



Pension Benefit
Guaranty Corporation

Benefit Provisions in Multiemployer Defined Benefit Pension Plans

2016 Plan Year Reporting
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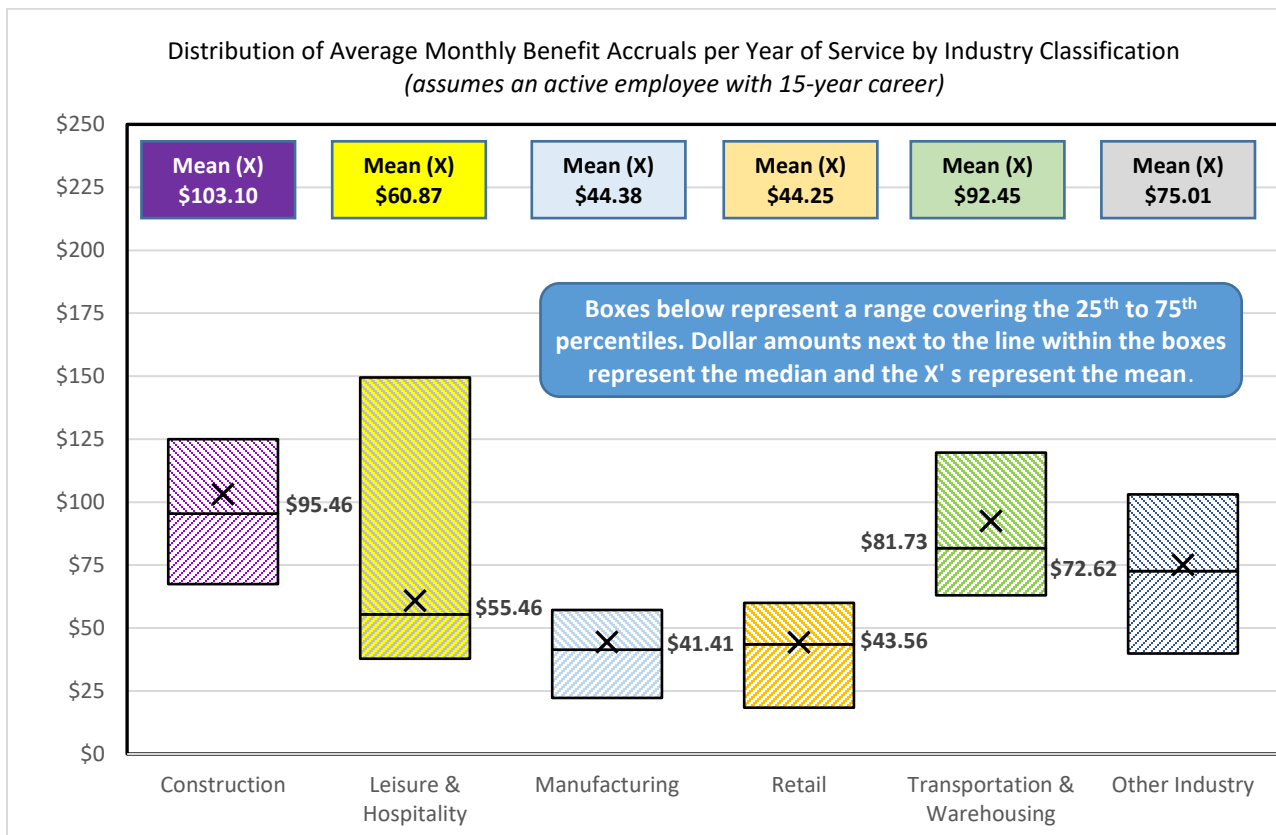
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SUMMARY

This supplement to PBGC’s Databook provides a detailed study of the plan provisions available to active workers in multiemployer defined benefit pension plans based on data compiled from Form 5500 filings for 582 multiemployer defined benefit pension plans which, in aggregate, cover approximately 90% of the total universe of active workers covered by all multiemployer defined benefit plans. The plan provision data used was obtained from plan provision summaries prepared by plan actuaries and filed with Form 5500 as documentation for determining reported plan liabilities.

This study analyzes benefit provisions along three categories – by industry classification, by plan funding “zone status” and by amount of current liability. The primary focus is on the structure and amount of the plans’ main benefit accrual formula. Figure 1 below illustrates the relative level of estimated average monthly benefit accruals per year of service provided by all multiemployer plans studied, broken down by industry classification, based on the plans that with reasonably reliable information. Further details can be found in Table 18.

Figure 1 - Predominant Accrual Rates for Active Participants by Industry



Source: 2016 Plan Year Form 5500 filings

For purposes of this study, the level of benefits was determined as of normal retirement age for a hypothetical participant with 15 years of service and expressed as a monthly benefit accrual per year of service. Please see the Appendix for details about the methodologies employed for this survey.

In addition to looking at the primary benefit formulae, this supplement also reviews the prevalence of various normal retirement provisions, early retirement provisions, ancillary benefits, and optional benefit payment forms.

STUDY RESULTS AND CONCLUSIONS

Multiemployer plans offer a wide variety of plan formulas and features. A summary of some of the significant findings of the multiemployer pension benefit provisions studied are:

- The most common formulas provide for a flat dollar monthly benefit for each year of credited service (see Table 1).
- The average monthly accrual rate for the flat dollar plans is about \$102 per month per year of service (see Tables 9 and 10).
- The average benefit accrual rate across all plan types that were included in the study is estimated to be comparable to a \$99 per month per year of service benefit; the median benefit across all plans is estimated to be \$83 per year of service (see Tables 17 and 18).
- The construction industry covers by far the highest share of plans (55%) and the highest share of active participants (42%). See Table 4 for more details.
- Pension accruals are generally lower for Critical and Critical & Declining plans than for healthier plans (see Table 17). These Critical and Critical & Declining plans also have lower incidence of disability benefit provisions (see Tables 35 and 36).
- Accrued pension benefits are higher than average in Construction and Transportation/Warehousing industries and lower than average in Retail and Manufacturing industries (see Table 18).
- Normal retirement date is overwhelmingly age 65 (with or without a service requirement), although a significant number of Construction industry plans use age 62. Construction industry plans, along with Transportation and Warehousing industry plans, have the highest incidence of subsidized early retirement benefits. “Subsidized” is defined as a 5% per year or less benefit reduction for early retirement. See Tables 26 and 38, and the Appendix for details.

