



O'Sullivan  
Associates Inc.

Local 805 Pension and Retirement Plan  
Actuarial Valuation  
3/31/2017

1236 Brace Road, Unit E  
Cherry Hill, NJ 08034  
(856) 795-7777

January 2018

## Table of Contents


<b>1. CERTIFICATION OF RESULTS .....</b>	<b>1</b>
<b>2. VALUATION SUMMARY .....</b>	<b>3</b>
<b>3. SUMMARY OF FUNDING MEASURES.....</b>	<b>4</b>
<b>4. PLAN COST.....</b>	<b>5</b>
4.1 Contributions, Cost and Margin.....	5
4.2 Development of Plan Asset Values .....	6
4.2.1 Market Value of Assets.....	6
4.2.2 Actuarial Value of Assets .....	6
4.2.3 Actuarial Asset Gain/(Loss).....	7
4.2.4 Total Gain/Loss.....	8
4.3 Historical Information.....	9
4.3.1 Gain/(Loss) .....	9
4.3.2 Asset Information .....	10
4.3.3 Employment.....	11
4.3.4 Funded Percentage.....	12
4.3.5 Actuarial Value of Assets Expressed as a % of Market Value .....	13
4.3.6 Summary of Withdrawal Payments by Employer .....	14
4.4 Pension Protection Act.....	15
<b>5. ASC NO. 960 DISCLOSURES .....</b>	<b>19</b>
5.1 Present Value of Accumulated Plan Benefits .....	19
5.2 Reconciliation of Changes in Present Value of Accumulated Benefits.....	19
<b>6. GOVERNMENT REPORTING.....</b>	<b>20</b>
6.1 Summary of Assumptions.....	20
6.2 Summary of Plan Provisions.....	23
6.3 Recent Plan Changes .....	27
6.4 Contribution Rates by Employer .....	28
6.5 Funding Standard Account and Minimum Required Contributions.....	29
6.6 Maximum Deductible Contribution.....	29
6.7 Current Liability at Beginning of Plan Year.....	30
6.8 Amortization Schedule for Minimum Required Contribution.....	31
6.9 Equation of Balance.....	31
<b>7. DATA SUMMARY.....</b>	<b>32</b>
7.1 Actives by Age and Credited Service .....	32
7.2 Distribution of Months Worked.....	33
7.3 Flow of Lives .....	34
7.4 Historical Participation .....	35
7.5 New Pensioners.....	36
7.6 All Pensioners .....	36
7.7 Distribution of Monthly Pensions.....	37
7.8 Distribution of Separated/Vested Participant Accrued Monthly Pensions.....	38

## 1. Certification of Results

This report was prepared on behalf of the Teamsters Local 805 Pension Plan based on employee data, asset statements and Plan documents provided by the Plan Sponsor or its representatives. We relied upon the data as submitted, without formal audit. However, the data was tested for reasonableness, and we have no reason to believe that any other information which would have had a material effect on the results of this valuation was overlooked.

Therefore, to the best of our knowledge and belief, the information presented in this report is complete and accurate, and in our opinion, each assumption used represents our best estimate of anticipated experience under the Plan.

**Certified by:**



Craig A. Voelker, FSA, MAAA, EA  
Enrolled Actuary No.: 17-05537

*\*\*\* This Page Has Been Left Intentionally Blank \*\*\**

## **2. Valuation Summary**

### **A. Long-Term Funding**

Projected annual contributions of \$1.51 million (\$315.78 per month) plus the value of expected future withdrawal liability payments of \$0.24 million (\$50.50 per month) fall short of the total annual cost of benefits of \$12.68 million (\$2,653.36 per month). This leaves a negative margin of \$10.93 million or \$(2,287.08) per month.

### **B. Withdrawal Liability**

White Rose Trucking withdrew from the Plan in 2014 and was assessed \$13.5 million dollars in withdrawal liability. The employer is currently in bankruptcy proceedings. It is unclear how much total money the Plan may receive; however, a payment of \$540,119 was received in December 2017.

For the purposes of this valuation, we assume White Rose will not pay any of more withdrawal liability assessment.

In addition, Center Candy withdrew from the Plan in 2016, and YRC incurred a partial withdrawal in the Plan Year ended 3/31/2013. These companies are currently paying their assessments, and their payments are included in our funding projections; however, it is our understanding Center Candy's assessment is still being challenged.

### **C. Pension Protection Act**

As of April 1, 2017 the Plan's funding percentage is 30.4% and it has a negative credit balance. Additionally, the Plan is projected to become insolvent within the current or next 19 years, and its ratio of inactive to active participants is in excess of 2 to 1. Therefore, as of April 1, 2017, the Plan is in Critical and Declining Status.

The Trustees have adopted a Rehabilitation Plan to address the Plan's funding issues, which is explained in detail in Section 4.4 of the report.

### **D. Assumption Changes**

We updated the demographic assumptions as shown in Section 6.1.

### 3. Summary of Funding Measures

1. Current	As of March 31	
	<u>2017</u>	<u>2016</u>
<u>Assets</u>		
a at Market	\$ 47,185,714	\$ 51,672,207
b at Actuarial	\$ 49,395,552	\$ 59,927,451
c Actuarial / Market (b/a)	104.7%	116.0%
<u>Present Values</u>		
d Vested Benefits	\$ 162,224,003	\$ 162,975,125
e Accrued Benefits (Accrued Liability)	\$ 162,716,852	\$ 163,427,314
<u>Funding Percentages</u>		
f Vested at market (a/d)	29.1%	31.7%
g Vested at actuarial (b/d)	30.4%	36.8%
h Accrued at market (a/e)	29.0%	31.6%
i Accrued at actuarial (b/e)	30.4%	36.7%

2. Prospective	For Plan Year Ending March 31	
	<u>2018</u>	<u>2017</u>
<u>Contributions</u>		
a Minimum Required	\$ 56,878,367	\$ 47,294,876
b Anticipated	\$ 1,509,118	\$ 1,548,436
c Actual	tbd	\$ 1,982,095
d Maximum Deductible	\$ 273,086,292	\$ 261,624,998
e Credit Balance	\$ (54,549,046) *	\$ (45,254,402)
f Minimum to preserve Credit Balance	\$ 11,291,401 *	\$ 10,275,164
	<i>* projected</i>	
g WL PMTs received in year	\$ 753,561 *	\$ 174,773
h WL PMTs receivable spread over 15 years	\$ 241,363 *	\$ 244,922
	<i>* Projected</i>	
<u>Costs</u>		
i Cost of benefits earned in year	\$ 973,196	\$ 927,774
j Amortization of Unfunded Liability	\$ 11,707,223	\$ 10,692,570
k Total Cost (i+j)	\$ 12,680,419	\$ 11,620,344
l Margin (b+h-k)	\$ (10,929,938)	\$ (9,826,986)

### 3. Assumptions

a Interest rate per annum	6.50%	6.50%
b Total Months	4,779	4,997

## 4. Plan Cost

### 4.1 Contributions, Cost and Margin

A. As of	<u>3/31/2017</u>		
1. Actuarial liability	\$ 162,716,852		
2. Actuarial value of assets	<u>49,395,552</u>		
3. Unfunded actuarial liability (1-2)	\$ 113,321,300		
4. Normal cost	500,713		
5. Expenses	<u>440,000</u>		
6. Total cost of benefits (4+5)	\$ 940,713		
7. Amortization of unfunded liability	\$ 11,316,465		
 B. Anticipated Contribution Income*			
1. Projected months	4,779		<b>As a % of</b>
2. Projected contribution rate	<u>\$ 315.78</u>	<b><u>\$/Month</u></b>	<b><u>Contributions</u></b>
3. Anticipated annual contribution (1x2)	\$ 1,509,118	\$ 315.78	100.0%
4. Value of future withdrawal payments	<u>\$241,363</u>	<u>50.50</u>	<u>13.8%</u>
5. Total	\$ 1,750,481	\$ 366.28	113.8%
 C. Actuarial Costs*			
1. Cost of benefits earned in the year	\$ 973,196	\$ 203.64	64.5%
2. Amortization of unfunded liability	<u>11,707,223</u>	<u>2,449.72</u>	<u>775.8%</u>
3. Total annual costs (1+2)	\$ 12,680,419	\$ 2,653.36	840.3%
 D. Margin (B3-C5)	\$(10,929,938)	\$(2,287.08)	-726.5%
 E. Market value of assets	\$ 47,185,714		
F. Spread Statistic	-4.7%		
G. Margin using assets at market	\$(11,158,237)	\$(2,334.85)	-739.4%

There are two component costs to funding a pension plan: the cost of benefits earned in the year and the amortization of the unfunded liability. The costs above are calculated consistent with a funding policy of paying off the unfunded liability over 15 years assuming asset returns of 6.50% annually. The margin, found on Line D above, indicates that the Plan needs an average additional amount of \$2,287.08 per month (off the accrual rate) to pay for all future benefits.

