



**TECHNICAL REFERENCE to the
FY 2021 VALUATION OF THE
MILITARY RETIREMENT SYSTEM**

Data, Methods and Assumptions

**DoD Office of the Actuary
February 2023**

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APPENDIX A

THE MILITARY RETIREMENT SYSTEM: BENEFITS

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THE MILITARY RETIREMENT SYSTEM: BENEFITS

As of September 30, 2021

Summary

The Military Retirement System (MRS) encompasses members of the Army, Navy, Marine Corps, and Air Force. However, most of the provisions also apply to retirement systems for members of the Coast Guard (administered by the Department of Homeland Security), officers of the Public Health Service (administered by the Department of Health and Human Services), and officers of the National Oceanic and Atmospheric Administration (administered by the Department of Commerce). Only those members in plans administered by the Department of Defense (DoD) are included in this report.

Generally, the system is a funded, noncontributory defined benefit plan that includes nondisability retired pay, disability retired pay, retired pay for reserve service, survivor annuity programs, and special compensation programs for certain disabled retirees. The Service Secretaries may approve immediate nondisability retired pay at any age with credit of at least 20 years of active duty service. Reserve retirees must be at least 60 years old and have at least 20 qualifying years of service before retired pay commences, with some exceptions. Public Law (P.L.) 110-181 allows for a day-for-day reduction in the reserve retirement eligibility age from age 60 to an age no lower than 50 for each aggregate of 90 days of active duty served in a contingency operation or national emergency, for service after enactment. There is no vesting of benefits before retirement.

There are distinct nondisability benefit formulas related to four populations within the MRS. A summary is displayed in Tables B-1 and B-2 (see Appendix B).

- 1) **Final Pay**: Military personnel who first became members of a uniformed service before September 8, 1980, have retired pay equal to final basic pay times a multiplier. The multiplier is equal to 2.5 percent times years of service.
- 2) **High-3**: If the retiree first became a member of a uniformed service on or after September 8, 1980, the average of the highest 36 months of basic pay is used instead of final basic pay.
- 3) **Career Status Bonus (CSB)/Redux**: Those who first became a member of a uniformed service on or after August 1, 1986, may choose between a High-3 and CSB/Redux retirement. Those who elect CSB/Redux receive the CSB outlined below also have retired pay based on the average of their highest 36 months of basic pay, but are subject to a multiplier penalty if they retire with less than 30 years of service; however, at age 62, their retired pay is recomputed without the penalty. Members make their election during the fifteenth year of service and may receive the Career Status Bonus of \$30,000 in either a lump sum or installments. Those who elect CSB/Redux generally must remain continuously on active duty until they complete 20 years of active duty service or forfeit a portion of the \$30,000 (exceptions include death and disability retirement). The National Defense Authorization Act for FY 2016 (NDAA 2016, P.L. 114-92) sunsets the CSB/Redux benefit tier by not allowing any CSB elections after December 31, 2017, and repeals all aspects of the Bipartisan Budget Act (BBA) 2013.

4) **Blended Retirement System (BRS)**: Members who first became a member of a uniformed service after December 31, 2017, are covered under the new Blended Retirement System (BRS), which was enacted in NDAA 2016 and took effect January 1, 2018. Members who first entered the military before January 1, 2018, and who have served for fewer than 12 years (or for reservists who have fewer than 4,320 points) as of December 31, 2017, had the option to “opt-in” to BRS via an irrevocable election during the one-year (calendar year 2018) open season or remain in the High-3 system. Members who have served 12 or more years as of December 31, 2017, are not permitted to opt-in to BRS and will receive benefits based on their current plan. As a result of NDAA 2016, members with more than 12 but fewer than 15 years of service as of December 31, 2017, will not have the opportunity to opt-in to BRS or to elect the CSB and will automatically remain in the High-3 system¹. The BRS lowers the nondisabled retired pay multiplier from 2.5 percent per year to 2.0 percent and includes automatic and matching government contributions to member Thrift Savings Plan (TSP) accounts and a mandatory mid-career continuation bonus if the member agrees to serve additional time. The BRS also provides members the choice of receiving a portion (either 25 percent or 50 percent) of their retired pay entitlement from when the member is eligible to begin receiving retired pay to normal Social Security retirement age (usually 67) as a discounted lump sum instead of an annuity. For additional information, see Table B-1 or refer to the DoD Office of Military Compensation website (<http://militarypay.defense.gov/>).

