

Treasury Regulation 1.401(a)(9)

Required minimum distributions from retirement plans

§1.401(a)(9)-0 Required minimum distributions; table of contents.

This table of contents lists the regulations relating to required minimum distributions under section 401(a)(9) of the Internal Revenue Code as follows:

§1.401(a)(9)-1 Minimum distribution requirement in general.

- (a) Plans subject to minimum distribution requirement.
 - (1) In general.
 - (2) Participant in multiple plans.
 - (3) Governmental plans.
- (b) Statutory effective date.
 - (1) In general.
 - (2) Effective date for section 401(a)(9)(H).
 - (3) Examples.
- (c) Required and optional plan provisions.
 - (1) Required provisions.
 - (2) Optional provisions.
- (d) Regulatory applicability date.

§1.401(a)(9)-2 Distributions commencing during an employee's lifetime.

- (a) Distributions commencing during an employee's lifetime.
 - (1) In general.
 - (2) Amount required to be distributed for a calendar year.
 - (3) Distributions commencing before required beginning date.
 - (4) Distributions after death.
- (b) Determination of required beginning date.
 - (1) General rule.

- (2) Definition of applicable age.
- (3) Required beginning date for 5-percent owner.
- (4) Uniform required beginning date.
- (5) Plans maintained by more than one employer.

§1.401(a)(9)-3 Death before required beginning date.

- (a) Distribution requirements.
 - (1) In general.
 - (2) Special rule for designated Roth accounts.
- (b) Distribution requirements in the case of a defined benefit plan.
 - (1) In general.
 - (2) 5-year rule.
 - (3) Annuity payments.
 - (4) Determination of which rule applies.
- (c) Distributions in the case of a defined contribution plan.
 - (1) In general.
 - (2) 5-year rule.
 - (3) 10-year rule.
 - (4) Life expectancy payments.
 - (5) Determination of which rule applies.
- (d) Permitted delay for surviving spouse beneficiaries.
- (e) Distributions that commence after surviving spouse's death.
 - (1) In general.
 - (2) Remarriage of surviving spouse.
 - (3) When distributions are treated as having begun to surviving spouse.

§1.401(a)(9)-4 Determination of the designated beneficiary.

- (a) Beneficiary designated under the plan.
 - (1) In general.
 - (2) Entitlement to employee's interest in the plan.
 - (3) Specificity of beneficiary designation.
 - (4) Affirmative and default elections of designated beneficiary.
- (b) Designated beneficiary must be an individual.
- (c) Rules for determining beneficiaries.
 - (1) Time period for determining the beneficiary.
 - (2) Circumstances under which a beneficiary is disregarded as a beneficiary of the employee.
 - (3) Examples.
- (d) Application of beneficiary designation rules to surviving spouse.
- (e) Eligible designated beneficiaries.
 - (1) In general.
 - (2) Multiple designated beneficiaries.
 - (3) Determination of age of majority.
 - (4) Disabled individual.
 - (5) Chronically ill individual.
 - (6) Individual not more than 10 years younger than the employee.
 - (7) Documentation requirements for disabled or chronically ill individuals.
 - (8) Applicability of definition of eligible designated beneficiary to beneficiary of surviving spouse.
 - (9) Examples.
- (f) Special rules for trusts.
 - (1) Look-through of trust to determine designated beneficiaries.
 - (2) Trust requirements.

- (3) Trust beneficiaries treated as beneficiaries of the employee.
 - (4) Multiple trust arrangements.
 - (5) Identifiability of trust beneficiaries.
 - (6) Examples.
- (g) Applicable multi-beneficiary trust.
 - (1) Certain see-through trusts with disabled or chronically ill beneficiaries.
 - (2) Termination of interest in trust.
 - (3) Special definition of designated beneficiary.
- (h) Documentation requirements for trusts.
 - (1) General rule.
 - (2) Required minimum distributions while employee is still alive.
 - (3) Required minimum distributions after death.
 - (4) Relief for discrepancy between trust instrument and employee certifications or earlier trust instruments.

§1.401(a)(9)-5 Required minimum distributions from defined contribution plans.

- (a) General rules.
 - (1) In general.
 - (2) Distribution calendar year.
 - (3) Time for distributions.
 - (4) Minimum distribution incidental benefit requirement.
 - (5) Annuity contracts.
 - (6) Impact of additional distributions in prior years.
- (b) Determination of account balance.
 - (1) General rule.
 - (2) Adjustment for subsequent allocations and distributions.

- (3) Adjustment for designated Roth accounts.
 - (4) Exclusion for QLAC.
 - (5) Treatment of rollovers.
- (c) Determination of applicable denominator during employee's lifetime.
 - (1) General rule.
 - (2) Spouse is sole beneficiary.
- (d) Applicable denominator after employee's death.
 - (1) Death on or after the employee's required beginning date.
 - (2) Death before an employee's required beginning date.
 - (3) Remaining life expectancy.
- (e) Distribution of employee's entire interest required.
 - (1) In general.
 - (2) 10-year limit for designated beneficiary who is not an eligible designated beneficiary.
 - (3) 10-year limit following death of eligible designated beneficiary.
 - (4) 10-year limit after minor child of the employee reaches age of majority.
- (f) Rules for multiple designated beneficiaries.
 - (1) Determination of applicable denominator.
 - (2) Determination of when entire interest is required to be distributed.
- (g) Special rules.
 - (1) Treatment of nonvested amounts.
 - (2) Distributions taken into account.
 - (3) Surviving spouse election under section 401(a)(9)(B)(iv).

§1.401(a)(9)-6 Required minimum distributions for defined benefit plans and annuity contracts.

- (a) General rules.
 - (1) In general.
 - (2) Definition of life annuity.
 - (3) Annuity commencement.
 - (4) Single-sum distributions.
 - (5) Death benefits.
 - (6) Separate treatment of separate identifiable components.
 - (7) Additional guidance.
- (b) Application of incidental benefit requirement.
 - (1) Life annuity for employee.
 - (2) Joint and survivor annuity.
 - (3) Period certain and annuity features.
 - (4) Deemed satisfaction of incidental benefit rule.
- (c) Period certain annuity.
 - (1) Distributions commencing during the employee's life.
 - (2) Distributions commencing after the employee's death.
- (d) Use of annuity contract.
 - (1) In general.
 - (2) Applicability of section 401(a)(9)(H).
- (e) Treatment of additional accruals.
 - (1) General rule.
 - (2) Administrative delay.
- (f) Treatment of nonvested benefits.
- (g) Requirement for actuarial increase.
 - (1) General rule.
 - (2) Nonapplication to 5-percent owners.

- (3) Nonapplication to governmental plans.
 - (4) Nonapplication to church plans and church employees.
- (h) Amount of actuarial increase.
 - (1) In general.
 - (2) Actuarial equivalence basis.
 - (3) Coordination with section 411 actuarial increase.
- (i) [Reserved]
- (j) Distributions restricted pursuant to section 436.
 - (1) General rule.
 - (2) Payments restricted under section 436(d)(3).
 - (3) Payments restricted under section 436(d)(1) or (2).
- (k) Treatment of early commencement.
 - (1) General rule.
 - (2) Joint and survivor annuity, non-spouse beneficiary.
 - (3) Limitation on period certain.
- (l) Early commencement for surviving spouse.
- (m) Determination of entire interest under annuity contract.
 - (1) General rule.
 - (2) Entire interest.
 - (3) Exclusions.
 - (4) Examples.
- (n) Change in annuity payment period.
 - (1) In general.
 - (2) Reannuitization.
 - (3) Conditions.
 - (4) Examples.

- (o) Increase in annuity payments.
 - (1) General rules.
 - (2) Eligible cost of living index.
 - (3) Additional permitted increases for annuity contracts purchased from insurance companies.
 - (4) Additional permitted increases for annuity payments from a qualified trust.
 - (5) Actuarial gain defined.
 - (6) Examples.
- (p) Payments to children.
 - (1) In general.
 - (2) Age of majority.
- (q) Qualifying longevity annuity contract.
 - (1) Definition of qualifying longevity annuity contract.
 - (2) Limitation on premiums.
 - (3) Payments after death of the employee.
 - (4) Rules of application.

§1.401(a)(9)-7 Rollovers and transfers.

- (a) Treatment of rollover from distributing plan.
- (b) Treatment of rollover by receiving plan.
- (c) Treatment of transfer under transferor plan.
 - (1) Generally not treated as distribution.
 - (2) Account balance decreased after transfer.
- (d) Treatment of transfer under transferee plan.
- (e) Treatment of spinoff or merger.

§1.401(a)(9)-9 Life expectancy and Uniform Lifetime tables.

- (a) In general.
- (b) Single Life Table.
- (c) Uniform Lifetime Table.
- (d) Joint and Last Survivor Table.
- (e) Mortality rates.
- (f) Applicability dates.
 - (1) In general.
 - (2) Application to life expectancies that may not be recalculated.

§1.401(a)(9)-1 Minimum distribution requirement in general.

(a) *Plans subject to minimum distribution requirement—*

- (1) *In general.* Under section 401(a)(9), all stock bonus, pension, and profit-sharing plans qualified under section 401(a) and annuity contracts described in section 403(a) are subject to required minimum distribution rules. See this section and §§1.401(a)(9)-2 through 1.401(a)(9)-9 for the distribution rules applicable to these plans. Under section 403(b)(10), annuity contracts and custodial accounts described in section 403(b) are subject to required minimum distribution rules. See §1.403(b)-6(e) for the distribution rules applicable to these annuity contracts and custodial accounts. Under section 408(a)(6) and 408(b)(3), individual retirement accounts and individual retirements annuities (collectively, IRAs) are subject to required minimum distribution rules. See §1.408-8 for the minimum distribution rules applicable to IRAs and §1.408A-6 for the minimum distribution rules applicable to Roth IRAs under section 408A. Under section 457(d)(2), eligible deferred compensation plans described in section 457(b) for employees of tax-exempt organizations or employees of State and local governments are subject to required minimum distribution rules. See §1.457-6(d) for the minimum distribution rules applicable to those eligible deferred compensation plans.
- (2) *Participant in multiple plans.* If an employee is a participant in more than one plan, the plans in which the employee participates are not permitted to be aggregated for purposes of testing whether the distribution requirements of section 401(a)(9) are met. Thus, the distribution of the benefit of the employee under each plan must separately meet the requirements of section 401(a)(9). For this purpose, a plan described in section 414(k) is treated as two separate plans, a defined contribution plan to the extent benefits are based on an individual account and a defined benefit plan with respect to the remaining benefits.
- (3) *Governmental plans.* A governmental plan (within the meaning of section 414(d)), or an eligible governmental plan described in §1.457-2(f), is treated as having complied with section 401(a)(9) if the plan complies with a reasonable, good faith interpretation of section 401(a)(9). Thus, the terms of a governmental plan that reflect a reasonable, good faith interpretation of section 401(a)(9) do not have to provide that distributions will be made in accordance with this section and §§1.401(a)(9)-2 through 1.401(a)(9)-9. Similarly, a governmental plan may apply the rules of section 401(a)(9)(F) using the rules of §1.401(a)(9)-6, Q&A-15 (as it

appeared in the April 1, 2023, edition of 26 CFR part 1).

(b) *Statutory effective date*—

(1) *In general.* The distribution rules of section 401(a)(9) generally apply to all account balances and benefits in existence on or after January 1, 1985.

(2) *Effective date for section 401(a)(9)(H)*—

(i) *General effective date.* Except as otherwise provided in this paragraph (b)(2), section 401(a)(9)(H) applies with respect to employees who die on or after January 1, 2020. However, in the case of a governmental plan (as defined in section 414(d)), section 401(a)(9)(H) applies with respect to employees who die on or after January 1, 2022.

(ii) *Delayed effective date for collectively bargained plans*—

(A) *General rule.* In the case of a plan maintained pursuant to one or more collective bargaining agreements between employee representatives and one or more employers ratified before December 20, 2019 (the date of enactment of the Further Consolidated Appropriations Act, 2020, Pub. L. 116-94, 133 Stat. 2534 (2019)), section 401(a)(9)(H) generally applies with respect to employees who die on or after January 1, 2022.

(B) *Earlier effective date if agreements terminate.* Notwithstanding paragraph (b)(2)(ii)(A) of this section, section 401(a)(9)(H) applies to a plan maintained pursuant to one or more collective bargaining agreements with respect to employees who die in 2020 or 2021 if--

(1) The year in which the employee dies begins after the date on which the last of the collective bargaining agreements described in paragraph (b)(2)(ii)(A) of this section terminates (determined without regard to any extension thereof to which the parties agreed on or after December 20, 2019), and

(2) Section 401(a)(9)(H) would apply with respect to the employee under the rules of paragraph (b)(2)(i) of this section.

(C) *Rules of application.* For purposes of this paragraph (b)(2)(ii)--

(1) A plan is treated as maintained pursuant to one or more collective bargaining agreements only if the plan constitutes a collectively bargained plan under the rules of §1.436-1(a)(5)(ii)(B), and

(2) Any plan amendment made pursuant to a collective bargaining agreement that amends the plan solely to conform to the requirements of section 401(a)(9)(H) is not treated as a termination of

the collective bargaining agreement.

(iii) *Applicability upon death of designated beneficiary—*

(A) *In general.* Except as otherwise provided in this paragraph (b)(2)(iii), if an employee who died before the effective date described in paragraph (b)(2)(i) or (ii) of this section (whichever applies to the plan) has only one designated beneficiary and that beneficiary dies on or after that effective date, then, upon the death of the designated beneficiary, section 401(a)(9)(H) applies with respect to any beneficiary of the employee's designated beneficiary. Section 401(b)(5) of Division O of the Further Consolidated Appropriations Act, 2020 (known as the SECURE Act) provides that, if an employee dies before the effective date, then a designated beneficiary of an employee is treated as an eligible designated beneficiary. Accordingly, once the rules of section 401(a)(9)(H) apply with respect to the employee's designated beneficiary, the rules of section 401(a)(9)(H)(iii) (requiring full distribution of the employee's interest within 10 years after the death of an eligible designated beneficiary) apply upon the designated beneficiary's death.

(B) *Employee with multiple designated beneficiaries.* If an employee described in paragraph (b)(2)(iii)(A) of this section has more than one designated beneficiary, then whether section 401(a)(9)(H) applies is determined based on the date of death of the oldest of the employee's designated beneficiaries. Thus, section 401(a)(9)(H) will apply upon the death of the oldest of the employee's designated beneficiaries if that designated beneficiary is still alive on or after the effective date of section 401(a)(9)(H) for the plan as determined under the rules of paragraph (b)(2)(i) or (ii) of this section. However, see §1.401(a)(9)-8(a) for rules related to the separate application of section 401(a)(9) with respect to multiple beneficiaries if certain requirements are met.

(C) *Surviving spouse of the employee dies before employee's required beginning date.* If an employee described in paragraph (b)(2)(iii)(A) of this section dies before the employee's required beginning date and the employee's surviving spouse is waiting to begin distributions until the year for which the employee would have been required to begin distributions pursuant to section 401(a)(9)(B)(iv)(II), then, in applying the rules of this

paragraph (b)(2)(iii), the surviving spouse is treated as the employee. Thus, for example, if an employee with a required beginning date of April 1, 2025, names the employee's surviving spouse as the sole beneficiary of the employee's interest in the plan, both the employee and the employee's surviving spouse die before the effective date of section 401(a)(9)(H) for the plan, and that spouse's designated beneficiary dies on or after that effective date, then section 401(a)(9)(H) applies with respect to the surviving spouse's designated beneficiary upon the death of that designated beneficiary (so that full distribution of the employee's interest must be made no later than the end of the calendar year that includes the tenth anniversary of the date of that designated beneficiary's death).

(iv) *Qualified annuity exception—*

(A) *In general.* Section 401(a)(9)(H) does not apply to a commercial annuity (as defined in section 3405(e)(6))--

- (1) That is a binding annuity contract in effect as of December 20, 2019;
- (2) Under which payments satisfy the requirements of §§1.401(a)(9)-1 through 1.401(a)(9)-9 (as those sections appeared in the April 1, 2019, edition of 26 CFR part 1); and
- (3) That satisfies the irrevocability requirements of paragraph (b)(2)(iv)(B) of this section.

(B) *Irrevocability requirements applicable to annuity contract.* A contract satisfies the requirements of this paragraph (b)(2)(iv)(B) if the employee (or, if the employee has died, the designated beneficiary) has made an irrevocable election before December 20, 2019, as to the method and amount of annuity payments to the employee and any designated beneficiary.

(3) *Examples.* The following examples illustrate the applicability date rules of this paragraph (b).

- (i) *Example 1.* Employer M maintains a defined contribution plan, Plan X. Employee A died in 2017, at the age of 68, and designated A's 40-year-old child, B, who was not disabled or chronically ill at the time of A's death, as the sole beneficiary of A's interest in Plan X. Pursuant to a plan provision in Plan X, B elected to take distributions over B's life expectancy under section 401(a)(9)(B)(iii). B dies in 2024, after the effective date of section 401(a)(9)(H). Because section 401(b)(5) of the SECURE Act treats B as an

eligible designated beneficiary, the rules of section 401(a)(9)(H)(iii) apply to B's beneficiaries. Therefore, A's remaining interest in Plan X must be distributed by the end of 2034 (the calendar year that includes the tenth anniversary of B's death).

- (ii) *Example 2.* The facts are the same as in paragraph (b)(3)(i) of this section (*Example 1*), except that B died in 2019. Because A's designated beneficiary died before the effective date of section 401 of the SECURE Act, the rules of section 401(a)(9)(H) do not apply to B's beneficiaries.
- (iii) *Example 3.* The facts are the same as in paragraph (b)(3)(i) of this section (*Example 1*) except that, pursuant to a provision in Plan X, B elected the 5-year rule under section 401(a)(9)(B)(ii). Accordingly, A's entire interest is required to be distributed by the end of 2022. Because A died before January 1, 2020, section 401(a)(9)(H) does not apply with respect to B. Therefore, section 401(a)(9)(H)(i)(I) does not extend the 5-year period under B's election to a 10-year period. Although B's election required A's entire interest to be distributed by the end of 2022, the enactment of section 401(a)(9)(I)(iii)(II) (permitting disregard of 2020 when the 5-year period applies) permits distribution of A's entire interest in the plan to be delayed until the end of 2023.
- (iv) *Example 4.* The facts are the same as in paragraph (b)(3)(i) of this section (*Example 1*), except that A designates a see-through trust that satisfies the requirements of §1.401(a)(9)-4(f)(2) as the sole beneficiary of A's interest in Plan X. All of the trust beneficiaries are alive as of January 1, 2020. The oldest of the trust beneficiaries, C, died in 2022. Because section 401(b)(5) of the SECURE Act treats C as an eligible designated beneficiary, the rules of section 401(a)(9)(H)(iii) apply to the other trust beneficiaries. Thus, unless the rules of §1.401(a)(9)-5(f)(2)(ii)(B) or (iii) apply, A's remaining interest in Plan X must be distributed by the end of 2032 (the calendar year that includes the tenth anniversary of C's death).
- (v) *Example 5.* The facts are the same as in paragraph (b)(3)(iv) of this section (*Example 4*), except that C died in 2019. Because the oldest designated beneficiary died before January 1, 2020, the rules of section 401(a)(9)(H) do not apply to any of the other trust beneficiaries.
- (vi) *Example 6.* The facts are the same as in paragraph (b)(3)(i) of this section

(*Example 1*), except that B elected to purchase an annuity that pays over B's lifetime with a 15-year certain period starting in the calendar year following the calendar year of A's death. Because B died after the effective date of section 401(a)(9)(H), the rules of section 401(a)(9)(H)(iii) apply, and accordingly, the annuity may not provide distributions any later than the end of 2034.

(c) *Required and optional plan provisions—*

(1) *Required provisions.* In order to satisfy section 401(a)(9), a plan must include the provisions described in this paragraph (c)(1) reflecting section 401(a)(9). First, a plan generally must set forth the statutory rules of section 401(a)(9), including the incidental death benefit requirement in section 401(a)(9)(G). Second, a plan must provide that distributions will be made in accordance with this section and §§1.401(a)(9)-2 through 1.401(a)(9)-9. A plan document also must provide that the provisions reflecting section 401(a)(9) override any distribution options in the plan that are inconsistent with section 401(a)(9). A plan also must include any other provisions reflecting section 401(a)(9) that are prescribed by the Commissioner in revenue rulings, notices, and other guidance published in the Internal Revenue Bulletin. See §601.601(d) of this chapter.

(2) *Optional provisions.* A plan may also include optional provisions governing plan distributions that do not conflict with section 401(a)(9). For example, a defined benefit plan may include a provision described in §1.401(a)(9)-3(b)(4)(ii) (requiring that the 5- year rule apply to an employee who has a designated beneficiary). Similarly, a defined contribution plan may provide for an election by an eligible designated beneficiary as described in §1.401(a)(9)-3(c)(5)(iii).

(d) *Regulatory applicability date.* This section and §§1.401(a)(9)-2 through 1.401(a)(9)-9 apply for purposes of determining required minimum distributions for calendar years beginning on or after January 1, 2025. For earlier calendar years, the rules of §§1.401(a)(9)-1 through 1.401(a)(9)-9 (as those sections appeared in the April 1, 2023, edition of 26 CFR part 1) apply.

§1.401(a)(9)-2 Distributions commencing during an employee's lifetime.

(a) *Distributions commencing during an employee's lifetime—*

(1) *In general.* In order to satisfy section 401(a)(9)(A), the entire interest of each employee must be distributed to the employee not later than the required beginning date, or must be distributed, beginning not later than the required

beginning date, over the life of the employee or the joint lives of the employee and a designated beneficiary or over a period not extending beyond the life expectancy of the employee or the joint life and last survivor expectancy of the employee and the designated beneficiary. Under section 401(a)(9)(G), lifetime distributions must satisfy the incidental death benefit requirements of §1.401-1(b)(1).

(2) *Amount required to be distributed for a calendar year.* The amount required to be distributed for each calendar year in order to satisfy section 401(a)(9)(A) and (G) generally depends on whether the amount to be distributed is from an individual account under a defined contribution plan, is an annuity payment from a defined benefit plan, or is a payment under an annuity contract. For the method of determining the required minimum distribution in accordance with section 401(a)(9)(A) and (G) from an individual account under a defined contribution plan, see §1.401(a)(9)-5. For the method of determining the required minimum distribution in accordance with section 401(a)(9)(A) and (G) in the case of annuity payments from a defined benefit plan or under an annuity contract (including an annuity contract purchased under a defined contribution plan), see §1.401(a)(9)-6.

(3) *Distributions commencing before required beginning date—*

(i) *In general.* Lifetime distributions made before the employee's required beginning date for calendar years before the employee's first distribution calendar year, as defined in §1.401(a)(9)-5(a)(2)(ii), need not be made in accordance with section 401(a)(9). However, if distributions commence before the employee's required beginning date under a particular distribution option (such as in the form of an annuity) and, under the terms of that distribution option, distributions to be made for the employee's first distribution calendar year (or any subsequent calendar year) will fail to satisfy section 401(a)(9), then the distribution option fails to satisfy section 401(a)(9) at the time distributions commence.

(ii) *Date distributions are treated as having begun.* Except as otherwise provided in paragraph (a)(3)(iii) of this section and §1.401(a)(9)-6(k), distributions to the employee are not treated as having begun in accordance with section 401(a)(9)(A)(ii) until the employee's required beginning date, as determined in accordance with paragraph (b)(1) or (3) of this section, whichever applies to the employee. The preceding sentence applies even if the employee has

received distributions before the employee's required beginning date (either pursuant to plan terms that require distributions to begin by an earlier date or pursuant to the employee's election). Thus, even if payments have been made before the employee's required beginning date, the rules of §1.401(a)(9)-3 will apply if the employee dies before that date. For example, if A is an employee who retires in 2023, the calendar year A attains age 71, and begins receiving installment distributions from a profit-sharing plan over a period not exceeding the joint life and last survivor expectancy of A and A's spouse, benefits are not treated as having begun in accordance with section 401(a)(9)(A)(ii) until April 1, 2026 (the April 1 following the calendar year in which A attains age 73). Consequently, if A dies before April 1, 2026 (A's required beginning date), distributions after A's death must be made in accordance with §1.401(a)(9)-3 (addressing payments to beneficiaries pursuant to section 401(a)(9)(B)(ii), (iii), or (iv), whichever applies, in cases in which required distributions have not begun) rather than section 401(a)(9)(B)(i) (addressing payments to beneficiaries in cases in which required distributions have begun). This is the case without regard to whether, before A's death, the plan distributed the minimum distribution for the A's first distribution calendar year (as defined in §1.401(a)(9)-5(a)(2)(ii)).

(iii) *Exception for uniform required beginning date.* If a plan provides, in accordance with paragraph (b)(4) of this section, that the required beginning date for purposes of section 401(a)(9) for all employees is April 1 of the calendar year following the calendar year described in paragraph (b)(1)(i) of this section, without regard to whether the employee is a 5-percent owner, then an employee who dies on or after the required beginning date determined under the plan terms is treated as dying after distributions have begun in accordance with section 401(a)(9)(A)(ii) (even if the employee dies before the April 1 following the calendar year in which the employee retires).

(4) *Distributions after death.* Section 401(a)(9)(B)(i) provides that, if the distribution of an employee's interest has begun in accordance with section 401(a)(9)(A)(ii), and the employee dies before the employee's entire interest has been distributed to the employee, the remaining portion of the employee's interest must be distributed at least as rapidly as under the distribution method being used under section 401(a)(9)(A)(ii) as of the date of the employee's death. For the method of determining the required minimum distribution in accordance with section

401(a)(9)(B)(i) from an individual account under a defined contribution plan, see §1.401(a)(9)-5. In the case of annuity payments from a defined benefit plan or under an annuity contract (including an annuity contract purchased under a defined contribution plan), see §1.401(a)(9)-6.

(b) Determination of required beginning date—

(1) *General rule.* Except as otherwise provided in this paragraph (b), the employee's required beginning date (within the meaning of section 401(a)(9)(C)) is April 1 of the calendar year following the later of--

- (i) The calendar year in which the employee attains the applicable age; and
- (ii) The calendar year in which the employee retires from employment with the employer maintaining the plan.

(2) Definition of applicable age—

- (i) *In general.* The applicable age is determined using the employee's date of birth as set forth in this paragraph (b)(2).
- (ii) *Employees born before July 1, 1949.* In the case of an employee born before July 1, 1949, the applicable age is age 70½.
- (iii) *Other employees born before 1951.* In the case of an employee born on or after July 1, 1949, but before January 1, 1951, the applicable age is age 72;
- (iv) *Employees born in 1951 through 1958.* In the case of an employee born on or after January 1, 1951, but before January 1, 1959, the applicable age is age 73;
- (v) [Reserved]
- (vi) *Employees born after 1959.* In the case of an employee born on or after January 1, 1960, the applicable age is age 75.

(3) Required beginning date for 5-percent owner—

- (i) *In general.* In the case of an employee who is a 5-percent owner, the employee's required beginning date is April 1 of the calendar year following the calendar year in which the employee attains the applicable age.
- (ii) *Definition of 5-percent owner.* For purposes of section 401(a)(9), a 5-percent owner is an employee who is a 5-percent owner (as defined in section 416) with respect to the plan year ending in the calendar year in which the employee attains the applicable age.
- (iii) *No applicability to governmental plan or church plan.* This paragraph (b)(3) does not apply in the case of a governmental plan (within the

meaning of section 414(d)) or a church plan (within the meaning of §1.401(a)(9)-6(g)(4)(i)).

- (4) *Uniform required beginning date.* A plan is permitted to provide that the required beginning date for purposes of section 401(a)(9) for all employees is April 1 of the calendar year following the calendar year described in paragraph (b)(1)(i) of this section, without regard to whether the employee is a 5-percent owner.
- (5) *Plans maintained by more than one employer.* In the case of a plan maintained by more than one employer, an employee who retires from employment with any of those employers but continues to be employed by another employer that maintains the plan is not treated as having retired for purposes of paragraph (b)(1)(ii) of this section.

§1.401(a)(9)-3 Death before required beginning date.

(a) *Distribution requirements—*

- (1) *In general.* Except as otherwise provided in §§1.401(a)(9)-2(a)(3) and 1.401(a)(9)-6(k), if an employee dies before the employee's required beginning date (and thus before distributions are treated as having begun in accordance with section 401(a)(9)(A)(ii)), then--
 - (i) In the case of a defined benefit plan, distributions are required to be made in accordance with paragraph (b) of this section, and
 - (ii) In the case of a defined contribution plan, distributions are required to be made in accordance with paragraph (c) of this section.
- (2) *Special rule for designated Roth accounts.* If an employee's entire interest under a defined contribution plan is in a designated Roth account (as described in section 402A(b)(2)), then no distributions are required to be made to the employee during the employee's lifetime. Upon the employee's death, that employee is treated as having died before his or her required beginning date (so that distributions must be made in accordance with the requirements of paragraph (c) of this section).

(b) *Distribution requirements in the case of a defined benefit plan—*

- (1) *In general.* Distributions from a defined benefit plan are made in accordance with this paragraph (b) if the distributions satisfy either paragraph (b)(2) or (3) of this section, whichever applies with respect to the employee. The determination of whether paragraph (b)(2) or (3) of this section applies is made in accordance with paragraph (b)(4) of this section.

- (2) *5-year rule.* Except as otherwise provided in §1.401(a)(9)-6(j) (relating to defined benefit plans subject to limitations under section 436), distributions satisfy this paragraph (b)(2) if the employee's entire interest is distributed by the end of the calendar year that includes the fifth anniversary of the date of the employee's death. For example, if an employee dies on any day in 2022, then in order to satisfy the 5-year rule in section 401(a)(9)(B)(ii), the entire interest generally must be distributed by the end of 2027.
- (3) *Annuity payments.* Distributions satisfy this paragraph (b)(3) if annuity payments that satisfy the requirements of §1.401(a)(9)-6 commence no later than the end of the calendar year following the calendar year in which the employee died, except as provided in paragraph (d) of this section (permitting a surviving spouse to delay the commencement of distributions).
- (4) *Determination of which rule applies—*
- (i) *No plan provision.* If a defined benefit plan does not provide for an optional provision described in paragraph (b)(4)(ii) or (b)(4)(iii) of this section specifying the method of distribution after the death of an employee, then distributions must be made as follows—
- (A) If the employee has no designated beneficiary, as determined under §1.401(a)(9)-4, distributions must satisfy paragraph (b)(2) of this section; and
- (B) If the employee has a designated beneficiary, distributions must satisfy paragraph (b)(3) of this section.
- (ii) *Optional plan provisions.* A defined benefit plan will not fail to satisfy section 401(a)(9) merely because it includes a provision specifying that the 5-year rule in paragraph (b)(2) of this section (rather than the annuity payment rule in paragraph (b)(3) of this section) will apply with respect to some or all of the employees who have a designated beneficiary.
- (iii) *Elections.* A defined benefit plan will not fail to satisfy section 401(a)(9) merely because it includes a provision that applies with respect to some or all of the employees who have a designated beneficiary under which the employee (or designated beneficiary) is permitted to elect whether the 5-year rule in paragraph (b)(2) of this section or the annuity payment rule in paragraph (b)(3) of this section applies. If a plan provides for this type of an election, then--
- (A) The plan must specify the method of distribution that applies if neither

the employee nor the designated beneficiary makes the election unless that method is the method specified in paragraph (b)(4)(i) of this section;

(B) The election must be made no later than the end of the earlier of the calendar year by which distributions must be made in order to satisfy paragraph (b)(2) of this section and the calendar year in which distributions would be required to begin in order to satisfy the requirements of paragraph (b)(3) of this section or, if applicable, paragraph (d) of this section; and

(C) As of the last date the election may be made, the election must be irrevocable with respect to the beneficiary (and all subsequent beneficiaries) and must apply to all subsequent calendar years.

(c) Distributions in the case of a defined contribution plan—

(1) *In general.* The requirements of this paragraph (c) are satisfied if distributions are made in accordance with paragraph (c)(2), (3), or (4) of this section, whichever applies with respect to the employee. The determination of whether paragraph (c)(2), (3), or (4) of this section applies is made in accordance with paragraph (c)(5) of this section.

(2) *5-year rule.* Distributions satisfy this paragraph (c)(2) if the employee's entire interest is distributed by the end of the calendar year that includes the fifth anniversary of the date of the employee's death. For example, if an employee dies on any day in 2022, the entire interest must be distributed by the end of 2027 in order to satisfy the 5- year rule in section 401(a)(9)(B)(ii). For purposes of this paragraph (c)(2), if an employee died before January 1, 2020, then the 2020 calendar year is disregarded when determining the calendar year that includes the fifth anniversary of the date of the employee's death.

(3) *10-year rule.* Distributions satisfy this paragraph (c)(3) if the employee's entire interest is distributed by the end of the calendar year that includes the tenth anniversary of the date of the employee's death. For example, if an employee died on any day in 2021, the entire interest must be distributed by the end of 2031 in order to satisfy the 5- year rule in section 401(a)(9)(B)(ii), as extended to 10 years by section 401(a)(9)(H)(i).

(4) *Life expectancy payments.* Distributions satisfy this paragraph (c)(4) if annual distributions that satisfy the requirements of §1.401(a)(9)-5 commence by the end of the calendar year following the calendar year in which the employee died, except as provided in paragraph (d) of this section (permitting a surviving spouse

to delay the commencement of distributions). The requirement to take an annual distribution in accordance with the preceding sentence continues to apply for all subsequent calendar years until the employee's interest is fully distributed. Thus, a required minimum distribution is due for the calendar year of the eligible designated beneficiary's death, and that amount must be distributed during that calendar year to any beneficiary of the deceased eligible designated beneficiary to the extent it has not already been distributed to the eligible designated beneficiary.

(5) *Determination of which rule applies—*

- (i) *No plan provision.* If a defined contribution plan does not include an optional provision described in paragraph (c)(5)(ii) or (c)(5)(iii) of this section specifying the method of distribution after the death of an employee, distributions must be made as follows--
 - (A) If the employee does not have a designated beneficiary, as determined under §1.401(a)(9)-4, distributions must satisfy the 5-year rule described in paragraph (c)(2) of this section;
 - (B) If the employee dies on or after the effective date of section 401(a)(9)(H) (as determined in §1.401(a)(9)-1(b)(2)(i) or (ii), whichever applies to the plan) and has a designated beneficiary who is not an eligible designated beneficiary (as determined under §1.401(a)(9)-4(e)), distributions must satisfy the 10-year rule described in paragraph (c)(3) of this section; and
 - (C) If the employee has an eligible designated beneficiary, distributions must satisfy the life expectancy rule described in paragraph (c)(4) of this section.
- (ii) *Optional plan provisions.* A defined contribution plan will not fail to satisfy section 401(a)(9) merely because it includes a provision specifying that the 10-year rule described in paragraph (c)(3) of this section (rather than the life expectancy rule described in paragraph (c)(4) of this section) will apply with respect to some or all of the employees who have an eligible designated beneficiary or will apply to some categories of eligible designated beneficiaries.
- (iii) *Elections.* A defined contribution plan will not fail to satisfy section 401(a)(9) merely because it includes a provision that applies with respect to some or all of the employees who have an eligible designated beneficiary or to some

categories of eligible designated beneficiaries, under which the employee (or eligible designated beneficiary) is permitted to elect whether the 10-year rule in paragraph (c)(3) of this section or the life expectancy rule in paragraph (c)(4) of this section applies. If a plan provides for this type of election, then--

(A) The plan must specify the method of distribution that applies if neither the employee nor the designated beneficiary makes the election unless that method is the method specified in paragraph (c)(5)(i) of this section;

(B) The election must be made no later than the end of the earlier of the calendar year by which distributions must be made in order to satisfy paragraph (c)(3) of this section and the calendar year in which distributions would be required to begin in order to satisfy the requirements of paragraph (c)(4) of this section (or, if applicable, paragraph (d) of this section); and

(C) As of the last date the election may be made, the election must be irrevocable with respect to the beneficiary (and all subsequent beneficiaries) and must apply to all subsequent calendar years.

(d) *Permitted delay for surviving spouse beneficiaries.* If the employee's surviving spouse is the employee's sole beneficiary, then the commencement of distributions under paragraph (b)(3) or (c)(4) of this section may be delayed until the end of the calendar year in which the employee would have attained the applicable age.

