

SEPTEMBER 28, 2016

**I.B.E.W. LOCAL UNION NO. 332  
PENSION PLAN**

Report on the Actuarial Valuation  
as of  
January 1, 2016

Annual Actuarial Contribution Requirements  
for Current Plan Year 01-01-2016 through 12-31-2016

Annual Report of Operations of the  
I.B.E.W. LOCAL UNION NO. 332  
PENSION PLAN

for Preceding Plan Year 01-01-2015 through 12-31-2015



September 28, 2016

Board of Trustees  
I.B.E.W. Local Union No. 332  
Pension Trust Fund  
170 Great Oaks Blvd.  
San Jose, CA 95119

Dear Trustees:

**I.B.E.W. Local Union No. 332  
Pension Plan — Part A  
Actuarial Valuation for 2016**

We herewith submit our report on the valuation of assets and liabilities for the I.B.E.W. Local Union No. 332 Pension Plan — Part A (“the Plan”), as of January 1, 2016.

The results of the valuation indicate that the Plan is operating in a surplus position and that the contributions are sufficient to provide the current cost of benefits and amortize the unfunded supplemental liability over an acceptable period. For this valuation the actuarial assumptions, was unchanged,

We look forward to discussing this report in detail with the Board of Trustees, and will address the funding options at that time.

Respectfully submitted,

KAUFMANN and GOBLE ASSOCIATES



Sidney T. Kaufmann, F.S.A.

STK:dd

**I.B.E.W. Local Union No. 332**  
**Pension Plan**

**Annual Report on the Actuarial Valuation**

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## I.B.E.W. Local Union No. 332

### Pension Plan

#### Overview of the 2016 Actuarial Valuation Report

- The number of active members included in the valuation increased by 91. Total hours worked increased from the previous year, with 2.95 million total hours reported; the increase was about 279,000 hours. (See page 5.)
- The average monthly accrued benefit earned to date by vested active members is \$2,534; and the highest accrued benefit is \$8,788. The average benefit earned by all active members is \$1,929. (See page 10.)
- The number of retirees increased by 12, and the average monthly benefit per retiree increased to \$2,276 (excluding disabled retirees). The highest benefit being paid is \$8,788 per month (which exclude Part B conversions). 60.4 years is the average age at retirement of all members who retired before 2016 and the projected average age at death of these members is 79.1 years. (See page 9.)
- The number of vested inactive members decreased by 33 to 384. The average monthly accrued benefit earned to date by vested inactive members is \$1,649; and the highest accrued benefit in the group is \$6,117. (See page 10.)
- Operating expenses, expressed as a percent of fund balances, continued a low trend and represent about 16 basis points (which would reduce the yield on the fund by this percentage). (See page 13.)
- The actuarial value of the trust fund increased by \$6 million to \$459.4 million at year-end, compared to an increase of \$28 million the previous year. The market value of the fund increased to \$474.7 million from \$472.5 million. (See page 15.)
- The vested liabilities of the plan are 124% of the actuarial value of the fund. Alternatively, the fund has actuarial assets of about \$0.81 for each \$1.00 of vested liability. The Funded Ratio of the Plan is 78.8%. (See page 18.)
- The actuarial yield on the fund was 1.84% for the year, which is below the assumed interest rate of return. The market value yield, which fully reflects unrealized gains and losses on the fund, was 0.95%. (See page 16.)
- The contributions expected in 2016 result in a surplus of about \$2.2 million, based on expected income of \$33.6 million. (See page 22.)
- The unfunded supplemental liability for funding purposes increased from \$109.5 million to \$123.9 million, and the new amortization period is 11.8 years measured from 2016. This change in unfunded is a result of the investment losses attributable to the low return in 2015. (See page 19.)

**I.B.E.W. Local Union No. 332  
Pension Plan**

Report on the Actuarial Valuation  
as of January 1, 2016

**1. Introduction**

The I.B.E.W. Local Union No. 332 Pension Plan is maintained and administered under a Trust Agreement dated December 18, 1972, between Local Union No. 332 of the I.B.E.W. and representative employers. The plan has been changed from time-to-time through amendment since 1972. The most recent change to the Plan was Amendment No. 3 to the Plan (as amended and restated effective January 1, 2015). A summary of the main provisions of the plan is in Appendix A.

**2. Active Membership**

On December 31, 2015 there were 1,674 active Plan members on record at year-end who had sufficient hours to earn minimum credits (i.e. at least 300 hours). The number of members earning credit during the previous year was 1,583. The "average" member earning credits in the last year was 44.0 years of age and had credited service of 11.9 years. The average accrued benefit at year-end was \$1,743. (Note: active vested members had an average benefit of \$2,534.) A summary of the members for the past ten years is set out in the table below:

YEAR 12/31	NUMBER OF ACTIVE MEMBERS			AVERAGE OF ACTIVE MEMBERS		
	VESTED	NONVESTED	TOTAL	AGE	SERVICE	ACC BEN
2015	1,212	462	1,674	44.0	11.9	\$ 1,929
2014	1,212	371	1,583	44.0	12.2	1,950
2013	1,228	292	1,520	44.4	12.5	1,979
2012	1,208	246	1,454	44.6	12.5	1,958
2011	1,186	235	1,421	44.6	12.7	1,964
2010	1,058	278	1,336	44.0	12.4	1,911
2009	1,022	330	1,352	43.5	12.1	1,856
2008	1,221	406	1,627	43.7	11.6	1,727
2007	1,249	364	1,613	43.5	11.5	1,671
2006	1,249	300	1,549	43.4	11.7	1,659



In Table 1 will be found a statement of employees covered under the Plan as of the year end, subdivided by age and service:

**Table 1**  
**Distribution of Active Members by Age and Service**

AGE GROUP	CREDITED SERVICE OF ACTIVE PARTICIPANTS IN PLAN AT DECEMBER 31, 2015							TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30&UP	
-24	28	0	0	0	0	0	0	28
25-29	143	17	0	0	0	0	0	160
30-34	122	60	19	0	0	0	0	201
35-39	65	69	60	38	0	0	0	232
40-44	30	60	73	91	3	0	0	257
45-49	33	26	56	86	23	3	0	227
50-54	18	31	51	80	40	35	13	268
55-59	15	11	38	64	26	20	35	209
60+	8	8	10	28	8	7	23	92
TOTAL	462	282	307	387	100	65	71	1,674

