PBGC Pension Benefit Guaranty Corporation

Fiscal Year 2024 Actuarial Report

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ACTUARIAL VALUATION REPORT- FISCAL YEAR 2024

The Fiscal Year 2024 Annual Report of the Pension Benefit Guaranty Corporation (PBGC) contains a summary of the results of the September 30, 2024, 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 of Valuation Results

PBGC calculated and validated the present value of future benefits (PVFB) for the single-employer program and the nonrecoverable future financial assistance (NRFFA) under the multiemployer program. Generally, except for the changes in interest and mortality, we used the same methods and procedures as in fiscal year 2023 for the Single-Employer and Multiemployer Programs. 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 after the date of the financial statements.

For the single-employer program, the liability as of September 30, 2024, consisted of:

(1) $78.6 billion for the 5,144 plans that have terminated: and

(2) $177.8 million for one probable plan termination and plans not yet identified as probable terminations (small plans bulk reserve).

The liability for "probable terminations" reflected reasonable estimates of the losses for plans that are likely to terminate in a future year and plans not yet identified as probable terminations (small plans bulk reserve). These estimated losses were based on conditions that existed as of PBGC's fiscal year-end. PBGC believes it is likely that one or more events will occur after the fiscal year-end confirming the fact of the loss.

For the multiemployer program, the liability as of September 30, 2024, consisted of:

(1) less than $500,000 for 10 pension plans that terminated before the passage of the Multiemployer Pension Plan Amendments Act of 1980 (MPPAA) and of which PBGC is trustee.

(2) $1,700 million for estimable post-MPPAA losses due to financial assistance to 91 multiemployer pension plans that are currently receiving PBGC assistance: and

(3) $370 million for probable estimable post-MPPAA losses due to financial assistance to 31 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 future financial assistance, are presented in Tables 1 & 7 of this report.

Table 1:
Present Value of Future Benefits and Nonrecoverable Future Financial Assistance – September 30, 2024

	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)	5,044	1,160	$68,682
2. Seriatim at DOPT, adjusted to FYE	13	20	2,368
3. Nonseriatim[1]	87	137	7,070
4. Missing Participants Program (seriatim)[2]	--	48	467
Subtotal	5,144	1,365	$78,587
B. Probable terminations (nonseriatim)[3]	1	2	178
Total[4]	5,145	1,367	$78,765
II. Multiemployer Program			
Pre-MPPAA termination (seriatim)	10	*	$**
III. Multiemployer Program Post-MPPAA liability (nonseriatim)			
1. Currently receiving assistance	91	82	1,700
2. Probable for assistance	31	29	370
Total[5]	122	111	$2,070

* Fewer than 500 participants
** Less than $500,000

Notes:
1) Liability for terminated plans includes an estimated liability of $17 million in settled litigation.

2) The Missing Participants Program refers to a liability that PBGC assumed for unlocated participants in standard plan terminations.

3) The net claims for the probable plans reported in the financial statements include $35 million for not yet identified probable terminations. The assets for probable plans, including the expected value of recoveries on employer liability and due and unpaid employer contributions claims, are $47 million. Thus, the net claim for probables as reported in the financial statements are $178 less $47 million, or $131 million.

4) The PVFB in the financial statements ($78,666 million) is net of estimated plan assets and recoveries on probables ($47 million), estimated recoveries on terminated plans ($26 million), and estimated assets of plans pending trusteeship ($26 million), or $78,765 million less $47 million less $26 million less $26 million equals $78,666 million.

5) Includes $18 million for small plans bulk reserve Post-MPPAA Multiemployer plans.