(e) *Distributions that commence after surviving spouse's death—*

(1) *In general.* If the employee's surviving spouse is the employee's sole beneficiary and dies before distributions have commenced under paragraph (d) of this section, then the 5-year rule in paragraph (b)(2) or (c)(2) of this section, the 10-year rule in paragraph (c)(3) of this section, the annuity payment rules in paragraph (b)(3) of this section, or the life expectancy rules in paragraph (c)(4) of this section, are to be applied as if the surviving spouse were the employee. For this purpose, the date of death of the surviving spouse is substituted for the date of death of the employee.

(2) *Remarriage of surviving spouse.* If the delayed commencement in paragraph (d) of this section applies to the surviving spouse of the employee, and the surviving spouse remarries but dies before distributions have begun, then the rules in paragraph (d) of this section are not available to the surviving spouse of the deceased employee's surviving spouse.

(3) *When distributions are treated as having begun to surviving spouse.* For purposes of section 401(a)(9)(B)(iv)(III), distributions are considered to have begun to the surviving spouse of an employee on the date, determined in accordance with paragraph (d) of this section, on which distributions are required to commence to the surviving spouse without regard to whether payments have actually been made before that date. However, see §1.401(a)(9)-6(l) for an exception to this rule in the case of an annuity that commences early.

§1.401(a)(9)-4 Determination of the designated beneficiary.

(a) Beneficiary designated under the plan—

- (1) *In general.* This section provides rules for purposes of determining the designated beneficiary under section 401(a)(9). For this purpose, a designated beneficiary is an individual who is a beneficiary designated under the plan.
- (2) *Entitlement to employee's interest in the plan.* A beneficiary designated under the plan is a person who is entitled to a portion of an employee's benefit, contingent on the employee's death or another specified event. The determination of whether a beneficiary designated under the plan is taken into account for purposes of section 401(a)(9) is made in accordance with paragraph (c) of this section or, if applicable, paragraph (d) of this section.
- (3) *Specificity of beneficiary designation.* A beneficiary need not be specified by name in the plan or by the employee to the plan in order for the beneficiary to be designated under the plan, provided that the person who is to be the beneficiary is identifiable pursuant to the designation. For example, a designation of the employee's children as beneficiaries of equal shares of the employee's interest in the plan is treated as a designation of beneficiaries under the plan even if the children are not specified by name. The fact that an employee's interest under the plan passes to a certain person under a will or otherwise under applicable State law does not make that person a beneficiary designated under the plan absent a designation under the plan.
- (4) *Affirmative and default elections of designated beneficiary.* A beneficiary designated under the plan may be designated by a default election under the terms of the plan or, if the plan so provides, by an affirmative election of the employee (or the employee's surviving spouse). The choice of beneficiary is subject to the requirements of sections 401(a)(11), 414(p), and 417. See

§§1.401(a)(9)-8(d) and (e) for rules that apply to qualified domestic relations orders.

(b) *Designated beneficiary must be an individual.* A person that is not an individual, such as the employee's estate, is not a designated beneficiary. If a person other than an individual is a beneficiary designated under the plan, the employee will be treated as having no designated beneficiary, even if individuals are also designated as beneficiaries. However, see paragraphs (f)(1) and (3) of this section for a rule under which certain beneficiaries of a see-through trust that is designated as the employee's beneficiary under the plan are treated as the employee's beneficiaries under the plan rather than the trust and §1.401(a)(9)-8(a) for rules under which section 401(a)(9) is applied separately with respect to the separate interests of each of the employee's beneficiaries under the plan.

(c) *Rules for determining beneficiaries—*

(1) *Time period for determining the beneficiary.* Except as provided in paragraphs (d) and (f) of this section and §1.401(a)(9)-6(b)(2)(i), a person is a beneficiary taken into account for purposes of section 401(a)(9) if, as of the date of the employee's death, that person is a beneficiary designated under the plan and none of the events described in paragraph (c)(2) of this section has occurred with respect to that person by September 30 of the calendar year following the calendar year of the employee's death.

(2) *Circumstances under which a beneficiary is disregarded as a beneficiary of the employee.* With respect to a beneficiary who was designated as a beneficiary under the plan as of the date of the employee's death (including a beneficiary who is treated as having been designated as a beneficiary pursuant to paragraph (f) of this section), if any of the following events occurs by September 30 of the calendar year following the calendar year of the employee's death, then that beneficiary is not treated as a beneficiary--

(i) The beneficiary predeceases the employee;

(ii) The beneficiary is treated as having predeceased the employee pursuant to a simultaneous death provision under applicable State law or pursuant to a qualified disclaimer satisfying section 2518 that applies to the entire interest to which the beneficiary is entitled; or

(iii) The beneficiary receives the entire benefit to which the beneficiary is entitled.

(3) *Examples.* The following examples illustrate the rules of this paragraph (c).

(i) *Example 1.* Employer M maintains a defined contribution plan, Plan X.

Employee A dies in 2024 having designated A's three children--B, C, and D--as beneficiaries, each with a one-third share of A's interest in Plan X. B executes a disclaimer of B's entire share of A's interest in Plan X within 9 months of A's death and the disclaimer satisfies the other requirements of a qualified disclaimer under section 2518. Pursuant to the qualified disclaimer, B is disregarded as a beneficiary.

- (ii) *Example 2.* The facts are the same as in paragraph (c)(3)(i) of this section (*Example 1*), except that B does not execute the disclaimer until 10 months after A's death. Even if the disclaimer is executed by September 30 of the calendar year following the calendar year of A's death, the disclaimer is not a qualified disclaimer (because B does not meet the 9-month requirement of section 2518) and B remains a designated beneficiary of A.
- (iii) *Example 3.* The facts are the same as in paragraph (c)(3)(i) of this section (*Example 1*) except that, in exchange for B's disclaimer of the one-third share of A's interest in Plan X, C transfers C's interest in real property to B. Because B has received consideration for B's disclaimer of the one-third share, it is not a qualified disclaimer under section 2518 and B remains a designated beneficiary.
- (iv) *Example 4.* The facts are the same as in paragraph (c)(3)(i) of this section (*Example 1*), except that Charity E (an organization exempt from taxation under section 501(c)(3)) also is a beneficiary designated under the plan as of the date of A's death, with B, C, D, and Charity E each having a one-fourth share of A's interest in Plan X. Plan X distributes Charity E's one-fourth share of A's interest in the plan by September 30 of the calendar year following the calendar year of A's death. Accordingly, Charity E is disregarded as A's beneficiary, and B, C, and D are treated as A's designated beneficiaries.
- (v) *Example 5.* The facts are the same as in paragraph (c)(3)(i) of this section (*Example 1*), except that A's spouse, F, also is a beneficiary designated under the plan. A and F were residents of State Z so that State Z law applies. The laws of State Z include a simultaneous death provision under which two individuals who die within a 120-hour period of one another are treated as predeceasing each other. F dies four hours after A and under the laws of State Z, F is treated as predeceasing A. Because, under applicable State law, F is treated as predeceasing A, F is disregarded as a beneficiary of A.

(vi) *Example 6.* The facts are the same as in paragraph (c)(3)(i) of this section (*Example 1*), except that B, who was alive as of the date of A's death, dies before September 30 of the calendar year following the calendar year of A's death. Prior to B's death, none of the events described in paragraph (c)(2) of this section occurred with respect to B. Accordingly, B is still a beneficiary taken into account for purposes of section 401(a)(9) regardless of the identity of B's successor beneficiaries.

(d) *Application of beneficiary designation rules to surviving spouse.* This paragraph (d) applies in the case of distributions to which §1.401(a)(9)-3(e) applies (because the employee's spouse is the employee's sole beneficiary as of September 30 of the calendar year following the calendar year of the employee's death, and the surviving spouse dies before distributions to the spouse have begun). If this paragraph (d) applies, then the determination of whether a person is a beneficiary of the surviving spouse is made using the rules of paragraph (c) of this section, except that the date of the surviving spouse's death is substituted for the date of the employee's death. Thus, a person is a beneficiary if, as of the date of the surviving spouse's death, that person is a beneficiary designated under the plan and remains a beneficiary as of September 30 of the calendar year following the calendar year of the surviving spouse's death.

(e) *Eligible designated beneficiaries—*

(1) *In general.* A designated beneficiary of the employee is an eligible designated beneficiary if, at the time of the employee's death, the designated beneficiary is--

- (i) The surviving spouse of the employee;
- (ii) A child of the employee (within the meaning of section 152(f)(1)) who has not reached the age of majority within the meaning of paragraph (e)(3) of this section;
- (iii) Disabled within the meaning of paragraph (e)(4) of this section;
- (iv) Chronically ill within the meaning of paragraph (e)(5) of this section;
- (v) Not more than 10 years younger than the employee as determined under paragraph (e)(6) of this section; or
- (vi) A designated beneficiary of an employee if the employee died before the effective date of section 401(a)(9)(H) described in §1.401(a)(9)-1(b)(2)(i) and (ii), whichever applies to the plan.

(2) *Multiple designated beneficiaries—*

- (i) *In general.* Except as provided in paragraphs (e)(2)(ii) and (iii) of this section and §1.401(a)(9)-8(a) (relating to separate account treatment), if the employee has more than one designated beneficiary, and at least one of those beneficiaries is not an eligible designated beneficiary, then the employee is treated as not having an eligible designated beneficiary.
 - (ii) *Special rule for children.* If any of the employee's designated beneficiaries is an eligible designated beneficiary because the beneficiary is the child of the employee who had not reached the age of majority at the time of the employee's death, then the employee is treated as having an eligible designated beneficiary even if the employee has other designated beneficiaries who are not eligible designated beneficiaries.
 - (iii) *Special rule for applicable multi-beneficiary trust.* If a trust that is designated as the beneficiary of an employee under a plan is an applicable multi-beneficiary trust described in paragraph (g) of this section, then the trust beneficiaries described in paragraph (g)(1)(ii) of this section are treated as eligible designated beneficiaries even if one or more of the other trust beneficiaries are not eligible designated beneficiaries.
- (3) *Determination of age of majority.* An individual reaches the age of majority on the individual's 21st birthday.
- (4) *Disabled individual—*
- (i) *In general.* Subject to the documentation requirements of paragraph (e)(7) of this section, an individual is disabled if, as of the date of the employee's death--
 - (A) The individual is described in paragraph (e)(4)(ii) or (iii) of this section; or
 - (B) Paragraph (e)(4)(iv) of this section applies to the individual.
 - (ii) *Disability defined for individual who is age 18 or older.* An individual who, as of the date of the employee's death, is age 18 or older is disabled if, as of that date, the individual is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or to be of long-continued and indefinite duration.
 - (iii) *Disability defined for individual who is not age 18 or older.* An individual who, as of the date of the employee's death, is not age 18 or older is disabled if, as of that date, that individual has a medically determinable physical or mental impairment that results in marked and severe functional limitations and that

can be expected to result in death or to be of long-continued and indefinite duration.

(iv) *Use of social security disability determination.* If the Commissioner of Social Security has determined that, as of the date of the employee's death, an individual is disabled within the meaning of 42 U.S.C.

1382c(a)(3), then that individual will be deemed to be disabled within the meaning of this paragraph (e)(4).

(5) *Chronically ill individual.* An individual is chronically ill if the individual is chronically ill within the definition of section 7702B(c)(2) and satisfies the documentation requirements of paragraph (e)(7) of this section. However, for purposes of the preceding sentence, an individual will be treated as chronically ill under section 7702B(c)(2)(A)(i) only if there is a certification from a licensed health care practitioner (as that term is defined in section 7702B(c)(4)) that, as of the date of the certification, the individual is unable to perform (without substantial assistance from another individual) at least 2 activities of daily living and the period of that inability is an indefinite one that is reasonably expected to be lengthy in nature.

(6) *Individual not more than 10 years younger than the employee.* Whether a designated beneficiary is not more than 10 years younger than the employee is determined based on the dates of birth of the employee and the beneficiary. Thus, for example, if an employee's date of birth is October 1, 1953, then the employee's beneficiary is not more than 10 years younger than the employee if the beneficiary was born on or before October 1, 1963.

(7) *Documentation requirements for disabled or chronically ill individuals.* This paragraph (e)(7) is satisfied with respect to an individual described in paragraph (e)(1)(iii) or (iv) of this section if documentation of the disability or chronic illness described in paragraph (e)(4) or (5) of this section, respectively, is provided to the plan administrator by October 31 of the calendar year following the calendar year of the employee's death (or October 31, 2025, if later). For individuals described in paragraph (e)(1)(iv) of this section, the documentation must include a certification from a licensed health care practitioner (as that term is defined in section 7702B(c)(4)).

(8) *Applicability of definition of eligible designated beneficiary to beneficiary of surviving spouse.* In a case to which §1.401(a)(9)-3(e) applies, a designated beneficiary of the employee's surviving spouse is an eligible designated

beneficiary provided that designated beneficiary would be an eligible designated beneficiary described in paragraph (e)(1) of this section if that paragraph were to be applied by substituting the surviving spouse for the employee.

(9) *Examples.* The following examples illustrate the rules of this paragraph (e).

(i) *Example 1.* Employer M maintains a defined contribution plan, Plan X.

Employee A designates A's child, B, as the sole beneficiary of A's interest in Plan X. B will not reach the age of majority until 2024. A dies on July 1, 2022, after A's required beginning date. As of the date of A's death, B is disabled within the meaning of paragraph (e)(4) of this section. On November 1, 2024, B satisfies the requirements of paragraph (e)(7) of this section by providing the plan administrator a letter from a licensed health care practitioner stating that, as of July 1, 2022, B is unable to engage in any substantial gainful activity by reason of a physical impairment that can be expected to be of long-continued and indefinite duration. Due to B's disability, B remains an eligible designated beneficiary even after reaching the age of majority in 2024, and Plan X is not required to distribute A's remaining interest in the plan by the end of 2034 pursuant to the rules of §1.401(a)(9)-5(e)(4), but instead may continue life expectancy payments to B during B's lifetime.

(ii) *Example 2.* The facts are the same as in paragraph (e)(9)(i) of this section (*Example 1*), except that the documentation requirements of paragraph (e)(7) of this section are not timely satisfied with respect to B. B ceases to be an eligible designated beneficiary upon reaching the age of majority in 2024, and Plan X is required to distribute A's remaining interest in the plan by the end of 2034 pursuant to the rules of §1.401(a)(9)-5(e)(4).

(iii) *Example 3.* The facts are the same as in paragraph (e)(9)(i) of this section (*Example 1*), except that B becomes disabled in 2023 (after A's death in 2022). Because B was not disabled as of the date of A's death, B ceases to be an eligible designated beneficiary upon reaching the age of majority in 2024, and Plan X is required to distribute A's remaining interest in the plan by the end of 2034 pursuant to the rules of §1.401(a)(9)-5(e)(4).

(f) *Special rules for trusts—*

(1) *Look-through of trust to determine designated beneficiaries—*

(i) *In general.* If a trust that is designated as the beneficiary of an employee under a plan meets the requirements of paragraph (f)(2) of this section, then certain beneficiaries of the trust that are described in paragraph (f)(3) of this

section (and not the trust itself) are treated as having been designated as beneficiaries of the employee under the plan, provided that those beneficiaries are not disregarded under paragraph (c)(2) of this section. A trust described in the preceding sentence is referred to as a see-through trust.

(ii) *Types of trusts.* The determination of which beneficiaries of a see-through trust are treated as having been designated as beneficiaries of the employee under the plan depends on whether the see-through trust is a conduit trust or an accumulation trust. For this purpose--

(A) The term *conduit trust* means a see-through trust, the terms of which provide that, with respect to the deceased employee's interest in the plan, all distributions will, upon receipt by the trustee, be paid directly to, or for the benefit of, specified trust beneficiaries; and

(B) The term *accumulation trust* means any see-through trust that is not a conduit trust.

(2) *Trust requirements.* The requirements of this paragraph (f)(2) are met if, during any period for which required minimum distributions are being determined by treating the beneficiaries of the trust as having been designated as beneficiaries of the employee under the plan, the following requirements are met--

(i) The trust is a valid trust under State law or would be but for the fact that there is no corpus.

(ii) The trust is irrevocable or will, by its terms, become irrevocable upon the death of the employee.

(iii) The beneficiaries of the trust who are beneficiaries with respect to the trust's interest in the employee's interest in the plan are identifiable (within the meaning of paragraph (f)(5) of this section) from the trust instrument.

(iv) The documentation requirements in paragraph (h) of this section have been satisfied.

(3) *Trust beneficiaries treated as beneficiaries of the employee—*

(i) *In general.* Subject to the rules of paragraphs (f)(3)(ii) and (iii) of this section, the following beneficiaries of a see-through trust are treated as having been designated as beneficiaries of the employee under the plan—

(A) Any beneficiary that could receive amounts in the trust representing the employee's interest in the plan that are neither contingent upon, nor delayed until, the death of another trust beneficiary who did not

predecease (and who is not treated as having predeceased) the employee; and

(B) Any beneficiary of an accumulation trust that could receive amounts in the trust representing the employee's interest in the plan that were not distributed to beneficiaries described in paragraph (f)(3)(i)(A) of this section.

(ii) *Certain trust beneficiaries disregarded—*

(A) *Entitlement conditioned on death of beneficiary.* Any beneficiary of an accumulation trust who could receive amounts from the trust representing the employee's interest in the plan solely because of the death of another beneficiary described in paragraph (f)(3)(i)(B) of this section is not treated as having been designated as a beneficiary of the employee under the plan. The preceding sentence does not apply if the deceased beneficiary described in paragraph (f)(3)(i)(B) of this section--

(1) Predeceased (or is treated as having predeceased) the employee; or

(2) Also is described in paragraph (f)(3)(i)(A) of this section.

(B) *Entitlement conditioned on death of young individual.* If a beneficiary of a see-through trust is an individual who is treated as a beneficiary of the employee under paragraph (f)(3)(i)(A) of this section, and the terms of the trust require full distribution of amounts in the trust representing the employee's interest in the plan to that individual by the later of the end of the calendar year following the calendar year of the employee's death or the end of the calendar year that includes the tenth anniversary of the date on which that individual reaches the age of majority (within the meaning of paragraph (e)(3) of this section), then any other beneficiary of the trust who could receive amounts in the trust representing the employee's interest in the plan if that individual dies before full distribution to that individual is made is not treated as having been designated as a beneficiary of the employee under the plan. The preceding sentence does not apply if the beneficiary who could receive amounts in the trust conditioned on the death of that individual also is described in paragraph (f)(3)(i)(A) of this section.

(iii) *Certain accumulations disregarded.* For purposes of this paragraph (f)(3), a trust will not fail to be treated as a conduit trust merely because the trust terms requiring that distributions from the plan, upon receipt by the trustee, are paid

directly to, or for the benefit of, trust beneficiaries do not apply after the death of all of the beneficiaries described in paragraph (f)(3)(i)(A) of this section.

(iv) *Treatment of payments for the benefit of a trust beneficiary.* For purposes of this paragraph (f)(3), a trust beneficiary will be treated as if the beneficiary could receive amounts in the trust representing the employee's interest in the plan regardless of whether those amounts could be paid to that beneficiary or for the benefit of that beneficiary. Thus, for example, if a trust beneficiary is a minor child of the employee, payments that could be made to a custodial account for the benefit of that child are treated as amounts that could be received by the child.

(4) *Multiple trust arrangements.* If a beneficiary of a see-through trust is another trust, the beneficiaries of the second trust will be treated as beneficiaries of the first trust, provided that the requirements of paragraph (f)(2) of this section are satisfied with respect to the second trust. In that case, the beneficiaries of the second trust are treated as having been designated as beneficiaries of the employee under the plan.

(5) *Identifiability of trust beneficiaries—*

(i) *In general.* Except as otherwise provided in this paragraph (f)(5), trust beneficiaries described in paragraph (f)(3) of this section are identifiable if it is possible to identify each person eligible to receive a portion of the employee's interest in the plan through the trust. For this purpose, the specificity requirements of paragraph (a)(3) of this section apply.

(ii) *Power of appointment—*

(A) *Exercise or release of power of appointment by September 30.* A trust does not fail to satisfy the identifiability requirements of this paragraph (f)(5) merely because an individual (powerholder) has the power to appoint a portion of the employee's interest to one or more beneficiaries that are not identifiable within the meaning of paragraph (f)(5)(i) of this section. If the power of appointment is exercised in favor of one or more identifiable beneficiaries by September 30 of the calendar year following the calendar year of the employee's death, then those identifiable beneficiaries are treated as beneficiaries designated under the plan. The preceding sentence also applies if, by that September 30, in lieu of exercising the power of appointment, the powerholder restricts it so that the power can be exercised at a later time in favor of only two or more identifiable

beneficiaries (in which case, those identified beneficiaries are treated as beneficiaries designated under the plan). However, if, by that September 30, the power of appointment is not exercised (or restricted) in favor of one or more beneficiaries that are identifiable within the meaning of paragraph (f)(5)(i) of this section, then each taker in default (that is, any person that is entitled to the portion that represents the employee's interest in the plan subject to the power of appointment in the absence of the powerholder's exercise of the power) is treated as a beneficiary designated under the plan.

(B) *Exercise of power of appointment after September 30 of the calendar year following the calendar year of the employee's death.* If an individual has a power of appointment to appoint a portion of the employee's interest to one or more beneficiaries and the individual exercises the power of appointment after September 30 of the calendar year following the calendar year of the employee's death, then the rules of paragraph (f)(5)(iv) of this section apply with respect to any trust beneficiary that is added pursuant to the exercise of the power of appointment.

(iii) *Modification of trust terms—*

(A) *State law will not cause trust to fail to satisfy identifiability requirement.* A trust will not fail to satisfy the identifiability requirements of this paragraph (f)(5) merely because the trust is subject to State law that permits the trust terms to be modified after the death of the employee (such as through a court reformation or a permitted decanting) and thus, permits changing the beneficiaries of the trust.

(B) *Modification of trust to remove trust beneficiaries.* If a trust beneficiary described in paragraph (f)(3) of this section is removed pursuant to a modification of trust terms (such as through a court reformation or a permitted decanting) by September 30 of the calendar year following the calendar year of the employee's death, then that person is disregarded in determining the employee's designated beneficiary.

(C) *Modification of trust to add trust beneficiaries.* If a trust beneficiary described in paragraph (f)(3) of this section is added through a modification of trust terms (such as through a court reformation or a permitted decanting) on or before September 30 of the calendar year following the calendar year of the employee's death, then paragraph (c)

of this section will apply taking into account the beneficiary that was added. If the beneficiary is added after that September 30, then the rules of paragraph (f)(5)(iv) of this section will apply with respect to the addition of that beneficiary.

(iv) *Addition of beneficiary after September 30.* If, after September 30 of the calendar year following the calendar year of the employee's death, a trust beneficiary described in paragraph (f)(3) of this section is added as a trust beneficiary (whether through the exercise of a power of appointment, the modification of trust terms, or otherwise), then--

- (A) The addition of the beneficiary will not cause the trust to fail to satisfy the identifiability requirements of this paragraph (f)(5);
- (B) Beginning in the calendar year following the calendar year in which the new trust beneficiary was added, the rules of §1.401(a)(9)-5(f)(1) will apply taking into account the new beneficiary and all of the beneficiaries of the trust that were treated as beneficiaries of the employee before the addition of the new beneficiary; and
- (C) Subject to paragraph (f)(5)(v) of this section, the rules of paragraphs (b) and (e)(2) of this section and §1.401(a)(9)-5(f)(2) will apply taking into account the new beneficiary and all of the beneficiaries of the trust that were treated as beneficiaries of the employee before the addition of the new beneficiary.

(v) *Delay in full distribution requirement.* This paragraph (f)(5)(v) provides a special rule that applies if a full distribution of the employee's entire interest in the plan is not required in a calendar year pursuant to §1.401(a)(9)-5(e), but a beneficiary is added in that calendar year. In that case, if, taking into account the added beneficiary pursuant to paragraph (f)(5)(iv)(C) of this section, a full distribution of the employee's entire interest in the plan would have been required in that calendar year or an earlier calendar year, then a full distribution of the employee's entire interest in the plan will not be required until the end of the calendar year following the calendar year in which the beneficiary is added. For example, if life expectancy payments are being made to an eligible designated beneficiary and, more than 10 years after the employee's death, a beneficiary is added who is not an eligible designated beneficiary as described in paragraph (e) of this section, then the employee is treated as not having an eligible designated beneficiary for purposes of

§1.401(a)(9)-5(e)(2) (so that a full distribution of the employee's entire interest in the plan would have been required within 10 years of the employee's death). However, pursuant to this paragraph (f)(5)(v), the full distribution of the employee's entire interest in the plan is not required until the end of the calendar year following the calendar year in which the new trust beneficiary was added.

(6) *Examples.* The following examples illustrate the see-through trust rules of this paragraph (f).

(i) *Example 1—*

(A) *Facts.* Employer L maintains a defined contribution plan, Plan W. Unmarried Employee C died in 2024 at age 30. Prior to C's death, C named a testamentary trust (Trust T) that satisfies the requirements of paragraph (f)(2) of this section, as the beneficiary of C's interest in Plan W. The terms of Trust T require that all distributions received from Plan W, upon receipt by the trustee, be paid directly to D, C's sibling, who is 5 years older than C. The terms of Trust T also provide that, if D dies before C's entire account balance has been distributed to D, E will be the beneficiary of C's remaining account balance.

(B) *Analysis.* Pursuant to paragraph (f)(1)(ii)(A) of this section, Trust T is a conduit trust. Because Trust T is a conduit trust (meaning the residual beneficiary rule in paragraph (f)(3)(i)(B) of this section does not apply) and because E is only entitled to any portion of C's account if D dies before the entire account has been distributed, E is disregarded in determining C's designated beneficiary. Because D is an eligible designated beneficiary, D may use the life expectancy rule of §1.401(a)(9)-3(c)(4). Accordingly, even if D dies before C's entire interest in Plan W is distributed to Trust T, D's life expectancy continues to be used to determine the applicable denominator. Note, however, that because §1.401(a)(9)-5(e)(3) applies in this situation, a distribution of C's entire interest in Plan W will be required no later than the end of the calendar year that includes the tenth anniversary of D's death.

(ii) *Example 2—*

(A) *Facts related to plan and beneficiary.* Employer M maintains a defined contribution plan, Plan X. Employee A died in 2024 at the age of 55, survived by Spouse B, who was then 50 years old. A's account balance in

Plan X is invested only in productive assets and was includible in A's gross estate under section 2039. A named a testamentary trust (Trust P) as the beneficiary of all amounts payable from A's account in Plan X after A's death. Trust P satisfies the see-through trust requirements of paragraph (f)(2) of this section.

(B) *Facts related to trust.* Under the terms of Trust P, all trust income is payable annually to B, and no one has the power to appoint or distribute Trust P principal to any person other than B. A's sibling, C, who is less than 10 years younger than A (and thus is an eligible designated beneficiary) and is younger than B, is the sole residual beneficiary of Trust P. Also, under the terms of Trust P, if C predeceases B, then, upon B's death, all Trust P principal is distributed to Charity Z (an organization exempt from tax under section 501(c)(3)). No other person has a beneficial interest in Trust P. Under the terms of Trust P, B has the power, exercisable annually, to compel the trustee to withdraw from A's account balance in Plan X an amount equal to the income earned during the calendar year on the assets held in A's account in Plan X and to distribute that amount through Trust P to B. Plan X includes no prohibition on withdrawal from A's account of amounts in excess of the annual required minimum distributions under section 401(a)(9). In accordance with the terms of Plan X, the trustee of Trust P elects to take annual life expectancy payments pursuant to section 401(a)(9)(B)(iii). If B exercises the withdrawal power, the trustee must withdraw from A's account under Plan X the greater of the amount of income earned in the account during the calendar year or the required minimum distribution. However, under the terms of Trust P, and applicable State law, only the portion of the Plan X distribution received by the trustee equal to the income earned by A's account in Plan X is required to be distributed to B (along with any other trust income).

(C) *Analysis.* Because Trust P does not require that distributions from A's account in Plan X to Trust P, upon receipt by the trustee, be paid directly to (or for the benefit of) B, Trust P is not a conduit trust and accordingly is an accumulation trust (as described in paragraph (f)(1)(ii)(B) of this section). Pursuant to paragraph (f)(3)(i)(B) of this section, C, as the residual beneficiary of Trust P, is treated as a beneficiary designated

under Plan X (even though access to those amounts is delayed until after B's death). Pursuant to paragraph (f)(2)(iii)(A) of this section, because Charity Z's entitlement to amounts in the trust is based on the death of a beneficiary described in paragraph (f)(3)(i)(B) of this section who is not also described in paragraph (f)(3)(i)(A) of this section, Charity Z is disregarded as a beneficiary of A. Under §1.401(a)(9)-5(f)(1), the designated beneficiary used to determine the applicable denominator is the oldest of the designated beneficiaries of Trust P's interest in Plan X. B is the oldest of the beneficiaries of Trust P's interest in Plan X (including residual beneficiaries). Thus, the applicable denominator for purposes of section 401(a)(9)(B)(iii) is B's life expectancy. Because C is a beneficiary of A's account in Plan X in addition to B, B is not the sole beneficiary of A's account and the special rule in section 401(a)(9)(B)(iv) and §1.401(a)(9)-3(d) is not available. Accordingly, the annual required minimum distributions from the account to Trust P must begin no later than the end of the calendar year following the calendar year of A's death.

(iii) *Example 3—*

- (A) *Facts.* The facts are the same as in paragraph (f)(6)(ii) of this section (*Example 2*), except that C is more than 10 years younger than A, meaning that at least one of the beneficiaries of Trust P's interest in Plan X is not an eligible designated beneficiary.
- (B) *Analysis.* Pursuant to paragraph (e)(2)(i) of this section, A is treated as not having an eligible designated beneficiary. Pursuant to §1.401(a)(9)-3(c)(5), the trustee of Trust P is not permitted to make an election to take annual life expectancy distributions and the 10-year rule of §1.401(a)(9)-3(c)(3) applies.

(iv) *Example 4—*

- (A) *Facts related to plan and beneficiary.* Employer N maintains a defined contribution plan, Plan Y. Employee F died in 2025 at the age of 60. F named a testamentary trust (Trust Q), which was established under F's will, as the beneficiary of all amounts payable from F's account in Plan X after F's death. Trust Q satisfies the see-through trust requirements of paragraph (f)(2) of this section.
- (B) *Facts related to trust.* Under the terms of Trust Q, all trust income is payable to F's surviving spouse G for life, no person has the power to appoint or

distribute Trust Q principal to any person other than G, and G has a testamentary power of appointment to name the beneficiaries of the remainder in Trust Q. The power of appointment provides that, if G does not exercise the power, then upon G's death, F's descendants, per stirpes, are entitled to the remainder interest in Trust Q. As of the date of F's death, F has two children, K and L, neither of whom is disabled, chronically ill, or under age 21. Before September 30 of the calendar year following the calendar year in which F died, G irrevocably restricts G's power of appointment so that G may exercise the power to appoint the remainder beneficiaries of Trust Q only in favor of G's siblings (who all are less than 10 years younger than F and thus, are eligible designated beneficiaries).

(C) *Analysis.* Pursuant to paragraph (f)(5)(ii)(A) of this section, because G timely restricted the power of appointment so that G may exercise the power to appoint the residual interest in Trust Q only in favor of G's siblings, the designated beneficiaries are G and G's siblings. Because all of the designated beneficiaries are eligible designated beneficiaries, annual life expectancy payments are permitted under section 401(a)(9)(B)(iii). Note, however, that because §1.401(a)(9)-5(e)(3) applies, a distribution of the remaining interest is required by no later than 10 years after the calendar year in which the oldest of G and G's siblings dies.

(v) *Example 5—*

(A) *Facts.* The facts are the same as in paragraph (f)(6)(iv) of this section (*Example 4*), except that G does not restrict the power by September 30 of the calendar year following the calendar year of F's death.

(B) *Analysis.* Pursuant to paragraph (f)(5)(ii)(A) of this section, G, K, and L are treated as F's beneficiaries. Pursuant to §1.401(a)(9)-3(c)(5), because K and L are not eligible designated beneficiaries, the trustee of Trust Q is not permitted to make an election to take annual life expectancy distributions, and the 10-year rule of §1.401(a)(9)-3(c)(3) applies.

(g) *Applicable multi-beneficiary trust—*

(1) *Certain see-through trusts with disabled or chronically ill beneficiaries.* An applicable multi-beneficiary trust is a see-through trust with more than one beneficiary and with respect to which--

- (i) All of the trust beneficiaries are designated beneficiaries;
- (ii) The trust terms identify one or more individuals, each of whom is disabled

(as defined in paragraph (e)(1)(iii) of this section) or chronically ill (as defined in paragraph (e)(1)(iv) of this section), who are described in paragraph (f)(3)(i)(A) of this section; and

- (iii) The terms of the trust provide that no beneficiary (other than an individual described in paragraph (g)(1)(ii) of this section) has any right to the employee's interest in the plan until the death of all of the eligible designated beneficiaries described in paragraph (g)(1)(ii) of this section.

(2) *Termination of interest in trust.* A provision in the trust agreement that permits the termination of the interest in the trust of a beneficiary described in paragraph (g)(1)(ii) of this section prior to that beneficiary's death will not cause the trust to fail to be treated as an applicable multi-beneficiary trust, but only if paragraph (g)(1)(iii) of this section continues to apply. Upon the death of the last to survive of the beneficiaries described in paragraph (g)(1)(ii) of this section, the trust is treated as having been modified as of the date of that death to add the other trust beneficiaries. Thus, if the death occurs after September 30 of the calendar year following the calendar year of the employee's death, the rules of paragraph (f)(5)(iv) of this section will apply.

(3) *Special definition of designated beneficiary.* For purposes of paragraph (g)(1)(i) of this section, any beneficiary that is an organization described in section 408(d)(8)(B)(i) (certain organizations to which a charitable contribution may be made) is treated as a designated beneficiary.

(h) *Documentation requirements for trusts—*

(1) *General rule.* The documentation requirements of this paragraph (h) are satisfied if--

- (i) With respect to required minimum distributions for a distribution calendar year that begins on or before the date of the employee's death, paragraph (h)(2) of this section is satisfied no later than the first day of the distribution calendar year; or
- (ii) With respect to required minimum distributions for a distribution calendar year that begins after the date of the employee's death, or that begins after the employee's surviving spouse has died in a case to which §1.401(a)(9)-3(d) applies, paragraph (h)(3) of this section is satisfied no later than October 31 of the calendar year following the calendar year that includes the employee's date of death or the date of death of the employee's surviving spouse, respectively.

(2) *Required minimum distributions while employee is still alive—*

- (i) *In general.* If an employee designates a trust as the beneficiary of the employee's entire benefit and the employee's spouse is the only beneficiary of the trust treated as a beneficiary of the employee pursuant to the rules of paragraph (f) of this section, then, in order to satisfy the documentation requirements of this paragraph (h)(2) (so that the applicable denominator for a distribution calendar year may be determined under the rules of §1.401(a)(9)-5(c)(2), assuming the other requirements of paragraph (f)(2) of this section are satisfied), the employee must satisfy either the requirements of paragraph (h)(2)(ii) of this section (requiring the employee to provide a copy of the trust instrument) or the requirements of paragraph (h)(2)(iii) of this section (requiring the employee to provide a list of beneficiaries). The plan administrator may determine which of the two alternatives in the preceding sentence is available to the employee.
- (ii) *Employee to provide copy of trust instrument.* An employee satisfies the requirements of this paragraph (h)(2)(ii) if the employee--
- (A) Provides the plan administrator a copy of the trust instrument; and
 - (B) Agrees that, if the trust instrument is amended at any time in the future, the employee will, within a reasonable time, provide the plan administrator a copy of each amendment.
- (iii) *Employee to provide list of beneficiaries.* An employee satisfies the requirements of this paragraph (h)(2)(iii) if the employee--
- (A) Provides the plan administrator a list of all of the beneficiaries of the trust (including contingent beneficiaries) with a description of the conditions on their entitlement sufficient to establish that the spouse is the only beneficiary of the trust treated as a beneficiary of the employee pursuant to the rules of paragraph (f) of this section;
 - (B) Certifies that, to the best of the employee's knowledge, the list described in paragraph (h)(2)(iii)(A) of this section is correct and complete and that the requirements of paragraphs (f)(2)(i) through (iii) of this section are satisfied; and
 - (C) Agrees that, if the trust instrument is amended at any time in the future, the employee will, within a reasonable time, provide the plan administrator corrected certifications to the extent that the amendment changes any information previously certified; and

(D) Agrees to provide a copy of the trust instrument to the plan administrator upon request.

