Pension Benefit Guaranty Corporation

2012 Actuarial Report

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<u>ACTUARIAL VALUATION REPORT – 2012 FISCAL YEAR</u>

The 2012 Annual Report of the Pension Benefit Guaranty Corporation (PBGC) contains a summary of the results of the September 30, 2012 actuarial valuation. The purpose of this separate Actuarial Valuation Report is to provide greater detail concerning the valuation of future benefits than is presented in PBGC's Annual Report.

Overview

PBGC calculated and validated the present value of future benefits (PVFB) for both the single-employer and multiemployer programs and of nonrecoverable financial assistance under the multiemployer program. These calculations reflect the present value of claims as of the date of the financial statements. They present a snapshot of the liabilities as of a point in time and do not include liability projections over the period subsequent to the date of the financial statements.

For the single-employer program, the liability as of September 30, 2012 consisted of:

- (1) \$104.12 billion for the 4,447 plans that have terminated; and
- (2) \$7.69 billion for the six probable terminations.

Liabilities for "probable terminations" reflected reasonable estimates of the losses for plans that are likely to terminate in a future year. These estimated losses were based on conditions that existed as of PBGC's fiscal year-end. Management believes it is likely that one or more events subsequent to PBGC's fiscal year-end will occur, confirming the fact of the loss. In addition, the liability for reasonably possible terminations has been calculated and is discussed in a note to the financial statements of PBGC's 2012 Annual Report.

For the multiemployer program, the liability as of September 30, 2012 consisted of:

- (1) \$1 million for 10 pension plans that terminated before the passage of the Multiemployer Pension Plan Amendments Act (MPPAA) and of which PBGC is trustee;
- (2) \$1,388 million for probable and estimable post-MPPAA losses due to financial assistance to 41 multiemployer pension plans that were currently receiving PBGC assistance; and
- (3) \$5,622 million for probable and estimable post-MPPAA losses due to financial assistance to 107 multiemployer pension plans that were probable to receive PBGC assistance in the future.

The results of the valuation (the present value of future benefits and nonrecoverable financial assistance) are presented in Table 1 and are displayed in the graphs on pages 9 and 10.

Table 1: Present Value of Future Benefits and Nonrecoverable Future Financial Assistance - 2012

	Number of Plans	Estimated Number of Participants (in thousands)	Liability (in millions)
I. Single-Employer Program			
A. Terminated plans			
1. Seriatim at fiscal year-end (FYE)	4,009	983	\$66,814
2. Seriatim at DOPT, adjusted to FYE	14	77	6,742
3. Nonseriatim ¹	424	330	30,500
4. Missing Participants Program (seriatim) ²		22	59
Subtotal	4,447	1,412	\$104,115
B. Probable terminations (nonseriatim) ³	6	82	7,686
Total ⁴	4,453	1,494	\$111,801
II. Multiemployer Program			
A. Pre-MPPAA termination (seriatim)	10	*	\$1
B. Post-MPPAA liability (net of plan assets)			
1. Currently receiving assistance	41	76	1,388
2. Probable for assistance	107	149	5,622
Total	158	225	\$7,011

- The Missing Participants Program refers to a liability that PBGC assumed for unlocated participants in standard plan terminations.
- 3) The net claims for probable plans reported in the financial statements include \$2,035 million for not-yet-identified probable terminations. The assets for the probable plans, including the expected value of recoveries on employer liability and due-and-unpaid employer contributions claims, are \$5,651 million. Thus, the net claims for probable terminations as reported in the financial statements are \$7,686 million less \$5,651 million, or \$2,035 million.
- 4) The PVFB in the financial statements (\$105,636 million) is net of estimated plan assets and recoveries on probable terminations (\$5,651 million), estimated recoveries on terminated plans (\$243 million), and estimated assets for plans pending trusteeship (\$271 million), or, \$111,801 million less \$5,651 million less \$243 million less \$271 million = \$105,636 million.

^{*}Fewer than 500 participants

¹⁾ The liability for terminated plans has been increased by \$57 million for settlements.

Single-Employer Program

PBGC calculated the single-employer program's liability for benefits for each of the terminated plans and for each of the plans considered to be a probable termination using one of three methods:

- (1) seriatim at fiscal year-end (FYE);
- (2) seriatim at date of plan termination (DOPT), adjusted to FYE; and
- (3) nonseriatim.

