laws, without going through the designation procedures required by paragraphs (a) and (b) of section 304 of the NMSA, 16 U.S.C.
1434(a) and (b).
Activities Subject to Regulation:

- Injuring or disturbing sanctuary
resources;
- Possessing, transporting, or engaging in
commerce of any sanctuary resource;
- Grappling into or anchoring on
shipwreck sites;
- Deploying tethered underwater mobile systems at shipwreck sites;
- Interfering with an investigation in connection with enforcement of the NMSA.


## Section 2. Emergencies

Where necessary to prevent or minimize the destruction of, loss of, or injury to a Sanctuary resource or quality; or minimize the imminent risk of such destruction, loss, or injury, any activity and all activities, including those not listed in Section 1, are subject to immediate temporary regulation, including prohibition. An emergency regulation shall not take effect without the approval of the Governor of New York or her/ his designee or designated agency.

## Article V: Alteration of this Designation

The terms of designation, as defined under Section 304(a)(4) of the Act, may be modified only by the same procedures by which the original designation is made, including public hearings, consultations with interested Federal, Tribal, State, regional, and local authorities and agencies, review by the appropriate Congressional committees, and approval by the Secretary of Commerce, or his or her designee.

## §922.223 [Amended]

■ 10. Stay § 922.223(a)(3) until July 21, 2026.
[FR Doc. 2024-11982 Filed 6-5-24; 8:45 am] BILLING CODE 3510-NK-P

## PENSION BENEFIT GUARANTY CORPORATION

29 CFR Parts 4001, 4010, 4022, 4041, 4041A, 4043, 4044, 4050, 4262, and 4281
RIN 1212-AA55

## Valuation Assumptions and Methods

agencr: Pension Benefit Guaranty Corporation.
ACTION: Final rule.
SUMMARY: This final rule updates the interest, mortality, and expense assumptions used to determine the present value of benefits for a singleemployer pension plan under subpart B of the Pension Benefit Guaranty Corporation's regulation on Allocation of Assets in Single-Employer Plans, to determine components of mass withdrawal liability for a multiemployer pension plan, and for other purposes.

DATES:
Effective date: This rule is effective July 8, 2024.

Applicability date: These
amendments apply to calculations where the valuation date is on or after July 31, 2024.

Incorporation by reference: The incorporation by reference of certain material listed in this rule is approved by the Director of the Federal Register as of July 8, 2024.

## FOR FURTHER INFORMATION CONTACT:

Gregory M. Katz (katz.gregory@ pbgc.gov), Deputy Assistant General Counsel for Regulatory Affairs, Office of the General Counsel, Pension Benefit Guaranty Corporation, 445 12th Street SW, Washington, DC 20024-2101; 202-229-3829. If you are deaf or hard of hearing, or have a speech disability, please dial 7-1-1 to access
telecommunications relay services.

## SUPPLEMENTARY INFORMATION:

## Executive Summary

## Purpose and Authority

This final rule updates the actuarial assumptions used to determine the present value of a single-employer plan's benefits when it terminates in a distress or involuntary termination, to determine the present value of multiemployer plan benefits in certain withdrawal liability calculations, and for other purposes. Except for conforming changes and some technical and editorial changes, the final rule is substantially the same as the proposed rule.

Legal authority for this action comes from section 4002(b)(3) of the Employee Retirement Income Security Act of 1974 (ERISA), which authorizes the Pension Benefit Guaranty Corporation (PBGC) to issue regulations to carry out the purposes of title IV of ERISA, and section 4044 of ERISA (Allocation of Assets). It also comes from section 4001 of ERISA (Definitions); section 4010 of ERISA (Authority to Require Certain Information); section 4022 of ERISA (Single-Employer Plan Benefits Guaranteed); section 4041 of ERISA (Termination of Single-Employer Plans); section 4041A of ERISA (Termination of Multiemployer Plans); section 4043 of ERISA (Reportable Events); section 4050 of ERISA (Missing Participants); section 4062 of ERISA (Liability for
Termination of Single-Employer Plans Under a Distress Termination or a Termination by Corporation); section 4219 of ERISA (Notice, Collection, Etc., of Withdrawal Liability); section 4262 of ERISA (Special Financial Assistance by the Corporation); and section 4281 of

ERISA (Benefits Under Certain Terminated Plans).

## Major Provisions

This final rule modifies the interest, mortality, and expense assumptions for valuing benefits under subpart $B$ to PBGC's regulation on Allocation of Assets in Single-Employer Plans ("benefits valuation regulation") (29 CFR part 4044) to:

- Modernize the interest assumption structure by adopting a yield curve approach;
- Enable the use of market interest rates as of the date of liability measurement (i.e., the valuation date) as the basis for the interest assumption;
- Increase transparency by using a procedure based on publicly available yield curves as of the valuation date;
- Adopt a more recent mortality table along with a generational mortality improvement projection; and
- Simplify the expense assumption.

Because the assumptions for valuing benefits are incorporated by reference in other regulations, the changes to these assumptions affect PBGC's regulations on Annual Financial and Actuarial Information Reporting (29 CFR part 4010); Missing Participants (29 CFR part 4050); Notice, Collection, and Redetermination of Withdrawal Liability (29 CFR part 4219); Special Financial Assistance by PBGC (29 CFR part 4262); Duties of Plan Sponsor Following Mass Withdrawal (29 CFR part 4281); and other regulations.

## Background

The Pension Benefit Guaranty Corporation (PBGC) administers two insurance programs for private-sector defined benefit pension plans under title IV of the Employee Retirement Income Security Act of 1974 (ERISA): a single-employer plan termination insurance program and a multiemployer plan insolvency insurance program. In addition, PBGC administers a special financial assistance program for eligible financially distressed multiemployer plans.
Under the single-employer plan termination insurance program, covered plans that are underfunded may terminate either in a distress termination under section 4041(c) of ERISA or in an involuntary termination (one initiated by PBGC) under section 4042 of ERISA. When such a plan terminates, PBGC typically is appointed statutory trustee of the plan and becomes responsible for paying benefits in accordance with the provisions of title IV of ERISA.

Under the multiemployer insurance program, PBGC provides financial
assistance under section 4261 of ERISA to plans that are insolvent and unable to pay benefits at the guaranteed level. This financial assistance is primarily in the form of financial assistance loans, paid to the plans periodically so that they can pay basic benefits when due. Additionally, under the special financial assistance program under section 4262 of ERISA, PBGC provides funding to eligible financially troubled multiemployer plans upon approval of an application. This final rule applies to the single-employer program, the multiemployer program, and the special financial assistance program.

PBGC has identified these amendments as part of its ongoing review of its regulations to ensure that PBGC provides clear and helpful guidance and modernizes outdated methodologies.
Purpose of the Assumptions Described in the Benefits Valuation Regulation

Under the single-employer insurance program, if a pension plan terminates without enough assets to provide for all benefits either in a distress termination under section 4041(c) of ERISA or in a plan termination initiated by PBGC under section 4042 of ERISA, PBGC typically is appointed statutory trustee of the plan and becomes responsible for paying benefits in accordance with the provisions of title IV of ERISA. When this happens, PBGC must determine (1) the extent to which participants' benefits are funded under the benefits valuation rules, (2) whether a
terminated plan has sufficient assets to pay guaranteed benefits, and (3) how much a plan sponsor and its controlled group owe PBGC because of the termination under section 4062 of ERISA. The assumptions described in the benefits valuation regulation are used to value a plan's benefit liabilities for these purposes.

In setting the assumptions under the benefits valuation regulation, PBGC's long-standing policy is to set assumptions that produce valuations similar to the premium that a privatesector insurance company would charge for a group annuity contract covering the same plan benefits. ${ }^{1}$ This policy ensures that for a plan entering PBGC trusteeship, the plan's benefit liabilities

[^0]are measured consistently with annuity market pricing.

These assumptions are also used in other situations where it is appropriate for liabilities to be in line with privatesector group annuity prices. For example, PBGC's regulations on Notice, Collection, and Redetermination of Withdrawal Liability (29 CFR part 4219) and Duties of Plan Sponsor Following Mass Withdrawal (29 CFR part 4281) provide that these assumptions are used to value liabilities for purposes of determining withdrawn employers, reallocation liability ${ }^{2}$ in the event of a mass withdrawal from a multiemployer plan. Multiemployer plans that receive special financial assistance under the regulation on Special Financial Assistance by PBGC (29 CFR part 4262) must, as a condition of receiving special financial assistance, use the interest assumption to determine withdrawal liability for a prescribed period. Additionally, plan sponsors are required to use these assumptions for certain purposes (e.g., reporting benefit liabilities in filings required under PBGC's regulation on Annual Financial and Actuarial Information Reporting (29 CFR part 4010) or determining certain amounts to transfer to PBGC's Missing Participants Program on behalf of a missing participant of a terminating defined benefit plan under PBGC's regulation on Missing Participants (29 CFR part 4050)) and may use them for other purposes (e.g., to ensure that plan spinoffs comply with section 414 (l) of the Internal Revenue Code (the Code)). ${ }^{3}$

## Proposed Rule

On August 18, 2023, PBGC published a proposed rule ${ }^{4}$ to update the benefit valuation regulation's interest, mortality, and expense assumptions. PBGC provided a 60-day comment period and received five comment letters. Commenters were generally supportive of PBGC's efforts to make its assumptions more modern and transparent, and made specific suggestions. A discussion of the provisions of the final rule, the comment letters, and PBGC's responses follows. Except for conforming changes and some technical and editorial

[^1]changes, the final rule is substantially the same as the proposed rule.

## Interest Assumption

## Current Assumption

The benefits valuation regulation contains an interest assumption for determining the present value of future payments (4044 interest assumption). Since November 1993, the 4044 interest assumption has been expressed in a two-component structure known as "select and ultimate" in which one interest factor is assumed to be in effect for the first 20 or 25 years from the valuation date, and the other interest factor is assumed to be in effect thereafter.

To align valuations with the group annuity market, the American Council of Life Insurers conducts periodic surveys ${ }^{5}$ of private-sector singlepremium nonparticipating group annuity prices for PBGC. These surveys ask insurers for sample market pricing information (exclusive of loads for administrative expenses). The select and ultimate rates are determined such that in combination with the mortality assumption provided under the benefits valuation regulation, the resulting liabilities are in line with group annuity prices from the survey. ${ }^{6}$
PBGC publishes the interest assumption in appendix B to part 4044 each quarter, for use in the subsequent quarter. Therefore, the interest rates used have not been rates observed on the valuation date.

## Reasons for Change

This final rule improves upon current methodology in several ways. Actuarial practice, with the help of technology, has moved toward a bond yield curve approach where future benefits are discounted to the valuation date using yields for which the time to maturity equates to the length of the discounting period. By associating an interest rate with each specific benefit payment time horizon, using a yield curve for discounting better represents the present value of future benefits. As a result, the select and ultimate structure of PBGC's interest assumption under the benefits valuation regulation has become increasingly obsolete. A yield curve approach also better reflects the term structure of the fixed income investments that underlie the price of group annuities.

[^2]In addition, the rule improves the methodology by eliminating the lag between when data used to set PBGC's interest assumption are observed and the interest rate environment on the valuation date. Eliminating the lag is desirable because the interest rate environment on the valuation date also impacts the value of the assets that pension funds invest in, including fixed income investments, equity, and real estate.
Lastly, the final rule increases transparency with respect to the process for setting the 4044 interest assumption. The public availability of month-end bond yield data now makes it possible to adopt a methodology that would increase transparency and, in almost all situations, eliminate the lag entirely. ${ }^{7}$
For these reasons, PBGC is structuring the 4044 interest assumption as a yield curve, more closely replicating the actual yields on the investments backing group annuities, and better reflecting today's actuarial practice. In addition, this final rule incorporates publicly available bond yield data into the methodology used to determine the 4044 interest assumption to increase transparency and bases the interest assumption on bond yields as of the valuation date, or as close as practical for valuations that are not as of a monthend.

## Updated 4044 Interest Assumption

The 4044 interest assumption in the final rule is the same as in the proposed rule. Commenters generally supported the transparency of the proposed method for determining the interest assumption and how it better reduces lag from the date data is observed to the valuation date. Some commenters made suggestions which are discussed in this section. The new interest assumption is based on a blend of two publicly available yield curves (the "blended market yield curve"') and is adjusted to the extent necessary so that the resulting liabilities align with group annuity prices. As with the proposed rule, the final rule's interest assumption consists of interest rates at maturity points from 0.5 to 30.0 years in half-year increments. The interest rate for the maturity point at year 30.0 is used to discount benefits expected to be paid more than 30 years after the valuation date. One commenter suggested that PBGC use a "uniform" interest rate rather than a yield curve. PBGC did not adopt this suggestion, because, as discussed in more detail earlier in the preamble, actuarial

[^3]practice has moved toward a yield curve approach that better represents the present value of future benefits.