There are many actuarial measures and statistics to measure the state of the Plan's funding. The margin is designed to provide a single simplified statistic for a Trustee to get a sense for whether the Plan is keeping up with its costs. As long as the margin is positive, it is a strong indication that the current benefits are affordable on a long-term basis. If negative, it is an indication that the overall funding may need to be improved before benefits are affordable.

\* Assumes contributions and costs are paid at the end of the month.

## 4.2 Development of Plan Asset Values

### 4.2.1 Market Value of Assets

	<u>Total Fund</u>
A. Assets at 3/31/2016	\$ 51,672,207
B. Employer contributions	\$ 1,807,322
C. Withdrawal Liability payments received	\$ 174,773
D. Investment income:	
1. Interest and dividends	\$ 1,065,073
2. Realized/unrealized gain/(loss)	5,203,986
3. Investment fees	<u>(202,233)</u>
4. Total investment income	\$ 6,066,826
E. Distributions:	
1. Benefit payments	\$ (11,901,461)
2. Administrative expenses	<u>(633,953)</u>
3. Total distributions	\$ (12,535,414)
F. Market value as of 3/31/2017	\$ 47,185,714
G. Average invested assets (A+.5 x (B+C+E3))	\$ 46,109,289
H. Rate of return, D4÷G	13.2%

### 4.2.2 Actuarial Value of Assets

A. Market value as of 3/31/2017 \$ 47,185,714

#### Development of amount deferred

Year Ending March 31	Unexpected Amount	Percentage Deferred	Deferred Amount
1. 2009	\$ (30,094,302)	10%	\$ (3,009,430)
2. 2016	(3,740,669)	33%	(1,246,889)
3. 2017	3,069,722	67%	<u>2,046,481</u>

B. Total deferred amount \$ (2,209,838)

C. Preliminary actuarial value of assets (A-B) 49,395,552

D. 80% of market value 37,748,571

E. 120% of market value 56,622,857

F. Actuarial value as of 3/31/2017 (C not less than D or greater than E) \$ 49,395,552



### 4.2.3 Actuarial Asset Gain/(Loss)

A. Actuarial assets at 3/31/2016	\$ 59,927,451
B. Investment income:	
1. Expected income (net of investment expenses)	\$ 2,997,104

#### Development of amount recognized

Year Ending March 31	Unexpected Amount	Percentage Recognized	Recognized Amount
2009	\$ (30,094,302)	10%	\$ (3,009,430)
2015	772,221	33%	257,395
2016	(3,740,669)	33%	(1,246,890)
2017	3,069,722	33%	<u>1,023,241</u>

2. Total recognized amount	\$ (2,975,684)
3. Forced recognition (due to +/-20% corridor)	<u>\$ 0</u>
4. Total investment income (1+2+3)	\$ 21,420
C. Employer contributions	\$ 1,807,322
D. Withdrawal Liability Payments	174,773
E. Distributions:	
1. Benefit payments	\$ (11,901,461)
2. Administrative expenses	<u>(633,953)</u>
3. Total distributions	\$ (12,535,414)
F. Actuarial value as of 3/31/2017	\$ 49,395,552
G. Average actuarial value (A+.5 x (C+D+E3))	\$ 54,650,792
H. Rate of return (B4÷G)	0.0%
I. Assumed rate of return	6.5%
J. Expected income (G x I)	3,552,301
K. Asset gain/(loss) (B4-J)	(3,530,881)

**4.2.4 Total Gain/Loss**

A. Unfunded accrued liability (UAL) at 3/31/2016	\$ 103,499,863
B. Annual cost of benefits and expenses at 3/31/2016	896,807
C. Less contributions	(1,982,095)
D. Interest on A, B, and C	<u>6,727,405</u>
E. Expected unfunded accrued liability as of 3/31/2017 (A+B+C+D)	\$ 109,141,980
F. Preliminary UAL before changes as of 3/31/2017	<u>115,364,357</u>
G. Total gain/(loss), (E-F)	\$ (6,222,377)
H. Change due to:	
1. Assumption changes	\$ (2,043,057)
2. Plan amendments	0
3. Method changes	<u>0</u>
4. Subtotal changes	\$ (2,043,057)
I. Actual unfunded (surplus) accrued liability as of 3/31/2017 (F+H4)	\$ 113,321,300
J. Gain/(loss) due to:	
1. Asset experience	\$ (3,530,881)
2. Expenses	(178,760)
3. Demographic experience	<u>(2,512,736)</u>
4. Total gain/(loss)	\$ (6,222,377)

### 4.3 Historical Information

#### 4.3.1 Gain/(Loss)

Plan Year Ending 3/31	Assets	Expenses	Demographic Assumptions	Total Gain/(Loss)
2012	\$ 557,831	\$ 56,563	\$ (2,493,973)	\$ (1,879,579)
2013	(2,264,932)	19,058	(970,540)	(3,216,414)
2014	477,351	(8,979)	(1,034,657)	(566,285)
2015	771,764	(118,898)	(205,180)	447,686
2016	(2,631,820)	3,267	(2,846,548)	(5,475,101)
2017	\$ (3,530,881)	\$ (178,760)	\$ (2,512,736)	\$ (6,222,377)
6-Year Average	\$ (1,103,448)	\$ (37,958)	\$ (1,677,272)	\$ (2,818,678)

Gain/loss analysis is one of the most important tools available to an actuary to ensure that the actuary's model of the Plan's funding is accurate. The exhibit above shows the total gain/(loss) broken down into two components: assets and demographic assumptions.

The gain/(loss) on assets is very unpredictable due to the unpredictable returns on the market value of assets. Moreover, the gain/(loss) on assets is greatly influenced by the smoothing method. The pattern of asset gains is discussed later in this report.

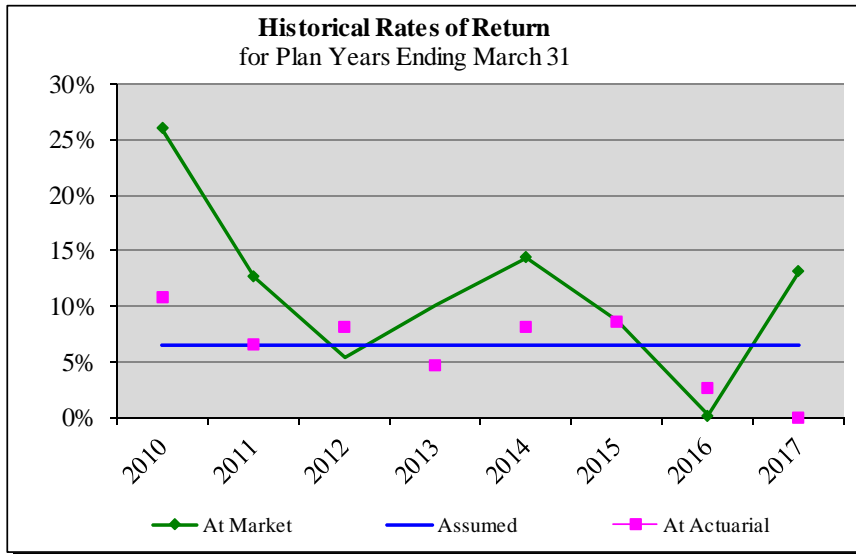
After itemizing the gain/(loss) on assets and administrative expenses, what remains is the gain/(loss) on all the other demographic assumptions including retirement, turnover, disability, and mortality. Over time, to remain confident in the future funding, it is important that the gains and losses on the demographic assumptions average zero, or at least a relatively small number.