Retired pay and survivor annuity benefits are automatically adjusted annually to protect the purchasing power of initial retired pay. The benefits associated with members first entering the armed services before August 1, 1986, or those entering on or after that date who do not take the CSB have their benefits adjusted annually by the percentage increase in the average Consumer Price Index (CPI). Refer to the section “Cost-of-Living Increases” in this appendix for more information on the CPI. Receiving a benefit adjustment based on the percentage increase in the CPI is commonly referred to as full CPI protection. Benefits associated with members entering on or after August 1, 1986, who elect the \$30,000 CSB bonus payment are annually increased by the percentage change in the CPI minus 1 percent (except when the change in the CPI is less than or equal to 1 percent), but at the military member’s age 62, or when the member would have been age 62 for a survivor annuity, the benefits are restored to the amount that would have been payable had full CPI protection been in effect. This restoral is in combination with the elimination of the multiplier penalty for retiring with less than 30 years of service. However, after this restoral, partial indexing (CPI minus 1 percent) continues for future retired pay and survivor annuity payments.

The FY 2011 NDAA (P.L. 111-383) required that “amounts of retired pay and retainer pay due a retired member of the uniformed services shall be paid on the first day of each month beginning after the month in which the right to such pay accrues.” This means that when the first day of the month falls on a non-business day (weekend/holiday), the pay must be paid the preceding business day. This legislation did not apply to survivor annuitant pay and Combat-Related Special Compensation (CRSC), which were included in later legislation. This results in retirees receiving 13 payments in some fiscal years and 11 payments in others, with 12 payments

¹ Because of breaks in service and technical differences in the definition of qualifying years of service under BRS compared to CSB/Redux, it’s not possible to precisely define this group based solely on dates of entry, but generally it will include members who joined the service after December 31, 2002, and on or before December 31, 2005.

occurring in a typical fiscal year. Note that annual fiscal year amounts shown throughout this report represent 12 monthly payments without regard to the 2011 NDAA. Comments regarding this law are also noted in the Table 9 footnotes in the FY 2021 Valuation of the Military Retirement System (FY 2021 Valuation Report).

Nondisability Retirement from Active Service

The current system allows voluntary retirement upon completion of at least 20 years of service at any age, subject to Service Secretary approval. The military retiree receives immediate retired pay calculated as (base pay) times (a multiplier). Base pay is equal to terminal basic pay if the retiree first became a member of a uniformed service before September 8, 1980. It is equal to the average of the highest 36 months of basic pay for all other members. Refer to the prior section for a description of the four benefit tiers of nondisability retirement.

As of September 2021, 1.44 million nondisability retirees from active duty and full-time reserves were receiving an annualized retired pay entitlement totaling \$49.23 billion. Included in this number are a reported 87,000 nondisabled retirees who elected CSB/Redux.

Disability Retirement

A military member in an active component or on active duty for more than 30 days who is found unfit for duty is entitled to disability retired pay if the disability:

- (1) is of a permanent nature and stable based on accepted medical principles;
- (2) was incurred while entitled to basic pay (or while on authorized absence in a status not entitled to basic pay);
- (3) is neither the result of the member's intentional misconduct nor willful neglect;
- (4) was not incurred during a period of unauthorized absence; and
- (5) either:
 - (a) the member has at least 20 years of service; or
 - (b) the disability is rated at least 30 percent under the Department of Veterans Affairs (VA) Schedule of Rating Disabilities and one of the following conditions is met:
 - (i) the disability was not noted at the time of the member's entrance on active duty (unless clear and unmistakable evidence demonstrates that the disability existed before the member's entrance on active duty and was not aggravated by active military service);
 - (ii) the disability is the proximate result of performing active duty;
 - (iii) the disability incurred in the line of duty in time of war or national emergency; or
 - (iv) the disability was incurred in the line of duty after September 14, 1978.

Under certain conditions generally similar to the above, members on active duty for 30 days or less or on inactive duty training are also entitled to disability retired pay for disabilities incurred or aggravated in the line of duty.

In disability retirement, the member may elect to receive retired pay equal to either:

- (1) the accrued nondisability retirement benefit regardless of eligibility to retire; or
- (2) base pay multiplied by the rated percent of disability.

Except for members with a multiplier under (1) that is greater than 75 percent (which will equate to different years of service depending on whether the member is under BRS), the benefit cannot be more than 75 percent of base pay. Only the excess of (1) over (2) is subject to federal income taxes if the member had service on or before September 24, 1975. If not a member of a uniformed service on September 24, 1975, disability retired pay is tax-exempt only for those disabilities that are combat or hazardous duty related. Base pay is equal to final basic pay if the retiree first became a member of a uniformed service before September 8, 1980; otherwise, base pay is equal to the average of the highest 36 months of basic pay.