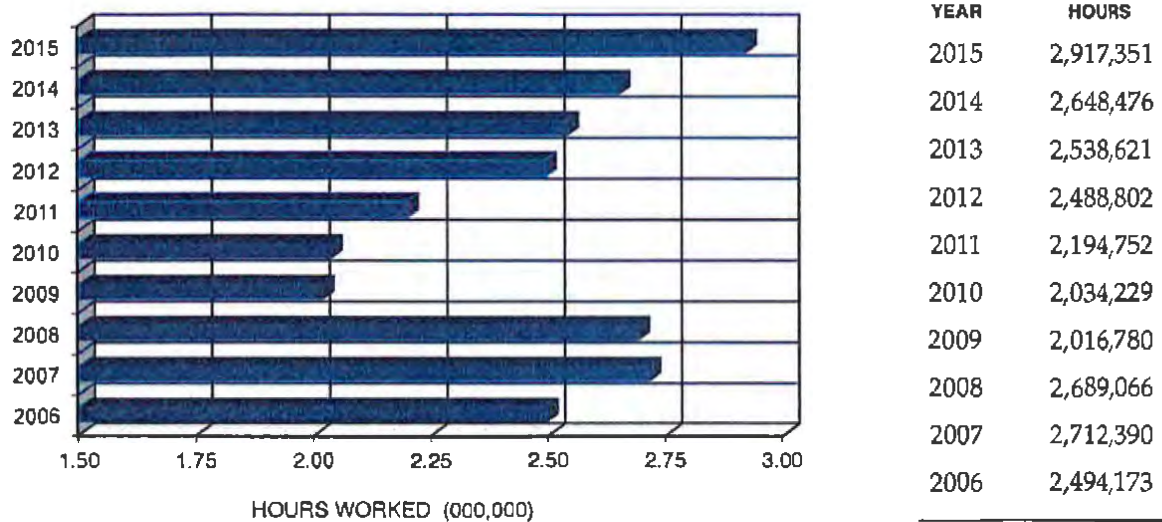
The number of active participants reported for the current valuation increased by 91 members. This represents an increase of 5.8 percent in the number of active members (about equal to the 1998-1999 number of actives). The members earning credits has increased slightly during the past decade.

In addition to the aggregate average age and average service of active members, the following sets out the average ages and service for vested and non-vested groupings of the active members:

<u>Group</u>	<u>Number of Members</u>	<u>Average Age</u>	<u>Average Service</u>
Non-vested members	462	34.9 yrs	2.1 yrs
Vested members	1,212	47.5 yrs	15.7 yrs

The record of hours worked by the active members in the past year shows an aggregate of 2,949,693 hours, of which 2,917,351 were worked by those included as actives in the valuation. The average number of hours worked by an active member was 1,743 hours.

The “active” hours worked during the year increased by 10.2 percent from the previous year level of 2,648,476, and, the average number of hours worked increased from the previous year level of 1,673. As important, however, the hours are well-above the 2008 level. A summary of hours worked for the past ten years is set out below:



The average hours worked by members earning full credits has varied significantly over the past ten years. Table 1(a) shows the total hours worked in the past year, by hours worked and future service groupings.

Table 1(a) indicates that the number of members receiving credit in the past year increased, and the total hours worked increased by about 279,000 hours (from 2.67 million to 2.95 million).

**Table 1(a)**  
**Distribution of Hours Worked**

HOURS WORKED GROUP	PLAN YEAR 2015		PLAN YEAR 2014	
	NUMBER OF MEMBERS	HOURS WORKED	NUMBER OF MEMBERS	HOURS WORKED
300 TO 370	16	5,224	10	3,379
370 TO 440	13	5,065	20	8,026
440 TO 510	19	9,088	14	6,657
510 TO 590	12	6,616	20	10,958
590 TO 670	20	12,598	12	7,705
670 TO 750	26	18,321	22	15,609
750 TO 830	23	18,174	25	19,915
830 TO 910	17	14,722	37	32,037
910 TO 1000	21	20,184	31	29,746
1000 TO 1100	29	30,429	39	40,868
1100 TO 1200	23	26,516	33	38,036
1200 TO 1300	37	46,586	47	58,688
1300 TO 1400	29	39,163	45	60,942
1400 TO 1500	57	82,985	77	111,692
1500 TO 1600	62	96,068	85	131,904
1600 TO 1700	97	160,337	111	183,509
1700 TO 1800	175	307,132	144	252,594
1800 TO 1900	238	440,582	221	409,036
1900 TO 2000	305	594,622	229	446,423
2000 TO 2100	219	448,996	191	391,052
2100 AND UP	236	533,945	170	389,705
Active Total	1,674	2,917,351	1,583	2,648,476
Inactives' Hours		32,302		22,454
TOTAL		2,949,653		2,670,930
AVERAGE - ALL MEMBERS		1,743 Hours		1,673 Hours
AVERAGE - OVER 1000 HOURS		1,789 Hours		1,739 Hours
AVERAGE - OVER 1500 HOURS		1,868 Hours		1,850 Hours
PERCENT OF HOURS OVER 1,000		96.2%		94.9%
PERCENT OF HOURS OVER 1,500		20.0%		18.0%
PERCENT OF HOURS OVER 2,000		2.5%		2.2%



### 3. Experience of the Fund

#### (i) Termination of Service (Breaks).

The total number of breaks in the last Plan Year, by ten year age groups is set forth in the following table. The number of expected terminations was also determined under the actuarial assumptions, by applying the probability of an employee terminating to the distribution of employees by attained age at the last valuation date:

**Table 2**  
**Termination Experience**

AGE GROUP	VESTED TERMINATIONS		RETIREMENTS	
	TERMINATED	REACTIVATED	NORMAL/EARLY	DISABILITY
UNDER 30 YEARS	0	0	0	0
30 YEARS TO 39 YEARS	3	0	0	0
40 YEARS TO 49 YEARS	13	12	0	0
50 YEARS TO 59 YEARS	18	12	17	1
60 YEARS AND UP	8	2	32	0
TOTAL IN AGE GROUP	42	26	49	1

The withdrawal table used in the valuation appears in Appendix B (Actuarial Cost Basis). Based on the rates in the withdrawal table, as applied to the vested members, the number of expected vested terminations was 23. The actual number (net of reactivated members) was 16.

The number of vested terminations in the previous years has been both higher and lower than expected. A higher number of actual terminations than the number expected provides a degree of conservatism in the valuation process, while the opposite is true for a lower number than expected. We have continued the withdrawal table utilized in previous valuations and will continue to review the assumptions until work hours and the number of participants stabilize.



(ii) Death.

During the year there were 26 retiree deaths reported (including beneficiaries). The expected number (using actuarial assumptions) was 20 (excluding beneficiaries). The new mortality table adopted in 2015 resulted in a reasonable relationship to actual deaths in recent years. The average age at death for non-disabled retirees was 78.5 years.

(iii) Disability.

During the last year there was 1 new retirement classified under disability retirements. Under the assumptions, 5 were expected. The actual-to-expected ratio has shown a somewhat inconsistent pattern over the past three years, which have averaged about 5 per year. At year-end there were 68 disability retirees receiving an average of \$881 monthly.

(iv) Actuarial Tables.

A short summary of the actuarial methodology employed in the current valuation is set out in Appendix B. The specific tables used in the valuation are also set forth in Appendix B.

**4. Pensioners.**

As summarized in Table 3, there were 1,094 non-disability retirees under the Plan with benefits paid on a monthly basis, and 263 survivors and beneficiaries, as well as 68 disability retirees and 96 QDRO recipients. The average of monthly payments to retired members (only) is \$2,362. Those newly retired received average benefits of \$3,383, an increase from the previous year's average of \$3,184.

