Segal Consulting

Laborers Pension Trust Fund for Northern California

Actuarial Valuation and Review as of June 1, 2018

Segal Consulting

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July 18, 2019

Board of Trustees
Laborers Pension Trust Fund for Northern California
Fairfield, California

Dear Trustees:

We are pleased to submit the Actuarial Valuation and Review as of June 1, 2018. It establishes the funding requirements for the current year and analyzes the preceding year's experience. It also summarizes the actuarial data and includes the actuarial information that is required to be filed with Form 5500 to federal government agencies.

The census information upon which our calculations were based was prepared by the Fund Office, under the direction of Byron Loney. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Mark Hamwee, FSA, MAAA, Enrolled Actuary.

We look forward to reviewing this report with you at your next meeting and to answering any questions you may have.

Sincerely,

Segal Consulting, a Member of The Segal Group

By: ______________________________

Timothy J. Losee
Vice President & Benefits Consultant

JB/hy

cc:				
	Roberto Aliaga	Anthony Brooks	Gemma Ganoy	Larissa Manalansan
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	Sarah Bowen, Esq.	Jose Gamez		

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Laborers Pension Trust Fund for Northern California Actuarial Valuation and Review as of June 1, 2018

Introduction

There are several ways of evaluating funding adequacy for a pension plan. In monitoring the Plan's financial position, the Trustees should keep in mind all of these concepts.

Funding Standard Account	The ERISA Funding Standard Account (FSA) measures the cumulative difference between actual contributions and the minimum required contributions. If actual contributions exceed the minimum required contributions, the excess is called the credit balance. If actual contributions fall short of the minimum required contributions, a funding deficiency occurs.
Zone Information	The Pension Protection Act of 2006 (PPA'06) called on plan sponsors to actively monitor the projected FSA credit balance, the funded percentage (the ratio of the actuarial value of assets to the present value of benefits earned to date) and cash flow sufficiency. Based on these measures, plans are then categorized as critical (*Red Zone*), endangered (*Yellow Zone*), or neither (*Green Zone*). The Multiemployer Pension Reform Act of 2014 (MPRA), among other things, made the zone provisions permanent.
Solvency Projections	Pension plan funding anticipates that, over the long term, both contributions and investment earnings will be needed to cover benefit payments and expenses. To the extent that contributions are less than benefit payments, investment earnings and fund assets will be needed to cover the shortfall. In some situations, a plan may be faced with insufficient assets to cover its current obligations and may need assistance from the Pension Benefit Guaranty Corporation (PBGC). MPRA provides options for some plans facing insolvency.
Scheduled Cost	The Scheduled Cost is an annual amount based on benefit levels and assets that allows a comparison to current contribution levels, given the expectation of a continuing Plan.
Withdrawal Liability	ERISA provides for assessment of withdrawal liability to employers who withdraw from a multiemployer plan based on unfunded vested benefit liabilities. A separate report is available.

Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future uncertain obligations of a pension plan. As such, it will never forecast the precise future contribution requirements or the precise future stream of benefit payments. In any event, it is an estimated forecast — the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

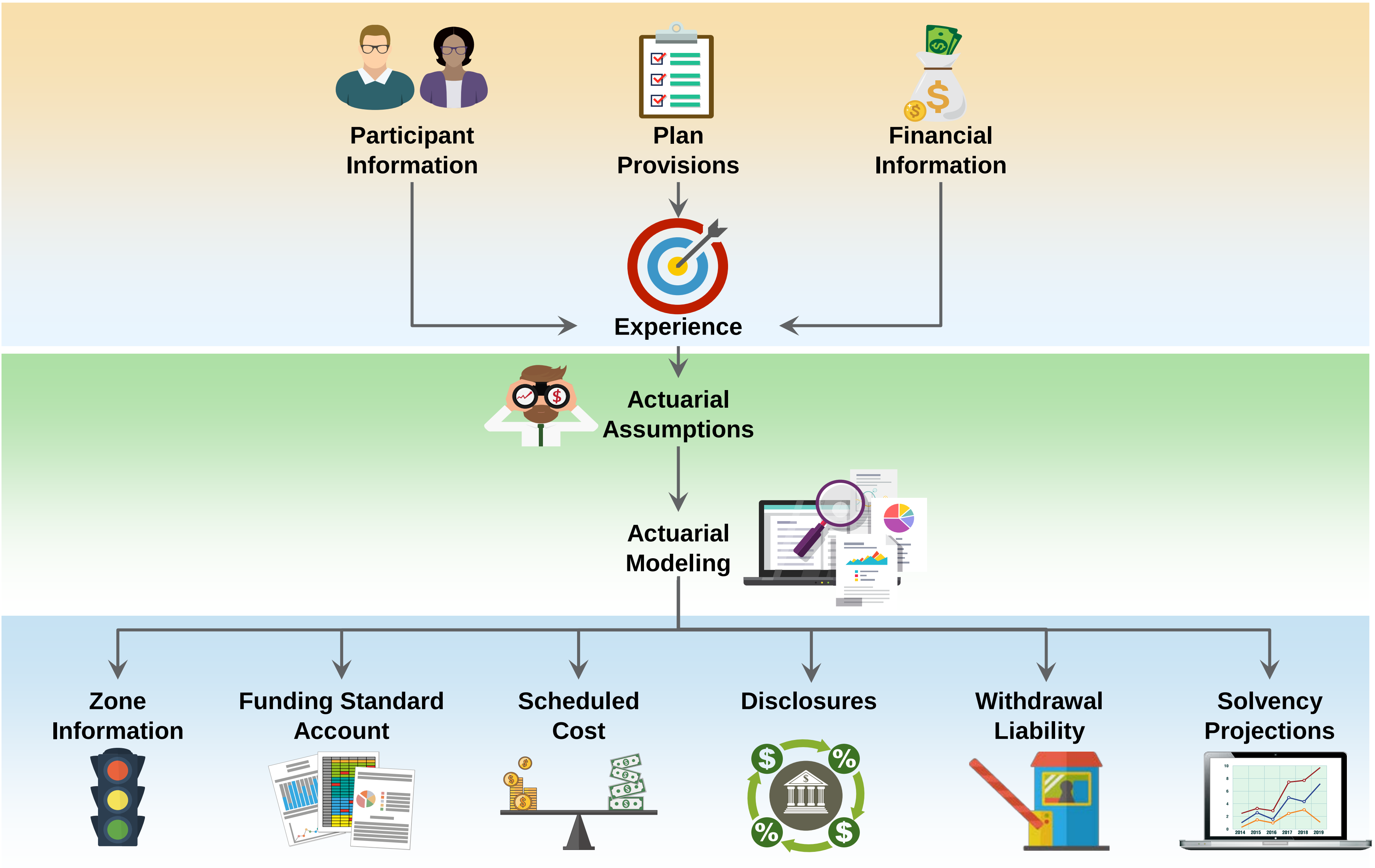
Plan Provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may require the award of a Social Security disability pension as a condition for receiving a disability pension from the plan. If so, changes in the Social Security law or administration may change the plan's costs without any change in the terms of the plan itself. It is important for the Trustees to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant Information	An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. For most plans, it is not possible nor desirable to take a snapshot of the actual workforce on the valuation date. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a "perfect" result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial Information	Part of the cost of a plan will be paid from existing assets – the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the auditor. Some plans include assets, such as private equity holdings, real estate, or hedge funds, that are not subject to valuation by reference to transactions in the marketplace. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial Assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results and will have no impact on the actual cost of the plan (the total of benefits and expenses paid out over time). In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to keep the following in mind:

- The actuarial valuation is prepared for use by the Trustees. It includes information for compliance with federal filing requirements and for the plan's auditor. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- Actuarial results in this report are not rounded, but that does not imply precision.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in employment levels and investment losses, not just the current valuation results.
- ERISA requires a plan's enrolled actuary to provide a statement for inclusion in the plan's annual report disclosing any event or trend that the actuary has not taken into account, if, to the best of the actuary's knowledge, such an event or trend may require a material increase in plan costs or required contribution rates. If the Trustees are currently aware of any event that was not considered in this valuation and that may materially increase the cost of the Plan, they must advise Segal, so that we can evaluate it and take it into account.
- A certification of "zone" status under PPA'06 is a separate document from the actuarial valuation.
- Segal does not provide investment, legal, accounting, or tax advice. This valuation is based on Segal's understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Trustees should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Trustees upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

ACTUARIAL VALUATION OVERVIEW



Section 1: Actuarial Valuation Summary

Summary of Key Valuation Results

		2017		2018	
Certified Zone Status		*"Green"*		*"Green"*	
Demographic Data:	• Number of active participants	17,399		20,108	
	• Number of inactive participants with vested rights	7,526		7,560	
	• Number of retired participants and beneficiaries	11,309		11,671	
Assets:	• Market value of assets (MVA)	$2,482,945,102		$2,807,427,836	
	• Actuarial value of assets (AVA)	2,522,234,812		2,841,032,249	
	• AVA as a percent of MVA	101.6%		101.2%	
Statutory Funding Information:	• Minimum required contribution	$0		$0	
	• Maximum deductible contribution	5,079,053,625		5,417,468,752	
	• Annual Funding Notice percentage	83.3%		89.3%	
	• FSA deficiency projected in Plan Year beginning	None		None	
		Amount	**Per Hour**	**Amount**	**Per Hour**
Scheduled Cost and Contributions:	• Projected contributions	$265,021,568	$8.96	$306,285,056	$8.96
	• Scheduled Cost	131,972,462	4.46	150,244,881	4.40
	• Margin/(Deficit)	133,049,106	4.50	156,040,175	4.56
	• Projected contributions for the upcoming year[1]	265,021,568		306,285,056	
	• Actual contributions	331,244,228		- -	
Cost Elements on a Scheduled Cost Basis:	• Normal cost, including administrative expenses	$41,586,765		$63,887,563	
	• Actuarial accrued liability	3,231,900,261		3,475,008,737	
	• Unfunded actuarial accrued liability (based on AVA)	709,665,449		633,976,488	

[1] Based on 1,700 hours per active.

Comparison of Funded Percentages

	Funded Percentages as of June 1		2018	
	2017	2018	Liabilities	Assets
1. Present Value of Future Benefits	73.5%	74.9%	$3,792,256,027	$2,841,032,249
2. Actuarial Accrued Liability	78.0%	81.8%	3,475,008,737	2,841,032,249
3. PPA'06 Liability and Annual Funding Notice	83.3%	89.3%	3,180,125,061	2,841,032,249
4. Accumulated Benefits Liability	82.0%	88.3%	3,180,125,061	2,807,427,836
5. Current Liability	46.7%	48.6%	5,772,684,017	2,807,427,836

Notes:

1. The value of benefits earned through the valuation date (accrued benefits) plus the value of benefits projected to be earned in the future for current participants. Used to develop the actuarial accrued liability, based on the long-term funding investment return assumption of 7.50% and the actuarial value of assets. The funded percentage using market value of assets is 72.3% for 2017 and 74.0% for 2018.
2. The portion of the present value of future benefits allocated by the actuarial cost method to years prior to the valuation date. Used in determining Scheduled Cost, based on the long-term funding investment return assumption of 7.50% and the actuarial value of assets. The funded percentage using market value of assets is 76.8% for 2017 and 80.8% for 2018.
3. The present value of benefits earned through the valuation date (accrued benefits) defined by PPA'06, based on the long-term funding investment return assumption of 7.50% and compared to the actuarial value of assets.
4. The present value of accrued benefits for disclosure in the audited financial statements, based on the long-term funding investment return assumption of 7.50%, and compared to the market value of assets.
5. The present value of accrued benefits based on a government-prescribed mortality table and investment return assumption of 3.05% for 2017 and 3.00% for 2018, and compared to the market value of assets. Used to develop the maximum tax-deductible contribution and shown on the Schedule MB if less than 70%.

Disclosure: These measurements are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations or the need for or the amount of future contributions.

This June 1, 2018 actuarial valuation report is based on financial and demographic information as of that date. Changes subsequent to that date are not reflected unless specifically identified, and will affect future results. Segal is prepared to work with the Trustees to analyze the effects of any subsequent developments. The current year's actuarial valuation results follow.

A. Developments Since Last Valuation

1. The rate of return on the market value of plan assets was 7.12% for the 2017-2018 plan year. The rate of return on the actuarial value of assets was 6.79%. Given the low fixed income interest rate environment, target asset allocation and expectations of future investment returns for various asset classes, we will continue to monitor the Plan's actual and anticipated investment returns relative to the assumed long-term rate of return on investments of 7.50%.
2. The plan was amended to increase the benefit accrual rate, effective August 1, 2019, from 2.3% to 3.3% of contributions, based on a benefit contribution rate of $2.16 per hour, and to provide in December 2019 a one-time supplemental check of $500 to those in pay status who are over age 70. These changes increased the Scheduled Cost by $0.77 per hour.
3. The annual administrative expense assumption was increased from $5.0 million to $6.0 million. This change increased the Scheduled Cost by $0.03 per hour.
4. The active population increased by 15.6% over the past year. This continued expansion increases the projected future hours and has a favorable effect on the plan's Scheduled Cost margin and credit balance projections.
5. The Hod Carriers Local No. 166 Pension Trust Fund ("Hod Carriers") merged into this plan, effective May 31, 2018. The merger satisfied the definition of a *de minimis* transaction under PBGC Regulation §4231.7(b). The valuation recognizes the liability for the new participants entering this plan as part of the merger. The assets from the prior Hod Carriers plan were not included in the audited value of the assets as of May 31, 2018 and were not reflected in this valuation. These assets will be reflected in next year's valuation.
6. The 2018 certification, issued on August 6, 2018, based on the liabilities calculated in the 2017 actuarial valuation, projected to May 31, 2018, and estimated asset information as of May 31, 2018, classified the Plan as neither endangered nor critical (that is, in the *Green Zone)* because the funded percentage was 90.9% and the credit balance in the FSA was projected to be positive for at least seven years. This projection was based on the Trustees' industry activity assumption of 25 million total contributory hours each year.

B. Funded Percentage and Funding Standard Account

1. Based on this June 1, 2018 actuarial valuation, the funded percentage that will be reported on the 2018 Annual Funding Notice is 89.3%.
2. The credit balance in the FSA as of May 31, 2018, was $509,826,921, an increase of $167,486,350 from the prior year. A projection of the FSA indicates that the credit balance is expected to remain positive for at least 30 years, assuming experience emerges as projected and there are no changes in the Plan, actuarial assumptions, law or regulations.
3. We are available to work with the Trustees to develop additional credit balance projections.
4. The benefit improvements discussed above are not reflected for purposes of the FSA in this valuation. They will first be recognized effective with next year's valuation.

C. Scheduled Cost Margin

1. The projected annual contributions of $8.96 per hour exceed the Scheduled Cost of $4.40 per hour, resulting in a margin of $4.56 per hour, or 51.0% of contributions, as compared to a margin of 50.2% of contributions in the prior valuation. This improvement in the margin is primarily due to contributions exceeding the Scheduled Cost for the prior year and an increase in the active population, offset by the benefit improvements described in subsection A.
2. The amortization period adopted by the Trustees to compute the Scheduled Cost has 11 years remaining. The period is declining each year to provide an adequate and stable basis for assessing the funding needs of the Plan.