Members whose disabilities may not be permanent are placed on a temporary-disability retired list and receive disability retirement pay just as if they were permanently disabled. However, they must be physically examined every 18 months for any change in disability. A final determination must be made within five years, except that for retirees placed on this list after December 31, 2016, the final determination must be made within three years². The temporary disability pay is calculated like the permanent disability retired pay, except that it can be no less than 50 percent of base pay.

Members who elected the CSB/Redux retirement option, but who retire for disability, are not subject to the reduced CSB/Redux retired pay multiplier and are awarded retired pay based on the disability retired rules outlined above. However, such members continue to be subject to the reduced CPI (with age 62 restoral) as Career Status Bonus recipients. Members who are under BRS and who retire for disability do not have the option of receiving a portion of retired pay as a discounted lump sum.

As of September 2021, 130,000 disability retirees were receiving an annualized retired pay entitlement totaling \$1.96 billion. Included in this number are a reported 5,200 disability retirees who elected CSB/Redux.

Reserve Retirement

Members of the Reserve Components may retire after 20 qualifying years of creditable service. However, reserve retired pay is not payable until age 60 unless the member performs certain types of active duty or active service specified in NDAA 2008 (P.L. 110-181), in which case the age is reduced below 60 by three months for each aggregate of 90 days of active duty performed in support of contingency operations in any fiscal year after January 28, 2008, or in any two consecutive fiscal years after September 30, 2014. However, the age cannot be reduced below 50, and eligibility for subsidized retiree health benefits remains at age 60 even if the eligibility age for retired pay is reduced. For members not under BRS, retired pay is computed as retired pay base times 2.5 percent times years of service. For members under BRS (as explained below) the 2.5 percent multiplier is reduced to 2.0 percent. If the reservist was first a member of a uniformed service before September 8, 1980, retired pay base is defined as the active duty basic pay in effect for the retiree's grade and years of service at the time that retired pay begins. If the reservist first became a member of the armed services on or after September 8, 1980, retired pay base is the average basic pay for the member's grade in the highest 36 months computed as if he/she was on active duty for the entire period preceding the age at which retired

² The 2017 National Defense Authorization Act lowered the maximum length on the temporary-disability retired list from 5 years to 3 years, with grandfathering for those currently on the list.

pay commences. The years of service are determined by using a point system, where 360 points convert to a year of service. Typically, one point is awarded for one day of active duty service (e.g. active duty training) or one inactive duty training (IDT) drill attendance. Reservists may perform two IDT periods in one day thereby receiving two retirement points per day. In addition, 15 points are awarded for completion of one year's membership in an active reserve status. A creditable year of service is one in which the member earned at least 50 points. A member generally cannot retire with less than 20 creditable years, although points earned in non-creditable years are used in the retirement calculation. Beginning with years of service that include October 30, 2007, non-active duty points are limited in any year to no more than 130. Lesser limitations have applied in the past.

Reservists who first became a member on or before December 31, 2017, and had fewer than 4,320 points (equating to 360 points per year multiplied by 12 years of service) as of that date are eligible to opt-in to BRS. Reservists who first become a member of the uniformed service after December 31, 2017, are automatically under BRS. For reserve retirement under BRS, the discounted lump sum option covers the period from the date the member first became eligible to receive retired pay (i.e., 60 or earlier if certain qualifying service is performed) to normal Social Security retirement age (usually 67).

As of September 2021, 431,000 reserve retirees were receiving an annualized retired pay entitlement totaling \$7.69 billion.

Survivor Benefits

Legislation originating in 1953 provided optional survivor benefits. It was later referred to as the Retired Servicemen's Family Protection Plan (RSFPP). The plan proved to be expensive to the participants and inadequate since the survivor annuities were never adjusted for inflation and could not be more than 50 percent of retired pay. RSFPP was designed to be self-supporting in the sense that the present value of the reductions to retired pay equaled the present value of the survivor annuities.

On September 21, 1972, RSFPP was replaced by the Survivor Benefit Plan (SBP) for new retirees. RSFPP still covers those servicemen retired before 1972 who did not convert to the new plan or who retained RSFPP in conjunction with SBP. RSFPP continues to pay survivor annuities.

Retired pay is reduced, before taxes, for the member's cost of SBP. Total SBP costs are shared by the government and the retiree, so the reductions in retired pay are only a portion of the total cost of the SBP program.

The SBP survivor annuity is 55 percent of the member's base amount. The base amount is elected by the member, but cannot be less than \$300 or more than the member's full gross monthly retired pay, with two exceptions. If the member elects CSB/Redux and is subject to a penalty for service under 30 years in the calculation of retired pay, the maximum base amount is equal to the full retired pay without the penalty. However, the annuity for a survivor of a CSB/Redux retiree is subject to the reduced CPI. If the member is in the BRS retirement plan and elects a lump sum payment, their SBP base amount can be their full retired pay during the time they are receiving less than full pay.