The process used to determine the interest assumption follows. First, the blended market yield curve is determined in three steps:

- Step 1—Obtain rates for maturities 0.5 through 30.0 on Treasury securities from the Department of the Treasury (Treasury Department) Nominal Coupon Issues Spot Rates, End of Month yield curve (TNC Yield Curve). ${ }^{8}$
- Step 2-Obtain rates on corporate bonds for maturities 0.5 through 30.0 from the Treasury Department's High Quality Market Corporate Bond Yield Curve Spot Rates, End of Month yield curve (HQM Bond Yield Curve). ${ }^{9}$
- Step 3-Combine the rates obtained in steps 1 and 2 weighting each corporate bond rate at two-thirds and each Treasury rate at one-third. ${ }^{10}$

Rather than weighting corporate bonds at two-thirds and Treasury rates at one-third for all maturities, one commenter suggested using a "gliding" weight that varies over different maturities. The goal would be to reflect the fact that insurers typically have different pricing assumptions for immediate and deferred annuities (because of the higher risk associated with deferred annuities than immediate annuities). PBGC did not adopt this suggestion because a gliding weight would introduce substantial unnecessary complexity to the calculation of the blended market yield curve, and the effect described by the commenter is accounted for in the adjustment spreads discussed later in this section.

The yield curves used to develop the blended market yield curve are based on yields as of the end of each month. In PBGC's experience, most calculations that use 4044 assumptions use valuation dates as of the last day of a month, and for such calculations, the applicable blended market yield curve will be determined using the published TNC and HQM curves as of the valuation date. To accommodate other valuation dates, the final rule includes a "lookback" rule for valuation dates that are not as of the end of the month.

[^4]Under the lookback rule, if the valuation date is not on the last day of a month, the applicable blended market yield curve as of the last day of the prior month will be used. For example, if the valuation date is February 15, 2023, the applicable blended market yield curve is the blended market yield curve as of January 31, 2023.
PBGC considered other possible rules for determining the blended market yield curve for valuation dates that are not the last day of the month, so that its interest assumption might better reflect the bond market on the actual valuation date (e.g., a blend of the current and prior month's blended market yield curves, a requirement to use the blended market yield curve for the end of the month closest to the valuation date) However, because most plan terminations occur on the last day of a month, PBGC concluded that the benefits did not outweigh the additional complexity. PBGC requested comments on the application of the proposed interest assumption to valuation dates other than the last day of the month. One commenter responded that the proposed methodology is a significant improvement over current methodology.
As noted earlier in this preamble, once the blended market yield curve is determined, it will be adjusted so that the resulting present values align with group annuity prices. The term " 4044 yield curve" is used to describe the blended market yield curve after reflecting such adjustments. The adjustments, or "spreads," will be in the format of a curve (i.e., a list of spreads through year 30, each of which applies to a specific point in the blended market yield curve). PBGC will determine and publish the spreads quarterly based on survey data on pricing of private-sector group annuities. More specifically, for each survey date, PBGC will first determine a yield curve that best fits data from those surveys, given an assumed mortality table. Next, PBGC will calculate the differences between this curve and the blended market yield curve as of the survey date. To smooth random variation and seasonality effects before publishing, PBGC will average those differences with the differences calculated from prior survey dates to determine the spreads that are used to adjust the applicable blended market yield curve. PBGC will publish the spreads (by amending its regulation) that are used for adjusting the blended market curve shortly before each quarter begins.

PBGC received a comment suggesting that PBGC adjust its spreads to compensate for a recently proposed
change ${ }^{11}$ to the way the Treasury Department determines its bond yields to avoid a discontinuity in PBGC's rates if the Treasury proposal is finalized. Because the Treasury Department has since finalized ${ }^{12}$ its proposal, there will be no discontinuity in PBGC's rates. For that reason, there is no need to modify PBGC's methodology to accommodate the changes.
Another commenter made suggestions for increasing the transparency of the process for determining spreads such as adding detail to the white paper and PBGC's website. PBGC is pleased to provide the white paper along with this final regulation to substantially enhance
the transparency of how PBGC determines the benefit valuation regulation's interest assumption. PBGC will continue to strive to enhance the transparency of this process.

The spreads for any quarter are used to adjust the month-end blended market yield curves in that quarter. For example, the first quarter spreads are used to adjust the blended market yield curves as of January 31, February 28, ${ }^{13}$ and March 31. Because of the lookback rule, the first quarter spreads also apply to valuation dates occurring April 1 through April 29 because for such dates, the applicable blended market yield curve is the curve as of March 31.

Similarly, the fourth quarter spreads are used to adjust the blended market yield curves as of October 31, November 30, and December 31. Because of the lookback rule, the fourth quarter spreads also apply to valuation dates occurring January 1 through January 30, which use the blended market yield curve rate determined as of December 31 from the prior year.

The following example illustrates how the 4044 yield curve would have been developed for a valuation date on December 31, 2023, had the rule been in effect at that time and assuming the fourth quarter spreads for 2023 were as shown in column D below:


[^5]Because the yield curves used to develop the blended market yield curve are not published until a week or two after the end of the month, in most situations (e.g., month-end valuation dates), the 4044 yield curve will not be available in advance of the valuation date. Given the typical situations where practitioners use 4044 interest assumptions (e.g., Annual Financial and Actuarial Information Reporting (4010 reporting)), PBGC does not anticipate that this will create a timing problem, and no commenter expressed timing concerns.
This final rule amends the benefits valuation regulation to prescribe the use of the 4044 yield curve and the process to determine it. It also amends part 4044 to replace the select and ultimate interest factor table with a table showing spread adjustments for blended market yield curves. For each quarter, the table will show 60 spread adjustments.
Because the spread adjustments for the third quarter of 2024 (the quarter for which this rule is first applicable) will not be determinable until shortly before

[^6]the third quarter, those spreads are not provided in this final rule. PBGC will issue the third quarter 2024 spread adjustments when they are available.

Given this methodology, practitioners will be able to determine the 4044 yield curve as of the end of any month as soon as the Treasury Department publishes the two yield curves underlying the development of the blended market yield curve. (The applicable spreads will be specified in the regulation before the blended market yield curves are available.) In addition, to reduce administrative burden on practitioners, PBGC will post the 4044 yield curve on its website at www.pbgc.gov each month shortly after its underlying data become available. In addition to posting the 4044 yield curve, one commenter suggested that PBGC should post a single interest rate "index" to provide a readily comparable measure of annuity market pricing and to assist multiemployer plans that receive SFA in determining withdrawal liability payment schedules. PBGC did not adopt this suggestion because cash

[^7]flows vary from plan to plan, and no single index rate would be representative of all plans. PBGC agrees with the commenter that actuaries for plans that receive SFA will be able to determine withdrawal liability payment schedules using the 4044 yield curve and notes that actuaries will be able to set up a spreadsheet to do the calculation without much difficulty. To illustrate how the calculation may be done, before the effective date of the final rule, PBGC will post an example on its website at www.pbgc.gov.

## Mortality Assumption

## Current Assumptions

The mortality assumptions prescribed by the benefits valuation regulation relate to the probabilities that a participant (or beneficiary) will survive to each expected benefit payment date. The regulation currently prescribes six sets of mortality tables: tables for male and female individuals not receiving a disability benefit (healthy lives); tables for male and female participants who

[^8]are disabled under a plan provision that does not require eligibility for Social Security disability benefits (non-Social Security disabled); and tables for male and female participants who are disabled under a plan provision requiring eligibility for Social Security disability benefits (Social Security disabled).
For healthy lives, the mortality tables are based on the GAM-94 Basic Table with mortality improvements projected forward to the year of valuation plus 10 years using the mortality improvement Scale AA, a static mortality improvement projection. A static mortality projection "project[s] the [base mortality] table for a specified number of years and use[s] the resulting table without further projection." ${ }^{14}$ For Social Security disabled participants, the regulation uses the Mortality Tables for Disabilities Occurring in Plan Years Beginning After December 31, 1994, from IRS Rev. Rul. 96-7 (1996-1 C.B. 59). For non-Social Security disabled participants, the benefits valuation regulation uses the healthy lives mortality rates for an individual 3 years older (i.e., the table is set forward by 3 years). In addition, to prevent the rates at older ages from exceeding the rates for Social Security disabled participants, the mortality rates for nonSocial Security disabled participants are capped at the corresponding rates for Social Security disabled participants. These assumptions are described in appendix A to part 4044.

## Reasons for Change

PBGC seeks to ensure that the assumptions described in the benefits valuation regulation, in the aggregate, produce annuity valuations similar to those produced by private-sector insurers. To do so, PBGC attempts to keep its "assumptions in line with those of private-sector insurers, and to modify its mortality assumptions whenever it is necessary to do so to achieve consistency with the private insurer assumptions." ${ }^{15}$ PBGC determined that it could better achieve consistency with insurers' mortality assumptions by updating the mortality assumptions under the benefits valuation regulation.
PBGC's review of insurance industry practice indicates that insurers use fully generational mortality tables rather than the simpler static mortality tables used in the current regulation. Generational mortality tables are a series of mortality tables, one for each year of birth, each of which fully reflects projected trends

[^9]in mortality rates. In addition to achieving better consistency with insurers' assumptions, over the past decade, generational mortality tables have become widely accepted as best practice in the actuarial community. With such projections, actuaries can "theoretically more accurately replicate the anticipated pattern of improvement in mortality rates." ${ }^{16}$

PBGC's review also indicates that insurers typically use more recent base mortality tables than the GAM-94 Basic Table. Similarly, it has also become clear that the industry recognizes and distinguishes between mortality for annuitants (i.e., individuals receiving benefits) and non-annuitants (i.e., terminated vested and active participants).

## IRS and Treasury Rulemaking

The Internal Revenue Service (IRS) and the Treasury Department reached the same conclusions regarding trends in mortality assumptions. On April 28, 2022, they issued a proposed rule (IRS proposal) ${ }^{17}$ to amend their mortality assumptions regulations under section 430(h)(3) of the Code. PBGC derived its preamble discussion and operative regulatory provisions for its healthy lives mortality assumptions from the IRS proposal. On October 20, 2023, IRS and Treasury finalized their regulation. ${ }^{18}$

## Updated Healthy Lives Mortality Assumption-Base Mortality Tables

This final rule adopts the proposed healthy lives base mortality tables. The tables are derived from the tables set forth in the Pri-2012 Private Retirement Plans Mortality Tables Report published by the Retirement Plan Experience Committee (RPEC) of the Society of Actuaries (SOA) in 2019 (Pri-2012
Report). ${ }^{19}$ PBGC agrees with IRS and the Treasury Department that the Pri-2012 Report is the best available study of the actual mortality experience of pension plan participants (other than disabled individuals). ${ }^{20}$

The tables in the Pri-2012 Report are gender-distinct and provide separate non-annuitant and annuitant mortality rates. ${ }^{21}$ Consistent with PBGC's

[^10]proposed rule, this final rule does not provide separate tables for annuitants who are retirees and annuitants who are contingent beneficiaries. Rather, it provides annuitant mortality tables that combine the mortality experience of retirees and contingent beneficiaries. The annuitant mortality tables are used to determine the present value of benefits for an annuitant. For a nonannuitant, the non-annuitant mortality tables are used for the periods before the participant is projected to commence receiving benefits, and the annuitant mortality tables are used for later periods. For a beneficiary of a participant, the annuitant mortality tables apply for the period beginning with each assumed commencement of benefits for the participant. If the participant has died (or to the extent the participant is assumed to die before commencing benefits), the annuitant mortality tables apply for the beneficiary for the period beginning with each assumed commencement of benefits for the beneficiary.