For the last six years the Plan has averaged a loss on demographic assumptions. We will continue to monitor the gain and losses and make assumption changes in the future as necessary.

### 4.3.2 Asset Information

Plan Year Ending 3/31	<u>Rates of Return</u>								
	Withdrawal Liability				Market Investment		Market Value	At	At
	Contributions	Payments	Benefits	Expenses	Income	of Assets	Market	Actuarial	
2010	\$ 1,130,892	\$ -	\$ (10,419,784)	\$ (453,737)	\$ 17,143,683	\$ 78,277,108	26.0%	10.8%	
2011	1,236,738	-	(10,832,390)	(432,439)	9,366,642	77,615,659	12.6%	6.6%	
2012	1,333,334	-	(11,224,000)	(389,562)	3,964,581	71,300,012	5.4%	8.2%	
2013	1,616,634	-	(11,428,240)	(385,567)	6,816,972	67,919,811	10.0%	4.6%	
2014	1,784,266	20,000	(11,534,520)	(410,313)	9,154,354	66,933,598	14.4%	8.2%	
2015	1,770,559	-	(11,666,983)	(545,186)	5,657,292	62,149,280	8.7%	8.6%	
2016	1,582,883	-	(11,704,972)	(452,499)	97,515	51,672,207	0.2%	2.6%	
2017	<u>\$ 1,807,322</u>	<u>\$ 174,773</u>	<u>\$ (11,901,461)</u>	<u>\$ (633,953)</u>	<u>\$ 6,066,826</u>	<u>\$ 47,185,714</u>	13.2%	0.0%	
Totals	\$ 12,262,628	\$ 194,773	\$ (90,712,350)	\$ (3,703,256)	\$ 58,267,865				

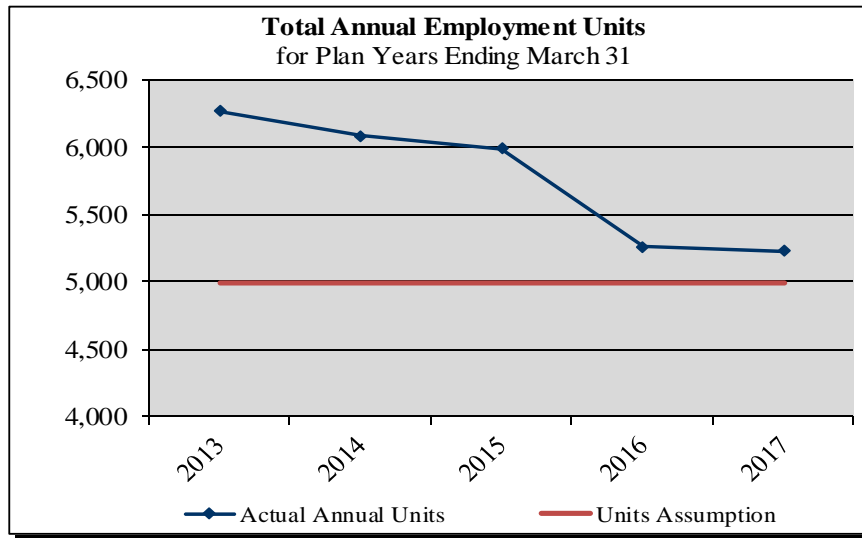
<u>Geometric Average</u>		
5-Year	9.2%	4.8%
8-Year	11.1%	6.1%



### 4.3.3 Employment

Plan Year Ending 3/31	Contribution Income*	Weighted Average Contribution Rate	Employment Units
2013	\$ 1,616,634	\$257.85	6,270
2014	1,784,266	293.24	6,085
2015	1,770,559	295.65	5,989
2016	1,582,883	301.07	5,258
2017	\$ 1,619,928	\$309.87	5,228
		Average	5,766

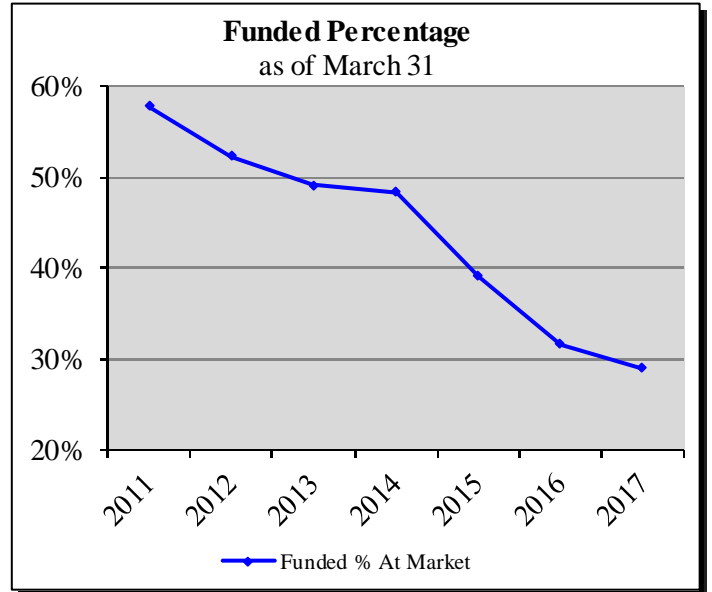
The employment assumption is 4,779 total units for the Plan Year ending 3/31/2018, tapering down to 4,501 annually over ten years.



\* 2017 contribution income has been adjusted to back out retroactive employer contributions.

### 4.3.4 Funded Percentage

Plan Year Ending 3/31	Market Value of Assets	Present Value of Accrued Benefits	Funded Percentage
2011	\$ 77,615,659	\$134,175,975	57.8%
2012	71,300,012	136,331,942	52.3%
2013	67,919,811	138,241,282	49.1%
2014	66,933,598	138,296,016	48.4%
2015	62,149,280	158,912,439	39.1%
2016	51,672,207	163,427,314	31.6%
2017	\$ 47,185,714	\$162,716,852	29.0%



The Funded Percentage is a statistic commonly followed by Trustees. It provides an alternative measure of the Plan's current level of funding. The Funded Percentage compares the market value of assets to the value of benefits accrued as of the valuation date. Based on the market value of assets of \$47,185,714 and the total value of accumulated benefits of \$162,716,852, the Funded Percentage is 29.0% as of March 31, 2017.

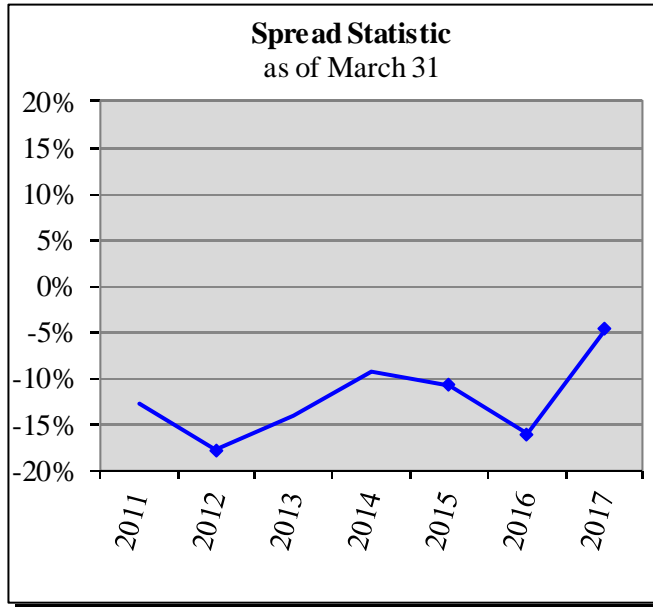
The fact that the Funded Percentage is under 100% means that there are unfunded accumulated benefits when valuing the Plan on an ongoing basis. It does not necessarily imply that the Plan is underfunded on a long term basis because it makes no consideration of future contributions relative to future costs. The Margin is the best single statistic to get a sense of how well funded the Plan is on a long term basis.

Moreover, the Funded Percentage is not a measure of funding on a Plan termination basis. That would require a different interest assumption.

The Funded Percentage as per the Pension Protection Act uses the actuarial value of assets and is 30.4% as of March 31, 2017.