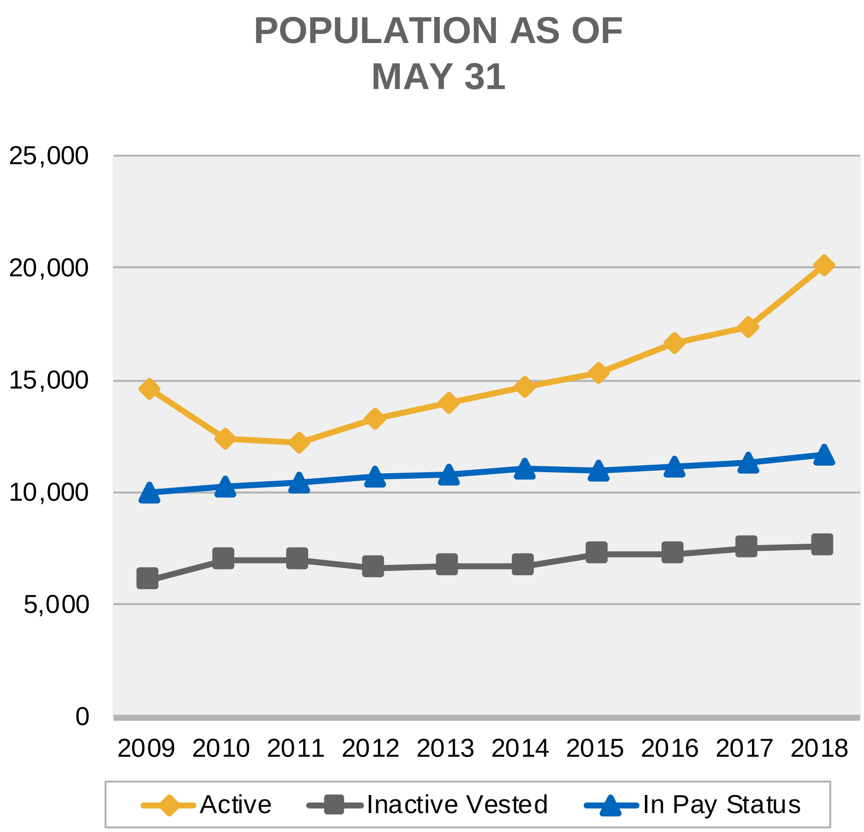
D. Risk

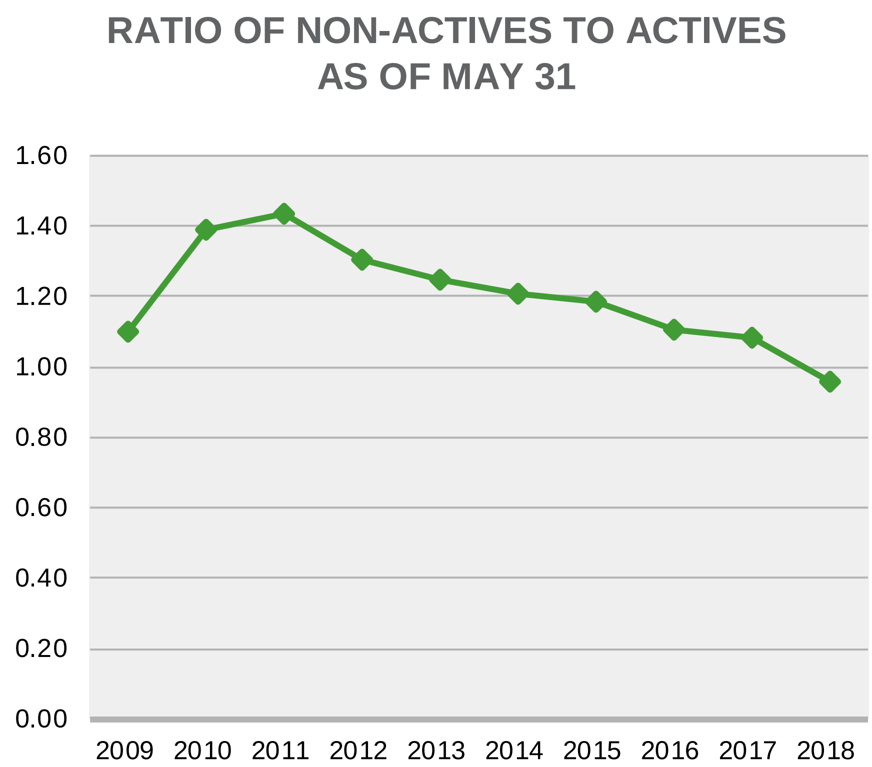
1. The actuarial valuation results are dependent on a single set of assumptions; however, there is a risk that emerging results may differ significantly as actual experience proves to be different from the current assumptions. We have included a discussion of various risks that may affect the Plan in *Section 2,* beginning on page 37.
2. We have not been engaged to perform a detailed analysis of the potential range of future measurements, but we have included a brief discussion of some risks that may affect the Plan. We recommend a more detailed assessment of the risks to provide the Trustees with a better understanding of the risks inherent in the Plan. This assessment may include scenario testing, sensitivity testing, stress testing and stochastic modeling. A detailed risk assessment is important for your plan because the plan recently "emerged" from endangered status into the "Green Zone" and has not had a detailed risk assessment in a number of years. While the plan's funded position has improved substantially over the past ten years, a severe asset decline and/or reduction in employment levels would significantly reduce the available funding margin.

Section 2: Actuarial Valuation Results

Participant Information

- The Actuarial Valuation is based on demographic data as of May 31, 2018.
- There are 39,339 total participants in the current valuation, compared to 36,234 in the prior valuation.
- The ratio of non-actives to actives has decreased to 0.96 from 1.08 in the prior year.
- More details on the historical information are included in *Section 3, Exhibits A* and *B.*



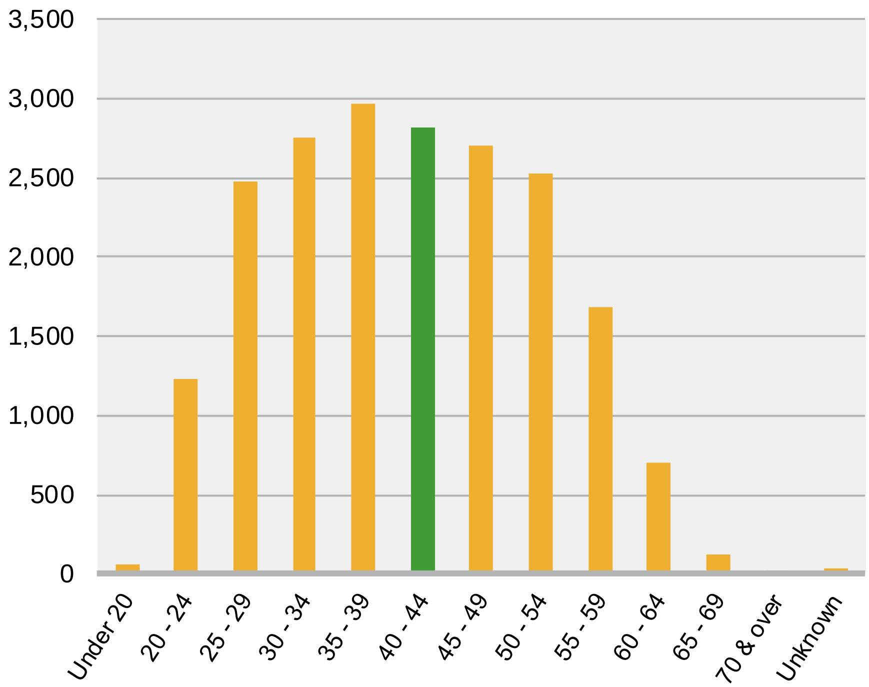


Active Participants

- There were 20,108 active participants this year, an increase of 15.6% compared to 17,399 in the prior year.
- The age and service distribution is included in *Section 4, Exhibit 6*.

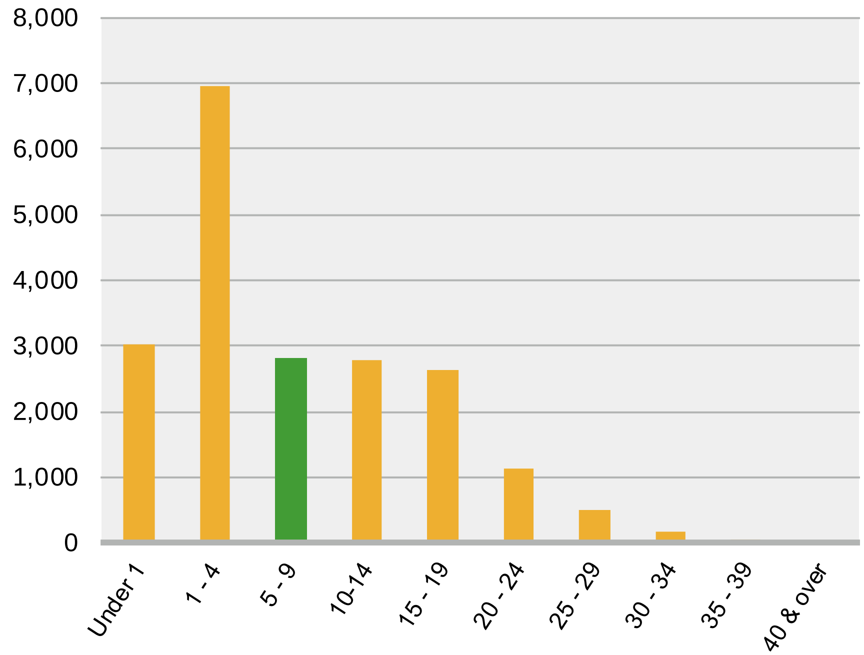
Distribution of Active Participants as of May 31, 2018

BY AGE



Average age	41.3
Prior year average age	41.7
Difference	-0.4

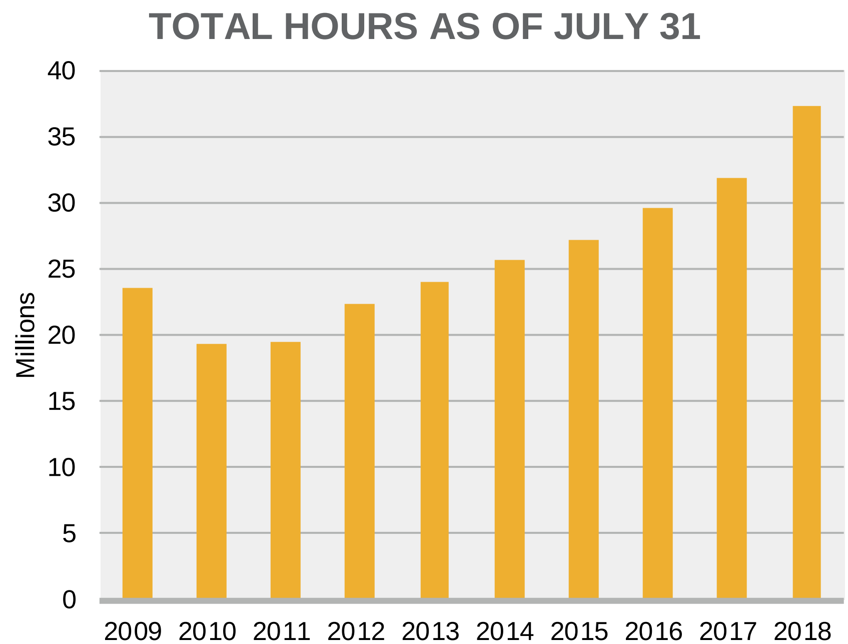
BY YEARS OF CREDITED SERVICE



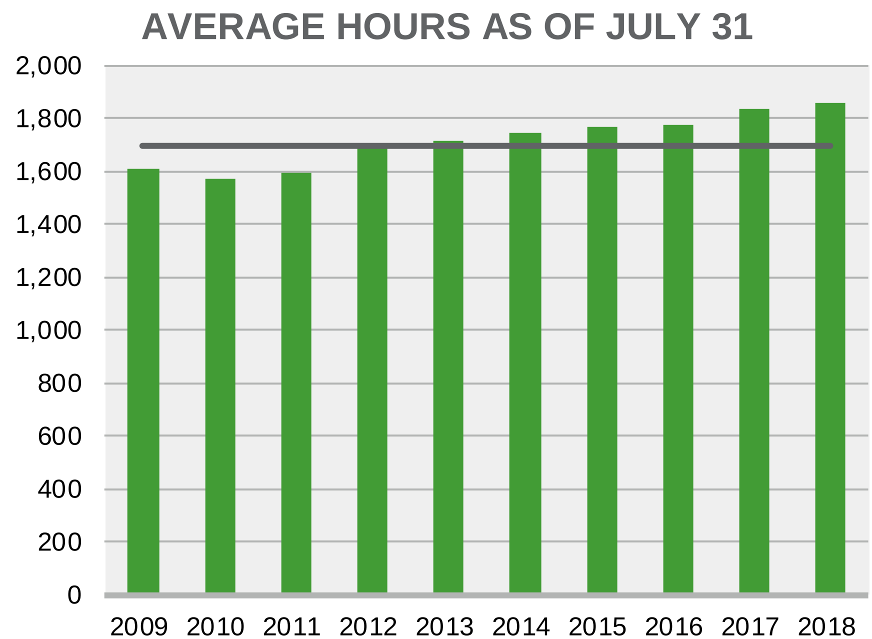
Average years of Credited Service	8.5
Prior year average years of Credited Service	9.2
Difference	-0.7

Historical Employment

- The charts below show a history of hours worked over the last ten years. Additional detail is in *Section 3, Exhibit C*.
- The 2018 zone certification was based on an industry activity assumption of 25 million total contributory hours per year.
- The valuation is based on 20,108 actives and a long-term employment projection of 1,700 hours per active, or 34.2 million total hours.
- Recent total hours, as well as average hours, have been increasing steadily.



Historical Average Total Hours	
Last year	37,341,708
Last five years	30,363,763
Last 10 years	26,071,220



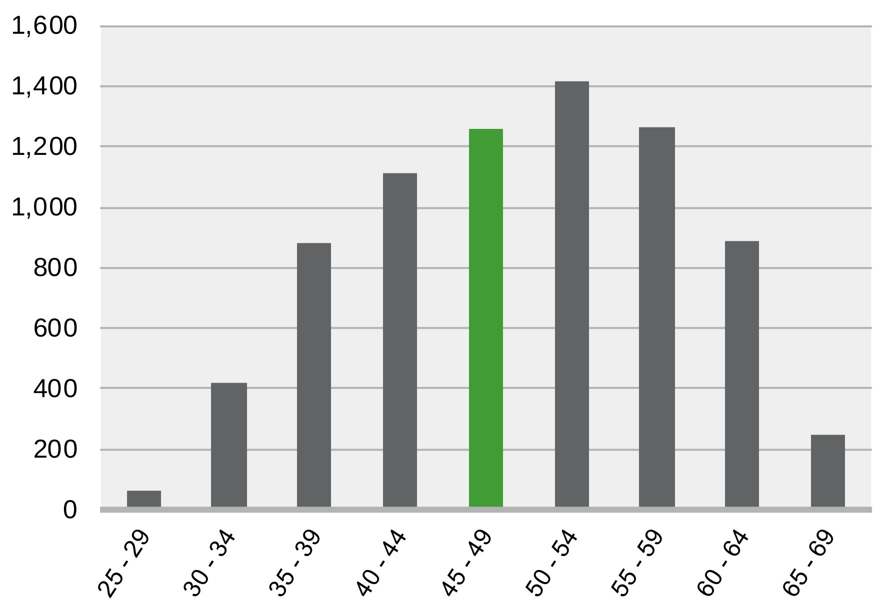
Historical Average Hours	
Last year	1,857
Last five years	1,798
Last 10 years	1,717
Long-term assumption	1,700

Inactive Vested Participants

- A participant who is not currently active and has satisfied the vesting requirements for, but has not yet commenced, a pension is considered an "inactive vested" participant.
- There were 7,560 inactive vested participants this year, an increase of 0.5% compared to 7,526 last year.