(3) Required minimum distributions after death—

(i) *In general.* In order to satisfy the documentation requirement of this paragraph (h)(3) for required minimum distributions after the death of the employee (or after the death of the employee's surviving spouse in a case to which §1.401(a)(9)-3(d) applies), the trustee of the trust must satisfy the requirements of either paragraph (h)(3)(ii) (requiring the trustee to provide a list of beneficiaries) or paragraph (h)(3)(iii) of this section (requiring the trustee to provide a copy of the trust instrument). The plan administrator may determine which of the two alternatives in the preceding sentence is available for the trust.

(ii) *Trustee to provide list of beneficiaries.* A trustee satisfies the requirements of this paragraph (h)(3)(ii) if the trustee--

(A) Provides the plan administrator a final list of all beneficiaries of the trust as of September 30 of the calendar year following the calendar year of the death (including contingent beneficiaries) with a description of the conditions on their entitlement sufficient to establish which of those beneficiaries are treated as beneficiaries of the employee (or surviving spouse, if applicable);

(B) Certifies that, to the best of the trustee's knowledge, this list is correct and complete and that the requirements of paragraphs (f)(2)(i) through (iii) of this section are satisfied; and

(C) Agrees to provide a copy of the trust instrument to the plan administrator upon request.

(iii) *Trustee to provide copy of trust instrument.* A trustee satisfies the requirements of this paragraph (h)(3)(iii) if the trustee provides the plan administrator with a copy of the actual trust document for the trust that is named as a beneficiary of the employee under the plan as of the employee's date of death.

(4) Relief for discrepancy between trust instrument and employee certifications or earlier trust instruments—

(i) *In general.* If required minimum distributions are determined based on the information provided to the plan administrator in certifications or trust

instruments described in paragraph (h)(2) or (3) of this section, a plan will not fail to satisfy section 401(a)(9) merely because the actual terms of the trust instrument are inconsistent with the information in those certifications or trust instruments previously provided to the plan administrator, but only if--

(A) The plan administrator reasonably relied on the information provided; and

(B) The required minimum distributions for calendar years after the calendar year in which the discrepancy is discovered are determined based on the actual terms of the trust instrument.

(ii) *Excise tax.* For purposes of determining the amount of the excise tax under section 4974, the required minimum distribution is determined for any year based on the actual terms of the trust in effect during the year.

§1.401(a)(9)-5 Required minimum distributions from defined contribution plans.

(a) General rules—

(1) *In general.* Subject to the rules of paragraph (e) of this section (requiring distribution of an employee's entire interest by a specified deadline in certain situations), if an employee's accrued benefit is in the form of an individual account under a defined contribution plan, the minimum amount required to be distributed for each distribution calendar year beginning with the first distribution calendar year for the employee or designated beneficiary (as determined under paragraph (a)(2) of this section) is equal to the quotient obtained by dividing the account balance (determined under paragraph (b) of this section) by the applicable denominator (determined under paragraph (c) or (d) of this section, whichever applies). However, the required minimum distribution amount will never exceed the entire account balance on the date of the distribution. See paragraph (g)(1) of this section for rules that apply if a portion of the employee's account is not vested.

(2) Distribution calendar year—

(i) *In general.* A calendar year for which a minimum distribution is required is a distribution calendar year.

(ii) *First distribution calendar year for employee if employee dies on or after required beginning date.* If an employee's required beginning date is April 1 of the calendar year following the calendar year in which the employee attains the applicable age, then the employee's first distribution calendar year is the year the employee attains the applicable age. If an employee's required

beginning date is April 1 of the calendar year following the calendar year in which the employee retires, the employee's first distribution calendar year is the calendar year in which the employee retires.

(iii) *First distribution calendar year for designated beneficiary if employee dies before required beginning date.* In the case of an employee who dies before the required beginning date, if the life expectancy rule in §1.401(a)(9)-3(c)(4) applies, then the first distribution calendar year for the designated beneficiary is the calendar year following the calendar year in which the employee died (or, if applicable, the calendar year described in §1.401(a)(9)-3(d)). See §1.401(a)(9)-3(c)(5) to determine whether the life expectancy rule applies.

(3) *Time for distributions.* The distribution required for the employee's first distribution calendar year (as described in paragraph (a)(2)(ii) of this section) may be made on or before April 1 of the following calendar year. The required minimum distribution for any other distribution calendar year (including the required minimum distribution for the distribution calendar year in which the employee's required beginning date occurs or the first distribution calendar year for the designated beneficiary) must be made on or before the end of that distribution calendar year.

(4) *Minimum distribution incidental benefit requirement.* If distributions of an employee's account balance under a defined contribution plan are made in accordance with this section--

(i) With respect to the retirement benefits provided by that account balance, to the extent the incidental benefit requirement of §1.401-1(b)(1)(i) requires distributions, that requirement is deemed satisfied; and

(ii) No additional distributions are required to satisfy section 401(a)(9)(G).

(5) *Annuity contracts—*

(i) *Purchase of annuity contract permitted.* A plan may satisfy section 401(a)(9) by the purchase of an annuity contract from an insurance company in accordance with §1.401(a)(9)-6(d) with the employee's entire individual account, provided that the terms of the annuity satisfy §1.401(a)(9)-6. However, a distribution of an annuity contract is not a distribution for purposes of this section.

(ii) *Transition from defined contribution rules to defined benefit rules.* If an annuity is purchased in accordance with paragraph (a)(5)(i) of this section after distributions are required to commence (the required beginning date, in the

case of distributions commencing before death, or the calendar year determined under §1.401(a)(9)-3(c)(4) or, if applicable, §1.401(a)(9)-3(d), in the case of distributions commencing after death), then the plan will satisfy section 401(a)(9) only if, in the year of purchase, distributions from the individual account satisfy this section, and for calendar years following the year of purchase, payments under the annuity contract are made in accordance with §1.401(a)(9)-6. Payments under the annuity contract during the year in which the annuity contract is purchased are treated as distributions from the individual account for purposes of determining whether the distributions from the individual account satisfy this section in the calendar year of purchase.

(iii) *Bifurcation if annuity contract is purchased with portion of employee's account.* A portion of an employee's account balance under a defined contribution plan is permitted to be used to purchase an annuity contract while another portion remains in the account, provided that the requirements of paragraphs (a)(5)(i) and (ii) of this section are satisfied (other than the requirement that the contract be purchased with the employee's entire individual account). In that case, in order to satisfy section 401(a)(9) for calendar years after the calendar year of purchase, the remaining account balance under the plan must be distributed in accordance with this section.

(iv) *Optional aggregation rule.* In the case of an annuity contract purchased with a portion of the employee's account balance, in lieu of applying section 401(a)(9) separately with respect to the annuity contract and the remaining account balance as described in paragraph (a)(5)(iii) of this section, a plan may permit an employee to elect to satisfy section 401(a)(9) for the annuity contract and that account balance in the aggregate by--

(A) Adding the fair market value of the contract to the remaining account balance determined under paragraph (b) of this section; and

(B) Treating payments under the annuity contract as distributions from the employee's individual account.

(v) [Reserved]

(6) *Impact of additional distributions in prior years.* If, for any distribution calendar year, the amount distributed exceeds the required minimum distribution for that calendar year, no credit towards a required minimum distribution will be given in subsequent calendar years for the excess distribution.

(b) *Determination of account balance—*

(1) *General rule.* In the case of an individual account under a defined contribution plan, the benefit used in determining the required minimum distribution for a distribution calendar year is the account balance as of the last valuation date in the calendar year preceding that distribution calendar year (valuation calendar year) adjusted in accordance with this paragraph (b). For this purpose, all of an employee's accounts under the plan are aggregated. Thus, all separate accounts, including a separate account for employee contributions under section 72(d)(2), are aggregated for purposes of this section.

(2) *Adjustment for subsequent allocations and distributions—*

(i) *Subsequent allocations.* The account balance is increased by the amount of any contributions or forfeitures allocated to the account balance as of dates in the valuation calendar year after the valuation date. For this purpose, contributions that are allocated to the account balance as of dates in the valuation calendar year after the valuation date, but that are not actually made during the valuation calendar year, may be excluded.

(ii) *Subsequent distributions.* The account balance is decreased by distributions made in the valuation calendar year after the valuation date.

(3) *Adjustment for designated Roth accounts.* For distribution calendar years up to and including the calendar year that includes the employee's date of death, the account balance does not include amounts held in a designated Roth account (as described in section 402A(b)(2)).

(4) *Exclusion for QLAC.* The account balance does not include the value of any qualifying longevity annuity contract (QLAC), defined in §1.401(a)(9)-6(q), that is held under the plan.

(5) *Treatment of rollovers.* If an amount is distributed from a plan and rolled over to another plan (receiving plan), then the rules of §1.401(a)(9)-7(b) apply for purposes of determining the benefit and required minimum distribution under the receiving plan. If an amount is transferred from one plan (transferor plan) to another plan (transferee plan) in a transfer to which section 414(l) applies, then the rules of §§1.401(a)(9)-7(c) and (d) apply for purposes of determining the amount of the benefit and required minimum distribution under both the transferor and transferee plans.

(c) *Determination of applicable denominator during employee's lifetime—*

(1) *General rule.* Except as provided in paragraph (c)(2) of this section (relating to a spouse beneficiary who is more than 10 years younger than the employee), the applicable denominator for required minimum distributions for each distribution calendar year beginning with the employee's first distribution calendar year (as described in paragraph (a)(2)(ii) of this section) is determined using the Uniform Lifetime Table in §1.401(a)(9)-9(c) for the employee's age as of the employee's birthday in the relevant distribution calendar year. The requirement to take an annual distribution calculated in accordance with the preceding sentence applies for every distribution calendar year up to and including the calendar year that includes the employee's date of death. Thus, a required minimum distribution is due for the calendar year of the employee's death, and that amount must be distributed during that year to any beneficiary to the extent it has not already been distributed to the employee.

(2) *Spouse is sole beneficiary—*

(i) *Determination of applicable denominator.* If the employee's surviving spouse who is more than 10 years younger than the employee is the employee's sole beneficiary, then the applicable denominator is the joint and last survivor life expectancy for the employee and spouse determined using the Joint and Last Survivor Table in §1.401(a)(9)-9(d) for the employee's and spouse's ages as of their birthdays in the relevant distribution calendar year (rather than the applicable denominator determined under paragraph (c)(1) of this section).

(ii) *Spouse must be sole beneficiary at all times.* Except as otherwise provided in paragraph (c)(2)(iii) of this section (relating to a death or divorce in a calendar year), the spouse is the sole beneficiary for purposes of determining the applicable denominator for a distribution calendar year during the employee's lifetime only if the spouse is the sole beneficiary of the employee's entire interest at all times during the distribution calendar year.

(iii) *Change in marital status.* If the employee and the employee's spouse are married on January 1 of a distribution calendar year, but do not remain married throughout that year (that is, the employee or the employee's spouse dies or they become divorced during that year), the employee will not fail to have a spouse as the employee's sole beneficiary for that year merely because they are not married throughout that year. However, the change in beneficiary due to the death or divorce of the spouse in a distribution calendar year will be effective for purposes of determining the applicable denominator

under section 401(a)(9) and this paragraph (c) for the following calendar years.

(d) *Applicable denominator after employee's death—*

(1) *Death on or after the employee's required beginning date—*

(i) *In general.* If an employee dies after distribution has begun as determined under §1.401(a)(9)-2(a)(3) (generally, on or after the employee's required beginning date), distributions must satisfy section 401(a)(9)(B)(i). In order to satisfy this requirement, the applicable denominator for distribution calendar years that begin after the employee's death is determined under the rules of this paragraph (d)(1) (or is determined under the rules of paragraph (g)(3) of this section, if applicable). The requirement to take an annual distribution in accordance with the preceding sentence continues to apply for every distribution calendar year until the employee's interest is fully distributed. Thus, a required minimum distribution is due for the calendar year of the beneficiary's death, and that amount must be distributed during that calendar year to any beneficiary of the deceased beneficiary to the extent it has not already been distributed to the deceased beneficiary. If section 401(a)(9)(H) applies to the employee's interest in the plan, then the distributions also must satisfy either section 401(a)(9)(B)(ii) (applied by substituting 10 years for 5 years) or, if the beneficiary is an eligible designated beneficiary, section 401(a)(9)(B)(iii) (taking into account sections 401(a)(9)(E)(iii) and 401(a)(9)(H)(iii)). In order to satisfy those requirements, in addition to determining the applicable denominator under the rules of this paragraph (d)(1), the distributions must satisfy any applicable requirements under paragraph (e) of this section.

(ii) *Employee with designated beneficiary.* If the employee has a designated beneficiary as of the date determined under §1.401(a)(9)-4(c), the applicable denominator is the greater of--
(A) The designated beneficiary's remaining life expectancy; and
(B) The employee's remaining life expectancy.

(iii) *Employee with no designated beneficiary.* If the employee does not have a designated beneficiary as of the date determined under §1.401(a)(9)-4(c), the applicable denominator is the employee's remaining life expectancy.

(2) *Death before an employee's required beginning date.* If an employee dies before

distributions have begun (as determined under §1.401(a)(9)-2(a)(3)) and the life expectancy rule described in §1.401(a)(9)-3(c)(4) applies, then the applicable denominator for distribution calendar years beginning with the first distribution calendar year for the designated beneficiary (as described in paragraph (a)(2)(iii) of this section) is the designated beneficiary's remaining life expectancy (or is determined under the rules of paragraph (g)(3) of this section, if applicable).

(3) *Remaining life expectancy*—

(i) *Life expectancy table*. For purposes of this paragraph (d), all life expectancies are determined using the Single Life Table in §1.401(a)(9)-9(b).

(ii) *Employee's life expectancy*. The employee's remaining life expectancy is determined initially using the employee's age as of the employee's birthday in the calendar year of the employee's death. In subsequent calendar years, the remaining life expectancy is determined by reducing that initial life expectancy by one for each calendar year that has elapsed after that first calendar year.

(iii) *Non-spouse designated beneficiary*. If the designated beneficiary is not the employee's surviving spouse, then the designated beneficiary's remaining life expectancy is determined initially using the beneficiary's age as of the beneficiary's birthday in the calendar year following the calendar year of the employee's death. Except as otherwise provided in paragraph (d)(3)(iv) of this section, for subsequent calendar years, the designated beneficiary's remaining life expectancy is determined by reducing that initial life expectancy by one for each calendar year that has elapsed after that first calendar year.

(iv) *Spouse as designated beneficiary*. If the surviving spouse of the employee is the employee's sole beneficiary, then the surviving spouse's remaining life expectancy is redetermined each distribution calendar year up to and including the calendar year of the spouse's death using the surviving spouse's age as of the surviving spouse's birthday in the distribution calendar year. For each calendar year following the calendar year of the spouse's death, the spouse's remaining life expectancy is determined by reducing the spouse's remaining life expectancy in the calendar year of the spouse's death by one for each calendar year that has elapsed after that calendar year.

(e) *Distribution of employee's entire interest required*—

(1) *In general*. Except as provided in paragraph (f) of this section, if an employee's

accrued benefit is in the form of an individual account under a defined contribution plan, then the entire interest of the employee must be distributed by the end of the earliest of the calendar years described in paragraph (e)(2), (3), or (4) of this section. However, the preceding sentence does not apply if section 401(a)(9)(H) does not apply with respect to the employee (for example, if both the employee and the employee's designated beneficiary died before January 1, 2020). See §1.401(a)(9)-1(b) for rules relating to the section 401(a)(9)(H) effective date.

(2) *10-year limit for designated beneficiary who is not an eligible designated*

beneficiary. If the employee's designated beneficiary is not an eligible designated beneficiary (as determined in accordance with §1.401(a)(9)-4(e)), then the calendar year described in this paragraph (e)(2) is the calendar year that includes the tenth anniversary of the date of the employee's death.

(3) *10-year limit following death of eligible designated beneficiary.* If the employee's

designated beneficiary is an eligible designated beneficiary (as determined in accordance with §1.401(a)(9)-4(e)), then the calendar year described in this paragraph (e)(3) is the calendar year that includes the tenth anniversary of the date of the designated beneficiary's death.

(4) *10-year limit after minor child of the employee reaches age of majority.* If the employee's designated beneficiary is an eligible designated beneficiary only because the beneficiary is the child of the employee who has not reached the age of majority at the time of the employee's death, then the calendar year described in this paragraph (e)(4) is the calendar year that includes the tenth anniversary of the date the designated beneficiary reaches the age of majority.

(f) *Rules for multiple designated beneficiaries—*

(1) *Determination of applicable denominator—*

(i) *General rule.* Except as otherwise provided in paragraph (f)(1)(ii) of this section and §1.401(a)(9)-8(a), if the employee has more than one designated beneficiary, then the determination of the applicable denominator under paragraph (d) of this section is made using the oldest designated beneficiary of the employee.

(ii) *Applicable multi-beneficiary trusts.* If an employee's beneficiary is an applicable multi-beneficiary trust described in §1.401(a)(9)-4(g)(1), then only the trust beneficiaries described in §1.401(a)(9)-4(g)(1)(ii) are taken into account in determining the oldest designated beneficiary for purposes of

paragraph (f)(1)(i) of this section.

(2) *Determination of when entire interest is required to be distributed—*

(i) *General rule.* Except as otherwise provided in paragraphs (f)(2)(ii) and (iii) of this section and §1.401(a)(9)-8(a), if an employee has more than one designated beneficiary, then paragraph (e)(1) of this section is applied with respect to the oldest of the employee's designated beneficiaries.

(ii) *Special rule for employee's minor child.* If any of the employee's designated beneficiaries is an eligible designated beneficiary because that designated beneficiary is described in §1.401(a)(9)-4(e)(1)(ii) (relating to the child of the employee who has not reached the age of majority at the time of the employee's death), then--

(A) Paragraph (e)(2) of this section does not apply;

(B) Paragraph (e)(3) of this section applies as if the death of the employee's eligible designated beneficiary does not occur until the death of all of the designated beneficiaries who are described in §1.401(a)(9)-4(e)(1)(ii); and

(C) Paragraph (e)(4) of this section applies as if the attainment of the age of majority of the employee's eligible designated beneficiary described in §1.401(a)(9)-4(e)(1)(ii) does not occur until the youngest of those eligible designated beneficiaries reaches the age of majority.

(iii) *Applicable multi-beneficiary trust.* If an employee's beneficiary is an applicable multi-beneficiary trust described in §1.401(a)(9)-4(g)(1), then paragraph (e)(3) of this section applies as if the death of the employee's eligible designated beneficiary does not occur until the death of the last to survive of the trust beneficiaries who are described in §1.401(a)(9)-4(g)(1)(ii).

(g) *Special rules—*

(1) *Treatment of nonvested amounts.* If the employee's benefit is in the form of an individual account under a defined contribution plan, the benefit used to determine the required minimum distribution for any distribution calendar year will be determined in accordance with paragraph (a) of this section without regard to whether or not all of the employee's benefit is vested. If, as of the end of a distribution calendar year (or as of the employee's required beginning date, in the case of the employee's first distribution calendar year), the total amount of the employee's vested benefit is less than the required minimum distribution for the calendar year, only the vested portion, if any, of the employee's benefit is

required to be distributed by the end of the calendar year (or, if applicable, by the employee's required beginning date). However, the required minimum distribution for the subsequent calendar year must be increased by the sum of amounts not distributed in prior calendar years because the employee's vested benefit was less than the required minimum distribution determined in accordance with paragraph (a) of this section.

(2) *Distributions taken into account—*

(i) *General rule.* Except as provided in this paragraph (g)(2), all amounts distributed from an individual account under a defined contribution plan are distributions that are taken into account in determining whether this section is satisfied for a calendar year, regardless of whether the amount is includible in income. Thus, for example, amounts that are excluded from income as recovery of investment in the contract under section 72 generally are taken into account for purposes of determining whether this section is satisfied for a calendar year. Similarly, amounts excluded from income as net unrealized appreciation on employer securities generally are taken into account for purposes of satisfying this section.

(ii) *Amounts not eligible for rollover.* An amount is not taken into account in determining whether this section is satisfied for a calendar year if that amount is described in §1.402(c)-2(c)(3) (relating to amounts that are not treated as eligible rollover distributions).

(iii) [Reserved]

(iv) [Reserved]

(3) *Surviving spouse election under section 401(a)(9)(B)(iv)—*

(i) *In general.* A defined contribution plan may include a provision, applicable to an employee whose sole beneficiary is that employee's surviving spouse, under which the surviving spouse may elect to be treated as the employee for purposes of determining the required minimum distribution for a calendar year under this section.

(ii) [Reserved]

§1.401(a)(9)-6 Required minimum distributions for defined benefit plans and annuity contracts.

(a) *General rules—*

(1) *In general.* In order to satisfy section 401(a)(9), except as otherwise provided in

this section, distributions of the employee's entire interest under a defined benefit plan or under an annuity contract must be paid in the form of periodic annuity payments for the employee's life (or the joint lives of the employee and beneficiary) or over a period certain that does not exceed the maximum length of the period certain determined in accordance with paragraph (c) of this section. The interval between payments for the annuity must not exceed one year and, except as otherwise provided in this section, must be uniform over the entire distribution period. Once payments have commenced over a period, the period may only be changed in accordance with paragraph (n) of this section. Life (or joint and survivor) annuity payments must satisfy the minimum distribution incidental benefit requirements of paragraph (b) of this section. Except as otherwise provided in this section (for example, permitted increases described in paragraph (o) of this section), all payments (whether paid over an employee's life, joint lives, or a period certain) also must be nonincreasing.

(2) *Definition of life annuity.* An annuity described in this section may be a life annuity (or joint and survivor annuity) with a period certain, provided that the life annuity (or joint and survivor annuity, if applicable) and the period certain payments each meet the requirements of paragraph (a)(1) of this section. For purposes of this section, if distributions are permitted to be made over the lives of the employee and the designated beneficiary, references to a life annuity include a joint and survivor annuity.

(3) *Annuity commencement—*

(i) *First payment and frequency.* Annuity payments must commence on or before the employee's required beginning date (within the meaning of §1.401(a)(9)-2(b)). The first payment, which must be made on or before the employee's required beginning date, must be the payment that is required for one payment interval. The second payment need not be made until the end of the next payment interval even if that payment interval ends in the next calendar year. Similarly, if the employee dies before the required beginning date, and distributions are to be made in accordance with section 401(a)(9)(B)(iii) (or, if applicable, section 401(a)(9)(B)(iv)), then the first payment, which must be made on or before the last day of the calendar year following the calendar year in which the employee died (or the date determined under §1.401(a)(9)-3(d), if applicable), must be the payment that is required for one payment interval. Payment intervals are the periods for which payments are received,

for example, bimonthly, monthly, semi-annually, or annually. All benefit accruals as of the last day of the first distribution calendar year must be included in the calculation of the amount of annuity payments for payment intervals ending on or after the employee's required beginning date.

- (ii) *Example.* A defined benefit plan (Plan X) provides monthly annuity payments for the life of unmarried participants with a 10-year period certain. An unmarried, retired participant A in Plan X attains age 73 in 2025. A's monthly annuity payment under this single life annuity based on accruals through December 31, 2025, is \$500. In order to meet the requirements of this paragraph (a)(3), the first monthly payment of \$500 must be made on behalf of A on or before April 1, 2026, and monthly payments must continue to be made thereafter for the life of A (or over the 10-year period certain, if longer).

(4) *Single-sum distributions—*

- (i) *In general.* In the case of a single-sum distribution of an employee's entire accrued benefit during a distribution calendar year, the portion of the distribution that is the required minimum distribution for the distribution calendar year (and thus not an eligible rollover distribution pursuant to section 402(c)(4)(B)) is determined using the rule in either paragraph (a)(4)(ii) or (iii) of this section.
- (ii) *Treatment as individual account.* The portion of the single-sum distribution that is a required minimum distribution is determined by treating the single-sum-distribution as a distribution from an individual account plan and treating the amount of the single-sum distribution as the employee's account balance as of the end of the relevant valuation calendar year. If the single-sum distribution is being made in the calendar year that includes the required beginning date and the required minimum distribution for the employee's first distribution calendar year has not been distributed, the portion of the single-sum distribution that represents the required minimum distribution for the employee's first and second distribution calendar years is not eligible for rollover.
- (iii) *Treatment as first annuity payment.* The portion of the single-sum distribution that is a required minimum distribution is permitted to be determined by expressing the employee's benefit as an annuity that would satisfy this section with an annuity starting date that is the first day of the distribution calendar year for which the required minimum distribution is being

determined, and treating one year of annuity payments as the required minimum distribution for that year (and therefore, not an eligible rollover distribution). If the single-sum distribution is being made in the calendar year that includes the required beginning date, and the required minimum distribution for the employee's first distribution calendar year has not been made, then the benefit must be expressed as an annuity with an annuity starting date that is the first day of the first distribution calendar year, and the payments for the first two distribution calendar years are treated as required minimum distributions (and therefore not eligible rollover distributions).

(5) *Death benefits.* The rule in paragraph (a)(1) of this section prohibiting increasing payments under an annuity applies to payments made upon the death of an employee. However, the payment of an ancillary death benefit described in this paragraph (a)(5) may be disregarded in determining whether annuity payments are increasing, and it can be excluded in determining an employee's entire interest. A death benefit with respect to an employee's benefit is an ancillary death benefit for purposes of this paragraph (a) if--

- (i) It is not paid as part of the employee's accrued benefit or under any optional form of the employee's benefit; and
- (ii) The death benefit, together with any other potential payments with respect to the employee's benefit that may be provided to a survivor, satisfies the incidental benefit requirement of §1.401-1(b)(1)(i).

(6) *Separate treatment of separate identifiable components.* If an employee's benefit under a defined benefit plan or annuity contract consists of separate identifiable components that are subject to different distribution elections, then the rules of this section may be applied separately to each of those components.

(7) *Additional guidance.* Additional guidance regarding how distributions under a defined benefit plan must be paid in order to satisfy section 401(a)(9) may be issued by the Commissioner in revenue rulings, notices, or other guidance published in the Internal Revenue Bulletin. See §601.601(d) of this chapter.

(b) *Application of incidental benefit requirement—*

(1) *Life annuity for employee.* If the employee's benefit is paid in the form of a life annuity for the life of the employee satisfying section 401(a)(9) without regard to the minimum distribution incidental benefit requirement under section 401(a)(9)(G) (MDIB requirement), then the MDIB requirement will be satisfied.

(2) *Joint and survivor annuity—*

- (i) *Determination of designated beneficiary.* If the employee's benefit is paid in the form of a life annuity for the lives of the employee and a designated beneficiary, then the designated beneficiary is determined as of the annuity starting date.
- (ii) *Spouse beneficiary.* If the employee's sole beneficiary is the employee's spouse and the distributions satisfy section 401(a)(9) without regard to the MDIB requirement, the distributions to the employee will be deemed to satisfy the MDIB requirement. For example, if an employee's benefit is being distributed in the form of a joint and survivor annuity for the lives of the employee and the employee's spouse and the spouse is the sole beneficiary of the employee, the amount of the periodic payment payable to the spouse would not violate the MDIB requirement if it were 100 percent of the annuity payment payable to the employee, regardless of the difference in the ages between the employee and the employee's spouse.
- (iii) *Joint and survivor annuity, non-spouse beneficiary.* If distributions commence in the form of a joint and survivor annuity for the lives of the employee and a beneficiary other than the employee's spouse, and the employee is the applicable age or older on the employee's birthday in the calendar year that includes the annuity starting date, then the MDIB requirement will not be satisfied as of the date distributions commence unless, under the distribution option, the annuity payments satisfy the conditions of this paragraph (b)(2)(iii). The periodic annuity payments to the survivor satisfy this paragraph (b)(2)(iii) only if, at any time on or after the employee's required beginning date, those payments do not exceed the applicable percentage of the periodic annuity payment payable to the employee using the table in this paragraph (b)(2)(iii). The applicable percentage is based on the employee/beneficiary age difference, which is equal to the excess of the age of the employee over the age of the beneficiary based on their ages on their birthdays in the calendar year that includes the annuity starting date. In the case of an annuity that provides for increasing payments, the requirement of this paragraph (b)(2)(iii) will not be violated merely because benefit payments to the beneficiary increase, provided the increase is determined in the same manner for the employee and the beneficiary. See paragraph (k)(2) of this section for rules regarding the application of the MDIB requirement in the case of annuity payments with an annuity starting date that is before the

calendar year in which an employee attains the applicable age.

Table 1 to paragraph (b)(2)(iii)

Employee/beneficiary age difference	Applicable percentage
10 years or less	100
11	96
12	93
13	90
14	87
15	84
16	82
17	79
18	77
19	75
20	73
21	72
22	70
23	68
24	67
25	66

26	64
27	63
28	62
29	61
30	60
31	59
32	59
33	58
34	57
35	56
36	56
37	55
38	55
39	54
40	54
41	53
42	53
43	53
44 and greater	52

(3) *Period certain and annuity features.* If a distribution form includes a period certain, the amount of the annuity payments payable to the beneficiary need not be reduced during the period certain, but in the case of a joint and survivor annuity with a period certain, the amount of the annuity payments payable to the beneficiary must satisfy paragraph (b)(2)(iii) of this section after the expiration of the period certain.

(4) *Deemed satisfaction of incidental benefit rule.* Except in the case of distributions with respect to an employee's benefit that include an ancillary death benefit described in paragraph (a)(5) of this section, to the extent the incidental benefit requirement of §1.401-1(b)(1)(i) requires a distribution, that requirement is deemed to be satisfied if distributions satisfy the MDIB requirement of this paragraph (b). If the employee's benefits include an ancillary death benefit described in paragraph (a)(5) of this section, the benefits (including the ancillary death benefit) must be distributed in accordance with the incidental benefit requirement described in §1.401-1(b)(1)(i) and the benefits (excluding the ancillary death benefit) must also satisfy the MDIB requirement of this paragraph (b).

(c) *Period certain annuity—*

(1) *Distributions commencing during the employee's life.* If the employee is the applicable age or older on the employee's birthday in the calendar year that includes the annuity starting date, then the period certain is not permitted to exceed the applicable denominator for the calendar year that includes the annuity starting date that would apply pursuant to §1.401(a)(9)-5(c) if the plan were a defined contribution plan. However, that applicable denominator is determined taking into account the rules of §1.401(a)(9)-5(c)(2) (relating to a spouse who is more than 10 years younger than the employee) only if the period certain is not provided in conjunction with a life annuity under paragraph (a)(2) of this section. See paragraph (k) of this section for the rule for annuity payments with an annuity starting date that is before the calendar year in which the employee attains the applicable age.

(2) *Distributions commencing after the employee's death.* If the employee dies before the required beginning date and annuity distributions commence after the death of the employee under the life expectancy rule (under section 401(a)(9)(B)(iii) or (iv)), the period certain for any distributions commencing after death may not exceed the applicable denominator that would apply pursuant to

§1.401(a)(9)-5(d)(2) for the calendar year that includes the annuity starting date if the plan were a defined contribution plan.

(d) *Use of annuity contract—*

(1) *In general.* A plan will not fail to satisfy section 401(a)(9) merely because distributions are made from an annuity contract purchased from an insurance company that is licensed to do business under the laws of the State in which the contract is sold, provided that the payments satisfy the requirements of this section. Except in the case of a qualifying longevity annuity contract (QLAC) described in paragraph (q) of this section, if the annuity contract is purchased after the required beginning date, then the first payment interval must begin on or before the purchase date and the payment that is made at the end of that payment interval is the amount required for one payment interval. If the payments actually made under the annuity contract do not meet the requirements of this section, the plan fails to satisfy section 401(a)(9). See also paragraph (o) of this section permitting certain increases under annuity contracts.

(2) *Applicability of section 401(a)(9)(H)—*

- (i) *Annuity contract subject to section 401(a)(9)(H).* If an annuity contract is purchased under a defined contribution plan, or the annuity contract is otherwise subject to section 401(a)(9)(H), payments under that annuity contract cannot extend past the calendar year described in §1.401(a)(9)-5(e).
- (ii) *Determination of an eligible designated beneficiary.* If an annuity contract is described in paragraph (d)(2)(i) of this section, then the determination of whether a beneficiary is an eligible designated beneficiary under section 401(a)(9)(E)(ii), is made as of the annuity starting date. For example, if, as of the annuity starting date, the employee's beneficiary under the contract is the employee's spouse, then the spouse is treated as an eligible designated beneficiary for purposes of applying the rules of section 401(a)(9)(H) even if the employee and spouse are subsequently divorced.

(e) *Treatment of additional accruals—*

(1) *General rule.* If additional benefits accrue in a calendar year after the employee's first distribution calendar year, distribution of the amount that accrues in that later calendar year must commence in accordance with paragraph (a) of this section beginning with the first payment interval ending in the calendar year following the

calendar year in which that amount accrues.

(2) *Administrative delay.* A plan will not fail to satisfy this section merely because there is an administrative delay in the commencement of the distribution of the additional benefits accrued in a calendar year, provided that--

- (i) The payment commences no later than the end of the first calendar year following the calendar year in which the additional benefit accrues; and
- (ii) The total amount paid during that first calendar year with respect to those additional benefits is no less than the total amount that was required to be paid during that year under paragraph (e)(1) of this section.

(f) *Treatment of nonvested benefits.* In the case of annuity distributions under a defined benefit plan, if any portion of the employee's benefit is not vested as of December 31 of a distribution calendar year, the portion that is not vested as of that date is treated as not having accrued for purposes of determining the required minimum distribution for that distribution calendar year. When an additional portion of the employee's benefit becomes vested, that portion will be treated as an additional accrual. See paragraph (e) of this section for the rules for distributing benefits that accrue under a defined benefit plan after the employee's first distribution calendar year.

(g) *Requirement for actuarial increase—*

(1) *General rule—*

(i) *Applicability of increase.* Except as otherwise provided in this paragraph (g), if an employee retires after the calendar year in which the employee attains age 70½, then, in order to satisfy section 401(a)(9)(C)(iii), the employee's accrued benefit under a defined benefit plan must be actuarially increased for the period (if any) from the start date described in paragraph (g)(1)(ii) of this section to the end date described in paragraph (g)(1)(iii) of this section.

(ii) *Start date for actuarial increase.* The start date for the required actuarial increase is April 1 following the calendar year in which the employee attains age 70½ (or January 1, 1997, if the employee attained 70½ prior to January 1, 1997).

(iii) *End date for actuarial increase.* The end date for the required actuarial increase is the date on which benefits commence after retirement in a form that satisfies paragraphs (a) and (h) of this section.

(iv) *Determination of when employee attains age 70½.* An employee attains age 70½ as of the date six calendar months after the 70th anniversary of

the employee's birth. For example, if the date of birth of an employee is June 30, 1955, the 70th anniversary of the employee's birth is June 30, 2025, and the employee attains age 70½ in 2025. However, if the employee's date of birth is July 1, 1955, the 70th anniversary of the employee's birth is July 1, 2025, and the employee attains age 70½ in 2026.

- (2) *Nonapplication to 5-percent owners.* This paragraph (g) does not apply to an employee if that employee is a 5-percent owner (as defined in section 416) with respect to the plan year ending in the calendar year in which the employee attains the applicable age.
- (3) *Nonapplication to governmental plans.* The actuarial increase required under this paragraph (g) does not apply to a governmental plan (within the meaning of section 414(d)).
- (4) *Nonapplication to church plans and church employees—*
 - (i) *Church plans.* The actuarial increase required under this paragraph (g) does not apply to a church plan. For purposes of this paragraph (g)(4)--
 - (A) The term *church plan* means a plan maintained by a church (as defined in section 3121(w)(3)(A)) or a qualified church-controlled organization (as defined in section 3121(w)(3)(B)) for its employees; and
 - (B) A plan is treated as a church plan only if at least 85 percent of the individuals covered by the plan are employees of a church or a qualified church-controlled organization.
 - (ii) *Determination of whether an individual is an employee of a church.* For purposes of this paragraph (g)(4), the determination of whether an individual is an employee of a church or a qualified church-controlled organization is made in accordance with the rules of section 414(e)(3)(B) other than section 414(e)(3)(B)(ii).
 - (iii) *Church employees covered in other plans.* If a plan is not a church plan within the meaning of paragraph (g)(4)(i) of this section, then the actuarial increase required under this paragraph (g) does not apply to benefits accrued under the plan by an individual that are attributable to the service the individual performs as an employee of a church or a qualified church-controlled organization (including service performed as an employee described in

section 414(e)(3)(B)(i)).