### 4.3.5 Actuarial Value of Assets Expressed as a % of Market Value

Plan Year Ending 3/31	Actuarial Value of Assets	Actuarial Assets as % of Market
2011	\$ 87,486,251	112.7%
2012	83,943,698	117.7%
2013	77,394,976	114.0%
2014	73,161,479	109.3%
2015	68,843,795	110.8%
2016	59,927,451	116.0%
2017	\$ 49,395,552	104.7%



The three primary measures that help an actuary assess how well funded a plan is on a long-term basis are:

1. Margin,
2. Gain/loss analysis and an assessment of assumptions, and
3. Spread, defined as the difference between the market and actuarial value of assets expressed as a percentage of the market value of assets.

The margin and assumptions were covered in earlier sections.

The third factor is the Spread statistic. When positive it represents a cushion to help offset potential future unfavorable investment experience. Conversely, when the actuarial value is greater than the market value the Spread turns negative. When this is the case future investment returns over and above the assumed return are necessary over time to restore the market value of assets equal to the actuarial value.

Currently the Spread is -4.7%.

#### 4.3.6 Summary of Withdrawal Payments by Employer

##### Employers Continuing to Make Quarterly Payments

<u>Employer</u>	Total Payments As of <u>3/31/2017</u>	Total Paid As of <u>3/31/2017</u>	Payments Remaining As of <u>3/31/2017</u>	Expected Annual Payments 2017 <u>and Beyond</u>
Center Candy	2	\$ 38,669	78	\$77,338
YRC	4	<u>136,104</u>	76	<u>136,104</u>
Total		\$ 174,773		\$ 213,442

Center Candy is challenging its assessment, but continues to make its quarterly payments.

In December 2017, White Rose paid the Plan a withdrawal liability settlement of \$540,119 under its bankruptcy. We are assuming the Plan will not receive any additional money beyond this settlement.



#### 4.4 Pension Protection Act

The Plan continues to be in the Red Zone as of April 1, 2017 because it has a funding deficiency. Moreover, the Plan is in Critical and Declining Status (a Red Zone category) as of 4/1/2017 due to the following:

- The Plan meets the criteria for Critical Status, and
- The Plan is projected to become insolvent in the current or next 19 years and
- The Plan's ratio of inactive to active participants is in excess of 2 to 1.

The following is a history of the Plan's Zone Status under the Pension Protection Act:

<u>As of 4/1</u>	<u>Zone Status</u>
2008 – 2014	Critical (Red)
2015 – 2017	Critical and Declining (Red)

The Trustees have implemented a "reasonable measures" Rehabilitation Plan (RP) as per the Pension Protection Act (PPA) intended to forestall insolvency under IRC §432(e)(3)(A)(ii). The Rehabilitation Plan and important dates are as follows:

Adoption Period: 4/01/2008 – 3/31/2011  
Rehabilitation Period: 4/01/2011 – 3/31/2024

#### Original Rehabilitation Plan

##### 1) Default Schedule

###### *Benefit Changes to Plan*

Future accruals decreased to 1% of employer contributions

Elimination of the following adjustable benefits:

- "25-Years-and-Out"
- "20-Years-and-Out"
- Disability Retirement

###### *Contribution Requirements*

12.4% increases annually

##### 2) Preferred Schedule

###### *Benefit Changes to Plan*

Future accruals decreased to 1% of employer contributions

Elimination of the following adjustable benefits for participants who do not have at least 20 years of Credited Service as of April 1, 2009:

- "25-Years-and-Out"
- "20-Years-and-Out"

###### *Contribution Requirements*

13.3% increases annually

### 3) Alternative Schedule

*Benefit Changes to Plan*

None

*Contribution Requirements*

Must contribute \$556 per participant per month

- The Alternative Schedule only applies to participants employed by Yellow Freight.

### Update as of April 1, 2014

#### 1) Default Schedule

*Benefit Changes to Prior RP*

Accruals not to exceed \$50 per year of Credited Service.

*Contribution Requirements*

3.0% increases annually

#### 2) Preferred Schedule (Also referred to as Alternative Schedule II)

*Benefit Changes to Prior RP*

Benefit accruals will be 1% of employer contributions up to an accrual rate of \$50 per year of service.

The accrual rates shown below are an example based upon the tobacco employers' expected contribution rates through 2018 and then 3% contribution increases thereafter.

Plan Year Beginning	Monthly Accrual Rate
<u>4/1</u> 2014	\$ 35.00
2015	35.65
2016	36.40
2017	37.10
2018	\$ 38.25

For Plan Years beginning after March 31, 2019, the accrual increases 3% annually. In no case would accruals exceed \$50 per year of Credited Service or be less than the accrual rate in effect as of March 31, 2014.

*Contribution Requirements*

The monthly contribution rates each Plan Year beginning April 1, 2014 are as follows:

<u>Year</u>	<u>Rate</u>
2014	\$ 291.61
2015	297.44
2016	303.39
2017	\$ 309.46

For Plan Years beginning on or after April 1, 2018, contributions will increase 3% per year. Notwithstanding the preceding sentence, in no event shall the contribution rate per participant determined under this updated RP, effective April 1, 2014, result in a contribution rate per participant for any employer that is less than the contribution rate per participant that was in effect for such employer as of March 31, 2014.

**3) Alternative Schedule I**

*Benefit Changes to Prior RP*  
No changes

*Contribution Requirements*  
No changes

**Update as of November 30, 2016**

**1) Default Schedule**

*Benefit Changes to Prior RP*  
No changes

*Contribution Requirements*  
80% increases to the contribution rate in effect for the prior year for each year through the Plan Year ending 3/31/2024, beginning as of the end of the current CBA.

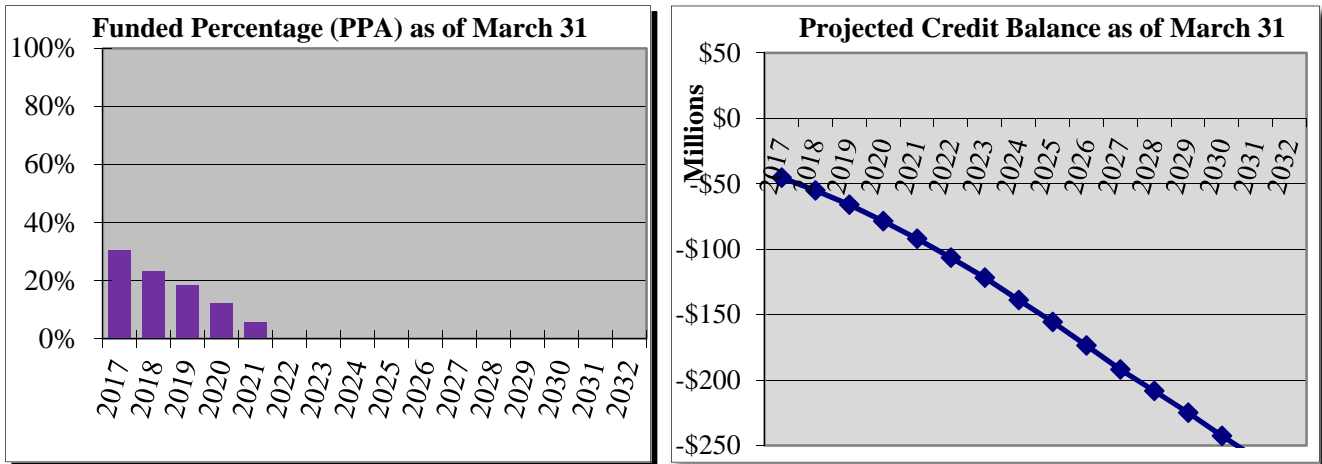
**2) Preferred Schedule (Also referred to as Alternative Schedule II)**

*Benefit Changes to Prior RP*  
This update assumes no changes to the current Rehabilitation Plan benefits, which are currently as shown below:

Monthly benefit accruals will equal 1% of the contributions made on a participant's behalf in any Plan Year, to a maximum annual accrual of \$50 per month.

*Contribution Requirements*  
For increases not already bargained for and ratified under a current collective bargaining agreement as of the date this RP update is provided to the bargaining parties, there are no increases in contributions.

The charts below show the Plan’s projected funded percentage and credit balance as of the 3/31/2017 snapshot date. These charts assume that there are no gains or losses on demographic assumptions and that the market value of assets returns the assumed rate of 6.50%.