There were 50 new non-disability retirees at the year-end, an increase of 4.6 percent. The average age of new retirees at retirement was 60.9 years. This includes those participants who retired early. The average age of all pensioners as of the end of the year was 70.8 years.

The number of retirees (including disability), but excluding survivors and QDROs increased by 12 individuals during the year; and there were 51 actual retirements (including 1 disability retirement). There were 26 deaths in the retiree group, and a net change of 12 due to reclassifications, including new survivors, QDROs and reinstatements.

In addition to the pensioners, there were 384 participants who were included in the valuation who were indicated as vested inactive members eligible for deferred benefits commencing at normal retirement age. The number of vested inactive members decreased from the last valuation by 33 members (adjusted for those retiring and reinstated).

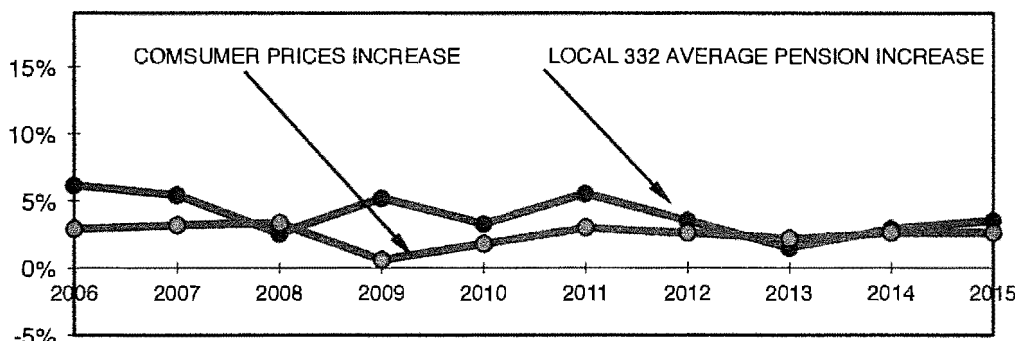
**Table 3**  
**Summary of Pensioners**

PENSIONER GROUP (as of December 31st)	2015		2014	
	NUMBER	AVG BENEFIT	NUMBER	AVG BENEFIT
<u>RETIREEES BY BENEFIT TYPE:</u>				
NORMAL FORM (3YCL)	308	\$ 2,367.85	304	\$ 2,294.35
PERIOD CERTAIN AND LIFE	176	\$ 2,148.48	171	\$ 2,046.59
JOINT — 50% SURVIVOR	234	\$ 2,714.39	226	\$ 2,654.78
JOINT — 100% SURVIVOR	376	\$ 2,238.54	381	\$ 2,156.62
<u>RETIREEES BY AGE GROUP:</u>				
AGE UNDER 60	44	\$ 3,279.28	50	\$ 3,194.89
AGE 60 TO 64	190	\$ 3,433.84	201	\$ 3,310.66
AGE 65 TO 69	282	\$ 2,733.87	261	\$ 2,634.15
AGE 70 TO 74	225	\$ 2,183.31	229	\$ 2,080.40
AGE 75 TO 79	181	\$ 1,827.37	184	\$ 1,731.95
AGE 80 AND UP	172	\$ 1,131.52	157	\$ 1,027.47
TOTAL RETIREES	1,094	\$ 2,362.24	1,082	\$ 2,281.98
DISABILITY RECIPIENTS	68	\$ 880.57	68	\$ 880.35
SURVIVOR-BENEFICIARIES	263	\$ 1,000.91	251	\$ 970.68
QDRO RECIPIENTS	96	\$ 707.40	92	\$ 667.49
VESTED INACTIVE	384	\$ 1,649.25	417	\$ 1,661.92
OLDEST RETIREE		99.2 Years		100.2 Years
AVERAGE AGE AT RETIREMENT		60.4 Years		59.6 Years
AVERAGE AGE AT VALUATION		70.8 Years		70.5 Years

The average monthly benefit for the new retirees last year was \$3,383. This is about one-third more than the average benefit of all retirees including the new retirees. The highest benefit paid to a retiree last year was \$8,788 (excluding Part B conversion amounts). The following table sets out the benefits earned by retired:

RETIRED PARTICIPANTS (EXCL DISABLED)					
MONTHLY BENEFIT RANGE (\$\$\$)	NUMBER IN RANGE	BENEFITS IN RANGE	AVERAGE AGE		AVERAGE SERVICE
			CURRENT	RETIREMENT	
\$ 4,000 AND ABOVE	181	\$898,298	65.0	59.2	31.6
\$ 3,500 TO \$ 3,999	92	\$343,932	67.6	59.1	29.6
\$ 3,000 TO \$ 3,499	122	\$394,704	70.0	59.8	29.5
\$ 2,500 TO \$ 2,999	97	\$269,171	71.7	59.7	28.1
\$ 2,000 TO \$ 2,499	83	\$189,160	73.0	60.0	24.2
\$ 1,500 TO \$ 1,999	113	\$191,342	71.9	59.5	19.7
\$ 1,000 TO \$ 1,499	149	\$163,233	64.3	52.1	14.4
\$ 500 TO \$ 999	178	\$101,052	54.9	44.9	9.8
UNDER \$500	147	\$33,398	77.3	61.2	11.2
AVERAGE	—————>	\$ 2,276	70.8	59.4	21.7
MEDIAN	—————>	\$ 1,965	70.0	59.7	22.0
HIGHEST	—————>	\$ 8,788	99.2	71.8	45.6

The pension benefits have increased significantly during the past decade. The annual percentage increase in the average benefit is attributable to ever-increasing benefits payable to new retirees. The chart below illustrates the rate of increase:



The accrued benefits for the retired, active and vested inactive members is set out in the following table:

MONTHLY BENEFIT RANGE (\$\$\$)	NUMBER IN BENEFIT RANGE		
	RETIRED (INCLUDE DISAB)	ACTIVE MEMBERS	VESTED INACTIVE
\$ 4,000 AND OVER	181	151	18
\$ 3,500 TO \$ 3,999	92	65	8
\$ 3,000 TO \$ 3,499	122	114	5
\$ 2,500 TO \$ 2,999	97	187	30
\$ 2,000 TO \$ 2,499	83	194	39
\$ 1,500 TO \$ 1,999	113	239	77
\$ 1,000 TO \$ 1,499	149	198	98
\$ 500 TO \$ 999	178	172	80
UNDER \$ 500	147	354	29
	1,162	1,674	384
AVERAGE BENEFIT	\$ 2,276	\$ 1,929	\$ 1,649
MEDIAN BENEFIT	\$ 1,965	\$ 2,534	\$ 1,415
HIGHEST BENEFIT	\$ 7,824	\$ 8,347	\$ 6,117

The distribution of vested inactive members is set out in the following table:

AGE GROUP	SERVICE OF INACTIVE PARTICIPANTS AT DECEMBER 31, 2015						TOTAL
	UNDER 10	10-14	15-19	20-24	25-29	30 AND UP	
UNDER 35	17	2	0	0	0	0	19
35-39	35	11	0	0	0	0	46
40-44	28	13	7	1	0	0	49
45-49	26	34	21	3	0	0	84
50-54	24	30	12	3	2	3	74
55-59	14	20	19	10	3	8	74
60 AND UP	4	18	9	5	0	2	38
TOTAL	148	128	68	22	5	13	384