(h) *Amount of actuarial increase—*

(1) *In general.* In order to satisfy section 401(a)(9)(C)(iii), the retirement benefits payable with respect to an employee as of the end of the period for which actuarial increases must be provided as described in paragraph (g) of this section must be no less than--

(i) The actuarial equivalent of the employee's retirement benefits that would have been payable as of the start date described in paragraph (g)(1)(ii) of this section if benefits had commenced on that date; plus

(ii) The actuarial equivalent of any additional benefits accrued after that date; reduced by

(iii) The actuarial equivalent of any distributions made with respect to the employee's retirement benefits after that date.

(2) *Actuarial equivalence basis.* For purposes of this paragraph (h), actuarial equivalence is determined using reasonable actuarial assumptions. If the plan is subject to section 411, the plan's assumptions must be the same as the assumptions used for determining actuarial equivalence for purposes of satisfying section 411.

(3) *Coordination with section 411 actuarial increase.* Under section 411, in order for an employee's accrued benefit under a defined benefit plan to be nonforfeitable, the plan must make an actuarial adjustment to any portion of that accrued benefit, the payment of which is deferred past normal retirement age. The only exception to this rule is that, generally, no actuarial adjustment is required to reflect the period during which a benefit is suspended as permitted under section 411(a)(3)(B). The actuarial increase required under section 401(a)(9)(C)(iii) for the period (if any) described in paragraph (g)(1)(i) of this section generally is the same as, and not in addition to, the actuarial increase required for the same period under section 411 to reflect any delay in the payment of retirement benefits after normal retirement age. However, unlike the actuarial increase required under section 411, the actuarial increase required under section 401(a)(9)(C)(iii) must be provided even during any period during which an employee's benefit has been suspended in accordance with section 411(a)(3)(B).

(i) [Reserved]

(j) *Distributions restricted pursuant to section 436—*

- (1) *General rule.* If an employee's entire interest is being distributed in accordance with the 5-year rule of section 401(a)(9)(B)(ii), a plan is not treated as failing to satisfy section 401(a)(9) merely because of the application of a payment restriction under section 436(d), provided that distributions of the employee's interest commence by the end of the calendar year that includes the fifth anniversary of the date of the employee's death and, after the annuity starting date, those distributions are paid in a form that is as accelerated as permitted under section 436(d), as described in paragraph (j)(2) or (3) of this section.
- (2) *Payments restricted under section 436(d)(3).* If the payment restriction of section 436(d)(3) applies at the time benefits commence under paragraph (j)(1) of this section, then distributions are made in a form that is as accelerated as permitted under section 436(d) if the benefits are paid in a single-sum payment equal to the maximum amount allowed under section 436(d)(3), with the remainder paid as a life annuity to the beneficiary (or over the course of 240 months pursuant to §1.436-1(j)(6)(ii) in the case of a beneficiary that is not an individual), subject to a requirement that the benefit remaining is commuted to a single-sum payment when the section 436(d)(3) payment restriction ceases to apply (to the extent that a single-sum payment is permitted under section 436(d)(1) and (2)).
- (3) *Payments restricted under section 436(d)(1) or (2).* If a plan is subject to the payment restriction in section 436(d)(1) or (2) at the time benefits commence under paragraph (j)(1) of this section, then distributions are made in a form that is as accelerated as permitted under section 436(d) if the benefits are paid in the form of a life annuity to the beneficiary (or over the course of 240 months pursuant to §1.436-1(j)(6)(ii), in the case of a beneficiary that is not an individual), subject to a requirement that the benefit remaining is commuted to a single-sum payment to the extent permitted under section 436(d) (for example, the maximum amount allowed under section 436(d)(3)) when the payment restriction under section 436(d)(1) or (2) ceases to apply.

(k) *Treatment of early commencement—*

- (1) *General rule.* Generally, the determination of whether a stream of payments satisfies the requirements of this section is made as of the required beginning date. However, if distributions start prior to the required beginning date in a distribution form that is an annuity under which distributions are made in accordance with the provisions of paragraph (a) of this section and are made

over a period permitted under section 401(a)(9)(A)(ii), then, except as provided in this paragraph (k), the annuity starting date will be treated as the required beginning date for purposes of applying the rules of this section and §1.401(a)(9)-2. Thus, for example, the determination of the designated beneficiary and the amount of distributions will be made as of the annuity starting date. Similarly, if the employee dies after the annuity starting date but before the required beginning date determined under §1.401(a)(9)-2(b), then after the employee's death--

- (i) The remaining portion of the employee's interest must continue to be distributed in accordance with this section over the remaining period over which distributions commenced; and
- (ii) The rules in §1.401(a)(9)-3 relating to death before the required beginning date do not apply.

(2) Joint and survivor annuity, non-spouse beneficiary—

- (i) *Application of MDIB requirement.* If distributions commence in the form of a joint and survivor annuity for the lives of the employee and a beneficiary other than the employee's spouse, and as of the employee's birthday in the calendar year that includes the annuity starting date, the employee is younger than the applicable age, then the MDIB requirement will not be satisfied as of the date distributions commence unless, under the distribution option, the annuity payments to be made on and after the employee's required beginning date satisfy the conditions of this paragraph (k)(2). The periodic annuity payments payable to the survivor satisfy this paragraph (k)(2) if, at all times on and after the employee's annuity starting date, those payments do not exceed the applicable percentage of the periodic annuity payment payable to the employee determined using the table in paragraph (b)(2)(iii) of this section (but based on the adjusted employee/beneficiary age difference). The adjusted employee/beneficiary age difference is determined by first calculating the employee/beneficiary age difference under paragraph (b)(2)(iii) of this section and then reducing that age difference by the number of years by which the employee is younger than the applicable age on the employee's birthday in the calendar year that includes the annuity starting date. In the case of an annuity that provides for increasing payments, the requirement of this paragraph (k)(2) will not fail to be satisfied merely because benefit

payments to the beneficiary increase, provided the increase is determined in the same manner for the employee and the beneficiary.

(ii) *Example—*

(A) *Facts.* Distributions under a defined benefit plan commence on January 1, 2025, to an employee Z, born March 1, 1958. Z's daughter Y, born February 5, 1989, is Z's beneficiary. The distributions are in the form of a joint and survivor annuity for the lives of Z and Y with payments of \$500 a month to Z and upon Z's death of \$500 a month to Y (so that the monthly payment to Y is 100 percent of the monthly amount payable to Z).

(B) *Analysis and conclusion.* Z's required beginning date is April 1, 2032 (that is, April 1 of the calendar year following the calendar year in which Z will attain age 73). Under paragraph (k)(1) of this section, because distributions commence prior to Z's required beginning date and are in the form of a joint and survivor annuity for the lives of Z and Y, compliance with the rules of this section is determined as of the annuity starting date. Under this paragraph (k)(2), the adjusted employee/beneficiary age difference is calculated by taking the excess of the employee's age over the beneficiary's age and subtracting the number of years the employee is younger than the applicable age (in this case, age 73). In 2025, Z attains age 67 and Y attains age 36. Accordingly, the employee/beneficiary age difference is 31. Because Z is commencing benefits 6 years before attaining the applicable age, the adjusted employee/beneficiary age difference is 25 years. Under table 1 to paragraph (b)(2)(iii) of this section, the applicable percentage for a 25-year adjusted employee/beneficiary age difference is 66 percent. The plan does not satisfy the MDIB requirement because, as of January 1, 2025 (the annuity starting date), the distribution option provides that, as of Z's required beginning date, the monthly payment to Y upon Z's death will exceed 66 percent of Z's monthly payment.

(3) *Limitation on period certain.* If, as of the employee's birthday in the calendar year that includes the annuity starting date, the employee is younger than the applicable age, then the period certain may not exceed the limitation on the period certain for an individual who has attained the applicable age as specified in paragraph (c)(1) of this section, increased by the number of years

by which the employee is younger than the applicable age on that birthday.

(l) *Early commencement for surviving spouse.* Generally, the determination of whether a stream of payments satisfies the requirements of this section is made as of the date on which distributions are required to commence. However, if the employee dies prior to the required beginning date, distributions commence to the surviving spouse of an employee over a period permitted under section 401(a)(9)(B)(iii)(II) prior to the date on which distributions are required to commence, and the distribution form is an annuity under which distributions are made in accordance with the provisions of paragraph (a) of this section, then the annuity starting date will be considered the required beginning date for purposes of section 401(a)(9)(B)(iv)(III). Thus, if the surviving spouse dies after commencing benefits and before the date described in 401(a)(9)(B)(iv)(II), then after the surviving spouse's death--

- (1) The rules in §1.401(a)(9)-3(e)(1) relating to the death of the surviving spouse before the required beginning date under section 401(a)(9)(B)(iv)(III) will not apply upon the death of the surviving spouse; and
- (2) The annuity distributions must continue to be made in accordance with paragraph (a) of this section over the remaining period over which distributions commenced.

(m) *Determination of entire interest under annuity contract—*

- (1) *General rule.* Prior to the date that an annuity contract under an individual account plan is annuitized, the interest of an employee or beneficiary under that contract is treated as an individual account for purposes of section 401(a)(9). Thus, the required minimum distribution for any year with respect to that interest is determined under §1.401(a)(9)-5 rather than this section. See §1.401(a)(9)-5(a)(5) for rules relating to the satisfaction of section 401(a)(9) in the year that annuity payments commence (including situations in which an annuity contract is purchased with a portion of an employee's account balance) and §1.401(a)(9)-5(b)(4) for rules relating to QLACs (as defined in paragraph (q) of this section).
- (2) *Entire interest.* For purposes of applying the rules in §1.401(a)(9)-5, the entire interest under the annuity contract as of December 31 of the relevant valuation calendar year is treated as the account balance for the valuation calendar year described in §1.401(a)(9)-5(c). The entire interest under an annuity contract is the dollar amount credited to the employee or beneficiary under the contract (that is, the notional account balance) plus the actuarial present value of any

additional benefits (for example, survivor benefits in excess of the dollar amount credited to the employee or beneficiary) that will be provided under the contract. However, paragraph (m)(3) of this section describes certain additional benefits that may be disregarded in determining the employee's entire interest under the annuity contract. The actuarial present value of any additional benefits described under this paragraph (m) is to be determined using reasonable actuarial assumptions, including reasonable assumptions as to future distributions, and without regard to an individual's health.

(3) *Exclusions—*

(i) *Additional value does not exceed 20 percent.* The actuarial present value of any additional benefits provided under an annuity contract described in paragraph (m)(2) of this section may be disregarded if the sum of the dollar amount credited to the employee or beneficiary under the contract and the actuarial present value of the additional benefits is no more than 120 percent of the dollar amount credited to the employee or beneficiary under the contract and the additional benefits are one or both of the following--

(A) Additional benefits that, in the case of a distribution, are reduced by an amount sufficient to ensure that the ratio of the sum to the dollar amount credited does not increase as a result of the distribution; and

(B) An additional benefit that is the right to receive a final payment upon death that does not exceed the amount by which the total consideration paid exceeds the amount of prior distributions.

(ii) *Return of premium death benefit.* If the only additional benefit provided under the contract is the additional benefit described in paragraph (m)(3)(i)(B) of this section, the additional benefit may be disregarded regardless of its value in relation to the dollar amount credited to the employee or beneficiary under the contract.

(iii) *Additional guidance.* The Commissioner, in revenue rulings, notices, or other guidance published in the Internal Revenue Bulletin (see §601.601(d) of this chapter), may provide additional guidance on additional benefits that may be disregarded.

(4) *Examples.* The examples in this paragraph (m)(4), which use a 5 percent interest rate and the mortality table used for distributions subject to section 417(e)(3) provided in Notice 2019-67, 2019-52 IRB 1510, illustrate the

application of the rules in this paragraph (m):

(i) *Example 1*—

(A) *Facts.* G is the owner of a variable annuity contract (Contract S) under an individual account plan that has not been annuitized. Contract S provides a death benefit until the end of the calendar year in which the owner attains the age of 84 equal to the greater of the current Contract S notional account balance (dollar amount credited to G under the contract) and the largest notional account balance at any previous policy anniversary reduced proportionally for subsequent partial distributions (High Water Mark). Contract S provides a death benefit in calendar years after the calendar year in which the owner attains age 84 equal to the current notional account balance. Contract S provides that assets within the contract may be invested in a Fixed Account at a guaranteed rate of 2 percent. Contract S provides no other additional benefits.

(B) *Actuarial calculations.* At the end of 2028, when G has an attained age of 78 and 9 months, the notional account balance of Contract S (after the distribution for 2028 of 4.55 percent of the notional account balance as of December 31, 2027) is \$550,000, and the High Water Mark, before adjustment for any withdrawals from Contract S in 2028, is \$1,000,000. Thus, Contract S will provide additional benefits (that is, the death benefits in excess of the notional account balance) through 2034, the year S turns 84. The actuarial present value of these additional benefits at the end of 2028 is determined to be \$67,978 (12 percent of the notional account balance). In making this determination, the following assumptions are made: on average, deaths occur mid-year; the investment return on G's notional account balance is 2 percent per annum; and minimum required distributions (determined without regard to additional benefits under the Contract S) are made at the end of each year. The following two tables summarize the actuarial methodology used in determining the actuarial present value of the additional benefit.

Table 2 to paragraph (m)(4)(i)(B)

Year	Death benefit during year	End-of-year notional account balance before withdrawal	Average notional account balance	Withdrawal at end of year	End-of-year notional account balance after withdrawal
2028	\$1,000,000				\$550,000
2029	954,545 ¹	\$561,000 ²	\$555,500 ³	\$26,606 ⁴	534,934
2030	909,306	545,633	540,283	26,482	519,151
2031	864,291	529,534	524,342	26,760	502,774
2032	819,740	512,829	507,801	27,177	485,652
2033	775,430	495,365	490,509	27,438	467,927
2034	731,620	477,286	472,606	27,853	449,433

¹\$1,000,000 death benefit reduced 4.55 percent for withdrawal during 2028.

²Notional account balance at end of preceding year (after distribution) increased by 2 percent return for year.

³Average of \$550,000 notional account balance at end of preceding year (after distribution) and \$561,000 notional account balance at end of current year (before distribution).

⁴December 31, 2028 notional account balance (before distribution) divided by uniform lifetime table age 79 factor of 21.1.

Table 3 to paragraph (m)(4)(i)(B)

Year	Survivorship to start of year	Interest discount to end of 2028	Mortality rate during year	Discounted additional benefits within year
2028				
2029	1.00000	.97590	⁵ .03321	12,933
2030	.96679	⁶ .92943	.03739	⁷ 12,398

2031	⁸ .93064	.88517	.04198	11,756
2032	.89157	.84302	.04715	11,055
2033	.84953	.80288	.05305	10,310
2034	.80446	.76464	.05979	9,526
				\$67,978

⁵One-quarter age 78 rate plus three-quarters age 79 rate.

⁶Five percent discounted 18 months ($1.05^{-1.5}$).

⁷Blended age 79/age 80 mortality rate (.03739) multiplied by the \$369,023 excess of death benefit over the average notional account balance (\$909,306 less \$540,283) multiplied by .96679 probability of survivorship to the start of 2030 multiplied by 18- month interest discount of .92943.

⁸Survivorship to start of preceding year (.96679) multiplied by probability of survivorship during prior year ($1-.03739$).

(C) *Conclusion*. Because Contract S provides that, in the case of a distribution, the value of the additional death benefit (which is the only additional benefit available under the contract) is reduced by an amount that is at least proportional to the reduction in the notional account balance and, at age 78 and 9 months, the sum of the notional account balance (dollar amount credited to the employee under the contract) and the actuarial present value of the additional death benefit is no more than 120 percent of the notional account balance, the exclusion under paragraph (m)(3)(i) of this section applies for 2029. Therefore, for purposes of applying the rules in §1.401(a)(9)-5, the entire interest under Contract S may be determined as the notional account balance (that is, without regard to the additional death benefit).

(ii) *Example 2*—

(A) *Facts*. The facts are the same as in paragraph (m)(4)(i) of this section (*Example 1*), except that the notional account balance is \$550,000 at the end of 2028. In this instance, the actuarial present value of the death benefit in excess of the notional account balance in 2028 is determined to be \$97,273 (24 percent of the notional account balance). The following two tables summarize the actuarial methodology used in determining the actuarial present value of the additional benefit.

Table 4 to paragraph (m)(4)(ii)(A)

Year	Death benefit during year	End-of-year notional account balance before withdrawal	Average notional account balance	Withdrawal at end of year	End-of-year notional account balance after withdrawal
2028	\$1,000,000				\$400,000
2029	954,545	\$408,000	\$404,000	\$18,957	389,043
2030	909,306	396,824	392,933	19,260	377,564
2031	864,291	385,115	381,339	19,462	365,653
2032	819,740	372,966	369,310	19,765	353,201
2033	775,430	360,265	356,733	19,955	340,310
2034	731,620	347,116	343,713	20,257	326,859

Table 5 to paragraph (m)(4)(ii)(A)

Year	Survivorship to start of year	Interest discount to end of 2028	Mortality rate during year	Discounted additional benefits within year
2028				
2029	1.00000	.97590	.03321	\$17,843
2030	.96679	.92943	.03739	17,349
2031	.93064	.88517	.04198	16,701
2032	.89157	.84302	.04715	15,963
2033	.84953	.80288	.05305	15,150
2034	.80446	.76464	.05979	14,267
				\$97,273

(B) *Conclusion.* Because the sum of the notional account balance and the actuarial present value of the additional death benefit is more than 120 percent of the notional account balance, the exclusion under paragraph (m)(3)(i) of this section does not apply for 2029. Therefore, for purposes of applying the rules in §1.401(a)(9)-5, the entire interest under Contract S must include the actuarial present value of the additional death benefit.

(n) *Change in annuity payment period—*

(1) *In general.* An annuity payment period may be changed in accordance with the

reannuitization provisions set forth in paragraph (n)(2) of this section or in association with an annuity payment increase described in paragraph (o) of this section.

- (2) *Reannuitization.* If, in a stream of annuity payments that otherwise satisfies section 401(a)(9), the annuity payment period is changed and the annuity payments are modified in association with that change, this modification will not cause the distributions to fail to satisfy section 401(a)(9) provided the conditions set forth in paragraph (n)(3) of this section are satisfied, and--
- (i) The modification occurs at the time that the employee retires or in connection with a plan termination;
 - (ii) The annuity payments prior to modification are annuity payments paid over a period certain without life contingencies; or
 - (iii) The annuity payments after modification are paid under a qualified joint and survivor annuity over the joint lives of the employee and a designated beneficiary, the employee's spouse is the sole beneficiary, and the modification occurs in connection with the employee becoming married to that spouse.
- (3) *Conditions.* In order to modify a stream of annuity payments in accordance with paragraph (n)(2) of this section, the following conditions must be satisfied--
- (i) The future payments under the modified stream satisfy section 401(a)(9) and this section (determined by treating the date of the change as a new annuity starting date and the actuarial present value of the remaining payments prior to modification as the entire interest of the participant);
 - (ii) For purposes of sections 415 and 417, the modification is treated as a new annuity starting date;
 - (iii) After taking into account the modification, the annuity stream satisfies section 415 (determined at the original annuity starting date, using the interest rates and mortality tables applicable as of that date); and
 - (iv) The end point of the period certain, if any, for any modified payment period is not later than the end point available under section 401(a)(9) to the employee at the original annuity starting date.
- (4) *Examples.* For the purposes of the examples in this paragraph (n)(4), assume that the applicable segment rates under section 417(e)(3) are 5.00 percent, 5.50 percent, and 6.00 percent, and the applicable mortality table under section

417(e)(3) is the mortality table provided in Notice 2023-73, 2023-45 IRB 232. In addition, assume that the section 415 limit at age 72 for a straight life annuity is \$306,667 (which is the lesser of the annual benefit under section 415(b)(1)(A), as adjusted pursuant to section 415(d) and further adjusted for age 72 in accordance with §1.415(b)-1(e)(1)(i), and 100 percent of the participant's average compensation for the participant's high 3 years):

(i) *Example 1—*

(A) *Facts—*

- (1) *Background.* Participant D has 10 years of participation in a frozen defined benefit plan (Plan W). D is not retired and elects to receive distributions from Plan W in the form of a straight life annuity with annual payments of \$310,000 per year beginning in 2025 at a date when D has an attained age of 72. Plan W offers non-retired employees in pay status the opportunity to modify their annuity payments due to an associated change in the payment period at retirement. Plan W treats the date of the change in payment period as a new annuity starting date for purposes of sections 415 and 417. Thus, for example, the plan provides a new qualified and joint survivor annuity election and obtains spousal consent. Plan W determines modifications of annuity payment amounts at retirement so that the present value of future new annuity payment amounts (taking into account the new associated payment period) is actuarially equivalent to the present value of future pre-modification annuity payments (taking into account the pre-modification annuity payment period). Actuarial equivalency for this purpose is determined using the applicable segment rates under section 417(e)(3)(C) and the applicable mortality table as of the date of modification.
- (2) *Payment of retirement benefits to Participant D.* D retires in 2029 at the age of 76 and, after receiving four annual payments of \$310,000, elects to receive the remaining distributions from Plan W in the form of an immediate final lump sum payment of \$2,795,732. Because payment of retirement benefits in the form of an immediate final lump sum payment satisfies (in terms of form) section 401(a)(9), the condition under paragraph (n)(3)(i) of this section is met.

(B) *Analysis*. Because Plan W treats a modification of an annuity payment stream at retirement as a new annuity starting date for purposes of sections 415 and 417, the condition under paragraph (n)(3)(ii) of this section is met. After taking into account the modification, the annuity stream determined as of the original annuity starting date consists of annual payments beginning at age 72 of \$310,000, \$310,000, \$310,000, \$310,000, and \$2,795,732. This benefit stream is actuarially equivalent to a straight life annuity at age 72 of \$315,145, calculated in accordance with section 415(b)(2)(E)(ii), which is an amount less than the section 415 limit determined at the original annuity starting date. Thus, the condition under paragraph (n)(3)(iii) of this section is met. In addition, because the modified payment period does not include a period certain, paragraph (n)(3)(iv) of this section does not apply.

(C) *Conclusion*. Because a stream of annuity payments in the form of a straight life annuity satisfies section 401(a)(9), and because each of the conditions under paragraph (n)(3) of this section are satisfied, the modification of annuity payments to D described in this example meets the requirements of this paragraph (n).

(ii) *Example 2—*

(A) *Facts*. The facts are the same as in paragraph (n)(4)(i) of this section (*Example 1*), except that the straight life annuity payments are paid at a rate of \$330,000 per year and, after D retires, the lump sum payment at age 76 is \$2,976,102. Thus, after taking into account the modification, the annuity stream determined as of the original annuity starting date consists of annual payments beginning at age 72 of \$330,000, \$330,000, \$330,000, \$330,000, and \$2,976,102.

(B) *Conclusion*. The benefit stream described in paragraph (n)(4)(ii)(A) of this section is actuarially equivalent to a straight life annuity at age 72 of \$335,477, calculated in accordance with section 415(b)(2)(E)(ii), which exceeds the section 415 limit determined at the original annuity starting date. Thus, the lump sum payment to D fails to satisfy the condition under paragraph (n)(3)(iii) of this section. Therefore, the lump sum payment to D fails to meet the requirements of this paragraph (n) and fails to satisfy the requirements of section 401(a)(9).

(iii) *Example 3—*

(A) *Facts—*

(1) *Background.* Participant E has 10 years of participation in Plan X, a frozen defined benefit plan. E retires in 2025 at a date when E's attained age is 72. E elects to receive annual distributions from Plan X in the form of a 27-year period certain annuity (that is, a 27-year annuity payment period without a life contingency) paid at a rate of \$37,000 per year beginning in 2025 with future payments increasing at a rate of 4.00 percent per year (that is, the 2026 payment will be \$38,480, the 2027 payment will be \$40,019 and so on). Plan X offers participants in pay status whose annuity payments are in the form of a term-certain annuity the opportunity to modify their payment period at any time and treats the modifications as a new annuity starting date for the purposes of sections 415 and 417. Thus, for example, the plan provides a new qualified and joint survivor annuity election and obtains spousal consent.

(2) *Plan provisions for determination of actuarial equivalence.* Plan X determines modifications of annuity payment amounts so that the present value of future new annuity payment amounts (taking into account the new associated payment period) is actuarially equivalent to the present value of future pre-modification annuity payments (taking into account the pre-modification annuity payment period). Actuarial equivalency for this purpose is determined using 5.00 percent and the applicable mortality table as of the date of modification.

(3) *Modification of retirement benefits paid to Participant E.* In 2028, E, after receiving annual payments of \$37,000, \$38,480, and \$40,019, elects to receive the remaining distributions from Plan W in the form of a straight life annuity paid with annual payments of \$92,133 per year.

(B) *Analysis.* Because payment of retirement benefits in the form of a straight life annuity satisfies (in terms of form) section 401(a)(9), the condition under paragraph (n)(3)(i) of this section is met. Because Plan X treats a modification of an annuity payment stream at retirement as a new annuity starting date for purposes of sections 415 and 417, the condition under paragraph (n)(3)(ii) of this section is met. After taking into account the

modification, the annuity stream determined as of the original annuity starting date consists of annual payments beginning at age 72 of \$37,000, \$38,480, and \$40,019, and a straight life annuity beginning at age 75 of \$92,133. This benefit stream is actuarially equivalent to a straight life annuity at age 72 of \$81,924, calculated in accordance with section 415(b)(2)(E)(i), which is an amount less than the section 415 limit determined at the original annuity starting date. Thus, the condition under paragraph (n)(3)(iii) of this section is met. In addition, because the modified payment period does not include a period certain, paragraph (n)(3)(iv) of this section does not apply.

(C) *Conclusion.* Because a stream of annuity payments in the form of a straight life annuity satisfies section 401(a)(9), and each of the conditions under paragraph (n)(3) of this section are satisfied, the modification of annuity payments to E meets the requirements of this paragraph (n).

(o) *Increase in annuity payments—*

(1) *General rules.* Notwithstanding the general rule under paragraph (a)(1) of this section prohibiting increases in annuity payments, the following increases in annuity payments are permitted--

- (i) An annual percentage increase that does not exceed the percentage increase in an eligible cost-of-living index (as defined in paragraph (o)(2) of this section) for a 12- month period ending in the year during which the increase occurs or the prior year;
- (ii) A percentage increase that occurs at specified times (for example, at specified ages) and does not exceed the cumulative total of annual percentage increases in an eligible cost-of-living index (as defined in paragraph (o)(2) of this section) after the annuity starting date, or if later, the date of the most recent percentage increase;
- (iii) An increase by a constant percentage, applied not less frequently than annually, at a rate that is less than 5 percent per year;
- (iv) An increase eliminating some or all of the reduction in the amount of the employee's payments to provide for a survivor benefit, but only if there is no longer a survivor benefit because the beneficiary whose life was being used to determine the period described in section 401(a)(9)(A)(ii) over which payments were being made dies or is no longer the employee's beneficiary

pursuant to a qualified domestic relations order within the meaning of section 414(p);

(v) An increase to pay increased benefits that result from a plan amendment;

(vi) An increase to allow a beneficiary to convert the survivor portion of a joint and survivor annuity into a single-sum distribution upon the employee's death;

(vii) An increase to the extent permitted in accordance with paragraph (o)(3) or (4); or

(viii) An increase resulting from the resumption of benefits that were suspended pursuant to section 411(a)(3)(B), 418E, or 432(e)(9).

(2) *Eligible cost of living index—*

(i) *In general.* For purposes of this paragraph (o), an eligible cost-of-living index means an index described in paragraph (o)(2)(ii), (iii), or of this section.

(ii) *Consumer price index.* An index is described in this paragraph (o)(2)(ii) if it is a consumer price index that is based on prices of all items (or all items excluding food and energy) and issued by the Bureau of Labor Statistics, including an index for a specific population (for example, urban consumers or urban wage earners and clerical workers) and an index for a geographic area or areas (for example, a metropolitan area or State).

(iii) *Consumer price index with banking.* An index is described in this paragraph (o)(2)(iii) if it is a percentage adjustment based on a cost-of-living index described in paragraph (o)(2)(ii) of this section, or a fixed percentage if less. In any year when the cost-of-living index is lower than the fixed percentage, the fixed percentage may be treated as an increase in an eligible cost-of-living index, provided it does not exceed the sum of--

(A) The cost-of-living index for that year, and

(B) The accumulated excess of the annual cost-of-living index from each prior year over the fixed annual percentage used in that year (reduced by any amount previously utilized under this paragraph (o)(2)(iii)(B)).

(iv) *Adjustment based on compensation for position.* An index is described in this paragraph (o)(2)(iv) if it is a percentage adjustment based on the increase in compensation for the position held by the employee at the time of retirement, and provided under either--

(A) The terms of a governmental plan (within the meaning of section 414(d)), or

(B) The terms of a nongovernmental plan, as in effect on April 17, 2002.

(3) *Additional permitted increases for annuity contracts purchased from insurance companies.* Payments made from an annuity contract purchased from an insurance company will not fail to satisfy the nonincreasing payment requirement in paragraph (a)(1) of this section merely because the payments are increased in accordance with one or more of the following--

(i) As a result of dividend payments or other payments that result from actuarial gains (within the meaning of paragraph (o)(5) of this section), but only if--

(A) Actuarial gain is measured no less frequently than annually;

(B) The resulting dividend payments or other payments are either paid no later than the year following the year for which the actuarial experience is measured or paid in the same form as the payment of the annuity over the remaining period of the annuity (beginning no later than the year following the year for which the actuarial experience is measured); and

(C) The issuer of the contract uses reasonable actuarial methods and assumptions, as determined in good faith, when calculating the initial annuity payments, the issuer's experience with respect to those factors, and the amount of the dividend payments or other payments;

(ii) As a result of a shortening of the payment period with respect to the annuity or a full or partial commutation of the future annuity payments, provided that the amount of the payment pursuant to the commutation is determined using reasonable actuarial methods and assumptions, as determined in good faith by the issuer of the contract.

(iii) To provide a final payment upon death that does not exceed the amount by which the total consideration paid for the contract exceeds the aggregate amount of prior distributions under the contract; or

(iv) To provide a short-term advance of payments under the annuity, under which annuity payments that would otherwise satisfy the requirements of this section are paid up to one year before the payments were scheduled to be made.

(4) *Additional permitted increases for annuity payments from a qualified trust.* Annuity payments made under a defined benefit plan qualified under section 401(a)

(including payments under an annuity contract purchased from an insurance company that provides the same benefits that would have been payable under the defined benefit plan if an annuity contract had not been purchased, but not an annuity contract that provides other benefits) will not fail to satisfy the nonincreasing payment requirement in paragraph (a)(1) of this section merely because the payments are increased in accordance with one of the following--

- (i) As a result of dividend payments or other payments that result from actuarial gains (within the meaning of paragraph (o)(5) of this section), but only if--
 - (A) The actuarial gain is measured no less frequently than annually;
 - (B) The resulting dividend payments or other payments are either paid no later than the year following the year for which the actuarial experience is measured or paid in the same form as the annuity over the remaining period of the annuity (beginning no later than the year following the year for which the actuarial experience is measured);
 - (C) The actuarial gain taken into account is limited to the actuarial gain from investment experience;
 - (D) The assumed interest used to calculate actuarial gains is not less than 3 percent; and
 - (E) The payments are not increasing by a constant percentage as described in paragraph (o)(1)(iii) of this section; or
- (ii) To provide a final payment upon the death of the employee that does not exceed the excess of the actuarial present value of the employee's accrued benefit (within the meaning of section 411(a)(7)) calculated as of the annuity starting date using the applicable interest rate and the applicable mortality table under section 417(e) (or, if greater, the total amount of employee contributions plus interest) over the total of payments before the death of the employee.

(5) *Actuarial gain defined.* For purposes of this paragraph (o), actuarial gain means the difference between an amount determined using the actuarial assumptions (that is, investment return, mortality, expense, and other similar assumptions) used to calculate the initial payments before adjustment for any increases and the amount determined under the actual experience with respect to those factors. Actuarial gain also includes differences between the amount determined

using actuarial assumptions when an annuity was purchased or commenced, and the amount determined using actuarial assumptions used in calculating payments at the time the actuarial gain is determined.

(6) *Examples.* This paragraph (o) is illustrated by the following examples.

(i) *Example 1. Variable annuity—*

(A) *Facts.* A retired participant Z1 in Plan X, a defined contribution plan, attains age 72 in 2021. Z1 elects to purchase Contract Y1 from Insurance Company W in 2025. Contract Y1 is a single life annuity contract with a 10-year period certain. Contract Y1 provides for an initial annual payment calculated with an assumed interest rate (AIR) of 3 percent, which is assumed for purposes of this example to be a reasonable interest rate selected in good faith. Subsequent payments are determined by multiplying the prior year's payment by a fraction, the numerator of which is 1 plus the actual return on the separate account assets underlying Contract Y1 since the preceding payment (which is reasonably determined in good faith) and the denominator of which is 1 plus the AIR during that period.

(B) *Analysis.* Under paragraph (o)(3)(i) of this section, payments made from an annuity contract purchased from an insurance company will not fail to satisfy the nonincreasing payment requirement on account of payment increases that result from actuarial gains (within the meaning of paragraph (o)(5) of this section), if the conditions set forth in paragraphs (o)(3)(i)(A) through (C) of this section are satisfied. The payment increases under Contract Y1 are the result of actuarial gain within the meaning of paragraph (o)(5) of this section because they are the result of the difference between investment experience and the 3 percent interest rate used to calculate the initial payments under Contract Y1. Contract Y1 satisfies the requirement of paragraph (o)(3)(i)(A) of this section because actuarial gain under Contract Y1 is measured annually. Contract Y1 satisfies the requirement of paragraph (o)(3)(i)(B) of this section because the actuarial gains are paid over the remaining period of the annuity beginning in the year following the year for which the actuarial experience is measured. Contract Y1 satisfies the requirement of paragraph

(o)(3)(i)(C) of this section because the issuer of Contract Y1 used reasonable actuarial methods and assumptions, as determined in good faith, when calculating the initial annuity payments, the issuer's experience with respect to those factors, and the amount of adjustments under Contract Y1.

(C) *Conclusion.* Because payments under Contract Y1 increase only as a result of actuarial gain, and those increases satisfy the conditions set forth in paragraphs (o)(3)(i)(A) through (C) of this section, those increases are described in paragraph (o)(3)(i) of this section and therefore are excepted from the nonincreasing payment requirement of paragraph (a)(1) of this section pursuant to the exception under paragraph (o)(1)(vii) of this section.

(ii) *Example 2. Participating annuity—*

(A) *Facts.* A retired participant Z2 in Plan X, a defined contribution plan, attains age 73 in 2025. Z2 elects to purchase Contract Y2 from Insurance Company W in 2025. Contract Y2 is a participating single life annuity contract with a 10-year period certain. Contract Y2 provides for level annual payments with dividends paid in a lump sum in the year after the year for which the actuarial experience is measured or paid out levelly beginning in the year after the year for which the actuarial gain is measured over the remaining lifetime and period certain (that is, the period certain ends at the same time as the original period certain). Dividends are determined annually by the Board of Directors of Company W based upon a comparison of actual actuarial experience to expected actuarial experience in the past year, with those amounts determined on a reasonable basis in good faith. The initial payment was determined in good faith using reasonable actuarial assumptions and methods.

(B) *Analysis.* Under paragraph (o)(3)(i) of this section, payments made from an annuity contract purchased from an insurance company will not fail to satisfy the nonincreasing payment requirement on account of payment increases that result from actuarial gains (within the meaning of paragraph (o)(5) of this section), if the conditions set forth in paragraphs (o)(3)(i)(A) through (C) of this section are satisfied. The payment increases under Contract Y2 are the result of actuarial gain within the meaning of

paragraph (o)(5) of this section. Contract Y2 satisfies the requirement of paragraph (o)(3)(i)(A) of this section because actuarial gain under Contract Y2 is measured annually. Contract Y2 satisfies the requirement of paragraph (o)(3)(i)(B) of this section because the resulting increases are paid either in the form of a lump sum or over the remaining period of the annuity beginning in the year following the year for which the actuarial experience is measured. Contract Y2 satisfies the requirement of paragraph (o)(3)(i)(C) of this section because the issuer of Contract Y2 used reasonable actuarial methods and assumptions, as determined in good faith, when calculating the initial annuity payments, the issuer's experience with respect to those factors, and the amount of adjustments under Contract Y2.

(C) *Conclusion.* Because payments under Contract Y2 increase only as a result of actuarial gain, and those increases satisfy the conditions set forth in paragraphs (o)(3)(i)(A) through (C) of this section, those increases are described in paragraph (o)(3)(i) of this section and therefore are excepted from the nonincreasing payment requirement of paragraph (a)(1) of this section pursuant to the exception under paragraph (o)(1)(vii) of this section.