**Explanation of Why Plan is not Expected to Emerge from Critical Status**

The severe economic downturn of 2008 has created a tremendous funding burden related to the investment loss and reduction in employment (future contributions). As a result, the plan sponsor determined that, based on reasonable actuarial assumptions and upon exhaustion of all reasonable measures, the plan cannot reasonably be expected to emerge from critical status by the end of the rehabilitation period.

Next the Trustees considered reasonable measures to emerge from critical status at a later time. The Trustees believed that such required contribution increases would cause employers to withdraw from the Plan leading to insolvency, financial assistance from the PBGC, and benefit cuts.

Based upon the above, the Trustees have selected the schedule of benefits described above as permitted by IRC §432(e)(3)(A)(ii), also known as a “reasonable measures” schedule, which is intended to forestall insolvency.

## 5. ASC No. 960 Disclosures

### 5.1 Present Value of Accumulated Plan Benefits

As of March 31, 2017

A. Present Value of Vested Benefits:	
1. Participants currently receiving payments	\$ 113,773,319
2. Other vested benefits	<u>48,450,684</u>
3. Subtotal vested benefits	\$ 162,224,003
B. Present Value of Non-Vested Benefits	<u>492,849</u>
C. Present Value of Accumulated Benefits (A+B)	\$ 162,716,852

The ASC No. 960 values were computed using the same assumptions as those used for determining funding requirements.

### 5.2 Reconciliation of Changes in Present Value of Accumulated Benefits

A. Present Value of Accumulated Benefits at Prior Valuation Date	\$ 163,427,314
B. Changes During the Year Due to:	
1. Benefits accumulated and net gains	2,998,078
2. Benefits paid	(11,901,461)
3. Assumption changes	(2,043,057)
4. Method changes	0
5. Plan amendments	0
6. Passage of time	<u>10,235,978</u>
7. Total change	\$ (710,462)
C. Present Value of Accumulated Benefits at Current Valuation Date	\$ 162,716,852

## 6. Government Reporting

### 6.1 Summary of Assumptions

These are the assumptions used for the ongoing valuation calculations, unless otherwise noted.

Interest Rate            6.50% per annum

Mortality

Healthy                    RP-2014 healthy mortality with blue collar adjustment, separate for male and female participants, adjusted with mortality improvement Scale MP-2016 from 2015.

Disabled                    RP-2014 disabled mortality, separate for male and female participants, adjusted with mortality improvement Scale MP-2016 from 2015.

Termination              Sarason T-8 Table

Retirement Age

Actives

<u>Age</u>	<u>Percent Retiring</u>
55	20%
56-61	5%
62	25%
63-64	5%
65	70%
66	50%
67+	100%

If the participant had at least 20 years of Credited Service as of April 1, 2009, there is a one-time additional retirement incidence of 60% when the participant reaches age 55 and at least 25 years of Credited Service. This additional incidence applies immediately for participants who are already age 55 with 25 years of Credited Service.

For active participants who terminate prior to retirement, it is assumed they will retire at age 58 (the weighted average age of terminated vested retirement).

Terminated

Vesteds

<u>Age</u>	<u>Percent Retiring</u>
55	20%
56-64	25%
65+	100%

If the participant had at least 20 years of Credited Service as of April 1, 2009, there is a one-time additional retirement incidence of 60% when the participant reaches age 55 and at least 25 years of Credited Service. This additional incidence applies immediately for participants who are already age 55 with 25 years of Credited Service.

Employment	4,779 total units in 2017, decreasing 0.6% per year to 4,501 units over the Plan Years ending 3/31/2027 and beyond.
Percent Married	50%
Age of Spouse	Females are 3 years younger than their spouses.
Expenses	\$440,000 payable at the beginning of the year
Value of Assets	Average Fair Market Value (without-phase-in). Averaging period is 3 years. Adjusted under the Pension Relief Act of 2010 for a 10-year recognition of the 2008/2009 Plan Year loss.
Funding Method	Unit Credit
Interest Rate for Withdrawal Liability:	6.50% per annum
Defined Contribution Dollars	The liabilities were grossed up to include the value of the defined contribution plan for certain YRCW participants. Pursuant to the audit, this amount is \$112,477 as of March 31, 2017.

Current Liability Assumptions

Interest	3.05%
Mortality	As per IRS Regulation §1.430(h)(3)-1

Assumption Changes

Mortality	Changed the mortality improvement scale from Scale MP-2014 to MP-2016.
Retirement Age	
Actives	The retirement age for actives who terminate prior to retirement was changed from age 65 to age 58.
Terminated Vested	The retirement assumption for terminated vested participants was changed from age 65 to the following table:

<u>Age</u>	<u>Percent Retiring</u>
55	20%
56-65	25%
65+	100%
63-64	5%

If the participant had at least 20 years of Credited Service as of April 1, 2009, there is a one-time additional retirement incidence of 60% when the participant reaches age 55 and at least 25 years of Credited Service. This additional incidence applies immediately for participants who are already age 55 with 25 years of Credited Service.

Employment	The future employment assumption was reduced from 4,997 units per year to 4,779 units per year, tapering down to 4,501 units per year over the next ten years
Marital Percentage	Changed from 80% of actives and terminated vested participants to 50%.

Rationale for Assumptions

Demographic	The demographic rates utilized are standard tables that approximate recent historical demographic experience, and adjusted to reflect anticipated future experience and professional judgment. A comparison of actual vs. expected decrements, and aggregate liability gain/loss analysis were used to validate the demographic assumptions.
Administrative Expense and Employment	The Administrative Expense and Employment assumptions approximate recent historical experience, and adjusted to reflect anticipated future experience and professional judgment. When appropriate we include the expectations of Trustees and co-professionals for these assumptions.
Investment Return	The investment return assumption is a long-term estimate that is based on historical experience, future market expectations, and professional judgment. We have utilized the investment manager's capital market expectations, and have compared those expectations with a broader market survey.



## 6.2 Summary of Plan Provisions

<b>Participation</b>	Immediate		
<b>Credited Service</b>	<u>Effective</u>	<u>Definition</u>	
	March 31, 2010 and prior	1,000 hours equals one year	
	April 1, 2010 and after	1/12 <sup>th</sup> of a year for each month or part thereof for which a contribution is obligated to be made	
<b>Vesting Credit</b>	1,000 hours equals one year		
<b>Break Year</b>	A year with less than 501 hours worked		
<b>Suspension of Benefits</b>	A member's benefit is suspended while working over the Hour Threshold while in Prohibited Employment.		
Prohibited Employment	Work in an industry covered by the Plan in the same geographical area covered by the Plan		
Hours Threshold	40 hours per month, except as follows:		
		<u>Credited</u>	<u>Hours</u>
	<u>Age</u>	<u>Service</u>	<u>Threshold</u>
	50	25 years	70
	65	15 years	70

### Normal Retirement Pension

Age requirement: 65

Service requirement: Five years of Credited Service, or the fifth anniversary of participation

Amount: (Preferred Schedule)	<u>Monthly Benefit per year of Credited Service</u>		
	<u>Period</u>	<u>YRC</u>	<u>Non-YRC</u>
	Prior to 4/1/2005	\$100	\$100
	4/1/2005-3/31/2006	\$100	\$0
	4/1/2006-3/31/2010	\$50	\$50
	4/1/2010 and after*	1% of contributions	1% of contributions

\* The monthly accrual for this period is 1/12 of \$50 per month of Credited Service earned until the Participant's employer switched to the 1% formula. The accrual will not exceed \$50 per month in any case.

Minimum for Participants who worked prior to January 1, 1999 who earn 15 or more years of Credited Service:

<u>YRC</u>	<u>Non-YRC</u>
\$2,500	\$2,100

**Early Retirement Pension**

Age requirement            55

Service requirement       15 years of Credited Service

Amount                      Normal Retirement actuarially reduced, with a minimum as below.  
    Minimum for Participants who worked prior to January 1, 1999.