These base tables generally have the same mortality rates as the employee and non-disabled annuitant mortality rates that were released by RPEC in connection with the Pri-2012 Report. However, the base tables provided in this rule also include rates for certain situations that were not included in the base tables in the Pri-2012 Report (i.e. non-annuitant mortality rates for ages below age 18 and above age 80 and annuitant mortality rates for ages below age 50). The preamble to the IRS proposal describes the methodology that was used to develop those additional rates. ${ }^{22}$

Several commenters made suggestions for the regulation's base mortality table. One commenter recommended multifactor mortality tables because, according to the commenter, they better match insurer practice and they more precisely predict mortality by using multiple data fields to capture the diversity of pension plan mortality by analyzing the characteristics of the individuals in those pension plans. Multi-factor mortality is an evolving area, which PBGC intends to study and monitor as PBGC continues to review ways to improve the regulation's prescribed assumptions in the future. Another commenter suggested prescribing use of the Society of Actuaries' RP-2014 Mortality Table instead of Pri-2012. This final rule does not adopt RP-2014 because, as

[^11]discussed earlier in this preamble, PBGC believes (and one commenter agreed) that Pri-2012 is the best available study of the actual mortality experience of pension plan participants. Pri-2012 is also based on more recent mortality experience than RP-2014 (which is based on an experience study for the years 2004-2008).
PBGC received a few comments about the feasibility of using the 4044 interest assumption with a different mortality assumption for calculations other than those for which the use of both assumptions is required. For example, one commenter noted that because of the way the 4044 yield curve will be determined (i.e., using a current and representative mortality assumption to determine the spreads), PBGC's discount rate spot yield curve will stand on its own as a reasonable assumption for multiple purposes and suggested that for certain purposes, such as multiemployer withdrawal liability, the use of a "blue collar" mortality table "may better reflect the underlying demographics of the pension plan being valued."
While it is true that, when used together, the 4044 interest and mortality assumptions are designed to result in liabilities that are similar to what a private-sector insurance company would charge for a group annuity contract, PBGC agrees that it may be reasonable to use the interest assumption with a different mortality assumption for situations where the use of both assumptions is not required (assuming the mortality assumption reflects plan demographics).
With respect to the comment on withdrawal liability, in general, PBGC does not mandate use of the 4044 mortality assumption to determine withdrawal liability. However, as discussed earlier in this preamble, both the prescribed interest and mortality assumptions must be used to determine reallocation liability in the event of a mass withdrawal. In consideration of the comment, PBGC intends to review the assumptions and methods required for such calculations for possible inclusion in a future rulemaking project.

## Updated Healthy Lives Mortality

Assumption-Mortality Improvements
The base tables described above have a base year of 2012 (the central year of the experience study used to develop the mortality tables in the Pri-2012 Report). Like the proposed rule, the base tables are used to develop the mortality tables for future years using Scale MP2021 Rates (the mortality improvement scale in the Mortality Improvement

Scale MP-2021 Report, ${ }^{23}$ which was published by the RPEC in October 2021). That mortality improvement scale was developed using the same underlying methodology used to develop RPEC's earlier mortality improvement scales but reflects historical population data through 2019 and the change to the RPEC-selected assumptions for the long-term rate of mortality improvement that was first incorporated in the Mortality Improvement Scale MP-2020 Report.

Although IRS and Treasury also proposed using Scale MP-2021 for future years, their final rule provides for a slightly different improvement projection. Because PBGC seeks to match insurance company assumptions and has no indication that changes similar to those finalized by IRS and Treasury would more closely match insurance company assumptions, PBGC is finalizing its mortality improvement scale as proposed. PBGC will continue to monitor and consider new mortality trend data, including updated mortality improvement scales issued by RPEC, and intends to amend its regulation to account for new data when appropriate. The updated healthy lives mortality assumptions closely align with the mortality assumptions used by privatesector insurers. The software needed to use generational mortality tables is widely used and is often used for other business needs such as financial accounting. Using modern actuarial software, the new assumptions should be no more difficult to apply.

## Updated Disabled Lives Mortality Assumption

As with the proposed rule, this final rule provides that the healthy lives mortality assumptions (base table and improvement projections) be used for disabled individuals that are not eligible for Social Security disability benefits. For individuals that are eligible for Social Security disability benefits, as with the proposed rule, the final rule updates the mortality assumptions to reflect more recent mortality experience by using tables published in the Social Security Disability Insurance Program Disabled Worker Experience Actuarial Study 125, a study providing "extensive information on recent actual [Social Security Disability Insurance] disabled worker experience." ${ }^{24}$ The mortality

[^12]rates for Social Security disabled participants comprise two tables: Table 12 for Social Security disabled participants age 75 and younger, and Table 7C for Social Security disabled participants age 76 and older. As with the current mortality assumptions for individuals that are eligible for Social Security disability benefits, the updated assumptions do not include a mortality improvement scale.
For the reasons discussed earlier, this final rule amends PBGC's benefits valuation regulation to replace mortality tables for healthy lives with mortality tables from the Pri-2012 Report. It also replaces tables relating to mortality improvement for healthy lives with references to generational mortality improvement projections from the Mortality Improvement Scale MP-2021 and prescribes their use. It further amends PBGC's benefits valuation regulation to replace tables relating to mortality for Social Security disabled participants with tables derived from Social Security Actuarial Study 125. Finally, it amends the regulation so that the provisions specifying assumptions for non-Social Security disabled lives refer to the healthy lives mortality assumptions.

## Expense Assumption

## Current Assumptions

Certain administrative expenses are incurred by insurers in connection with the payment of benefits. These expenses are for such things as establishing plan files, reviewing plan provisions to determine benefit entitlements, setting up and updating records, processing pension applications, and remitting benefit payments. Insurers use assumptions about these expenses to price annuities. To account for this component of private-sector annuity pricing, the benefits valuation regulation specifies expense assumptions. ${ }^{25}$
Currently, these expense assumptions are based in part on the total present value of plan benefits. They are intended to recognize that the computation of benefit valuations entails certain expenses that are roughly proportional to the number of participants in a plan, and that private insurers' expenses, expressed as a percentage of liabilities, are somewhat lower for larger plans. For the expenses proportional to the number of plan participants, the benefits valuation regulation assumes a cost of $\$ 200$ per participant. In addition, a percentage of

[^13]liabilities is added to the assumed expense amount for all plans in a way that accounts for the efficiency advantage of larger plans. That percentage is 5 percent of liabilities up to $\$ 200,000$, plus a smaller, variable percentage of liabilities above $\$ 200,000$.

## Reasons for Change and Updated Expense Assumptions

As discussed above, PBGC attempts to set its assumptions to match the privatesector annuity market. PBGC has determined that simple per-participant loads are the most common structure for explicitly charging for administrative expenses and that insurers' expense assumptions account for a very small portion of the total cost of a group annuity. PBGC's current multi-tiered expense assumptions are too complicated given expense assumptions' small share of annuity pricing and the simple structure insurers typically use. Thus, as with the proposed rule, this final rule simplifies the expense assumptions. This rule sets the expense load assumption at $\$ 400$ per participant for the first 100 participants and $\$ 250$ for each participant over 100. PBGC concluded these amounts were reasonable based on a review of per-participant charges included in group annuity contracts for terminating plans provided to PBGC as part of the standard termination process. These amounts will be updated for inflation using the Consumer Price Index (CPI-U) each year. The rule amends PBGC's benefits valuation regulation to prescribe these updated expense assumptions.
PBGC received two comments on the proposed expense assumptions. One commenter suggested breaking down the expense assumptions between deferred and immediate annuities because expenses on deferred annuities are higher than on immediate annuities. Though PBGC agrees that deferred and immediate annuities have different expense levels, because expenses are such a small component of valuations, capturing this difference is not worth complicating the assumption. Another commenter said PBGC should prescribe a lower expense assumption, yielding expenses between 1.5 percent and 1.8 percent. The prescribed expense assumption is a dollar amount per participant and will generally result in assumed expenses below 1.5 percent of liability.

## Conforming Changes to the Missing Participants Regulation

## Interest Assumption

PBGC's Missing Participants regulation (29 CFR part 4050) provides that the interest assumption used to determine certain amounts to be transferred on behalf of a missing participant from a terminating defined benefit plan ${ }^{26}$ to PBGC's Missing Participants Program is the interest assumption under PBGC's benefits valuation regulation applicable to valuations occurring in January of the calendar year in which the benefit determination date occurs. ${ }^{27}$ Under the current benefits valuation regulation, the same interest assumption is used for any valuation date in January. However, under this final rule, two different interest assumptions apply to valuation dates in January (i.e., the 4044 yield curve as of December 31 applies for valuation dates occurring January 1 through January 30 and the 4044 yield curve as of January 31 applies for a January 31 valuation date). If the Missing Participants regulation were left unchanged, it would be unclear which 4044 yield curve should be used for benefit determination dates occurring in a particular calendar year. Thus, like the proposed rule, this final rule amends the Missing Participants regulation to prescribe the use of the 4044 yield curve applicable to valuations occurring on December 31 of the year preceding the calendar year in which the benefit determination date occurs. However, there is no 4044 yield curve applicable to valuations occurring on December 31, 2023. Consequentially, for benefit determination dates to which this rule applies in 2024, a transition rule prescribes the use of the 4044 yield curve applicable to valuations occurring on July 31, 2024.

## Mortality Assumption

PBGC's Missing Participants regulation prescribes use of a unisex version of the benefit valuation regulation's mortality assumption for healthy lives (i.e., a 50/50 blend of the male and female mortality tables) to determine certain amounts to be transferred on behalf of a missing participant from a terminating defined benefit plan to PBGC's Missing

[^14]Participants Program. Doing the required calculation based on the current mortality assumption is relatively straightforward.
However, because this final rule provides that future mortality improvements will be reflected using generational mortality, if the Missing Participants regulation were left unchanged, practitioners would need to create, and use, a unisex version of a generational mortality table, which would be somewhat cumbersome and complicated. To alleviate the complication, as with the proposed rule, PBGC is amending the Missing Participants regulation to provide that a unisex, static version of the mortality table be used for this purpose. More specifically, PBGC is amending the portion of the definition of "PBGC missing participants assumptions" related to mortality to use a $50 / 50$ blend of static male and female mortality combined tables reflecting nonannuitant and annuitant mortality rates. The proposed rule stated that these male and female tables would be identical to the static mortality tables proposed by IRS and Treasury as an alternative for plans with 500 or fewer participants. Though this final rule does not change the methodology for determining the missing participants static mortality tables, the tables will not be identical to the IRS and Treasury small plan tables because of changes to improvement projection that IRS and Treasury finalized. This final rule includes the static mortality table for 2024 valuations to which this rule applies. PBGC intends to amend the regulation annually to provide static mortality tables reflecting mortality improvements.

## Other Housekeeping Changes

As previously discussed, the interest, mortality, and expense assumptions are specified in appendixes to part 4044. To better align with Office of the Federal Register guidance, this final rule specifies the updated assumptions within the codified text of part 4044 instead. The expected retirement age assumptions, which are also used in present value of benefit calculations under part 4044 (but not modified by this rule), are moved to codified text as well. This final rule retains the current interest assumptions in appendix B for reference, but the other three appendixes are removed. The final rule updates cross-references to the appendixes throughout PBGC's regulations so that they refer to the codified text. Compared to the proposed rule, the final rule updates additional cross references in PBGC's regulations
to reflect the new location of the expected retirement age assumptions.

## Applicability and Transition

One commenter suggested providing a transition period for the regulated community to adapt to the new format of the assumptions and that PBGC continue publishing select and ultimate interest rates for a period of time for third-party use. The amendments apply to calculations where the valuation date is on or after July 31, 2024, giving adequate time to those that need it. However, PBGC will not continue to publish select and ultimate rates. As described earlier in the preamble, the select and ultimate methodology is outmoded.

## Incorporation by Reference

Section 4044.53(c)(1)(iii) of the final regulation provides that the mortality improvement rates used to construct the generational mortality tables to be used are the Scale MP-2021 Rates which are described in the Mortality Improvement Scale MP-2021 Report. The Office of the Federal Register (OFR) has regulations concerning incorporation by reference. 1 CFR part 51. These regulations require that agencies must discuss in the preamble to a rule or proposed rule the way in which materials that the agency incorporates by reference are reasonably available to interested persons, and how interested parties can obtain the materials. 1 CFR 51.5(b).
The Scale MP-2021 Rates and the Mortality Improvement Scale MP-2021 Report are described in this preamble under the heading "Updated healthy lives mortality assumption-mortality improvements" in the "Mortality Assumption" section of this preamble. The Mortality Improvement Scale MP2021 Report was issued by the Retirement Plans Experience Committee of the Society of Actuaries in October of 2021 and is available to the public for free viewing online on the Society of Actuary's website at https://
www.soa.org/resources/experience-studies/2021/mortality-improvement-scale-mp-2021. The Scale MP-2021 Rates consist of tables of mortality improvement rates by age, sex, and year that are used to project future mortality improvements on the base mortality table.

## Executive Orders 12866 and 13563

The Office of Management and Budget (OMB) has determined that this rule is not a "significant regulatory action" under Executive Order 12866.
Accordingly, OMB has not reviewed the final rule under Executive Order 12866.