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 not yet identified probable terminations (small bulk reserve), 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 5,044 pension plans (98% of the single-employer terminated plans) representing $68,682 million (87%) in liabilities and about 1,160,000 (88%) participants. This was an increase of 56 plans over the 4,988 plans valued seriatim at September 30, 2023. The critical discrepancy rates for 555 plans or 11.0% of the seriatim plans (0.1% higher percentage than last year) exceeded 5%. The overall critical discrepancy rate for the group of 5,044 seriatim plans was 1.0%, which is 0.1% higher than last year. A data discrepancy is considered critical if the value of the data element in discrepancy has a major impact on the liability associated with a benefit record.

Seriatim at DOPT Method

There were 13 plans for which a final seriatim valuation as of date of plan termination (DOPT) had been completed, but the Office of Benefits Administration 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, 2024, 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 report performed before the termination date that is available to PBGC. For the 87 terminated plans and 1 probable plan valued nonseriatim, PBGC obtained the liability for each plan as of the most recent available actuarial valuation report date for each category of participants: retired, active, and terminated vested. These liabilities were adjusted to reflect such factors as:

(1) benefits accrued between the actuarial valuation report and PBGC plan termination dates.

(2) differences between the interest rates assumed in the plans' actuarial valuation report and those assumed by PBGC.

(3) differences between the mortality, retirement age, and expense assumptions used in the plans' actuarial valuation report and those used by PBGC; and

(4) the effect on the liability of time elapsed between the plan's actuarial valuation report date and September 30, 2024.

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. Effective January 22, 2018, PBGC revised the existing program, as authorized by the Pension Protect Act of 2006, to establish similar programs for most defined contribution plans, multiemployer plans covered by the pension insurance system, and certain defined benefit plans that are not covered by PBGC guarantees. This valuation incorporates the impact of this change.

Collins Settlement

The Collins Settlement refers to the liability for benefits that PBGC incurred because 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 was 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, 2024, of net losses that PBGC expected to incur from nonrecoverable future financial assistance to 122 pension plans of which 91 were insolvent (i.e., currently receiving PBGC financial assistance) and 31 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, 2024, and the actual or projected date of insolvency, and then discounted back to September 30, 2024, 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 vested 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, and projected benefit and withdrawal liability payments as inputs, estimated when necessary.

The post-MPPAA liability of $2,070 million as of September 30, 2024, is about $141 million lower than it was a year earlier. The main reasons for the decrease in liabilities were due to the favorable investment return, the expected assistance for insolvent plans and the decrease in the ME small plan bulk reserve.

For the September 30, 2024 valuation, PBGC adjusted the MP-2021 improvement scale to reflect excess mortality due to COVID-19. For future years, no excess mortality adjustment was assumed.

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.

The present value of future benefits (PVFB) is the estimated liability for future pension benefits that PBGC is or will be obligated to pay for trusteed plans and plans pending termination and trusteeship. PBGC uses a curve of interest factors to determine the estimated actuarial present value of future benefit payments. For September 30, 2024, the spot rate yield curve starts with an interest factor of 4.44% in year 1 and changes as the future period for discounting gets longer until year 30 when the factor becomes 5.11% and is assumed to remain level thereafter. For September 30, 2023, the spot rate yield curve started with an interest factor of 6.30% in year 1 and changes as the future period for discounting got longer until year 30 when the interest factor became 5.55% and was assumed to remain level thereafter. These interest factors are dependent upon PBGC’s mortality assumptions. See PBGC Annual Performance & Financial Report 2024 Note 6 for a more detailed discussion on interest factors.

PBGC uses a fully generational mortality assumption, in combination with the spot rates above to measure the PVFB. Based on the results of a 2023 study of PBGC’s Single-Employer Program mortality experience, an updated mortality assumption was adopted for 9/30/2023 and subsequent years. The mortality tables for valuing healthy lives in the Single Employer Program were the Pri-2012 Male and Female Total Dataset tables with adjustments for healthy annuitants, non-annuitants, and contingent survivors respectively. The resulting tables were projected generationally using adjusted Male and Female Scales MP-2021. Excess mortality adjustments were developed based on PBGC’s single employer program mortality experience and assumptions about the future impact of COVID.