In addition, PBGC included liabilities for incurred but not reported (IBNR) plans, for the Missing Participants Program, and for the Collins Settlement.

Seriatim at FYE Method

The liability for each participant's benefit was calculated separately at FYE for plans for which PBGC had sufficiently complete and accurate data. This was termed the seriatim at FYE method. PBGC selected plans to be valued using the seriatim at FYE method according to two criteria:

- (1) completeness whether PBGC's computer system contained enough of the plan's participant records and whether enough of those records had been finalized; and
- (2) accuracy whether the participant's record contained enough of the critical elements of data that were necessary to perform an actuarial valuation.

For this valuation, these criteria were met by 4,009 pension plans (90% of the single-employer plans) representing \$66,814 million (60%) in liabilities and about 983,000 (66%) participants. This was an increase of 69 plans over the 3,940 plans valued seriatim at September 30, 2011.

The critical error rates for 597 plans or 14.9% of the seriatim plans (a similar percentage to last year's 14.7%) exceeded 5%. The overall error rate for the group of 4,009 seriatim plans was 1.7%, which is the same as last year. A data error is considered critical if the value of the data element in error has a major impact on the liability associated with a benefit record.

Seriatim at DOPT Method

There were 14 plans for which a final seriatim valuation as of date of plan termination (DOPT) had been completed, but the Benefits Administration and Payment Department of PBGC had not finished processing the case as of year-end (e.g., participant data had not been fully loaded into PBGC's computer database, or the data lacked too many critical elements to be valued by the seriatim at FYE method). When PBGC benefit calculations were finalized but not ready for seriatim valuation as of fiscal year-end, PBGC valued the plan's liability seriatim as of the plan's termination date and brought the total amounts forward to September 30, 2012 using the nonseriatim method outlined below. Because PBGC had finalized and valued these benefits for each participant and valued them using PBGC assumptions and regulations as of each plan's date of termination, these amounts are more accurate than similar calculations for plans whose benefits are not final.

Nonseriatim Method

If calculations of benefits provided by PBGC were not final, PBGC based the liability calculations on the plan's most recent actuarial valuation performed before the termination date that is available to PBGC. For the 424 terminated plans valued nonseriatim, PBGC obtained the liability for each plan as of the most recent available actuarial valuation date for each category of participant: retired, active, or terminated vested. These liabilities were adjusted to reflect such factors as:

- (1) benefits accrued between the valuation and plan termination dates;
- differences between the interest rates assumed by the plans' actuaries and those assumed by PBGC;
- (3) differences between the mortality, retirement age, and expense assumptions used by the plans' actuaries and those used by PBGC; and

(4) the effect on the liability of time elapsed between the valuation date and September 30, 2012.

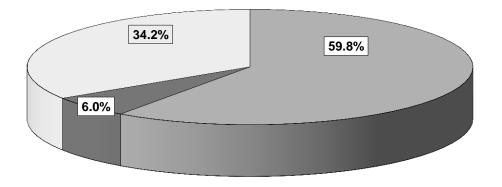
PBGC based the adjustment factors used in the nonseriatim procedure on its experience in routinely estimating the liability for benefits for administrative purposes.

For each of the six probable terminations, PBGC calculated the liability as of September 30, 2012 using the nonseriatim method with an assumed date of plan termination.

<u>Distribution of FYE12 Single-Employer Liability by</u> <u>Method of Calculation</u>

Liability for Benefits: \$111,801

(Dollars in Millions)



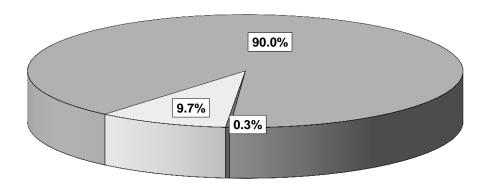
- **Seriatim at FYE: \$66,873***
- Seriatim at DOPT Adjusted to FYE: \$6,742
- **☐ Nonseriatim:** \$38,186**

^{*}Seriatim at FYE includes the Missing Participants Program

^{**}Nonseriatim includes Probable terminations

<u>Distribution of FYE12 Single-Employer Plans by</u> <u>Method of Calculation</u>

Total Plans: 4,453



- ☐ Seriatim at FYE: 4,009
- **Seriatim at DOPT Adjusted to FYE: 14**
- □ Nonseriatim: 430*

^{*}Nonseriatim includes Probable terminations

Missing Participants Program

The Missing Participants Program refers to a responsibility that PBGC has assumed under the Retirement Protection Act of 1994 to act as a clearinghouse for unlocated participants in standard plan terminations. As with other parts of PVFB, only the liabilities are shown here. Because plan administrators have transferred a corresponding asset amount to PBGC, the net increase in liabilities of PBGC due to this program, if any, will be negligible. Changes to this program due to the Pension Protection Act of 2006 have not yet been implemented.