**5. Transactions of the Fund.**

Table 4 sets forth the summary of income and expenses, which have been compiled for the year ending December 31, 2015. The results of the transactions for the year have been reconciled to the previous year, in the table below:

	2015	2014
Total Additions	\$ 48,420,921	\$ 68,482,057
Total Deductions	36,463,205	35,024,697
Net Additions	\$ 11,957,716	\$ 33,457,360
Market Value Increase (decrease)	(9,767,217)	(9,950,084)
Increase (decrease) in Assets	\$ 2,190,499	\$ 23,507,276
Net Assets, beginning of year	472,531,941	449,024,665
Net Assets at Market	\$ 474,722,440	\$ 472,531,941
Net Assets at Book	446,244,362	434,286,646
Excess of Market over Book	\$ 28,478,078	\$ 38,245,295

The above reconciliation is based upon the market value of net assets. The market value of the net assets at the beginning of the year was \$38,245,295 above the book value. The market value of the net assets at year-end was \$28,476,078 above the book value.

The market value decrease (i.e. unrealized gain/loss on investments) during the year is equal to the change from the beginning of the year to the end of the year in the excess of market value over the book value of net assets, \$9,767,217.

The summary of income and expenses is based upon the audit report for the year of the activity in the Trust Fund, including experience under insurance company contracts. It should be noted that the investment related expenses are not included in expenses of operation but are shown as an offset to the investment income, in Table 4.

**Table 4**  
**Income Statement**

	2015	2014	PERCENT ALLOCATION	
			2015	2014
<u>CONTRIBUTION INCOME</u>				
Employer contributions	\$ 47,247,782	\$ 37,749,447	2,156.9%	160.6%
Reciprocity (net)	(14,358,920)	(8,107,457)	-655.5%	-34.6%
Liquidated damages	20,808	11,762	INCLUDED ABOVE	
Net contributions	\$ 32,909,670	\$ 29,653,752	1,501.4%	126.0%
<u>INVESTMENT INCOME</u>				
Interest, dividends and other	\$ 8,436,753	\$ 7,308,956	385.2%	31.1%
Gain on Sale of Securities	7,074,498	31,519,349	323.0%	91.8%
Increase in securities values	(9,767,217)	(9,950,084)	-445.8%	0.1%
Total investment income	\$ 5,744,034	\$ 28,878,221	262.4%	123.0%
Less investment expenses	1,245,587	1,417,854	56.9%	6.0%
Net investment income	\$ 4,498,447	\$ 27,460,367	205.5%	117.0%
Net income	\$ 37,408,117	\$ 57,114,119	1,706.9%	243.0%
<u>DEDUCTIONS</u>				
Benefits paid from Trust Fund	\$ 34,464,552	\$ 32,989,211	1,573.5%	140.4%
Operating expenses	753,066	617,632	34.4%	2.6%
Total Deductions	\$ 35,217,618	\$ 33,606,843	1,607.9%	143.0%
<u>RECONCILIATION OF FUND</u>				
Income over Deductions	\$ 2,190,499	\$ 23,507,276	100.0%	100.0%
Fund Balance, beginning of year	472,531,941	449,024,665		
Fund Balance, end of year	\$ 474,722,440	\$ 472,531,941		

Last year the trust fund increased in value by \$2 million; in the year before that the fund increased by \$24 million. The cumulative unrealized gains as of the end of the year were about 6% of the net assets of the Trust Fund.

In Table 4-(a) below, we have summarized an analysis of the expenses incurred during the year; and for comparative purposes, for the preceding year:

**Table 4-(a)  
Analysis of Expenses**

OPERATING EXPENSE	2015	2014
Administrative Expense	\$ 132,005	\$ 124,859
Consulting and investment services	27,813	110,822
Actuarial services	102,000	96,000
Legal services and collections	94,334	77,147
Auditing and accounting services	62,366	45,574
Insurance	161,258	106,530
Trustee meetings	2,871	10,032
Printing, postage and other	170,419	46,668
<b>Total Expenses</b>	<b>\$ 753,066</b>	<b>\$ 617,632</b>

The following table sets out the expense ratio for each since 2006. The rate for the past year is above the level of ten years past, expressed as a percentage of the average fund balance:

YEAR	FUND BALANCE AT MARKET VALUE		OPERATING EXPENSES	EXPENSE "RATIO"
	AT BEG OF YEAR	AT END OF YEAR		
2015	\$ 472,531,941	\$ 474,722,440	\$ 753,066	0.16%
2014	449,024,665	472,531,941	617,632	0.13%
2013	397,480,414	449,024,665	597,834	0.14%
2012	359,625,585	397,480,414	541,973	0.13%
2011	366,308,780	359,625,585	550,136	0.15%
2010	339,704,368	366,308,780	581,114	0.16%
2009	309,219,981	339,704,368	602,376	0.19%
2008	411,427,783	309,219,981	580,359	0.16%
2007	389,269,193	411,427,783	538,615	0.13%
2006	363,694,485	389,269,193	464,614	0.12%



Table 5 shows the consolidated statement of the Trust Fund assets and liabilities, at market value, as of year-end. The values are based on the audit report as of December 31, 2015.

**Table 5**  
**Accounting Balance Sheet**

ASSETS	2015	2014	PERCENT ALLOCATION	
			2015	2014
Cash and equivalents	\$ 12,625,084	\$ 7,054,817	2.6%	1.5%
Collective (103-12) and Hedge Fund	81,412,968	82,774,518	17.0%	17.5%
Equity security investments	253,783,880	256,449,043	53.2%	54.1%
Limited partnerships	72,903,548	57,098,409	15.3%	12.0%
Real estate	49,550,748	64,580,768	10.4%	13.6%
Other assets	7,250,693	6,248,817	1.5%	1.3%
<b>Total Assets</b>	<b>\$ 477,526,921</b>	<b>\$ 474,206,372</b>	<b>100.0%</b>	<b>100.0%</b>
<b>LIABILITIES AND FUND BALANCE</b>				
Liabilities	\$ 2,804,481	\$ 1,674,431	0.6%	0.4%
Net Fund Balance	474,722,440	472,531,941	99.4%	99.6%
<b>Total Liabilities and Fund Balance</b>	<b>\$ 477,526,921</b>	<b>\$ 474,206,372</b>	<b>100.0%</b>	<b>100.0%</b>

At year end, the total assets on hand, at market value, were 15.3% in limited partnership investments, 53.2% in equity investments, 17.0% in collective and hedge funds, 10.4% in real estate, and 4.1% in cash and other.

## 6. Actuarial Assets

The actuarial value of the net assets has been established as an average of book and market values to smooth-out the effects of market fluctuations. The use of the average of book and market is subject to a limiting factor such that the actuarial value will not exceed 120% of the market value, nor be less than 80% of the market value. In other words, the ratio of actuarial value to market value will not exceed 1.20, nor be less than 0.80.