For the 9/30/2024 valuation, PBGC has decided to remove the excess mortality adjustment to the MP-2021 Scales since 1) the combined single-employer excess death rate (weighted 50% male, 50% female) based on PBGC experience for 2024 (0.75%) was substantially lower than the expected rate (4%), and 2) available analyses on general population data point toward a return to pre-pandemic excess death levels.

Thus, for the 9/30/2024 Single Employer valuation the mortality tables used for valuing healthy lives were the Pri-2012 Male and Female Total Dataset tables with adjustments for annuitants, non-annuitants, and contingent survivors projected generationally using Male and Female Scales MP-2021. There were no adjustments made to the MP-2021 Scales for excess mortality. For the 9/30/2023 valuation, the mortality tables used for valuing healthy lives were the Pri-2012 Male and Female Total Dataset tables with adjustments for annuitants, non-annuitants, and contingent survivors projected generationally using adjusted Male and Female Scales MP-2021. The adjustments to Scales MP-2021 for anticipated excess mortality were: 2023: 5%, 2024: 4%, 2025: 3%, 2026: 2%, 2027: 1%, 2028 and beyond: 0%.

For the 9/30/2024 multiemployer valuation, the mortality tables used for valuing healthy lives were the Pri-2012 Blue-collar mortality tables projected generationally using Scale MP-2021 with the following excess mortality adjustments to improvement rates: 2020: 20%, 2021: 16%, 2022: 8%, 2023: 3%, 2024: 1.2%, 2025: 0%, 2026: 0%, 2027: 0%, 2028 and beyond: 0%.

The Small Plan Average Recovery Ratio (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 average period. As of the end of fiscal year 2024, the SPARR had been calculated for plan terminations initiated in fiscal years 1991-2024. The FY2024 SPARR was 8.46%.

Based on the results of a 2023 study of PBGC's case administration expenses, a new expense assumption was adopted for the 9/30/2023 valuation and subsequent years. The reserve for expenses was assumed to be 0.68% of the liability for benefits plus additional reserves for cases whose plan asset determinations, participant database audits, and actuarial valuations were not yet complete. In addition to the completion of these milestones, PBGC continues to base the reserve on plan size (large/small), number of participants, and time since trusteeship. The reserve factors are static and do not assume any future increases or decreases. The factors are intended to estimate a reserve for the entire inventory of plans and is not intended to predict costs for any one plan. The factors used in the expense reserve formula are shown in Table 2C.

During fiscal year 2024, PBGC (1) enhanced the valuation process to fully incorporate annuitant, non-annuitant and contingent survivor mortality rates, and (2) incorporated several technical updates to the valuation process.

We continue to improve the quality of the seriatim data and, as in previous years, made various changes to generally improve the security, auditability, speed, and accuracy of the calculations as well as integrate with the evolving PBGC technologies.

Table 2A - Actuarial Valuation Assumptions

CURVE OF SPOT RATES FOR 9/30/2024

Year	Rate	Year	Rate	Year	Rate	Year	Rate
1	4.44%	11	5.36%	21	6.30%	31	5.11%
2	4.00%	12	5.52%	22	6.12%	32	5.11%
3	4.12%	13	5.67%	23	5.87%	33	5.11%
4	4.34%	14	5.85%	24	5.56%	34	5.11%
5	4.55%	15	6.00%	25	5.14%	35	5.11%
6	4.73%	16	6.17%	26	4.67%	36	5.11%
7	4.88%	17	6.28%	27	4.14%	37	5.11%
8	5.01%	18	6.38%	28	3.57%	38	5.11%
9	5.11%	19	6.40%	29	2.98%	39	5.11%
10	5.23%	20	6.40%	30	2.53%	40	5.11%