Please refer to the Appendix at the end of this report for details on methodologies and assumptions.

BACKGROUND

MULTIEMPLOYER PLANS

A multiemployer plan is a pension plan created through a collective bargaining agreement between employers and a union. The employers are typically in the same or related industries, such as transportation, construction, or hospitality. Each employer contributes to the plan at an agreed upon rate to fund the aggregate plan liabilities. This contribution rate is typically reset, as needed, during subsequent collective bargaining negotiations to meet the statutory minimum funding requirements or other funding objectives established by the plan. Contribution rates for most plans are set as a rate per hour worked or similar amount per measure of work inputs (e.g., shifts worked) by active participants.

REGULATORY ENVIRONMENT

Under the Employee Retirement Income Security Act of 1974 (ERISA), multiemployer pension plans are regulated by three primary agencies:

- Department of Labor (DOL),
- Department of the Treasury/Internal Revenue Service (IRS), and
- Pension Benefit Guaranty Corporation (PBGC).

These three regulators are referred to as the ERISA agencies in this study. Under the Multiemployer Pension Plan Amendments Act of 1980, the PBGC's insurance program for multiemployer plans was separated from the insurance program for other covered plans. As a result, PBGC operates two legally and financially separate insurance programs with different levels of guarantees, premiums, and regulatory requirements.

ERISA requires plans to comply with various reporting requirements several items to the ERISA agencies who collect much of this information jointly, through the filing of Form 5500 and its attachments.

DATA SOURCE

Plan provision data was captured from publicly available Form 5500 filings available on <https://www.efast.dol.gov/welcome.html>.

A significant portion of all ongoing multiemployer defined benefit pension plans were analyzed, and sample data was chosen from the list of all plans that filed their 2014 Schedule MB by the time of the selection. The data was sorted by each plan's total current liability and a sample was selected that included the largest 300 plans and a random sample of the remaining plans. The original sample data included information for 599 multiemployer plans. Subsequently, plans that did not file a 2016 Schedule MB due to insolvency, termination or a merger were eliminated from the sample data. The resulting final sample data contained information for 582 plans.

The plans selected for the study cover about 90% of both the active participant counts and the corresponding active participant current liabilities of the multiemployer defined benefit pension plan universe based on the 2016 Schedule MB filings. The tables in this study are based on the data collected for the 582 sample plans, not on the complete multiemployer defined benefit pension plan universe. Plans with compensation-based accrued benefit formulas or multiple formulas with a wide range of accrual rates, depending on a participant's employee group, were not included in the monthly benefit tables.

Summaries of the main statistics for the sampled pension plans versus all multiemployer pension plans is outlined in the Tables A through D below. The comparison of data between Tables A and B as well as Tables C and D shows that the studied sample is representative of the entire multiemployer pension plan universe, both in terms of the level of benefit accruals as well as the distribution by industry and funded status.

Note that on all Tables in this study, individual percentages may not add up to 100% due to rounding of individual entries.

Table A - Studied Multiemployer Pension Plans by 2016 Zone Status

2016 Zone Status	Plan Count		Active Current Liability (millions, \$)		Active Participant Count (thousands)	
	No.	% Total	Amount	% Total	No.	% Total
Critical & Declining	47	8%	\$25,648	7%	199	6%
Critical	108	19%	52,485	14%	624	19%
Seriously Endangered	5	1%	1,200	1%	13	1%
Endangered	66	11%	47,465	13%	359	11%
"Green"	356	61%	235,243	65%	2,065	63%
Studied Plans Total	582	100%	\$362,041	100%	3,260	100%
Studied Plans as a percentage of Total	47%		90%		87%	

Table B - All Multiemployer Pension Plans by 2016 Zone Status

2016 Zone Status	Plan Count		Active Current Liability (millions, \$)		Active Participant Count (thousands)	
	No.	% Total	Amount	% Total	No.	% Total
Critical & Declining	115	9%	\$26,846	7%	211	6%
Critical	216	17%	57,035	14%	688	18%
Seriously Endangered	6	1%	1,263	1%	14	1%
Endangered	135	11%	55,805	13%	402	11%
"Green"	769	62%	262,941	65%	2,449	64%
All Plans Total	1,241	100%	\$403,890	100%	3,764	100%

Table C - Studied Multiemployer Pension Plans by Industry Classification

Industry Classification	Plan Count		Active Current Liability (millions, \$)		Active Participant Count (thousands)	
	No.	% Total	Amount	% Total	No.	% Total
Construction	323	55%	\$189,289	52%	1,372	42%
Leisure & Hospitality	24	4%	17,253	5%	246	7%
Manufacturing	34	6%	15,317	4%	168	5%
Retail	40	7%	22,065	6%	502	15%
Transportation & Warehousing	67	12%	67,761	18%	419	13%
Other Industry	94	16%	50,356	15%	553	18%
Studied Plans Total	582	100%	\$362,041	100%	3,260	100%

Table D - All Multiemployer Pension Plans by Industry Classification

Industry Classification	Plan Count		Active Current Liability (millions, \$)		Active Participant Count (thousands)	
	No.	% Total	Amount	% Total	No.	% Total
Construction	692	56%	\$218,309	54%	1,571	42%
Leisure & Hospitality	51	4%	18,385	5%	280	7%
Manufacturing	97	8%	17,215	4%	200	5%
Retail	66	5%	24,023	6%	537	14%
Transportation & Warehousing	125	10%	70,376	17%	441	12%
Other Industry	210	17%	55,582	14%	735	20%
All Plans Total	1,241	100%	\$403,890	100%	3,764	100%

REPORTING ON MULTIEMPLOYER PLAN PROVISIONS

BENEFIT ACCRUAL FORMULAS AND GENERAL CATEGORY DISTRIBUTIONS

Benefit formulas were classified into four major types:

- i. Flat dollar per year of service,
- ii. Percent of contribution (POC),
- iii. Percent of final average pay, and
- iv. Percent of career average pay.

Where a plan has more than one benefit formula, the benefit provisions of the predominant participant group was used, if determinable. If different provisions applied to employees hired before and after a certain date, the set of provisions applicable to the most recent hires was recorded. Otherwise, the provisions of the first participant group listed in the plan provisions attachment to Schedule MB was used. Tables 1 through 7 below summarize the types of benefit accrual formulas and current liabilities based on various categories for all studied plans.