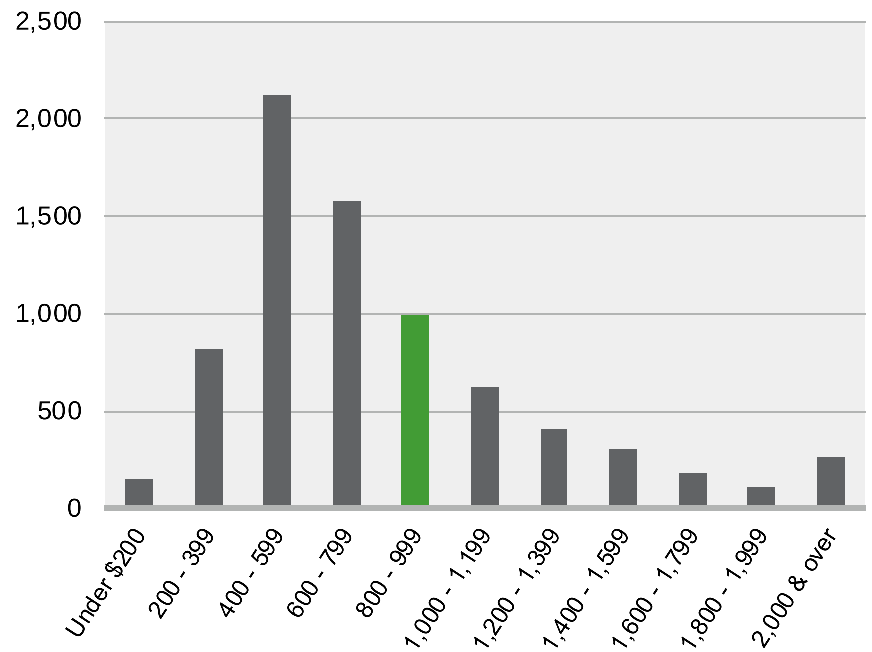
Distribution of Inactive Vested Participants as of May 31, 2018

BY AGE



Average age	**49.1**
Prior year average age	48.9
Difference	**0.2**

BY MONTHLY AMOUNT



Average amount	**$817**
Prior year average amount	$808
Difference	**$9**

New Pensions Awarded

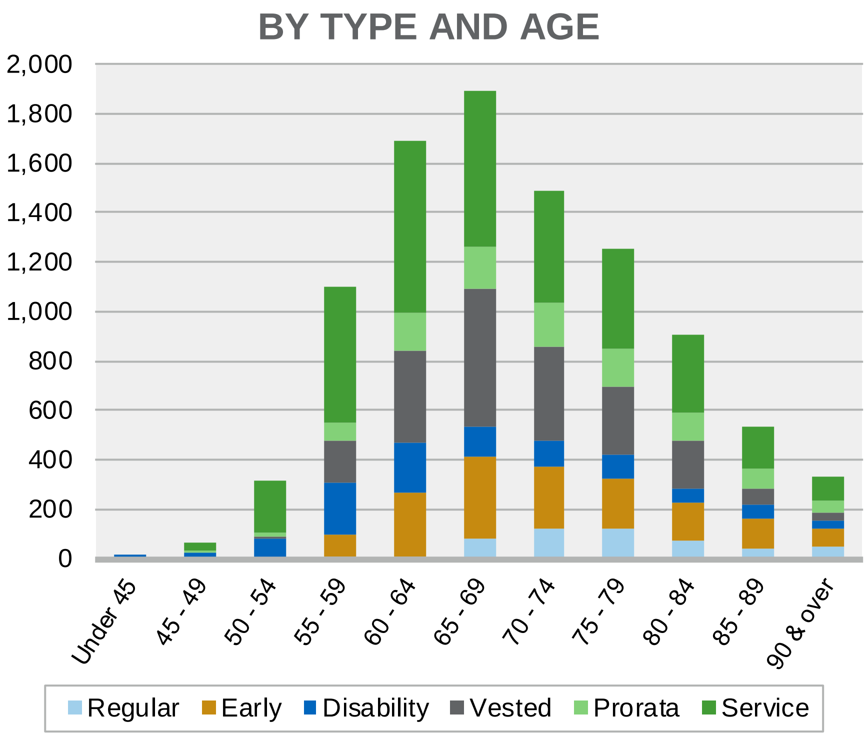
- During the fiscal year ended May 31, 2018, there were 417 pensions awarded
- The average monthly pension awarded, after adjustment for optional forms of payment, was $1,488.
- New pensioners from the Hod Carrier merger are not counted as pension awards.

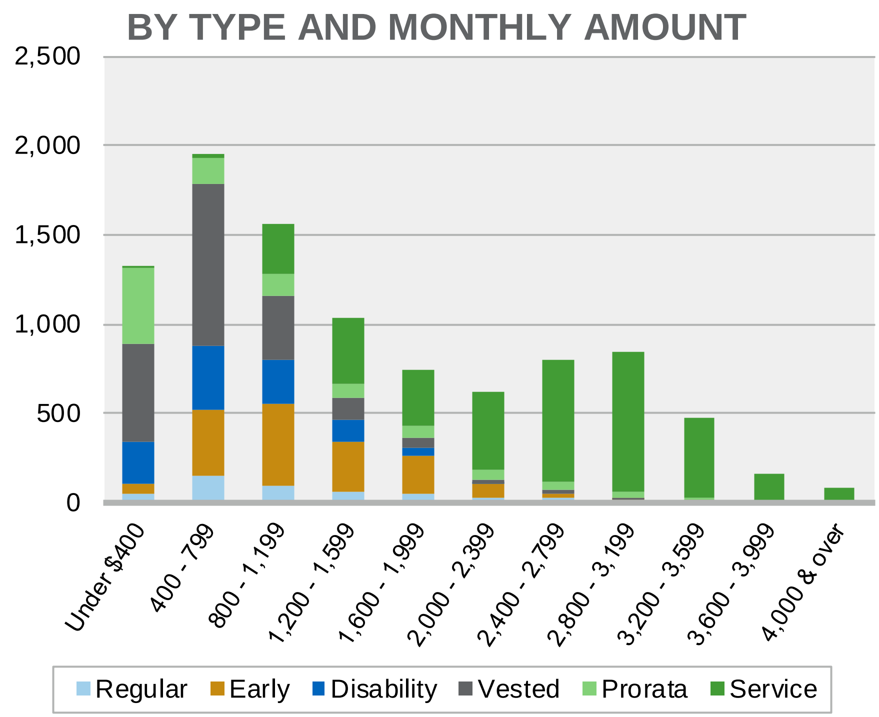
Year Ended May 31	Total		Regular		Early		Disability		Vested		Prorata		Service	
	Number	Average Amount	Number	Average Amount	Number	Average Amount	Number	Average Amount	Number	Average Amount	Number	Average Amount	Number	Average Amount
2009	472	$1,619	25	$1,201	71	$1,252	48	$979	118	$668	45	$875	165	$2,908
2010	462	1,596	32	1,277	73	1,256	50	1,047	118	729	49	1,264	140	2,888
2011	504	1,668	20	1,163	92	1,255	48	1,113	120	822	54	1,070	170	2,891
2012	439	1,561	18	1,100	72	1,291	41	1,135	129	750	42	1,129	137	2,785
2013	413	1,510	27	1,355	55	1,205	29	1,064	131	758	41	963	130	2,702
2014	484	1,510	22	1,042	74	1,144	30	926	171	845	39	1,007	148	2,782
2015	560	1,530	32	1,043	86	1,145	36	884	159	766	53	1,238	194	2,729
2016	414	1,539	27	1,514	56	1,137	38	1,056	128	876	34	843	131	2,685
2017	410	1,555	21	1,274	61	1,173	25	855	134	848	38	835	131	2,845
2018	417	1,488	34	939	85	1,142	16	1,051	132	881	32	870	118	2,800

Pay Status Information

- There were 9,603 pensioners and 1,975 beneficiaries this year, compared to 9,307 and 1,901, respectively, in the prior year.
- Monthly benefits for the Plan Year ending May 31, 2018 total $15,358,710, as compared to $14,622,669 in the prior year.
- The number of pensions in suspended status declined from 101 last year to 93 this year.

Distribution of Pensioners as of May 31, 2018



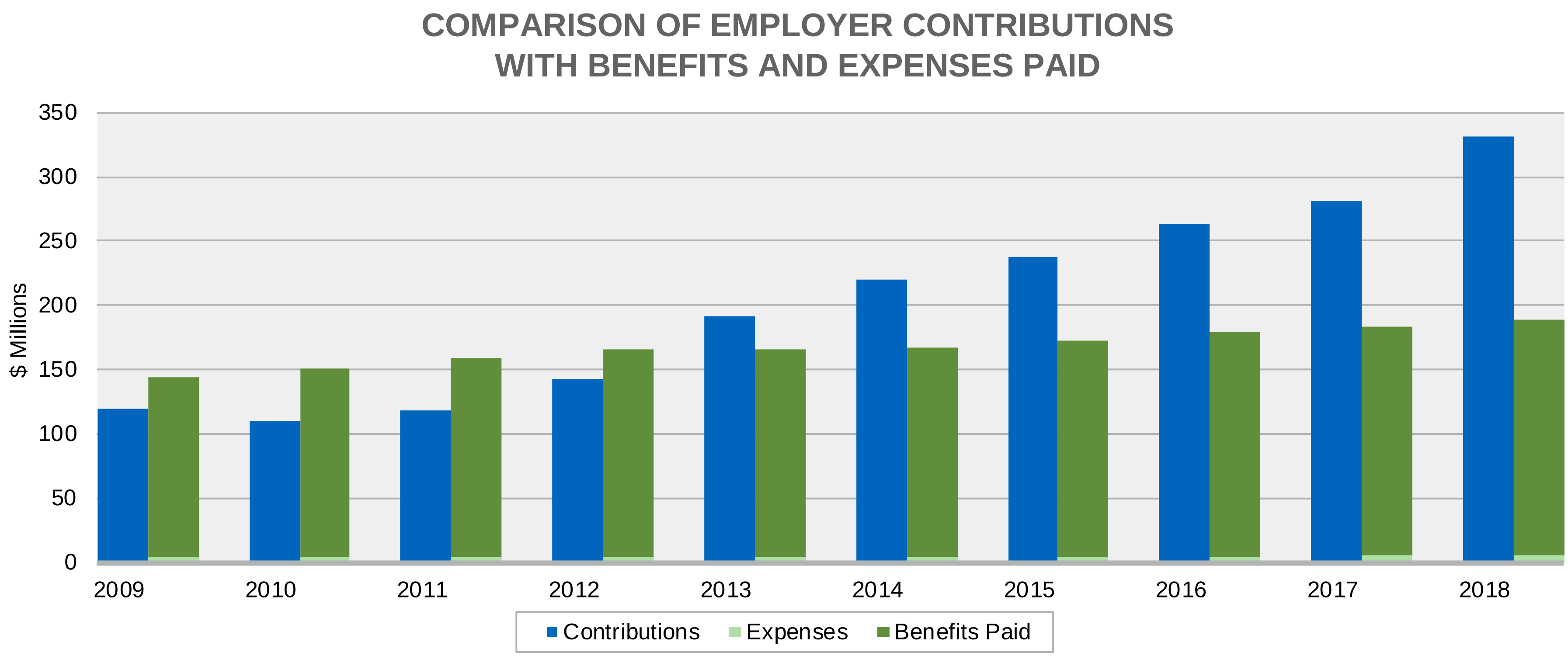


Average age	69.8
Prior year average age	69.5
Difference	0.3

Average amount	$1,494
Prior year average amount	$1,470
Difference	$24

Financial Information

- Benefits and expenses are funded solely from contributions and investment earnings.
- Additional detail is in *Section 3, Exhibit E*.
- For the last 2 years, benefit payments and expenses were approximately 0.6 times contributions.



Determination of Actuarial Value of Assets

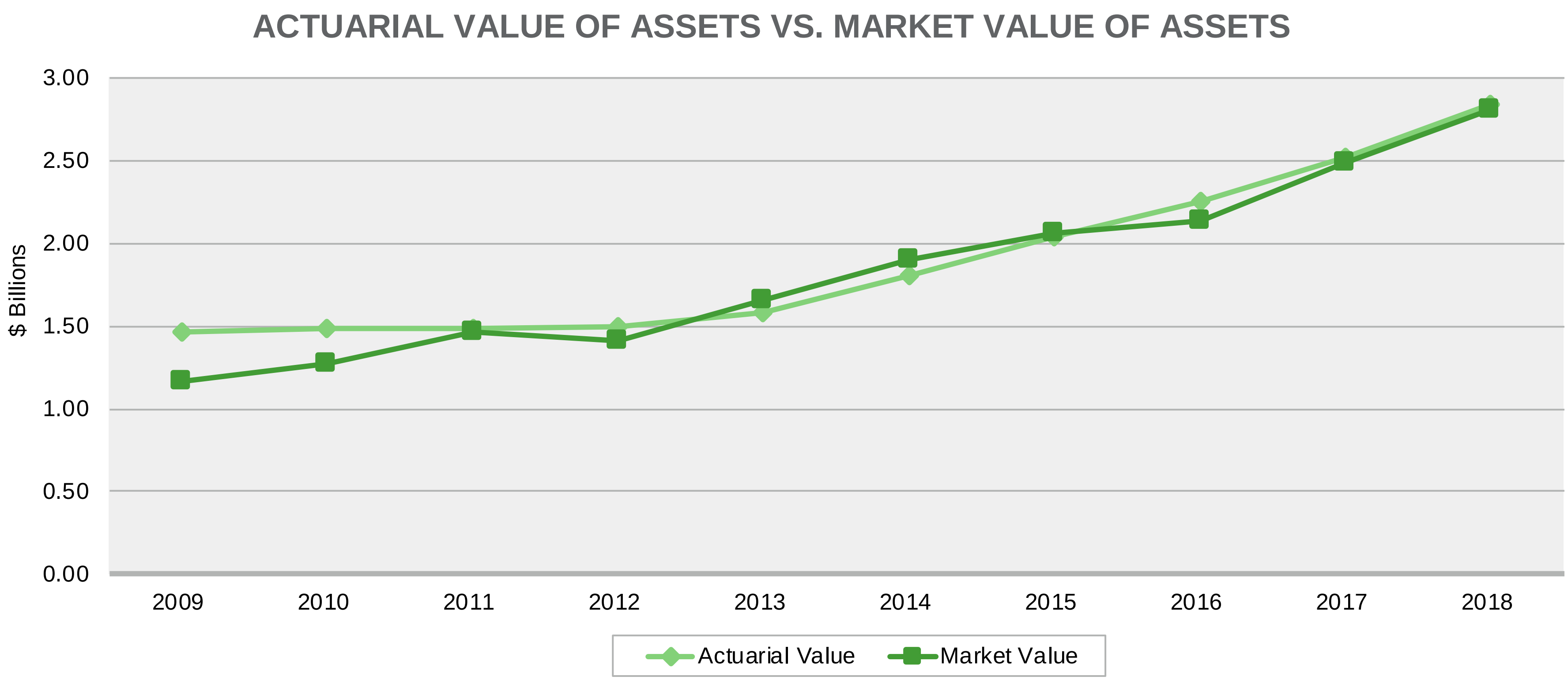
- The asset valuation method gradually recognizes annual market value fluctuations to help mitigate volatility in the actuarial cost calculations.
- Less volatility in the actuarial cost better aligns with a negotiated contribution rate.