When the plan started in 1972, benefits for those 62 and older were reduced by the amount of Social Security for which the survivor would be eligible based on the member's military pay. In 1985, that reduction formula was changed so all annuitants 62 and over received a reduced flat rate of 35 percent of the member's base. Beginning October 1, 2005, the age 62 reduced rate was phased out in 5 percent increments. On April 1, 2008, the survivor benefit reduction at age 62 was fully eliminated and the rate of 55 percent of the member's elected base became standard for all survivors, regardless of age.

During FY 1987, SBP's treatment of survivor remarriages changed. Prior to the change, a surviving spouse remarrying before age 60 had the survivor annuity suspended. The change lowered the age to 55. If the remarriage ends in divorce or death, the annuity is reinstated.

Members who die on active duty are generally assumed to have retired with full disability on the day they died and to have elected full SBP coverage for spouses, former spouses, and/or children. If it is more beneficial for the survivors to have elected child only because of Dependency and Indemnity Compensation (DIC) offsets, the family has the option to make that election instead. If the death does not occur in the line of duty, the SBP benefit is based on the member's years of service, rather than assuming a full disability retirement. Insurable interest elections may be applicable in some cases. These benefits have been improved and expanded over the history of the program.

The surviving spouse (or dependent children, if there is no surviving spouse or if the spouse subsequently dies) of a reservist who dies in the line of duty while performing IDT service is entitled to an SBP annuity. Due to NDAA 2017, effective December 23, 2016, reservists who die in the line of duty while performing IDT receive an SBP annuity equivalent to what they would have received if they had died in the line of duty on active duty (i.e., the annuity assumes the reservist retired with 100% disability rating and elected full SBP on the date of death). Prior to this legislation, the annuity was based on the reservist's years of service.

SBP annuities generally are reduced by any VA survivor benefits (e.g., DIC), and all premiums relating to the reductions are returned to the survivor. The FY 2008 NDAA enacted, and subsequent legislation extended, a temporary Special Survivor Indemnity Allowance (SSIA) that pays a monthly amount (\$50 in FY 2009 grading up to \$346 in calendar year 2022, or the amount of the DIC offset, if less than \$346) to survivors with a DIC offset. NDAA 2020 repealed the DIC offset, phasing it out starting in 2021. In 2021, SBP benefits for survivors will be subject to an offset equal to the lesser of their SBP pay and two thirds of their DIC award. In 2022, the offset will be no more than one third of their DIC award and effective January 1, 2023, there will not be any offset to SBP pay from a DIC award.

As a result of the "Sharp Case" ruling, the SBP benefit of survivors with entitlement to both DIC and SBP who remarry after age 57 is not reduced by DIC benefits received.

As with retired pay, SBP annuities and premiums are increased annually with cost-of-living adjustments (COLAs). These COLAs are either full or partial CPI increases, depending on the benefit formula covering the member. If a member who elected the CSB/Redux retirement option dies before age 62, the survivor is subject to partial COLAs and his/her annuity is increased on what would have been the member's 62nd birthday to the amount

that would have been payable had full COLAs been in effect. Partial COLAs continue annually thereafter.

For reserve retirees, the retired pay reductions applicable under SBP apply for survivor coverage after a reservist turns 60 (or earlier if they have certain active service) and begins to receive retired pay. Reserve Component Survivor Benefit Program (RCSBP) provides annuities to survivors of reservists who die before age 60 (or earlier if they have certain active service), provided they attained 20 years of qualified service and elected to participate in the program (or were within their 90-day election window after receiving their “20-year letter”). However, if the death occurs either on active or inactive duty as described above, the survivor receives an annuity under SBP. The added cost of RCSBP coverage is borne completely by reservists through deductions from future retired pay.

Beginning October 1, 2008, a paid-up provision eliminated the reduction in retired pay for premiums for SBP and RSFPP coverage for participants age 70 or older whose retired pay has been reduced for at least 360 months.

On June 26, 2013, the U.S. Supreme Court ruled to overturn the Defense of Marriage Act. While not a change to Title 10 U.S. military benefits per se, the ruling has the effect of allowing legal spouses of same-sex marriages to be eligible to receive SBP benefits.

SBP premiums for members who elect lump sums under BRS will be equivalent to what they would have been without the lump sum, and consequently, the survivors' annuities will be equivalent to what they would have been without the lump sum. The maximum base amount will be equal to unreduced retired pay (i.e., ignoring the lump sum), premiums will be deducted only from monthly retired pay received, and SBP benefits will commence upon the retiree's death.

As of September 2021, 318,000 survivors of military members were receiving an annualized annuity and/or SSIA entitlements totaling \$4.6 billion. Included in these totals are 67,000 SSIA survivors receiving \$0.3 billion in SSIA payments (approximately 43,000 receive survivor pay as well).