(iii) *Example 3. Participating annuity with dividend accumulation—*

(A) *Facts.* The facts are the same as in paragraph (o)(6)(ii) of this section (*Example 2*), except that the annuity provides a dividend accumulation option under which Z2 may defer receipt of the dividends to a time selected by Z2.

(B) *Conclusion.* Because the dividend accumulation option permits dividends to be paid commencing later than the end of the year following the year for which the actuarial experience is measured, the dividend accumulation option does not meet the requirements of paragraph (o)(3)(i)(B) of this section. Neither does the dividend accumulation option fit within any of the other permissible increases described in paragraph (o)(3) of this section. Accordingly, payment increases pursuant to the dividend accumulation option are not excepted from the nonincreasing payment requirement of paragraph (a)(1) of this section pursuant to the exception under paragraph (o)(1)(vii) of this section. Thus, Contract Y2, and consequently any

distributions from the contract, fail to meet the requirements of this paragraph (o) and thus to fail to satisfy the requirements of section 401(a)(9).

(iv) *Example 4. Participating annuity with dividends used to purchase additional death benefits—*

(A) *Facts.* The facts are the same as in paragraph (o)(6)(ii) of this section (*Example 2*), except that the annuity provides an option under which actuarial gain under the contract is used to provide additional death benefit protection for Z2.

(B) *Conclusion.* Because this option permits payments as a result of actuarial gain to be paid commencing later than the end of the year following the year for which the actuarial experience is measured, the option does not meet the requirements of paragraph (o)(3)(i)(B) of this section. Neither does the option fit within any of the other permissible increases described in paragraph (o)(3) of this section. Accordingly, payment increases pursuant to the dividend accumulation option are not excepted from the nonincreasing payment requirement of paragraph (a)(1) of this section pursuant to the exception under paragraph (o)(1)(vii) of this section. Thus, Contract Y2, and consequently any distributions from the contract, fail to meet the requirements of this paragraph (o) and thus to fail to satisfy the requirements of section 401(a)(9).

(p) *Payments to children—*

(1) *In general.* Payments under a defined benefit plan or annuity contract that are made to an employee's child until the child reaches the age of majority as provided in paragraph (p)(2) of this section (or dies, if earlier) may be treated, for purposes of section 401(a)(9), as if the payments under the defined benefit plan or annuity contract were made to the surviving spouse to the extent they become payable to the surviving spouse upon cessation of the payments to the child. Thus, when payments described in this paragraph (p)(1) become payable to the surviving spouse because the child attains the age of majority, there is not an increase in benefits under paragraph (a) of this section. Likewise, the age of the child receiving the payments described in this paragraph (p)(1) is not taken into consideration for purposes of the MDIB requirement of paragraph (b) of this section.

(2) *Age of majority*—

(i) *General rule.* Except as provided in paragraph (p)(2)(ii) of this section, the determination of when an employee's child attains the age of majority is made under the rules of §1.401(a)(9)-4(e)(3).

(ii) *Exception for preexisting plan terms.* A defined benefit plan may apply a definition of the age of majority other than the definition in paragraph (p)(2)(i) of this section, but only if the plan terms regarding the age of majority--

(A) Were adopted on or before February 24, 2022; and

(B) Met the requirements of A-15 of 26 CFR 1.401(a)(9)-6 (as it appeared in the April 1, 2021, edition of 26 CFR part 1).

(q) *Qualifying longevity annuity contract*—

(1) *Definition of qualifying longevity annuity contract.* A qualifying longevity annuity contract (QLAC) is an annuity contract described in paragraph (d) of this section that is purchased from an insurance company for an employee and that, in accordance with the rules of application of paragraph (q)(4) of this section, satisfies each of the following requirements--

(i) Premiums for the contract satisfy the limitations of paragraph (q)(2) of this section;

(ii) The contract provides that distributions under the contract must commence not later than a specified annuity starting date that is no later than the first day of the month next following the 85th anniversary of the employee's birth;

(iii) The contract provides that, after distributions under the contract commence, those distributions must satisfy the requirements of this section (other than the requirement in paragraph (a)(3) of this section that annuity payments commence on or before the required beginning date);

(iv) After the required beginning date, the contract does not make available any commutation benefit, cash surrender right, or other similar feature (other than a right to rescind the contract within a period not exceeding 90 days from the date of purchase);

(v) No benefits are provided under the contract after the death of the employee other than the benefits described in paragraph (q)(3) of this section;

(vi) When the contract is issued (or December 31, 2016, if later), the contract (or a rider or endorsement with respect to that contract) states that the contract is

intended to be a QLAC; and

- (vii) The contract is not a variable contract under section 817, an indexed contract, or a similar contract, except to the extent provided by the Commissioner in revenue rulings, notices, or other guidance published in the Internal Revenue Bulletin (see §601.601(d) of this chapter).

(2) *Limitation on premiums—*

- (i) *In general.* The premiums paid with respect to the contract on a date (premium payment date) satisfy the limitation of this paragraph (q)(2) if they do not exceed the dollar limitation of paragraph (q)(2)(ii) of this section.
- (ii) *Dollar limitation.* The dollar limitation as of a premium payment date is an amount by which \$200,000 (as adjusted under paragraph (q)(4)(ii)(A) of this section), exceeds the sum of--
 - (A) The premiums paid before that date with respect to the contract, and
 - (B) The premiums paid on or before that date with respect to any other contract that is intended to be a QLAC and that is purchased for the employee under the plan, or any other plan, annuity, or account described in section 401(a), 403(a), 403(b), or 408 or eligible governmental plan under section 457(b).
- (iii) *Exchange of insurance contract for QLAC.* For purposes of this paragraph (q)(2), if an insurance contract is exchanged for a contract intended to be a QLAC, the fair market value of the exchanged contract will be treated as a premium paid for the QLAC. However, if an insurance contract is surrendered for its cash value, the surrender extinguishes all benefits and other characteristics of the contract, and the cash is used to purchase a QLAC, then only the cash from the surrendered contract is treated as a premium paid for the QLAC.

(3) *Payments after death of the employee—*

(i) *Surviving spouse is sole beneficiary—*

- (A) *Death on or after annuity starting date.* If the employee dies on or after the annuity starting date for the contract and the employee's surviving spouse is the sole beneficiary under the contract then, except as provided in paragraph (q)(3)(iv) of this section, the only benefit permitted to be paid after the employee's death is a life annuity payable to the surviving spouse under which the periodic annuity payment does not exceed 100 percent of the periodic annuity payment that was payable to the employee.

(B) *Death before annuity starting date.* If the employee dies before the annuity starting date and the employee's surviving spouse is the sole beneficiary under the contract, then, except as provided in paragraph (q)(3)(iv) of this section, the only benefit permitted to be paid after the employee's death is a life annuity payable to the surviving spouse under which the periodic annuity payment does not exceed 100 percent of the periodic annuity payment that would have been payable to the employee as of the date that benefits to the surviving spouse commence. However, the annuity is permitted to exceed 100 percent of the periodic annuity payment that would have been payable to the employee to the extent necessary to satisfy the requirement to provide a qualified preretirement survivor annuity (as defined under section 417(c)(2) of the Code or section 205(e)(2) of the Employee Retirement Income Security Act of 1974, Pub. L. 93- 406, 88 Stat. 829, as amended (ERISA), pursuant to section 401(a)(11)(A)(ii) of the Code or section 205(a)(2) of ERISA). Any life annuity payable to the surviving spouse under this paragraph (q)(3)(i)(B) must commence no later than the date on which the annuity payable to the employee would have commenced under the contract if the employee had not died.

(ii) *Surviving spouse is not sole beneficiary—*

(A) *Death on or after annuity starting date.* If the employee dies on or after the annuity starting date for the contract and the employee's surviving spouse is not the sole beneficiary under the contract then, except as provided in paragraph (q)(3)(iv) of this section, the only benefit permitted to be paid after the employee's death is a life annuity payable to the designated beneficiary under which the periodic annuity payment does not exceed the applicable percentage (determined under paragraph (q)(3)(iii) of this section) of the periodic annuity payment that is payable to the employee.

(B) *Death before annuity starting date.* If the employee dies before the annuity starting date and the employee's surviving spouse is not the sole beneficiary under the contract, then, except as provided in paragraph (q)(3)(iv) of this section, the only benefit permitted to be paid after the employee's death is a life annuity payable to the designated beneficiary

under which the periodic annuity payment is not in excess of the applicable percentage (determined under paragraph (q)(3)(iii) of this section) of the periodic annuity payment that would have been payable to the employee as of the date that benefits to the designated beneficiary commence under this paragraph (q)(3)(ii)(B). In any case in which the employee dies before the annuity starting date, any life annuity payable to a designated beneficiary under this paragraph (q)(3)(ii)(B) must commence by the last day of the calendar year following the calendar year of the employee's death.

(C) Designated beneficiary who is not an eligible designated beneficiary.

Benefits paid to a designated beneficiary under this paragraph (q)(3)(ii) must satisfy the rules of section 401(a)(9)(H) and paragraph (d)(2) of this section.

(iii) Applicable percentage—

(A) Contracts without pre-annuity starting date death benefits. If, as described in paragraph (q)(3)(iii)(E) of this section, the contract does not provide for a pre-annuity starting date non-spousal death benefit, the applicable percentage is the percentage described in the table in paragraph (b)(3) of this section.

(B) Contracts with set beneficiary designation. If the contract provides for a set non-spousal beneficiary designation as described in paragraph (q)(3)(iii)(F) of this section (and is not a contract described in paragraph (q)(3)(iii)(E) of this section), the applicable percentage is the percentage described in table 6 to paragraph (q)(3)(iii)(D).

(C) Contracts providing for return of premium. If the contract provides for a return of premium as described in paragraph (q)(3)(v) of this section, the applicable percentage is 0.

(D) Applicable percentage table. The applicable percentage is the percentage specified in following table for the adjusted employee/beneficiary age difference, determined in the same manner as in paragraph (b)(2)(iii) of this section.

Table 6 to paragraph (q)(3)(iii)(D)

Adjusted employee/beneficiary age difference	Applicable percentage
--	-----------------------

2 years or less	100
3	88
4	78
5	70
6	63
7	57
8	52
9	48
10	44
11	41
12	38
13	36
14	34
15	32
16	30
17	28
18	27
19	26

20	25
21	24
22	23
23	22
24	21
25 and greater	20

(E) *No pre-annuity starting date non-spousal death benefit.* A contract is described in this paragraph (q)(3)(iii)(E) if the contract provides that no benefit may be paid to a beneficiary other than the employee's surviving spouse after the employee's death--

- (1) In any case in which the employee dies before the annuity starting date under the contract; and
- (2) In any case in which the employee selects an annuity starting date that is earlier than the specified annuity starting date under the contract and the employee dies less than 90 days after making that election.

(F) *Contracts permitting set non-spousal beneficiary designation.* A contract provides for a set non-spousal beneficiary designation as described in this paragraph (q)(3)(iii)(F) if the contract provides that, if the beneficiary under the contract is not the employee's surviving spouse, then benefits are payable to the beneficiary only if the beneficiary was irrevocably designated on or before the later of the date of purchase and the employee's required beginning date. A contract does not fail to be described in the preceding sentence merely because the surviving spouse becomes the sole beneficiary before the annuity starting date. In those circumstances, the requirements of paragraph (q)(3)(i) of this section apply and not the requirements of this paragraph (q)(3)(iii).

(iv) *Calculation of early annuity payments.* For purposes of paragraphs (q)(3)(i)(B) and (ii)(B) of this section, to the extent the contract does not provide an option for the employee to select an annuity starting date that is earlier than the date on which the annuity payable to the employee would

have commenced under the contract if the employee had not died, the contract must provide a way to determine the periodic annuity payment that would have been payable if the employee were to have an option to accelerate the payments and the payments had commenced to the employee immediately prior to the date that benefit payments to the surviving spouse or designated beneficiary commence.

(v) *Return of premiums—*

(A) *In general.* In lieu of a life annuity payable to a designated beneficiary under paragraph (q)(3)(i) or (ii) of this section, a QLAC may provide for a benefit to be paid to a beneficiary after the death of the employee up to the amount by which the premium payments made with respect to the QLAC exceed the payments already made under the QLAC.

(B) *Payments after death of surviving spouse.* If a QLAC is providing a life annuity to a surviving spouse (or will provide a life annuity to a surviving spouse) under paragraph (q)(3)(i) of this section, it may also provide for a benefit payable to a beneficiary after the death of both the employee and the spouse up to the amount by which the premium payments made with respect to the QLAC exceed the payments already made under the QLAC.

(C) *Timing of return of premium payment and other rules.* A return of premium payment under this paragraph (q)(3)(v) must be paid no later than the end of the calendar year following the calendar year in which the employee dies. If the employee's death is after the required beginning date, the return of premium payment is treated as a required minimum distribution for the year in which it is paid and is not eligible for rollover. If the return of premium payment is paid after the death of a surviving spouse who is receiving a life annuity (or after the death of a surviving spouse who has not yet commenced receiving a life annuity after the death of the employee), the return of premium payment under this paragraph (q)(3)(v) must be made no later than the end of the calendar year following the calendar year in which the surviving spouse dies. If the surviving spouse's death is after the required beginning date for the surviving spouse, then the return of premium payment is treated as a required minimum distribution for the year in which it is paid and is not eligible for rollover.

(vi) *Multiple beneficiaries.* If an employee has more than one designated

beneficiary under a QLAC, the rules in §1.401(a)(9)-8(a) apply for purposes of paragraphs (q)(3)(i) and (ii) of this section.

(vii) *Treatment of former spouses—*

(A) *In general.* The payment of survivor benefits to the employee's former spouse under an annuity contract will not cause the contract to fail to satisfy the requirements of this paragraph (q)(3) merely because the divorce between the employee and that former spouse occurred after the contract is purchased, provided that a qualified domestic relations order described in section 414(p) (or, to the extent provided in paragraph (q)(3)(vii)(B) of this section, a divorce or separation instrument) satisfying the requirements of paragraph (q)(3)(vii)(C) of this section has been issued in connection with the divorce.

(B) [Reserved]

(C) *Applicable requirements.* This paragraph (q)(3)(vii)(C) is satisfied if the qualified domestic relations order (or divorce or separation instrument) issued in connection with the divorce--

- (1) Provides that the former spouse is entitled to the survivor benefits under the contract;
- (2) Provides that the former spouse is treated as a surviving spouse for purposes of the contract;
- (3) Does not modify the treatment of the former spouse as the beneficiary under the contract who is entitled to the survivor benefits; or
- (4) Does not modify the treatment of the former spouse as the measuring life for the survivor benefits under the contract.

(4) *Rules of application—*

(i) *Rules relating to premiums—*

(A) *Reliance on representations.* For purposes of the limitation on premiums described in paragraph (q)(2) of this section, unless the plan administrator has actual knowledge to the contrary, the plan administrator may rely on an employee's representation (made in writing or such other form as may be prescribed by the Commissioner) of the amount of the premiums described in paragraph (q)(2)(ii)(B) of this section, but only with respect to premiums that are not paid under a plan, annuity, or contract that is maintained by the employer or an entity that is treated as a single employer with the employer under section 414(b), (c), (m), or (o).

(B) *Consequences of excess premiums and correction.* If an annuity contract fails to be a QLAC solely because a premium for the contract exceeds the limits under paragraph (q)(2) of this section, then the contract is not a QLAC beginning on the date on which the premium is paid and the value of the contract may not be disregarded under §1.401(a)(9)-5(b)(4) as of the date on which the contract ceases to be a QLAC (unless the excess premium is returned to the non-QLAC portion of the employee's account in accordance with the next sentence). However, if the excess premium is returned (either in cash or in the form of a contract that is not intended to be a QLAC) to the non-QLAC portion of the employee's account by the end of the calendar year following the calendar year in which the excess premium was originally paid, then the contract will not be treated as exceeding the limits under paragraph (q)(2) of this section at any time, and the value of the contract will not be included in the employee's account balance under §1.401(a)(9)-5(b)(4). If the excess premium (including the fair market value of an annuity contract that is not intended to be a QLAC, if applicable) is returned to the non-QLAC portion of the employee's account after the last valuation date for the calendar year in which the excess premium was originally paid, then the employee's account balance for that calendar year must be increased to reflect that excess premium in the same manner as an employee's account balance is increased under §1.401(a)(9)-7(b) to reflect a rollover received after the last valuation date. If the excess premium is returned to the non-QLAC portion of the employee's account as described in paragraph (q)(4)(ii)(B) of this section, it will not be treated as a violation of the requirement in paragraph (q)(1)(iv) of this section that the contract not provide a commutation benefit.

(ii) *Dollar and age limitations subject to adjustments—*

(A) *Dollar limitation.* The \$200,000 amount under paragraph (q)(2)(ii) of this section will be adjusted at the same time and in the same manner as the limits are adjusted under section 415(d), except that--

- (1) The base period is the calendar quarter beginning July 1, 2022; and
- (2) The amount of any increment to the limit that is not a multiple of \$10,000 will be rounded to the next lowest multiple of \$10,000.

(B) *Age limitation.* The maximum age set forth in paragraph (q)(1)(ii) of this

section may be adjusted to reflect changes in mortality, with any adjusted age to be prescribed by the Commissioner in revenue rulings, notices, or other guidance published in the Internal Revenue Bulletin. See §601.601(d) of this chapter.

(C) *Prospective application of adjustments.* If a contract fails to be a QLAC because it does not satisfy the dollar limitation in paragraph (q)(2)(ii) of this section or the age limitation in paragraph (q)(1)(ii) of this section, any subsequent adjustment that is made pursuant to this paragraph (q)(4)(ii) will not cause the contract to become a QLAC.

(iii) *Determination of whether contract is intended to be a QLAC—*

(A) *Structural deficiency.* If a contract fails to be a QLAC at any time for a reason other than an excess premium described in paragraph (q)(4)(i)(B) of this section, then, as of the date of purchase, the contract will not be treated as a QLAC (for purposes of §1.401(a)(9)-5(b)(4)) or as a contract that is intended to be a QLAC (for purposes of paragraph (q)(2) of this section).

(B) *Roth IRAs.* A contract that is purchased under a Roth IRA is not treated as a contract that is intended to be a QLAC for purposes of applying the dollar limitation rule in paragraph (q)(2)(ii) of this section. See A-14(d) of §1.408A-6. If a QLAC is purchased or held under a plan, annuity, account, or traditional IRA, and that contract is later rolled over or converted to a Roth IRA, the contract is not treated as a contract that is intended to be a QLAC after the date of the rollover or conversion. Thus, premiums paid with respect to the contract will not be taken into account under paragraph (q)(2)(ii) of this section after the date of the rollover or conversion.

(iv) *Certain contract features permitted for QLACs—*

(A) *Participating annuity contract.* An annuity contract does not fail to satisfy the requirement of paragraph (q)(1)(vii) of this section merely because it provides for the payment of dividends described in paragraph (n)(3)(iii) of this section.

(B) *Contracts with cost-of-living adjustments.* An annuity contract does not fail to satisfy the requirement of paragraph (q)(1)(vii) of this section merely because it provides for a cost-of-living adjustment as described in paragraph (o)(2) of this section.

(v) *Group annuity contract certificates.* The requirement under paragraph

(q)(1)(vi) of this section that the contract state that it is intended to be a QLAC when issued is satisfied if a certificate is issued under a group annuity contract and the certificate, when issued, states that the employee's interest under the group annuity contract is intended to be a QLAC.

§1.401(a)(9)-7 Rollovers and transfers.

- (a) *Treatment of rollover from distributing plan.* If an amount is distributed by a plan, then the amount distributed is still taken into account by the distributing plan for purposes of satisfying the requirements of section 401(a)(9), even if part of the distribution is rolled over into another eligible retirement plan described in section 402(c)(8). However, an amount that is a required minimum distribution under section 401(a)(9) is not eligible to be rolled over (and is therefore includible in the taxpayer's gross income under section 402). For this purpose, the amount that constitutes a required minimum distribution for a calendar year is determined in accordance with §1.402(c)-2(f) for a distribution to an employee and §1.402(c)-2(j) for a distribution to a beneficiary.
- (b) *Treatment of rollover by receiving plan.* If an amount is distributed by one plan (distributing plan) and is rolled over to another plan (receiving plan), the benefit of the employee under the receiving plan is increased by the amount rolled over for purposes of determining the required minimum distribution for the calendar year following the calendar year in which the amount rolled over was distributed. If the amount rolled over is received after the last valuation date in the calendar year under the receiving plan, the benefit of the employee as of that valuation date, adjusted in accordance with §1.401(a)(9)-5(b), is increased by the rollover amount valued as of the date of receipt. In addition, if the amount rolled over is received in a different calendar year from the calendar year in which it is distributed, the amount rolled over is deemed to have been received by the receiving plan on the last day of the calendar year in which it was distributed.
- (c) *Treatment of transfer under transferor plan—*
- (1) *Generally not treated as distribution.* In the case of a transfer of an amount of an employee's benefit from one plan (transferor plan) to another plan (transferee plan), the transfer is not treated as a distribution by the transferor plan for purposes of section 401(a)(9). Instead, the benefit of the employee under the transferor plan is decreased by the amount transferred. However, if any portion

of an employee's benefit is transferred in a distribution calendar year with respect to that employee, in order to satisfy the requirements of section 401(a)(9), the transferor plan must determine the amount of the required minimum distribution with respect to that employee for the calendar year of the transfer using the employee's benefit under the transferor plan before the transfer. Additionally, if any portion of an employee's benefit is transferred in the employee's second distribution calendar year, but on or before the employee's required beginning date, in order to satisfy section 401(a)(9), the transferor plan must determine the amount of the required minimum distribution for the employee's first distribution calendar year based on the employee's benefit under the transferor plan before the transfer. The transferor plan may satisfy the minimum distribution requirement for the calendar year of the transfer (and the prior year if applicable) by segregating the amount that must be distributed from the employee's benefit and not transferring that amount. That amount may be retained by the transferor plan and must be distributed on or before the date required under section 401(a)(9).

(2) *Account balance decreased after transfer.* For purposes of determining any required minimum distribution for the calendar year following the calendar year in which the transfer occurs, in the case of a transfer after the last valuation date for the calendar year of the transfer under the transferor plan, the benefit of the employee as of that valuation date, adjusted in accordance with §1.401(a)(9)-5(b), is decreased by the amount transferred, valued as of the date of the transfer.

(d) *Treatment of transfer under transferee plan.* In the case of a transfer from a transferor plan to a transferee plan, the benefit of the employee under the transferee plan is increased by the amount transferred in the same manner as if it were a plan receiving a rollover contribution under paragraph (b) of this section.

(e) *Treatment of spinoff or merger.* For purposes of determining an employee's benefit and required minimum distribution under section 401(a)(9), a spinoff, a merger, or a consolidation (as defined in §1.414(l)-1(b)) is treated as a transfer of the benefits of the employees involved. Consequently, the benefit and required minimum distribution with respect to each employee whose benefits are transferred will be determined in accordance with paragraphs (c) and (d) of this section.

§1.401(a)(9)-8 Special rules.

(a) Use of separate accounts—

(1) Separate application of section 401(a)(9) for each beneficiary—

(i) *In general.* Except as otherwise provided in this paragraph (a)(1), for calendar years beginning after the calendar year in which the employee dies, section 401(a)(9) is applied separately with respect to the separate interests of each of the employee's beneficiaries under the plan provided that those interests are held in separate accounts that satisfy the separate accounting requirements of paragraphs (a)(2)(i) and (ii) of this section.

(ii) *Separate accounting requirements not timely satisfied.* If the separate accounts that satisfy the separate accounting requirements of paragraph (a)(2) of this section are not established until after the end of the calendar year following the calendar year of the employee's death, then for distribution calendar years after those requirements are satisfied--

(A) The aggregate required distribution for a distribution calendar year is determined without regard to the separate account rule in paragraph (a)(1)(i) of this section;

(B) The amount of the aggregate required distribution determined in accordance with paragraph (a)(1)(ii)(A) of this section is allocated among the beneficiaries based on each respective beneficiary's share of the total remaining balance of the employee's interest in the plan; and

(C) The allocated share for each beneficiary determined under paragraph (a)(2)(ii)(B) of this section is required to be distributed to that beneficiary.

(iii) Separate application of section 401(a)(9) for trust beneficiaries—

(A) *General prohibition.* Except as provided in paragraph (a)(1)(iii)(B) of this section, section 401(a)(9) may not be applied separately to the separate interests of each of the beneficiaries of a see-through trust described in §1.401(a)(9)-4(f)(1)(i). For purposes of the excise tax under section 4974, unless the exception in paragraph (a)(1)(iii)(B) of this section applies, the trust is the payee with respect to the required distribution of the employee's interest in the plan.

(B) *Exception for certain trusts divided upon the death of the employee.*

Section 401(a)(9) is applied separately with respect to the separate interests of the beneficiaries of a see-through trust if the terms of the trust provide that it is to be divided immediately upon the death of the

employee, provided that the requirements in paragraph (a)(1)(iii)(C) of this section are satisfied. The preceding sentence applies only if the separate interests are held in separate see-through trusts (in which case the rules of §§1.401(a)(9)-4(f) and 1.401(a)(9)-5 will apply separately to each separate trust).

(C) *Immediately divided defined.* For purposes of paragraph (a)(1)(iii)(B) of this section, a trust is immediately divided upon the death of the employee only if, as of the date of death, the trust is terminated and there is no discretion as to the extent to which of the separate trusts post-death distributions attributable to the employee's interest in the plan are allocated. A trust does not fail to be immediately divided upon the death of the employee merely because there are administrative delays between the date of the employee's death and the date on which the trust is divided and terminated, provided that any amounts received by the trust during this period are allocated as if the trust had been divided on the date of the employee's death.

(2) *Separate accounting requirements—*

(i) *Allocation of post-death distributions required.* A separate accounting satisfies the requirements of this paragraph (a)(2)(i) only if all post-death distributions with respect to a beneficiary's interest are allocated to the separate account of the beneficiary receiving the distributions.

(ii) *Allocation of other items.* A separate accounting satisfies the requirements of this paragraph (a)(2)(ii) if all post-death investment gains and losses, contributions, forfeitures, and expenses for the period prior to the establishment of the separate accounts are allocated on a pro rata basis in a reasonable and consistent manner among the separate accounts. The separate accounting does not fail to satisfy the requirements of this paragraph (a)(2)(ii) merely because, in lieu of a pro rata allocation of investment gains and losses--

(A) Separate accounts are established that have separate investments; and

(B) The investment gains and losses attributable to assets held in each of those separate accounts are allocated only to that separate account.

(b) *Application of consent requirements.* Section 411(a)(11) and section 417(e) require employee and spousal consent to certain distributions of plan benefits while those benefits are immediately distributable. If an employee's normal retirement age is later than the employee's required beginning date and, therefore, benefits are still

immediately distributable (within the meaning of §1.411(a)-11(c)(4)), distributions must be made to the employee (or, if applicable, to the employee's spouse) in a manner that satisfies the requirements of section 401(a)(9) even though the employee (or, if applicable, the employee's spouse) fails to consent to the distribution. In that case, the benefit may be distributed in the form of a qualified joint and survivor annuity (QJSA) or in the form of a qualified preretirement survivor annuity (QPSA), as applicable, and the consent requirements of sections 411(a)(11) and 417(e) are deemed to be satisfied if the plan has made reasonable efforts to obtain consent from the employee (or, if applicable, the employee's spouse) and if the distribution otherwise meets the requirements of section 417. If the distribution is not required to be in the form of a QJSA to an employee or a QPSA to a surviving spouse, the required minimum distribution amount may be paid to satisfy section 401(a)(9), and the consent requirements of sections 411(a)(11) and 417(e) are deemed to be satisfied if the plan has made reasonable efforts to obtain consent from the employee (or, if applicable, the employee's spouse) and the distribution otherwise meets the requirements of section 417.

(c) *Definition of spouse.* Except as otherwise provided in paragraph (d)(1) of this section (in the case of distributions of a portion of an employee's benefit payable to a former spouse of an employee pursuant to a qualified domestic relations order), for purposes of satisfying the requirements of section 401(a)(9), an individual is the spouse or surviving spouse of an employee if the marriage of the employee and individual is recognized for Federal tax purposes under the rules of §301.7701-18. In the case of distributions after the death of an employee, for purposes of section 401(a)(9), the spouse of the employee is determined as of the date of death of the employee.

(d) *Treatment of QDROs—*

(1) *Continued treatment of spouse.* A former spouse to whom all or a portion of the employee's benefit is payable pursuant to a qualified domestic relations order described in section 414(p) (QDRO) is treated as a spouse (including a surviving spouse) of the employee for purposes of satisfying the requirements of section 401(a)(9), including the minimum distribution incidental benefit requirement under section 401(a)(9)(G), regardless of whether the QDRO specifically provides that the former spouse is treated as the spouse for purposes of sections 401(a)(11) and 417.

(2) *Separate accounts—*

(i) *In general*—

- (A) *Separate accounts while the employee is alive.* If a QDRO provides that an employee's benefit is to be divided and a portion is to be allocated to an alternate payee, that portion will be treated as a separate account (or segregated share) that separately must satisfy the requirements of section 401(a)(9) and may not be aggregated with other separate accounts (or segregated shares) of the employee for purposes of satisfying section 401(a)(9). Except as otherwise provided in paragraph (f)(2)(ii) of this section, distribution of a separate account allocated to an alternate payee pursuant to a QDRO must be made in accordance with section 401(a)(9). For example, distributions of the separate account will satisfy section 401(a)(9)(A) if required minimum distributions from the separate account during the employee's lifetime begin no later than the employee's required beginning date and the required minimum distribution is determined in accordance with §1.401(a)(9)-5 for each distribution calendar year using an applicable denominator determined under §1.401(a)(9)-5(c) (determined by treating the spousal alternate payee as the employee's spouse).
- (B) *Separate accounts after the death of the employee.* The determination of whether distributions from the separate account after the death of the employee to the alternate payee will be made in accordance with section 401(a)(9)(B)(i), or in accordance with section 401(a)(9)(B)(ii) or (iii) and (iv), will depend on whether distributions have begun as determined under §1.401(a)(9)-2(a)(3) (which provides, in general, that distributions are not treated as having begun until the employee's required beginning date even though payments may actually have begun before that date). For example, if the alternate payee dies before the employee, and if distributions of the separate account allocated to the alternate payee pursuant to the QDRO are to be made to the alternate payee's beneficiary, then that beneficiary may be treated as a designated beneficiary for purposes of determining the required minimum distribution from the separate account after the death of the employee, provided that the beneficiary of the alternate payee is an individual who is a beneficiary under the plan or specified to or in the plan. Specification in or pursuant to the QDRO is treated as specification to the plan.

(ii) *Satisfaction of section 401(a)(9) requirements.* Distribution of the separate account allocated to an alternate payee pursuant to a QDRO satisfies the requirements of section 401(a)(9)(A)(ii) if the separate account is distributed, beginning no later than the employee's required beginning date, over the life of the alternate payee (or over a period not extending beyond the life expectancy of the alternate payee). Also, if, pursuant to §1.401(a)(9)-3(b)(4)(iii) or (c)(5)(iii), the plan permits the employee to elect the distribution method that will apply upon the death of the employee, that election is to be made only by the alternate payee for purposes of distributing the alternate payee's separate account. If the alternate payee dies after distribution of the alternate payee's separate account has begun (determined under §1.401(a)(9)-2(a)(3)) but before the employee dies, distribution of the remaining portion of that portion of the benefit allocated to the alternate payee must be made in accordance with the rules in §1.401(a)(9)-5(c) or §1.401(a)(9)-6(a) for distributions during the life of the employee. Only after the death of the employee is the amount of the required minimum distribution determined in accordance with the rules in §1.401(a)(9)-5(d) or §1.401(a)(9)-6(b).

(3) *Other situations.* If a QDRO does not provide that an employee's benefit is to be divided but provides that a portion of an employee's benefit (otherwise payable to the employee) is to be paid to an alternate payee, that portion is not treated as a separate account (or segregated share) of the employee. Instead, that portion is aggregated with any amount distributed to the employee and treated as having been distributed to the employee for purposes of determining whether section 401(a)(9) has been satisfied with respect to that employee.

(e) *Application of section 401(a)(9) pending determination of whether a domestic relations order is a QDRO is being made.* A plan does not fail to satisfy the requirements of section 401(a)(9) merely because it fails to distribute an amount otherwise required to be distributed by section 401(a)(9) during the period in which the issue of whether a domestic relations order is a QDRO is being determined pursuant to section 414(p)(7), provided that the period does not extend beyond the 18-month period described in section 414(p)(7)(E). To the extent that a distribution otherwise required under section 401(a)(9) is not made during this period, any segregated amounts, as defined in section 414(p)(7)(A), are treated as though the amounts are not vested during the period and any distributions with respect to those

amounts must be made under the relevant rules for nonvested benefits described in either §1.401(a)(9)-5(g)(1) or §1.401(a)(9)-6(f), as applicable.

- (f) *Application of section 401(a)(9) when insurer is in State delinquency proceedings.* A plan does not fail to satisfy the requirements of section 401(a)(9) merely because an individual's distribution from the plan is less than the amount otherwise required to satisfy section 401(a)(9) because distributions were being paid under an annuity contract issued by a life insurance company in State insurer delinquency proceedings and have been reduced or suspended by reason of those State proceedings. To the extent that a distribution otherwise required under section 401(a)(9) is not made during the State insurer delinquency proceedings, that amount and any additional amount accrued during that period are treated as though those amounts are not vested during that period and any distributions with respect to those amounts must be made under the relevant rules for nonvested benefits described in either §1.401(a)(9)-5(g)(1) or §1.401(a)(9)-6(f), as applicable.
- (g) *In-service distributions required to satisfy section 401(a)(9).* A plan does not fail to qualify as a pension plan within the meaning of section 401(a) solely because the plan permits distributions to commence to an employee on or after the employee's required beginning date (as determined in accordance with §1.401(a)(9)-2(b)) even though the employee has not retired or attained the normal retirement age under the plan as of the date on which the distributions commence. This rule applies without regard to whether the employee is a 5-percent owner with respect to the plan year ending in the calendar year in which distributions commence.
- (h) *TEFRA section 242(b) elections—*
 - (1) *In general.* Even though the distribution requirements added by the Tax Equity and Fiscal Responsibility Act of 1982, Pub. L. 97- 248, 96 Stat. 324 (1982) (TEFRA), were retroactively repealed in 1984, the transitional election rule in section 242(b) of TEFRA (referred to as a section 242(b)(2) election in this paragraph (h)) was preserved. While sections 401(a)(11) and 417 must be satisfied with respect to any distribution subject to those requirements, satisfaction of those requirements is not considered a revocation of the section 242(b) election.
 - (2) *Application of section 242(b) election after transfer—*
 - (i) *Section 242(b)(2) election made under transferor plan.* If an amount is transferred from one plan (transferor plan) to another plan (transferee plan), the amount transferred may be distributed in accordance with a

section 242(b)(2) election made under the transferor plan if the employee did not elect to have the amount transferred and if the transferee plan separately accounts for the amount transferred. However, only the benefit attributable to the amount transferred, plus earnings thereon, may be distributed in accordance with the section 242(b)(2) election made under the transferor plan. If the employee elected to have the amount transferred or the transferee plan does not separately account for the amount transferred, the transfer is treated as a distribution and rollover of the amount transferred for purposes of this section.

(ii) *Section 242(b)(2) election made under transferee plan.* If an amount is transferred from one plan to another plan, the amount transferred may not be distributed in accordance with a section 242(b)(2) election made under the transferee plan. If a section 242(b)(2) election was made under the transferee plan, the transferee plan must separately account for the amount transferred. If the transferee plan does not separately account for the amount transferred, the section 242(b)(2) election under the transferee plan is revoked, and subsequent distributions by the transferee plan must satisfy section 401(a)(9).

(iii) *Spinoff, merger, or consolidation treated as transfer.* A spinoff, merger, or consolidation, as defined in §1.414(l)-1(b), is treated as a transfer for purposes of the section 242(b)(2) election.