Collins Settlement

The Collins Settlement refers to the liability for benefits that PBGC incurred as a result of the settlement of a class action lawsuit during fiscal year 1996. This settlement provides benefits for participants in plans which terminated between January 1, 1976 and December 31, 1981 without having been amended to conform to ERISA's vesting requirements. The remaining liability under this settlement is included in the nonseriatim portion of the liability.

Multiemployer Program

There were a total of ten pre-MPPAA terminations, nine of which were granted discretionary coverage under the provisions of ERISA as passed in 1974. The remaining plan terminated when coverage under Title IV was mandatory (from August 1, 1980 until September 25, 1980). PBGC calculated the liability for these ten terminations under the seriatim at FYE method using the same assumptions as for the single-employer program.

The post-MPPAA portion of the liability represented the present value, as of September 30, 2012, of net losses that PBGC expected to incur from non-recoverable future financial assistance to 148 pension plans of which 41 were insolvent (i.e., currently receiving PBGC financial assistance) and 107 were expected to become insolvent. The liability for each plan was calculated (using the cash flow method) as the present value of future guaranteed benefit and expense payments, net of the present value of future employer contributions and withdrawal liability payments. This liability was determined as of the later of September 30, 2012 and the actual or projected date of insolvency, and then discounted back to September 30, 2012 using interest only. The most recent available actuarial reports and information provided by representatives of the affected plans served as the basis for the valuations.

Projected benefit payments were estimated based on liabilities, current benefit payments and estimated average ages for actives, terminated vesteds and retirees from the most recent actuarial reports, combined with assumptions of retirement ages and of future rates of mortality and termination. Projected expense payments were estimated as a constant percentage of the projected benefit payments; this percentage is equal to the ratio of current expense payments to current benefit payments. The projected date of insolvency was then established using a cashflow model with initial assets, expense payments, contributions, projected benefit and withdrawal liability payments as inputs, estimated when necessary.

The post-MPPAA liability as of September 30, 2012 is about \$2,535 million higher than it was a year earlier. This increase in liability is mostly attributable to the fact that there is a net increase of 13 plans that are classified as post-MPPAA probable plans in FY 2012. A number of the new plans are very large.

Actuarial Assumptions, Methods, and Procedures

PBGC continues to review the actuarial assumptions used in the valuation to assure that they remain consistent with current market conditions in the insurance industry and with PBGC's experience. The actuarial assumptions, which are used in both the single-employer and multiemployer valuations, are presented in Table 2A. Assumptions concerning data that were not available are discussed in the data section of this report.

As in previous valuations, the select and ultimate interest factors used to value PBGC's liabilities were derived using an assumed underlying mortality basis and current annuity purchase prices. The interest factors so determined for the September 30, 2012 valuation were 3.28% for the first 25 years after the valuation date and 2.97% thereafter. For the September 30, 2011 valuation the interest factors were 4.31% for the first 20 years and 4.26% thereafter. These interest factors are dependent upon PBGC's mortality assumption.

Beginning with the June 30, 2011 valuation, PBGC updated the mortality assumptions by adopting the recommendations from a study by an independent consulting firm. The study recommended that, when conducting valuations for its financial statements, PBGC use the RP-2000 Combined Healthy Male and Female Mortality Tables. The study also recommended that continuing mortality improvements be taken into account by using Projection Scale AA to project these tables a fixed number of years. At each valuation date the fixed number of years will be determined as the sum of the elapsed time from the date of the table (2000) to the valuation date, plus the period of time from the valuation date to the average date of payment of future benefits (the duration). Thus, the mortality tables used for healthy lives in the 2012 valuations are the RP-2000 Combined Healthy Male and Female Mortality Tables, each projected 22 years to 2022 using Scale AA and set back one year. The 22 years recognizes the 12 years from 2000 to 2012 plus the 10 year duration of the September 30, 2011 liabilities.

This is an approximation to generational mortality tables. The 2011 assumption incorporated a 21 year projection, determined as the sum of the 11 years from 2000 to 2011 and the 10 year duration of the September 30, 2010 liabilities.