Temporary Early Retirement Authority (TERA)

The FY 1993 NDAA (P.L. 102-484) granted temporary authority for the military services to offer early retirements to members with more than 15 but less than 20 years of service. The retired pay was calculated in the usual way except that there was a reduction of 1 percent for every year below 20 years of service. Part or all of this reduction can be restored at age 62 if the retired member works in a qualified public service job during the period from the date of retirement to the date on which the retiree would have completed 20 years of service. Unlike members who leave military service before 20 years with voluntary separation incentives or special separation benefits, these early retirees are generally treated like regular military retirees for the purposes of other retirement benefits. This authority originally expired on September 1, 2002.

The FY 2012 NDAA (P.L. 112-81) reinstated TERA, from January 2012 through December 2018, but without the qualified public service provision. The FY 2017 NDAA

(P.L. 114-328) further extended TERA through December 2025.

As of September 2021, 69,700 TERA retirees were receiving an annualized retired pay entitlement totaling \$1.34 billion.

Cost-of-Living Increases

All nondisability retirement, disability retirement, and most survivor annuities are adjusted annually for inflation. COLAs are automatically scheduled to occur every 12 months, on December 1st, to be reflected in checks issued at the beginning of January.

The “full” COLA effective December 1 is computed by calculating the percentage increase in the average CPI of the third quarter of the prior calendar year to the third quarter of the current calendar year. The increase is based on the Urban Wage Earner and Clerical Worker Consumer Price Index (CPI-W) and is rounded to the nearest tenth of one percent. New retirees/annuitants receive a prorated COLA depending on their date of retirement/eligibility.

The benefits of retirees and survivors are increased annually with the full COLA, except for those first entering a uniformed service on or after August 1, 1986, who elect CSB/Redux. Their benefits are increased annually with a partial COLA equal to the full COLA minus 1 percent (except if the full COLA is less than or equal to 1 percent). A one-time restoral is given to a partial COLA recipient on the first day of the month after the retiree’s 62nd birthday. At this time, retired pay (or the survivor benefit if the retiree is deceased) is increased to the amount that would have been payable had full COLAs been in effect. Annual partial COLAs continue after this restoral. Note that the FY 2016 NDAA sunsets the CSB/Redux benefit tier by not allowing any CSB elections after December 31, 2017.

Relationship with Veterans Administration Benefits

The VA provides compensation for Service-connected and certain non-Service-connected disabilities. These VA benefits can be in place of or in combination with DoD retired pay, but through December 31, 2003, were not fully additive. Since VA benefits are exempt from federal income taxes, it is often to the advantage of a member to elect them. Through 2003, retired pay earned from DoD for military service was offset by any payment received from VA for a VA-rated disability. Beginning with the FY 2004 NDAA (P.L. 108-136), a series of legislation has been enacted that increasingly reduces or eliminates the offset to military retired pay due to receipt of VA disability compensation. Members with a combined VA disability rating of 50% or greater who have at least 20 years of service will have their offset eliminated under the Concurrent Retirement and Disability Pay (CRDP) program. The CRDP program has a ten-year phase-in schedule that began in 2004; however, the offset is already fully eliminated for members whose disabilities are rated total or make the individual unemployable. Members whose disability meets certain combat-related criteria can elect to receive payments against the offset under the CRSC program. Under CRSC, members are not subject to a phase-in schedule, are not required to have at least 20 years of service (per P.L. 110-181), and are not required to have at least a 50% VA disability rating. Although CRSC amounts are calculated based on retired pay lost due to offset and are paid from the Military Retirement Fund (MRF or Fund), CRSC is not technically considered retired pay. CRSC payments are tax exempt. A member

may not participate in both the CRDP and CRSC programs simultaneously, but may change from one to the other during an annual "open season."

For members who elect lump sums under BRS and qualify for VA disability compensation if the member is not eligible for CRDP or CRSC, the VA will withhold disability payments until the amount withheld equals the lump sum amount, after which VA disability payments, as an offset to retired pay, may be paid. If the member is eligible for CRDP, no withholding of VA disability payments is required, and the retiree may receive VA disability compensation and retired pay without offset. If the member is eligible for CRSC, the procedures for withholding VA disability payments are more complicated and relate to the portion of the total VA entitlement considered combat-related.

VA benefits also offset (or reduce) survivor pay through the DIC program. DIC benefits are payable to survivors of veterans who die from Service-connected causes. See "Survivor Benefits" above for details.