The results of this process are summarized below for the past ten years. During that period, the ratio of actuarial to market value ranged from a high of 105.7% (in 2008), to a low of 94.6% (in 2013):

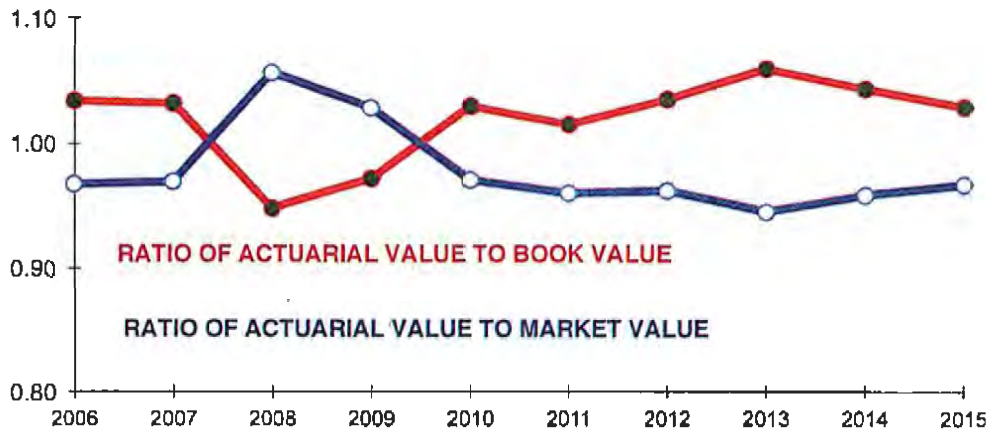
YEAR 12/31	FUND BALANCE AT END OF YEAR		ACTUARIAL VALUE OF TRUST FUND	AV/MV RATIO
	MARKET VALUE	BOOK VALUE		
2015	474,722,440	446,244,362	459,388,152	0.968
2014	472,531,941	434,286,646	453,409,294	0.960
2013	449,024,665	400,829,286	424,926,976	0.946
2012	397,480,414	368,415,808	382,948,111	0.963
2011	359,625,585	348,595,931	354,110,758	0.961
2010	366,308,780	337,765,301	355,982,622	0.971
2009	339,704,368	359,360,850	349,532,609	1.029
2008	309,219,981	344,575,952	326,897,967	1.057
2007	411,427,783	397,713,041	398,927,783	0.970
2006	389,269,193	364,138,488	376,703,841	0.968

The difference between the actuarial value of the fund and the book value represents the cumulative actuarial unrealized gains on investments. An increase in this amount represents the actuarial unrealized gains for the past year. An increase in the cumulative unrealized gain for a year represents an unrealized gain for the year; similarly, a decrease in the cumulative unrealized gain would represent an unrealized loss for the year.

## 7. Investment Yield

Investment yield is an extremely important aspect of the Plan management, since it has an immediate effect on the level of benefits under the Plan. The following table sets out the determination of the actuarial value of assets and yield:

	2015	2014
Market value of assets:		
1	\$ 472,531,941	\$ 449,024,665
2	474,722,440	472,531,941
3	\$ 453,409,294	\$ 424,926,976
Plus income items:		
	\$ 32,909,670	\$ 29,653,752
	8,436,753	7,308,956
	7,074,498	31,519,349
	-9,767,217	-9,950,084
4	\$ 38,653,704	\$ 58,531,973
Less deduction items:		
	\$ 1,245,587	\$ 1,417,854
	753,066	617,632
	\$ 34,464,552	\$ 32,989,211
5	\$ 36,463,205	\$ 35,024,697
6	\$ 11,957,716	\$ 33,457,360
7	\$ 465,367,010	\$ 458,384,336
8	- 5,978,858	- 4,975,042
9	\$ 459,388,152	\$ 453,409,294
10	96.8%	96.0%
Net investment income — market value:		
11	\$ 4,498,447	\$ 27,460,367
12	0.95%	6.14%
Net investment income — actuarial value:		
13	\$ 8,286,806	\$ 32,435,409
14	1.84%	7.66%



The table below shows investment yield using the actuarial value of the fund:

### Investment Yield Calculation

2015 PLAN YEAR	NET ASSETS AT MARKET VALUE	NET ASSETS AT BOOK VALUE	NET ASSETS AT ACTUARIAL VALUE
Fund value, end of year	\$ 474,722,440	\$ 444,053,863	\$459,388,152
Fund value, beg of year	472,531,941	434,286,646	453,409,294
Average invested fund	471,377,967	432,037,423	451,707,695
Interest and dividends	\$ 8,436,753	\$ 8,436,753	\$ 8,436,753
Gain (loss) on sales	7,074,498	7,074,498	7,074,498
Unrealized gain (loss)	(9,767,217)	n/a	n/a
Actuarial write-up (down)	n/a	n/a	(5,978,858)
Gross yield	\$ 5,744,034	\$ 15,511,251	\$ 9,532,393
Investment expense	1,245,587	1,245,587	1,245,587
Net yield	\$ 4,498,447	\$ 14,265,664	\$ 8,286,806
Interest and dividends	1.79%	1.95%	1.87%
Gain (loss) on sales	1.50%	1.63%	1.57%
Unrealized gain (loss)	(2.07%)	n/a	n/a
Actuarial write-up (down)	n/a	n/a	(1.32%)
Gross yield	1.22%	3.58%	2.12%
Investment expense	0.27%	0.29%	0.28%
Net yield	0.95%	3.29%	1.84%

The actuarial value net yield rate, 1.84%, including partial recognition of unrealized market value depreciation, is well-below the actuarial assumed rate of 7.00%. The table below sets out the yields for previous years:



YEAR (12/31)	MARKET VALUE YIELD	BOOK VALUE YIELD	ACTUARIAL VALUE YIELD
2015	0.95%	3.29%	1.84%
2014	6.14%	9.36%	7.66%
2013	14.60%	10.52%	12.65%
2012	11.37%	12.31%	9.60%
2011	0.70%	5.11%	2.63%
2010	11.82%	11.85%	5.56%
2009	13.82%	12.67%	10.61%
2008	(22.96%)	(11.29%)	(16.04%)
2007	7.97%	8.56%	8.26%
2006	9.27%	7.36%	8.34%

## 8. Accumulated Benefit Obligation

The following table sets out the values for accumulated liabilities, with the values since 2006 based upon the interest rate and mortality from the valuation assumptions:

12/31 YEAR	MARKET VALUE OF FUND	ACCUMULATED CURRENT LIABILITY		FUNDED PORTION
		VESTED	NON-VESTED	
2015	\$ 474,722,440	\$ 568,127,948	\$ 15,194,345	0.814
2014	472,531,941	549,029,162	13,838,584	0.840
2013	449,024,665	462,548,191	17,167,653	0.936
2012	397,480,414	455,658,330	20,055,859	0.915
2011	359,625,585	424,249,787	13,929,410	0.821
2010	366,308,780	415,540,240	17,332,810	0.846
2009	339,704,368	394,149,047	21,795,673	0.817
2008	309,219,981	383,050,893	23,126,019	0.761
2007	411,427,783	373,359,669	21,272,187	1.043
2006	389,269,193	364,823,635	20,055,375	1.011

This vested liability of \$568,127,948 is related only to benefits accumulated by vested members as of January 1, and may be compared to the net assets at a market value of \$474,722,440, a difference of approximately \$93 million. This is essentially the remaining unfunded vested obligation used for Withdrawal Liability determination.