Retirement age assumptions were not changed.

The SPARR (Small Plan Average Recovery Ratio) assumptions as shown in Table 2B were updated to reflect the SPARR calculated in FY2012. The FY2012 SPARR of 12.56% is used for the September 30, 2012 valuation.

PBGC used the same explicit loading factors as used since FY2007 for expenses in all terminated plans and single-employer probable terminations. The reserve for expenses was assumed to be 1.37% of the liability for benefits plus additional reserves for cases whose plan asset determinations, participant database audits, and actuarial valuations were not yet complete. The factors to determine the additional reserves were based on case sizes (large/small), number of participants, and time since trusteeship. The factors used in the expense reserve formula are shown in Table 2C.

During the 2012 fiscal year, PBGC also improved the system that calculates the liabilities to:

(1) enhance our ability to handle large amounts of data by expanding the size of several fields in the system (2) enhance our ability to calculate the value of non-level benefits for deferred participants and (3) enhance our ability to calculate multiemployer liabilities.

We continue our ongoing efforts to improve the quality of the seriatim data and, as in other years, made various changes to improve the accuracy, speed, security and auditability of the calculations and to integrate with the evolving PBGC computer environment.

Table 2A Actuarial Valuation Assumptions

	Previous Valuation as of 9/30/11	Current Valuation as of 9/30/12
Interest Factors	Select & Ultimate: 4.31% for 20 years, 4.26% thereafter	Select & Ultimate: 3.28% for 25 years, 2.97% thereafter
Mortality Healthy Lives	RP-2000 Combined Healthy Male and Female Mortality Tables, each projected 21 years to 2021 using Scale AA and set back one year.	RP-2000 Combined Healthy Male and Female Mortality Tables, each projected 22 years to 2022 using Scale AA and set back one year.
Disabled Lives Eligible for Social Security (SS) Disability Benefits	1994 Group Annuity Mortality Static Male and Female Tables, each projected 27 years to 2021 using Scale AA and set forward six years.	1994 Group Annuity Mortality Static Male and Female Tables, each projected 28 years to 2022 using Scale AA and set forward six years.
Disabled Lives Not Eligible for SS Disability Benefits	1994 Group Annuity Mortality Static Male and Female Tables, each projected 27 years to 2021 using Scale AA and set forward three years.	1994 Group Annuity Mortality Static Male and Female Tables, each projected 28 years to 2022 using Scale AA and set forward three years.
SPARR	Calculated SPARR through fiscal year ending 9/30/11.	Calculated SPARR through current fiscal year ending 9/30/12.
		See Table 2B for values and notes.
Retirement Ages	 (a) Earliest possible for shutdown companies. (b) Expected retirement age (XRA) tables from 29 CFR 4044 for ongoing companies. (c) Deferred participants past XRA are assumed to be in pay status, retroactive to their XRA. To reflect lower likelihood of payment: (d) Unlocated deferred participants past age 65 are phased out over 3 years. (e) Located deferred participants are fully phased out past age 70. (f) Deferred participants in the Missing Participants Program are phased out over 10 years past age 70. 	Same * * Clarified (d), (e) and (f) to reflect actual assumptions.
Expenses	All terminated plans and single-employer probable terminations: 1.37% of the liability for benefits plus Additional reserves as shown in Table 2C for cases where plan asset determinations, participant database audits and actuarial valuations were not complete.	Same

Table 2B
Small Plan Average Recovery Ratio (SPARR) Assumptions

The SPARR is used in the calculation of the liability for benefits determined under section 4022(c) of ERISA, which provides participants with a portion of PBGC's recoveries. The SPARR has been determined by PBGC for terminations initiated in a given fiscal year based on actual recoveries and unfunded benefit liabilities for plan terminations initiated during a five year averaging period. As of the end of fiscal year 2012, the SPARR had been calculated for plan terminations initiated in fiscal years 1991-2012. The FY 2012 SPARR is assumed for probable plans affected by future SPARRs.