	<u>YRC</u>	<u>Non-YRC</u>
55	\$ 800	\$ 672
56	877	737
57	991	833
58	1,109	931
59	1,247	1,048
60	1,380	1,159
61	1,559	1,309
62	1,751	1,471
63	1,950	1,638
64	2,200	1,848
65	\$ 2,500	\$ 2,100

**25-Year Service Retirement Pension**

Rehabilitation Plan: Preferred Schedule

*The following was eliminated for all Participants except those with at least 20 years of Credited Service earned through April 1, 2009.*

Age requirement            None

Service requirement       25 years of Credited Service

   Must have worked on or after January 1, 1999

Amount:                      Age            Monthly Benefit  
    Less than 55    Benefit earned prior to 4/1/2005 unreduced  
    55 and older    Entire benefit unreduced

The benefit payable is based on the Participant's age on the date the payment is made, not the age of retirement.

Rehabilitation Plan: Default Schedule

Removed from Plan for all Participants not in pay status

**20-Year Service Pension**

Rehabilitation Plan: Preferred Schedule

*The following was eliminated for all Participants except those with at least 20 years of Credited Service earned through April 1, 2009.*

Age requirement	None
Service requirement	20 years of Credited Service, with at least 20 years of Credited Service earned through April 1, 2009  Must have worked on or after January 1, 1999
Amount	\$1,250 per month

Rehabilitation Plan: Default Schedule

Removed from Plan for all Participants not in pay status

**Disability Retirement Pension**

Rehabilitation Plan: Preferred Schedule

Age requirement	55
Service requirement	15 years of Credited Service
Amount	Normal Retirement Pension

Rehabilitation Plan: Default Schedule

Removed from Plan for all Participants not in pay status

**Vested Pension**

Age requirement:	None
Service requirement:	5 years
Amount:	For Participants who did not work prior to January 1, 1999: The Early Retirement Pension or Normal Retirement Pension as appropriate  For Participants with less than 15 years of Credited Service who worked prior to January 1, 1999, the greater of their actuarially reduced Early Retirement Pension, or the minimum Early Retirement Pension table above, multiplied by a fraction: <ul style="list-style-type: none"> <li>• The numerator of the fraction is the Participant's years of Credited Service</li> <li>• The denominator of the fraction is 30</li> </ul>

**Pre-retirement death**

Married

Age requirement:	None
Service requirement:	5 years
Amount:	100% of the benefit Participant would have received had he retired the day before he died and elected the 100% joint and survivor option. Benefits commence to beneficiary when Participant would have first been eligible to retire.

Non-Married                      None

**Post-retirement death**

Qualified Joint & Survivor Annuity    If married, pension benefits are paid in the form of an actuarially reduced joint and survivor annuity unless this form is rejected by Participant and spouse. If rejected, or if not married, benefits are payable for the life of the Participant.

### 6.3 Recent Plan Changes

Effective 4/1/2014 (RP update)	<p>Plan Change</p> <p>Preferred Plan</p> <ul style="list-style-type: none"><li>• Accruals are not to exceed \$50 per year.</li></ul> <p>Default Plan</p> <ul style="list-style-type: none"><li>• Accruals are not to exceed \$50 per year.</li></ul>
2/24/2009 (RP)	<p>Preferred Plan</p> <ul style="list-style-type: none"><li>• The accrual rate was reduced to 1% of annual employer contributions.</li><li>• The 20-Year Service Pension and 25-Year Service Pension was removed for Participants who did not have 20 years of Credited Service as of April 1, 2009.</li></ul> <p>Default Plan</p> <ul style="list-style-type: none"><li>• The accrual rate was reduced to 1% of annual employer contributions.</li><li>• The 20-Year Service Pension and 25-Year Service Pension was removed for all Participants.</li><li>• The Disability Retirement Pension was removed for all Participants not in pay status.</li></ul>
3/31/2005	<p>Effective March 31, 2005, all benefits accrued under the Plan were frozen and no additional benefits would accrue for all active participants except those employed by Yellow Freight. However, an arbitrator's decision awarded the frozen participants a \$50 per month accrual for the period April 1, 2006 to March 31, 2007 and the Trustees approved a \$50 per month accrual for the period April 1, 2007 to March 31, 2009.</p>

#### 6.4 Contribution Rates by Employer

		Plan Year ending 3/31/2018		
		(a)	(b)	(c)
		Expected	Monthly	Expected
		Months	Contribution	Annual
<u>Employer</u>			Rate	Contributions
				(a) x (b)
Tobacco		287	\$ 309.46	\$88,815
Panasonic		363	390.00	141,570
IBT 805		24	350.00	8,400
Harold Levinson Associates		<u>4,105</u>	\$ 309.46	<u>1,270,333</u>
Total		4,779		\$ 1,509,118

Average expected monthly contribution rate (c) / (a): \$315.78

## 6.5 Funding Standard Account and Minimum Required Contributions

Rules for determining minimum required and maximum deductible contributions are set forth in IRC Sections 431 and 404, respectively. Since deductibility may be affected by factors not considered here, the deductibility and timing of contributions should be reviewed with tax counsel.

	<u>Actual</u> <u>2017</u>	<u>Projected</u> <u>2018</u>
For Plan Year ending March 31:		
Charges to the FSA:		
a. Funding Deficiency	\$ 36,717,078	\$ 45,254,402
b. Normal cost	896,807	940,713
c. Amortization charges	8,859,388	9,480,765
d. Interest on a, b and c	<u>3,020,763</u>	<u>3,618,932</u>
e. Total charges	\$ 49,494,036	\$ 59,294,812
Credits to FSA:		
f. Credit Balance at beginning of year	\$ 0	\$ 0
g. Employer contributions (including withdrawal payments)	1,982,095	2,204,676
h. Amortization credits	2,064,939	2,268,962
i. Interest on above	<u>192,600</u>	<u>212,417</u>
j. Total credits	\$ 4,239,634	\$ 4,686,055
Credit Balance at end of year	\$ (45,254,402)	\$(54,608,758)
Minimum Required Contribution (e - (f + h) x (1.065))	\$ 47,294,876	\$56,878,367
Minimum Without Regard to the Credit Balance (e - h x (1.065))	\$47,294,876	\$56,878,367

A Plan's Credit Balance represents a cumulative measure of all prior contributions (since the initial ERISA effective date) against all prior minimum requirements. If cumulative contributions exceed cumulative minimums, then the Plan will maintain a Credit Balance which can be used to offset any current year minimum requirements. As of 3/31/2017, the Plan has a Funding Deficiency of \$(45,254,402). The minimum requirement for the year ending 3/31/2018 is \$56,878,367.

## 6.6 Maximum Deductible Contribution

A. Traditional Maximum Deductible	\$ 16,296,783
B. 140% of Projected RPA Current Liability, less Projected Actuarial Value of Assets	273,086,292
C. Minimum Required Contribution	<u>56,878,367</u>
D. Greatest of A, B, and C	\$ 273,086,292

The maximum allowable deduction for the fiscal year ending 3/31/2018 is \$273,086,292. To be deductible for a given fiscal year, a contribution should be made by the time the tax return for that fiscal year is filed with the IRS (including extensions). Specific advice on the deductibility of contributions and timing should be reviewed with your tax counsel.

## 6.7 Current Liability at Beginning of Plan Year

Current liability is the present value of accrued benefits under the Plan using actuarial assumptions as prescribed by the Retirement Protection Act of 1994 (RPA '94). The liability is determined using the same assumptions used to determine the Plan's funding requirements, except for the interest rate and mortality table. These values are used for specific, prescribed purposes.