The assumptions employed in the determination of the Accumulated Benefit Obligation include the mortality and assumed interest rate basis from the valuation.

9. **Results of the Valuation**

The results of the valuation of the assets and liabilities of the Plan as of January 1, 2016 are set out below:

**Table 6  
Actuarial Valuation Balance Sheet**

<u>ACTUARIAL LIABILITIES</u>	<u>2016 VALUATION</u>	<u>2015 VALUATION</u>
Present value of future payments to current pensioners	\$ 352,331,283	\$ 338,243,987
Present value of future payments to current active participants:		
for accrued non-vested benefits	15,194,345	13,838,584
for accrued vested benefits	167,933,605	160,325,691
Present value of future payments to current inactive participants	47,863,060	50,459,484
<b>Total accrued liabilities</b>	<b>\$ 583,322,293</b>	<b>\$ 562,867,746</b>
Present value of future payments to current participants future benefits	116,291,149	108,171,172
<b>Total Actuarial Liabilities</b>	<b>\$ 699,613,442</b>	<b>\$ 671,038,917</b>
<u>ACTUARIAL ASSETS</u>		
Actuarial value of net assets	\$ 459,388,152	\$ 453,409,294
Present value of future annual Normal Cost contributions	116,291,149	108,171,172
<b>Total Actuarial Assets</b>	<b>\$ 575,679,301</b>	<b>\$ 561,580,466</b>
<u>UNFUNDED ACTUARIAL LIABILITY</u>		
Present value of future annual amortization contributions	\$ 123,934,141	\$ 109,458,452
<u>AMORTIZATION PERIOD</u>	<u>11.8 Years</u>	<u>14.4 Years</u>

The actuarial valuation establishes the actuarial balance sheet as of the start of the current Plan Year and the annual contribution requirements. In bringing the assets and liabilities into balance, the “present value of future annual amortization contributions” (i.e. the unfunded liability) entry is the balancing item.

The normal cost is recalculated each year in respect of the records of covered employees and their earned service credits during the immediate past year. Costs are therefore established for currently active employees in relation to their respective work records during the preceding year ending December 31. It is recognized that this may not be accurate as regards individual employees into the future, but it is representative of credits arising out of the current level of activity in the industry.

The valuation process first determines the present actuarial value of the Plan’s accumulated and future benefit obligations. The total of liabilities for active and inactive participants is reduced by the actuarial funding, i.e., the present actuarial value of net trust fund assets and future annual normal contributions. The remaining portion requiring funding is the not-yet-funded, or “unfunded” portion of the liabilities. This is referred to as the unfunded liability.

The unfunded liability has increased from the previous level of \$109,458,452, to a current level of \$123,934,141 this year, largely because of the investment “losses” of last year, which were due to the investment yield. The remaining period for a complete amortization of the unfunded supplemental liability is at a level that can be amortized at the appropriate level with current contribution levels.

An analysis of the actuarial valuation and its impact on the contribution requirements for the year ending December 31, 2016 is set forth in Table 7 and following paragraphs. The actuarial certification of the results is set forth in Appendix C.

The portion of the accrued liability that is not offset by Plan assets is referred to as the unfunded accrued liability, or unfunded supplemental liability. The portion of the accrued liability that is offset by Plan assets is referred to as the funded accrued liability, and the ratio of assets to liabilities is called the Funded Ratio. If we consider only the vested accrued liabilities, we may refer to the ratio as a Vested Ratio. The table below sets forth the Funded Ratio for the current and previous valuation.

	<u>2016</u>	<u>2015</u>
Number of active members	1,674	1,583
Net assets at market value	\$ 474,722,440	\$ 472,531,941
Net assets at actuarial value	\$ 459,388,152	\$ 453,409,294
Accumulated Liability:	\$ 583,322,293	\$ 562,867,746
Funded Ratio - market value	81.4%	84.0%
Funded Ratio - actuarial value *	78.8%	80.6%
Vested liability:	\$ 568,127,948	\$ 549,029,162
Vested Ratio - market value	83.6%	86.1%
Vested Ratio - actuarial value	80.9%	82.6%
	* PPA Funded ratio	

The Funded Ratio and Vested Ratio are meaningful only if viewed from year to year. It is particularly important too, that the Vested Ratio exceed 100%.

## 10. Contribution Analysis

From the above valuation figures, the following analysis of contributions and actuarial requirements has been developed. Net contribution income in the current Plan Year has been estimated at \$33,600,000. This figure is compared with the actuarial requirements in Table 7.

Table 7 shows that the cumulative effect of the experience of the recent past year and the adjustments in the contribution level, as well as investment gains results in an amortization period of 11.8 years; and a contribution surplus of \$2.2 million.



**Table 7**  
**Contribution Analysis**

	<u>2016 VALUATION</u>	<u>2015 VALUATION</u>
Actual Hours Last Year	2,949,653	2,670,930
Projected Hours Current Year	3,000,000	2,800,000
Contribution Effective Rate for Year	\$ 11.20/hour	\$ 11.20/hour
<hr/>		
<u>PROJECTED CONTRIBUTIONS</u>	\$ 33,600,000	\$31,400,000
<u>ACTUARIAL REQUIREMENTS</u>		
Normal Cost for current Plan Year	\$ 18,698,018	\$19,725,055
Unfunded amortization payment	14,901,982	11,674,945
Additional deficit amount required	n/a	n/a
Total requirement	\$ 33,600,000	\$31,400,000
<u>AMORTIZATION PERIOD</u>		
Years for amortization	11.8 Years	14.4 Years
15-Year amortization:		
Amount of payment	\$ 12,717,105	\$11,231,729
Surplus (deficit) amount	2,184,876	443,216

As indicated earlier in the report, the net position (i.e., surplus or deficit) of the plan is contingent upon the assumption of contributions in the year next succeeding the valuation. An assumption of \$33,600,000 of gross contributions has been made for the current year, based on hours worked (3.0 million) and an average contribution rates of \$11.20 per hour.

The net position of the Plan is similarly contingent upon the period assumed for amortization of the supplemental unfunded liability.

The current requirements reflect a \$3.30 benefit crediting rate for 2016, as well as the increase in the unfunded liability.

## 11. Assumed Hours-Worked

The appropriateness of the contribution analysis set out above (Section 10), hinges on the assumed level of contributions, which is based on the hours worked. We have assumed that the Pension Trust in the current year will report 3.00 million hours. It is reasonably certain that the experience will not produce the assumed amount exactly.

Although it would appear that the estimate of current year's hours is applicable only to this plan year, there is an implicit assumption that the level of hours will be maintained into the future. A reduction in hours worked typically accompanies an inability to extract additional contributions to make up for the hours deficiency.