CURVE OF SPOT RATES FOR 9/30/2023

Year	Rate	Year	Rate	Year	Rate	Year	Rate
1	6.30%	11	5.88%	21	6.19%	31	5.55%
2	6.07%	12	5.91%	22	6.18%	32	5.55%
3	5.95%	13	5.95%	23	6.15%	33	5.55%
4	5.88%	14	5.99%	24	6.11%	34	5.55%
5	5.83%	15	6.03%	25	6.05%	35	5.55%
6	5.81%	16	6.07%	26	5.98%	36	5.55%
7	5.80%	17	6.11%	27	5.89%	37	5.55%
8	5.81%	18	6.14%	28	5.79%	38	5.55%
9	5.82%	19	6.17%	29	5.67%	39	5.55%
10	5.85%	20	6.18%	30	5.55%	40	5.55%

Table 2A: Actuarial Valuation Assumptions, Single-Employer

	Previous Valuation as of 9/30/2023	Current Valuation as of 9/30/2024
Mortality **Healthy Lives**	Pri-2012 Male and Female Total Dataset tables with adjustments for healthy annuitants, non-annuitants, and contingent survivors projected generationally.	Same
Disabled Lives Eligible for Social Security (SS) Disability Benefits	Pri-2012 Total Dataset Disabled Male with no Ages adjustment and Pri-2012 Total Dataset Disabled Female with Ages Set Forward 2 years projected generationally.	Same
Disabled Lives Not Eligible for SS Disability Benefits	Pri-2012 Total Dataset Disabled Male with Ages Set Back 3 years and Pri-2012 Total Dataset Disabled Female with Ages Set Back 2 years projected generationally.	Same
Mortality Table Projection Scale	SOA Scale MP-2021, with adjustments. The adjustments for anticipated excess mortality were: 2023: 5%, 2024: 4%, 2025: 3%, 2026: 2%, 2027: 1%, 2028 and beyond: 0%.	SOA Scale MP-2021, no adjustments.
SPARR	SPARRs calculated for fiscal years 1991-2023. FY2023 SPARR = 7.79%	SPARRs calculated for fiscal years 1991-2024. FY2024 SPARR = 8.46%
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 Same Same Same (e) Located deferred participants are fully phased out past age 75. Same

Expenses	All terminated plans and single-employer probable terminations: 0.68% 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 2A: Actuarial Valuation Assumptions, Multiemployer

	Previous Valuation as of 9/30/2023	**Current Valuation as of 9/30/2024**
Mortality Healthy Lives	SOA Pri-2012 Male Blue-collar Mortality and Pri-2012 Female Blue-collar tables projected generationally using adjusted scale MP-2021. The adjustments for anticipated excess mortality were: 2020: 18%, 2021: 16%, 2022: 12%, 2023: 3%, 2024: 4%, 2025: 3%, 2026: 2%, 2027: 1%, 2028 and beyond: 0%	Same The adjustments for anticipated excess mortality were: 2020: 20%, 2021: 16%, 2022: 8%, 2023: 3%, 2024: 1.2%, 2025 and beyond: 0%
Expense Projection	Assumed annual increase is 3.5% for ongoing plans, 0.0% for terminated plans and plans currently receiving financial assistance. Expenses for each multiemployer plan are projected monthly as a ratio of total participant count.	Same
Premium Index	3.9% Premium expenses are separate from administrative expenses. A premium index is used to increase PBGC premium rates after the last published date.	3.65%
Retirement Ages	Assumed Retirement Ages as shown in plan’s AVR or Schedule MB.	Same

Table 2C
Reserve Factors for Expenses: Single-Employer

Large Plans (more than 100 participants)							
	Plan Asset Evaluation	Participant Data Review	Actuarial Valuation				Interim Benefit Administration
Years Since Trusteeship	Per Large Plan	Per Large Plan	Per Large Plan	Per Participant for the First 100	Per Participant for the Next 400	Per Participant for >500	Per Participant
0<=y<1	$196,691	$843,063	$82,414	$5,161	$852	$63	$1,148
1<=y<2	146,733	567,929	56,763	3,555	587	44	791
2<=y<3	118,248	437,527	37,828	2,369	391	29	527
3<=y<4	100,669	350,907	33,072	2,071	342	25	461
4<=y<5	92,237	275,032	25,921	1,623	268	20	361
5<=y<10	46,566	166,299	15,673	750	162	12	218

