	1	30	71	28	13	13	156
45 - 49	5	91	156	96	49	44	441
50 - 54	19	271	356	223	115	87	1,071
55 - 59	32	741	774	433	255	204	2,439
60 - 64	28	817	1,242	856	401	487	3,831
65 - 69	1	230	914	1,154	675	816	3,790
70 - 74	0	0	144	805	880	1,347	3,176
75 - 79	0	0	0	123	623	1,827	2,573
80 - 84	0	0	0	0	71	1,748	1,819
85 - 89	0	0	0	0	0	875	875
90 - 94	0	0	0	1	0	286	287
95 - 99	0	0	0	0	1	55	56
100 and Over	0	0	0	0	0	4	4
Total	88	2,214	3,707	3,743	3,116	7,817	20,685

Appendix C

Actuarial Assumptions and Cost Methods

Actuarial Assumptions

Investment Earnings Assumptions

As of January 1, 2017, the Fixed Dollar Account and 1982/1984 Annuity Account are treated as non-dedicated assets for purposes of the valuation.

Strategic Bond Account (SBA)

The assumed rate of return for these assets is 4.34%. This assumption is used to value 85.20% 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.

Remaining Assets

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 7.00%, net of investment expenses.

Post-retirement Mortality Rates

Healthy Males

- RP2014 Blue Collar Male Employee/Healthy Annuitant table, adjusted to base year of 2006
- Ages up through 63, set to 90% of the adjusted table
- Ages 64-68, set to 85% of the adjusted table
- Ages 69-73, set to 90% of the adjusted table
- Ages 79 and later, set to 110% of the adjusted table
- All projected with fully generational improvements using Scale MP-2016 from 2006 forward.

Healthy Females

- Ages up through 49, RP2014 Blue Collar Female Employee table
- Ages 50 and above, RP2014 Blue Collar Female Healthy Annuitant table
- Set forward one year, and projected 6 years using female Scale BB; projection scale also set forward one year
- Ages 79 through 119, 95% of the resulting mortality rate after projection is used.
- All projected with fully generational improvements using Scale MP-2016 from 2017 forward.

Disabled Males

- RP2014 Disabled Male Annuitant table, adjusted to base year of 2006, then projected 15 years using Scale BB.
- Ages 54-58, set to 85% of the adjusted table
- Ages 59-63, set to 90% of the adjusted table
- Ages 64-73, set to 00% of the adjusted table
- All projected with fully generational improvements using Scale MP-2016 from 2017 forward.

Disabled Females

- RP2014 Disabled Female Annuitant table, adjusted to base year of 2006, set back 2 years and then projected 15 years using Scale BB, set back 2 years.
- Projected with fully generational improvements using Scale MP-2016 from 2017 forward.

The following tables show the life expectancies for healthy and disabled retirees under the mortality assumptions described above at the current and future valuation dates.

Assumed Years of Life Expectancy – Healthy Males					
Age	2017	2022	2027	2032	2037
55	27.7	28.2	28.7	29.1	29.6
60	23.2	23.7	24.1	24.6	25.0
65	19.0	19.4	19.8	20.2	20.6
70	15.0	15.3	15.7	16.1	16.4

Assumed Years of Life Expectancy – Healthy Females					
Age	2017	2022	2027	2032	2037
55	31.5	32.0	32.4	32.9	33.4
60	26.8	27.2	27.6	28.0	28.5
65	22.3	22.6	23.1	23.5	23.9
70	18.0	18.4	18.8	19.1	19.5

Assumed Years of Life Expectancy – Disabled Males					
Age	2017	2022	2027	2032	2037
55	22.4	23.0	23.5	24.1	24.7
60	19.1	19.6	20.1	20.6	21.1
65	16.0	16.4	16.8	17.3	17.7
70	12.8	13.1	13.5	13.9	14.3

Assumed Years of Life Expectancy – Disabled Females					
Age	2017	2022	2027	2032	2037
55	27.1	27.7	28.2	28.8	29.4
60	23.3	23.8	24.3	24.9	25.4
65	19.7	20.1	20.6	21.0	21.5
70	16.2	16.6	17.0	17.4	17.8

Pre-retirement Mortality Rates

The assumed annual rates of healthy mortality for males is based on the RP2014 Blue Collar Male Employee table with the same adjustments and projection scale as the Post-Retirement table.