Table 1 - Plans by Type of Benefit Accrual Formula

Benefit Formula Type	% of Plans	% of Active Current Liability	% of Active Participants
Flat Dollar per Year of Service	59%	46%	50%
Percent of Contributions	34%	44%	39%
Percent of Final Average Pay	5%	7%	6%
Percent of Career Average Pay	2%	3%	5%
Total	100%	100%	100%

Table 2 - Plans by Amount of Active Current Liability

Active Current Liability	% of Plans	% of Active Current Liability	% of Active Participants
Less than \$100M	40%	2%	3%
Between \$100M and \$500M	35%	15%	15%
More than \$500M	25%	83%	82%
Total	100%	100%	100%

Table 3 - Plans by 2016 Zone Status

Zone Status	% of Plans	% of Active Current Liability	% of Active Participants
Critical & Declining	8%	7%	6%
Critical	19%	14%	19%
Seriously Endangered	1%	< 0.5%	< 0.5%
Endangered	11%	13%	11%
"Green"	61%	65%	63%
Total	100%	100%	100%

Table 4 - Plans by Industry Classification

Industry Classification	% of Plans	% of Active Current Liability	% of Active Participants
Construction	55%	52%	42%
Leisure & Hospitality	4%	5%	8%
Manufacturing	6%	4%	5%
Retail	7%	6%	15%
Transportation & Warehousing	12%	19%	13%
Other Industry	16%	14%	17%
Total	100%	100%	100%

Table 5 – Percent of Active Participants by Amount of Active Current Liability and Type of Benefit Accrual Formula

Active Current Liability	Flat Dollar per Year of Service	Percent of Contributions	Percent of Final Average Pay	Percent of Career Average Pay	% of Active Participants
Less than \$100M	2%	1%	< 0.5%	< 0.5%	3%
Between \$100M and \$500M	10%	5%	1%	< 0.5%	15%
More than \$500M	39%	33%	5%	5%	82%
% of Active Participants	50%	39%	6%	5%	100%

Table 6 – Percent of Active Participants by 2016 Zone Status and Type of Benefit Accrual Formula

2016 Zone Status	Flat Dollar per Year of Service	Percent of Contributions	Percent of Final Average Pay	Percent of Career Average Pay	% of Active Participants
Critical & Declining	2%	4%	0%	0%	6%
Critical	11%	8%	< 0.5%	0%	19%
Seriously Endangered	< 0.5%	< 0.5%	0%	0%	< 0.5%
Endangered	3%	8%	< 0.5%	0%	11%
"Green"	34%	19%	6%	5%	63%
% of Active Participants	50%	39%	6%	5%	100%

Table 7 – Percent of Active Participants by Industry Classification and Type of Benefit Accrual Formula

Industry Classification	Flat Dollar per Year of Service	Percent of Contributions	Percent of Final Average Pay	Percent of Career Average Pay	% of Active Participants
Construction	21%	21%	< 0.5%	< 0.5%	42%
Leisure & Hospitality	6%	1%	< 0.5%	1%	8%
Manufacturing	4%	2%	0%	0%	5%
Retail	10%	3%	< 0.5%	2%	15%
Transportation & Warehousing	3%	10%	< 0.5%	0%	13%
Other Industry	7%	3%	5%	2%	17%
% of Active Participants	50%	39%	6%	5%	100%

BENEFIT ACCRUAL RATES

Tables 8 through 15 depict the average estimated monthly benefit accrual rates per year of service for a hypothetical active participant with 15 years of benefit service under various breakdowns for all studied plans. Note that if a plan's benefit accruals are frozen, the average benefit accrual rate was calculated based on the years that the formula was still in effect, up through January 1, 2016.

Table 8 - Benefit Accrual Rates for Plans with Dollar-Per-Year of Service Formula

Current Monthly Benefit Accrual Rate	% of Subtotal Plan Count	% of Subtotal Active Current Liability	% of Subtotal Active Count
Less than \$11.00	1%	< 0.5%	5%
\$11.00 - \$24.99	5%	1%	3%
\$25.00 - \$34.99	4%	15%	30%
\$35.00 - \$44.99	7%	8%	16%
\$45.00 - \$59.99	12%	8%	9%
\$60.00 - \$74.99	17%	12%	11%
\$75.00 - \$99.99	20%	14%	8%
\$100.00 - \$124.99	18%	26%	12%
\$125.00 - \$149.99	5%	7%	4%
\$150.00 - \$199.99	6%	6%	2%
\$200.00 - \$249.99	1%	1%	1%
\$250.00 or more	2%	2%	1%
Total	100%	100%	100%

Table 9 - Benefit Accrual Rates for Plans with Dollar-Per-Year of Service Formula by 2016 Zone Status

Current Monthly Benefit Accrual Rate	Critical & Declining	Critical	Seriously Endangered	Endangered	“Green”	% of Subtotal Plan Count
Less than \$11.00	0%	3%	0%	0%	2%	1%
\$11.00 - \$24.99	21%	9%	0%	7%	2%	5%
\$25.00 - \$34.99	7%	3%	0%	0%	6%	4%
\$35.00 - \$44.99	7%	3%	0%	3%	9%	7%
\$45.00 - \$59.99	14%	20%	0%	17%	9%	12%
\$60.00 - \$74.99	29%	23%	0%	7%	17%	17%
\$75.00 - \$99.99	7%	20%	0%	21%	22%	20%
\$100.00 - \$124.99	14%	11%	100%	28%	18%	18%
\$125.00 - \$149.99	0%	3%	0%	7%	6%	5%
\$150.00 - \$199.99	0%	6%	0%	0%	8%	6%
\$200.00 - \$249.99	0%	0%	0%	3%	1%	1%
\$250.00 or more	0%	0%	0%	7%	2%	2%
Total	100%	100%	100%	100%	100%	100%
Plan-Weighted Average Accrual Rate	\$59.04	\$72.38	\$102.00	\$117.13	\$111.06	\$101.62

Table 10 - Benefit Accrual Rates for Plans with Dollar-Per-Year of Service Formula by Industry Classification