(3) *Application of section 242(b) election after rollover.* If an amount is distributed from one plan (distributing plan) and rolled over into another plan (receiving plan), the amount rolled over must be distributed from the receiving plan in accordance with section 401(a)(9) whether or not the employee made a section 242(b)(2) election under the distributing plan. Further, if the amount rolled over was not distributed in accordance with the election, the election under the distributing plan is revoked and all subsequent distributions by the distributing plan must satisfy section 401(a)(9). Finally, if the employee made a section 242(b)(2) election under the receiving plan and the election is still in effect, the receiving plan must separately account for the amount rolled over and distribute that amount in accordance with section 401(a)(9). If the receiving plan does not separately account for the amounts rolled over, any section 242(b)(2) election under the receiving plan is revoked and subsequent distributions under the receiving plan must satisfy section 401(a)(9).

(4) *Revocation of section 242(b) election—*

(i) *In general.* A section 242(b)(2) election may be revoked after the required beginning date under section 401(a)(9)(C). However, if the section 242(b)(2) election is revoked after the required beginning date, and the total amount of the distributions that would have been required prior to the date of the revocation in order to satisfy section 401(a)(9), but for the section 242(b)(2) election, have not been made, then--

(A) The catch-up distribution described in paragraph (h)(4)(ii) of this section must be made by the end of the calendar year following the calendar year in which the revocation occurs; and

(B) Distributions must continue in accordance with section 401(a)(9).

(ii) *Catch-up distribution.* The catch-up distribution must be equal to the total amount not yet distributed that would have been required to be distributed to satisfy the requirements of section 401(a)(9).

§1.401(a)(9)-9 Life expectancy and Uniform Lifetime tables.

(a) *In general.* This section specifies the life expectancy and Uniform Lifetime tables that apply for purposes of determining required minimum distributions under section 401(a)(9). Paragraphs (b), (c), and (d) of this section set forth these tables.

Paragraph (e) of this section provides the mortality rates that are used to develop these tables. Paragraph (f) of this section provides applicability date rules.

(b) *Single Life Table.* The following table, referred to as the Single Life Table, sets forth the life expectancy of an individual at each age.

Table 1 to Paragraph (b)

<i>Age</i>	<i>Life expectancy</i>
0	84.6
1	83.7
2	82.8
3	81.8
4	80.8
5	79.8
6	78.8

7	77.9
8	76.9
9	75.9
10	74.9
11	73.9
12	72.9
13	71.9
14	70.9
15	69.9
16	69.0

17	68.0
18	67.0
19	66.0
20	65.0
21	64.1
22	63.1
23	62.1
24	61.1
25	60.2
26	59.2
27	58.2
28	57.3
29	56.3
30	55.3
31	54.4

32	53.4
33	52.5
34	51.5
35	50.5
36	49.6
37	48.6
38	47.7
39	46.7
40	45.7
41	44.8
42	43.8

43	42.9
44	41.9
45	41.0
46	40.0
47	39.0
48	38.1
49	37.1
50	36.2
51	35.3
52	34.3
53	33.4
54	32.5
55	31.6
56	30.6

57	29.8
58	28.9
59	28.0
60	27.1
61	26.2
62	25.4
63	24.5
64	23.7
65	22.9
66	22.0
67	21.2
68	20.4

69	19.6
70	18.8
71	18.0
72	17.2
73	16.4
74	15.6
75	14.8
76	14.1
77	13.3
78	12.6
79	11.9
80	11.2
81	10.5

82	9.9
83	9.3
84	8.7
85	8.1
86	7.6
87	7.1
88	6.6
89	6.1
90	5.7
91	5.3
92	4.9
93	4.6
94	4.3

95	4.0
96	3.7
97	3.4
98	3.2
99	3.0
100	2.8
101	2.6
102	2.5
103	2.3
104	2.2
105	2.1
106	2.1

107	2.1
108	2.0
109	2.0
110	2.0
111	2.0
112	2.0
113	1.9
114	1.9
115	1.8
116	1.8
117	1.6
118	1.4
119	1.1
120 +	1.0

(c) *Uniform Lifetime Table*. The following table, referred to as the Uniform Lifetime Table, sets forth the applicable denominator that applies for lifetime distributions to an employee in situations in which the employee's surviving spouse is not the sole designated beneficiary. This table is also used if the employee's surviving spouse is the sole designated beneficiary but is not more than 10 years younger than the employee.

Table 2 to Paragraph (c)

<i>Age of employee</i>	<i>Applicable Denominator</i>
72	27.4
73	26.5
74	25.5
75	24.6
76	23.7
77	22.9
78	22.0
79	21.1
80	20.2
81	19.4
82	18.5
83	17.7
84	16.8
85	16.0
86	15.2
87	14.4
88	13.7
89	12.9
90	12.2

91	11.5
92	10.8
93	10.1
94	9.5
95	8.9
96	8.4
97	7.8
98	7.3
99	6.8
100	6.4
101	6.0
102	5.6
103	5.2
104	4.9
105	4.6
106	4.3
107	4.1
108	3.9
109	3.7
110	3.5
111	3.4
112	3.3
113	3.1
114	3.0
115	2.9
116	2.8

117	2.7
118	2.5
119	2.3
120 +	2.0

(d) *Joint and Last Survivor Table.* The following table, referred to as the Joint and Last Survivor Table, is used for determining the joint and last survivor life expectancy of two individuals.

Table 3 to Paragraph (d)

Ages	0	1	2	3	4	5	6	7	8
0	91.9	91.4	91.0	90.5	90.1	89.7	89.4	89.0	88.7
1	91.4	90.9	90.4	90.0	89.5	89.1	88.8	88.4	88.1
2	91.0	90.4	89.9	89.4	89.0	88.5	88.1	87.8	87.4
3	90.5	90.0	89.4	88.9	88.4	88.0	87.6	87.1	86.8
4	90.1	89.5	89.0	88.4	87.9	87.4	87.0	86.6	86.2
5	89.7	89.1	88.6	88.0	87.4	86.9	86.5	86.0	85.6
6	89.4	88.8	88.1	87.6	87.0	86.5	85.9	85.5	85.0
7	89.0	88.4	87.8	87.1	86.6	86.0	85.5	84.9	84.5
8	88.7	88.1	87.4	86.8	86.2	85.6	85.0	84.5	83.9
9	88.4	87.8	87.1	86.4	85.8	85.2	84.6	84.0	83.5
10	88.2	87.5	86.8	86.1	85.4	84.8	84.2	83.6	83.0
11	87.9	87.2	86.5	85.8	85.1	84.4	83.8	83.2	82.6
12	87.7	87.0	86.2	85.5	84.8	84.1	83.4	82.8	82.2
13	87.5	86.7	86.0	85.2	84.5	83.8	83.1	82.4	81.8
14	87.3	86.5	85.7	85.0	84.2	83.5	82.8	82.1	81.4
15	87.1	86.3	85.5	84.7	84.0	83.2	82.5	81.8	81.1

16	86.9	86.1	85.3	84.5	83.7	83.0	82.2	81.5	80.8
17	86.8	86.0	85.1	84.3	83.5	82.7	82.0	81.2	80.5
18	86.6	85.8	85.0	84.1	83.3	82.5	81.7	81.0	80.2
19	86.5	85.7	84.8	84.0	83.1	82.3	81.5	80.7	80.0
20	86.4	85.5	84.7	83.8	83.0	82.2	81.3	80.5	79.8
21	86.2	85.4	84.5	83.7	82.8	82.0	81.2	80.3	79.5
22	86.1	85.3	84.4	83.5	82.7	81.8	81.0	80.2	79.3
23	86.0	85.2	84.3	83.4	82.5	81.7	80.8	80.0	79.2
24	85.9	85.1	84.2	83.3	82.4	81.6	80.7	79.8	79.0
25	85.9	85.0	84.1	83.2	82.3	81.4	80.6	79.7	78.8
26	85.8	84.9	84.0	83.1	82.2	81.3	80.4	79.6	78.7
27	85.7	84.8	83.9	83.0	82.1	81.2	80.3	79.4	78.6
28	85.6	84.7	83.8	82.9	82.0	81.1	80.2	79.3	78.4
29	85.6	84.7	83.8	82.8	81.9	81.0	80.1	79.2	78.3
30	85.5	84.6	83.7	82.8	81.8	80.9	80.0	79.1	78.2
31	85.4	84.6	83.6	82.7	81.8	80.9	79.9	79.0	78.1
32	85.4	84.5	83.6	82.6	81.7	80.8	79.9	78.9	78.0
33	85.3	84.5	83.5	82.6	81.6	80.7	79.8	78.9	77.9
34	85.3	84.4	83.5	82.5	81.6	80.7	79.7	78.8	77.9
35	85.3	84.4	83.4	82.5	81.5	80.6	79.7	78.7	77.8
36	85.2	84.3	83.4	82.4	81.5	80.5	79.6	78.7	77.7
37	85.2	84.3	83.3	82.4	81.4	80.5	79.5	78.6	77.7
38	85.2	84.3	83.3	82.3	81.4	80.4	79.5	78.6	77.6
39	85.1	84.2	83.3	82.3	81.4	80.4	79.5	78.5	77.6
40	85.1	84.2	83.2	82.3	81.3	80.4	79.4	78.5	77.5
41	85.1	84.2	83.2	82.2	81.3	80.3	79.4	78.4	77.5

42	85.0	84.1	83.2	82.2	81.3	80.3	79.3	78.4	77.4
43	85.0	84.1	83.1	82.2	81.2	80.3	79.3	78.3	77.4
44	85.0	84.1	83.1	82.2	81.2	80.2	79.3	78.3	77.3
45	85.0	84.1	83.1	82.1	81.2	80.2	79.2	78.3	77.3
46	84.9	84.0	83.1	82.1	81.1	80.2	79.2	78.2	77.3
47	84.9	84.0	83.1	82.1	81.1	80.2	79.2	78.2	77.3
48	84.9	84.0	83.0	82.1	81.1	80.1	79.2	78.2	77.2
49	84.9	84.0	83.0	82.1	81.1	80.1	79.1	78.2	77.2
50	84.9	84.0	83.0	82.0	81.1	80.1	79.1	78.1	77.2
51	84.8	84.0	83.0	82.0	81.0	80.1	79.1	78.1	77.2
52	84.8	83.9	83.0	82.0	81.0	80.1	79.1	78.1	77.1
53	84.8	83.9	83.0	82.0	81.0	80.0	79.1	78.1	77.1
54	84.8	83.9	82.9	82.0	81.0	80.0	79.0	78.1	77.1
55	84.8	83.9	82.9	82.0	81.0	80.0	79.0	78.1	77.1
56	84.8	83.9	82.9	81.9	81.0	80.0	79.0	78.0	77.1
57	84.8	83.9	82.9	81.9	81.0	80.0	79.0	78.0	77.0
58	84.8	83.9	82.9	81.9	80.9	80.0	79.0	78.0	77.0
59	84.7	83.9	82.9	81.9	80.9	80.0	79.0	78.0	77.0
60	84.7	83.8	82.9	81.9	80.9	79.9	79.0	78.0	77.0
61	84.7	83.8	82.9	81.9	80.9	79.9	79.0	78.0	77.0
62	84.7	83.8	82.9	81.9	80.9	79.9	78.9	78.0	77.0
63	84.7	83.8	82.9	81.9	80.9	79.9	78.9	78.0	77.0
64	84.7	83.8	82.8	81.9	80.9	79.9	78.9	77.9	77.0
65	84.7	83.8	82.8	81.9	80.9	79.9	78.9	77.9	77.0
66	84.7	83.8	82.8	81.9	80.9	79.9	78.9	77.9	76.9
67	84.7	83.8	82.8	81.9	80.9	79.9	78.9	77.9	76.9

68	84.7	83.8	82.8	81.8	80.9	79.9	78.9	77.9	76.9
69	84.7	83.8	82.8	81.8	80.9	79.9	78.9	77.9	76.9
70	84.7	83.8	82.8	81.8	80.9	79.9	78.9	77.9	76.9
71	84.7	83.8	82.8	81.8	80.9	79.9	78.9	77.9	76.9
72	84.7	83.8	82.8	81.8	80.9	79.9	78.9	77.9	76.9
73	84.6	83.8	82.8	81.8	80.8	79.9	78.9	77.9	76.9
74	84.6	83.8	82.8	81.8	80.8	79.9	78.9	77.9	76.9
75	84.6	83.8	82.8	81.8	80.8	79.9	78.9	77.9	76.9
76	84.6	83.8	82.8	81.8	80.8	79.9	78.9	77.9	76.9
77	84.6	83.8	82.8	81.8	80.8	79.8	78.9	77.9	76.9
78	84.6	83.8	82.8	81.8	80.8	79.8	78.9	77.9	76.9
79	84.6	83.8	82.8	81.8	80.8	79.8	78.9	77.9	76.9
80	84.6	83.8	82.8	81.8	80.8	79.8	78.9	77.9	76.9
81	84.6	83.8	82.8	81.8	80.8	79.8	78.9	77.9	76.9
82	84.6	83.8	82.8	81.8	80.8	79.8	78.9	77.9	76.9
83	84.6	83.7	82.8	81.8	80.8	79.8	78.9	77.9	76.9
84	84.6	83.7	82.8	81.8	80.8	79.8	78.9	77.9	76.9
85	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
86	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
87	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
88	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
89	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
90	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
91	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
92	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
93	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9

94	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
95	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
96	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
97	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
98	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
99	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
100	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
101	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
102	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
103	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
104	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
105	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
106	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
107	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
108	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
109	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
110	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
111	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
112	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
113	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
114	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
115	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
116	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
117	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
118	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
119	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9

120+	84.6	83.7	82.8	81.8	80.8	79.8	78.8	77.9	76.9
Ages	9	10	11	12	13	14	15	16	17
0	88.4	88.2	87.9	87.7	87.5	87.3	87.1	86.9	86.8
1	87.8	87.5	87.2	87.0	86.7	86.5	86.3	86.1	86.0
2	87.1	86.8	86.5	86.2	86.0	85.7	85.5	85.3	85.1
3	86.4	86.1	85.8	85.5	85.2	85.0	84.7	84.5	84.3
4	85.8	85.4	85.1	84.8	84.5	84.2	84.0	83.7	83.5
5	85.2	84.8	84.4	84.1	83.8	83.5	83.2	83.0	82.7
6	84.6	84.2	83.8	83.4	83.1	82.8	82.5	82.2	82.0
7	84.0	83.6	83.2	82.8	82.4	82.1	81.8	81.5	81.2
8	83.5	83.0	82.6	82.2	81.8	81.4	81.1	80.8	80.5
9	82.9	82.5	82.0	81.6	81.2	80.8	80.4	80.1	79.8
10	82.5	81.9	81.5	81.0	80.6	80.2	79.8	79.4	79.1
11	82.0	81.5	80.9	80.5	80.0	79.6	79.2	78.8	78.4
12	81.6	81.0	80.5	79.9	79.5	79.0	78.6	78.2	77.8
13	81.2	80.6	80.0	79.5	79.0	78.5	78.0	77.6	77.2
14	80.8	80.2	79.6	79.0	78.5	78.0	77.5	77.0	76.6
15	80.4	79.8	79.2	78.6	78.0	77.5	77.0	76.5	76.0
16	80.1	79.4	78.8	78.2	77.6	77.0	76.5	76.0	75.5
17	79.8	79.1	78.4	77.8	77.2	76.6	76.0	75.5	75.0
18	79.5	78.8	78.1	77.4	76.8	76.2	75.6	75.0	74.5
19	79.2	78.5	77.8	77.1	76.4	75.8	75.2	74.6	74.0
20	79.0	78.2	77.5	76.8	76.1	75.4	74.8	74.2	73.6
21	78.8	78.0	77.2	76.5	75.8	75.1	74.4	73.8	73.2
22	78.5	77.8	77.0	76.2	75.5	74.8	74.1	73.4	72.8
23	78.3	77.5	76.8	76.0	75.2	74.5	73.8	73.1	72.5

24	78.2	77.3	76.5	75.8	75.0	74.2	73.5	72.8	72.1
25	78.0	77.2	76.4	75.6	74.8	74.0	73.3	72.5	71.8
26	77.8	77.0	76.2	75.4	74.6	73.8	73.0	72.3	71.5
27	77.7	76.8	76.0	75.2	74.4	73.6	72.8	72.0	71.3
28	77.6	76.7	75.8	75.0	74.2	73.4	72.6	71.8	71.0
29	77.4	76.6	75.7	74.9	74.0	73.2	72.4	71.6	70.8
30	77.3	76.4	75.6	74.7	73.9	73.0	72.2	71.4	70.6
31	77.2	76.3	75.5	74.6	73.7	72.9	72.0	71.2	70.4
32	77.1	76.2	75.3	74.5	73.6	72.7	71.9	71.0	70.2
33	77.0	76.1	75.2	74.3	73.5	72.6	71.7	70.9	70.0
34	77.0	76.0	75.1	74.2	73.3	72.5	71.6	70.7	69.9
35	76.9	76.0	75.0	74.1	73.2	72.4	71.5	70.6	69.7
36	76.8	75.9	75.0	74.0	73.1	72.2	71.4	70.5	69.6
37	76.7	75.8	74.9	74.0	73.1	72.1	71.3	70.4	69.5
38	76.7	75.7	74.8	73.9	73.0	72.1	71.2	70.3	69.4
39	76.6	75.7	74.7	73.8	72.9	72.0	71.1	70.2	69.3
40	76.6	75.6	74.7	73.7	72.8	71.9	71.0	70.1	69.2
41	76.5	75.6	74.6	73.7	72.8	71.8	70.9	70.0	69.1
42	76.5	75.5	74.6	73.6	72.7	71.8	70.8	69.9	69.0
43	76.4	75.5	74.5	73.6	72.6	71.7	70.8	69.8	68.9
44	76.4	75.4	74.5	73.5	72.6	71.6	70.7	69.8	68.8
45	76.4	75.4	74.4	73.5	72.5	71.6	70.6	69.7	68.8
46	76.3	75.4	74.4	73.4	72.5	71.5	70.6	69.7	68.7
47	76.3	75.3	74.4	73.4	72.4	71.5	70.5	69.6	68.7
48	76.3	75.3	74.3	73.4	72.4	71.5	70.5	69.6	68.6
49	76.2	75.3	74.3	73.3	72.4	71.4	70.5	69.5	68.6

50	76.2	75.2	74.3	73.3	72.3	71.4	70.4	69.5	68.5
51	76.2	75.2	74.2	73.3	72.3	71.3	70.4	69.4	68.5
52	76.2	75.2	74.2	73.2	72.3	71.3	70.4	69.4	68.4
53	76.1	75.2	74.2	73.2	72.3	71.3	70.3	69.4	68.4
54	76.1	75.1	74.2	73.2	72.2	71.3	70.3	69.3	68.4
55	76.1	75.1	74.2	73.2	72.2	71.2	70.3	69.3	68.3
56	76.1	75.1	74.1	73.2	72.2	71.2	70.2	69.3	68.3
57	76.1	75.1	74.1	73.1	72.2	71.2	70.2	69.3	68.3
58	76.1	75.1	74.1	73.1	72.1	71.2	70.2	69.2	68.3
59	76.0	75.1	74.1	73.1	72.1	71.2	70.2	69.2	68.2
60	76.0	75.0	74.1	73.1	72.1	71.1	70.2	69.2	68.2
61	76.0	75.0	74.1	73.1	72.1	71.1	70.1	69.2	68.2
62	76.0	75.0	74.0	73.1	72.1	71.1	70.1	69.2	68.2
63	76.0	75.0	74.0	73.0	72.1	71.1	70.1	69.1	68.2
64	76.0	75.0	74.0	73.0	72.1	71.1	70.1	69.1	68.2
65	76.0	75.0	74.0	73.0	72.0	71.1	70.1	69.1	68.1
66	76.0	75.0	74.0	73.0	72.0	71.1	70.1	69.1	68.1
67	76.0	75.0	74.0	73.0	72.0	71.0	70.1	69.1	68.1
68	75.9	75.0	74.0	73.0	72.0	71.0	70.1	69.1	68.1
69	75.9	75.0	74.0	73.0	72.0	71.0	70.0	69.1	68.1
70	75.9	74.9	74.0	73.0	72.0	71.0	70.0	69.1	68.1
71	75.9	74.9	74.0	73.0	72.0	71.0	70.0	69.0	68.1
72	75.9	74.9	73.9	73.0	72.0	71.0	70.0	69.0	68.1
73	75.9	74.9	73.9	73.0	72.0	71.0	70.0	69.0	68.1
74	75.9	74.9	73.9	73.0	72.0	71.0	70.0	69.0	68.0
75	75.9	74.9	73.9	72.9	72.0	71.0	70.0	69.0	68.0

76	75.9	74.9	73.9	72.9	72.0	71.0	70.0	69.0	68.0
77	75.9	74.9	73.9	72.9	72.0	71.0	70.0	69.0	68.0
78	75.9	74.9	73.9	72.9	71.9	71.0	70.0	69.0	68.0
79	75.9	74.9	73.9	72.9	71.9	71.0	70.0	69.0	68.0
80	75.9	74.9	73.9	72.9	71.9	71.0	70.0	69.0	68.0
81	75.9	74.9	73.9	72.9	71.9	71.0	70.0	69.0	68.0
82	75.9	74.9	73.9	72.9	71.9	70.9	70.0	69.0	68.0
83	75.9	74.9	73.9	72.9	71.9	70.9	70.0	69.0	68.0
84	75.9	74.9	73.9	72.9	71.9	70.9	70.0	69.0	68.0
85	75.9	74.9	73.9	72.9	71.9	70.9	70.0	69.0	68.0
86	75.9	74.9	73.9	72.9	71.9	70.9	70.0	69.0	68.0
87	75.9	74.9	73.9	72.9	71.9	70.9	70.0	69.0	68.0
88	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
89	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
90	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
91	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
92	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
93	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
94	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
95	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
96	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
97	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
98	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
99	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
100	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
101	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0

102	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
103	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
104	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
105	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
106	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
107	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
108	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
109	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
110	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
111	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
112	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
113	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
114	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
115	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
116	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
117	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
118	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
119	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
120+	75.9	74.9	73.9	72.9	71.9	70.9	69.9	69.0	68.0
Ages	18	19	20	21	22	23	24	25	26
0	86.6	86.5	86.4	86.2	86.1	86.0	85.9	85.9	85.8
1	85.8	85.7	85.5	85.4	85.3	85.2	85.1	85.0	84.9
2	85.0	84.8	84.7	84.5	84.4	84.3	84.2	84.1	84.0
3	84.1	84.0	83.8	83.7	83.5	83.4	83.3	83.2	83.1
4	83.3	83.1	83.0	82.8	82.7	82.5	82.4	82.3	82.2
5	82.5	82.3	82.2	82.0	81.8	81.7	81.6	81.4	81.3

6	81.7	81.5	81.3	81.2	81.0	80.8	80.7	80.6	80.4
7	81.0	80.7	80.5	80.3	80.2	80.0	79.8	79.7	79.6
8	80.2	80.0	79.8	79.5	79.3	79.2	79.0	78.8	78.7
9	79.5	79.2	79.0	78.8	78.5	78.3	78.2	78.0	77.8
10	78.8	78.5	78.2	78.0	77.8	77.5	77.3	77.2	77.0
11	78.1	77.8	77.5	77.2	77.0	76.8	76.5	76.4	76.2
12	77.4	77.1	76.8	76.5	76.2	76.0	75.8	75.6	75.4
13	76.8	76.4	76.1	75.8	75.5	75.2	75.0	74.8	74.6
14	76.2	75.8	75.4	75.1	74.8	74.5	74.2	74.0	73.8
15	75.6	75.2	74.8	74.4	74.1	73.8	73.5	73.3	73.0
16	75.0	74.6	74.2	73.8	73.4	73.1	72.8	72.5	72.3
17	74.5	74.0	73.6	73.2	72.8	72.5	72.1	71.8	71.5
18	74.0	73.5	73.0	72.6	72.2	71.8	71.5	71.1	70.8
19	73.5	73.0	72.5	72.0	71.6	71.2	70.8	70.5	70.1
20	73.0	72.5	72.0	71.5	71.0	70.6	70.2	69.8	69.5
21	72.6	72.0	71.5	71.0	70.5	70.0	69.6	69.2	68.8
22	72.2	71.6	71.0	70.5	70.0	69.5	69.0	68.6	68.2
23	71.8	71.2	70.6	70.0	69.5	69.0	68.5	68.0	67.6
24	71.5	70.8	70.2	69.6	69.0	68.5	68.0	67.5	67.1
25	71.1	70.5	69.8	69.2	68.6	68.0	67.5	67.0	66.5
26	70.8	70.1	69.5	68.8	68.2	67.6	67.1	66.5	66.0
27	70.5	69.8	69.1	68.5	67.8	67.2	66.6	66.1	65.5
28	70.3	69.5	68.8	68.1	67.5	66.8	66.2	65.6	65.1
29	70.0	69.3	68.5	67.8	67.1	66.5	65.8	65.2	64.6
30	69.8	69.0	68.3	67.5	66.8	66.2	65.5	64.9	64.2
31	69.6	68.8	68.0	67.3	66.6	65.8	65.2	64.5	63.9

32	69.4	68.6	67.8	67.0	66.3	65.6	64.9	64.2	63.5
33	69.2	68.4	67.6	66.8	66.0	65.3	64.6	63.9	63.2
34	69.0	68.2	67.4	66.6	65.8	65.1	64.3	63.6	62.9
35	68.9	68.0	67.2	66.4	65.6	64.8	64.1	63.3	62.6
36	68.7	67.9	67.1	66.2	65.4	64.6	63.8	63.1	62.3
37	68.6	67.7	66.9	66.1	65.2	64.4	63.6	62.8	62.1
38	68.5	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.9
39	68.4	67.5	66.6	65.8	64.9	64.1	63.3	62.4	61.6
40	68.3	67.4	66.5	65.6	64.8	63.9	63.1	62.3	61.5
41	68.2	67.3	66.4	65.5	64.6	63.8	62.9	62.1	61.3
42	68.1	67.2	66.3	65.4	64.5	63.6	62.8	61.9	61.1
43	68.0	67.1	66.2	65.3	64.4	63.5	62.7	61.8	61.0
44	67.9	67.0	66.1	65.2	64.3	63.4	62.5	61.7	60.8
45	67.9	66.9	66.0	65.1	64.2	63.3	62.4	61.5	60.7
46	67.8	66.9	65.9	65.0	64.1	63.2	62.3	61.4	60.6
47	67.7	66.8	65.9	65.0	64.0	63.1	62.2	61.3	60.5
48	67.7	66.7	65.8	64.9	64.0	63.0	62.1	61.2	60.3
49	67.6	66.7	65.7	64.8	63.9	63.0	62.1	61.2	60.3
50	67.6	66.6	65.7	64.8	63.8	62.9	62.0	61.1	60.2
51	67.5	66.6	65.6	64.7	63.8	62.8	61.9	61.0	60.1
52	67.5	66.5	65.6	64.7	63.7	62.8	61.9	60.9	60.0
53	67.4	66.5	65.5	64.6	63.7	62.7	61.8	60.9	59.9
54	67.4	66.5	65.5	64.6	63.6	62.7	61.7	60.8	59.9
55	67.4	66.4	65.5	64.5	63.6	62.6	61.7	60.8	59.8
56	67.4	66.4	65.4	64.5	63.5	62.6	61.6	60.7	59.8
57	67.3	66.4	65.4	64.5	63.5	62.5	61.6	60.7	59.7

58	67.3	66.3	65.4	64.4	63.5	62.5	61.6	60.6	59.7
59	67.3	66.3	65.4	64.4	63.4	62.5	61.5	60.6	59.6
60	67.3	66.3	65.3	64.4	63.4	62.4	61.5	60.5	59.6
61	67.2	66.3	65.3	64.3	63.4	62.4	61.5	60.5	59.6
62	67.2	66.2	65.3	64.3	63.4	62.4	61.4	60.5	59.5
63	67.2	66.2	65.3	64.3	63.3	62.4	61.4	60.5	59.5
64	67.2	66.2	65.2	64.3	63.3	62.3	61.4	60.4	59.5
65	67.2	66.2	65.2	64.3	63.3	62.3	61.4	60.4	59.5
66	67.2	66.2	65.2	64.2	63.3	62.3	61.3	60.4	59.4
67	67.1	66.2	65.2	64.2	63.3	62.3	61.3	60.4	59.4
68	67.1	66.2	65.2	64.2	63.2	62.3	61.3	60.3	59.4
69	67.1	66.1	65.2	64.2	63.2	62.3	61.3	60.3	59.4
70	67.1	66.1	65.2	64.2	63.2	62.2	61.3	60.3	59.4
71	67.1	66.1	65.1	64.2	63.2	62.2	61.3	60.3	59.3
72	67.1	66.1	65.1	64.2	63.2	62.2	61.3	60.3	59.3
73	67.1	66.1	65.1	64.2	63.2	62.2	61.2	60.3	59.3
74	67.1	66.1	65.1	64.1	63.2	62.2	61.2	60.3	59.3
75	67.1	66.1	65.1	64.1	63.2	62.2	61.2	60.3	59.3
76	67.1	66.1	65.1	64.1	63.2	62.2	61.2	60.2	59.3
77	67.0	66.1	65.1	64.1	63.1	62.2	61.2	60.2	59.3
78	67.0	66.1	65.1	64.1	63.1	62.2	61.2	60.2	59.3
79	67.0	66.1	65.1	64.1	63.1	62.2	61.2	60.2	59.3
80	67.0	66.1	65.1	64.1	63.1	62.1	61.2	60.2	59.2
81	67.0	66.0	65.1	64.1	63.1	62.1	61.2	60.2	59.2
82	67.0	66.0	65.1	64.1	63.1	62.1	61.2	60.2	59.2
83	67.0	66.0	65.1	64.1	63.1	62.1	61.2	60.2	59.2

84	67.0	66.0	65.1	64.1	63.1	62.1	61.2	60.2	59.2
85	67.0	66.0	65.1	64.1	63.1	62.1	61.2	60.2	59.2
86	67.0	66.0	65.1	64.1	63.1	62.1	61.1	60.2	59.2
87	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
88	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
89	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
90	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
91	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
92	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
93	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
94	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
95	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
96	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
97	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
98	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
99	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
100	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
101	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
102	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
103	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
104	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
105	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
106	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
107	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
108	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
109	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2

110	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
111	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
112	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
113	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
114	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
115	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
116	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
117	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
118	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
119	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
120+	67.0	66.0	65.0	64.1	63.1	62.1	61.1	60.2	59.2
Ages	27	28	29	30	31	32	33	34	35
0	85.7	85.6	85.6	85.5	85.4	85.4	85.3	85.3	85.3
1	84.8	84.7	84.7	84.6	84.6	84.5	84.5	84.4	84.4
2	83.9	83.8	83.8	83.7	83.6	83.6	83.5	83.5	83.4
3	83.0	82.9	82.8	82.8	82.7	82.6	82.6	82.5	82.5
4	82.1	82.0	81.9	81.8	81.8	81.7	81.6	81.6	81.5
5	81.2	81.1	81.0	80.9	80.9	80.8	80.7	80.7	80.6
6	80.3	80.2	80.1	80.0	79.9	79.9	79.8	79.7	79.7
7	79.4	79.3	79.2	79.1	79.0	78.9	78.9	78.8	78.7
8	78.6	78.4	78.3	78.2	78.1	78.0	77.9	77.9	77.8
9	77.7	77.6	77.4	77.3	77.2	77.1	77.0	77.0	76.9
10	76.8	76.7	76.6	76.4	76.3	76.2	76.1	76.0	76.0
11	76.0	75.8	75.7	75.6	75.5	75.3	75.2	75.1	75.0
12	75.2	75.0	74.9	74.7	74.6	74.5	74.3	74.2	74.1
13	74.4	74.2	74.0	73.9	73.7	73.6	73.5	73.3	73.2

14	73.6	73.4	73.2	73.0	72.9	72.7	72.6	72.5	72.4
15	72.8	72.6	72.4	72.2	72.0	71.9	71.7	71.6	71.5
16	72.0	71.8	71.6	71.4	71.2	71.0	70.9	70.7	70.6
17	71.3	71.0	70.8	70.6	70.4	70.2	70.0	69.9	69.7
18	70.5	70.3	70.0	69.8	69.6	69.4	69.2	69.0	68.9
19	69.8	69.5	69.3	69.0	68.8	68.6	68.4	68.2	68.0
20	69.1	68.8	68.5	68.3	68.0	67.8	67.6	67.4	67.2
21	68.5	68.1	67.8	67.5	67.3	67.0	66.8	66.6	66.4
22	67.8	67.5	67.1	66.8	66.6	66.3	66.0	65.8	65.6
23	67.2	66.8	66.5	66.2	65.8	65.6	65.3	65.1	64.8
24	66.6	66.2	65.8	65.5	65.2	64.9	64.6	64.3	64.1
25	66.1	65.6	65.2	64.9	64.5	64.2	63.9	63.6	63.3
26	65.5	65.1	64.6	64.2	63.9	63.5	63.2	62.9	62.6
27	65.0	64.5	64.1	63.7	63.2	62.9	62.5	62.2	61.9
28	64.5	64.0	63.5	63.1	62.7	62.3	61.9	61.5	61.2
29	64.1	63.5	63.0	62.6	62.1	61.7	61.3	60.9	60.5
30	63.7	63.1	62.6	62.0	61.6	61.1	60.7	60.3	59.9
31	63.2	62.7	62.1	61.6	61.1	60.6	60.1	59.7	59.3
32	62.9	62.3	61.7	61.1	60.6	60.1	59.6	59.1	58.7
33	62.5	61.9	61.3	60.7	60.1	59.6	59.1	58.6	58.1
34	62.2	61.5	60.9	60.3	59.7	59.1	58.6	58.1	57.6
35	61.9	61.2	60.5	59.9	59.3	58.7	58.1	57.6	57.1
36	61.6	60.9	60.2	59.5	58.9	58.3	57.7	57.2	56.6
37	61.3	60.6	59.9	59.2	58.6	57.9	57.3	56.7	56.2
38	61.1	60.3	59.6	58.9	58.2	57.6	56.9	56.3	55.7
39	60.9	60.1	59.4	58.6	57.9	57.2	56.6	55.9	55.3

40	60.7	59.9	59.1	58.4	57.6	56.9	56.3	55.6	55.0
41	60.5	59.7	58.9	58.1	57.4	56.7	56.0	55.3	54.6
42	60.3	59.5	58.7	57.9	57.1	56.4	55.7	55.0	54.3
43	60.1	59.3	58.5	57.7	56.9	56.2	55.4	54.7	54.0
44	60.0	59.1	58.3	57.5	56.7	55.9	55.2	54.4	53.7
45	59.8	59.0	58.1	57.3	56.5	55.7	54.9	54.2	53.4
46	59.7	58.8	58.0	57.2	56.3	55.5	54.7	54.0	53.2
47	59.6	58.7	57.9	57.0	56.2	55.4	54.5	53.7	53.0
48	59.5	58.6	57.7	56.9	56.0	55.2	54.4	53.6	52.8
49	59.4	58.5	57.6	56.7	55.9	55.0	54.2	53.4	52.6
50	59.3	58.4	57.5	56.6	55.8	54.9	54.1	53.2	52.4
51	59.2	58.3	57.4	56.5	55.6	54.8	53.9	53.1	52.2
52	59.1	58.2	57.3	56.4	55.5	54.7	53.8	52.9	52.1
53	59.0	58.1	57.2	56.3	55.4	54.6	53.7	52.8	52.0
54	59.0	58.0	57.1	56.2	55.3	54.5	53.6	52.7	51.8
55	58.9	58.0	57.1	56.2	55.3	54.4	53.5	52.6	51.7
56	58.8	57.9	57.0	56.1	55.2	54.3	53.4	52.5	51.6
57	58.8	57.9	56.9	56.0	55.1	54.2	53.3	52.4	51.5
58	58.7	57.8	56.9	56.0	55.0	54.1	53.2	52.3	51.4
59	58.7	57.8	56.8	55.9	55.0	54.1	53.2	52.2	51.3
60	58.7	57.7	56.8	55.9	54.9	54.0	53.1	52.2	51.3
61	58.6	57.7	56.7	55.8	54.9	54.0	53.0	52.1	51.2
62	58.6	57.6	56.7	55.8	54.8	53.9	53.0	52.1	51.1
63	58.6	57.6	56.7	55.7	54.8	53.9	52.9	52.0	51.1
64	58.5	57.6	56.6	55.7	54.8	53.8	52.9	52.0	51.0
65	58.5	57.5	56.6	55.7	54.7	53.8	52.8	51.9	51.0