Fiscal Year	SPARR	Fiscal Year	SPARR
1991	12.01%	2002	9.60%
1992	7.73%	2003	7.86%
1993	7.44%	2004	3.42%
1994	7.04%	2005	4.39%
1995	7.22%	10/1/05 - 9/15/06	4.13%
		9/16/06 - 9/30/06	3.50%
1996	7.90%	2007	4.35%
1997	5.98%	2008	4.26%
1998	6.84%	2009	3.85%
1999	8.01%	2010	9.15%
2000	4.58%	2011	12.30%
2001	4.94%	2012	12.56%

Table 2C Reserve Factors for Expenses

Large Plans (more than 100 participants)									
	Plan Asset Determinations	Participant Database		Actuarial	Valuation		Interim Benefits Administration		
Years Since Trusteeship	Per Large Plan	Per Large Plan	Per Large Plan	Per Participant for the First 100 Participants in Plan	Per Participant for the Next 400 Participants in Plan	Per Participant for the Remaining Participants in Plan	Per Participant		
0<=y<1	\$23,020	\$78,290	\$118,640	\$1,130	\$370	\$15	\$330		
1<=y<2	15,270	48,470	69,450	660	220	10	190		
2<=y<3	12,050	35,970	40,380	380	130	5	110		
3<=y	8,570	33,130	31,730	300	100	5	90		

Small Plans (100 or fewer participants)									
	Plan Asset Determinations	Participant Database		Actuarial	Valuation		Interim Benefits Administration		
Years Since Trusteeship	Per Small Plan	Per Small Plan	Per Small Plan	Per Participant for the First 100 Participants in Plan	Per Participant for the Next 400 Participants in Plan	Per Participant for the Remaining Participants in Plan	Per Participant		
0<=y<1	\$11,500	\$21,470	\$118,640	\$1,130	N/A	N/A	\$330		
1<=y<2	7,320	18,060	69,450	660	N/A	N/A	190		
2<=y<3	5,550	15,130	40,380	380	N/A	N/A	110		
3<=y	5,040	11,430	31,730	300	N/A	N/A	90		

In addition to the reserve factors shown, an expense reserve equal to 1.37% of the liability for benefits applies to both Large Plans and Small Plans.

Data Sources and Assumptions

The seriatim portion of this valuation was based on participant data maintained by PBGC's Benefits Administration & Payment Department. For the seriatim liability, benefit amounts have been determined for each participant using plan documents, together with ERISA and PBGC regulations relating to guaranteed benefits and the allocation of assets. If specific data were not available for deferred vested participants under the seriatim method, participants were assumed to be married and to elect the qualified Joint and Survivor (J&S) benefit; wives were assumed to be four years younger than their husbands. When certain other data elements for a participant were missing, they were replaced by the average for the plan. When the plan average was not available, the average for all plans valued seriatim was used.

The nonseriatim liability was based on the plan's most recent actuarial valuation performed before the termination date that is available to PBGC. The valuation information generally was obtained from actuarial reports or Schedule SB or MB filings. For nonseriatim plans and probable terminations, provision generally has been made to reduce benefits to guaranteed levels. Attained ages for active participants, terminated vested participants, and retired participants were assumed to be ages 50, 53 and 69 respectively for new nonseriatim plans when plan data were unavailable. This is a change from the 2011 assumption where age 50 was assumed for active and terminated vested participants and age 65 for retired participants. PBGC made this change in assumption based on a 2011 experience study. The study was based on data collected from 207 terminated plans in recent years.

For post-MPPAA multiemployer plans, the assumed ages are 55, 56 and 65, respectively.

Auditors' Opinion

PBGC's 2012 financial statements have received an unqualified opinion from PBGC's auditors, Clifton Larson Allen, LLP. The Present Value of Future Benefits and Nonrecoverable Future Financial Assistance and its underlying data are covered by this opinion. The auditors performed numerous tests of both data and procedures to support this opinion.

Valuation Statistics

The FY 2012 valuation for the single-employer program included approximately 1,412,000 participants owed future payments in terminated plans as of September 30, 2012 and approximately 82,000 participants in plans that will probably terminate. For the multiemployer program, the FY 2012 valuation included, as of September 30, 2012, 96 participants in terminated pre-MPPAA plans and approximately 76,000 participants in post-MPPAA plans receiving financial assistance and 149,000 participants in post-MPPAA plans expected to receive financial assistance. Of these, about 799,000 participants from terminated single-employer plans and 80 participants from terminated multiemployer plans were receiving benefits from PBGC at fiscal year-end.

The average monthly benefit paid by PBGC for participants in pay status during FY 2012 was \$569 (including supplemental benefits) for the single-employer program and \$133 for the multiemployer program in the ten pre-MPPAA plans.