Current Monthly Benefit Accrual Rate	Construction	Leisure & Hospitality	Manufacturing	Retail	Transportation & Warehousing	Other Industry	% of Subtotal Studied Plan Count
Less than \$11.00	1%	0%	0%	0%	0%	6%	1%
\$11.00 - \$24.99	1%	8%	50%	10%	0%	12%	5%
\$25.00 - \$34.99	2%	17%	0%	10%	0%	9%	4%
\$35.00 - \$44.99	3%	25%	13%	0%	6%	15%	7%
\$45.00 - \$59.99	13%	8%	25%	40%	12%	0%	12%
\$60.00 - \$74.99	20%	0%	0%	30%	12%	18%	17%
\$75.00 - \$99.99	26%	0%	0%	10%	24%	12%	20%
\$100.00 - \$124.99	22%	8%	13%	0%	6%	21%	18%
\$125.00 - \$149.99	6%	0%	0%	0%	12%	3%	5%
\$150.00 - \$199.99	6%	0%	0%	0%	24%	3%	6%
\$200.00 - \$249.99	1%	0%	0%	0%	6%	0%	1%
\$250.00 or more	0%	33%	0%	0%	0%	0%	2%
Plan-Weighted Average Accrual Rate	\$87.75	\$319.42	\$40.08	\$41.25	\$101.38	\$67.71	\$101.62

Table 11 - Benefit Accrual Rates for Plans with Percent of Contribution Formula

Current Monthly Benefit Accrual Rate	% of Subtotal Plan Count	% of Subtotal Active Current Liability	% of Subtotal Active Count
Less than 0.25%	1%	< 0.5%	< 0.5%
0.25% - 0.49%	3%	1%	1%
0.50% - 0.74%	8%	5%	5%
0.75% - 0.99%	7%	3%	2%
1.00% - 1.24%	44%	56%	52%
1.25% - 1.49%	7%	15%	14%
1.50% - 1.74%	10%	4%	5%
1.75% - 1.99%	7%	6%	10%
2.00% - 2.49%	8%	4%	4%
2.50% - 2.99%	1%	< 0.5%	< 0.5%
3.00% - 3.49%	4%	3%	5%
3.50% - 3.99%	0%	0%	0%
4.00% - 4.49%	1%	< 0.5%	< 0.5%
4.50% - 4.99%	1%	2%	2%
Total	100%	100%	100%

Table 12 - Benefit Accrual Rates for Plans with Percent of Contribution Formula by 2016 Zone Status

Current Monthly Benefit Accrual Rate	Critical & Declining	Critical	Seriously Endangered	Endangered	“Green”	% of Subtotal Plan Count
Less than 0.25%	0%	0%	0%	0%	1%	1%
0.25% - 0.49%	5%	5%	0%	4%	2%	3%
0.50% - 0.74%	9%	7%	0%	23%	4%	8%
0.75% - 0.99%	9%	0%	0%	11%	9%	7%
1.00% - 1.24%	73%	55%	100%	38%	33%	44%
1.25% – 1.49%	5%	5%	0%	8%	9%	7%
1.50% – 1.74%	0%	9%	0%	0%	15%	10%
1.75% – 1.99%	0%	7%	0%	4%	9%	7%
2.00% – 2.49%	0%	9%	0%	12%	9%	8%
2.50% – 2.99%	0%	0%	0%	0%	2%	1%
3.00% – 3.49%	0%	2%	0%	0%	7%	4%
3.50% – 3.99%	0%	0%	0%	0%	0%	0%
4.00% – 4.49%	0%	0%	0%	0%	1%	1%
4.50% – 4.99%	0%	2%	0%	0%	1%	1%
Plan-Weighted Average Accrual Rate	0.95%	1.30%	1.10%	1.05%	1.47%	1.31%

Table 13 - Benefit Accrual Rates for Plans with Percent of Contribution Formula by Industry Classification

Current Monthly Benefit Accrual Rate	Construction	Leisure & Hospitality	Manufacturing	Retail	Transportation & Warehousing	Other Industry	% of Subtotal Plan Count
Less than 0.25%	1%	0%	0%	0%	0%	0%	1%
0.25% - 0.49%	2%	0%	6%	0%	5%	5%	3%
0.50% - 0.74%	10%	0%	0%	0%	14%	0%	8%
0.75% - 0.99%	8%	0%	0%	10%	0%	15%	7%
1.00% - 1.24%	40%	100%	72%	40%	48%	35%	44%
1.25% - 1.49%	6%	0%	6%	0%	14%	10%	7%
1.50% - 1.74%	13%	0%	6%	10%	5%	0%	10%
1.75% - 1.99%	6%	0%	6%	0%	0%	25%	7%
2.00% - 2.49%	8%	0%	0%	20%	14%	5%	8%
2.50% - 2.99%	2%	0%	0%	0%	0%	0%	1%
3.00% - 3.49%	4%	0%	6%	20%	0%	0%	4%
3.50% - 3.99%	0%	0%	0%	0%	0%	0%	0%
4.00% - 4.49%	1%	0%	0%	0%	0%	0%	1%
4.50% - 4.99%	1%	0%	0%	0%	0%	5%	1%
Plan-Weighted Average Accrual Rate	1.32%	1.00%	1.20%	1.67%	1.14%	1.42%	1.31%

Table 14 - Benefit Accrual Rates for Plans with Final Average Pay Formula

Current Annual Benefit Accrual Rate	% of Subtotal Plan Count	% of Subtotal Active Current Liability	% of Subtotal Active Count
1-Year Pay Averaging Period	6%	3%	3%
1.50% – 1.99%	3%	2%	3%
3.00% or greater	3%	1%	< 0.5%
3-Year Pay Averaging Period	26%	13%	7%
1.00% – 1.49%	3%	< 0.5%	< 0.5%
2.00% – 2.49%	3%	1%	1%
2.50% – 2.99%	10%	8%	4%
3.00% or greater	10%	4%	2%
5-Year Pay Averaging Period	52%	40%	27%
Less than 1.00%	3%	< 0.5%	< 0.5%
1.00% – 1.49%	10%	5%	4%
1.50% – 1.99%	16%	14%	13%
2.00% – 2.49%	19%	19%	10%
2.50% – 2.99%	3%	1%	**
10-Year Pay Averaging Period	10%	42%	61%
1.50% – 1.99%	3%	38%	59%
2.00% – 2.49%	3%	3%	1%
2.50% – 2.99%	3%	1%	1%
Over 10 Years Pay Averaging Period	6%	2%	2%
2.00% – 2.49%	6%	2%	2%
Total	100%	100%	100%

Table 15 - Benefit Accrual Rates for Plans with Percent of Career Earnings Formula*

Current Benefit Accrual Rate	% of Subtotal Plan Count	% of Subtotal Active Current Liability	% of Subtotal Active Count
Less than 1.00%	27%	21%	47%
1.00% – 1.49%	9%	1%	1%
1.50% – 1.99%	27%	20%	14%
2.00% – 2.49%	18%	33%	18%
2.50% – 2.99%	9%	15%	4%
3.00% or greater	9%	11%	16%
Total	100%	100%	100%

* All studied multiemployer pension plans with percent-of-career-earnings benefit formula are in the “Green” zone for the 2016 plan year. The plan-weighted average accrual rate for these plans is 1.57% of career earnings.