Executive Order 12866 directs agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity).

Although this is not a significant regulatory action under Executive Order 12866, PBGC has examined the economic implications of this final rule and has concluded that the rule's changes will have a minimal impact on liabilities determined under PBGC's regulations.

The updates to the assumptions under the benefits valuation regulation will, on average, produce benefit liabilities that are very close to the valuations produced by the current assumptions. The results for any particular benefit valuation, however, could be different as a result of adopting an interest rate methodology based on market rates (i.e., eliminating the lag between when data used to set the interest assumption are observed and the interest rate environment on the valuation date).

The impact on liabilities resulting from eliminating the above-noted lag will not be biased in favor of higher or lower benefit liabilities. Also, the impact should be fairly small (i.e., within a few percentage points) unless market rates on the valuation date are significantly different from what PBGC would have used to determine the 4044 interest assumption absent this change (i.e., had the lag not been eliminated).

PBGC's analysis indicates that, ignoring the impact of the interest rate timing difference described in the prior paragraph, the impact will also be relatively small in situations where the updated 4044 interest assumption is used, but not the updated 4044 mortality assumption. For example, this might be the case with respect to certain withdrawal liability calculations. For plans using the 4044 interest assumption but not the 4044 mortality assumption to determine withdrawal liability, the updated assumptions will generally result in lower benefit liabilities, but liability measurements should be within a few percentage points of liability measurements using the current methodology. Thus, the change will result in only a minor change in withdrawal liability.

The changes to generational mortality tables and to a yield-curve based interest assumption impose a small and not significant administrative burden on plans and practitioners that do calculations using the assumptions.

Section 6 of Executive Order 13563 requires agencies to rethink existing regulations by periodically reviewing their regulatory programs for rules that "may be outmoded, ineffective, insufficient, or excessively burdensome." These rules should be modified, streamlined, expanded, or repealed as appropriate. PBGC is updating certain outmoded assumptions in its benefits valuation regulation consistent with the principles for review under E.O. 13563.

## Regulatory Flexibility Act

The Regulatory Flexibility Act ${ }^{28}$ imposes certain requirements respecting rules that are subject to the notice-andcomment requirements of section 553(b) of the Administrative Procedure Act, or any other law, ${ }^{29}$ and that are likely to have a significant economic impact on a substantial number of small entities. Unless an agency certifies that a final rule is not likely to have a significant economic impact on a substantial number of small entities, section 604 of the Regulatory Flexibility Act requires that the agency present a final regulatory flexibility analysis at the time of the publication of the final rule describing the impact of the rule on small entities and seek public comment on such impact. Small entities include small businesses, organizations, and governmental jurisdictions. ${ }^{30}$

For purposes of the Regulatory Flexibility Act requirements with respect to this final rule, PBGC considers a small entity to be a plan with fewer than 100 participants. ${ }^{31}$ This is substantially the same criterion PBGC uses in other regulations ${ }^{32}$ and is consistent with certain requirements in title I of ERISA ${ }^{33}$ and the Code, ${ }^{34}$ as well as the definition of a small entity that PBGC and the Department of Labor

[^15](DOL) have used for purposes of the Regulatory Flexibility Act. ${ }^{35}$

Further, while some large employers operate small plans along with larger ones, in general, most small plans are maintained by small employers. Thus, PBGC believes that assessing the impact of the final rule on small plans is an appropriate substitute for evaluating the effect on small entities. The definition of small entity considered appropriate for this purpose differs, however, from a definition of small business based on size standards promulgated by the Small Business Administration ${ }^{36}$ under the Small Business Act. PBGC therefore requested comments on the appropriateness of the size standard used in evaluating the impact of the amendments in the final rule on small entities. PBGC received no comments on this point.
Based on its definition of small entity, PBGC certifies under Section 605(b) of the Regulatory Flexibility Act (5 U.S.C. 601 et seq.) that the amendments in this final rule will not have a significant economic impact on a substantial number of small entities. As explained earlier in this preamble, the assumptions will continue to produce valuations that align with group annuity prices. Because of this, PBGC does not expect the assumptions to have a significant economic impact on a substantial number of entities of any size. Similarly, because technology improvements allow even small plans (and their service providers) to apply the more complicated interest and mortality assumptions of this rule without additional administrative burden, this final rule will not increase administrative costs on these entities. Accordingly, as provided in Section 605 of the Regulatory Flexibility Act, sections 603 and 604 do not apply.

## List of Subjects

## 29 CFR Part 4001

Employee benefit plans, Pension insurance, Pensions.

## 29 CFR Part 4010

Pension insurance, Pensions, Reporting and recordkeeping requirements.
${ }^{35}$ See, e.g., PBGC's proposed rule on Reportable Events and Certain Other Notification
Requirements, 78 FR 20039, 20057 (April 3, 2013) and DOL's final rule on Procedures Governing the Filing and Processing of Prohibited Transaction Exemption Applications, 89 FR 4662, 4690 (Jan. 24, 2024).
${ }^{36}$ See, 13 CFR 121.201.

## 29 CFR Part 4022

Employee benefit plans, Pension insurance, Pensions, Reporting and recordkeeping requirements.

## 29 CFR Part 4041

Employee benefit plans, Pension insurance, Pensions, Reporting and recordkeeping requirements.

## 29 CFR Part 4041A

Employee benefit plans, Pension insurance, Pensions, Reporting and recordkeeping requirements.

## 29 CFR Part 4043

Employee benefit plans, Pension insurance, Pensions, Reporting and recordkeeping requirements.

## 29 CFR Part 4044

Employee benefit plans, Incorporation by reference, Pension insurance, Pensions.

## 29 CFR Part 4050

Employee benefit plans, Pension insurance, Pensions, Reporting and recordkeeping requirements.

## 29 CFR Part 4262

Employee benefit plans, Pension insurance, Pensions, Reporting and recordkeeping requirements.

## 29 CFR Part 4281

Employee benefit plans, Pension insurance, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, PBGC amends 29 CFR parts 4001, 4010, 4022, 4041, 4041A, 4043, 4044, 4050, 4262, and 4281 as follows:

## PART 4001-TERMINOLOGY

■ 1. The authority citation for part 4001 continues to read as follows:

Authority: 29 U.S.C. 1301, 1302(b)(3).

## § 4001.2 [Amended]

■ 2. Amend $\S 4001.2$ in the definition of Expected retirement age (XRA) by removing "§§ 4044.55 through 4044.57 " and adding in its place " $§ \$ 4044.55$ through 4044.58".

## PART 4010—BENEFITS PAYABLE IN TERMINATED SINGLE-EMPLOYER PLANS

■ 3. The authority citation for part 4010 continues to read as follows:

Authority: 29 U.S.C. 1302(b)(3), 1310.
■ 4. Amend § 4010.8 in table 1 to paragraph (d)(2)(ii) under
"Assumptions" by revising the entry for
"Interest" and under "Decrements" by
revising the entry for "Retirement" to read as follows:

| §4010.8 | Plan actuarial information. |
| :---: | :---: |
| * * | * |
| (d) * | * * |
| (2) * | * |
| (ii) * |  |

Table 1 to Paragraph (d)(2)(ii)

| Assumptions: | * * * |  |
| :---: | :---: | :---: |
| * | * * | * |
| Interest .......... | §4044.54. |  |
| * * | * * | * |
| Decrements <br> - Retirement | §§ 4044.55 through 4044.58 . |  |
| * * | * * | * |
| * * * | * * |  |

## PART 4022—BENEFITS PAYABLE IN TERMINATED SINGLE-EMPLOYER PLANS

■ 5. The authority citation for part 4022 continues to read as follows:

Authority: 29 U.S.C. 1302, 1322, 1322b, 1341(c)(3)(D), and 1344.
■ 6. Amend § 4022.63 in paragraphs (b) introductory text by:
■ a. Removing the words "the PBGC" and adding in their place the word
"PBGC" wherever they appear; and
■ b. Revising paragraph (b)(1).
The revision reads as follows:

## §4022.63 Estimated asset-funded benefit.

(b) * * *
(1) An actuarial valuation of the plan has been performed for a plan year beginning not more than eighteen months before the proposed termination date. If the interest rate used to value plan liabilities in this valuation exceeded the applicable valuation interest rates and factors under $\S 4044.54$ of this chapter in effect on the proposed termination date, the value of benefits in pay status and the value of vested benefits not in pay status on the valuation date must be converted to PBGC's valuation rates and factors.

## PART 4041-TERMINATION OF SINGLE-EMPLOYER PLANS

■ 7. The authority citation for part 4041 continues to read as follows:

Authority: 29 U.S.C. 1302(b)(3), 1341, 1344, 1350.

## §4041.49 [Amended]

■ 8. Amend § 4041.49 in paragraph (b)(1)(ii) by removing " $\$ \S 4044.41$
through $4044.57^{\prime \prime}$ and adding in its place "§§ 4044.41 through 4044.58 ".

## PART 4041A-TERMINATION OF MULTIEMPLOYER PLANS

■ 9. The authority citation for part 4041A continues to read as follows:

Authority: 29 U.S.C. 1302(b)(3), 1341a, 1431, 1441.

## §4041A. 43 [Amended]

■ 10. Amend $\S 4041 \mathrm{~A} .43$ in paragraph (b)(1) by removing " $\S \$ 4044.41$ through 4044.57" and adding in its place "§§ 4044.41 through 4044.58".

## PART 4043—REPORTABLE EVENTS AND CERTAIN OTHER NOTIFICATION REQUIREMENTS

■ 11. The authority citation for part 4043 continues to read as follows:
Authority: 29 U.S.C. 1083(k), 1302(b)(3), 1343.

## §4043.65 [Amended]

■ 12. Amend § 4043.65 in paragraphs (b)(3) and (4) by removing " $\S \S 4044.51$ through 4044.57" and adding in its place "§§ 4044.51 through 4044.58 " wherever it occurs.

## PART 4044-ALLOCATION OF ASSETS IN SINGLE-EMPLOYER PLANS

■ 13. The authority citation for part 4044 continues to read as follows:

Authority: 29 U.S.C. 1301(a), 1302(b)(3), 1341, 1344, 1362.

## § 4044.1 [Amended]

■ 14. Amend § 4044.1 in the second sentence of paragraph (b)(1) by removing "Sections 4044.51 through 4044.57" and adding in its place "Sections 4044.51 through 4044.58" and by removing "( $\S \S 4044.55$ through 4044.57)" and adding in its place "(§§ 4044.55 through 4044.58)".

## § 4044.2 [Amended]

■ 15. Amend § 4044.2 in paragraph (d) introductory text by removing
" $\S 84044.55$ through 4044.57 " and adding in its place " $\S \S 4044.55$ through 4044.58".

## §4044.41 [Amended]

■ 16. Amend § 4044.41 in paragraphs (a)(1) and (2) by removing " $\S \S 4044.51$ through 4044.57" and adding in its place " $\S \$ 4044.51$ through 4044.58 ".
§4044.51 [Amended]
■ 17. Amend § 4044.51 in paragraph (b)(2)(i) by removing " $\$ \S 4044.55$ through 4044.57" and adding in its place "§§ 4044.55 through 4044.58 ".