			Original Amount*	Unrecognized Return**	
1	Market value of assets, May 31, 2018				$2,807,427,836
2	Calculation of unrecognized return				
	(a)	Year ended May 31, 2018	-$9,815,745	-$7,852,596	
	(b)	Year ended May 31, 2017	89,964,374	53,978,624	
	(c)	Year ended May 31, 2016	-174,800,106	-69,920,042	
	(d)	Year ended May 31, 2015	-49,051,993	-9,810,399	
	(e)	Year ended May 31, 2014	66,198,258	0	
	(f)	Total unrecognized return			-$33,604,413
3	Preliminary actuarial value: (1) - (2f)				2,841,032,249
4	Adjustment to be within 20% corridor				0
5	Final actuarial value of assets as of May 31, 2018: (3) + (4)				2,841,032,249
6	Actuarial value as a percentage of market value: (5) ÷ (1)				101.2%
7	Amount deferred for future recognition: (1) - (5)				-$33,604,413

* Total return minus expected return on a market value basis

** Recognition at 20% per year over 5 years

Asset History for Years Ended May 31



Actuarial Experience

- Assumptions should reflect experience and should be based on reasonable expectations for the future.
- Each year actual experience is compared to that projected by the assumptions. Differences are reflected in the contribution requirement as an experience gain or loss.
- Assumptions are not changed if experience is believed to be a short-term development and that, over the long run, experience will return to assumed levels.
- The net experience variation for the year, other than investment experience, was 2.0% of the projected actuarial accrued liability from the prior valuation, and was significant when compared to that liability. This was primarily due to the additional liability from the Hod Carriers merger. The asset transfer associated with the merger was not reflected in the audited plan asset value as of May 31, 2018. We anticipate the audited assets as of May 31, 2019 will reflect this transferred amount.

EXPERIENCE FOR THE YEAR ENDED MAY 31, 2018

1	Loss from investments	-$18,447,770
2	Loss from administrative expenses	-810,142
3	Net loss from other experience	-60,442,959
4	**Net experience loss:** 1 + 2 + 3	**-$79,700,871**

Actuarial Value Investment Experience

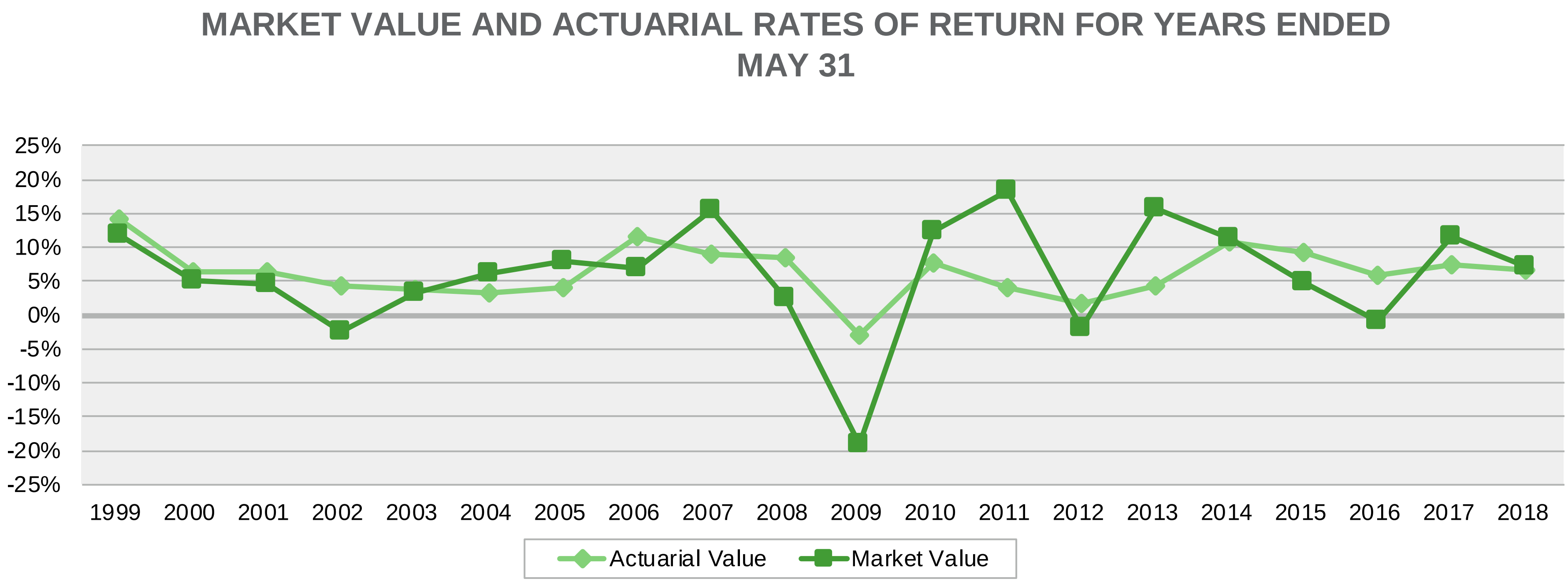
- Net investment income consists of expected investment income at the actuarially assumed rate of return (net of investment expenses) and an adjustment for market value changes.
- The actuarial value of assets does not yet fully recognize past investment gains and losses, which will affect future actuarial investment returns.

INVESTMENT EXPERIENCE FOR THE YEAR ENDED MAY 31, 2018

1	Net investment income	$176,072,043
2	Average actuarial value of assets	2,593,597,509
3	Rate of return: 1 ÷ 2	6.79%
4	Assumed rate of return	7.50%
5	Expected net investment income: 2 x 4	$194,519,813
6	**Actuarial loss from investments:** 1 - 5	**-$18,447,770**

Historical Investment Returns

- Actuarial planning is long term. The obligations of a pension plan are expected to continue for the lifetime of all its participants.
- The assumed long-term rate of return of 7.50% considers past experience, the Trustees' asset allocation policy and future expectations.



Average Rates of Return	Actuarial Value	Market Value
Most recent year return:	6.79%	7.12%
Most recent five-year average return:	7.86%	6.76%
Most recent ten-year average return:	5.85%	5.80%
20-year average return:	6.36%	5.89%

Non-Investment Experience

Administrative Expenses

- Administrative expenses for the year ended May 31, 2018 totaled $5,783,559, as compared to the prior year's assumption of $5,000,000.

Mortality Experience

- Mortality experience (more or fewer than expected deaths) yields actuarial gains or losses.
- The mortality assumptions were updated four years ago. The average number of deaths for nondisabled pensioners over the past 4 years was 301 per year compared to 266 projected deaths per year. The average number of deaths for disabled pensioners over the past 4 years was 48 per year compared to 38 projected deaths per year.

Other Experience

- Other differences between projected and actual experience include the extent of turnover among the participants, retirement experience (earlier or later than projected), and the number of disability retirements.

Actuarial Assumptions

- Based on past experience and future expectations, the following assumption was changed since the prior valuation:
  - Administrative expenses were increased from $5,000,000 to $6,000,000, payable monthly.
- This change increased the Scheduled Cost by $0.03 per hour.
- Details on actuarial assumptions and methods are in *Section 4, Exhibit 8*.
- Based on our review of recent experience, the mortality and retirement assumptions do not appear to project the actual incidence of post-retirement deaths and retirements from active status, respectively. In addition, the assumption for future benefit accruals may be understating the actual benefits being earned, on average, by active participants each year. If these trends continue, we will likely revise these assumptions in next year's valuation to better match actual and anticipated future experience.

Plan Provisions

- The Trustees have adopted the following plan changes:
  - Effective August 1, 2019, the benefit accrual rate was increased from 2.3% to 3.3% of contributions, based on a benefit contribution rate of $2.16 per hour.
  - A one-time supplemental check of $500 will be provided in December 2019 to those in pay status who are over age 70.
- These changes are reflected only for Scheduled Cost purposes in this valuation.
- These changes increased the Scheduled Cost by $0.77 per hour.
- A summary of plan provisions is in *Section 4, Exhibit 9*.

Contribution Rate Changes

- There were no changes in contribution rates since the prior valuation.

2018 Actuarial Status Certification

- PPA’06 requires trustees to actively monitor their plans’ financial prospects to identify emerging funding challenges so they can be addressed effectively. Details are shown in *Section 3, Exhibit J*.
- The 2018 certification, completed on August 6, 2018, was based on the liabilities calculated in the June 1, 2017 actuarial valuation, adjusted for subsequent events and projected to May 31, 2018, and estimated asset information as of May 31, 2018. The Trustees provided an industry activity assumption of 25 million contributory hours each year.
- This Plan was classified as neither endangered nor critical (that is, in the *Green Zone*) because the funded percentage was 90.9% and the credit balance in the FSA was projected to be positive for at least seven years.

Year	Zone Status
2009	YELLOW
2010	YELLOW
2011	YELLOW
2012	YELLOW
2013	YELLOW
2014	YELLOW
2015	YELLOW
2016	YELLOW
2017	GREEN
2018	GREEN

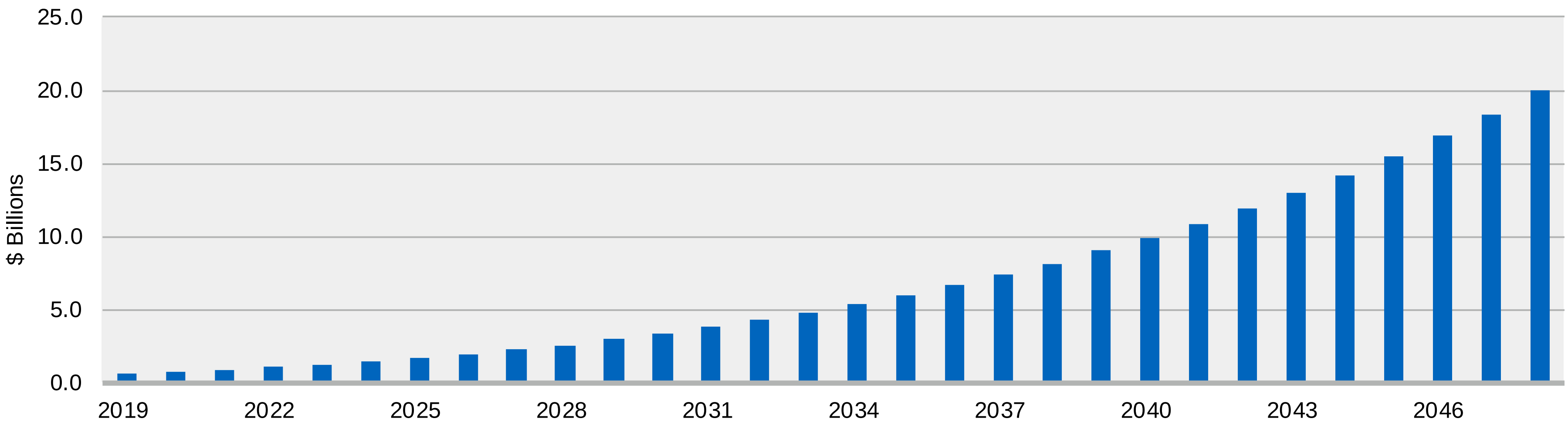
Funding Standard Account (FSA)

- On May 31, 2018, the FSA had a credit balance of $509,826,921, as shown on the 2017 Schedule MB. Contributions meet the legal requirement on a cumulative basis if that account shows no deficiency.
- The minimum funding requirement for the year beginning June 1, 2018 is $0.
- Based on the assumption that 20,108 participants will work an average of 1,700 hours at a $8.96 contribution rate, the contributions projected for the year beginning June 1, 2018 are $306,285,056. The credit balance is projected to increase by approximately $146 million to $656 million as of May 31, 2019.
- A summary of the ERISA minimum funding requirements and the FSA for the year ended May 31, 2018 is included in *Section 3, Exhibit H.*

Funding Standard Account Projection

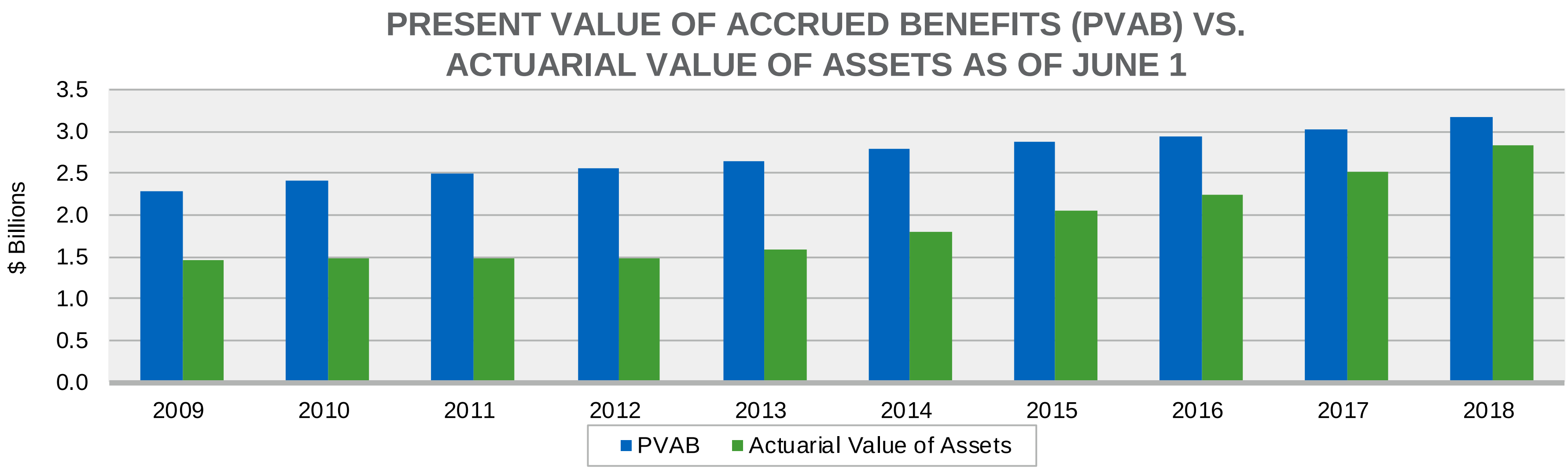
- A 30-year projection indicates the credit balance will remain positive, assuming that:
  - The Plan will earn a market rate of return equal to 7.50% each year.
  - All other experience emerges as assumed, no assumption changes are made,
  - There are no additional plan amendments besides those recognized in the Scheduled Cost, and no changes in law/regulation, and
  - Administrative expenses are projected to increase 2% per year.
- The projection is based on a level number (20,108) of active employees and 1,700 hours per active, with a level normal cost in future years that recognizes the increase in the benefit accrual rate from 2.3% to 3.3% of contributions.