BENEFIT AVERAGES ACROSS ALL PLANS

Tables 16 through 18 depict the average estimated monthly benefit accruals per year of service for a hypothetical active participant with 15 years of benefit service under various breakdowns for all studied plans which were deemed to have reasonably reliable information (442 plans out of the 582 plan sample were deemed to meet this criteria). Note that if a plan's benefit accruals are frozen, the average benefit accrual rates were calculated based on the years that the formula was still in effect, up through January 1, 2016 – there are five such plans included here, representing about 1% of the total. The monthly estimates for plans with percentage of contribution formulas and pay-related formulas are based on an approximation, as outlined in the Appendix.

Table 16 - Average Estimated Monthly Benefit Accruals

Average Monthly Benefit Accrual	% of Total Plan Count	% of Total Active Current Liability	% of Total Active Count
Less than \$11.00	1%	0%	2%
\$11.00 - \$24.99	6%	3%	8%
\$25.00 - \$34.99	4%	5%	11%
\$35.00 - \$44.99	6%	3%	6%
\$45.00 - \$59.99	10%	7%	11%
\$60.00 - \$74.99	16%	30%	30%
\$75.00 - \$99.99	18%	10%	8%
\$100.00 - \$124.99	18%	16%	8%
\$125.00 - \$149.99	9%	14%	10%
\$150.00 - \$199.99	8%	8%	4%
\$200.00 - \$249.99	1%	1%	<0.5%
\$250.00 or more	2%	4%	2%
Total	100%	100%	100%

Table 17 - Average Estimated Monthly Benefit Accruals by 2016 Zone Status

Average Monthly Benefit Accrual	Critical & Declining	Critical	Seriously Endangered	Endangered	“Green”	% of Total Plan Count
Less than \$11.00	0%	1%	0%	0%	2%	1%
\$11.00 - \$24.99	19%	10%	0%	5%	3%	6%
\$25.00 - \$34.99	8%	4%	0%	0%	4%	4%
\$35.00 - \$44.99	11%	5%	0%	2%	7%	6%
\$45.00 - \$59.99	14%	17%	0%	11%	8%	10%
\$60.00 - \$74.99	31%	13%	0%	14%	16%	16%
\$75.00 - \$99.99	3%	17%	33%	18%	21%	18%
\$100.00 - \$124.99	11%	13%	33%	23%	19%	18%
\$125.00 - \$149.99	3%	9%	33%	11%	9%	9%
\$150.00 - \$199.99	0%	9%	0%	5%	9%	8%
\$200.00 - \$249.99	0%	1%	0%	5%	1%	1%
\$250.00 or more	0%	1%	0%	7%	2%	2%
Total	100%	100%	100%	100%	100%	100%
Plan-Weighted Average Accrual	\$57.40	\$85.58	\$106.97	\$120.16	\$103.90	\$98.83
Plan-Weighted Median Accrual	\$56.29	\$74.50	\$102.00	\$100.00	\$86.24	\$83.33

Note that Critical and Critical & Declining plans have lower than average benefit accruals. Such plans also tend to have relatively high contribution rates – as such, the differential in the benefit accrual rate (relative to contributions) is likely larger than the numbers above suggest.

Also, as previously noted, if a plan’s benefit accruals are frozen, the average benefit accrual rate was calculated based on the years that the formula was still in effect, up through January 1, 2016.

Table 18 - Average Estimated Monthly Benefit Accruals by Industry Classification

Average Monthly Benefit Accrual	Construction	Leisure & Hospitality	Manufacturing	Retail	Transportation & Warehousing	Other Industry	% of Total Plan Count
Less than \$11.00	1%	5%	0%	0%	0%	3%	1%
\$11.00 - \$24.99	1%	5%	27%	32%	2%	10%	6%
\$25.00 - \$34.99	2%	11%	8%	14%	0%	8%	4%
\$35.00 - \$44.99	4%	16%	19%	5%	5%	10%	6%
\$45.00 - \$59.99	9%	16%	27%	23%	12%	4%	10%
\$60.00 - \$74.99	16%	0%	12%	14%	26%	18%	16%
\$75.00 - \$99.99	22%	5%	0%	9%	19%	19%	18%
\$100.00 - \$124.99	22%	16%	8%	5%	14%	14%	18%
\$125.00 - \$149.99	10%	5%	0%	0%	12%	9%	9%
\$150.00 - \$199.99	11%	0%	0%	0%	9%	3%	8%
\$200.00 - \$249.99	2%	0%	0%	0%	2%	0%	1%
\$250.00 or more	2%	21%	0%	0%	0%	1%	2%
Total	100%	100%	100%	100%	100%	100%	100%
Plan-Weighted Average Accrual	\$103.10	\$290.22*	\$44.38	\$44.25	\$92.45	\$75.01	\$98.83
Plan-Weighted Median Accrual	\$95.46	\$55.46	\$41.41	\$42.12	\$81.73	\$72.62	\$83.33

* The plan-weighted average for the Leisure & Hospitality industry is skewed due to very large benefits under professional sports teams' plans. The plan-weighted average monthly benefit accrual for the Leisure & Hospitality industry, excluding the professional sports teams, is \$60.87.

NORMAL RETIREMENT PROVISIONS

Tables 19 through 21 summarize normal retirement eligibility requirements by various categories for all studied plans.