The contribution assumption is based upon several factors: the trend in hours reported in prior years; the prospects for the current year; and the expectation regarding economic conditions. For the current year ending December 31st, the hours worked actuarial assumption is equivalent to the actual hours reported in the last year. The relationship of hours worked and contributions is illustrated below:

<u>YEAR</u>	<u>HOURS WORKED DURING YEAR</u>	<u>AVERAGE HOURS PER MEMBER</u>	<u>ANNUAL CONTRIBUTIONS</u>	<u>EFFECTIVE RATE</u>
2015	2,949,653	1,743	\$ 32,909,670	\$ 11.16
2014	2,670,930	1,673	29,653,752	\$ 11.10
2013	2,567,809	1,670	26,804,314	\$ 10.44
2012	2,512,823	1,712	26,885,782	\$ 10.70
2011	2,204,204	1,545	21,274,097	\$ 9.65
2010	2,070,050	1,523	16,232,537	\$ 7.84
2009	2,062,061	1,492	15,154,176	\$ 7.35
2008	2,725,016	1,653	15,535,324	\$ 5.70

In establishing the hours-worked assumption for the current year, we have reflected hours worked in the preceding years, as well as expected trends for the current year.

It is apparent that when hours worked increase in a multi-employer plan, it is immediately reflected in the amount available for amortization of the unfunded liability. This in turn results in an decrease in the amortization period, since less funds are available.

If the actual hours worked exceed the assumed level, there will be a gain to the fund, which gain would reduce the unfunded liability, or be available for benefit increases.

## **12. Funding Standard Account**

The Employee Retirement Income Security Act of 1974 requires that a Funding Standard Account be established. The Funding Standard Account is charged each year with the level annual amount required to amortize the unfunded net liability over the required period. Form 5500, Schedule B is the reporting basis for the Funding Standard Account. The Funding Standard Account has a current credit balance of \$23.8 million.

It should be noted that benefit increases subsequent to the PPA of 2006 must be funded over a 15-year period from the effective date of the amendment, as required by Funding Standard Account provisions. Of course, any surplus emerging from other sources would result in some flexibility in funding increases, and would allow a funding period actually in excess of the current period without penalty. Contribution surpluses and deficiencies are within the purview of the Internal Revenue Service.

The Internal Revenue Code (the "Code") and Treasury Regulations ("Treas. Reg.") prescribe minimum required contributions to a qualified pension plan as well as maximum deductible contributions. Section 412 of the Code and Treas. Reg §1.412 set out the requirements for minimum funding, while section 404(a) of the Code and Treas. Reg §1.404 set out maximum deductible limits.

Code section 413(b)(7) essentially provides a form of safe harbor if anticipated contributions to a multiemployer plan are less than the maximum deductible limit, even if there is an actual excess of contributions during the year.

### 13. Summary and Conclusions

Using the plan provisions, the employee data furnished by the Administrator, and the statement of assets furnished by the Plan Auditor as of the preceding year-end, we have summarized valuation results for the current Plan year.

Our calculations indicate that the cost of the present benefits will be met with contribution increases.

**APPENDICES**



**I.B.E.W. Local Union No. 332  
Pension Plan**

**SUMMARY OF PLAN**

**Effective Date:** July 1, 1972; restated in entirety, effective January 1, 2015; and amended most recently by Amendment Three.

**Plan Year:** Year ending December 31st.

**Participation:** Employees of individual employer covered by collective bargaining agreement with I.B.E.W. Local Union No. 332.

**Qualified Employee:** Has: 10 years of credited service, 2 or more of which are future credited service.

**Retirement:**

Normal Retirement: Qualified Employee who has attained age 65 and the tenth anniversary of Plan membership.

Disability Retirement: Total and permanent disablement for work regular occupation after 6 months; and after 5 years of future credited service.

Early Retirement: Qualified Employee who has attained age 55.

**Vesting Credit:**

Per calendar year:

<u>HOURS</u>	<u>CREDIT</u>	<u>HOURS</u>	<u>CREDIT</u>
0-300	0.0	670-750	0.6
300-370	0.1	750-830	0.7
370-440	0.2	830-910	0.8
440-510	0.3	910-1000	0.9
510-590	0.4	1000 and up	1.0
590-670	0.5		

**Amount of Pension:**

Normal Retirement \$20.00 for each full year of credited past service, plus 3.00% of total employer contributions, for years of service to 20 years; plus 3.25% for years after 20 and before 25 years; plus 3.50% for years after 25; contributions for benefit purposes limited to \$3.00 per hour after 1997 through 2004; except \$3.30 per hour through December 31, 2000, and \$3.10 for 2005. Effective for 2006 and years after, the contribution limit is \$3.35 per hour, except for 2008, when the rate is \$3.55 per hour. For years 2009-2015, the rate is \$3.30 per hour.

Disability Retirement 100% Normal Pension for disability after age 65, plus \$7.00 times the average monthly hours for the 36 months preceding disability. Normal pension accrues at 2.50% future service crediting rate, as if contributions had been paid while disabled.

Early Retirement Greater of 100% normal pension: (a) unreduced at age 58 after 22 years of service, reduced 1/4% for each month payment precedes age 60; (b) , after 30 years of service, reduced 1/4% for each month payment precedes age 65; or (c) reduced 1/2% for each month payment precedes age 65 after 1993, and 1/4% for each month payment precedes age 65 before 1993 .

**Death Benefit:**

Eligibility All active members.

Amount of Benefit (1) If married for 12 months prior to death, and eligible to retire, 100% survivor benefit., computed as though member had retired at date of death.

(2) If not eligible for survivor death benefit, return of employer contributions.

(3) After retirement benefit guaranteed for 36 months, unless option selected.

**Contribution Rate:** \$11.40 per hour, effective with December 2013 hours.



Appendix B  
**I.B.E.W. Local Union No. 332  
Pension Plan**

**ACTUARIAL COST BASIS**

The following assumptions and methods have been used in calculating the amounts set forth in the actuarial valuation summaries.

**Actuarial Assumptions**

- |             |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interest    | – 7.00% per annum, pre-retirement, and<br>– 7.00% per annum, post-retirement.<br>– 3.25% per annum, for RPA 94.<br>– See attached Schedule 1.                                                                                                                                                                                                                                                                          |
| Mortality   | – Funding Basis: RP-2014 Blue Collar Table - Males.<br>– FASB-35: RP-2014 Blue Collar Table - Males.<br>– RPA 94: RP-2014 Table*.<br>– *The RP-2014 Table is adjusted to the beginning of the valuation year for mortality improvement.<br>– Disability retirement: 1965 Railroad Retirement Board Disabled Annuitant Mortality Table (as published in an Eleventh Actuarial Valuation of Railroad Retirement System). |
| Expenses    | – 4.00% of active liability.                                                                                                                                                                                                                                                                                                                                                                                           |
| Retirement  | – Unreduced benefits at age 65 and 10 years of service; or after age 58 with 22 years of service. See attached Schedule 2.                                                                                                                                                                                                                                                                                             |
| Termination | – See attached Schedule 2.                                                                                                                                                                                                                                                                                                                                                                                             |
| Disability  | – 1968 Railroad Retirement Board Table.<br>– See attached Schedule 3.                                                                                                                                                                                                                                                                                                                                                  |

**Actuarial Methods**

The Unit Credit Normal Cost contribution was calculated on an individual basis and summed over the active member base. The individual factors were applied to individual attained age annuity values, on the service table, to develop the supplemental liability. Plan assets were valued at an average of book and market. The unfunded supplemental liability is assumed to be funded with level payment amounts.