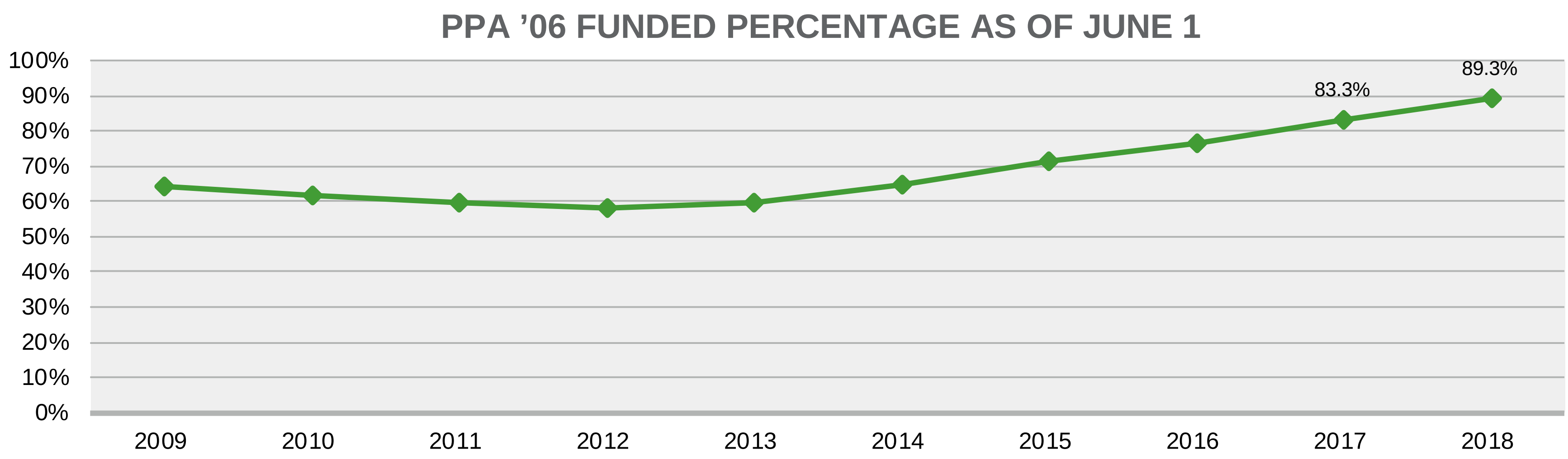
CREDIT BALANCE AS OF MAY 31



Additional scenarios would demonstrate sensitivity to investment return, employment and other alternative assumptions.

PPA’06 Funded Percentage Historical Information





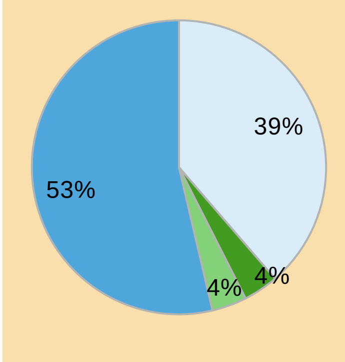
Scheduled Cost

- The Scheduled Cost is an annual contribution objective, reflecting benefit levels and current assets that is compared to projected contributions to assess the Plan's long-term financial position.
- As of June 1, 2018, the unfunded actuarial accrued liability totaled $633,976,488 (actuarial accrued liability of $3,475,008,737 less assets of $2,841,032,249).
- Simply avoiding an FSA funding deficiency is not a stable basis for funding the Plan. The Scheduled Cost uses a single amortization schedule (11 years remaining) for the total unfunded actuarial accrued liability, rather than the ERISA minimum funding approach.
- In addition to the plan of benefits reflected in the FSA, the following plan changes are included in the Scheduled Cost:
  - Effective August 1, 2019, the benefit accrual rate was increased from 2.3% to 3.3% of contributions, based on a benefit contribution rate of $2.16 per hour.
  - A one-time supplemental check of $500 will be provided in December 2019 to those in pay status who are over age 70.
- The actuarial assumptions are the same as those used for the FSA for the year beginning June 1, 2018.
- The Actuarial Cost Method used to determine Scheduled Cost is Entry Age Normal, different from the "Unit Credit" method used for the Funding Standard Account.
- The contribution rate is unchanged from that reflected in our prior valuation.

Scheduled Cost and Reconciliation

	Year Beginning June 1	
	2017	2018
Normal cost	$36,777,806	$58,116,812
Administrative expenses	4,808,959	5,770,751
Amortization of the unfunded actuarial accrued liability	85,343,265	80,616,730
Adjustment for monthly payments	5,042,432	5,740,588
Annual Scheduled Cost, payable monthly	**$131,972,462**	**$150,244,881**

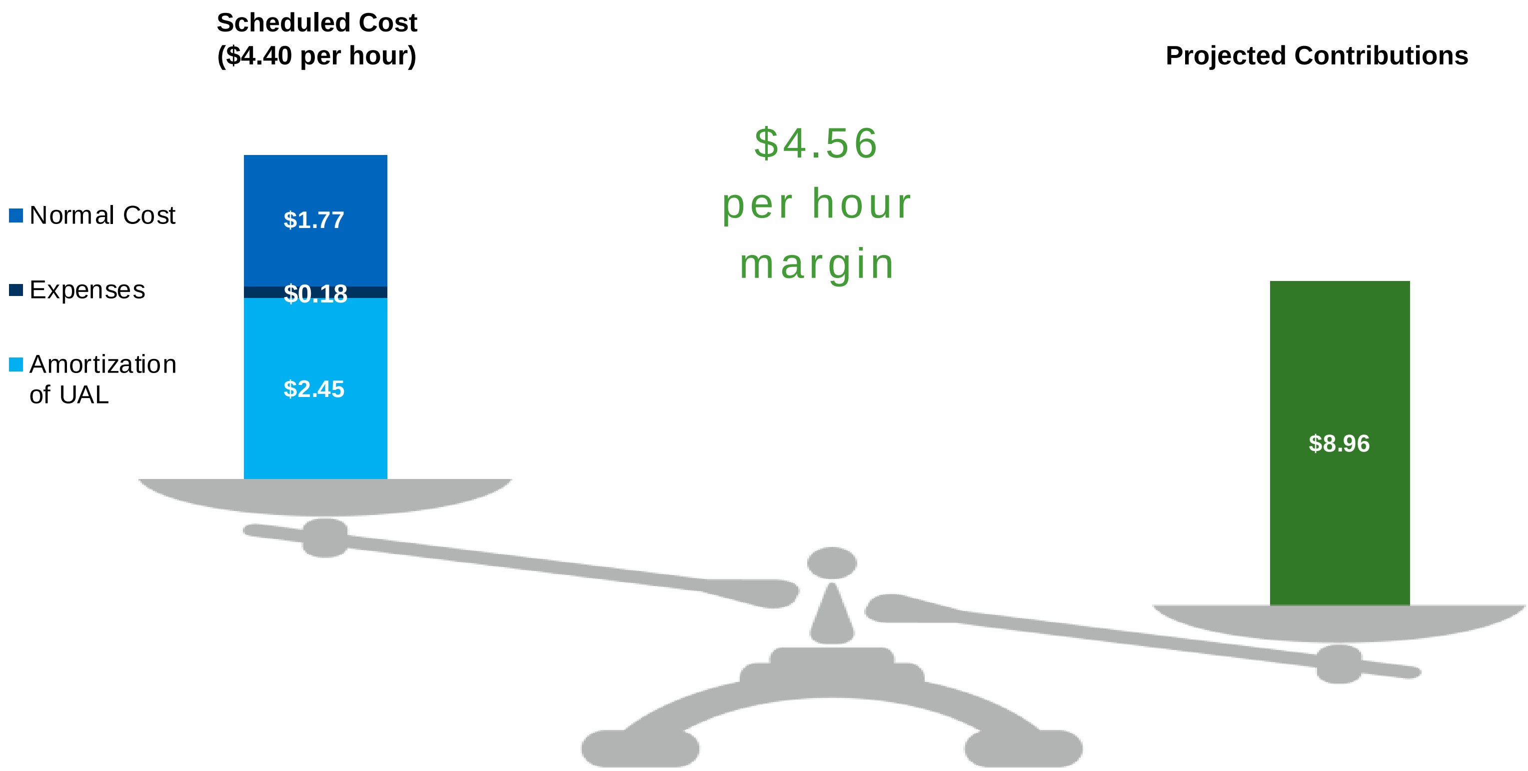
2018



Scheduled Cost as of June 1, 2017		$131,972,462
• Effect of plan amendments, including 13th check	26,404,075	
• Effect of change in administrative expense assumption	1,000,000	
• Effect of contributions more than Scheduled Cost	-27,396,461	
• Effect of investment gain	2,439,017	
• Effect of other gains and losses on accrued liability, including the impact of the Hod Carriers merger	9,650,696	
• Effect of net other changes, including composition and number of participants	6,175,092	
Total change		*$18,272,419*
Scheduled Cost as of June 1, 2018		$150,244,881

Scheduled Cost vs. Contribution

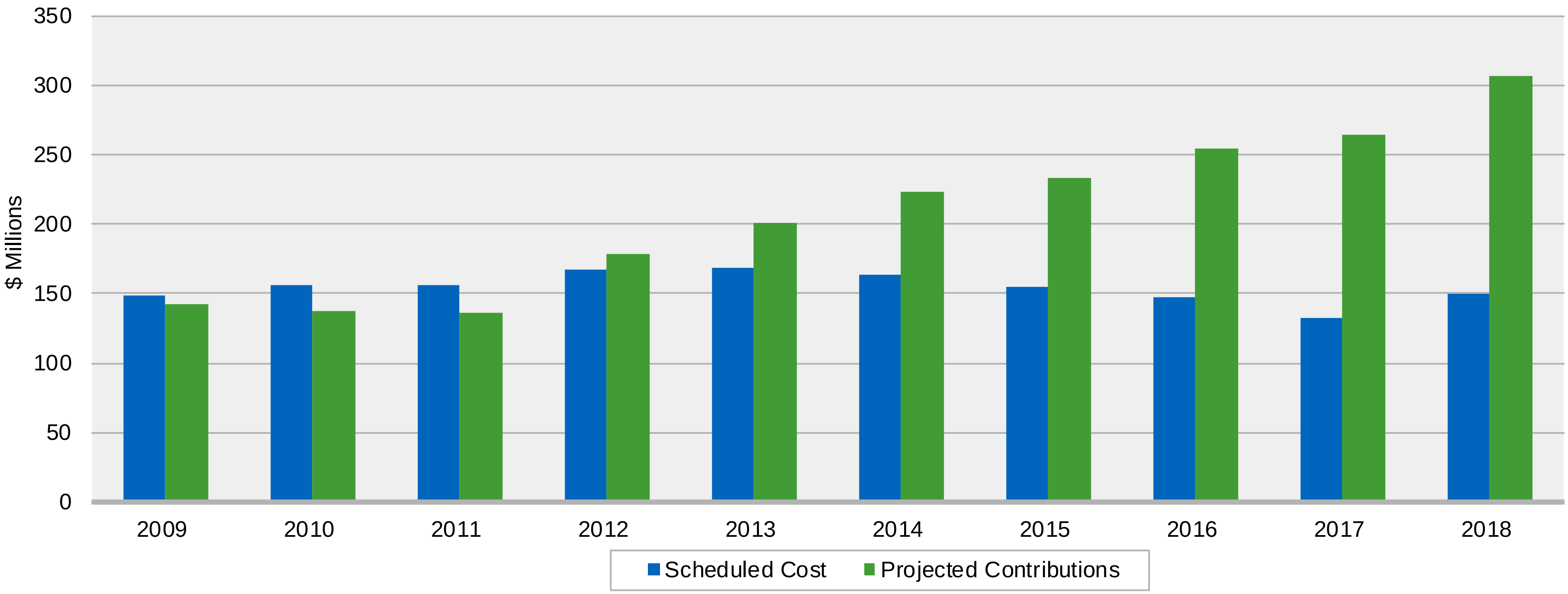
- Projected annual employer contributions of $306,285,056 are based on the Trustees' assumption that 20,108 active participants will work 1,700 hours at the $8.96 negotiated contribution rate.
- This exceeds the Scheduled Cost of $150,244,881 by $156,040,175, or 51.0% of projected contributions.



- Prior net investment losses/gains are not fully recognized in the actuarial value of assets. Using the current market value of assets, the margin would be $151,597,268 ($4.43 per hour, or 49.5% of projected contributions).

Scheduled Cost vs. Projected Contributions — Historical Information

- The margin or deficit is represented by the difference between projected contributions at the negotiated contribution rate and the Scheduled Cost.



Risk

- The actuarial valuation results are dependent on a single set of assumptions; however, there is a risk that emerging results may differ significantly as actual experience proves to be different from the current assumptions.
- We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition, but have included a brief discussion of some risks that may affect the Plan.
- We recommend a more detailed assessment of the risks to provide the Trustees with a better understanding of the risks inherent in the Plan. This assessment may include scenario testing, sensitivity testing, stress testing and stochastic modeling.
- A detailed risk assessment is important for your plan because the plan recently "emerged" from endangered status into the "Green Zone" and has not had a detailed risk assessment in a number of years. While the plan's funded position has improved substantially over the past 10 years, a severe asset decline and/or reduction in employment levels would significantly reduce the available funding margin.
- Investment Risk (the risk that returns will be different than expected)

  Since the Plan's assets are much larger than contributions, investment performance will create volatility in contribution requirements. For example, for each 1% by which the current Plan Year's actual return on market value is less than assumed, the Plan would require a contribution increase of $0.12 per hour to make up the loss within ten years.

  The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by annual contributions, provides an indication of the potential contribution volatility for any given level of investment volatility. The current AVR is about 8.48. This means that for each 1% asset gain or loss (relative to the assumed investment return) translates to about 8.48% of one year's contribution.

  As can be seen in Section 3, the market value rate of return over the last 20 years has ranged from a low of -19.07% to a high of 18.36%.
- Contribution/Employment Risk (the risk that actual contributions will be different from projected contributions)

  If the number of active participants declines by 10%, we project the normal cost and contributions would also decrease by 10%, resulting in a Scheduled Cost increase of $0.29 per hour.
- Longevity Risk (the risk that mortality experience will be different than expected)

- Other Demographic Risk (the risk that participant experience will be different than assumed)

  Examples of this risk include:

  - Actual retirements occurring earlier or later than assumed.
  - More or less active participant turnover than assumed.
  - Return to covered employment of previously inactive participants.

- Actual Experience over the Last 10 years and Implications for the Future

  Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years:

  - The investment gain(loss) on market value for a year has ranged from a loss of $387,909,677 to a gain of $135,704,098. If all investment returns were equal to the assumed return over the last ten years, the market value of assets as of the current valuation date would be approximately $3,354,769,605 as opposed to the actual value of $2,807,427,836.
  - The funded percentage for PPA purposes has ranged from a low of 58.1% to a high of 89.3%.

- Maturity Measures

  The risk associated with a pension plan increases as it becomes more mature, meaning that the actives represent a smaller portion of the liabilities of the plan. When this happens, there is a greater risk that fluctuations in the experience of the non-active participants or of the assets of the plan can result in large swings in the contribution requirements.

  - Over the past ten years, the ratio of non-active participants to active participants has ranged from a low of 0.96 to a high of 1.43.
  - As of May 31, 2018, the retired life actuarial accrued liability represents 52% of the total actuarial accrued liability. In addition, the actuarial accrued liability for inactive vested participants represents 10% of the total. The higher the non-active actuarial accrued liability is as a percent of the total liability, the greater the danger of volatility in results.