Table 19 - Plan's Normal Retirement Eligibility Requirements

Normal Pension Eligibility Requirements (Age/Service)	% of Total Plan Count	% of Total Active Current Liability	% of Total Active Count
Under 62/Under 5	1%	< 0.5%	< 0.5%
Under 62/5	5%	3%	2%
Under 62/Over 5	1%	1%	1%
62/Under 5	2%	1%	< 0.5%
62/5	17%	9%	7%
62/Over 5	1%	< 0.5%	< 0.5%
63 - 64/5	2%	3%	2%
65/Under 5	4%	10%	9%
65/5	67%	73%	79%
65/Over 5	1%	1%	< 0.5%
Over 65/5	< 0.5%	< 0.5%	< 0.5%
Total	100%	100%	100%

Table 20 - Normal Retirement Eligibility Requirements by 2016 Zone Status

Normal Retirement Eligibility Requirements (Age/Service)	Critical & Declining	Critical	Seriously Endangered	Endangered	"Green"	% of Active Participants
Under 62/Under 5	-	-	-	1%	< 0.5%	< 0.5%
Under 62/5	< 0.5%	3%	-	3%	1%	2%
Under 62/Over 5	-	3%	-	-	< 0.5%	1%
62/Under 5	-	< 0.5%	-	< 0.5%	1%	< 0.5%
62/5	1%	4%	65%	6%	7%	7%
62/Over 5	-	-	-	< 0.5%	< 0.5%	< 0.5%
63 - 64/5	10%	5%	-	-	< 0.5%	2%
65/Under 5	10%	8%	1%	1%	11%	9%
65/5	78%	76%	35%	88%	78%	79%
65/Over 5	-	1%	-	1%	1%	< 0.5%
Over 65/5	-	-	-	-	< 0.5%	< 0.5%
Total	100%	100%	100%	100%	100%	100%

Table 21 - Active Participant Normal Retirement Eligibility Requirements by Industry Classification

Normal Retirement Eligibility Requirements (Age/Service)	Construction	Leisure & Hospitality	Manufacturing	Retail	Transportation & Warehousing	Other Industry	% of Total Active Participants
Under 62/Under 5	<0.5%	1%	-	-	-	-	<0.5%
Under 62/5	2%	-	<0.5%	3%	2%	1%	2%
Under 62/Over 5	<0.5%	-	-	3%	1%	-	1%
62/Under 5	<0.5%	1%	-	-	<0.5%	1%	< 0.5%
62/5	11%	<0.5%	<0.5%	8%	3%	5%	7%
62/Over 5	<0.5%	-	-	<0.5%	<0.5%	-	<0.5%
63 - 64/5	3%	-	<0.5%	-	5%	-	2%
65/Under 5	1%	4%	1%	13%	48%	2%	9%
65/5	82%	94%	99%	73%	39%	91%	79%
65/Over 5	1%	-	-	-	2%	-	<0.5%
Over 65/5	<0.5%	-	-	-	-	-	<0.5%
Total	100%	100%	100%	100%	100%	100%	100%

EARLY RETIREMENT ELIGIBILITY

Tables 22 through 24 summarize early retirement eligibility requirements by various categories for all studied plans. Note that these tables include eligibility for both subsidized and unsubsidized early retirement. For information about subsidized early retirement benefits, see the section on Ancillary Benefits (Tables 29-33).

Table 22 - Early Retirement Eligibility Requirements

Early Pension Eligibility Requirements (Age/Service)	% of Total Plan Count	% of Total Active Current Liability	% of Total Active Count
Under 50/Under 5	1%	<0.5%	<0.5%
Under 50/5	1%	1%	1%
Under 50/Over 5	1%	1%	1%
50 - 54/Under 5	<0.5%	<0.5%	<0.5%
50 - 54/5	3%	2%	2%
50 - 54/Over 5	7%	8%	5%
55/Under 5	1%	2%	1%
55/5	21%	30%	39%
55/6 – 9	1%	<0.5%	<0.5%
55/10	37%	32%	28%
55/11 – 14	<0.5%	2%	1%
55/15	9%	7%	6%
55/Over 15	3%	4%	3%
Over 55/Under 5	<0.5%	<0.5%	<0.5%
Over 55/5	6%	6%	11%
Over 55/Over 5	9%	4%	3%
Total	100%	100%	100%

Table 23 - Early Retirement Eligibility Requirements by 2016 Zone Status

Early Retirement Eligibility Requirements (Age/Service)	Critical & Declining	Critical	Seriously Endangered	Endangered	“Green”	% of Active Participants
Under 50/Under 5	-	-	-	1%	<0.5%	<0.5%
Under 50/5	-	-	-	3%	1%	1%
Under 50/Over 5	6%	-	-	2%	<0.5%	1%
50-54/Under 5	-	-	-	-	<0.5%	<0.5%
50-54/5	<0.5%	2%	-	3%	2%	2%
50-54/Over 5	32%	3%	65%	2%	3%	5%
55/Under 5	-	<0.5%	-	6%	<0.5%	1%
55/5	10%	56%	24%	25%	39%	39%
55/Over 5	50%	35%	11%	50%	36%	38%
Over 55/Under 5	-	<0.5%	-	-	-	<0.5%
Over 55/5	<0.5%	1%	-	6%	16%	10%
Over 55/Over 5	2%	3%	-	2%	3%	3%
Total	100%	100%	100%	100%	100%	100%

Table 24 - Early Retirement Eligibility Requirements by Industry Classification*

Early Pension Eligibility Requirements (Age/Service)	Construction	Leisure & Hospitality	Manufacturing	Retail	Transportation & Warehousing	Other Industry	% of Total Active Count
Under 50/Under 5	-	2%	-	-	-	-	<0.5%
Under 50/5	1%	-	-	-	1%	-	1%
Under 50/Over 5	1%	-	-	-	3%	-	1%
50-54/Under 5	**	-	-	-	-	-	<0.5%
50-54/5	**	3%	-	4%	3%	3%	2%
50-54/Over 5	3%	-	<0.5%	7%	21%	1%	5%
55/Under 5	2%	-	-	-	-	<0.5%	1%
55/5	22%	58%	68%	56%	51%	40%	39%
55/6 – 9	<0.5%	-	-	-	-	<0.5%	<0.5%
55/10	39%	6%	14%	24%	3%	37%	28%
55/11 – 14	1%	-	-	-	3%	-	1%
55/15	6%	1%	15%	4%	7%	5%	6%
55/Over 15	2%	<0.5%	-	4%	2%	11%	3%
Over 55/Under 5	-	-	-	-	<0.5%	-	<0.5%
Over 55/5	20%	25%	1%	-	1%	1%	10%
Over 55/Over 5	3%	5%	2%	1%	5%	2%	3%
Total	100%	100%	100%	100%	100%	100%	100%

OPTIONAL FORMS OF BENEFIT

Tables 25 through 28 summarize optional payment forms under various categories for all studied plans.