The assumed annual rates of healthy mortality for females is based on the RP 2014 Blue Collar Female Employee table with the same adjustments and projection scale as the Post-Retirement table.

Retirement Rates

Retirement rates apply only to retirement eligible participants.

For active PEER participants, different rates apply before and after eligibility for unreduced retirement. For active non-PEER participants, different rates apply before and after meeting the contributory service requirements for Table Two early retirement factors or age requirements for unreduced retirement.

For vested terminated participants, different rates apply for participants who are assumed to have recent PEER coverage, recent non-PEER coverage, and no recent coverage at retirement.

Active Participant Retirement Rates

Age	PEER - Before Contributory Service Requirement	PEER - After Contributory Service Requirement	Non-PEER - Before Contributory Service Requirement	Non-PEER - After Contributory Service Requirement
<= 48	0.00	0.00	0.00	0.00
49	0.00	0.12	0.00	0.03
50	0.00	0.12	0.00	0.03
51	0.00	0.12	0.00	0.03
52	0.00	0.12	0.00	0.03
53	0.00	0.12	0.00	0.03
54	0.01	0.10	0.01	0.03
55	0.01	0.10	0.01	0.03
56	0.01	0.10	0.01	0.03
57	0.01	0.10	0.01	0.03
58	0.01	0.10	0.02	0.03
59	0.05	0.15	0.02	0.03
60	0.05	0.15	0.02	0.03
61	0.20	0.20	0.15	0.15
62	0.20	0.20	0.15	0.15
63	0.15	0.15	0.15	0.15
64	0.50	0.50	0.40	0.40
65	0.50	0.50	0.40	0.40
66	0.30	0.30	0.30	0.30
67	0.30	0.30	0.30	0.30
68	0.30	0.30	0.30	0.30
69	0.30	0.30	0.30	0.30
>= 70	1.00	1.00	1.00	1.00

Vested Terminated Participant Retirement Rates

Age	Less than 25 years of Contributory Service	25 or more years of Contributory Service	PEER Eligible on Valuation Date
<= 48	0.00	0.00	0.00
49	0.00	0.15	0.40
50	0.00	0.15	0.50
51	0.00	0.15	0.40
52	0.00	0.15	0.35
53	0.00	0.15	0.35
54	0.04	0.15	0.35
55	0.04	0.05	0.25
56	0.04	0.05	0.20
57	0.04	0.05	0.20
58	0.04	0.05	0.20
59	0.04	0.05	0.20
60	0.04	0.05	0.15
61	0.10	0.20	0.25
62	0.10	0.15	0.25
63	0.10	0.10	0.15
64	0.30	0.30	0.50
65	0.30	0.30	0.50
66	0.15	0.20	0.30
67	0.10	0.10	0.30
68	0.10	0.10	0.30
69	0.15	0.15	0.30
>= 70	1.00	1.00	1.00

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

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 retirement. Below are the annual probabilities of employment termination for active employees.

Seasonal Participant Termination Rates

Years of Service:	< 2	2	3	4	5	6	7	8	9	10 - 14	15 - 19	20 - 24	25 - 29	>= 30
Age 15 - 30	0.30	0.35	0.30	0.15	0.15	0.10	0.09	0.07	0.06	0.05	0.04	0.04	0.03	0.02
Age 31 - 40	0.25	0.25	0.20	0.10	0.10	0.10	0.09	0.07	0.06	0.05	0.04	0.04	0.03	0.02
Age 41 -50	0.12	0.15	0.15	0.10	0.10	0.07	0.09	0.07	0.06	0.05	0.04	0.04	0.03	0.02
Age >= 51	0.12	0.15	0.15	0.10	0.10	0.07	0.09	0.07	0.06	0.05	0.04	0.04	0.03	0.02

Non-Seasonal Participant Termination Rates

Years of Service:	< 2	2	3	4	5	6	7	8	9	10 - 14	15 - 19	20 - 24	25 - 29	>= 30
Age 15 - 30	0.20	0.25	0.20	0.15	0.12	0.12	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01
Age 31 - 40	0.16	0.18	0.15	0.12	0.10	0.10	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01
Age 41 -50	0.14	0.15	0.12	0.10	0.08	0.08	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01
Age >= 51	0.13	0.13	0.10	0.10	0.08	0.08	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01

Future Annual Hours and Contributions

Projected benefit amounts for future years were calculated assuming that: (a) Active Non-Seasonal employees work an average of 1,800 hours per year; (b) Active Seasonal employees work an average of 600 hours per year; and (c) contribution rates in effect as of December 31 prior to the valuation date.