Disclosure Requirements

Annual Funding Notice

- The actuarial information to be provided in the annual funding notice is shown in *Section 3, Exhibit G.*
- The value of plan benefits earned to date as of June 1, 2018 is $3,180,125,061 using the long-term funding interest rate of 7.50%. As the actuarial value of assets is $2,841,032,249, the Plan's funded percentage is 89.3%, compared to 83.3% in the prior year.

Current Liability

- The Plan's current liability as of June 1, 2018 is $5,772,684,017 using an interest rate of 3.00%. As the market value of assets is $2,807,427,836, the funded current liability percentage is 48.6%. This is required to be disclosed on the 2018 Schedule MB of IRS Form 5500 since it is less than 70%. Details are shown in *Section 4, Exhibit 3*.

Accounting Information

- The Financial Accounting Standards Board (FASB) requires determination of the present value of accumulated plan benefits - the single-sum value of the benefits, vested or not, earned by participants as of the valuation date. Additional details on the present value of the accumulated plan benefits can be found in *Section 4, Exhibit 2.*

Section 3: Supplementary Information

EXHIBIT A - TABLE OF PLAN COVERAGE

Category	Year Ended May 31 2017	Year Ended May 31 2018	Change from Prior Year
Participants in Fund Office tabulation	18,435	21,754	18.0%
Less: Participants with less than one year of Credited Service	1,036	1,646	N/A
Active participants in valuation:			
• Number	17,399	20,108	15.6%
• Average age	41.7	41.3	-0.4
• Average years of Credited Service	9.2	8.5	-0.7
• Contribution rate for upcoming year	$8.96	$8.96	0.0%
• Number with unknown age	29	35	20.7%
• Total active vested participants	9,756	10,122	3.8%
Inactive participants with rights to a pension:			
• Number	7,526	7,560	0.5%
• Average age	48.9	49.1	0.2
• Average monthly benefit	$808	$817	1.1%
Pensioners (including disableds):			
• Number in pay status	9,307	9,603	3.2%
• Average age	69.5	69.8	0.3
• Average monthly benefit	$1,470	$1,494	1.6%
• Number in suspended status	101	93	-7.9%
Beneficiaries:			
• Number in pay status	1,901	1,975	3.9%
• Average age	72.4	72.6	0.2
• Average monthly benefit	$494	$513	3.8%
Total Participants	**36,234**	**39,339**	**8.6%**

EXHIBIT B - PARTICIPANT POPULATION

Year Ended May 31	Active Participants	Inactive Vested Participants	Pensioners and Beneficiaries	Ratio of Non-Actives to Actives
2009	14,601	6,044	9,995	1.10
2010	12,371	6,962	10,242	1.39
2011	12,207	7,007	10,478	1.43
2012	13,258	6,659	10,662	1.31
2013	14,008	6,683	10,815	1.25
2014	14,700	6,686	11,046	1.21
2015	15,349	7,206	10,977	1.18
2016	16,672	7,254	11,177	1.11
2017	17,399	7,526	11,309	1.08
2018	20,108	7,560	11,671	0.96

EXHIBIT C - EMPLOYMENT HISTORY

Year Ended July 31	Total Hours of Contributions		Active Participants		Average Hours of Contributions	
	Number	Percent Change	Number	Percent Change	Number	Percent Change
2009	23,548,839	-14.6%	14,601	-10.5%	1,613	-4.6%
2010	19,423,989	-17.5%	12,371	-15.3%	1,570	-2.7%
2011	19,436,650	0.1%	12,207	-1.3%	1,592	1.4%
2012	22,446,517	15.5%	13,258	8.6%	1,693	6.3%
2013	24,037,388	7.1%	14,008	5.7%	1,716	1.4%
2014	25,687,569	6.9%	14,700	4.9%	1,747	1.8%
2015	27,189,998	5.8%	15,349	4.4%	1,771	1.4%
2016	29,689,136	9.2%	16,672	8.6%	1,781	0.6%
2017	31,910,405	7.5%	17,399	4.4%	1,834	3.0%
2018	37,341,708	17.0%	20,108	15.6%	1,857	1.3%
			Five-year average hours:		**1,798**	
			Ten-year average hours:		**1,717**	

EXHIBIT D – PROGRESS OF PENSION ROLLS OVER THE PAST TEN YEARS

IN PAY STATUS AT YEAR END

Year	Number	Average Age	Average Amount	Terminations[1]	Additions[2]
2009	8,377	69.3	$1,238	330	482
2010	8,516	69.3	1,274	339	478
2011	8,681	69.2	1,313	349	514
2012	8,830	69.2	1,341	334	483
2013	8,887	69.2	1,372	371	428
2014	9,044	69.3	1,397	348	505
2015	9,176	69.2	1,425	441	573
2016	9,255	69.4	1,445	337	416
2017	9,307	69.5	1,470	360	412
2018	9,603	69.8	1,494	350	646[3]

1 Terminations include pensioners who died or were suspended during the prior plan year.
2 Additions to the pension rolls include new pensions awarded and suspended pensioners who have been reinstated.
3 Includes new pensioners entering the plan as part of the Hod Carriers merger.

EXHIBIT E - SUMMARY STATEMENT OF INCOME AND EXPENSES ON AN ACTUARIAL BASIS

	Year Ended May 31, 2017		Year Ended May 31, 2018	
Contribution income:				
• Employer contributions	$281,062,787		$331,207,471	
• Withdrawal liability payments	19,646		36,757	
Net contribution income		*$281,082,433*		*$331,244,228*
Investment income:				
• Expected investment income	$172,482,351		$194,519,813	
• Adjustment toward market value	1,221,624		-18,447,770	
Net investment income		*173,703,975*		*176,072,043*
Total income available for benefits		**$454,786,408**		**$507,316,271**
Less benefit payments and expenses:				
• Pension benefits	-$178,202,281		-$182,735,275	
• Administrative expenses	-5,347,836		-5,783,559	
Total benefit payments and expenses		*-$183,550,117*		*-$188,518,834*
Change in reserve for future benefits		**$271,236,291**		**$318,797,437**

EXHIBIT F - INVESTMENT RETURN – ACTUARIAL VALUE VS. MARKET VALUE

Year Ended May 31	Actuarial Value Investment Return[1] Amount	Actuarial Value Investment Return[1] Percent	Market Value Investment Return Amount	Market Value Investment Return Percent	Year Ended May 31	Actuarial Value Investment Return Amount	Actuarial Value Investment Return Percent	Market Value Investment Return Amount	Market Value Investment Return Percent
1999	$147,814,765	14.22%	$135,152,423	11.78%	2009	-$41,296,913	-2.83%	-$278,409,820	-19.07%
2000	73,805,822	6.44%	61,900,114	4.99%	2010	104,993,696	7.59%	141,965,856	12.36%
2001	76,430,535	6.48%	57,584,012	4.56%	2011	60,497,462	4.18%	229,457,491	18.36%
2002	52,883,876	4.37%	-32,021,101	-2.51%	2012	27,251,681	1.85%	-27,955,311	-1.93%
2003	47,429,113	3.91%	38,923,385	3.26%	2013	63,697,824	4.23%	225,053,803	15.83%
2004	40,388,062	3.34%	71,839,432	6.09%	2014	174,322,553	10.85%	192,595,132	11.43%
2005	48,415,974	4.06%	95,075,437	7.95%	2015	172,199,941	9.36%	96,195,240	4.97%
2006	136,221,481	11.49%	87,016,661	7.05%	2016	122,870,984	5.89%	-16,780,989	-0.80%
2007	116,714,966	9.12%	199,813,330	15.62%	2017	173,703,975	7.55%	253,514,228	11.63%
2008	114,774,041	8.40%	34,991,540	2.41%	2018	176,072,043	6.79%	181,757,340	7.12%
					Total	$1,889,191,881		$1,747,668,203	
					Most recent five-year average return:		**7.86%**		**6.76%**
					Most recent ten-year average return:		**5.85%**		**5.80%**
					20-year average return:		**6.36%**		**5.89%**

Note: Each year's yield is weighted by the average asset value in that year.

[1] The investment return for 2006 includes the effect of a change in the method for determining the actuarial value of assets.

EXHIBIT G - ANNUAL FUNDING NOTICE FOR PLAN YEAR BEGINNING JUNE 1, 2018 AND ENDING MAY 31, 2019

	2018 Plan Year	2017 Plan Year	2016 Plan Year
Actuarial valuation date	June 1, 2018	June 1, 2017	June 1, 2016
Funded percentage	89.3%	83.3%	76.5%
Value of assets	$2,841,032,249	$2,522,234,812	$2,250,998,521
Value of liabilities	3,180,125,061	3,026,774,728	2,942,704,549
Fair market value of assets as of plan year end	Not available	2,807,427,836	2,482,945,102

The Plan was not in endangered or critical status in the plan year.

EXHIBIT H - FUNDING STANDARD ACCOUNT

- ERISA imposes a minimum funding standard that requires the Plan to maintain an FSA. The accumulation of contributions in excess of the minimum required contributions is called the FSA credit balance. If actual contributions fall short on a cumulative basis, a funding deficiency has occurred. For a plan that is in critical status under PPA'06, employers will generally not be penalized if a funding deficiency develops, provided the parties fulfill their obligations in accordance with the Rehabilitation Plan developed by the Trustees and the negotiated bargaining agreements reflect that Rehabilitation Plan.
- The FSA is charged with the normal cost and the amortization of increases or decreases in the unfunded actuarial accrued liability due to plan amendments, experience gains or losses, and changes in actuarial assumptions and funding methods. The FSA is credited with employer contributions and withdrawal liability payments. All items, including the prior credit balance or deficiency, are adjusted with interest at the actuarially assumed rate.
- Increases or decreases in the unfunded actuarial accrued liability are amortized over 15 years except that short-term benefits, such as 13th checks, are amortized over the scheduled payout period.

FSA FOR THE YEAR ENDED MAY 31, 2018

	Charges			Credits	
1	Prior year funding deficiency	$0	6	Prior year credit balance	$342,340,571
2	Normal cost, including administrative expenses	56,444,109	7	Employer contributions	331,244,228
3	Total amortization charges	141,995,359	8	Total amortization credits	10,667,302
4	Interest to end of the year	14,882,960	9	Interest to end of the year	38,897,248
5	*Total charges*	*$213,322,428*	10	Full-funding limitation credit	0
			11	*Total credits*	*$723,149,349*
				Credit balance: 11 - 5	**$509,826,921**

EXHIBIT I - MAXIMUM DEDUCTIBLE CONTRIBUTION

- Employers that contribute to defined benefit pension plans are allowed a current deduction for payments to such plans. There are various measures of a plan's funded level that are considered in the development of the maximum deductible contribution amount.
- One of the limits is the excess of 140% of "current liability" over assets. "Current liability" is one measure of the actuarial present value of all benefits earned by the participants as of the valuation date. This limit is significantly higher than the current contribution level.
- Contributions in excess of the maximum deductible amount are not prohibited; only the deductibility of these contributions is subject to challenge and may have to be deferred to a later year. In addition, if contributions are not fully deductible, an excise tax in an amount equal to 10% of the non-deductible contributions may be imposed. However, the plan sponsor may elect to exempt the non-deductible amount up to the ERISA full-funding limitation from the excise tax.
- The Trustees should review the interpretation and applicability of all laws and regulations concerning any issues as to the deductibility of contribution amounts with Fund Counsel.

1	Normal cost, including administrative expenses	$62,251,403
2	Amortization of unfunded actuarial accrued liability (fresh start as of June 1, 2018)	45,954,466
3	Preliminary maximum deductible contribution: 1 + 2, with interest to the end of the plan year	$116,321,309
4	Full-funding limitation (FFL)	2,470,411,862
5	Preliminary maximum deductible contribution, adjusted for FFL: lesser of 3 and 4	116,321,309
6	Current liability, projected to the end of the plan year	5,894,113,779
7	Actuarial value of assets, projected to the end of the plan year	2,834,290,539
8	Excess of 140% of current liability over projected assets at end of plan year: [140% of (6)] - (7), not less than zero	5,417,468,752
9	End of year minimum required contribution	0
Maximum deductible contribution: greatest of 5, 8, and 9		**$5,417,468,752**

EXHIBIT J - PENSION PROTECTION ACT OF 2006

PPA'06 Zone Status

- Based on projections of the credit balance in the FSA, the funded percentage, and cash flow sufficiency tests, plans are categorized in one of three "zones": critical status, endangered status, or neither.
- The funded percentage is determined using the actuarial value of assets and the present value of benefits earned to date, based on the actuary's best estimate assumptions.

Critical Status **(*Red Zone*)**	A plan is classified as being in critical status (the *Red Zone*) if: • The funded percentage is less than 65%, and either there is a projected FSA deficiency within five years or the plan is projected to be unable to pay benefits within seven years, or • There is a projected FSA deficiency within four years, or • There is a projected inability to pay benefits within five years, or • The present value of vested benefits for inactive participants exceeds that for actives, contributions are less than the value of the current year's benefit accruals plus interest on existing unfunded accrued benefit liabilities, and there is a projected FSA deficiency within five years, or • As permitted by the Multiemployer Pension Reform Act of 2014, the plan is projected to be in the *Red Zone* within the next five years and the plan sponsor elects to be in critical status. A critical status plan is further classified as being in critical and declining status if: • The ratio of inactives to actives is at least 2 to 1, and there is an inability to pay benefits projected within 20 years, or • The funded percentage is less than 80%, and there is an inability to pay benefits projected within 20 years, or • There is an inability to pay benefits projected within 15 years. Any amortization extensions are ignored for testing initial entry into the *Red Zone*. The Trustees are required to adopt a formal Rehabilitation Plan, designed to allow the plan to emerge from critical status by the end of the rehabilitation period. If they determine that such emergence is not reasonable, the Rehabilitation Plan must be designed to emerge as of a later time or to forestall possible insolvency. Trustees of *Red Zone* plans have tools, such as the ability to reduce or eliminate early retirement subsidies, to remedy the situation. Accelerated forms of benefit payment (such as lump sums) are prohibited. However, unless the plan is critical and declining, Trustees may not reduce benefits of participants who retired before being notified of the plan's critical status (other than rolling back recent benefit increases) or alter core retirement benefits payable at normal retirement age.

Endangered Status (*Yellow Zone*)	A plan not in critical status (*Red Zone*) is classified as being in endangered status (the *Yellow Zone*) if: • The funded percentage is less than 80%, or • There is a projected FSA deficiency within seven years. A plan that has both of the endangered conditions present is classified as seriously endangered. Trustees of a plan that was in the *Green Zone* in the prior year can elect not to enter the *Yellow Zone* in the current year (although otherwise required to do so) if the plan's current provisions would be sufficient (with no further action) to allow the plan to emerge from the *Yellow Zone* within 10 years. The Trustees are required to adopt a formal Funding Improvement Plan, designed to improve the current funded percentage, and avoid a funding deficiency as of the emergence date.

Green Zone	A plan not in critical status (the *Red Zone*) nor in endangered status (the *Yellow Zone*) is classified as being in the *Green Zone.*

Early Election of Critical Status	Trustees of a *Green* or *Yellow Zone* plan that is projected to enter the *Red Zone* within the next five years must elect whether or not to enter the *Red Zone* for the current year.