### RPA '94 Current Liability:

A. Assumptions:

- |                    |                                      |
|--------------------|--------------------------------------|
| 1. Interest rate   | 3.05%                                |
| 2. Mortality table | As per IRS Regulation §1.430(h)(3)-1 |

B. RPA '94 Current Liability

	<u>Vested Benefits</u>	<u>Total Benefits</u>
1. Retirees and beneficiaries receiving payments	\$ 147,421,319	\$ 147,421,319
2. Inactive vested participants	37,463,797	37,463,797
3. Actives	<u>42,611,554</u>	<u>43,393,422</u>
4. Total	\$ 227,496,670	\$ 228,278,538

C. Expected Increase in Liability

\$ 1,008,235

D. Expected Benefits To Be Paid During the Year

\$ 12,698,398



## 6.8 Amortization Schedule for Minimum Required Contribution

### Amortization Charges

Date		Outstanding	Years	Amortization
Established	Base Type	Balance	Remaining	Amount
2005	Combined & Offset	19,381,472	9.927	2,544,892
2006	Experience Loss	3,907,637	9	551,245
2006	Plan Amendment	456,545	24	35,751
2007	Experience Loss	2,590,386	10	338,343
2007	Plan Amendment	284,808	25	21,924
2008	Experience Loss	2,919,972	11	356,580
2009	Experience Loss	7,858,465	7	1,345,394
2010	Experience Loss	225,586	8	34,788
2011	Experience Loss	842,324	9	118,825
2012	Experience Loss	1,452,578	10	189,728
2013	Experience Loss	2,649,622	11	323,565
2014	Experience Loss	493,354	12	56,779
2015	Assumption Change	19,611,990	13	2,141,345
2016	Experience Loss	5,248,691	14	546,753
2016	Assumption Change	2,433,299	14	253,475
2017	Experience Loss	<u>6,222,377</u>	15	<u>621,378</u>
	Totals	76,579,106		9,480,765

### Amortization Credits

Date		Outstanding	Years	Amortization
Established	Base Type	Balance	Remaining	Amount
2008	Funding Method	(325,001)	1	(325,001)
2008	Assumption Change	(3,494,585)	6	(677,813)
2009	Plan Amendment (Rehabilitation)	(399,827)	7	(68,452)
2009	Method Change	(1,839,945)	2	(948,930)
2015	Experience Gain	(409,793)	13	(44,743)
2017	Assumption Change	<u>(2,043,057)</u>	15	<u>(204,023)</u>
	Totals	(8,512,208)		(2,268,962)
	Net Charge/(Credit)	68,066,898		7,211,803

## 6.9 Equation of Balance

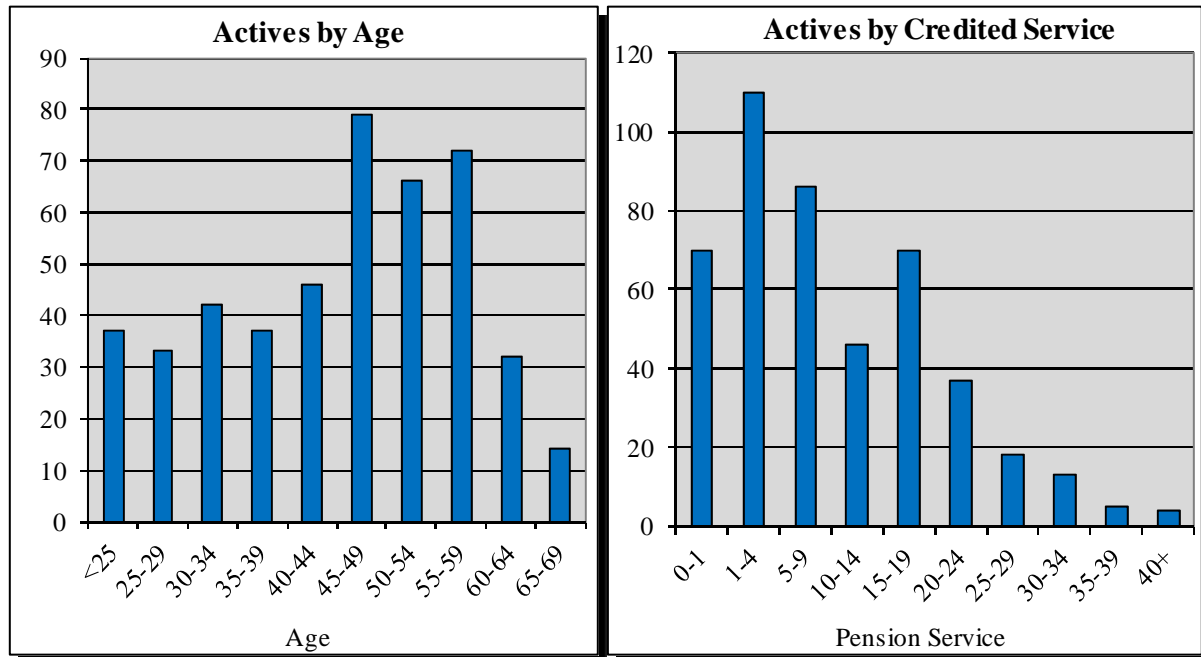
A. Net Outstanding Balance of Bases	\$ 68,066,898
B. Credit Balance	<u>\$ (45,254,402)</u>
C. Unfunded Actuarial Accrued Liability (A-B)	\$ 113,321,300

## 7. Data Summary

### 7.1 Actives by Age and Credited Service

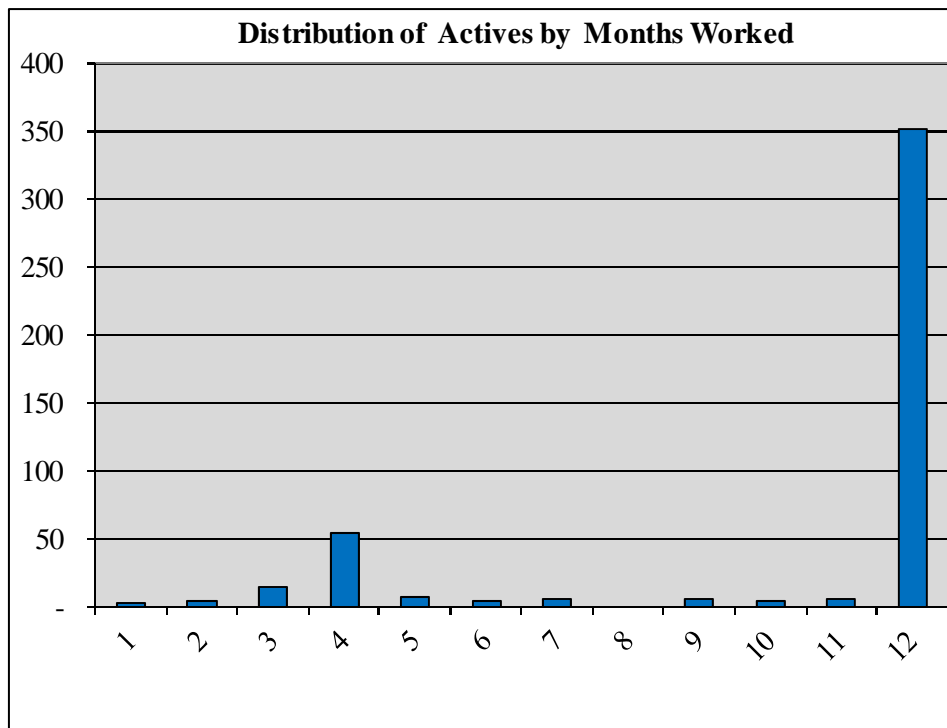
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<25	20	16	1								37
25-29	11	17	5								33
30-34	10	14	12	6							42
35-39	4	9	11	7	6						37
40-44	8	11	14	1	9	3					46
45-49	10	21	17	8	17	4	2				79
50-54	3	7	9	13	10	12	8	4			66
55-59	4	12	11	7	15	11	4	4	4		72
60-64		2	5	2	10	6	2	4		1	32
65-69		1	1	2	3	1	2	1	1	2	14
70+										1	1
Unknown											0
<b>Total</b>	<b>70</b>	<b>110</b>	<b>86</b>	<b>46</b>	<b>70</b>	<b>37</b>	<b>18</b>	<b>13</b>	<b>5</b>	<b>4</b>	<b>459</b>

The average age of the active participants is 44.4, and the average Credited Service is 10.6.