Small Plans (100 or fewer participants)							
	Plan Asset Evaluation	Participant Data Review	Actuarial Valuation				Interim Benefit Administration
Years Since Trusteeship	Per Small Plan	Per Small Plan	Per Small Plan	Per Participant for the First 100	Per Participant for the Next 400	Per Participant for >500	Per Participant
0<=y<1	$196,691	$263,519	$82,414	$5,161	N/A	N/A	$1,148
1<=y<2	146,733	173,613	56,763	3,555	N/A	N/A	791
2<=y<3	118,248	151,393	37,828	2,369	N/A	N/A	527
3<=y<4	100,669	128,887	33,072	2,071	N/A	N/A	461
4<=y<5	92,237	118,092	25,921	1,623	N/A	N/A	361
5<=y<10	46,566	59,619	15,673	982	N/A	N/A	218

In addition to the reserve factors shown, an expense loading factor equal to 0.68% 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 Office of Benefits Administration. 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. For Single Employer plans valued nonseriatim, the attained ages for active participants, terminated vested participants, and retired participants were assumed to be 55.7, 55.3 and 70.0 respectively when plan data were unavailable. For post-MPPAA Multiemployer plans that are terminated, the assumed age for terminated vested is 55. For ongoing plans, the assumed age for terminated vested is 54. For insolvent plans, the assumed age for terminated vested participants is 57. If there are any active participants, the assumed age is 47 when plan data were unavailable.

Valuation Statistics

The FY 2024 valuation for the single-employer program included approximately 1,365,000 participants owed future payments in terminated plans as of September 30, 2024. Of these, about 3participants from terminated single employer plans and 2 participants from pre-MPPAA multiemployer plans were receiving benefits from PBGC at fiscal year-end. As of September 30, 2024, in the pre-MPPAA plans there were 8 participants and for the post-MPPAA plans, there were approximately 82,000 participants that are currently receiving financial assistance (insolvent plans) and 29,000 participants in terminated and ongoing (probable) plans that are expected to receive financial assistance.

The average monthly benefit paid by PBGC for participants in pay status during FY 2024 was $576 (including supplemental benefits) for the single employer program and $164 for the multiemployer program in the ten pre-MPPAA plans.

Tables 3, 4 and 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					Multiemployer			
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	1,985	$145	$208	$68	*%	0	-	$0	0%
50-54	1,403	181	276	49	*%	0	-	0	0
55-59	10,979	362	86	722	1%	0	-	0	0
60-64	42,769	425	78	3,066	6%	0	-	0	0
65-69	131,244	546	70	10,996	21%	0	-	0	0
70-74	184,832	572	208	14,126	26%	0	-	0	0
75-79	187,583	592	337	12,421	24%	0	-	0	0%
80-84	136,807	604	116	7,145	14%	0	-	0	0%
85-89	81,717	581	117	3,001	6%	1	157	*	63%
Over 89	51,396	487	25	1,067	2%	1	170	*	37%
TOTAL	830,715	$561	$96	$52,661	100%	2	$164	*	100%

Notes:

*Liability is less than $500,000.
Not all recipients are receiving supplemental benefits.
Missing Participants Program liabilities and adjustments are not included.
Numbers may not add up due to rounding.