66	58.5	57.5	56.6	55.6	54.7	53.7	52.8	51.9	50.9
67	58.5	57.5	56.5	55.6	54.7	53.7	52.8	51.8	50.9
68	58.4	57.5	56.5	55.6	54.6	53.7	52.7	51.8	50.9
69	58.4	57.5	56.5	55.6	54.6	53.7	52.7	51.8	50.8
70	58.4	57.4	56.5	55.5	54.6	53.6	52.7	51.7	50.8
71	58.4	57.4	56.5	55.5	54.6	53.6	52.7	51.7	50.8
72	58.4	57.4	56.5	55.5	54.5	53.6	52.6	51.7	50.8
73	58.4	57.4	56.4	55.5	54.5	53.6	52.6	51.7	50.7
74	58.3	57.4	56.4	55.5	54.5	53.6	52.6	51.7	50.7
75	58.3	57.4	56.4	55.5	54.5	53.5	52.6	51.6	50.7
76	58.3	57.4	56.4	55.4	54.5	53.5	52.6	51.6	50.7
77	58.3	57.3	56.4	55.4	54.5	53.5	52.6	51.6	50.7
78	58.3	57.3	56.4	55.4	54.5	53.5	52.6	51.6	50.6
79	58.3	57.3	56.4	55.4	54.5	53.5	52.5	51.6	50.6
80	58.3	57.3	56.4	55.4	54.4	53.5	52.5	51.6	50.6
81	58.3	57.3	56.4	55.4	54.4	53.5	52.5	51.6	50.6
82	58.3	57.3	56.3	55.4	54.4	53.5	52.5	51.6	50.6
83	58.3	57.3	56.3	55.4	54.4	53.5	52.5	51.6	50.6
84	58.3	57.3	56.3	55.4	54.4	53.5	52.5	51.5	50.6
85	58.3	57.3	56.3	55.4	54.4	53.5	52.5	51.5	50.6
86	58.2	57.3	56.3	55.4	54.4	53.5	52.5	51.5	50.6
87	58.2	57.3	56.3	55.4	54.4	53.4	52.5	51.5	50.6
88	58.2	57.3	56.3	55.4	54.4	53.4	52.5	51.5	50.6
89	58.2	57.3	56.3	55.4	54.4	53.4	52.5	51.5	50.6
90	58.2	57.3	56.3	55.4	54.4	53.4	52.5	51.5	50.6
91	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6

92	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
93	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
94	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
95	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
96	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
97	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
98	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
99	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
100	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
101	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
102	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.6
103	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
104	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
105	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
106	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
107	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
108	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
109	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
110	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
111	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
112	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
113	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
114	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
115	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
116	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
117	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5

118	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
119	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
120+	58.2	57.3	56.3	55.3	54.4	53.4	52.5	51.5	50.5
Ages	36	37	38	39	40	41	42	43	44
0	85.2	85.2	85.2	85.1	85.1	85.1	85.0	85.0	85.0
1	84.3	84.3	84.3	84.2	84.2	84.2	84.1	84.1	84.1
2	83.4	83.3	83.3	83.3	83.2	83.2	83.2	83.1	83.1
3	82.4	82.4	82.3	82.3	82.3	82.2	82.2	82.2	82.2
4	81.5	81.4	81.4	81.4	81.3	81.3	81.3	81.2	81.2
5	80.5	80.5	80.4	80.4	80.4	80.3	80.3	80.3	80.2
6	79.6	79.5	79.5	79.5	79.4	79.4	79.3	79.3	79.3
7	78.7	78.6	78.6	78.5	78.5	78.4	78.4	78.3	78.3
8	77.7	77.7	77.6	77.6	77.5	77.5	77.4	77.4	77.3
9	76.8	76.7	76.7	76.6	76.6	76.5	76.5	76.4	76.4
10	75.9	75.8	75.7	75.7	75.6	75.6	75.5	75.5	75.4
11	75.0	74.9	74.8	74.7	74.7	74.6	74.6	74.5	74.5
12	74.0	74.0	73.9	73.8	73.7	73.7	73.6	73.6	73.5
13	73.1	73.1	73.0	72.9	72.8	72.8	72.7	72.6	72.6
14	72.2	72.1	72.1	72.0	71.9	71.8	71.8	71.7	71.6
15	71.4	71.3	71.2	71.1	71.0	70.9	70.8	70.8	70.7
16	70.5	70.4	70.3	70.2	70.1	70.0	69.9	69.8	69.8
17	69.6	69.5	69.4	69.3	69.2	69.1	69.0	68.9	68.8
18	68.7	68.6	68.5	68.4	68.3	68.2	68.1	68.0	67.9
19	67.9	67.7	67.6	67.5	67.4	67.3	67.2	67.1	67.0
20	67.1	66.9	66.8	66.6	66.5	66.4	66.3	66.2	66.1
21	66.2	66.1	65.9	65.8	65.6	65.5	65.4	65.3	65.2

22	65.4	65.2	65.1	64.9	64.8	64.6	64.5	64.4	64.3
23	64.6	64.4	64.2	64.1	63.9	63.8	63.6	63.5	63.4
24	63.8	63.6	63.4	63.3	63.1	62.9	62.8	62.7	62.5
25	63.1	62.8	62.6	62.4	62.3	62.1	61.9	61.8	61.7
26	62.3	62.1	61.9	61.6	61.5	61.3	61.1	61.0	60.8
27	61.6	61.3	61.1	60.9	60.7	60.5	60.3	60.1	60.0
28	60.9	60.6	60.3	60.1	59.9	59.7	59.5	59.3	59.1
29	60.2	59.9	59.6	59.4	59.1	58.9	58.7	58.5	58.3
30	59.5	59.2	58.9	58.6	58.4	58.1	57.9	57.7	57.5
31	58.9	58.6	58.2	57.9	57.6	57.4	57.1	56.9	56.7
32	58.3	57.9	57.6	57.2	56.9	56.7	56.4	56.2	55.9
33	57.7	57.3	56.9	56.6	56.3	56.0	55.7	55.4	55.2
34	57.2	56.7	56.3	55.9	55.6	55.3	55.0	54.7	54.4
35	56.6	56.2	55.7	55.3	55.0	54.6	54.3	54.0	53.7
36	56.1	55.6	55.2	54.7	54.3	54.0	53.6	53.3	53.0
37	55.6	55.1	54.6	54.2	53.8	53.4	53.0	52.6	52.3
38	55.2	54.6	54.1	53.6	53.2	52.8	52.4	52.0	51.6
39	54.7	54.2	53.6	53.1	52.7	52.2	51.8	51.4	51.0
40	54.3	53.8	53.2	52.7	52.2	51.7	51.2	50.8	50.4
41	54.0	53.4	52.8	52.2	51.7	51.2	50.7	50.2	49.8
42	53.6	53.0	52.4	51.8	51.2	50.7	50.2	49.7	49.2
43	53.3	52.6	52.0	51.4	50.8	50.2	49.7	49.2	48.7
44	53.0	52.3	51.6	51.0	50.4	49.8	49.2	48.7	48.2
45	52.7	52.0	51.3	50.7	50.0	49.4	48.8	48.3	47.7
46	52.4	51.7	51.0	50.3	49.7	49.0	48.4	47.8	47.3
47	52.2	51.5	50.7	50.0	49.3	48.7	48.0	47.4	46.8

48	52.0	51.2	50.5	49.7	49.0	48.4	47.7	47.1	46.4
49	51.8	51.0	50.2	49.5	48.8	48.1	47.4	46.7	46.1
50	51.6	50.8	50.0	49.2	48.5	47.8	47.1	46.4	45.7
51	51.4	50.6	49.8	49.0	48.3	47.5	46.8	46.1	45.4
52	51.3	50.4	49.6	48.8	48.0	47.3	46.5	45.8	45.1
53	51.1	50.3	49.5	48.6	47.8	47.1	46.3	45.6	44.8
54	51.0	50.1	49.3	48.5	47.7	46.9	46.1	45.3	44.6
55	50.9	50.0	49.1	48.3	47.5	46.7	45.9	45.1	44.3
56	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.9	44.1
57	50.6	49.8	48.9	48.0	47.2	46.3	45.5	44.7	43.9
58	50.5	49.7	48.8	47.9	47.1	46.2	45.4	44.5	43.7
59	50.5	49.6	48.7	47.8	46.9	46.1	45.2	44.4	43.6
60	50.4	49.5	48.6	47.7	46.8	46.0	45.1	44.3	43.4
61	50.3	49.4	48.5	47.6	46.7	45.8	45.0	44.1	43.3
62	50.2	49.3	48.4	47.5	46.6	45.7	44.9	44.0	43.1
63	50.2	49.3	48.3	47.4	46.5	45.7	44.8	43.9	43.0
64	50.1	49.2	48.3	47.4	46.5	45.6	44.7	43.8	42.9
65	50.1	49.1	48.2	47.3	46.4	45.5	44.6	43.7	42.8
66	50.0	49.1	48.2	47.2	46.3	45.4	44.5	43.6	42.7
67	50.0	49.0	48.1	47.2	46.3	45.4	44.4	43.5	42.6
68	49.9	49.0	48.1	47.1	46.2	45.3	44.4	43.5	42.6
69	49.9	49.0	48.0	47.1	46.2	45.2	44.3	43.4	42.5
70	49.9	48.9	48.0	47.0	46.1	45.2	44.3	43.3	42.4
71	49.8	48.9	47.9	47.0	46.1	45.1	44.2	43.3	42.4
72	49.8	48.9	47.9	47.0	46.0	45.1	44.2	43.2	42.3
73	49.8	48.8	47.9	46.9	46.0	45.1	44.1	43.2	42.3

74	49.8	48.8	47.9	46.9	46.0	45.0	44.1	43.2	42.2
75	49.7	48.8	47.8	46.9	45.9	45.0	44.1	43.1	42.2
76	49.7	48.8	47.8	46.9	45.9	45.0	44.0	43.1	42.2
77	49.7	48.8	47.8	46.9	45.9	45.0	44.0	43.1	42.1
78	49.7	48.7	47.8	46.8	45.9	44.9	44.0	43.0	42.1
79	49.7	48.7	47.8	46.8	45.9	44.9	44.0	43.0	42.1
80	49.7	48.7	47.8	46.8	45.9	44.9	43.9	43.0	42.1
81	49.7	48.7	47.7	46.8	45.8	44.9	43.9	43.0	42.0
82	49.7	48.7	47.7	46.8	45.8	44.9	43.9	43.0	42.0
83	49.6	48.7	47.7	46.8	45.8	44.9	43.9	43.0	42.0
84	49.6	48.7	47.7	46.8	45.8	44.9	43.9	42.9	42.0
85	49.6	48.7	47.7	46.8	45.8	44.8	43.9	42.9	42.0
86	49.6	48.7	47.7	46.7	45.8	44.8	43.9	42.9	42.0
87	49.6	48.7	47.7	46.7	45.8	44.8	43.9	42.9	42.0
88	49.6	48.7	47.7	46.7	45.8	44.8	43.9	42.9	42.0
89	49.6	48.7	47.7	46.7	45.8	44.8	43.9	42.9	41.9
90	49.6	48.6	47.7	46.7	45.8	44.8	43.9	42.9	41.9
91	49.6	48.6	47.7	46.7	45.8	44.8	43.9	42.9	41.9
92	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
93	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
94	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
95	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
96	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
97	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
98	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
99	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9

100	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
101	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
102	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
103	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
104	49.6	48.6	47.7	46.7	45.8	44.8	43.8	42.9	41.9
105	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
106	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
107	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
108	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
109	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
110	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
111	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
112	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
113	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
114	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
115	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
116	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
117	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
118	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
119	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
120+	49.6	48.6	47.7	46.7	45.7	44.8	43.8	42.9	41.9
Ages	45	46	47	48	49	50	51	52	53
0	85.0	84.9	84.9	84.9	84.9	84.9	84.8	84.8	84.8
1	84.1	84.0	84.0	84.0	84.0	84.0	84.0	83.9	83.9
2	83.1	83.1	83.1	83.0	83.0	83.0	83.0	83.0	83.0
3	82.1	82.1	82.1	82.1	82.1	82.0	82.0	82.0	82.0

4	81.2	81.1	81.1	81.1	81.1	81.1	81.0	81.0	81.0
5	80.2	80.2	80.2	80.1	80.1	80.1	80.1	80.1	80.0
6	79.2	79.2	79.2	79.2	79.1	79.1	79.1	79.1	79.1
7	78.3	78.2	78.2	78.2	78.2	78.1	78.1	78.1	78.1
8	77.3	77.3	77.3	77.2	77.2	77.2	77.2	77.1	77.1
9	76.4	76.3	76.3	76.3	76.2	76.2	76.2	76.2	76.1
10	75.4	75.4	75.3	75.3	75.3	75.2	75.2	75.2	75.2
11	74.4	74.4	74.4	74.3	74.3	74.3	74.2	74.2	74.2
12	73.5	73.4	73.4	73.4	73.3	73.3	73.3	73.2	73.2
13	72.5	72.5	72.4	72.4	72.4	72.3	72.3	72.3	72.3
14	71.6	71.5	71.5	71.5	71.4	71.4	71.3	71.3	71.3
15	70.6	70.6	70.5	70.5	70.5	70.4	70.4	70.4	70.3
16	69.7	69.7	69.6	69.6	69.5	69.5	69.4	69.4	69.4
17	68.8	68.7	68.7	68.6	68.6	68.5	68.5	68.4	68.4
18	67.9	67.8	67.7	67.7	67.6	67.6	67.5	67.5	67.4
19	66.9	66.9	66.8	66.7	66.7	66.6	66.6	66.5	66.5
20	66.0	65.9	65.9	65.8	65.7	65.7	65.6	65.6	65.5
21	65.1	65.0	65.0	64.9	64.8	64.8	64.7	64.7	64.6
22	64.2	64.1	64.0	64.0	63.9	63.8	63.8	63.7	63.7
23	63.3	63.2	63.1	63.0	63.0	62.9	62.8	62.8	62.7
24	62.4	62.3	62.2	62.1	62.1	62.0	61.9	61.9	61.8
25	61.5	61.4	61.3	61.2	61.2	61.1	61.0	60.9	60.9
26	60.7	60.6	60.5	60.3	60.3	60.2	60.1	60.0	59.9
27	59.8	59.7	59.6	59.5	59.4	59.3	59.2	59.1	59.0
28	59.0	58.8	58.7	58.6	58.5	58.4	58.3	58.2	58.1
29	58.1	58.0	57.9	57.7	57.6	57.5	57.4	57.3	57.2

30	57.3	57.2	57.0	56.9	56.7	56.6	56.5	56.4	56.3
31	56.5	56.3	56.2	56.0	55.9	55.8	55.6	55.5	55.4
32	55.7	55.5	55.4	55.2	55.0	54.9	54.8	54.7	54.6
33	54.9	54.7	54.5	54.4	54.2	54.1	53.9	53.8	53.7
34	54.2	54.0	53.7	53.6	53.4	53.2	53.1	52.9	52.8
35	53.4	53.2	53.0	52.8	52.6	52.4	52.2	52.1	52.0
36	52.7	52.4	52.2	52.0	51.8	51.6	51.4	51.3	51.1
37	52.0	51.7	51.5	51.2	51.0	50.8	50.6	50.4	50.3
38	51.3	51.0	50.7	50.5	50.2	50.0	49.8	49.6	49.5
39	50.7	50.3	50.0	49.7	49.5	49.2	49.0	48.8	48.6
40	50.0	49.7	49.3	49.0	48.8	48.5	48.3	48.0	47.8
41	49.4	49.0	48.7	48.4	48.1	47.8	47.5	47.3	47.1
42	48.8	48.4	48.0	47.7	47.4	47.1	46.8	46.5	46.3
43	48.3	47.8	47.4	47.1	46.7	46.4	46.1	45.8	45.6
44	47.7	47.3	46.8	46.4	46.1	45.7	45.4	45.1	44.8
45	47.2	46.7	46.3	45.9	45.5	45.1	44.7	44.4	44.1
46	46.7	46.2	45.7	45.3	44.9	44.5	44.1	43.8	43.4
47	46.3	45.7	45.2	44.8	44.3	43.9	43.5	43.1	42.8
48	45.9	45.3	44.8	44.3	43.8	43.3	42.9	42.5	42.1
49	45.5	44.9	44.3	43.8	43.3	42.8	42.3	41.9	41.5
50	45.1	44.5	43.9	43.3	42.8	42.3	41.8	41.4	40.9
51	44.7	44.1	43.5	42.9	42.3	41.8	41.3	40.8	40.4
52	44.4	43.8	43.1	42.5	41.9	41.4	40.8	40.3	39.9
53	44.1	43.4	42.8	42.1	41.5	40.9	40.4	39.9	39.4
54	43.8	43.1	42.5	41.8	41.2	40.6	40.0	39.4	38.9
55	43.6	42.9	42.2	41.5	40.8	40.2	39.6	39.0	38.4

56	43.4	42.6	41.9	41.2	40.5	39.8	39.2	38.6	38.0
57	43.1	42.4	41.6	40.9	40.2	39.5	38.9	38.2	37.6
58	42.9	42.2	41.4	40.7	39.9	39.2	38.6	37.9	37.3
59	42.8	42.0	41.2	40.4	39.7	39.0	38.3	37.6	36.9
60	42.6	41.8	41.0	40.2	39.5	38.7	38.0	37.3	36.6
61	42.4	41.6	40.8	40.0	39.2	38.5	37.7	37.0	36.3
62	42.3	41.5	40.6	39.8	39.0	38.3	37.5	36.8	36.1
63	42.2	41.3	40.5	39.7	38.9	38.1	37.3	36.6	35.8
64	42.1	41.2	40.4	39.5	38.7	37.9	37.1	36.3	35.6
65	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.2	35.4
66	41.8	41.0	40.1	39.3	38.4	37.6	36.8	36.0	35.2
67	41.8	40.9	40.0	39.1	38.3	37.5	36.6	35.8	35.0
68	41.7	40.8	39.9	39.0	38.2	37.3	36.5	35.7	34.9
69	41.6	40.7	39.8	38.9	38.1	37.2	36.4	35.5	34.7
70	41.5	40.6	39.7	38.8	38.0	37.1	36.2	35.4	34.6
71	41.5	40.6	39.7	38.8	37.9	37.0	36.1	35.3	34.5
72	41.4	40.5	39.6	38.7	37.8	36.9	36.0	35.2	34.3
73	41.4	40.4	39.5	38.6	37.7	36.8	36.0	35.1	34.2
74	41.3	40.4	39.5	38.6	37.7	36.8	35.9	35.0	34.1
75	41.3	40.3	39.4	38.5	37.6	36.7	35.8	34.9	34.1
76	41.2	40.3	39.4	38.5	37.5	36.6	35.7	34.9	34.0
77	41.2	40.3	39.3	38.4	37.5	36.6	35.7	34.8	33.9
78	41.2	40.2	39.3	38.4	37.5	36.5	35.6	34.7	33.9
79	41.1	40.2	39.3	38.3	37.4	36.5	35.6	34.7	33.8
80	41.1	40.2	39.2	38.3	37.4	36.5	35.5	34.6	33.7
81	41.1	40.1	39.2	38.3	37.3	36.4	35.5	34.6	33.7

82	41.1	40.1	39.2	38.3	37.3	36.4	35.5	34.6	33.7
83	41.1	40.1	39.2	38.2	37.3	36.4	35.4	34.5	33.6
84	41.0	40.1	39.2	38.2	37.3	36.3	35.4	34.5	33.6
85	41.0	40.1	39.1	38.2	37.3	36.3	35.4	34.5	33.6
86	41.0	40.1	39.1	38.2	37.2	36.3	35.4	34.5	33.5
87	41.0	40.1	39.1	38.2	37.2	36.3	35.4	34.4	33.5
88	41.0	40.0	39.1	38.2	37.2	36.3	35.3	34.4	33.5
89	41.0	40.0	39.1	38.1	37.2	36.3	35.3	34.4	33.5
90	41.0	40.0	39.1	38.1	37.2	36.3	35.3	34.4	33.5
91	41.0	40.0	39.1	38.1	37.2	36.2	35.3	34.4	33.5
92	41.0	40.0	39.1	38.1	37.2	36.2	35.3	34.4	33.5
93	41.0	40.0	39.1	38.1	37.2	36.2	35.3	34.4	33.4
94	41.0	40.0	39.1	38.1	37.2	36.2	35.3	34.4	33.4
95	41.0	40.0	39.1	38.1	37.2	36.2	35.3	34.4	33.4
96	41.0	40.0	39.1	38.1	37.2	36.2	35.3	34.3	33.4
97	41.0	40.0	39.1	38.1	37.2	36.2	35.3	34.3	33.4
98	41.0	40.0	39.1	38.1	37.2	36.2	35.3	34.3	33.4
99	41.0	40.0	39.1	38.1	37.2	36.2	35.3	34.3	33.4
100	41.0	40.0	39.0	38.1	37.1	36.2	35.3	34.3	33.4
101	41.0	40.0	39.0	38.1	37.1	36.2	35.3	34.3	33.4
102	41.0	40.0	39.0	38.1	37.1	36.2	35.3	34.3	33.4
103	41.0	40.0	39.0	38.1	37.1	36.2	35.3	34.3	33.4
104	41.0	40.0	39.0	38.1	37.1	36.2	35.3	34.3	33.4
105	41.0	40.0	39.0	38.1	37.1	36.2	35.3	34.3	33.4
106	41.0	40.0	39.0	38.1	37.1	36.2	35.3	34.3	33.4
107	41.0	40.0	39.0	38.1	37.1	36.2	35.3	34.3	33.4

12	73.2	73.2	73.2	73.1	73.1	73.1	73.1	73.1	73.1
13	72.2	72.2	72.2	72.2	72.1	72.1	72.1	72.1	72.1
14	71.3	71.2	71.2	71.2	71.2	71.2	71.1	71.1	71.1
15	70.3	70.3	70.2	70.2	70.2	70.2	70.2	70.1	70.1
16	69.3	69.3	69.3	69.3	69.2	69.2	69.2	69.2	69.2
17	68.4	68.3	68.3	68.3	68.3	68.2	68.2	68.2	68.2
18	67.4	67.4	67.4	67.3	67.3	67.3	67.3	67.2	67.2
19	66.5	66.4	66.4	66.4	66.3	66.3	66.3	66.3	66.2
20	65.5	65.5	65.4	65.4	65.4	65.4	65.3	65.3	65.3
21	64.6	64.5	64.5	64.5	64.4	64.4	64.4	64.3	64.3
22	63.6	63.6	63.5	63.5	63.5	63.4	63.4	63.4	63.4
23	62.7	62.6	62.6	62.5	62.5	62.5	62.4	62.4	62.4
24	61.7	61.7	61.6	61.6	61.6	61.5	61.5	61.5	61.4
25	60.8	60.8	60.7	60.7	60.6	60.6	60.5	60.5	60.5
26	59.9	59.8	59.8	59.7	59.7	59.6	59.6	59.6	59.5
27	59.0	58.9	58.8	58.8	58.7	58.7	58.7	58.6	58.6
28	58.0	58.0	57.9	57.9	57.8	57.8	57.7	57.7	57.6
29	57.1	57.1	57.0	56.9	56.9	56.8	56.8	56.7	56.7
30	56.2	56.2	56.1	56.0	56.0	55.9	55.9	55.8	55.8
31	55.3	55.3	55.2	55.1	55.0	55.0	54.9	54.9	54.8
32	54.5	54.4	54.3	54.2	54.1	54.1	54.0	54.0	53.9
33	53.6	53.5	53.4	53.3	53.2	53.2	53.1	53.0	53.0
34	52.7	52.6	52.5	52.4	52.3	52.2	52.2	52.1	52.1
35	51.8	51.7	51.6	51.5	51.4	51.3	51.3	51.2	51.1
36	51.0	50.9	50.7	50.6	50.5	50.5	50.4	50.3	50.2
37	50.1	50.0	49.9	49.8	49.7	49.6	49.5	49.4	49.3

38	49.3	49.1	49.0	48.9	48.8	48.7	48.6	48.5	48.4
39	48.5	48.3	48.2	48.0	47.9	47.8	47.7	47.6	47.5
40	47.7	47.5	47.3	47.2	47.1	46.9	46.8	46.7	46.6
41	46.9	46.7	46.5	46.3	46.2	46.1	46.0	45.8	45.7
42	46.1	45.9	45.7	45.5	45.4	45.2	45.1	45.0	44.9
43	45.3	45.1	44.9	44.7	44.5	44.4	44.3	44.1	44.0
44	44.6	44.3	44.1	43.9	43.7	43.6	43.4	43.3	43.1
45	43.8	43.6	43.4	43.1	42.9	42.8	42.6	42.4	42.3
46	43.1	42.9	42.6	42.4	42.2	42.0	41.8	41.6	41.5
47	42.5	42.2	41.9	41.6	41.4	41.2	41.0	40.8	40.6
48	41.8	41.5	41.2	40.9	40.7	40.4	40.2	40.0	39.8
49	41.2	40.8	40.5	40.2	39.9	39.7	39.5	39.2	39.0
50	40.6	40.2	39.8	39.5	39.2	39.0	38.7	38.5	38.3
51	40.0	39.6	39.2	38.9	38.6	38.3	38.0	37.7	37.5
52	39.4	39.0	38.6	38.2	37.9	37.6	37.3	37.0	36.8
53	38.9	38.4	38.0	37.6	37.3	36.9	36.6	36.3	36.1
54	38.4	37.9	37.5	37.1	36.7	36.3	36.0	35.7	35.4
55	37.9	37.4	36.9	36.5	36.1	35.7	35.3	35.0	34.7
56	37.5	36.9	36.5	36.0	35.5	35.1	34.8	34.4	34.1
57	37.1	36.5	36.0	35.5	35.0	34.6	34.2	33.8	33.4
58	36.7	36.1	35.5	35.0	34.5	34.1	33.6	33.2	32.8
59	36.3	35.7	35.1	34.6	34.1	33.6	33.1	32.7	32.3
60	36.0	35.3	34.8	34.2	33.6	33.1	32.6	32.2	31.7
61	35.7	35.0	34.4	33.8	33.2	32.7	32.2	31.7	31.2
62	35.4	34.7	34.1	33.4	32.8	32.3	31.7	31.2	30.8
63	35.1	34.4	33.8	33.1	32.5	31.9	31.3	30.8	30.3

64	34.9	34.2	33.5	32.8	32.2	31.5	31.0	30.4	29.9
65	34.6	33.9	33.2	32.5	31.9	31.2	30.6	30.0	29.5
66	34.4	33.7	33.0	32.3	31.6	30.9	30.3	29.7	29.1
67	34.2	33.5	32.7	32.0	31.3	30.6	30.0	29.4	28.7
68	34.1	33.3	32.5	31.8	31.1	30.4	29.7	29.1	28.4
69	33.9	33.1	32.3	31.6	30.9	30.1	29.4	28.8	28.1
70	33.8	33.0	32.2	31.4	30.7	29.9	29.2	28.5	27.9
71	33.6	32.8	32.0	31.2	30.5	29.7	29.0	28.3	27.6
72	33.5	32.7	31.9	31.1	30.3	29.5	28.8	28.1	27.4
73	33.4	32.6	31.7	30.9	30.1	29.4	28.6	27.9	27.2
74	33.3	32.4	31.6	30.8	30.0	29.2	28.4	27.7	27.0
75	33.2	32.4	31.5	30.7	29.9	29.1	28.3	27.5	26.8
76	33.1	32.3	31.4	30.6	29.8	29.0	28.2	27.4	26.6
77	33.0	32.2	31.3	30.5	29.7	28.8	28.0	27.3	26.5
78	33.0	32.1	31.2	30.4	29.6	28.7	27.9	27.1	26.4
79	32.9	32.0	31.2	30.3	29.5	28.7	27.8	27.0	26.2
80	32.9	32.0	31.1	30.3	29.4	28.6	27.8	26.9	26.1
81	32.8	31.9	31.1	30.2	29.3	28.5	27.7	26.9	26.0
82	32.8	31.9	31.0	30.1	29.3	28.4	27.6	26.8	26.0
83	32.7	31.8	31.0	30.1	29.2	28.4	27.5	26.7	25.9
84	32.7	31.8	30.9	30.0	29.2	28.3	27.5	26.7	25.8
85	32.7	31.8	30.9	30.0	29.1	28.3	27.4	26.6	25.8
86	32.6	31.7	30.9	30.0	29.1	28.2	27.4	26.6	25.7
87	32.6	31.7	30.8	29.9	29.1	28.2	27.4	26.5	25.7
88	32.6	31.7	30.8	29.9	29.0	28.2	27.3	26.5	25.6
89	32.6	31.7	30.8	29.9	29.0	28.2	27.3	26.4	25.6

90	32.6	31.7	30.8	29.9	29.0	28.1	27.3	26.4	25.6
91	32.5	31.6	30.7	29.9	29.0	28.1	27.3	26.4	25.6
92	32.5	31.6	30.7	29.8	29.0	28.1	27.2	26.4	25.5
93	32.5	31.6	30.7	29.8	29.0	28.1	27.2	26.4	25.5
94	32.5	31.6	30.7	29.8	28.9	28.1	27.2	26.3	25.5
95	32.5	31.6	30.7	29.8	28.9	28.1	27.2	26.3	25.5
96	32.5	31.6	30.7	29.8	28.9	28.0	27.2	26.3	25.5
97	32.5	31.6	30.7	29.8	28.9	28.0	27.2	26.3	25.5
98	32.5	31.6	30.7	29.8	28.9	28.0	27.2	26.3	25.5
99	32.5	31.6	30.7	29.8	28.9	28.0	27.2	26.3	25.4
100	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
101	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
102	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
103	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
104	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
105	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
106	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
107	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
108	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
109	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
110	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
111	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
112	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
113	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
114	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
115	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4

116	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
117	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
118	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.3	25.4
119	32.5	31.6	30.7	29.8	28.9	28.0	27.1	26.2	25.4
120+	32.5	31.6	30.6	29.8	28.9	28.0	27.1	26.2	25.4
Ages	63	64	65	66	67	68	69	70	71
0	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
1	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
2	82.9	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
3	81.9	81.9	81.9	81.9	81.9	81.8	81.8	81.8	81.8
4	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9
5	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9
6	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
7	78.0	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
8	77.0	77.0	77.0	76.9	76.9	76.9	76.9	76.9	76.9
9	76.0	76.0	76.0	76.0	76.0	75.9	75.9	75.9	75.9
10	75.0	75.0	75.0	75.0	75.0	75.0	75.0	74.9	74.9
11	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
12	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
13	72.1	72.1	72.0	72.0	72.0	72.0	72.0	72.0	72.0
14	71.1	71.1	71.1	71.1	71.0	71.0	71.0	71.0	71.0
15	70.1	70.1	70.1	70.1	70.1	70.1	70.0	70.0	70.0
16	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.0
17	68.2	68.2	68.1	68.1	68.1	68.1	68.1	68.1	68.1
18	67.2	67.2	67.2	67.2	67.1	67.1	67.1	67.1	67.1
19	66.2	66.2	66.2	66.2	66.2	66.2	66.1	66.1	66.1

20	65.3	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.1
21	64.3	64.3	64.3	64.2	64.2	64.2	64.2	64.2	64.2
22	63.3	63.3	63.3	63.3	63.3	63.2	63.2	63.2	63.2
23	62.4	62.3	62.3	62.3	62.3	62.3	62.3	62.2	62.2
24	61.4	61.4	61.4	61.3	61.3	61.3	61.3	61.3	61.3
25	60.5	60.4	60.4	60.4	60.4	60.3	60.3	60.3	60.3
26	59.5	59.5	59.5	59.4	59.4	59.4	59.4	59.4	59.3
27	58.6	58.5	58.5	58.5	58.5	58.4	58.4	58.4	58.4
28	57.6	57.6	57.5	57.5	57.5	57.5	57.5	57.4	57.4
29	56.7	56.6	56.6	56.6	56.5	56.5	56.5	56.5	56.5
30	55.7	55.7	55.7	55.6	55.6	55.6	55.6	55.5	55.5
31	54.8	54.8	54.7	54.7	54.7	54.6	54.6	54.6	54.6
32	53.9	53.8	53.8	53.7	53.7	53.7	53.7	53.6	53.6
33	52.9	52.9	52.8	52.8	52.8	52.7	52.7	52.7	52.7
34	52.0	52.0	51.9	51.9	51.8	51.8	51.8	51.7	51.7
35	51.1	51.0	51.0	50.9	50.9	50.9	50.8	50.8	50.8
36	50.2	50.1	50.1	50.0	50.0	49.9	49.9	49.9	49.8
37	49.3	49.2	49.1	49.1	49.0	49.0	49.0	48.9	48.9
38	48.3	48.3	48.2	48.2	48.1	48.1	48.0	48.0	47.9
39	47.4	47.4	47.3	47.2	47.2	47.1	47.1	47.0	47.0
40	46.5	46.5	46.4	46.3	46.3	46.2	46.2	46.1	46.1
41	45.7	45.6	45.5	45.4	45.4	45.3	45.2	45.2	45.1
42	44.8	44.7	44.6	44.5	44.4	44.4	44.3	44.3	44.2
43	43.9	43.8	43.7	43.6	43.5	43.5	43.4	43.3	43.3
44	43.0	42.9	42.8	42.7	42.6	42.6	42.5	42.4	42.4
45	42.2	42.1	41.9	41.8	41.8	41.7	41.6	41.5	41.5

46	41.3	41.2	41.1	41.0	40.9	40.8	40.7	40.6	40.6
47	40.5	40.4	40.2	40.1	40.0	39.9	39.8	39.7	39.7
48	39.7	39.5	39.4	39.3	39.1	39.0	38.9	38.8	38.8
49	38.9	38.7	38.6	38.4	38.3	38.2	38.1	38.0	37.9
50	38.1	37.9	37.7	37.6	37.5	37.3	37.2	37.1	37.0
51	37.3	37.1	36.9	36.8	36.6	36.5	36.4	36.2	36.1
52	36.6	36.3	36.2	36.0	35.8	35.7	35.5	35.4	35.3
53	35.8	35.6	35.4	35.2	35.0	34.9	34.7	34.6	34.5
54	35.1	34.9	34.6	34.4	34.2	34.1	33.9	33.8	33.6
55	34.4	34.2	33.9	33.7	33.5	33.3	33.1	33.0	32.8
56	33.8	33.5	33.2	33.0	32.7	32.5	32.3	32.2	32.0
57	33.1	32.8	32.5	32.3	32.0	31.8	31.6	31.4	31.2
58	32.5	32.2	31.9	31.6	31.3	31.1	30.9	30.7	30.5
59	31.9	31.5	31.2	30.9	30.6	30.4	30.1	29.9	29.7
60	31.3	31.0	30.6	30.3	30.0	29.7	29.4	29.2	29.0
61	30.8	30.4	30.0	29.7	29.4	29.1	28.8	28.5	28.3
62	30.3	29.9	29.5	29.1	28.7	28.4	28.1	27.9	27.6
63	29.8	29.4	28.9	28.5	28.2	27.8	27.5	27.2	26.9
64	29.4	28.9	28.4	28.0	27.6	27.2	26.9	26.6	26.3
65	28.9	28.4	28.0	27.5	27.1	26.7	26.3	26.0	25.7
66	28.5	28.0	27.5	27.0	26.6	26.2	25.8	25.4	25.1
67	28.2	27.6	27.1	26.6	26.1	25.7	25.3	24.9	24.5
68	27.8	27.2	26.7	26.2	25.7	25.2	24.8	24.3	24.0
69	27.5	26.9	26.3	25.8	25.3	24.8	24.3	23.9	23.4
70	27.2	26.6	26.0	25.4	24.9	24.3	23.9	23.4	22.9
71	26.9	26.3	25.7	25.1	24.5	24.0	23.4	22.9	22.5