■ 18. Amend § 4044.52 by revising paragraphs (a) and (d) to read as follows:

## §4044.52 Valuation of benefits.

(a) Using the mortality assumptions prescribed by $\S 4044.53$ and the interest assumptions prescribed by § 4044.54;
(d) Adding an expense loading charge determined in accordance with this paragraph (d) to the total value of benefits.
(1) Expense loading charge. The expense loading charge equals the applicable inflation multiplier determined in accordance with paragraph (d)(2) of this section multiplied by the sum of-
(i) Four hundred dollars (\$400) multiplied by the lesser of the applicable participant count and 100, and
(ii) Two hundred-fifty dollars (\$250) multiplied by the excess, if any, of the applicable participant count over 100.
(2) Applicable inflation multiplier. Except as provided in the next sentence, the applicable inflation multiplier equals the value of the CPI-U for September of the year preceding the year containing the valuation date divided by 296.808 (the value of the CPI-U for September of 2022), but not less than 1. However, for a valuation date on any day in January except the 31st, the applicable inflation multiplier is determined as if the valuation date were December 31 of the year preceding the year containing the valuation date.
The term "CPI-U"' means the Consumer Price Index for All Urban Consumers, not seasonally adjusted as published by the Bureau of Labor Statistics of the Department of Labor.
(3) Rounding. Any expense loading charge determined in accordance with this paragraph (d) which is not a multiple of $\$ 1.00$ is rounded to the nearest dollar.
■ 19. Amend $\S 4044.53$ by revising paragraphs (c), (d), and (e) and adding paragraph (h) to read as follows:

## §4044.53 Mortality assumptions.

(c) Healthy lives-(1) In general. If the individual is not disabled under paragraph (f) of this section, the plan administrator must value the benefit using generational mortality tables described in this paragraph (c).
(i) Construction of generational mortality tables. The generational mortality tables in this paragraph (c) are constructed from the base mortality tables described in paragraph (c)(1)(ii) of this section and the mortality
improvement rates described in paragraph (c)(1)(iii) of this section.
(ii) Base mortality tables. The base mortality tables are set forth in paragraph (c)(5) of this section. The base year for those tables is 2012.
(iii) Mortality improvement rates. The mortality improvement rates are the Scale MP-2021 Rates described in the Mortality Improvement Scale MP-2021 Report.
(iv) Incorporation by reference. The Mortality Improvement Scale MP-2021 Report, October 2021 is incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. This incorporation by reference (IBR) material is available for inspection at PBGC and at the National Archives and Records Administration (NARA). Contact PBGC at: Disclosure Division, Office of the General Counsel, Pension Benefit Guaranty Corporation; 445 12th Street SW, Washington, DC 20024; 202-326-4040. For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations.html or email fr.inspection@nara.gov. The material may be obtained from the Society of Actuaries at: Society of Actuaries, 475 N. Martingale Rd., Suite 600, Schaumburg, IL 60173; (847) 706-3500; https://www.soa.org/resources/ experience-studies/2021/mortality-improvement-scale-mp-2021.
(2) Application of mortality improvement rates-(i) In general. Under the generational mortality tables described in this paragraph (c), the probability of an individual's death at a particular age in the future is determined as the individual's base mortality rate that applies at that age (that is, the applicable mortality rate from the tables set forth in paragraph (c)(5) of this section for that age, gender, and status as an annuitant or a nonannuitant) multiplied by the cumulative mortality improvement factor for the individual's gender and for that age for the period from 2012 through the calendar year in which the individual is projected to reach the particular age. Paragraph (c)(3) of this section provides an example that illustrates how the base mortality tables in paragraph (c)(5) of this section and the Scale MP-2021 mortality improvement rates are combined to determine projected mortality rates.
(ii) Cumulative mortality improvement factor. The cumulative mortality improvement factor for an age and gender for a period is the product of the annual mortality improvement factors for that age and gender for each year within that period.
(iii) Annual mortality improvement factor. The annual mortality improvement factor for an age and gender for a year is 1 minus the mortality improvement rate that applies for that age and gender for that year. If that annual mortality improvement rate is greater than 1 (corresponding to a negative mortality improvement rate), then the projected mortality rate for that age and gender for that year is greater
than the projected mortality rate for the same age and gender for the preceding year.
(3) Example of calculation using scale MP-2021 rates-(i) Calculation of mortality rate. The mortality rate that is applied to male annuitants who are age 67 in 2024 is equal to the product of the mortality rate for 2012 that applied to male annuitants who were age 67 in 2012 (0.01288) and the cumulative
mortality improvement factor for age 67 males from 2012 to 2024. The cumulative mortality improvement factor for age 67 males for the period from 2012 to 2024 is 0.9867 , and the mortality rate for 2024 for male annuitants who are age 67 in that year would be 0.01271 , as shown in the following table.

Table 1 to Paragraph (c)(3)(i)—Example Mortality Rate Calculation

|  | Calendar year | Scale MP-2021 mortality improvement rate | Annual mortality improvement factor (1-mortality improvement rate) | Cumulative mortality improvement factor | Mortality rate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2012 |  | n/a | n/a | n/a | 0.01288 |
| 2013 |  | 0.0052 | 0.9948 | 0.9948 |  |
| 2014 |  | 0.0027 | 0.9973 | 0.9921 | ..... |
| 2015 | ...................... | 0.0009 | 0.9991 | 0.9912 | ....................... |
| 2016 | ........................ | (0.0003) | 1.0003 | 0.9915 | ........................... |
| 2017 |  | (0.0010) | 1.0010 | 0.9925 | ........................... |
| 2018 | ......................... | (0.0016) | 1.0016 | 0.9941 | ........................... |
| 2019 | ............................................. | (0.0016) | 1.0016 | 0.9957 | ........................... |
| 2020 | ........................................... | (0.0010) | 1.0010 | 0.9967 | ............................ |
| 2021 | ... | 0.0000 | 1.0000 | 0.9967 | ........................... |
| 2022 | ......................................... | 0.0015 | 0.9985 | 0.9952 | ... |
| 2023 | ... | 0.0033 | 0.9967 | 0.9919 | ....................... |
| 2024 | ......................................... | 0.0052 | 0.9948 | 0.9867 | 0.01271 |

(ii) Probability of survival for an individual. After the projected mortality rates are derived for each age for each year, the rates are used to calculate the present value of a benefit stream that depends on the probability of survival year-by-year. For example, using the Scale MP-2021 rates, for purposes of calculating the present value of future payments in a benefit stream payable for a male annuitant who is age 67 in 2024, the probability of survival for the annuitant is based on the mortality rate for a male annuitant who is age 67 in 2024 (0.01271), and the projected mortality rate for a male annuitant who will be age 68 in 2025 ( 0.01369 ), age 69 in 2026 ( 0.01478 ), and so on.
(4) Use of the tables-(i) Separate tables for annuitants and nonannuitants. Separate mortality tables are provided for use for annuitants and nonannuitants. The non-annuitant mortality tables are applied to determine the probability of survival for a nonannuitant for the period before the nonannuitant is projected to commence receiving benefits. The annuitant
mortality tables are applied to determine the present value of benefits for each annuitant. In addition, the annuitant mortality tables are applied for each non-annuitant with respect to each assumed commencement of benefits for the period beginning with that assumed commencement. For purposes of this section, an annuitant means a plan participant who has commenced receiving benefits, and a non-annuitant means a plan participant who has not yet commenced receiving benefits (for example, an active employee or a terminated vested participant). A participant whose benefit has partially commenced is treated as an annuitant for the portion of the benefit that has commenced and treated as a non-annuitant for the balance of the benefit. In addition, for a beneficiary of a participant, the annuitant mortality tables apply for the period beginning with each assumed commencement of benefits for the participant. If the participant has died (or to the extent the participant is assumed to die before commencing
benefits), the annuitant mortality tables apply with respect to the beneficiary for the period beginning with each assumed commencement of benefits for the beneficiary.
(ii) Examples of calculation using separate non-annuitant and annuitant tables. For a 45-year-old active participant who is projected to commence receiving an annuity at age 55, benefit liabilities are determined using the non-annuitant mortality tables for the period before the participant attains age 55 and using the annuitant mortality tables for the period ages 55 and above. Similarly, for a 45-year-old terminated vested participant who is projected to commence an annuity at age 65 , benefit liabilities are determined using the non-annuitant mortality tables for the period before the participant attains age 65 and using the annuitant mortality tables for ages 65 and above.
(5) Base mortality tables. The following are the base mortality tables. The base year for these tables is 2012.

Table 2 to Paragraph (c)(5)—Healthy Lives Base Mortality Table

| Age | Males |  | Females |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Non-annuitant | Annuitant | Non-annuitant | Annuitant |
| 0 ............................................................................... | 0.00650 | 0.00650 | 0.00544 | 0.00544 |

Table 2 to Paragraph (c)(5)—Healthy Lives Base Mortality Table—Continued


Table 2 to Paragraph (c)(5)—Healthy Lives Base Mortality Table—Continued

| Age |  | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non-annuitant | Annuitant | Non-annuitant | Annuitant |
| 71 | .... | 0.01073 | 0.01914 | 0.00681 | 0.01597 |
| 72 | ......... | 0.01192 | 0.02121 | 0.00765 | 0.01770 |
| 73 | . | 0.01323 | 0.02354 | 0.00860 | 0.01967 |
| 74 |  | 0.01469 | 0.02613 | 0.00966 | 0.02192 |
| 75 |  | 0.01632 | 0.02905 | 0.01085 | 0.02445 |
| 76 |  | 0.01812 | 0.03233 | 0.01219 | 0.02727 |
| 77 |  | 0.02012 | 0.03604 | 0.01370 | 0.03042 |
| 78 | ...... | 0.02234 | 0.04026 | 0.01539 | 0.03391 |
| 79 | ....... | 0.02480 | 0.04504 | 0.01729 | 0.03775 |
| 80 | ........ | 0.02754 | 0.05046 | 0.01943 | 0.04198 |
| 81 | ......... | 0.02989 | 0.05657 | 0.02134 | 0.04663 |
| 82 | ............ | 0.03460 | 0.06343 | 0.02516 | 0.05178 |
| 83 | ....... | 0.04166 | 0.07114 | 0.03089 | 0.05754 |
| 84 | ............ | 0.05108 | 0.07977 | 0.03853 | 0.06401 |
| 85 | ........................ | 0.06285 | 0.08946 | 0.04808 | 0.07132 |
| 86 | ............... | 0.07698 | 0.10032 | 0.05955 | 0.07954 |
| 87 | ................ | 0.09346 | 0.11248 | 0.07293 | 0.08879 |
| 88 | ....................... | 0.11229 | 0.12600 | 0.08822 | 0.09936 |
| 89 | ......................... | 0.13348 | 0.14088 | 0.10542 | 0.11124 |
| 90 | ......................... | 0.15703 | 0.15703 | 0.12453 | 0.12453 |
| 91 | $\ldots$ | 0.17401 | 0.17401 | 0.13818 | 0.13818 |
| 92 | ........................ | 0.19151 | 0.19151 | 0.15250 | 0.15250 |
| 93 | ................... | 0.20936 | 0.20936 | 0.16737 | 0.16737 |
| 94 | .... | 0.22742 | 0.22742 | 0.18274 | 0.18274 |
| 95 | ....... | 0.24569 | 0.24569 | 0.19863 | 0.19863 |
| 96 | ................ | 0.26415 | 0.26415 | 0.21509 | 0.21509 |
| 97 | ......... | 0.28281 | 0.28281 | 0.23214 | 0.23214 |
| 98 |  | 0.30169 | 0.30169 | 0.24983 | 0.24983 |
| 99 |  | 0.32077 | 0.32077 | 0.26814 | 0.26814 |
| 100 | ........................ | 0.33996 | 0.33996 | 0.28698 | 0.28698 |
| 101 | ....................... | 0.35910 | 0.35910 | 0.30619 | 0.30619 |
| 102 | ...... | 0.37794 | 0.37794 | 0.32549 | 0.32549 |
| 103 |  | 0.39633 | 0.39633 | 0.34472 | 0.34472 |
| 104 |  | 0.41415 | 0.41415 | 0.36375 | 0.36375 |
| 105 | ........ | 0.43131 | 0.43131 | 0.38243 | 0.38243 |
| 106 |  | 0.44771 | 0.44771 | 0.40065 | 0.40065 |
| 107 |  | 0.46329 | 0.46329 | 0.41828 | 0.41828 |
| 108 |  | 0.47800 | 0.47800 | 0.43522 | 0.43522 |
| 109 | ....... | 0.49181 | 0.49181 | 0.45139 | 0.45139 |
| 110 |  | 0.50000 | 0.50000 | 0.46673 | 0.46673 |
| 111 |  | 0.50000 | 0.50000 | 0.48120 | 0.48120 |
| 112 | ........................ | 0.50000 | 0.50000 | 0.49477 | 0.49477 |
| 113 | .................. | 0.50000 | 0.50000 | 0.50000 | 0.50000 |
| 114 | .................. | 0.50000 | 0.50000 | 0.50000 | 0.50000 |
| 115 | ................... | 0.50000 | 0.50000 | 0.50000 | 0.50000 |
| 116 | .................. | 0.50000 | 0.50000 | 0.50000 | 0.50000 |
| 117 | ....... | 0.50000 | 0.50000 | 0.50000 | 0.50000 |
| 118 | .................................... | 0.50000 | 0.50000 | 0.50000 | 0.50000 |
| 119 | .......................... | 0.50000 | 0.50000 | 0.50000 | 0.50000 |
| 120 | ................... | 1.00000 | 1.00000 | 1.00000 | 1.00000 |

(d) Social Security disabled lives. If the individual is Social Security disabled under paragraph (f)(1) of this section, the plan administrator will value the benefit using the following table.