As of September 2021, there were 753,000 CRDP members and 96,000 CRSC members. These members were paid an additional monthly amount of \$1.43 billion and \$98 million, respectively. As of September 2021, there were 67,000 survivors receiving annualized SSIA benefits of \$269 million.

Interrelationship with Other Federal Service

For military retirement purposes, no credit is given for other federal service, except where cross-service transferability is allowed. Military service is generally creditable toward the federal civilian retirement systems if military retired pay is waived. However, a deposit (equal to a percentage of post-1956 basic pay) must be made to the Civil Service Retirement and Disability Fund in order to receive credit. Military service is not generally creditable under both systems (but is for reservists and certain disability retirees). Military retirees may qualify separately for Civil Service retirement and receive concurrent pay from both systems.

Relationship of Retired Pay to Military Compensation

Basic pay is the only element of military compensation upon which nondisability retired pay is based and entitlement is determined. Basic pay is the principal element of military compensation that all members receive, but it is not representative of salary levels in the public and private sectors for comparative purposes. Reasonable comparisons can be made to regular military compensation (RMC). RMC is the sum of (1) basic pay, (2) the housing allowance, which varies by grade, location, and dependency status, (3) the subsistence allowance and, (4) the tax advantages accruing to the housing and subsistence allowances because they are not subject to federal income tax. Basic pay represents approximately 70 percent of RMC for all retirement eligible members. For the 20-year retiree, basic pay is approximately 67 percent of RMC. Consequently, a member retired with 20-years of service and entitled to 50 percent of basic pay, receives approximately 34 percent of RMC. Further, such 20-year retirees (except for those who first entered service prior to September 8, 1980) receive a percentage (50 percent, or 40 percent for those under CSB/Redux or BRS) of their high 36-month average of basic pay, typically less than final basic pay. For a 30-year retiree, basic pay is approximately 73 percent of RMC; e.g., a member entitled to 75 percent of basic pay receives approximately 55% of RMC.

Again, note that most members currently retiring with 30 years will actually receive a percentage (75 percent, or 60 percent for those under BRS) of their high 36-month average, rather than of their final basic pay. P.L. 109-364 allows certain members who retire on or after January 1, 2007 with sufficient years of service (greater than 37.5 years under BRS and 30 years under the other benefit formulas) to retire with entitlements exceeding 75 percent of their high 36-month average of basic pay. These relationships should be considered when military retired pay is compared to compensation under other retirement systems.

Social Security Benefits

Many military members and their families receive monthly benefits indexed to the CPI from Social Security. As full participants in the Social Security system, military personnel are in general entitled to the same benefits and are subject to the same eligibility criteria and rules as other employees. Details concerning the benefits are covered in other publications.

Beginning in 1946, Congress enacted a series of amendments to the Social Security Act that extended some benefits to military personnel and their survivors. These “gratuitous” benefits were reimbursed out of the general fund of the U.S. Treasury. The Servicemen’s and Veterans’ Survivor Benefits Act brought members of the military into the contributory Social Security system effective January 1, 1957.

For the Old Age, Survivors, and Disability Insurance (OASDI) program, military members must contribute the employee portion of the OASDI payroll tax, with the federal government contributing the matching employer contribution. Only the basic pay of a military member constitutes wages for Social Security purposes. One feature of OASDI unique to military personnel grants a noncontributory wage credit of (i) \$300 for each quarter between 1956 and 1978 in which such personnel received military wages and (ii) up to \$1,200 per year after 1977 (\$100 of credit for each \$300 of wages up to a maximum credit of \$1,200). The purpose of this credit is to take into account elements of compensation such as quarters and subsistence not included in wages for Social Security benefit calculation purposes. Under the 1983 Social Security amendments, the cost of the additional benefits resulting from the noncontributory wage credits for past service was met by a lump sum payment from general revenues, while the cost for future service will be met by payment of combined employer-employee tax on such credits as the service occurs. Payments for these wage credits ended in 2002.

Members of the military are also required to pay the Hospital Insurance payroll tax, with the federal government contributing the matching employer contribution. Medicare eligibility occurs at age 65, or earlier if the employee is disabled.

Performance Measures

During FY 2021, the Fund made monthly disbursements to approximately 2.3 million retirees and survivors.

There are many ways to measure the funding progress and performance of a pension plan. Table A-1 shows a few common measures, specifically 1) Percent Funded, 2) Asset-to-Annuitant Liability Ratio, and 3) Effective Fund Yield. The table footnotes show the associated

derivation of each performance measure. Note that for a variety of reasons including investment and other constraints, the Fund's results for these "performance measures" cannot be reasonably compared to many other pension systems.