Tables 3 through 6 summarize the detailed results of the seriatim and nonseriatim valuations for both the single-employer and multiemployer programs.

Table 3: Liability for Pay-Status Recipients in "Seriatim at FYE" Method

	Single-Employer]	Multiemplo	yer
Age	Number of Benefit Recipients**	Average Monthly Benefit	Average Supplemental Monthly Benefit	Liability (Millions)	Percent of Liability	Number of Benefit Recipients	Average Monthly Benefit	Liability (Millions)	Percent of Liability
Under 50	1,868	\$133	\$173	\$78	*%	0	-	\$0	0%
50-54	4,166	372	241	389	1%	0	-	0	0
55-59	29,493	366	232	2,445	6%	0	-	0	0
60-64	80,806	460	451	7,535	17%	0	-	0	0
65-69	130,760	507	787	11,754	27%	0	-	0	0
70-74	120,469	549	173	9,800	23%	0	-	0	0
75-79	98,145	533	247	6,245	14%	2	\$104	*	4%
80-84	77,500	463	278	3,335	8%	9	134	*	18%
85-89	51,283	390	190	1,388	3%	27	129	*	39%
Over 89	27,388	327	0	448	1%	42	137	*	39%
TOTAL	\$621,878	\$481	\$410	\$43,417	100%	80	\$133	\$1	100%

Less than 0.5% or less than \$500,000

Table 4: Liability for Deferred Participants in "Seriatim at FYE" Method

	Single-Employer					-	Multiemplo	yer	
Age	Number of Benefit Recipients**	Average Monthly Benefit	Average Supplemental Monthly Benefit	Liability (Millions)	Percent of Liability	 Number of Benefit Recipients	Average Monthly Benefit	Liability (Millions)	Percent of Liability
Under 40	6,142	\$207	\$77	\$134	1%	 0	-	\$0	0%
40-44	19,991	260	126	679	3%	0	-	0	0
45-49	49,877	348	155	2,749	12%	0	-	0	0
50-54	76,283	407	169	5,883	25%	0	-	0	0
55-59	83,954	415	185	7,748	32%	0	-	0	0
60-64	52,884	378	170	4,921	21%	0	-	0	0
Over 64	10,937	308	192	895	4%	0	-	0	0
Other***	60,592			388	2%	16	-	*	100%
TOTAL	360,660	\$377	\$167	\$23,397	100%	 16	-	\$*	100%

Less than 0.5% or less than \$500,000

Approximately 2% of participants are receiving supplemental benefits.

Note: The liability in this table does not include the liability for the Missing Participants Program.

Fewer than 1% of participants (not including others) will receive supplemental benefits.

"Other" refers to participants scheduled at year-end for lump sum payments.

Note: The liability in this table does not include the liability for the Missing Participants Program.

Table 5: Seriatim at DOPT and Nonseriatim Liability

Plane	with	Final	DOPT	Renefits

	Number of Plans	Liability (millions)	Percent of Liability
A. Large	3	\$6,712	15.0%
B. Other	<u>11</u>	\$30	0.1%
Subtotal	14	\$6,742	15.1%

Plans with Non-Final DOPT Benefits

	Number of Plans	Liability (millions)	Percent of Liability
A. Large	137	\$29,515	66.2%
B. Other	287	\$928	2.1%
Subtotal	424	\$30,443	68.3%

Probable Plans

	Number of Plans	Liability (millions)	Percent of Liability
A. Large	6	\$7,387	16.6%
B. Other	_0	\$0	0.0%
Subtotal	6	\$7,387	16.6%
Total	444	\$44,572	100.0%

- 1) Final DOPT benefits refer to those benefits that PBGC has determined and valued seriatim as of DOPT for the plan. Non-Final DOPT benefits are estimates of these final DOPT benefits.
- 2) Large Plans in this table are those whose present value of Title IV benefits at DOPT equals or exceeds \$10 million.
- 3) The liability shown in this table does not include the liability for settlements.
- 4) The liability for probable plans is shown as a gross amount (i.e., plan assets and collections on employer liabilities are not subtracted from the liability for benefits). Also, the numbers in this table do not include the liability for not yet identified probable terminations.