Section 4: Certificate of Actuarial Valuation

JULY 18, 2019

CERTIFICATE OF ACTUARIAL VALUATION

This is to certify that Segal Consulting, a Member of The Segal Group, Inc. ("Segal") has prepared an actuarial valuation of the Laborers Pension Trust Fund for Northern California as of June 1, 2018 in accordance with generally accepted actuarial principles and practices. It has been prepared at the request of the Board of Trustees to assist in administering the Fund and meeting filing requirements of federal government agencies. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

The valuation is based on the assumption that the Plan is qualified as a multiemployer plan for the year and on information supplied by the auditor with respect to contributions and assets and reliance on the Plan Administrator with respect to the participant data. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results. Adjustments for incomplete or apparently inconsistent data were made as described in the attached *Exhibit 8*.

I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this actuarial valuation is complete and accurate, except as noted in *Exhibit 1*. Each prescribed assumption for the determination of Current Liability was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

Mark Hamwee, FSA, MAAA
Vice President & Actuary
Enrolled Actuary No. 17-05829

EXHIBIT 1 - SUMMARY OF ACTUARIAL VALUATION RESULTS

The valuation was made with respect to the following data supplied to us by the Plan Administrator:

Pensioners as of the valuation date (including 1,975 beneficiaries in pay status and 93 pensioners in suspended status)		11,671
Participants inactive during year ended May 31, 2018 with vested rights (including 7 participants with unknown age)		7,560
Participants active during the year ended May 31, 2018 (including 35 participants with unknown age)		20,108
• Fully vested	10,122	
• Not vested	9,986	
Total participants		**39,339**

The actuarial factors as of the valuation date are as follows:

Normal cost, including administrative expenses		$62,251,403
Actuarial present value of projected benefits		3,629,566,269
Present value of future normal costs		449,441,208
Actuarial accrued liability		3,180,125,061
• Pensioners and beneficiaries	$1,807,110,708	
• Inactive participants with vested rights	354,109,726	
• Active participants	1,018,904,627	
Actuarial value of assets ($2,807,427,836 at market value as reported by LIndquist LLP)		$2,841,032,249
Unfunded actuarial accrued liability		339,092,812

EXHIBIT 2 - ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS

The actuarial present value of accumulated plan benefits calculated in accordance with FASB ASC 960 is shown below as of June 1, 2017 and as of June 1, 2018. In addition, the factors that affected the change between the two dates follow.

	Benefit Information Date	
	June 1, 2017	June 1, 2018
Actuarial present value of vested accumulated plan benefits:		
• Participants currently receiving payments	$1,730,702,362	$1,807,110,708
• Other vested benefits	1,096,801,803	1,152,892,536
• Total vested benefits	$2,827,504,165	$2,960,003,244
Actuarial present value of non-vested accumulated plan benefits	199,270,563	220,121,817
Total actuarial present value of accumulated plan benefits	**$3,026,774,728**	**$3,180,125,061**

Factors	Change in Actuarial Present Value of Accumulated Plan Benefits
Benefits accumulated, net experience gain or loss, changes in data	$115,930,076
Benefits paid	-182,735,275
Interest	220,155,532
Total	**$153,350,333**

EXHIBIT 3 - CURRENT LIABILITY

The table below presents the current liability for the Plan Year beginning June 1, 2018.

Item		Amount[1]
Retired participants and beneficiaries receiving payments		$2,720,796,164
Inactive vested participants		783,380,803
Active participants		
• Non-vested benefits	$452,318,487	
• Vested benefits	1,816,188,563	
• *Total active*		*$2,268,507,050*
Total		**$5,772,684,017**

Expected increase in current liability due to benefits accruing during the plan year	$152,652,608
Expected release from current liability for the plan year	205,894,527
Expected plan disbursements for the plan year, including administrative expenses of $6,000,000	211,894,527

Current value of assets	$2,807,427,836
Percentage funded for Schedule MB	48.6%

[1] The actuarial assumptions used to calculate these values are shown in Exhibit 8.

EXHIBIT 4 - INFORMATION ON PLAN STATUS AS OF JUNE 1, 2018

Plan status (as certified on August 6, 2018, for the 2018 zone certification)	***"Green"***
Actuarial value of assets for FSA	$2,841,032,249
Accrued liability under unit credit cost method	3,180,125,061
Funded percentage for monitoring plan's status	89.3%

EXHIBIT 5 - SCHEDULE OF PROJECTION OF EXPECTED BENEFIT PAYMENTS

(SCHEDULE MB, LINE 8b(1))

Plan Year	Expected Annual Benefit Payments[1]
2018	$208,673,915
2019	213,433,490
2020	220,292,819
2021	226,369,477
2022	232,281,888
2023	238,421,480
2024	244,476,821
2025	250,581,957
2026	256,581,922
2027	261,304,673

[1] Assuming as of the valuation date:

- no additional accruals,
- experience is in line with valuation assumptions, and
- no new entrants are covered by the plan.

EXHIBIT 6 - SCHEDULE OF ACTIVE PARTICIPANT DATA

(SCHEDULE MB, LINE 8b(2))

The participant data is for the year ended May 31, 2018.

		Years of Credited Service									
Age	Total	Under 1	1-4	5-9	10-14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	1,292	568	711	13	–	–	–	–	–	–	–
25 - 29	2,481	681	1,528	254	18	–	–	–	–	–	–
30 - 34	2,751	538	1,350	502	348	13	–	–	–	–	–
35 - 39	2,964	437	1,034	556	574	344	19	–	–	–	–
40 - 44	2,814	297	840	436	508	556	174	3	–	–	–
45 - 49	2,710	224	608	398	471	646	290	70	3	–	–
50 - 54	2,528	137	467	315	461	560	344	177	61	6	–
55 - 59	1,686	57	288	211	277	363	222	172	78	17	1
60 - 64	702	29	121	95	121	129	86	64	35	18	4
65 - 69	124	10	18	29	17	22	8	11	6	1	2
70 & over	21	2	6	3	1	4	2	–	1	–	2
Unknown	35	31	4	–	–	–	–	–	–	–	–
Total	**20,108**	**3,011**	**6,975**	**2,812**	**2,796**	**2,637**	**1,145**	**497**	**184**	**42**	**9**

Notes: 1. Credited Service as of May 31 is reduced by 2/12 of a year from data reported as of July 31 to recognize the two-month difference between Plan Year and Plan Credit Year.

2. Table excludes 1,646 employees with less than one year of Credited Service as of July 31, 2018.

EXHIBIT 7 - FUNDING STANDARD ACCOUNT

The table below presents the FSA for the Plan Year ending May 31, 2019.

Charges			Credits		
1	Prior year funding deficiency	$0	6	Prior year credit balance	$509,826,921
2	Normal cost, including administrative expenses	62,251,403	7	Amortization credits	10,667,304
3	Amortization charges	143,729,290	8	Interest on 6 and 7	39,037,067
4	Interest on 1, 2 and 3	15,448,552	9	Full-funding limitation credit	0
5	Total charges	$221,429,245	10	Total credits	$559,531,292
Minimum contribution with interest required to avoid a funding deficiency: 5 - 10, not less than zero					$0

Full Funding Limitation (FFL) and Credits	
ERISA FFL (accrued liability FFL)	$1,015,633,715
RPA’94 override (90% current liability FFL)	2,470,411,862
FFL credit	0

EXHIBIT 7 - FUNDING STANDARD ACCOUNT (*CONTINUED)*

Schedule of FSA Bases (Charges) (Schedule MB, Line 9c)

Type of Base	Date Established	Amortization Amount	Years Remaining	Outstanding Balance
Plan Amendment	06/01/1995	$3,170,326	7	$18,051,352
Plan Amendment	06/01/1996	2,088,899	8	13,152,967
Plan Amendment	06/01/1997	7,214,366	9	49,471,101
Plan Amendment	06/01/1998	5,850,997	10	43,173,843
Change in Assumptions	06/01/1999	1,218,433	11	9,581,852
Plan Amendment	06/01/1999	10,585,916	11	83,248,504
Plan Amendment	06/01/2000	6,275,604	12	52,184,313
Plan Amendment	06/01/2001	1,148,664	13	10,033,904
Change in Assumptions	06/01/2001	6,120,289	13	53,462,424
Plan Amendment	06/01/2002	577,342	14	5,268,727
Change in Assumptions	06/01/2002	7,658,627	14	69,891,411
Change in Assumptions	06/01/2003	744,573	15	7,065,363
Plan Amendment	06/01/2004	568,223	16	5,584,000
Experience Loss	06/01/2004	8,252,475	1	8,252,475
Plan Amendment	06/01/2005	584,804	17	5,930,791
Experience Loss	06/01/2005	7,470,908	2	14,420,589
Plan Amendment	06/01/2006	523,368	18	5,460,801
Experience Loss	06/01/2006	6,482,981	3	18,123,597
Experience Loss	06/01/2007	486,433	4	1,751,416
Plan Amendment	06/01/2007	1,753,220	19	18,769,984
Experience Loss	06/01/2009	16,405,396	6	82,779,738
Change in Assumptions	06/01/2010	8,020,857	7	45,669,530

EXHIBIT 7 - FUNDING STANDARD ACCOUNT (*CONTINUED)*

Schedule of FSA Bases (Charges) (Schedule MB, Line 9c)

Type of Base	Date Established	Amortization Amount	Years Remaining	Outstanding Balance
Experience Loss	06/01/2011	7,023,576	8	44,224,655
Experience Loss	06/01/2012	10,400,094	9	71,316,604
Experience Loss	06/01/2013	5,745,202	10	42,393,195
Change in Assumptions	06/01/2014	6,643,248	11	52,243,044
Experience Loss	06/01/2016	2,315,314	13	20,224,908
Experience Loss	06/01/2018	8,399,155	15	79,700,871
Total		**$143,729,290**		**$931,431,959**

EXHIBIT 7 - FUNDING STANDARD ACCOUNT (*CONTINUED)*

Schedule of FSA Bases (Credits) (Schedule MB, Line 9h)

Type of Base	Date Established	Amortization Amount	Years Remaining	Outstanding Balance
Experience Gain	06/01/2010	$1,701,140	7	$9,686,028
Plan Amendment	06/01/2014	2,211	11	17,384
Experience Gain	06/01/2014	4,981,598	11	39,175,689
Experience Gain	06/01/2015	3,342,987	12	27,798,351
Experience Gain	06/01/2017	639,368	14	5,834,774
Total		**$10,667,304**		**$82,512,226**

EXHIBIT 8 - STATEMENT OF ACTUARIAL ASSUMPTIONS/METHODS

(SCHEDULE MB, LINE 6)

Rationale for Demographic and Noneconomic Assumptions	The information and analysis used in selecting each demographic assumption that has a significant effect on this actuarial valuation is shown in the Actuarial Experience Study dated November 24, 2014. Current data is reviewed in conjunction with each annual valuation. Based on professional judgment, the annual administrative expense assumption was changed as detailed below.
Mortality Rates	Post-Retirement (Healthy): RP-2014 Healthy Blue Collar Annuitant Tables, generationally projected using Scale MP-2014. Post-Retirement (Disabled): RP-2014 Healthy Blue Collar Annuitant Tables, set forward 2 years. Pre-Retirement: RP-2014 Blue Collar Employee Tables, generationally projected using Scale MP-2014. The tables for non-disabled lives with generational projection to the age of participants as of the measurement date reasonably reflect the mortality experience of the Plan as of the measurement date. These tables were then adjusted to future years using generational projection to reflect future mortality improvement between the measurement date and those years.

Termination Rates

Age	Rate (%) Mortality[1] Male	Female	Disability[2]	Withdrawal[3] After 5 years[4]
20	0.05	0.02	0.15	10.00
25	0.06	0.02	0.21	10.00
30	0.06	0.02	0.28	8.00
35	0.07	0.03	0.37	6.25
40	0.08	0.04	0.55	4.50
45	0.13	0.07	0.90	4.25
50	0.22	0.12	1.51	4.00
55	0.36	0.19	2.52	3.50
60	0.61	0.27	4.07	3.50

(1) *Generational projections beyond the base year (2014) are not reflected.*
(2) *The disability rates begin after eligibility for the Disability Pension and cut off at retirement eligibility.*
(3) *The withdrawal rates are cut off at retirement eligibility.*
(4) *The withdrawal rates for the first 5 years of employment are 18% for the 1st year, 16% for the 2nd year, 14% for the 3rd year, 12% for the 4th year, and 10% for the 5th year.*

Retirement Rates	(see table below)

Age	Annual Retirement Rates (%) Rate for Service Pensions*	Rate for Non-Service Pensions
<55	26%	N/A
55	31%	6%
56	31%	6%
57	31%	6%
58	31%	6%
59	31%	8%
60	36%	8%
61	36%	15%
62	60%	35%
63	45%	25%
64	45%	25%
65	100%	100%

** No retirement decrement assumed for those ineligible to retire.*

Description of Weighted Average Retirement Age	Age 59.1, determined as follows: The weighted average retirement age for each participant is calculated as the sum of the product of each potential current or future retirement age times the probability of surviving from current age to that age and then retiring at that age, assuming no other decrements. The overall weighted retirement age is the average of the individual retirement ages based on all the active participants included in this actuarial valuation.
Retirement Age for Inactive Vested Participants	The earliest of Service Pension eligibility (25 Benefit Units), age 60 with 10 years of service, or age 65.
Future Benefit Accruals	1,575 hours worked per active per year.
Unknown Data for Participants	Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

Definition of Active Participants	Active participants are defined as those with at least 500 hours in the most recent Plan Credit Year and who have accumulated at least one year of Credited Service as of August 1, 2018, excluding those who have retired as of the valuation date.
Exclusion of Inactive Vested Participants	Inactive participants over age 70 excluded from the valuation (153 exclusions for this valuation).
Percent Married	80%
Age of Spouse	Females 3 years younger than males.
ProRata Pensions	The normal cost is loaded by 5% for ProRata pensions.
Benefit Election	50% of future pensioners are assumed to elect a 50% Husband-and-Wife Pension and 50% are assumed to elect a Single-Life Pension.
Net Investment Return	7.50% The net investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes as provided by Segal Marco Advisors, as well as the Plan's target asset allocation.
Annual Administrative Expenses	$6,000,000, payable monthly (equivalent to $5,770,751 payable at the beginning of the year). The annual administrative expenses were based on historical and current data, adjusted to reflect estimated future experience and professional judgment.
Actuarial Value of Assets	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and projected market value return, and is recognized over a five–year period. The actuarial value is further adjusted, if necessary, to be within 20% of the market value.
Actuarial Cost Method	Unit Credit Actuarial Cost Method. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service.
Benefits Valued	Unless otherwise indicated, includes all benefits summarized in *Exhibit 9*.
Current Liability Assumptions	*Interest:* 3.00%, within the permissible range prescribed under IRC Section 431(c)(6)(E). *Mortality:* Mortality prescribed under IRS Regulations 1.431(c)(6)-1 and 1.430(h)(3)-1(a)(2): RP-2014 separate employee and annuitant healthy mortality tables (sex-specific), reflecting both blue and white collar data, adjusted backward to the base year (2006) using scale MP-2014. Mortality is projected forward using scale MP-2016 through the valuation date plus a number of years that varies by age.
Estimated Rate of Investment Return	*On actuarial value of assets (Schedule MB, line 6g):* 6.8%, for the Plan Year ending May 31, 2018 *On current (market) value of assets (Schedule MB, line 6h):* 7.1%, for the Plan Year ending May 31, 2018

FSA Contribution Timing (Schedule MB, line 3a)	Unless otherwise noted, contributions are paid periodically throughout the year pursuant to collective bargaining agreements. The interest credited in the FSA is therefore assumed to be equivalent to a December 1 contribution date.