## 7.2 Distribution of Months Worked

Months Worked	Count
1	3
2	4
3	15
4	55
5	7
6	4
7	5
8	-
9	5
10	4
11	6
12	<u>351</u>
Total	459

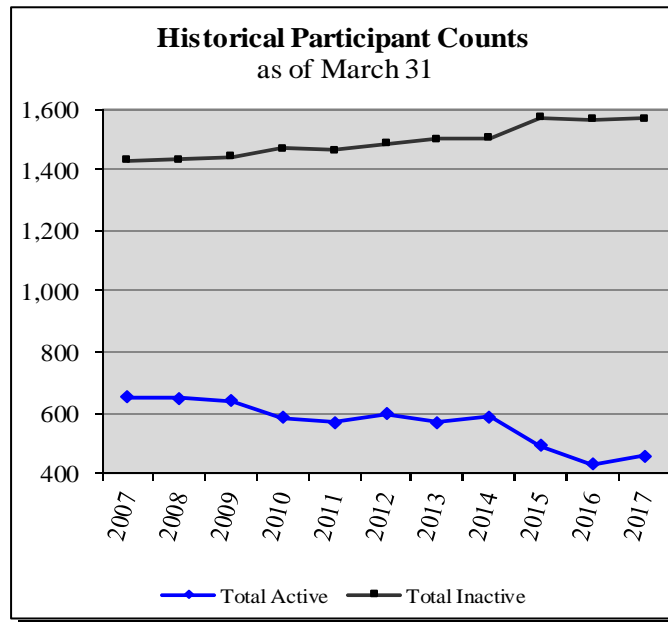


### 7.3 Flow of Lives

	Actives	Inactive Vested	Disabled	Retired & Beneficiaries	Total
Beginning of year.....	430	596	13	958	1,997
To inactive vested.....	-23	23	0	0	0
To inactive non-vested..	-20	0	0	0	-20
To retired.....	-6	-40	0	46	0
To disabled.....	0	0	0	0	0
Alternate Payee.....	0	0	0	0	0
Deaths.....	-1	-7	0	-39	-47
New Beneficiaries.....	0	0	0	14	14
Returned to work.....	1	-1	0	0	0
New entrants.....	78	0	0	0	78
Data Corrections.....	0	1	0	4	5
End of year.....	459	572	13	983	2,027

### 7.4 Historical Participation

Plan Year Ending 3/31	Separated			Total	Ratio Inactive/ Active
	Active	Vested	Retired		
2007	650	460	970	2,080	2.20
2008	647	456	977	2,080	2.21
2009	638	482	960	2,080	2.26
2010	583	508	963	2,054	2.52
2011	569	514	952	2,035	2.58
2012	597	521	964	2,082	2.49
2013	569	536	966	2,071	2.64
2014	588	544	960	2,092	2.56
2015	492	608	965	2,065	3.20
2016	430	596	971	1,997	3.64
2017	459	572	996	2,027	3.42



### 7.5 New Pensioners

Class	Number	Average Age	Range of Monthly Pension		
			Minimum	Average	Maximum
Regular	22	68.0	\$ 201	\$ 632	\$ 2,100
Early	28	59.6	154	838	2,359
Sub Total	50	63.3	\$ 154	\$ 747	\$ 2,359
Disability	-	-	\$ -	\$ -	\$ -
Survivor	14	66.9	111	531	1,339
Alternate Payee	-	-	-	-	-
Sub Total	14	66.9	\$ 111	\$ 531	\$ 1,339
Total	64	64.1	\$ 111	\$ 700	\$ 2,359

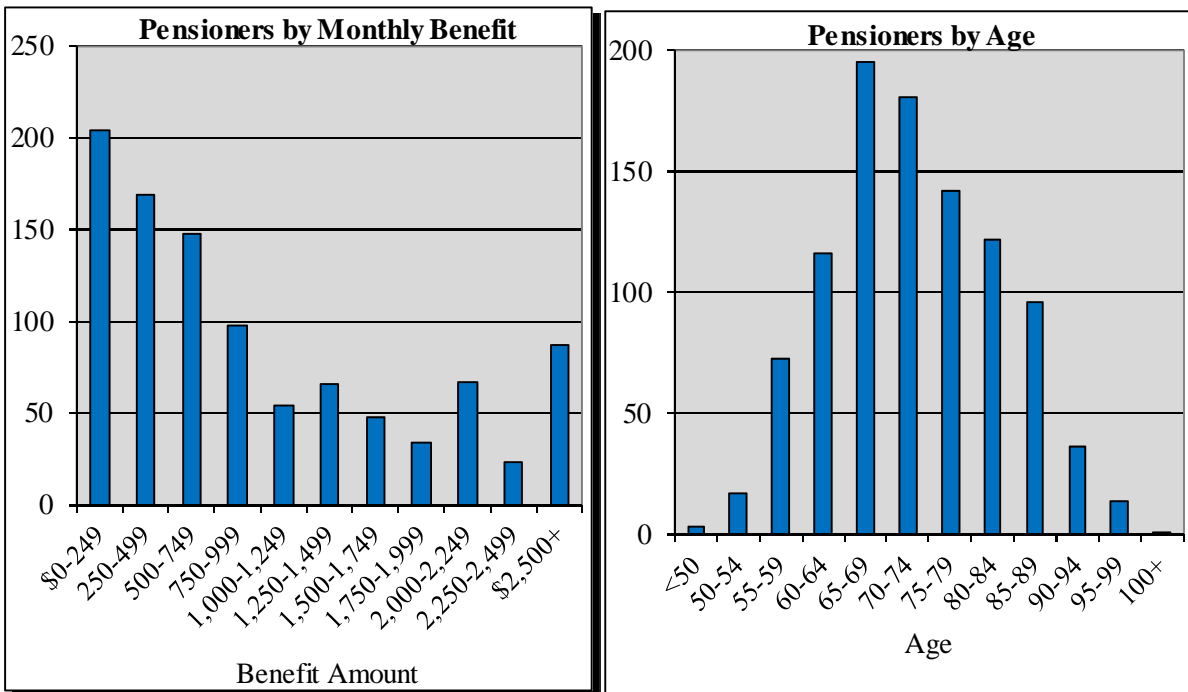
### 7.6 All Pensioners

Class	Number	Average Age	Range of Monthly Pension		
			Minimum	Average	Maximum
Regular	197	76.5	\$ 45	\$ 1,174	\$ 5,594
Early	616	71.4	7	1,053	3,800
Sub Total	813	72.6	\$ 7	\$ 1,083	\$ 5,594
Disability	13	65.6	\$ 1,365	\$ 1,945	\$ 3,265
Survivor	165	77.5	5	559	2,601
Alternate Payee	5	63.7	48	254	850
Sub Total	183	76.3	\$ 5	\$ 649	\$ 3,265
Total	996	73.3	\$ 5	\$ 1,003	\$ 5,594

### 7.7 Distribution of Monthly Pensions

Age	\$0-249	250-499	500-749	750-999	1,000-1,249	1,250-1,499	1,500-1,749	1,750-1,999	2,000-2,249	2,250-2,499	\$2,500+	Total
<50			2		1							3
50-54		1	1	1	2	2	3	2	5			17
55-59	11	7	10	7	5	4	1	7	7	9	5	73
60-64	20	16	18	10	5	9	5	7	7	4	15	116
65-69	34	34	29	11	5	15	6	7	20	4	30	195
70-74	45	41	25	10	10	8	8	4	11	5	14	181
75-79	40	24	14	16	5	10	10	3	6	1	13	142
80-84	32	17	17	13	13	10	9		3		8	122
85-89	15	17	17	20	5	5	5	4	6		2	96
90-94	6	6	12	7	1	3			1			36
95-99	1	5	3	2	2				1			14
100+		1										1
Unknown												0
<b>Total</b>	<b>204</b>	<b>169</b>	<b>148</b>	<b>97</b>	<b>54</b>	<b>66</b>	<b>47</b>	<b>34</b>	<b>67</b>	<b>23</b>	<b>87</b>	<b>996</b>

The average age of retired participants and beneficiaries is 73.3, and the average monthly pension is \$1,003.



### 7.8 Distribution of Separated/Vested Participant Accrued Monthly Pensions

Age	\$0-249	250-499	500-749	750-999	1,000-1,249	1,250-1,499	1,500-1,749	1,750-1,999	\$2,000+	Total
<25										0
25-29	4	2								6
30-34	10	7	2							19
35-39	7	21	13	6					2	49
40-44	5	31	23	11	1				5	76
45-49	10	36	15	14	2				9	86
50-54	19	20	23	27	12	1			7	109
55-59	25	24	18	26	4	2			12	111
60-64	24	22	9	6	5	3	1	1	5	76
65-69	9	4	3	3	1	1				21
70-74	7	1	1	1	1					11
75+	4	2	1	1						8
<b>Total</b>	<b>124</b>	<b>170</b>	<b>108</b>	<b>95</b>	<b>26</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>40</b>	<b>564</b>

The average age of the inactive vested participants is 51.7, and the average monthly pension is \$624.