Table 6A:
Distribution of Single-Employer Liability (including 4022(c)) by Trusteeship Status, Recipient Status, and Valuation Method (Dollars in millions)

Recipient Status	Seriatim/ Missing Participants	Nonseriatim/ Collins	Total Terminated Liability	Probables/ IBNR	Total Liability	Percent of Total Liability
Receiving Payments						
Trusteed	\$43,415	\$19,363	\$62,778	\$0	\$62,778	56.2%
Pending Trusteeship	2	250	<u>252</u>	4,107	4,359	3.9%
Total	\$43,417	\$19,613	\$63,030	\$4,107	\$67,137	60.1%
Not Receiving Payments						
Trusteed	\$23,456	\$17,135	\$40,591	\$0	\$40,591	36.3%
Pending Trusteeship	0	494	494	3,579	4,073	3.6%
Total	\$23,456	\$17,629	\$41,085	\$3,579	\$44,664	39.9%
All Payment Statuses						
Trusteed	\$66,871	\$36,498	\$103,369	\$0	\$103,369	92.5%
Pending Trusteeship Total	\$66,873	744 \$37,242	746 \$104,115	7,686 \$7,686	<u>8,432</u> \$111,801	<u>7.5%</u> 100.0%
Percent of Terminated	64.2%	35.8%	100.0%			
Percent of Total	59.8%	33.3%	93.1%	6.9%	100%	

- 1) Recipient status for Seriatim, Missing Participants, IBNR and Collins liabilities refers to status as of 9/30/12. For Nonseriatim and Probable liabilities, recipient status refers to the status as of the most recent actuarial valuation report (date of plan termination if benefits are "final"). The term "final" is defined in the notes to Table 5.
- 2) The Probable liabilities are shown as gross amounts (i.e., plan assets and collections on employer liabilities are not subtracted from the liability for benefits).

Table 6B:
Distribution of Single-Employer Populations (including 4022(c)) by Trusteeship Status, Recipient Status, and Valuation Method (Populations in thousands)

Recipient Status	Seriatim/ Missing Participants	Nonseriatim	Total Terminated Population	Probables	Total Population	Percent of Total Population
Receiving Payments						
Trusteed	622	172	794	0	794	53.1%
Pending Trusteeship	0	5	5	<u>43</u>	<u>48</u>	3.3%
Total	622	177	799	43	842	56.4%
Not Receiving Payments						
Trusteed	383	222	605	0	605	40.5%
Pending Trusteeship	<u>0</u>	_8	_8	<u>39</u>	<u>47</u>	3.1%
Total	383	230	613	39	652	43.6%
All Payment Statuses						
Trusteed	1,005	394	1,399	0	1,399	93.6%
Pending Trusteeship	_0	<u>13</u>	<u>13</u>	<u>82</u>	95	6.4%
Total	1,005	407	1,412	82	1,494	100.0%
Percent of Terminated	71.2%	28.8%	100.0%			
Percent of Total	67.3%	27.2%	94.5%	5.5%	100%	

- 1) Recipient status for Seriatim and Missing Participants liabilities refers to status as of 9/30/12. For Nonseriatim and Probable liabilities, recipient status refers to the status as of the most recent actuarial valuation report (date of plan termination if benefits are "final"). The term "final" is defined in the notes to Table 5.
- 2) Participant counts for IBNR and Collins are not included.

Reconciliation of Results

Table 7 reconciles the September 30, 2012 valuation with the September 30, 2011 valuation. It shows that the \$17,817 million increase in the liability for the Single-Employer program was the net effect of:

- (1) increased liability for probable plans = \$6,307 million
- (2) new plan terminations as of the beginning of the year = \$2,030 million
- (3) expected interest on the liability = \$3,927 million
- (4) increased liability from change in interest rates = \$10,718 million
- (5) change in mortality assumptions = \$225
- (6) actual benefit payments = (\$5,384) million
- (7) other changes = (\$6) million.

The Multiemployer columns reconcile both the liability for the pre-MPPAA terminated plans and the liability for the post-MPPAA financial assistance to insolvent plans.