A non-retired participant was considered Active as of the valuation date, if he or she earned at least 250 covered hours during the prior year, or at least 1 covered hour in the prior year and at least 250 covered hours in second prior year.

Expected Annual Employer Contributions

The annual employer contributions expected during 2017 have been assumed to be $1.735 billion. This amount is used to determine the projected Funding Standard Account and the expected amortization period of the UAL.

Provision for Non-investment Expenses

Administrative expenses are assumed to be $101 million per year, payable mid-year.

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 Appendix B. 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.

Form of Payment

Participants without recent coverage are assumed to elect the single life annuity. Participants with recent coverage are assumed to elect a four year certain and life annuity. A factor of 1.002 is applied in order to account for the availability of a subsidized joint and survivor benefit.

Probability of Marriage

Non-retired participants are assumed to have a probability of marriage of 80%.

Spouse Age Difference

Where applicable, husbands are assumed to be two years older than their wives.

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.

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.

Inactive Participants

Vested inactive participants who are 75 or older as of the valuation date are assumed to be deceased and excluded from this valuation. Inactive participants who are coded as a claim for more than one year are expected to be either deceased or not eligible for a benefit from the Plan. We assume that any such participants do not have and will not create any liability for the Plan.

Actuarial Value of Assets

The SBA was valued on an amortized cost basis. The actuarial value of the SBA at January 1, 2017 was $3,074,753,000.

The remaining assets were valued using a smoothing procedure under which the 2008 market value loss 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.

The actuarial value of assets for purposes of determining the unfunded vested benefit liability is the same method used for ERISA funding purposes, except the Pension Relief Act of 2010 (PRA 2010) election to smooth the 2008 investment loss is not used.

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.) as permitted under section 1.412(c)(3)-1(d)(2) of the Regulations, the expected increase in Accrued Benefit Liabilities resulting from new participants who are covered employees on the valuation date. The additional cost for these employees is based on a sample population that has the same demographic characteristics of a representative cross-section of recent new entrants, reflecting the actuary's best estimate of the number of new hires and number of hours worked by covered employees who are expected to become new participants in the Plan.

Each year, all Funding Standard Account charge and credit amounts to be amortized, except those set up due to PRA 2010, are combined and offset under IRC 431(b)(5).

Assumption Changes Incorporated in This Valuation

- The current liability interest rate was decreased from 3.28% to 3.05% to remain within the IRS prescribed corridor.
- The current liability mortality tables were changed from annuitant / non-annuitant projected version of the RP-2000 Mortality Tables for 2016 to the annuitant / non-annuitant projected version of the RP-2000 Mortality Tables for 2017 as prescribed by the IRS.
- The mortality assumptions for healthy and disabled males and females were updated to better reflect recent and anticipated plan experience.
- The retirement rates for active and vested terminated participants were updated to better reflect recent and anticipated plan experience.
- The termination rates for active participants were updated to better reflect recent and anticipated plan experience.
- The probability of marriage assumption was updated to better reflect anticipated plan experience.
- The anticipated annual employer contributions were increased to $1.735 billion based on recent plan experience.
- The form of payment factor was updated to reflect recent plan experience and the changes to the mortality assumptions.

Method Changes Incorporated in This Valuation

- On behalf of the Board, we filed a request with the IRS for a change in actuarial funding method on March 10, 2017. The request is to change the treatment of the FDA and 82/84AA dedicated asset accounts. Under the prior method, these accounts, and the SBA, were held out of the smoothing method for actuarial value of assets. Effective January 1, 2017, the FDA and 82/84 AA assets as non-dedicated assets for purpose of calculating the actuarial value of assets. The SBA assets will still be held out of the smoothing method. This change in actuarial funding method has been reflected in this valuation.
- Effective January 1, 2017, the valuation software used to produce valuation results for the Plan was changed from Milliman's proprietary valuation system to a commercially available software system.