Table 25 - Optional Payment Forms Currently Offered

Optional Payment Forms	% of Total Plan Count	% of Total Active Current Liability	% of Total Active Count
Guarantee (Certain) Period	63%	65%	57%
Full Lump Sum at Retirement	1%	1%	1%
Partial Lump Sum at Retirement	8%	11%	10%

Table 26 - Plans by Size of Active Current Liability and Optional Payment Form

Active Current Liability	Guarantee (Certain) Period	Full Lump Sum at Retirement	Partial Lump Sum at Retirement
Less than \$100 million	59%	1%	3%
Between \$100 million and \$500 million	65%	< 0.5%	8%
More than \$500 million	67%	2%	15%
% of Plans	63%	1%	8%

Table 27 - Active Participants by 2016 Zone Status and Optional Payment Forms

2016 Zone Status	Guarantee (Certain) Period	Full Lump Sum at Retirement	Partial Lump Sum at Retirement
Critical & Declining	69%	-	< 0.5%
Critical	46%	-	1%
Seriously Endangered	7%	-	11%
Endangered	88%	-	14%
"Green"	54%	1%	13%
% of Total Active Count	57%	1%	10%

Table 28 - Active Participants by Industry Classification and Optional Payment Form

Industry Classification	Guarantee (Certain) Period	Full Lump Sum at Retirement	Partial Lump Sum at Retirement
Construction	68%	1%	8%
Leisure & Hospitality	22%	-	21%
Manufacturing	82%	-	57%
Retail	35%	-	-
Transportation & Warehousing	34%	< 0.5%	4%
Other Industry	72%	2%	8%
% of Total Active Count	57%	1%	10%

ANCILLARY FORMS OF BENEFIT

Tables 29 through 33 summarize ancillary benefits under various categories for all studied plans.

Table 29 - Types of Ancillary Benefits Offered

Ancillary Benefits Offered	% of Total Plan Count	% of Total Active Current Liability	% of Total Active Count
Subsidized Early Retirement	72%	82%	75%
Disability Pension	89%	95%	95%
Pre-retirement Full* Lump Sum Death Benefit	13%	15%	11%
Pre-retirement Limited Lump Sum Death Benefit	25%	30%	25%

* Full lump sum death benefit implies the single payment of all employer contributions made on participant's behalf or one-time actuarially equivalent cash-out of the annuity payable to beneficiary.

Table 30 - Distribution of Types of Ancillary Benefits by 2016 Zone Status (Plan Weighted)

Zone Status for 2016 Plan Year	Subsidized Early Retirement	Disability Pension	Pre-retirement Full Lump Sum Death Benefit *	Pre-retirement Limited Lump Sum Death Benefit
Critical & Declining	47%	53%	2%	4%
Critical	61%	83%	10%	14%
Seriously Endangered	60%	100%	-	40%
Endangered	77%	92%	12%	30%
"Green"	78%	94%	15%	29%
% of Total Plan Count	72%	89%	13%	25%

* Full lump sum death benefit implies the single payment of all employer contributions made on participant's behalf or one-time actuarially equivalent cash-out of the annuity payable to beneficiary.

Table 31 – Distribution of Types of Ancillary Benefits by 2016 Zone Status (Participant Weighted)

Zone Status for 2016 Plan Year	Subsidized Early Retirement	Disability Pension	Pre-retirement Full Lump Sum Death Benefit *	Pre-retirement Limited Lump Sum Death Benefit
Critical & Declining	75%	89%	2%	35%
Critical	43%	87%	10%	5%
Seriously Endangered	35%	100%	0%	29%
Endangered	84%	98%	26%	23%
"Green"	83%	97%	10%	30%
% of Total Active Count	75%	95%	11%	25%

* Full lump sum death benefit implies the single payment of all employer contributions made on participant's behalf or one-time actuarially equivalent cash-out of the annuity payable to beneficiary.

Table 32 – Ancillary Benefits by Industry Classification (Plan Weighted)

Industry Classification	Subsidized Early Retirement	Disability Pension	Pre-retirement Full Lump Sum Death Benefit*	Pre-retirement Limited Lump Sum Death Benefit
Construction	84%	95%	20%	32%
Leisure & Hospitality	50%	79%	8%	13%
Manufacturing	47%	71%	0%	9%
Retail	50%	75%	5%	3%
Transportation & Warehousing	69%	79%	0%	18%
Other Industry	59%	89%	2%	22%
% of Total Plan Count	72%	89%	13%	25%

* Full lump sum death benefit implies the single payment of all employer contributions made on participant's behalf or one-time actuarially equivalent cash-out of the annuity payable to beneficiary.

Table 33 – Ancillary Benefits by Industry Classification (Participant Weighted)

Industry Classification	Subsidized Early Retirement	Disability Pension	Pre-retirement Full Lump Sum Death Benefit*	Pre-retirement Limited Lump Sum Death Benefit
Construction	90%	99%	25%	19%
Leisure & Hospitality	35%	95%	3%	34%
Manufacturing	80%	96%	-	59%
Retail	61%	83%	2%	<0.5%
Transportation & Warehousing	90%	94%	-	67%
Other Industry	53%	96%	1%	16%
% of Total Active Count	75%	95%	11%	25%

* Full lump sum death benefit implies the single payment of all employer contributions made on participant's behalf or one-time actuarially equivalent cash-out of the annuity payable to beneficiary.

APPENDIX

DETAILS ON METHODOLOGIES AND ASSUMPTIONS

Study Methodology and Assumptions

The benefit provisions and plan measurements used to compile the descriptive statistics shown in this study are based on the information that was available on the DOL EFAST website in late November - early December 2018.

The following pension plan statistics were taken directly from the downloaded 2016 Schedule MB filings:

- Zone status,
- Amount of active current liability,
- Number of active and in-pay plan participants,
- Expected annual benefits paid to plan participants.

The downloaded data was reviewed for reasonability but was not audited.

The industry classifications were based on the code entry on the Form 5500, which describe a very wide range of detailed industry types – statistics for this report are consolidated and are being presented as high-level industry groups. These groups can be diverse in composition and this diversity may explain some of the variation within the group. This is particularly apparent in the Leisure and Hospitality Industry, which is very diverse, including sponsors ranging from operas and professional sports teams to hoteliers and food service workers. Plans reporting as Insurance & Employee Benefit Funds (525100) or Labor Unions and Similar Labor Organizations (813930) are manually researched and corrected based on the business activity of the largest contributing employers.