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

	Single-Employer					Multiemployer			
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	$344	$192	$50	$4	0%	0	-	$0	0%
40-44	2,557	218	50	41	0%	0	-	0	0
45-49	13,167	222	60	284	2%	0	-	0	0
50-54	34,913	245	83	1,098	7%	0	-	0	0
55-59	63,517	282	128	3,028	19%	0	-	0	0
60-64	83,334	325	119	6,029	37%	0	-	0	
Over 64	54,807	321	121	5,110	32%	0	-	0	0
Other**	76,550	- -	- -	427	3%	6	-	*	100%
TOTAL	329,189	$296	$116	$16,021	100%	6	-	$*	100%

Notes

*Liability is less than $500,000.
** "Other" includes unlocatable participants and participants scheduled at year end for lump sum payments.
Missing Participants Program liabilities and adjustments are not included.
Numbers may not add up to totals due to rounding.

Table 6A:
Distribution of Single-Employer Liability (including 4022(c)) by Trusteeship Status, Recipient Status, and Valuation Method – September 30, 2024
(Dollars in millions)

Recipient Status	Seriatim/ Missing Participants	Nonseriatim/ Collins	Total Terminated Liability	Probables/ Small Plans Bulk Reserve	Total Liability	Percent of Total Liability
Receiving Payments						
Trusteed	$52,667	$5,969	$58,636	$0	$58,636	74.4%
Pending Trusteeship	3	18	21	116	137	0.2%
Total	$52,670	$5,987	$58,657	$ 116	$58,773	74.6%
Not Receiving Payments						
Trusteed	$16,479	$3,408	$19,887	$0	$19,887	25.2%
Pending Trusteeship	0	43	43	62	105	0.2%
Total	$16,479	$ 3,451	$ 19,930	$62	$19,992	25.4%
All Payment Statuses						
Trusteed	$69,146	$9,377	$78,523	$0	$78,523	99.6%
Pending Trusteeship	3	61	64	178	242	0.4%
Total	$69,149	$9,438	$78,587	$178	$ 78,765	100.0%
Percent of Terminated	88.0%	12.0%	100.0%			
Percent of Total	87.8%	12.0%	99.8%	0.2%	100%	

Notes:

1) Recipient status for Seriatim and Missing Participants liabilities refers to status as of 9/30/2024. 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"). Final DOPT benefits refer to those benefits that PBGC has determined and valued seriatim as of DOPT for the plan.

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).

3) Numbers may not add up due to rounding.

Table 6B:
Distribution of Single Employer Participants (including 4022(c)) by Trusteeship Status, Recipient Status, and Valuation Method – September 30, 2024
(Participants in thousands)

Recipient Status	Seriatim/ Missing Participants	Nonseriatim	Total Terminated Participants	Probables	Total Participants	Percent of Total Participants *
Receiving Payments						
Trusteed	831	90	921	0	921	67.4%
Pending Trusteeship	0	1	1	2	3	0.2%
Total	831	91	922	2	924	67.6%
Not Receiving Payments						
Trusteed	377	66	443	0	443	32.4%
Pending Trusteeship	0	0	0	0	0	0.0%
Total	377	66	443	0	443	32.4%
All Payment Statuses						
Trusteed	1,208	156	1,364	0	1,364	99.8%
Pending Trusteeship	0	1	1	2	3	0.2%
Total	1,208	157	1,365	2	1,367	100.0%
Percent of Terminated	88.5%	11.5%	100.0%			
Percent of Total	88.3%	11.5%	99.8%	0.2%	100.0%	

Notes:

1) Recipient status for Seriatim and Missing Participants liabilities refers to status as of 9/30/2024. 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"). Final DOPT benefits refer to those benefits that PBGC has determined and valued seriatim as of DOPT for the plan.

2) Participant counts for Small Plans Bulk Reserve and Collins are not included.

3) Numbers may not add up due to rounding.

Reconciliation of Results

Table 7 reconciles the September 30, 2024, liability with the September 30, 2023, liability. For the Single Employer program, it shows that the $4,275 million increase in liability was the net effect of:

(1) new plan terminations as of DOPT = $756 million

(2) expected interest on liability = $4,482 million

(3) change in liability due to change in interest factors = $5,385 million

(4) change in liability due to mortality assumption = $313 million

(5) actual benefit payments = ($5,849) million

(6) change in liability for probable plans = ($490) million

(7) other changes = ($321) million.