Table 3 to Paragraph (d)-Social Security Disabled Lives MorTALITY TABLE

| Age | Male | Female |
| :---: | :---: | :---: |
| $16 .$. | 0.012544 | 0.004759 |
| 17 .......... | 0.007102 | 0.006541 |

Table 3 to Paragraph (d)-Social Security Disabled lives Mortality Table-Continued

| Age | Male | Female |
| :---: | :---: | :---: |
| 18 | 0.005859 | 0.008035 |
| 19 | 0.009998 | 0.008369 |
| 20 | 0.008926 | 0.009224 |
| 21 | 0.008533 | 0.008144 |
| 22 | 0.008158 | 0.008616 |
| 23 ... | 0.008970 | 0.008127 |
| 24 | 0.008433 | 0.008318 |
| 25 | 0.008696 | 0.008851 |
| 26 | 0.009211 | 0.008002 |
| 27 | 0.009362 | 0.008694 |

Table 3 to Paragraph (d)—Social Security Disabled lives MorTALITY TABLE-Continued

| Age | Male | Female |
| :---: | :---: | :---: |
| 28 | 0.009780 | 0.009477 |
| 29 | 0.010049 | 0.009664 |
| 30 | 0.011093 | 0.009417 |
| 31 | 0.011075 | 0.009985 |
| 32 | 0.010931 | 0.010524 |
| 33 | 0.011890 | 0.010648 |
| 34 | 0.012529 | 0.011252 |
| 35 | 0.012418 | 0.011450 |
| 36 | 0.013234 | 0.011448 |
| 37 | 0.013832 | 0.012135 |

Table 3 to Paragraph (d)—Social Security Disabled Lives MorTALITY TABLE-Continued

| Age | Male | Female |
| :---: | :---: | :---: |
| 38 | 0.014457 | 0.012579 |
| 39 | 0.015830 | 0.012619 |
| 40 | 0.016153 | 0.013578 |
| 41 | 0.016859 | 0.014243 |
| 42 | 0.017464 | 0.014520 |
| 43 | 0.018302 | 0.014773 |
| 44 | 0.019127 | 0.015630 |
| 45 | 0.020380 | 0.016131 |
| 46 | 0.021607 | 0.016874 |
| 47 | 0.023407 | 0.017547 |
| 48 | 0.023956 | 0.018198 |
| 49 | 0.025631 | 0.019281 |
| 50 | 0.026384 | 0.019413 |
| 51 | 0.027277 | 0.020343 |
| 52 | 0.028582 | 0.020488 |
| 53 | 0.030164 | 0.021316 |
| 54 | 0.031262 | 0.021960 |
| 55 | 0.031728 | 0.021969 |
| 56 | 0.033067 | 0.022897 |
| 57 | 0.034230 | 0.023556 |
| 58 | 0.035474 | 0.024159 |
| 59 | 0.036790 | 0.024958 |
| 60 | 0.037772 | 0.025905 |
| 61 | 0.039297 | 0.027414 |
| 62. | 0.039954 | 0.028394 |
| 63 | 0.041069 | 0.029795 |
| 64 | 0.042280 | 0.030776 |
| 65 | 0.039144 | 0.028230 |
| 66 | 0.043862 | 0.031667 |
| 67 | 0.046182 | 0.033318 |
| 68 | 0.048624 | 0.034728 |

Table 3 to Paragraph (d)-Social Security Disabled Lives Mortality Table-Continued

| Age | Male | Female |
| :---: | :---: | :---: |
| 69 | 0.052077 | 0.037341 |
| 70 | 0.055284 | 0.039491 |
| 71 | 0.058951 | 0.042134 |
| 72 | 0.062301 | 0.044962 |
| 73 | 0.067099 | 0.047548 |
| 74 | 0.071469 | 0.051148 |
| 75 | 0.075068 | 0.055271 |
| 76 | 0.080425 | 0.059382 |
| 77 | 0.085531 | 0.063489 |
| 78 | 0.091585 | 0.068675 |
| 79 | 0.098383 | 0.074929 |
| 80 | 0.104788 | 0.080536 |
| 81 | 0.113110 | 0.088455 |
| 82 | 0.122062 | 0.094573 |
| 83 | 0.131697 | 0.103589 |
| 84 | 0.140430 | 0.111345 |
| 85 | 0.151890 | 0.122160 |
| 86 | 0.165777 | 0.130844 |
| 87 | 0.176875 | 0.142631 |
| 88 | 0.188397 | 0.156112 |
| 89 | 0.206651 | 0.166591 |
| 90 | 0.223252 | 0.182064 |
| 91 | 0.235073 | 0.197059 |
| 92 | 0.249318 | 0.205768 |
| 93 | 0.267740 | 0.225325 |
| 94 | 0.277033 | 0.240441 |
| 95 | 0.284003 | 0.260724 |
| 96 | 0.298740 | 0.281817 |
| 97 | 0.313086 | 0.293156 |
| 98 | 0.328740 | 0.308400 |
| 99 ................... | 0.345177 | 0.324436 |

Table 3 to Paragraph (d)—Social Security Disabled Lives Mortality Table-Continued

| Age | Male | Female |
| :---: | :---: | :---: |
| $100 \ldots \ldots \ldots \ldots \ldots \ldots$. | 0.362436 | 0.341307 |
| $101 \ldots \ldots \ldots \ldots \ldots .$. | 0.380558 | 0.359055 |
| $102 \ldots \ldots \ldots \ldots \ldots$. | 0.399586 | 0.377726 |
| $103 \ldots \ldots \ldots \ldots \ldots$. | 0.419565 | 0.397368 |
| $104 \ldots \ldots \ldots \ldots \ldots .$. | 0.440543 | 0.418031 |
| $105 \ldots \ldots \ldots \ldots \ldots$. | 0.462571 | 0.439768 |
| $106 \ldots \ldots \ldots \ldots \ldots$. | 0.485699 | 0.462636 |
| $107 \ldots \ldots \ldots \ldots \ldots .$. | 0.509984 | 0.486693 |
| $108 \ldots \ldots \ldots \ldots \ldots$. | 0.535483 | 0.512001 |
| $109 \ldots \ldots \ldots \ldots \ldots$. | 0.562257 | 0.538626 |
| $110 \ldots \ldots \ldots \ldots \ldots \ldots$. | 0.590370 | 0.566634 |
| $111+\ldots \ldots \ldots \ldots \ldots$ | 1.000000 | 1.000000 |

(e) Non-Social Security disabled lives. If the individual is non-Social Security disabled under paragraph (f)(2) of this section, the plan administrator will value the benefit using generational mortality tables described in paragraph (c) of this section.
(h) Missing participants mortality. The following mortality table is used to value benefits using "PBGC missing participants assumptions" under part 4050, subparts A, C, and D of this chapter.

Table 4 to Paragraph (h)—Missing Participants Mortality Table for Determination Dates in 2024

|  | Age | Unisex mortality |  | Age | Unisex mortality |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | ............. | 0.00207 | 61 |  | 0.00370 |
| 1 |  | 0.00015 | 62 |  | 0.00441 |
| 2 |  | 0.00010 | 63 |  | 0.00514 |
| 3 |  | 0.00008 | 64 |  | 0.00577 |
| 4 | ............... | 0.00006 | 65 |  | 0.00658 |
| 5 | ..... | 0.00006 | 66 | ............................................................. | 0.00748 |
| 6 | ..... | 0.00005 | 67 | ....................................................... | 0.00834 |
| 7 |  | 0.00005 | 68 |  | 0.00928 |
| 8 | ....... | 0.00004 | 69 |  | 0.01034 |
| 9 | ......................... | 0.00004 | 70 | ............................................................. | 0.01155 |
| 10 | ........................... | 0.00004 | 71 | ............................................................ | 0.01294 |
| 11 | .... | 0.00004 | 72 | ............................................................. | 0.01452 |
| 12 | ...................... | 0.00005 | 73 | ....................................................... | 0.01631 |
| 13 | ..... | 0.00006 | 74 |  | 0.01837 |
| 14 | ...... | 0.00008 | 75 |  | 0.02073 |
| 15 | ......................... | 0.00009 | 76 | ........................................................... | 0.02345 |
| 16 | .... | 0.00010 | 77 | ............................................................. | 0.02656 |
| 17 | ......................... | 0.00012 | 78 | ............................................................ | 0.03012 |
| 18 | ......................... | 0.00014 | 79 |  | 0.03417 |
| 19 | .......................... | 0.00016 | 80 |  | 0.03899 |
| 20 |  | 0.00016 | 81 |  | 0.04395 |
| 21 |  | 0.00017 | 82 |  | 0.04959 |
| 22 |  | 0.00017 | 83 |  | 0.05595 |
| 23 |  | 0.00018 | 84 |  | 0.06317 |
| 24 |  | 0.00019 | 85 |  | 0.07138 |
| 25 |  | 0.00020 | 86 |  | 0.08063 |
| 26 |  | 0.00021 | 87 |  | 0.09107 |
| 27 |  | 0.00022 | 88 | ............................................................. | 0.10286 |
| 28 | ................. | 0.00023 | 89 | ............................................................. | 0.11596 |
| 29 |  | 0.00023 | 90 | ............................................................. | 0.13036 |
| 30 | ....................... | 0.00025 | 91 | ............................................................. | 0.14540 |
| 31 | ...... | 0.00026 | 92 | $\cdots$ | 0.16090 |
| 32 |  | 0.00028 | 93 | ............................................................. | 0.17679 |
| 33 |  | 0.00030 | 94 |  | 0.19284 |

Table 4 to Paragraph (h)—Missing Participants Mortality Table for Determination Dates in 2024Continued

|  | Unisex mortality | Age | Unisex mortality |
| :---: | :---: | :---: | :---: |
| 34 | 0.00032 | 95 | 0.20898 |
| 35 | 0.00034 | 96 | 0.22620 |
| 36 | 0.00036 | 97 | 0.24386 |
| 37 | 0.00038 | 98 | 0.26196 |
| 38 | 0.00040 | 99 | 0.28059 |
| 39 | 0.00043 | 100 | 0.29960 |
| 40 | 0.00044 | 101 | 0.31891 |
| 41 | 0.00046 | 102 | 0.33825 |
| 42 | 0.00048 | 103 | 0.35757 |
| 43 | 0.00049 | 104 | 0.37670 |
| 44 | 0.00052 | 105 | 0.39521 |
| 45 | 0.00054 | 106 | 0.41327 |
| 46 | 0.00058 | 107 | 0.43080 |
| 47 | 0.00061 | 108 | 0.44743 |
| 48 | 0.00065 | 109 | 0.46339 |
| 49 | 0.00070 | 110 | 0.47628 |
| 50 | 0.00076 | 111 | 0.48468 |
| 51 | 0.00085 | 112 | 0.49268 |
| 52 | 0.00095 | 113 | 0.49666 |
| 53 | 0.00106 | 114 | 0.49795 |
| 54 | 0.00120 | 115 | 0.49928 |
| 55 | 0.00143 | 116 | 0.49960 |
| 56 | 0.00177 | 117 | 0.49978 |
| 57 | 0.00205 | 118 | 0.49995 |
| 58 | 0.00239 | 119 | 0.50000 |
| 59 | 0.00276 | 120 .............................................................. | 1.00000 |
| 60 | 0.00321 | ..................................................................... | .................. |

■ 20. Add $\S 4044.54$ to read as follows:

## §4044.54 Interest assumptions.

(a) General rule. The plan administrator must use the interest rates prescribed in this section to value benefits under § 4044.52.
(b) Interest rate. The interest rate used to discount an expected benefit payment is the interest rate from the applicable 4044 yield curve determined under paragraph (c) of this section for the maturity point that corresponds to the period of time from the valuation date to the date the benefit is expected to be paid unless that period of time exceeds 30 years. In that case, the interest rate used is the interest rate that corresponds to the maturity point at year 30.0. To address the timing of benefit payments during a year, reasonable approximations may be used to value benefit payments that are expected to be made during a plan year.
(c) 4044 yield curve. A 4044 yield curve consists of interest rates (as percentages) that correspond to midyear and whole-year maturity points for 30.0 years. The applicable 4044 yield curve is the applicable blended market yield curve determined under paragraphs (d)(1) and (2) of this section adjusted in accordance with paragraph (e)(2) of this section by the applicable spreads determined under paragraph (e)(1) of this section.
(d) Blended market yield curves. A blended market yield curve consists of interest rates (as percentages), determined as of the last day of a month, that correspond to mid-year and whole-year maturity points for 30.0 years.
(1) Applicable blended market yield curve. The applicable blended market yield curve is the blended market yield curve as of the valuation date if the valuation date is the last day of a month, otherwise it is the blended market yield curve as of the last day of the month before the month containing the valuation date.
(2) Determination of blended market yield curve. The blended market yield curve is determined by combining the Department of the Treasury's TNC Treasury Yield Curve Spot Rates, End of Month yield curve (TNC Yield Curve) with the Department of the Treasury's HQM Corporate Bond Yield Curve Spot Rates, End of Month yield curve (HQM Bond Yield Curve) in accordance with this paragraph (d)(2). To determine the blended market yield curve as of the last day of a month-
(i) Obtain the rate for each maturity point from 0.5 to 30.0 from the TNC Yield Curve for the end of the month published by the Department of the Treasury.
(ii) Obtain the rate for each maturity point from 0.5 to 30.0 from the HQM Bond Yield Curve for the end of the
month published by the Department of the Treasury.
(iii) Determine the interest rate for each maturity point from 0.5 to 30.0 on the blended market yield curve by multiplying the rate determined in paragraph (d)(2)(i) of this section by one-third, multiplying the rate determined in paragraph (d)(2)(ii) of this section at the year by two-thirds, and adding the products.
(e) Spreads-(1) Applicable spreads. The applicable spreads for a blended market yield curve are the spreads set forth in table 1 to this paragraph (e) for the calendar quarter containing the date of the blended market yield curve.
(2) Using spreads to adjust a blended market yield curve. The 4044 yield curve described in paragraph (c) of this section is determined by adjusting the blended market yield curve. This adjustment is made by adding the interest rate for each maturity point on the blended market yield curve to the spread corresponding to that maturity point from the applicable spreads.
(3) Examples. The following examples illustrate how to determine the applicable blended market yield curve and applicable spreads for a given valuation date:
(i) Example 1-August 31, 2024, valuation date. Because the valuation date is the last day of a month, the applicable blended market yield curve determined under paragraph (d)(1) of
this section is the blended market yield curve as of that date. Because August 31,2024 , is in the third calendar quarter of 2024 , the applicable spreads determined under paragraph (e)(1) of this section are the spreads for the third calendar quarter of 2024.
(ii) Example 2—November 15, 2024 , valuation date. Because the valuation date is not the last day of a month, the applicable blended market yield curve determined under paragraph (d)(1) of this section is the blended market yield curve as of the last day of the month before the month containing the
valuation date, October 31, 2024. Because October 31, 2024, is in the fourth calendar quarter of 2024, the applicable spreads determined under paragraph (e)(1) of this section are the spreads for the fourth calendar quarter of 2024 .

Table 1 to Paragraph (e)—Spreads

| Third quarter 2024 spreads |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maturity point | Spread (percent) |  | Maturity point | Spread (percent) |  | Maturity point | Spread (percent) |
| 0.5 | TBD | 10.5 |  | TBD | 20.5 |  | TBD |
| 1.0 | TBD | 11.0 |  | TBD | 21.0 |  | TBD |
| 1.5 | TBD | 11.5 |  | TBD | 21.5 |  | TBD |
| 2.0 .................................... | TBD | 12.0 |  | TBD | 22.0 |  | TBD |
| 2.5 .................................... | TBD | 12.5 |  | TBD | 22.5 |  | TBD |
| 3.0 | TBD | 13.0 |  | TBD | 23.0 |  | TBD |
| 3.5 | TBD | 13.5 |  | TBD | 23.5 |  | TBD |
| 4.0 | TBD | 14.0 |  | TBD | 24.0 |  | TBD |
| 4.5 | TBD | 14.5 |  | TBD | 24.5 |  | TBD |
| 5.0 | TBD | 15.0 |  | TBD | 25.0 |  | TBD |
| 5.5 .................................... | TBD | 15.5 |  | TBD | 25.5 |  | TBD |
| 6.0 | TBD | 16.0 | . | TBD | 26.0 | ......................... | TBD |
| 6.5 | TBD | 16.5 |  | TBD | 26.5 |  | TBD |
| 7.0 | TBD | 17.0 |  | TBD | 27.0 |  | TBD |
| 7.5 .................................... | TBD | 17.5 |  | TBD | 27.5 |  | TBD |
| 8.0 | TBD | 18.0 |  | TBD | 28.0 |  | TBD |
| 8.5 | TBD | 18.5 |  | TBD | 28.5 |  | TBD |
| 9.0 .................................... | TBD | 19.0 |  | TBD | 29.0 |  | TBD |
| 9.5 .................................... | TBD | 19.5 | .......... | TBD | 29.5 | ......................... | TBD |
| 10.0 .............................. | TBD | 20.0 |  | TBD | 30.0 | . | TBD |

■ 21. Amend § 4044.55 by revising paragraph (c)(1) to read as follows:

## §4044.55 XRA when a participant must

 retire to receive a benefit.(c) * * *
(1) The plan administrator shall determine whether a participant is in the high, medium, or low retirement rate category using the applicable Selection of Retirement Rate Category Table in $\S 4044.58$, based on the participant's benefit determined under paragraph (b)(1) of this section and the
year in which the participant reaches URA.

*     *         *             *                 * 

22. Amend § 4044.56 by revising
paragraph (c) to read as follows: paragraph (c) to read as follows:
§4044.56 XRA when a participant need not retire to receive a benefit.
(c) Procedure. Participants in this case are always assigned to the high retirement rate category and therefore the plan administrator shall use table IIC (Expected Retirement Ages for Individuals in the High Category) in
§ 4044.58 to determine the XRA. The plan administrator shall determine the XRA from table II-C by using the participant's URA and earliest retirement age at termination date.
■ 23. Add § 4044.58 before the center heading "Non-Trusteed Plans" to read as follows:

## §4044.58 Tables used to determine expected retirement age

The following tables are used for determining expected retirement age under §§ 4044.55 through 4044.57.

Table 1 to § 4044.58

> TABLE I-24—SELECTION OF RETIREMENT RATE CATEGORY
> [For valuation dates in $2024^{11}$ ]

| If participant reaches URA in year- | Participant's retirement rate category is- |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Low ${ }^{2}$ if monthly benefit at URA is less than- | Medium ${ }^{3}$ if monthly benefit at URA is- |  | High ${ }^{4}$ if monthly benefit at URA is greater than- |
|  |  | From- | To- |  |
| 2025 | 802 | 802 | 3,388 | 3,388 |
| 2026 ................................................................. | 821 | 821 | 3,466 | 3,466 |
| 2027 | 839 | 839 | 3,546 | 3,546 |
| 2028 .................................................................. | 859 | 859 | 3,627 | 3,627 |
| 2029 .................................................................. | 879 | 879 | 3,711 | 3,711 |
| 2030 ..................................................................... | 899 | 899 | 3,796 | 3,796 |
| 2031 .................................................................... | 919 | 919 | 3,883 | 3,883 |
| 2032 .................................................................... | 941 | 941 | 3,973 | 3,973 |
| 2033 .................................................................... | 962 | 962 | 4,064 | 4,064 |

Table I-24-Selection of Retirement Rate Category-Continued
[For valuation dates in $2024{ }^{1}$ ]

| If participant reaches URA in year- | Participant's retirement rate category is- |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Low ${ }^{2}$ if monthly benefit at URA is less than- | Medium ${ }^{3}$ if monthly benefit at URA is- |  | High ${ }^{4}$ if monthly benefit at URA is greater than- |
|  |  | From- | To- |  |
| 2034 or later ............................... | 984 | 984 | 4,157 | 4,157 |

${ }^{1}$ Applicable tables for valuation dates before 2024 are available on PBGC's website (www.pbgc.gov).
${ }^{2}$ Table II-A.
${ }^{3}$ Table II-B.
${ }^{4}$ Table II-C.

Table 2 to § 4044.58
Table II-A—Expected Retirement Ages for Individuals in the Low Category

| Participant's earliest retirement age at valuation date | Unreduced retirement age |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 42 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| 43 | 53 | 54 | 54 | 54 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| 44 | 54 | 54 | 55 | 55 | 55 | 55 | 55 | 56 | 56 | 56 | 56 |
| 45 | 54 | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| 46 | 55 | 55 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 57 |
| 47 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| 48 | 56 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| 49 | 56 | 57 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 |
| 50 | 57 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| 51 | 57 | 58 | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 |
| 52 | 58 | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| 53 | 58 | 59 | 59 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 |
| 54 | 58 | 59 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| 55 | 59 | 59 | 60 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 |
| 56 | 59 | 60 | 60 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 |
| 57 | 59 | 60 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| 58 | 59 | 60 | 61 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 |
| 59 | 59 | 60 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 |
| 60 | 60 | 60 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 |
| 61 | ... | 61 | 61 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 |
| 62 | ..... | ... | 62 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 |
| 63 | ......... | ......... | ..... | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 65 |
| 64 | ......... | ......... | .......... | .......... | 64 | 64 | 65 | 65 | 65 | 65 | 65 |
| 65 | ......... | ......... | ......... | .......... | .......... | 65 | 65 | 65 | 65 | 65 | 65 |
| 66 | ......... | ...... | ....... | .......... | ......... | ......... | 66 | 66 | 66 | 66 | 66 |
| 67 | ......... | ....... | ....... | .......... | ....... | ..... | .... | 67 | 67 | 67 | 67 |
| 68 ................................................................. | ......... | ....... | ....... | .......... | ....... | ...... | .......... | ...... | 68 | 68 | 68 |
| 69 ............................................................. | ......... | ......... | .......... | .......... | .......... | ......... | .......... | .......... | ..... | 69 | 69 |
| 70 .................................................................... | - | .......... |  | .... |  |  | .......... |  |  | .......... | 70 |

Table 3 to § 4044.58
Table II-B—Expected Retirement Ages for Individuals in the Medium Category

| Participant's earliest retirement age at valuation date | Unreduced retirement age |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 42 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| 43 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 44 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| 45 | 51 | 51 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| 46 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| 47 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 54 |
| 48 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| 49 | 54 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| 50 .......................................................... | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| 51 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| 52 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 |
| 53 ............................................................... | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |

Table II-B—Expected Retirement Ages for Individuals in the Medium Category—Continued

| Participant's earliest retirement age at valuation date | Unreduced retirement age |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 54 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| 55 | 58 | 58 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 |
| 56 | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| 57 | 59 | 59 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| 58 | 59 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| 59 | 59 | 60 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| 60 | 60 | 60 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| 61 |  | 61 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 |
| 62 | .......... | ......... | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 |
| 63 ................................................................ | ......... | ......... | ......... | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 |
| 64 ................................................................ | ......... | ......... | ......... |  | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| 65 ................................................................ | .......... | ......... | .......... | ......... | .......... | 65 | 65 | 65 | 65 | 65 | 65 |
| 66 ............................................................... | .......... | ......... | .......... | ......... | ......... | ...... | 66 | 66 | 66 | 66 | 66 |
| 67 ................................................................ | ......... | ......... | ......... | ......... | ......... | ......... |  | 67 | 67 | 67 | 67 |
| 68 ............................................................... | ......... | ......... | .......... | ....... | ...... | ......... | ......... |  | 68 | 68 | 68 |
| 69 ................................................................ | ......... | ......... | .......... | ......... | ......... | ......... | ......... | ......... | .... | 69 | 69 |
| 70 ................................................................ |  |  |  |  |  |  |  |  |  |  | 70 |

Table 4 to § 4044.58
Table II-C-Expected Retirement Ages for Individuals in the High Category

| Participant's earliest retirement age at valuation date | Unreduced retirement age |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
|  | 46 | 46 | 46 | 46 | 46 | 47 | 47 | 47 | 47 | 47 | 47 |
| 43 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| 44 .................................................................. | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| 45 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| 46 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 47 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| 48 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| 49 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| 50 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| 51 | 54 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| 52 | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| 53 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| 54 | 57 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 |
| 55 | 57 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| 56 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| 57 .................................................................. | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| 58 ................................................................. | 59 | 59 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 |
| 59 | 59 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| 60 | 60 | 60 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 |
| 61 | . | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| 62 | $\ldots$ | .......... | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| 63 ................................................................. | ...... | ....... | ....... | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 |
| 64 ................................................................. | ...... | ....... | ...... | $\ldots$ | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| 65 ................................................................. | .......... | .......... | .......... | ......... | .......... | 65 | 65 | 65 | 65 | 65 | 65 |
| 66 ................................................................. | $\ldots$ | $\ldots . . . .$. | .......... | $\ldots$ | ........ | . | 66 | 66 | 66 | 66 | 66 |
| 67 ................................................................ | .......... | ....... | .......... | ......... | . | .......... | .......... | 67 | 67 | 67 | 67 |
| 68 | .......... | .......... | .......... | ......... | ......... | .......... | .......... | .......... | 68 | 68 | 68 |
| 69 | .......... | ....... | .......... | ......... | .......... | .......... | ......... | .......... | .......... | 69 | 69 |
| 70 ................................................................. | .......... | ... | $\ldots$ |  | ... | $\ldots$ | $\ldots$ | .... | $\ldots$ | ........ | 70 |

## Appendix A to Part 4044-[Removed and Reserved]

-24. Remove and reserve appendix A to part 4044.
Appendix C to Part 4044-[Removed]

- 25. Remove appendix C to part 4044.