72	26.7	26.0	25.4	24.8	24.2	23.6	23.1	22.5	22.0
73	26.5	25.8	25.1	24.5	23.9	23.3	22.7	22.2	21.6
74	26.2	25.5	24.9	24.2	23.6	23.0	22.4	21.8	21.3
75	26.1	25.3	24.6	24.0	23.3	22.7	22.1	21.5	20.9
76	25.9	25.2	24.4	23.7	23.1	22.4	21.8	21.2	20.6
77	25.7	25.0	24.3	23.5	22.9	22.2	21.5	20.9	20.3
78	25.6	24.8	24.1	23.4	22.7	22.0	21.3	20.6	20.0
79	25.5	24.7	23.9	23.2	22.5	21.8	21.1	20.4	19.8
80	25.3	24.6	23.8	23.1	22.3	21.6	20.9	20.2	19.6
81	25.2	24.5	23.7	22.9	22.2	21.5	20.7	20.0	19.4
82	25.2	24.4	23.6	22.8	22.1	21.3	20.6	19.9	19.2
83	25.1	24.3	23.5	22.7	22.0	21.2	20.5	19.7	19.0
84	25.0	24.2	23.4	22.6	21.9	21.1	20.4	19.6	18.9
85	25.0	24.1	23.3	22.6	21.8	21.0	20.3	19.5	18.8
86	24.9	24.1	23.3	22.5	21.7	20.9	20.2	19.4	18.7
87	24.9	24.0	23.2	22.4	21.6	20.9	20.1	19.3	18.6
88	24.8	24.0	23.2	22.4	21.6	20.8	20.0	19.2	18.5
89	24.8	24.0	23.1	22.3	21.5	20.7	20.0	19.2	18.4
90	24.7	23.9	23.1	22.3	21.5	20.7	19.9	19.1	18.4
91	24.7	23.9	23.1	22.3	21.5	20.7	19.9	19.1	18.3
92	24.7	23.9	23.0	22.2	21.4	20.6	19.8	19.0	18.3
93	24.7	23.8	23.0	22.2	21.4	20.6	19.8	19.0	18.2
94	24.7	23.8	23.0	22.2	21.4	20.6	19.8	19.0	18.2
95	24.6	23.8	23.0	22.2	21.4	20.6	19.7	18.9	18.2
96	24.6	23.8	23.0	22.2	21.3	20.5	19.7	18.9	18.1
97	24.6	23.8	23.0	22.1	21.3	20.5	19.7	18.9	18.1

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28	57.4	57.4	57.4	57.4	57.4	57.3	57.3	57.3	57.3
29	56.5	56.4	56.4	56.4	56.4	56.4	56.4	56.4	56.4
30	55.5	55.5	55.5	55.5	55.4	55.4	55.4	55.4	55.4
31	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.4
32	53.6	53.6	53.6	53.5	53.5	53.5	53.5	53.5	53.5
33	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.5	52.5
34	51.7	51.7	51.7	51.6	51.6	51.6	51.6	51.6	51.6
35	50.8	50.7	50.7	50.7	50.7	50.7	50.6	50.6	50.6
36	49.8	49.8	49.8	49.7	49.7	49.7	49.7	49.7	49.7
37	48.9	48.8	48.8	48.8	48.8	48.8	48.7	48.7	48.7
38	47.9	47.9	47.9	47.8	47.8	47.8	47.8	47.8	47.8
39	47.0	46.9	46.9	46.9	46.9	46.9	46.8	46.8	46.8
40	46.0	46.0	46.0	45.9	45.9	45.9	45.9	45.9	45.9
41	45.1	45.1	45.0	45.0	45.0	45.0	44.9	44.9	44.9
42	44.2	44.1	44.1	44.1	44.0	44.0	44.0	44.0	43.9
43	43.2	43.2	43.2	43.1	43.1	43.1	43.0	43.0	43.0
44	42.3	42.3	42.2	42.2	42.2	42.1	42.1	42.1	42.1
45	41.4	41.4	41.3	41.3	41.2	41.2	41.2	41.1	41.1
46	40.5	40.4	40.4	40.3	40.3	40.3	40.2	40.2	40.2
47	39.6	39.5	39.5	39.4	39.4	39.3	39.3	39.3	39.2
48	38.7	38.6	38.6	38.5	38.5	38.4	38.4	38.3	38.3
49	37.8	37.7	37.7	37.6	37.5	37.5	37.5	37.4	37.4
50	36.9	36.8	36.8	36.7	36.6	36.6	36.5	36.5	36.5
51	36.0	36.0	35.9	35.8	35.7	35.7	35.6	35.6	35.5
52	35.2	35.1	35.0	34.9	34.9	34.8	34.7	34.7	34.6
53	34.3	34.2	34.1	34.1	34.0	33.9	33.9	33.8	33.7

54	33.5	33.4	33.3	33.2	33.1	33.0	33.0	32.9	32.9
55	32.7	32.6	32.4	32.4	32.3	32.2	32.1	32.0	32.0
56	31.9	31.7	31.6	31.5	31.4	31.3	31.2	31.2	31.1
57	31.1	30.9	30.8	30.7	30.6	30.5	30.4	30.3	30.3
58	30.3	30.1	30.0	29.9	29.8	29.7	29.6	29.5	29.4
59	29.5	29.4	29.2	29.1	29.0	28.8	28.7	28.7	28.6
60	28.8	28.6	28.4	28.3	28.2	28.0	27.9	27.8	27.8
61	28.1	27.9	27.7	27.5	27.4	27.3	27.1	27.0	26.9
62	27.4	27.2	27.0	26.8	26.6	26.5	26.4	26.2	26.1
63	26.7	26.5	26.2	26.1	25.9	25.7	25.6	25.5	25.3
64	26.0	25.8	25.5	25.3	25.2	25.0	24.8	24.7	24.6
65	25.4	25.1	24.9	24.6	24.4	24.3	24.1	23.9	23.8
66	24.8	24.5	24.2	24.0	23.7	23.5	23.4	23.2	23.1
67	24.2	23.9	23.6	23.3	23.1	22.9	22.7	22.5	22.3
68	23.6	23.3	23.0	22.7	22.4	22.2	22.0	21.8	21.6
69	23.1	22.7	22.4	22.1	21.8	21.5	21.3	21.1	20.9
70	22.5	22.2	21.8	21.5	21.2	20.9	20.6	20.4	20.2
71	22.0	21.6	21.3	20.9	20.6	20.3	20.0	19.8	19.6
72	21.6	21.1	20.7	20.4	20.0	19.7	19.4	19.2	18.9
73	21.1	20.7	20.3	19.9	19.5	19.1	18.8	18.6	18.3
74	20.7	20.3	19.8	19.4	19.0	18.6	18.3	18.0	17.7
75	20.4	19.9	19.4	18.9	18.5	18.1	17.8	17.4	17.1
76	20.0	19.5	19.0	18.5	18.1	17.7	17.3	16.9	16.6
77	19.7	19.1	18.6	18.1	17.7	17.2	16.8	16.4	16.1
78	19.4	18.8	18.3	17.8	17.3	16.8	16.4	16.0	15.6
79	19.2	18.6	18.0	17.4	16.9	16.4	16.0	15.6	15.2

80	18.9	18.3	17.7	17.1	16.6	16.1	15.6	15.2	14.7
81	18.7	18.1	17.4	16.9	16.3	15.8	15.3	14.8	14.4
82	18.5	17.9	17.2	16.6	16.0	15.5	15.0	14.5	14.0
83	18.3	17.7	17.0	16.4	15.8	15.2	14.7	14.2	13.7
84	18.2	17.5	16.8	16.2	15.6	15.0	14.4	13.9	13.4
85	18.1	17.4	16.7	16.0	15.4	14.8	14.2	13.6	13.1
86	17.9	17.2	16.5	15.9	15.2	14.6	14.0	13.4	12.9
87	17.8	17.1	16.4	15.7	15.1	14.4	13.8	13.2	12.7
88	17.7	17.0	16.3	15.6	14.9	14.3	13.7	13.1	12.5
89	17.7	16.9	16.2	15.5	14.8	14.2	13.5	12.9	12.3
90	17.6	16.9	16.1	15.4	14.7	14.1	13.4	12.8	12.2
91	17.5	16.8	16.1	15.3	14.6	14.0	13.3	12.7	12.1
92	17.5	16.7	16.0	15.3	14.6	13.9	13.2	12.6	11.9
93	17.4	16.7	15.9	15.2	14.5	13.8	13.1	12.5	11.9
94	17.4	16.6	15.9	15.2	14.4	13.7	13.1	12.4	11.8
95	17.4	16.6	15.9	15.1	14.4	13.7	13.0	12.3	11.7
96	17.4	16.6	15.8	15.1	14.3	13.6	12.9	12.3	11.6
97	17.3	16.6	15.8	15.0	14.3	13.6	12.9	12.2	11.6
98	17.3	16.5	15.8	15.0	14.3	13.6	12.9	12.2	11.5
99	17.3	16.5	15.7	15.0	14.3	13.5	12.8	12.2	11.5
100	17.3	16.5	15.7	15.0	14.2	13.5	12.8	12.1	11.5
101	17.3	16.5	15.7	15.0	14.2	13.5	12.8	12.1	11.4
102	17.3	16.5	15.7	14.9	14.2	13.5	12.8	12.1	11.4
103	17.3	16.5	15.7	14.9	14.2	13.5	12.8	12.1	11.4
104	17.2	16.5	15.7	14.9	14.2	13.5	12.7	12.0	11.4
105	17.2	16.5	15.7	14.9	14.2	13.4	12.7	12.0	11.4

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36	49.7	49.7	49.6	49.6	49.6	49.6	49.6	49.6	49.6
37	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
38	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7
39	46.8	46.8	46.8	46.8	46.8	46.7	46.7	46.7	46.7
40	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8
41	44.9	44.9	44.9	44.9	44.8	44.8	44.8	44.8	44.8
42	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9
43	43.0	43.0	43.0	42.9	42.9	42.9	42.9	42.9	42.9
44	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	41.9
45	41.1	41.1	41.1	41.0	41.0	41.0	41.0	41.0	41.0
46	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.0	40.0
47	39.2	39.2	39.2	39.2	39.1	39.1	39.1	39.1	39.1
48	38.3	38.3	38.2	38.2	38.2	38.2	38.2	38.2	38.1
49	37.3	37.3	37.3	37.3	37.3	37.2	37.2	37.2	37.2
50	36.4	36.4	36.4	36.3	36.3	36.3	36.3	36.3	36.3
51	35.5	35.5	35.4	35.4	35.4	35.4	35.4	35.3	35.3
52	34.6	34.6	34.5	34.5	34.5	34.5	34.4	34.4	34.4
53	33.7	33.7	33.6	33.6	33.6	33.5	33.5	33.5	33.5
54	32.8	32.8	32.7	32.7	32.7	32.6	32.6	32.6	32.6
55	31.9	31.9	31.8	31.8	31.8	31.7	31.7	31.7	31.7
56	31.1	31.0	31.0	30.9	30.9	30.9	30.8	30.8	30.8
57	30.2	30.1	30.1	30.0	30.0	30.0	29.9	29.9	29.9
58	29.3	29.3	29.2	29.2	29.1	29.1	29.1	29.0	29.0
59	28.5	28.4	28.4	28.3	28.3	28.2	28.2	28.2	28.2
60	27.7	27.6	27.5	27.5	27.4	27.4	27.4	27.3	27.3
61	26.9	26.8	26.7	26.7	26.6	26.6	26.5	26.5	26.4

62	26.0	26.0	25.9	25.8	25.8	25.7	25.7	25.6	25.6
63	25.2	25.2	25.1	25.0	25.0	24.9	24.9	24.8	24.8
64	24.5	24.4	24.3	24.2	24.1	24.1	24.0	24.0	24.0
65	23.7	23.6	23.5	23.4	23.3	23.3	23.2	23.2	23.1
66	22.9	22.8	22.7	22.6	22.6	22.5	22.4	22.4	22.3
67	22.2	22.1	22.0	21.9	21.8	21.7	21.6	21.6	21.5
68	21.5	21.3	21.2	21.1	21.0	20.9	20.9	20.8	20.7
69	20.7	20.6	20.5	20.4	20.3	20.2	20.1	20.0	20.0
70	20.0	19.9	19.7	19.6	19.5	19.4	19.3	19.2	19.2
71	19.4	19.2	19.0	18.9	18.8	18.7	18.6	18.5	18.4
72	18.7	18.5	18.3	18.2	18.1	17.9	17.8	17.7	17.7
73	18.1	17.9	17.7	17.5	17.4	17.2	17.1	17.0	16.9
74	17.4	17.2	17.0	16.8	16.7	16.5	16.4	16.3	16.2
75	16.9	16.6	16.4	16.2	16.0	15.9	15.7	15.6	15.5
76	16.3	16.0	15.8	15.6	15.4	15.2	15.1	14.9	14.8
77	15.8	15.5	15.2	15.0	14.8	14.6	14.4	14.3	14.2
78	15.3	15.0	14.7	14.4	14.2	14.0	13.8	13.7	13.5
79	14.8	14.5	14.2	13.9	13.6	13.4	13.2	13.1	12.9
80	14.4	14.0	13.7	13.4	13.1	12.9	12.7	12.5	12.3
81	14.0	13.6	13.2	12.9	12.6	12.4	12.2	12.0	11.8
82	13.6	13.2	12.8	12.5	12.2	11.9	11.7	11.5	11.3
83	13.2	12.8	12.4	12.1	11.8	11.5	11.2	11.0	10.8
84	12.9	12.5	12.1	11.7	11.4	11.1	10.8	10.5	10.3
85	12.6	12.2	11.8	11.4	11.0	10.7	10.4	10.1	9.9
86	12.4	11.9	11.5	11.1	10.7	10.4	10.0	9.8	9.5
87	12.2	11.7	11.2	10.8	10.4	10.0	9.7	9.4	9.1

88	12.0	11.5	11.0	10.5	10.1	9.8	9.4	9.1	8.8
89	11.8	11.3	10.8	10.3	9.9	9.5	9.1	8.8	8.5
90	11.6	11.1	10.6	10.1	9.7	9.3	8.9	8.6	8.3
91	11.5	10.9	10.4	9.9	9.5	9.1	8.7	8.3	8.0
92	11.4	10.8	10.3	9.8	9.3	8.9	8.5	8.1	7.8
93	11.3	10.7	10.1	9.6	9.2	8.7	8.3	7.9	7.6
94	11.2	10.6	10.0	9.5	9.0	8.6	8.2	7.8	7.4
95	11.1	10.5	9.9	9.4	8.9	8.5	8.0	7.6	7.3
96	11.0	10.4	9.9	9.3	8.8	8.4	7.9	7.5	7.1
97	11.0	10.4	9.8	9.2	8.7	8.3	7.8	7.4	7.0
98	10.9	10.3	9.7	9.2	8.7	8.2	7.7	7.3	6.9
99	10.9	10.2	9.7	9.1	8.6	8.1	7.6	7.2	6.8
100	10.8	10.2	9.6	9.1	8.5	8.0	7.6	7.2	6.8
101	10.8	10.2	9.6	9.0	8.5	8.0	7.5	7.1	6.7
102	10.8	10.1	9.6	9.0	8.5	8.0	7.5	7.0	6.6
103	10.7	10.1	9.5	9.0	8.4	7.9	7.4	7.0	6.6
104	10.7	10.1	9.5	8.9	8.4	7.9	7.4	7.0	6.6
105	10.7	10.1	9.5	8.9	8.4	7.9	7.4	6.9	6.5
106	10.7	10.1	9.5	8.9	8.4	7.9	7.4	6.9	6.5
107	10.7	10.1	9.5	8.9	8.4	7.9	7.4	6.9	6.5
108	10.7	10.1	9.5	8.9	8.4	7.8	7.4	6.9	6.5
109	10.7	10.1	9.5	8.9	8.4	7.8	7.4	6.9	6.5
110	10.7	10.1	9.5	8.9	8.3	7.8	7.4	6.9	6.5
111	10.7	10.1	9.5	8.9	8.3	7.8	7.3	6.9	6.5
112	10.7	10.1	9.5	8.9	8.3	7.8	7.3	6.9	6.5
113	10.7	10.0	9.4	8.9	8.3	7.8	7.3	6.9	6.4

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44	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
45	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
46	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
47	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1
48	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
49	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2
50	36.3	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
51	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3
52	34.4	34.4	34.4	34.4	34.4	34.4	34.3	34.3	34.3
53	33.5	33.5	33.5	33.4	33.4	33.4	33.4	33.4	33.4
54	32.6	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
55	31.7	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6
56	30.8	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7
57	29.9	29.9	29.8	29.8	29.8	29.8	29.8	29.8	29.8
58	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9
59	28.1	28.1	28.1	28.1	28.1	28.1	28.0	28.0	28.0
60	27.3	27.3	27.2	27.2	27.2	27.2	27.2	27.2	27.2
61	26.4	26.4	26.4	26.4	26.3	26.3	26.3	26.3	26.3
62	25.6	25.6	25.5	25.5	25.5	25.5	25.5	25.5	25.5
63	24.7	24.7	24.7	24.7	24.7	24.6	24.6	24.6	24.6
64	23.9	23.9	23.9	23.8	23.8	23.8	23.8	23.8	23.8
65	23.1	23.1	23.0	23.0	23.0	23.0	23.0	23.0	22.9
66	22.3	22.3	22.2	22.2	22.2	22.2	22.2	22.1	22.1
67	21.5	21.5	21.4	21.4	21.4	21.4	21.3	21.3	21.3
68	20.7	20.7	20.6	20.6	20.6	20.6	20.5	20.5	20.5
69	19.9	19.9	19.8	19.8	19.8	19.7	19.7	19.7	19.7

70	19.1	19.1	19.0	19.0	19.0	18.9	18.9	18.9	18.9
71	18.4	18.3	18.3	18.2	18.2	18.2	18.1	18.1	18.1
72	17.6	17.5	17.5	17.4	17.4	17.4	17.4	17.3	17.3
73	16.9	16.8	16.7	16.7	16.6	16.6	16.6	16.6	16.5
74	16.1	16.1	16.0	15.9	15.9	15.9	15.8	15.8	15.8
75	15.4	15.3	15.3	15.2	15.2	15.1	15.1	15.0	15.0
76	14.7	14.6	14.6	14.5	14.4	14.4	14.3	14.3	14.3
77	14.1	14.0	13.9	13.8	13.7	13.7	13.6	13.6	13.6
78	13.4	13.3	13.2	13.1	13.1	13.0	12.9	12.9	12.9
79	12.8	12.7	12.6	12.5	12.4	12.3	12.3	12.2	12.2
80	12.2	12.1	11.9	11.9	11.8	11.7	11.6	11.6	11.5
81	11.6	11.5	11.4	11.3	11.2	11.1	11.0	11.0	10.9
82	11.1	10.9	10.8	10.7	10.6	10.5	10.4	10.4	10.3
83	10.6	10.4	10.3	10.1	10.0	9.9	9.9	9.8	9.7
84	10.1	9.9	9.8	9.6	9.5	9.4	9.3	9.2	9.2
85	9.7	9.5	9.3	9.2	9.0	8.9	8.8	8.7	8.7
86	9.3	9.1	8.9	8.7	8.6	8.5	8.4	8.3	8.2
87	8.9	8.7	8.5	8.3	8.2	8.0	7.9	7.8	7.7
88	8.6	8.3	8.1	7.9	7.8	7.6	7.5	7.4	7.3
89	8.3	8.0	7.8	7.6	7.4	7.3	7.1	7.0	6.9
90	8.0	7.7	7.5	7.3	7.1	6.9	6.8	6.7	6.6
91	7.7	7.5	7.2	7.0	6.8	6.6	6.5	6.4	6.2
92	7.5	7.2	7.0	6.7	6.5	6.4	6.2	6.1	5.9
93	7.3	7.0	6.7	6.5	6.3	6.1	5.9	5.8	5.7
94	7.1	6.8	6.5	6.3	6.1	5.9	5.7	5.5	5.4
95	6.9	6.6	6.4	6.1	5.9	5.7	5.5	5.3	5.2

96	6.8	6.5	6.2	5.9	5.7	5.5	5.3	5.1	5.0
97	6.7	6.4	6.1	5.8	5.5	5.3	5.1	4.9	4.8
98	6.6	6.2	5.9	5.7	5.4	5.2	5.0	4.8	4.6
99	6.5	6.1	5.8	5.5	5.3	5.0	4.8	4.6	4.5
100	6.4	6.0	5.7	5.4	5.2	4.9	4.7	4.5	4.3
101	6.3	6.0	5.6	5.3	5.1	4.8	4.6	4.4	4.2
102	6.3	5.9	5.6	5.3	5.0	4.7	4.5	4.3	4.1
103	6.2	5.9	5.5	5.2	4.9	4.7	4.5	4.2	4.1
104	6.2	5.8	5.5	5.2	4.9	4.6	4.4	4.2	4.0
105	6.1	5.8	5.4	5.1	4.9	4.6	4.4	4.1	4.0
106	6.1	5.8	5.4	5.1	4.8	4.6	4.3	4.1	3.9
107	6.1	5.8	5.4	5.1	4.8	4.6	4.3	4.1	3.9
108	6.1	5.7	5.4	5.1	4.8	4.5	4.3	4.1	3.9
109	6.1	5.7	5.4	5.1	4.8	4.5	4.3	4.1	3.9
110	6.1	5.7	5.4	5.1	4.8	4.5	4.3	4.1	3.9
111	6.1	5.7	5.4	5.1	4.8	4.5	4.3	4.1	3.9
112	6.1	5.7	5.4	5.1	4.8	4.5	4.3	4.0	3.8
113	6.1	5.7	5.3	5.0	4.7	4.5	4.2	4.0	3.8
114	6.0	5.7	5.3	5.0	4.7	4.4	4.2	4.0	3.8
115	6.0	5.6	5.3	5.0	4.7	4.4	4.2	4.0	3.8
116	6.0	5.6	5.2	4.9	4.6	4.4	4.1	3.9	3.7
117	5.9	5.5	5.2	4.9	4.6	4.3	4.0	3.8	3.6
118	5.8	5.5	5.1	4.8	4.5	4.2	3.9	3.7	3.5
119	5.8	5.4	5.0	4.7	4.4	4.1	3.8	3.6	3.3
120+	5.7	5.3	4.9	4.6	4.3	4.0	3.7	3.4	3.2
Ages	99	100	101	102	103	104	105	106	107

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52	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
53	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4
54	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
55	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6
56	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7
57	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8
58	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
59	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
60	27.2	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1
61	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
62	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
63	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
64	23.8	23.8	23.8	23.7	23.7	23.7	23.7	23.7	23.7
65	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
66	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1
67	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
68	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
69	19.7	19.7	19.7	19.7	19.6	19.6	19.6	19.6	19.6
70	18.9	18.9	18.9	18.8	18.8	18.8	18.8	18.8	18.8
71	18.1	18.1	18.1	18.0	18.0	18.0	18.0	18.0	18.0
72	17.3	17.3	17.3	17.3	17.3	17.2	17.2	17.2	17.2
73	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
74	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
75	15.0	15.0	15.0	14.9	14.9	14.9	14.9	14.9	14.9
76	14.3	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
77	13.5	13.5	13.5	13.5	13.5	13.5	13.4	13.4	13.4

78	12.8	12.8	12.8	12.8	12.8	12.7	12.7	12.7	12.7
79	12.2	12.1	12.1	12.1	12.1	12.0	12.0	12.0	12.0
80	11.5	11.5	11.4	11.4	11.4	11.4	11.4	11.4	11.4
81	10.9	10.8	10.8	10.8	10.7	10.7	10.7	10.7	10.7
82	10.2	10.2	10.2	10.1	10.1	10.1	10.1	10.1	10.1
83	9.7	9.6	9.6	9.6	9.5	9.5	9.5	9.5	9.5
84	9.1	9.1	9.0	9.0	9.0	8.9	8.9	8.9	8.9
85	8.6	8.5	8.5	8.5	8.4	8.4	8.4	8.4	8.4
86	8.1	8.0	8.0	8.0	7.9	7.9	7.9	7.9	7.9
87	7.6	7.6	7.5	7.5	7.4	7.4	7.4	7.4	7.4
88	7.2	7.2	7.1	7.0	7.0	7.0	6.9	6.9	6.9
89	6.8	6.8	6.7	6.6	6.6	6.6	6.5	6.5	6.5
90	6.5	6.4	6.3	6.3	6.2	6.2	6.1	6.1	6.1
91	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.8	5.8
92	5.8	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.4
93	5.5	5.4	5.3	5.3	5.2	5.2	5.1	5.1	5.1
94	5.3	5.2	5.1	5.0	4.9	4.9	4.9	4.8	4.8
95	5.0	4.9	4.8	4.7	4.7	4.6	4.6	4.6	4.6
96	4.8	4.7	4.6	4.5	4.5	4.4	4.4	4.3	4.3
97	4.6	4.5	4.4	4.3	4.2	4.2	4.1	4.1	4.1
98	4.5	4.3	4.2	4.1	4.1	4.0	4.0	3.9	3.9
99	4.3	4.2	4.1	4.0	3.9	3.8	3.8	3.8	3.7
100	4.2	4.1	3.9	3.8	3.7	3.7	3.6	3.6	3.6
101	4.1	3.9	3.8	3.7	3.6	3.5	3.5	3.5	3.4
102	4.0	3.8	3.7	3.6	3.5	3.4	3.4	3.3	3.3
103	3.9	3.7	3.6	3.5	3.4	3.3	3.3	3.2	3.2

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60	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1
61	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
62	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
63	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
64	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
65	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
66	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1
67	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
68	20.5	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
69	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
70	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
71	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
72	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
73	16.5	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
74	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.6
75	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
76	14.2	14.2	14.2	14.2	14.2	14.2	14.1	14.1	14.1
77	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
78	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
79	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
80	11.4	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
81	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.6
82	10.1	10.1	10.1	10.1	10.1	10.0	10.0	10.0	10.0
83	9.5	9.5	9.5	9.5	9.5	9.4	9.4	9.4	9.4
84	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.8	8.8
85	8.4	8.4	8.3	8.3	8.3	8.3	8.3	8.3	8.3

86	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.7
87	7.4	7.4	7.4	7.3	7.3	7.3	7.3	7.3	7.3
88	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.8	6.8
89	6.5	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4
90	6.1	6.1	6.1	6.1	6.1	6.1	6.0	6.0	6.0
91	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.6	5.6
92	5.4	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.2
93	5.1	5.1	5.1	5.1	5.1	5.0	5.0	5.0	4.9
94	4.8	4.8	4.8	4.8	4.8	4.7	4.7	4.7	4.6
95	4.5	4.5	4.5	4.5	4.5	4.5	4.4	4.4	4.4
96	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.1
97	4.1	4.1	4.1	4.1	4.0	4.0	4.0	4.0	3.9
98	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.7
99	3.7	3.7	3.7	3.7	3.7	3.6	3.6	3.6	3.5
100	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.4	3.3
101	3.4	3.4	3.4	3.4	3.4	3.4	3.3	3.3	3.2
102	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.1
103	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.0
104	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	2.9
105	3.1	3.1	3.1	3.0	3.0	3.0	3.0	2.9	2.8
106	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.8
107	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.8
108	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.8	2.8
109	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.8	2.8
110	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.8	2.7
111	3.0	3.0	2.9	2.9	2.9	2.9	2.8	2.8	2.7

112	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.7
113	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.7
114	2.9	2.9	2.9	2.8	2.8	2.8	2.8	2.7	2.6
115	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.6
116	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.5
117	2.7	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.4
118	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.2
119	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.0
120+	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.8
Ages	117	118	119	120+					
0	84.6	84.6	84.6	84.6					
1	83.7	83.7	83.7	83.7					
2	82.8	82.8	82.8	82.8					
3	81.8	81.8	81.8	81.8					
4	80.8	80.8	80.8	80.8					
5	79.8	79.8	79.8	79.8					
6	78.8	78.8	78.8	78.8					
7	77.9	77.9	77.9	77.9					
8	76.9	76.9	76.9	76.9					
9	75.9	75.9	75.9	75.9					
10	74.9	74.9	74.9	74.9					
11	73.9	73.9	73.9	73.9					
12	72.9	72.9	72.9	72.9					
13	71.9	71.9	71.9	71.9					
14	70.9	70.9	70.9	70.9					
15	69.9	69.9	69.9	69.9					

16	69.0	69.0	69.0	69.0
17	68.0	68.0	68.0	68.0
18	67.0	67.0	67.0	67.0
19	66.0	66.0	66.0	66.0
20	65.0	65.0	65.0	65.0
21	64.1	64.1	64.1	64.1
22	63.1	63.1	63.1	63.1
23	62.1	62.1	62.1	62.1
24	61.1	61.1	61.1	61.1
25	60.2	60.2	60.2	60.2
26	59.2	59.2	59.2	59.2
27	58.2	58.2	58.2	58.2
28	57.3	57.3	57.3	57.3
29	56.3	56.3	56.3	56.3
30	55.3	55.3	55.3	55.3
31	54.4	54.4	54.4	54.4
32	53.4	53.4	53.4	53.4
33	52.5	52.5	52.5	52.5
34	51.5	51.5	51.5	51.5
35	50.5	50.5	50.5	50.5
36	49.6	49.6	49.6	49.6
37	48.6	48.6	48.6	48.6
38	47.7	47.7	47.7	47.7
39	46.7	46.7	46.7	46.7
40	45.7	45.7	45.7	45.7
41	44.8	44.8	44.8	44.8

42	43.8	43.8	43.8	43.8
43	42.9	42.9	42.9	42.9
44	41.9	41.9	41.9	41.9
45	41.0	41.0	41.0	41.0
46	40.0	40.0	40.0	40.0
47	39.0	39.0	39.0	39.0
48	38.1	38.1	38.1	38.1
49	37.1	37.1	37.1	37.1
50	36.2	36.2	36.2	36.2
51	35.3	35.3	35.3	35.3
52	34.3	34.3	34.3	34.3
53	33.4	33.4	33.4	33.4
54	32.5	32.5	32.5	32.5
55	31.6	31.6	31.6	31.6
56	30.7	30.7	30.7	30.6
57	29.8	29.8	29.8	29.8
58	28.9	28.9	28.9	28.9
59	28.0	28.0	28.0	28.0
60	27.1	27.1	27.1	27.1
61	26.3	26.3	26.2	26.2
62	25.4	25.4	25.4	25.4
63	24.6	24.5	24.5	24.5
64	23.7	23.7	23.7	23.7
65	22.9	22.9	22.9	22.9
66	22.1	22.1	22.1	22.0
67	21.2	21.2	21.2	21.2

68	20.4	20.4	20.4	20.4
69	19.6	19.6	19.6	19.6
70	18.8	18.8	18.8	18.8
71	18.0	18.0	18.0	18.0
72	17.2	17.2	17.2	17.2
73	16.4	16.4	16.4	16.4
74	15.6	15.6	15.6	15.6
75	14.9	14.9	14.8	14.8
76	14.1	14.1	14.1	14.1
77	13.4	13.4	13.4	13.3
78	12.7	12.6	12.6	12.6
79	12.0	11.9	11.9	11.9
80	11.3	11.3	11.2	11.2
81	10.6	10.6	10.6	10.5
82	10.0	10.0	9.9	9.9
83	9.4	9.3	9.3	9.3
84	8.8	8.8	8.7	8.7
85	8.2	8.2	8.2	8.1
86	7.7	7.7	7.6	7.6
87	7.2	7.2	7.1	7.1
88	6.8	6.7	6.6	6.6
89	6.3	6.3	6.2	6.1
90	5.9	5.8	5.8	5.7
91	5.5	5.5	5.4	5.3
92	5.2	5.1	5.0	4.9
93	4.9	4.8	4.7	4.6

94	4.6	4.5	4.4	4.3
95	4.3	4.2	4.1	4.0
96	4.0	3.9	3.8	3.7
97	3.8	3.7	3.6	3.4
98	3.6	3.5	3.3	3.2
99	3.4	3.3	3.1	3.0
100	3.3	3.1	2.9	2.8
101	3.1	3.0	2.8	2.6
102	3.0	2.8	2.6	2.5
103	2.9	2.7	2.5	2.3
104	2.8	2.6	2.4	2.2
105	2.7	2.6	2.4	2.1
106	2.7	2.5	2.3	2.1
107	2.7	2.5	2.3	2.1
108	2.7	2.5	2.3	2.0
109	2.6	2.5	2.3	2.0
110	2.6	2.5	2.2	2.0
111	2.6	2.4	2.2	2.0
112	2.6	2.4	2.2	2.0
113	2.6	2.4	2.2	1.9
114	2.5	2.4	2.1	1.9
115	2.5	2.3	2.1	1.8
116	2.4	2.2	2.0	1.8
117	2.3	2.1	1.9	1.6
118	2.1	1.9	1.7	1.4
119	1.9	1.7	1.3	1.1

120+	1.6	1.4	1.1	1.0
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(e) *Mortality rates*. The following are the mortality rates used to calculate the tables set forth in paragraphs (b), (c), and (d) of this section.

Table 4 to Paragraph (e)

<i>Age</i>	<i>Probability of Death</i>
0	0.001762
1	0.000441
2	0.000292
3	0.000232
4	0.000177
5	0.000161
6	0.000153
7	0.000145
8	0.000132
9	0.000127
10	0.000128
11	0.000135
12	0.000146
13	0.000164
14	0.000192
15	0.000223
16	0.000253
17	0.000276
18	0.000293
19	0.000304

20	0.000313
21	0.000343
22	0.000377
23	0.000421
24	0.000466
25	0.000520
26	0.000581
27	0.000630
28	0.000677
29	0.000720
30	0.000763
31	0.000799
32	0.000824
33	0.000833
34	0.000830
35	0.000823
36	0.000819
37	0.000824
38	0.000836
39	0.000853
40	0.000879
41	0.000909
42	0.000945
43	0.000980
44	0.001019
45	0.001065

46	0.001132
47	0.001225
48	0.001345
49	0.001485
50	0.001656
51	0.001874
52	0.002121
53	0.002397
54	0.002701
55	0.003032
56	0.003390
57	0.003774
58	0.004181
59	0.004613
60	0.005071
61	0.005554
62	0.006071
63	0.006624
64	0.007225
65	0.007884
66	0.008238
67	0.008659
68	0.009163
69	0.009767
70	0.010491
71	0.011358

72	0.012385
73	0.013598
74	0.015014
75	0.016670
76	0.018587
77	0.020815
78	0.023391
79	0.026387
80	0.029850
81	0.033883
82	0.038544
83	0.043880
84	0.049956
85	0.056799
86	0.064436
87	0.072882
88	0.082137
89	0.092172
90	0.102919
91	0.114344
92	0.126605
93	0.139936
94	0.154844
95	0.171902
96	0.187210
97	0.204659

98	0.222921
99	0.241884
100	0.261476
101	0.281536
102	0.301847
103	0.322371
104	0.342940
105	0.361261
106	0.372886
107	0.381098
108	0.383358
109	0.385709
110	0.388092
111	0.390353
112	0.392822
113	0.395188
114	0.397567
115	0.400000
116	0.400000
117	0.400000
118	0.400000
119	0.400000
120	0.400000

(f) *Applicability dates*—

(1) *In general.* The life expectancy tables and Uniform Lifetime Table set forth in this section apply for distribution calendar years beginning on or after January

1, 2022. For life expectancy tables and the Uniform Lifetime Table applicable for earlier distribution calendar years, see §1.401(a)(9)-9, as set forth in 26 CFR part 1 revised as of April 1, 2020 (formerly applicable §1.401(a)(9)-9).

(2) *Application to life expectancies that may not be recalculated--*

(i) *Redetermination of initial life expectancy using current tables.* If an employee died before January 1, 2022, and, under the rules of §1.401(a)(9)-5, the applicable denominator that applies for a calendar year following the calendar year of the employee's death is equal to a single life expectancy calculated as of the calendar year of the employee's death (or, if applicable, the following calendar year), reduced by 1 for each subsequent year, then that life expectancy is reset as provided in paragraph (f)(2)(ii) of this section. Similarly, if an employee's sole beneficiary is the employee's surviving spouse, and the spouse dies before January 1, 2022, then the spouse's life expectancy for the calendar year of the spouse's death (which is used to determine the applicable denominator for later years) is reset as provided in paragraph (f)(2)(ii) of this section.

(ii) *Determination of applicable denominator—*

(A) *Applicable denominator based on new life expectancy.* With respect to a life expectancy described in paragraph (f)(2)(i) of this section, the applicable denominator for a distribution calendar year beginning on or after January 1, 2022, is determined by using the Single Life Table in paragraph (b) of this section to determine the initial life expectancy for the age of the relevant individual in the relevant calendar year and then reducing the resulting applicable denominator by 1 for each subsequent year.

(B) *Example of redetermination.* Assume that an employee died at age 80 in 2019 and the employee's designated beneficiary (who was not the employee's spouse) was age 75 in the year of the employee's death. For 2020, the denominator that would have applied for the beneficiary was 12.7 years (the life expectancy for a 76-year-old under the Single Life Table in formerly applicable §1.401(a)(9)-9), and for 2021, it would have been 11.7 years (the original life expectancy, reduced by 1 year). For 2022, if the designated beneficiary is still alive, then the applicable denominator would be 12.1 years (the 14.1-year life expectancy for a 76-year-old under the Single Life Table in paragraph (b) of this section, reduced by 2 years).