The Multiemployer columns reconcile the liability for the post-MPPAA financial assistance to insolvent plans. The liability for the pre-MPPAA terminated plans is less than $500,000 and not included or shown in this table.

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

	Total Single Employer	Post-MPPAA Multiemployer
1. Liability at BOY (9/30/2023)		
(a) Present Value of Future Benefits for all Plans	$74,490	$2,211
(b) Liability for Probable Plans (gross liability including unreported)	(668)	(589)
(c) Liability for Unreported Terminated Plans and other settlements	(17)	0
(d) 9/30/2023 Liability for Terminated Plans (a + b + c)	73,804	$1,622
2. Change in Valuation Software		
(a) Effect on Liability as of DOPT	$0	$0
(b) Projection of (a) from DOPT to BOY + post-DOPT changes	(13)	0
(c) Total (a + b)	($13)	$0
3. Net New Plans and Missing Participant Liability		
(a) New Missing Participant Liability	$145	$0
(b) New Termination Inventory as of DOPT	756	31
(c) Deletions as of DOPT	(10)	(5)
(d) Projection of (b + c) from DOPT to BOY	(15)	0
(e) Total (a + b + c + d)	$876	$26
4. Nonseriatim Data Changes and Effect of DOPT Seriatim Valuation		
(a) Effect on Liability at DOPT	$86	($3)
(b) Projection of (a) from DOPT to BOY	(69)	0
(c) Total (a + b)	$18	($3)
5. Actuarial Charges/Credits		
(a) Expected Interest	$4,482	$98
(b) Change in Interest Factors	5,385	125
(c) Change in Mortality Assumption	313	4
(d) Change in Method (Current Year: Seriatim at DOPT to Seriatim at FYE)	(37)	0
(e) Effect of Experience*	(278)	(18)
(f) Change in Other Assumptions (Expense, SPARR, PBGCC STD Rates)	0	0
(g) Total (a + b + c + d + e +f)	$9,865	$209
6. Expected Expense Payments	($131)	$0
7. Actual Benefit Payments	($5,849)	($154)
8. Liabilities at End of Period (9/30/2024)		
(a) Liability for all Terminated Plans = (1d) + (2c) + (3e) + (4c) + (5g) + (6) + (7)	$ 78,570	$1,700
(b) Liability for Unreported Terminated Plans and other settlements	17	-
(c) Liability for all Terminated Plans (a + b)	78,587	1,700
(d) Liability for Probable Plans (gross including small plans bulk reserve) **	178	370
(e) 9/30/2024 Present Value of Future Benefits for all Plans (c + d)	78,765	$2,070

* Includes change from expected benefits payments $6,352 million to actual benefits payments $5,849 million in Total Single Employer.
Includes change from expected benefits payments $171 million to actual benefits payments $154 million in Post-MPPAA Multiemployer.
Actual benefits payments do not include payments made by employers.

** Includes $35 million for small plans bulk reserve Single Employer probable plans.
Financial statements show probables liability of $178 million, less assets of $47 million, for a net claim of $131 million.
Includes $18 million for small plans bulk reserve Post-MPPAA Multiemployer plans.

Numbers may not add up due to rounding.

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, 2024.

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 as determined by PBGC’s Policy Research and Analysis Department; and (3) the resulting total liability represents my best estimate of anticipated experience under these programs.

I, Scott G. Young, 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.

Scott G. Young

Scott G. Young, FSA, EA, MAAA
Fellow of the Society of Actuaries
Enrolled Actuary
Member of the American Academy of Actuaries
Chief Valuation Actuary and Department Director
Actuarial Services and Technology Department
Pension Benefit Guaranty Corporation

January 6, 2025