Appendix D to Part 4044-[Removed]

- 26. Remove appendix D to part 4044.

PART 4050-MISSING PARTICIPANTS
■ 27. The authority citation for part 4050 continues to read as follows:

Authority: 29 U.S.C. 1302(b)(3), 1350.
28. Amend § 4050.102 by revising the introductory text and paragraphs (2), (4), (7) introductory text, and (7)(i) to the definition of PBGC missing participants assumptions to read as follows:

## §4050.102 Definitions.

PBGC missing participants assumptions means the actuarial
assumptions prescribed in $\S \S 4044.51$ through 4044.58 of this chapter with the following modifications:
(2) The mortality assumption is the mortality table in §4044.53(h) of this chapter.
(4) The interest assumption is the assumption for valuing benefits under $\S 4044.54$ of this chapter applicable to valuations occurring on December 31 of the calendar year preceding the calendar year in which the benefit determination date occurs. However, for benefit determination dates July 31 through December 31 of 2024, the interest assumption is the assumption for valuing benefits under $\S 4044.54$ of this chapter applicable to valuations occurring on July 31, 2024.
(7) Notwithstanding the expected retirement age (XRA) assumptions in $\S \S 4044.55$ through 4044.58 of this chapter-
(i) In the case of a participant who is not in pay status and whose normal retirement date is on or after the benefit determination date, benefits are assumed to commence at the XRA, determined using the high retirement rate category under table II-C (Expected Retirement Ages for Individuals in the High Category) in §4044.58 of this chapter;

■ 29. Amend $\S 4050.302$ by revising the introductory text and paragraphs (2), (4), (7) introductory text, and (7)(i) of the definition of PBGC missing participants assumptions to read as follows:

## §4050.302 Definitions.

PBGC missing participants assumptions means the actuarial assumptions prescribed in $\S \S 4044.51$ through 4044.58 of this chapter with the following modifications:
(2) The mortality assumption is the mortality table in § 4044.53(h) of this chapter.
(4) The interest assumption is the assumption for valuing benefits under $\S 4044.54$ of this chapter applicable to valuations occurring on December 31 of the calendar year preceding the calendar year in which the benefit determination date occurs. However, for benefit determination dates July 31 through December 31 of 2024, the interest assumption is the assumption for valuing benefits under $\S 4044.54$ of this
chapter applicable to valuations occurring on July 31, 2024.
(7) Notwithstanding the expected retirement age (XRA) assumptions in $\S \S 4044.55$ through 4044.58 of this chapter-
(i) In the case of a participant who is not in pay status and whose normal retirement date is on or after the benefit determination date, benefits are assumed to commence at the XRA, determined using the high retirement rate category under table II-C (Expected Retirement Ages for Individuals in the High Category) in § 4044.58 of this chapter;

*     *         *             *                 * 

■ 30. Amend $\S 4050.402$ by revising the introductory text and paragraphs (2), (4), (7) introductory text, and (7)(i) of the definition of PBGC missing participants assumptions to read as follows:

## §4050.402 Definitions.

PBGC missing participants assumptions means the actuarial assumptions prescribed in $\S \S 4044.51$ through 4044.58 of this chapter with the following modifications:
(2) The mortality assumption is the mortality table in $\S 4044.53(\mathrm{~h})$ of this chapter.
(4) The interest assumption is the assumption for valuing benefits under $\S 4044.54$ of this chapter applicable to valuations occurring on December 31 of the calendar year preceding the calendar year in which the benefit determination date occurs. However, for benefit determination dates July 31 through December 31 of 2024, the interest assumption is the assumption for valuing benefits under §4044.54 of this chapter applicable to valuations occurring on July 31, 2024.
(7) Notwithstanding the expected retirement age (XRA) assumptions in $\S \S 4044.55$ through 4044.58 of this chapter-
(i) In the case of a participant who is not in pay status and whose normal retirement date is on or after the benefit determination date, benefits are assumed to commence at the XRA, determined using the high retirement rate category under table II-C (Expected Retirement Ages for Individuals in the High Category) in $\S 4044.58$ of this chapter;

## PART 4262—SPECIAL FINANCIAL ASSISTANCE BY PBGC

- 31. The authority citation for part 4262 continues to read as follows:

Authority: 29 U.S.C. 1302(b)(3), 1432.

## §4262.16 [Amended]

■ 32. Amend § 4262.16 in paragraphs (f)(3)(iv), (g)(1) introductory text, and (h)(1)(ii) by removing the words "in appendix B to part 4044" and adding in its place the words "under §4044.54".

## PART 4281—DUTIES OF PLAN SPONSOR FOLLOWING MASS WITHDRAWAL

- 33. The authority citation for part 4281 continues to read as follows:
Authority: 29 U.S.C. 1302(b)(3), 1341(a), 1399(c)(1)(D), 1431, and 1441.
■ 34. Amend $\S 4281.13$ by revising paragraphs (a) and (e) to read as follows:
§4281.13 Benefit valuation methods-in general.
(a) Using the interest assumptions under § 4044.54 of this chapter;
(e) Adjusting the values to reflect the loading for expenses in accordance with $\S 4044.52$ (d) of this chapter (substituting the term "benefits" for the term "benefit liabilities (as defined in 29 U.S.C. 1301(a)(16))"').
Signed in Washington, DC.
Ann Y. Orr,
Acting Director, Pension Benefit Guaranty Corporation.
[FR Doc. 2024-11819 Filed 6-5-24; 8:45 am]
billing code 7709-02-P


## DEPARTMENT OF THE TREASURY

## Office of Foreign Assets Control

## 31 CFR Part 542

## Publication of the List of Areas of Northeast and Northwest Syria in Which Activities Are Authorized by 31 CFR 542.533

agency: Office of Foreign Assets Control, Treasury.
ACTION: Publication of a list of areas of northwest and northeast Syria in which activities are authorized by a general license in the Syrian Sanctions Regulations.
summary: The Department of the Treasury's Office of Foreign Assets Control (OFAC) is publishing a list of areas of northeast and northwest Syria


[^0]:    ${ }^{1}$ Because plan terms, plan demographics, and annuity providers' methods vary, no single set of assumptions could exactly match the value privatesector annuity providers would assign to benefits for all terminating plans. Instead, the assumptions are intended to produce reasonable valuation results on average for the range of plans terminating in distress or involuntary terminations, rather than for any particular plan or plan type. See 70 FR 72205,72205 (Dec. 2, 2005).

[^1]:    ${ }^{2}$ When a multiemployer plan terminates in a mass withdrawal, section 4219 of ERISA requires that unfunded vested benefits be fully allocated among withdrawing employers. The liability assessed in this process is called reallocation liability.
    ${ }^{3}$ The assumptions are deemed reasonable for use in determining the value of "benefits on a termination basis" after a merger or spinoff under Internal Revenue Service regulations at 26 CFR 1.414(l)-1.
    ${ }^{4} 88$ FR 56563 (Aug. 18, 2023).

[^2]:    ${ }^{5}$ Survey approved under OMB Control Number 1212-0030 (expires July 31, 2024).
    ${ }^{6}$ See 41 FR 48484, 48485 (Nov. 3, 1976). "PBGC's interest assumptions have been designed so that, when coupled with the mortality assumptions found in the regulation, the benefit values obtained . are in line with the industry annuity prices."

[^3]:    ${ }^{7}$ In the uncommon situation of a mid-month valuation date, the lag is reduced significantly, but not completely eliminated.

[^4]:    ${ }^{8}$ Available at https://home.treasury.gov/data/ treasury-coupon-issues-and-corporate-bond-yield-curves/treasury-coupon-issues.
    ${ }^{9}$ Available at https://home.treasury.gov/data/ treasury-coupon-issues-and-corporate-bond-yield-curve/corporate-bond-yield-curve.
    ${ }^{10}$ The rule primarily uses yields on investmentgrade corporate bonds when setting its assumptions because such yields are the most important driver of group annuity prices. A white paper describing, among other things, additional details about this weighting is available on PBGC's website,
    www.pbgc.gov.

[^5]:    *Because of the lookback rule, valuation dates from January 1, 2024, through January 30, 2024, would also use the December 31, 2023, blended market yield curve which means they would also use the fourth quarter spreads. Thus, the 4044 yield curve in column (E) would also be used for those valuation dates.
    ${ }^{* *}$ The $5.12 \%$ rate would be used for benefits expected to be paid 30 or more years after the valuation date.

[^6]:    ${ }^{11} 88$ FR 41047 (June 23, 2023).

[^7]:    ${ }^{12} 89$ FR 2127 (Jan. 12, 2024).

[^8]:    ${ }^{13}$ February 29 in a leap year.

[^9]:    ${ }^{14} 70$ FR 72205 at 72206 (Dec. 2, 2005)
    ${ }^{15}$ See 70 FR 72205, 72206 (Dec. 2, 2005) (quoting 58 FR 5128, 5129 (Jan. 19, 1993)).

[^10]:    ${ }^{16}$ See Pension Comm, American Academy of Actuaries, Selecting and Documenting Mortality Assumptions for Pensions (2015), https:// actuary.org/files/Mortality_PN_060515_O.pdf.

    1787 FR 25161 (April 28, 2022).
    ${ }^{18} 88$ FR 72357 (Oct. 20, 2023).
    ${ }^{19}$ This report is available at https://www.soa.org/ 49c106/globalassets/assets/files/resources/ experience-studies/2019/pri-2012-mortality-tablesreport.pdf.
    ${ }^{20} 87$ FR 25161, 25163.
    ${ }^{21}$ The Pri-2012 Report refers to non-annuitant rates as "employee" rates. However, because those

[^11]:    rates also apply to former employees prior to benefit commencement, for purposes of this final rule, the term "non-annuitant" is used.
    ${ }^{22}$ See 87 FR 25161, 25163.

[^12]:    ${ }^{23}$ Report available at https://www.soa.org/ 4a9de4/globalassets/assets/files/resources/ experience-studies/2021/2021-mp-scale-report.pdf.
    ${ }^{24}$ Nettie J. Barrick-Funk, Soc. Sec. Admin., Social Security Disability Insurance Program Disabled Worker Experience Actuarial Study 125, at ix (2020), https://www.ssa.gov/OACT/NOTES/pdf_ studies/study125.pdf.

[^13]:    ${ }^{25}$ Expense assumptions are sometimes described as loading assumptions or expense loading assumptions.

[^14]:    ${ }^{26}$ The terminating defined benefit plans covered by PBGC's Missing Participants Program are singleemployer and multiemployer pension plans covered by title IV of ERISA, and small professional service employer plans not covered by title IV of ERISA. See 29 CFR 4050.101, 4050.301, and 4050.401.
    ${ }^{27}$ See definition of "PBGC missing participants assumptions" in 29 CFR 4050.102, 4050.302, and 4050.402.

[^15]:    ${ }^{28} 5$ U.S.C. 601 et seq.
    ${ }^{29}$ The applicable definition of "rule" is found in section 601 of the Regulatory Flexibility Act. See 5 U.S.C. 601(2)
    ${ }^{30}$ The applicable definitions of "small business," 'small organization," and "small governmental jurisdiction" are found in section 601 of the Regulatory Flexibility Act. See 5 U.S.C. 601.
    ${ }^{31}$ PBGC consulted with the Small Business Administration's Office of Advocacy before making this determination. Memorandum received from the U.S. Small Business Administration, Office of Advocacy on March 9, 2021.
    ${ }^{32}$ See, e.g., special rules for small plans under part 4007 (Payment of Premiums).
    ${ }^{33}$ See, e.g., section 104(a)(2) of ERISA, which permits the Secretary of Labor to prescribe simplified annual reports for pension plans that cover fewer than 100 participants.
    ${ }^{34}$ See, e.g., section $430(\mathrm{~g})(2)(\mathrm{B})$ of the Code, which permits plans with 100 or fewer participants to use valuation dates other than the first day of the plan year.