Justification for Change in Actuarial Assumptions (Schedule MB, line 11)	For purposes of determining current liability, the current liability interest rate was changed from 3.05% to 3.00% due to a change in the permissible range and recognizing that any rate within the permissible range satisfies the requirements of IRC Section 413(c)(6)(E) and the mortality tables were changed in accordance with IRS Regulations 1.431(c)(6)-1 and 1.430(h)(3)-1. Based on past experience and future expectations, the following actuarial assumption was changed: › Annual administrative expenses, previously $5,000,000, payable monthly

EXHIBIT 9 - SUMMARY OF PLAN PROVISIONS

(SCHEDULE MB, LINE 6)

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year	June 1 through May 31
Plan Credit Year	August 1 through July 31
Plan Status	Ongoing plan
Regular Pension	• *Age Requirement:* 65 • *Service Requirement:* 5 years of Credited Service. • *Amount:* \$75.00 per month for each Past Service Benefit Unit; plus \$95.00 per month for each Future Service Benefit Unit earned through July 31, 1986; plus 3.30% of the contributions received between August 1, 1986 and July 31, 2003; plus 2.30% of the contributions received for service thereafter. In addition, a benefit of \$50 per month is provided to participants who have worked a minimum of 2,000 hours in the 48 months preceding retirement. Effective June 1, 2005, contributions in excess of \$2.16 per hour are not recognized for benefit crediting purposes.
Early Retirement Pension	• *Age Requirement:* 55 • *Service Requirement:* 10 years of Credited Service • *Amount*: Accrued Regular Pension amount, reduced 3% for each year that the retiring employee is younger than age 65. (The supplemental lifetime benefit of \$50 per month is not subject to the Early Retirement reduction factor).
Disability Pension	• *Age Requirement:* None • *Service Requirement:* 10 years of Credited Service; earned at least two quarters of Credited Service in the two consecutive Plan Credit Year period preceding the date of disability. • *Other Requirement:* Totally disabled and entitled to a Social Security Disability award and disability as a result of actual employment. • *Amount:* \$50 per Benefit Unit per month. In addition, a supplemental lifetime benefit of \$50 per month is provided.

Service Pension	• *Age Requirement:* 55 for participants entering plan from August 1, 2013 to July 31, 2015; 60 for those entering plan August 1, 2015 or later; otherwise none • *Service Requirement*: 25 Benefit Units (A maximum of 1.0 Benefit Unit is recognized each Plan Credit Year to meet this requirement.) • *Amount:* Accrued Regular Pension amount.
Pro Rata/Partial Pension	• This type of pension is available for laborers who have earned at least 5 years of combined Credited Service under this Plan and Related Pension Plans.
Deferred Vested Pension	• *Age and Service Requirements:* Age 65 and vested; or age 55 with 10 years of Credited Service • *Amount:* Accrued Regular Pension amount, payable commencing at Normal Retirement Age or, on a reduced basis, as early as age 55.
Normal Retirement Age	65, or if later, the fifth anniversary of participation
Spouse's Benefit	• *Age Requirement:* None • *Service Requirement:* 5 years of Credited Service. • *Amount*: 50% of the benefit that the participant would have received had he or she retired the day before death, on a Husband and Wife pension. If the participant was not eligible for a Service Pension and the participant's death occurs before age 55, benefits to the surviving spouse will be deferred to the date when the participant would have attained that age.
Pre-Retirement Death Benefit	• *Age Requirement:* None • *Service Requirement:* 5 years; earned at least two quarters of Credited Service in the two consecutive Plan Credit Year period preceding the date of death. • *Other Requirement:* Death as a result of actual employment. • *Amount:* Accrued Regular Pension amount payable immediately to the designated beneficiary until 36 payments are made. This benefit is applicable only if the participant is not married, or if payments are not due under the Spouse's Benefit.

Husband and Wife Pension	All retirements are paid in the form of a 50% joint and survivor annuity unless this form is rejected by the participant and spouse. The benefit amount otherwise payable is reduced (88% for same age participant/spouse retiring on a non-disability pension) to reflect the joint and survivor coverage. For pensions effective after October 1, 1998, if the spouse should predecease the pensioner after the effective date of the pension, the benefit amount payable to the pensioner will be increased to the amount payable if the pension had not been paid in the form of a Husband and Wife Pension. If this type of pension is rejected, or if the participant is not married, benefits are payable for the life of the participant without reduction or in any other available optional form elected by the participant in an actuarially equivalent amount.
Post-Retirement Death Benefit	A lump sum benefit shall be paid to the surviving spouse of a deceased pensioner, in an amount equal to $100 for each Benefit Unit earned under the Plan at the time of retirement.
Optional Forms of Payment	• 50% Husband-and-Wife Pensions (“QJSA”) • Single-Life Pension • Optional Five-Year Guarantee of Pension Payments • 75% Husband-and-Wife Pension • 100% Husband-and-Wife Pension
Service Schedules:	• *Credited Service:* Commencing August 1, 1975, a participant who works at least 870 hours in a Plan Credit Year receives one year of Credited Service. Fractional credit is given in quarter-year increments to employees who work at least 435 hours. Effective August 1, 2013, no credit is given for Plan Credit Years in which fewer than 500 hours are worked. • *Benefit Units:* Commencing August 1, 1975, a participant who works at least 500 hours in a Plan Credit Year receives 1/10 of a Benefit Unit for each 100 hours of work up to maximum of one Benefit Unit for 1,000 hours or more. For each Plan Credit Year between period August 1, 1980 through August 1, 1986, a participant may earn an additional 1/2 Benefit Unit if he or she works at least 1,750 hours or more in a given Plan Credit Year.
Break in Service Rules:	• *One Year Break:* A participant incurs a One Year Break in Service if he or she fails to work at least 435 hours (500 hours after July 31, 2013) in a Plan Credit Year. • *Permanent Break:* A nonvested participant incurs a Permanent Break in Service if the number of consecutive One Year Breaks in Service is at least five and it equals or exceeds the number of full years of Credited Service previously accumulated. At this time, all the accumulated Credited Service and Benefit Units are canceled.

Participation Rules:	*Participation:* An employee becomes a "Participant" on the August 1 or February 1 next following a twelve-month period during which he or she worked at least 435 hours (500 hours after July 31, 2013) in Covered Employment. *Termination of Participation:* A participant who incurs a One Year Break in Service ceases to be a Participant as of the last day of the Plan Credit Year which constituted the One Year Break in Service unless he or she has retired or attained vested rights. *Separation from Employment:* A participant is deemed to be separated from employment at the end of any two consecutive Plan Credit Year period in which he or she does not work at least 435 hours (500 hours after July 31, 2013) in Covered Employment in at least one of the two Plan Credit Years. The monthly amount payable for Benefit Units (or contributions) earned before the last separation from employment is frozen at the then current benefit level.
Changes in Plan Provisions:	The following plan change was recognized in this valuation: • The Hod Carriers Local No. 166 Pension Trust Fund merged into this plan, effective May 31, 2018. No Plan amendment base was created because the merger satisfied the definition of a de minimis transaction under PBGC Regulation §4231.7(b). The following plan changes become effective after the end of the current Plan Year and will first be reflected in the FSA in next year's valuation: • Effective August 1, 2019, the benefit accrual rate was increased from 2.3% to 3.3% of contributions, based on a benefit contribution rate of $2.16 per hour. • A one-time supplemental check of $500 will be provided in December 2019 to those in pay status who are over age 70.

Section 5: General Background

A summary of major developments with the background and position of the Fund is provided.

CHANGES IN CONTRIBUTION RATES AND BENEFIT AMOUNTS

Effective Date		Hourly Contribution Rate	Monthly Pension Amount			Adjustment for Existing Pensioners
				Future Service		
Year	Month		Past Service	To 8/1/86	% of Contributions Thereafter	
1962	September	$ .05				
1963	September			$ 2.75		
1964	June	.10				
1965	May			3.50		Full
	July	.15				
1966	January			7.50		Full
	July	.20				
1967	June	.30				
1969	January	.40		10.00		16.7%
1970	January	.50		11.00		5.0%
1971	January	.60				
	June			14.30		5.0%
	July	.80				
1972	January	.90				
	February			22.00		5.0%
	July	1.05				
1973	January	1.15				
	February			25.00		5.0%
	June	1.35				
1974	March			30.50		5.0%
	November	1.40				
1976	July	1.70				
	December			32.50		

			Monthly Pension Amount			
				Future Service		
Effective Date		Hourly Contribution Rate	Past Service	To 8/1/86	% of Contributions Thereafter	Adjustment for Existing Pensioners
Year	Month					
1978	July	1.75				
	September			32.60		
1980	June		$32.60	$34.75		
1981	November	2.00				
1982	March		32.60	41.50		
	November	2.16				
1986	August		32.60	$41.50	1.75%	
1987	September				(1)	+$25/month
1990	September		32.60	$48.00	2.00%(2)	+$25/month
1993	December					$150/$75(3)
1995	October		$32.60	$60.00	2.00%	
1996	July		32.60	66.00		(4)
1997	September		32.60	75.00	2.30%	(5)
1998	June		75.00	95.00	3.00%/2.30%(6)	
1999	June				3.30%/2.30%(7)	(8)
2000	June					(9)
2001	June					(10)
2003	June				3.30%/2.30%(11)	(12)
2004	June					(13)
2005	July	2.70			(14)	(15)
2006	July	3.26				(16)
2007	July	4.11				(17)
2008	July	4.96				
2009	July	5.76				
2010	July	6.15				
2011	July	6.54				
2011	December					(18)
2012	July	8.39				
2013	July	8.96				
2019	August				3.30%/2.30%(19)	

Ad Hoc Post-Retirement Payments to Pensioners:

Date	Paid	Amount Paid	Paid to:
1976	December	One month’s benefit	All pensioners
1978	December	One month’s benefit	All pensioners
1980	March	50% of one month’s benefit	All pensioners
	December	50% of one month’s benefit	All pensioners
1981	November	One month’s benefit	Pensions effective prior to May, 1981.
1982	October	One month’s benefit	Pensions effective prior to March, 1982.
1983	December	One month’s benefit	Pensions effective prior to January, 1983.
1984	October	One month’s benefit	Pensions effective prior to January, 1984.
1985	August	50% of one month’s benefit	Pensions effective prior to March, 1985.
	December	50% of one month’s benefit	Pensions effective prior of March, 1985.
1986	November	One month’s benefit	Pensions effective prior to January, 1986.
1990	December	One month’s benefit	Pensions effective prior to July, 1990.
1991	December	One month’s benefit	Pensions effective prior to December, 1991.
1992	December	One month’s benefit	Pensions effective prior to December, 1992.
1995	March	One month’s benefit	Pensions effective prior to March 1, 1995.
	November 15	One month’s benefit	Pensions effective prior to October 1, 1995.
1996	December 15	One month’s benefit	Pensions effective prior to November 1, 1996.
1997	November 15	One month’s benefit	Pensions effective prior to September 1, 1997.
1998	October 15	One month’s benefit	Pensions effective prior to September 1, 1998.
1999	November 15	One month’s benefit	Pensions effective prior to November 1, 1999.
2000	November 15	One month’s benefit	Pensions effective prior to November 1, 2000.
2001	November 15	One month’s benefit	Pensions effective prior to November 1, 2001.
2019	December	$500	Pensioners over age 70

Footnotes

(1) Benefit Formula modified to provide an additional flat benefit of $25 per month.

(2) Additional flat benefit increased to $50 per month.

(3) This benefit is a temporary supplement which expires November 30, 1996. The higher amount applies while pensioner is under age 65 only.

(4) The temporary supplement extended to November 30, 1997.

(5) The temporary supplement extended to November 30, 2000.

(6) The lower factor applies to service after July 31, 2000 only.

(7) The lower factor applies to service after July 31, 2004 only.

(8) The temporary supplement extended to November 30, 2001.

(9) The temporary supplement extended to November 30, 2002.

(10) The temporary supplement extended to November 30, 2003.

(11) The lower factor applies to service after July 31, 2003 only.

(12) The temporary supplement extended to November 30, 2004.

(13) The temporary supplement extended to November 30, 2005.

(14) From this point onward, the contributions used for benefit crediting purposes reflect only the first $2.16 per hour.

(15) The temporary supplement extended to November 30, 2006.

(16) The temporary supplement extended to November 30, 2007.

(17) The temporary supplement extended to November 30, 2011.

(18) The temporary supplement extended to November 30, 2012.

(19) The lower factor applies to service between August 1, 2003 and July 31, 2019.

OTHER DEVELOPMENTS

Date	Event
August 2, 1963:	Pension Plan and Trust Agreement adopted.
June 1, 1976:	Plan amended to comply with ERISA.
June 1, 1977:	Funding Standard Account established.
January 1, 1979:	Merger of the Laborers Rock, Sand and Gravel Pension Trust Fund.
May 1, 1981:	Plan amended to recognize all Benefit Units earned.
June 1, 1985:	Plan amended to comply with REA. Charge for pre retirement spouse death benefit was removed.
June 1, 1986:	Plan recognizes a maximum of 1½ Benefit Units for each Plan Year between August 1, 1980 and August 1, 1986.
September 1, 1997:	Plan amended to: (a) reduce the vesting requirement to 5 years; (b) provide a lump sum post-retirement death benefit of $100 per Benefit Unit at retirement; and (c) lower the early retirement reduction factor to ¼ of 1% per month under age 65.
June 1, 1999:	Asset smoothing method expanded to smooth all assets (instead of equities only).
June 1, 2006:	Asset smoothing method changed to reset the actuarial value of assets to market value on June 1, 2006, and to recognize any market value gains or losses after June 1, 2006 over a five-year period.
June 1, 2007:	The Scheduled Cost funding period was changed to a fixed 15-year amortization schedule.
June 1, 2008:	Plan certified as being in endangered status.
April 24, 2009:	Trustees adopt a Funding Improvement Plan.
June 1, 2009:	Plan certified as being in seriously endangered status. The actuarial cost method was changed from the Entry Age Normal Cost Method to the Unit Credit Cost Method and the credit bases in the funding standard account were combined.

Date	Event
September 18, 2009:	Trustees elect under WRERA §204 to freeze the zone status for 2009 and under WRERA §205 to add three years to funding improvement period.
June 1, 2010:	Plan certified as being in endangered status.
June 28, 2010:	Trustees update Funding Improvement Plan.
September 27, 2011:	Trustees update Funding Improvement Plan.
June 11, 2012:	Trustees update Funding Improvement Plan.
June 10, 2013:	Trustees update Funding Improvement Plan.*
August 1, 2013:	For new entrants as of August 1, 2013 or later, eligibility for Service Pension is modified to include a minimum age of 55.
June 1, 2015:	The Scheduled Cost funding period was changed to decrease by 1 each year.
August 1, 2015:	For new entrants as of August 1, 2015 or later, eligibility for Service Pension is modified to include a minimum age of 60.
February 26, 2016:	Date of most recent favorable determination letter from Internal Revenue Service.
June 1, 2017:	Plan emerged from endangered status and certified as being in neither critical nor endangered status.
May 31, 2018:	The Hod Carriers Local No. 166 Pension Trust Fund merged into this plan.

*Subsequent updates consist of a review but no substantive changes to benefits or contribution levels.

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