Table 7: Reconciliation of the Present Value of Future Benefits (dollars in millions)

	Total Single Employer	Pre-MPPAA Multiemployer	Post-MPPAA Multiemployer
1. Liability at BOY (9/30/11)			
(a) Present Value of Future Benefits for all Plans	\$93,984	\$1	\$4,475
(b) Liability for Probable Plans (gross liability including unreported)	(1,379)	0	(3,243)
(c) Liability for Unreported Terminated Plans and other settlements	(56)	0	0
(d) 9/30/11 Liability for Terminated Plans (a + b + c)	\$92,549	\$1	\$1,232
2. Change in Valuation Software			
(a) Effect on Liability as of DOPT	\$0	\$0	\$0
(b) Projection of (a) from DOPT to BOY + post-DOPT changes	0	0	0
(c) Total (a + b)	\$0	\$0	\$0
3. Net New Plans and Missing Participant Liability			
(a) New Missing Participant Liability	\$5	\$0	\$0
(b) New Termination Inventory as of DOPT	2,030	0	68
(c) Deletions as of DOPT	0	0	(7)
(d) Projection of (b + c) from DOPT to BOY	0	0	0
(e) Total $(a+b+c+d)$	\$2,035	\$0	\$61
4. Nonseriatim Data Changes and Effect of DOPT Seriatim Valuation	(ቀር)	¢ 0	#21
(a) Effect on Liability at DOPT (b) Projection of (c) from DOPT to POY	(\$8)	\$0 0	\$21 0
(b) Projection of (a) from DOPT to BOY(c) Total (a + b)	(8) (\$16)	\$0 \$0	\$21
(c) Total (a + 0)	(\$10)	\$ 0	\$21
5. Actuarial Charges/Credits			
(a) Expected Interest	\$3,927	\$0	\$54
(b) Change in Interest Rate (from 4.31% for 20 years; 4.26% thereafter to			
3.28% for 25 years; 2.97% thereafter)	10,718	0	116
(c) Change in Mortality Assumption	225	0	5
(d) Change in Method (Current Year: Seriatim at DOPT to Seriatim at FYE)	(19)	0	0
(e) Effect of Experience* (f) Change in Other Assumptions (Expense SDADD, DDCCC STD Retes)	153 0	0	(11)
 (f) Change in Other Assumptions (Expense, SPARR, PBGCC STD Rates) (g) Total (a + b + c + d + e + f) 	\$15,004	\$0	\$164
(g) Total $(a + b + c + d + e + f)$	\$13,004	\$ 0	\$104
6. Expected Expense Payments	(\$130)	\$0	\$0
7. Actual Benefit Payments	(\$5,384)	\$0	(\$90)
8. Liabilities at End of Period (9/30/12)	440:	±.	
(a) Liability for all Terminated Plans	\$104,058	\$1	\$1,388
= (1d) + (2c) + (3e) + (4c) + (5g) + (6) + (7)			_
(b) Liability for Unreported Terminated Plans and other settlements	57	0	1 200
(c) Liability for all Terminated Plans (a + b)	104,115	1	1,388
 (d) Liability for Probable Plans (gross liability including unreported) ** (e) 9/30/12 Present Value of Future Benefits for all Plans (c + d) 	7,686 \$111,801	0	5,622 \$7,010
(e) 9/30/12 Present Value of Future Benefits for all Plans (c + d)	\$111,001	\$1	\$7,010

^{*} Includes change from expected benefits (\$5,393 million) to actual benefits (\$5,384 million) in Total Single Employer. Includes change from expected benefits (\$101 million) to actual benefits (\$90 million) in Post-MPPAA Multiemployer. Actual does not include payments made by employers.

^{**} Includes \$299 million for not yet identified probable terminations. Financial statements show a liability of \$7,686 million for probable terminations, less assets of \$5,651 million, for a net claim of \$2,035 million.

Statement of Actuarial Opinion

This valuation has been prepared in accordance with generally accepted actuarial

principles and practices and, to the best of my knowledge, fairly reflects the actuarial present

value of the Corporation's liabilities for the single-employer and multiemployer plan insurance

programs as of September 30, 2012.

In preparing this valuation, I have relied upon information provided to me regarding plan

provisions, plan participants, plan assets, and other matters.

In my opinion, (1) the techniques and methodology used for valuing these liabilities are

generally acceptable within the actuarial profession; (2) the assumptions used are appropriate for

the purposes of this statement and are individually my best estimate of expected future

experience discounted using current settlement rates from insurance companies; and (3) the

resulting total liability represents my best estimate of anticipated experience under these

programs.

I, Joan M. Weiss, am the Chief Valuation Actuary of PBGC. I am a Member of the

American Academy of Actuaries, a Fellow of the Society of Actuaries and an Enrolled Actuary.

I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial

opinion contained in this report.

Joan M. Weiss, FSA, E.

Chief Valuation Actuary, PBGC

Member, American Academy of Actuaries

November 15, 2012

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