TABLE A-1

MILITARY RETIREMENT FUND PERFORMANCE MEASURES
(\$ in billions)

End of Fiscal Year	Accrued Liability (1)	Assets (2)	Annuitant Liability On Roll (3)	Unfunded Accrued Liability (4)	Percent Funded (5)	Asset-to-Annuitant Liability Ratio (6)	Fund Effective Yield (7)
1984	\$528.7	\$0	\$310.0	\$528.7	0.0%	---	---
1985	551.5	11.8	322.7	539.7	2.1	3.7%	14.3%
1986	566.2	24.6	321.4	541.6	4.3	7.7	11.8
1987	585.2	38.9	326.3	546.3	6.6	11.9	11.0
1988	551.8	53.4	329.4	498.4	9.7	16.2	10.5
1989	580.3	67.6	345.8	512.7	11.6	19.5	10.1
1990	612.9	80.4	367.5	532.5	13.1	21.9	9.9
1991	604.2	93.7	372.9	510.5	15.5	25.1	9.8
1992	619.0	106.1	392.7	512.9	17.1	27.0	9.5
1993	629.9	115.9	409.3	514.0	18.4	28.3	9.1
1994	615.6	124.2	409.9	491.4	20.2	30.3	8.7
1995	631.8	131.0	431.3	500.8	20.7	30.4	8.6
1996	625.8	135.3	432.2	490.5	21.6	31.3	8.6
1997	639.2	143.3	444.9	495.9	22.4	32.2	8.5
1998	649.4	149.9	452.9	499.5	23.1	33.1	8.4
1999	657.2	156.0	442.7	501.2	23.7	35.2	8.1
2000	682.6	162.7	459.8	519.9	23.8	35.4	8.0
2001	708.8	169.2	487.3	539.6	23.9	34.7	8.0
2002	721.6	176.5	467.2	545.1	24.5	37.8	7.2
2003	810.9	182.6	519.8	628.3	22.5	35.1	5.5
2004	854.1	188.0	556.3	666.1	22.0	33.8	5.4
2005	900.6	197.9	592.2	702.7	22.0	33.4	5.5
2006	973.7	208.4	636.3	765.3	21.4	32.8	5.9
2007	1,042.3	218.2	677.3	824.1	20.9	32.2	4.7
2008	1,157.3	253.1	750.6	904.2	21.9	33.7	6.2
2009	1,186.9	278.4	751.8	908.5	23.5	37.0	1.0
2010	1,225.2	321.7	768.0	903.5	26.3	41.9	3.2
2011	1,273.3	376.1	807.3	897.2	29.5	46.6	4.9
2012	1,361.5	428.0	854.6	933.5	31.4	50.1	2.9
2013	1,368.6	483.5	869.5	885.1	35.3	55.6	3.1
2014	1,412.8	545.0	911.3	867.8	38.6	59.8	3.2
2015	1,417.0	600.6	919.2	816.4	42.4	65.3	1.8
2016	1,407.0	664.4	914.1	742.6	47.2	72.7	2.3
2017	1,502.0	734.1	974.0	767.9	48.9	75.4	2.9
2018	1,533.4	813.9	994.1	719.6	53.1	81.9	3.8
2019	1,652.7	897.0	1,060.4	755.7	54.3	84.6	3.0
2020	1,732.7	979.4	1,107.4	753.3	56.5	88.4	2.3
2021	1,851.6	1,106.5	1,198.5	745.1	59.8	92.3	5.3

NOTES:

- (1) From Table 6, Item 3 in the valuation report.
- (2) From Table 6, Item 4 in the valuation report.
- (3) From Table 6, Item 1.a in the valuation report.
- (4) = (1) - (2)
- (5) = (2) / (1) x 100
- (6) = (2) / (3) x 100
- (7) Discussed in Appendix D.

APPENDIX B

THE MILITARY RETIREMENT SYSTEM: HISTORY

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THE MILITARY RETIREMENT SYSTEM: HISTORY³

The history of the Uniformed Services Military Retirement System in the United States extends back to the early days of the country. The history detailed in this appendix provides the user with a useful context when evaluating the status of the current system. The extensive legislative history has been an interplay of the separate retired pay plan motivations. When available, the Public Law (P.L.) reference is provided. Over the course of its history, the Military Retirement System has been scrutinized by numerous committees, commissions, and groups. Since the end of World War II, a number of military compensation studies have been conducted under the general sponsorship of the Department of Defense, the President, and Congress, including: Hook, Strauss, Cordiner, Gorham/Randall, Quadrennial Review of Military Compensation, Gates, Military Compensation and Retirement Modernization Commission, etc. These studies continue to the present day – see recent legislation enacted: *Blended Retirement System* (BRS). Much discussion has occurred as a result of the study findings. It should be noted that while there may be superficial resemblance between the MRS and other retirement systems, there exist substantial differences, including between the MRS and the retirement plan of federal civil servants. Of significance, MRS retired members are subject to active duty recall.