**The Present Value of 1**

(7.00% per annum)

<u>Period</u>	<u>Amount</u>	<u>Period</u>	<u>Amount</u>
1	0.9346	36	0.0875
2	0.8734	37	0.0818
3	0.8163	38	0.0765
4	0.7629	39	0.0715
5	0.7130	40	0.0668
6	0.6663	41	0.0624
7	0.6227	42	0.0583
8	0.5820	43	0.0545
9	0.5439	44	0.0509
10	0.5083	45	0.0476
11	0.4571	46	0.0445
12	0.4440	47	0.0416
13	0.4150	48	0.0389
14	0.3878	49	0.0363
15	0.3624	50	0.0339
16	0.3387	51	0.0317
17	0.3166	52	0.0297
18	0.2959	53	0.0277
19	0.2765	54	0.0259
20	0.2584	55	0.0242
21	0.2415	56	0.0226
22	0.2257	57	0.0211
23	0.2109	58	0.0198
24	0.1971	59	0.0185
25	0.1842	60	0.0173
26	0.1722	61	0.0161
27	0.1609	62	0.0151
28	0.1504	63	0.0141
29	0.1406	64	0.0132
30	0.1314	65	0.0123
31	0.1228	66	0.0115
32	0.1147	67	0.0107
33	0.1072	68	0.0100
34	0.1002	69	0.0094
35	0.0937	70	0.0088

**Termination and Retirement Rates**

(Annual rates per 1,000 Members)

<u>Age</u>	<u>Termination Rate</u>	<u>Age</u>	<u>Termination Rate</u>	<u>Retirement Rate</u>
20	66.39	45	35.73	
21	62.82	46	34.03	
22	59.75	47	31.70	
23	57.18	48	28.72	
24	55.10	49	25.19	
25	53.46	50	21.72	
26	52.18	51	19.00	
27	51.20	52	17.02	
28	50.43	53	15.61	
29	49.82	54	14.55	
30	49.30	55	13.78	100.00
31	48.81	56	13.42	100.00
32	48.29	57	13.47	150.00
33	47.69	58	13.84	200.00
34	46.97	59	14.54	200.00
35	46.11	60	15.55	100.00
36	45.10	61	16.87	150.00
37	43.96	62	18.35	350.00
38	42.75	63	20.07	200.00
39	41.94	64	22.07	100.00
40	40.41	65		1000.00
41	39.42			
42	38.59			
43	37.82			
44	36.93			



**Disability Rates**  
 (Annual rates per 1,000 Members)

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
25	0.6	45	2.2
26	0.6	46	2.5
27	0.6	47	2.8
28	0.6	48	3.3
29	0.6	49	3.8
30	0.6	50	4.6
31	0.6	51	5.7
32	0.6	52	6.9
33	0.6	53	8.0
34	0.7	54	9.1
35	0.7	55	10.2
36	0.8	56	11.3
37	0.8	57	12.5
38	0.9	58	13.7
39	1.0	59	14.9
40	1.1	60	32.0
41	1.3	61	35.5
42	1.5	62	40.0
43	1.7		
44	1.9		

**I.B.E.W. Local Union No. 332  
Pension Plan**

**FASB-35 STATEMENTS**

The Financial Accounting Standards Board has established standards of financial accounting and reporting for the annual financial statements of a defined benefit pension plan. Statement No. 35 requires the actuarial present value of accumulated plan benefits as of year end, and the change in such value for the plan year. Accumulated plan benefits are those future periodic payments, including lump-sum distributions, that are attributable to the service employees have rendered.

The actuarial present value required is determined by applying the actuarial assumptions set out in Appendix B. Included in the accumulated benefits is the value of benefit increases for the current plan year. It should be noted that the values set out below reflect the assumptions employed for the determination of the current liability obligation as of the beginning of the year.

**STATEMENT OF ACCUMULATED PLAN BENEFITS**

(as of December 31, 2015)

	<u>VALUATION BASIS</u>	<u>RPA 94 BASIS</u>
Actuarial present value of accumulated plan benefits at end of the plan year:		
Vested benefits in a payment status	\$352,331,283	\$481,003,260
Other participants' vested benefits	215,796,665	392,920,303
Total vested benefits	<u>\$568,127,948</u>	<u>\$873,923,563</u>
Nonvested benefits	<u>15,194,345</u>	<u>41,250,431</u>
Total year end actuarial present value	\$583,322,293	\$915,173,994

**STATEMENT OF CHANGE IN ACCUMULATED PLAN BENEFITS**

(year ending December 31, 2015)

Actuarial present value of accumulated plan benefits as of beginning of year	\$562,867,746
Increase (decrease) during year due to:	
Plan amendments	-
Change in assumptions	-
Benefits accumulated and other	16,271,424
Increase for lesser discount period	39,400,742
Benefits paid (including expenses)	<u>(35,217,618)</u>
Actuarial present value of accumulated plan benefits at end of the plan year	\$583,322,293

**I.B.E.W. Local Union No. 332  
Pension Plan**

**ACTUARIAL CERTIFICATE**

This is to certify that an actuarial valuation of the I.B.E.W. Local Union No. 332 Pension Plan and Trust was made as of January 1, 2016.

Income to the Plan from employer contributions during the previous year ending December 31st (a) was sufficient, after payment of expenses to meet the normal cost and interest on the unfunded accrued liability as of the beginning of the year in respect of all covered members, and (b) did not exceed the tax deduction for individual employers as calculated in accordance with Section 404(a)(1)(C) of the Internal Revenue Code of 1954.

The cost calculations for the 1,674 active members, the 384 vested inactive members, and the 1,521 pensioners (including QDROs), are summarized below:

Normal Cost including Operational Expenses	\$ 18,698,018
Accrued Liabilities for:	
Pensioners	\$352,331,283
Active Members	183,127,950
Inactive Members	47,863,060
	<hr/>
Total Accrued Liability	\$583,322,293
Fund Balance (at actuarial value)	459,388,152
	<hr/>
Unfunded liability	\$123,934,141

On the basis of the actuarial valuation and appendices attached hereto and made a part hereof, we certify that:

- (a) The income reasonably expected from future employer contributions will be sufficient to meet the benefits of the Plan; and
- (b) The contents of the matters reported in the attached actuarial valuation are in the aggregate reasonably related to the experience of the Plan and to reasonable expectations and represent our best estimate of anticipated experience under the Plan.

KAUFMANN and GOBLE ASSOCIATES