The benefit provisions listed below were taken from the attachment to the most recent Schedule MB available on the DOL EFAST website:

- Pension benefit accrual formula and the corresponding time periods when certain accrual rates are effective,
- Normal retirement age and service eligibility requirements,
- Early retirement age and service eligibility requirements,
- Early retirement subsidy,
- Disability coverage,
- Pre-retirement survivor annuity death benefit,
- Pre-retirement lump sum death benefit, and
- Optional forms of payment.

The following methods and procedures were used to assemble the data for the study and to calculate needed statistics:

- All benefit formulas were classified into four major types: (i) flat dollar per year of service, (ii) percent of contribution (POC), (iii) percent of final average pay, and (iv) percent of career average pay.
- All Accrued benefits were calculated as of December 31, 2015.
- To calculate estimated accrued benefits under POC plans, employer contribution amounts and active participant headcounts were taken from Schedule MB for plan years 2003 through 2015 to calculate per-capita contributions. Because contributions shown on the Schedule MB include withdrawal liability payments, which are not generally broken out on Form 5500, a generic approximation was developed based on available withdrawal liability data that had been collected and averaged across all plans for which withdrawal liability data was available. Based on this, the amount of reported contributions was decreased by a flat 18% across all plans (except for plans in the Construction industry, where no such adjustment was made) to approximate the benefit-bearing portion of annual contributions. While this adjustment is not accurate on individual plans, it is likely to be a reasonable estimate on an aggregate basis. The contributions were also adjusted for any caps and supplemental contributions (amounts not considered for benefit accrual purposes) if clearly disclosed by the actuary in the plan provisions summary.
- The uniform Final Average Salary used to calculate estimated accrued benefits under final-average pay plans, (reflected in the results presented in this report) was \$50,000. This assumption is based on the participant-weighted average compensation reported in the corresponding attachment to the 2016 Schedule MB by the studied final-average pay plans with active current liability of \$350 million or greater.
- The uniform Career Average Pay per year of service used to calculate estimated accrued benefits under career-average pay plans, reflected in the results presented in this study, was \$55,000. This assumption is based on the participant-weighted average compensation reported in the corresponding attachment to the 2016 Schedule MB by the studied career-average pay plans with active current liability of \$500 million or greater. Career-average pay plans in the study cover higher-paid populations, therefore, the overall assumed annual average pay per year of service in a Career Average plan is higher than the overall assumed final average pay.
- In this study, the estimated average benefit accruals per year of service only for a hypothetical active employee with 15 years of service are shown. The 15-year average (covering the period from 2001-2015) smooths out temporary accrual rate freezes and better represents plans that change accrual rates periodically (up and down). The results for 20-year and 25-year career lengths are not materially different.

Due to coverage of numerous participant groups and complexity of benefit provisions of certain multiemployer pension plans, the following simplifying assumptions were made to summarize the benefit provisions and fit them into the format required by the study:

-
- The benefit provisions of the predominant participant group, if determinable, based on information disclosed on line 8a of the Form 5500 (pension plan features), line 13 of Schedule R (employers making contributions greater than 5% of total plan contributions), or attachments to Schedule MB. If different provisions applied to employees hired before and after a certain date, the set of provisions applicable to the most recent hires was recorded. Otherwise, the provisions of the first participant group listed in the plan provisions attachment to Schedule MB was used.
 - The hypothetical employee was assumed to work 1,500 hours per year if the benefit accrual rate was dependent on the number of work hours.
 - One pension credit was assumed to be earned by a hypothetical employee in each plan year.
 - If disclosed by the plan actuary, the normal retirement age applicable to the most recent benefit accruals was recorded for the study. Otherwise, the age of the earliest eligibility for Normal/Regular Pension applicable for the most recent benefit accruals under the plan was recorded.
 - If disclosed by the plan actuary, the normal retirement service was set according to the plan's most recent definition of the Normal Retirement Date (NRD). Otherwise, it was set to the least number of years required to earn a non-forfeitable benefit under the plan.
 - Early retirement eligibility applicable to the most recent benefit accruals was recorded for the study.
 - When there were multiple eligibilities for early retirement (for example, 55/15 and 60/5), the provision with the earliest age (unless it required 30 or more years of service) was reflected.
 - An early retirement reduction of 5% per year or less for ages prior to NRD was assumed to be an early retirement subsidy. A plan that offers an early retirement subsidy, even if only a benefit portion had the embedded subsidy, while the remaining accruals were reduced on an actuarial equivalent basis, was recorded as having a subsidy.
 - If disability or other ancillary benefits used to be offered under the plan, but have been eliminated, it was recorded that no such benefit is provided under the plan.
 - If the largest amount of lump sum death benefit offered under the plan was \$5,000 or less, it was recorded that the plan offers no lump sum death benefit.
 - If the maximum amount of lump sum payable upon retirement was \$5,000 or less, it was recorded that the plan offers no lump sum form of payment.
 - If a payment form, normal or optional, was available for at least a portion of the benefit, it was recorded that such payment option is generally offered under the plan.
 - Under POC plans, if the benefit-bearing portion of employer contributions was not clearly disclosed, it was assumed that all employer contributions were used for benefit accrual purposes.
 - Two plans that described their benefit accruals in terms of lump sum amounts to the equivalent single life annuity accrual rates (by dividing the lump sum accrual by 15) were classified as flat dollar per year of service formulas.

Constraints and Limitations

Our study assumes that each participant is subject to the plan provisions applicable to the 15-year period ending December 31, 2015. Grandfathered plan provisions were excluded from the study for all purposes.

Simplifying assumptions were made to summarize the benefit provisions, as described previously in this document; therefore, Tables 16 through 18 rely on estimated accrued plan benefits and should be used with caution.

No distinction was made between normal and optional payment forms when studying the plan provisions data. Therefore, the proportion of multiemployer plans shown in this study as offering a guarantee (certain) period may be understated because not all filings contain disclosure of optional payment forms.

Only five out of 582 plans selected for the study (covering about 13,000 active participants) were in seriously endangered status for the 2016 plan year. Any findings for this plan category should be referenced with reservation due to the small sample size.