History of Retired Pay – Active Duty and Disability

The legislative history of the nondisability (regular service) and disability retired pay have been a collaborative effort of lawmakers. The two programs are highly correlated given the possible end states of a regular service career. Before discussing the regular service retired pay history, below are the motivations driving the two distinct retirement types:

- 1) The principal motivations guiding the nondisability retired pay evolution of the MRS have been to ensure that (1) continued service in the armed forces is competitive with the alternatives; (2) promotion opportunities are kept open for young and able members; (3) some measure of economic security is made available to members after retirement from a military career; (4) a pool of experienced personnel is available for recall in times of war or national emergency. Much of the history to be discussed focuses on officers. The legislative history for enlisted personnel is much shorter. The objectives can be achieved for the enlisted force by an administrative policy of “judicious non-acceptance of reenlistments.”
- 2) The guiding motivation behind disability retired pay is to authorize continuing payments to members separated from active service due to physical disability causes in service for their country. Members should not be left to cope with the effects of these disabilities on their own. A measure of economic security will be provided for duties exposing members to wartime hazards and career military service. Early reports showed rationale for separation other than physical disability as well: “An officer may possess a

³ Much of the information in this appendix can be found in *Military Compensation Background Papers*, Seventh Edition (November 2011), Department of Defense – Under Secretary of Defense for Personnel and Readiness. For a more in-depth discussion of the early history of military pensions, refer to *History of Military Pension Legislation in the United States*, William H. Glasson, New York, N.Y. 1900, Digitized by Google.

strong mind and a robust frame, yet, if his moral perception of right or wrong be so blunted and debased as to render him unreliable, he could hardly be ranked as the capable officer.”

Provisions for the maintenance of disabled military members date to colonial days. Not surprisingly, the English pension law is a precursor to the American colonial pension legislation. The pilgrims at Plymouth provided in 1636 that any man sent forth as a soldier and returned maimed should be maintained by the colony during his life. In order to obtain enlistments in military expeditions against Native Americans, the colonies promised to care for those who were disabled and had no means of earning a livelihood as well as providing aid for the indigent families of those fallen in conflict. Some of these precedents were continued in the first national pension law of August 26, 1776, which promised half pay for life, or during disability, to the disabled. After the Revolutionary War, a full disability pension for a noncommissioned officer or private soldier was fixed at five dollars per month, with commissioned officers being paid at one-half of their monthly pay. Initially, the States administered disability pensions. However, in 1790, the Secretary of War became the principal pension administrator. In 1805, disability pensions were extended to those who received wounds in military service who subsequently became disabled.

Pensions based on service by itself were more controversial. Payments of half pay for life had been promised in 1780 by Congress for officers who served to the end of the War. However, the resulting claims were initially settled for less than full value and with a considerable amount of controversy. With the number of veterans declining and the treasury increasing, Congress became more generous. In 1818, an act was passed providing relief to Revolutionary War veterans in need. By 1832, it became full pay for life, regardless of need. In 1836, widows were included. This same pattern was followed for Service pensions for subsequent wars, with each war treated separately.

In 1849, the Bureau of Pensions was transferred to the newly established Department of the Interior, where it remained until the VA was created in 1930. In 1855, authorization was given for involuntary separation with partial pay of Navy officers adjudged incapable, but not necessarily disabled. The outbreak of the Civil War brought further changes when it became necessary to retire older officers no longer fit for field duty. The vehicle was the act of August 3, 1861, the first major nondisability retirement act, which provided for the voluntary retirement of regular officers of all branches of Service after 40 years of duty, at the discretion of the President. Subsequent acts in 1861 and 1862 provided for involuntary retirements for age or years of service.

The 1861 act also established a military disability retirement system that covered the regular officers of all branches of Service. Army and Marine Corps officers were paid an amount equal to their “pay proper” plus four rations. Navy officers were paid slightly more. The act of March 2, 1867, authorized disability retirement for enlisted personnel of the Navy and Marine Corps.

Congress established two enduring retirement principles while reducing forces to a peacetime basis in 1870. The first permitted voluntary retirement of officers after 30 years of service upon approval by the President, and the second eliminated the ration commutation by

fixing retired pay at 75 percent of the officer's pay. The 75 percent applied to Army and Marine Corps officers, both disabled and nondisabled, and was extended to the Navy in 1873.

In 1885, the first nondisability retirement law for Army and Marine Corps enlistees was enacted. Paralleling the officer retirement laws, it provided for voluntary retirement at 30 years of service with 75 percent of pay of the grade in which retired, plus an allowance in lieu of fuel, quarters, and food. The law was extended to the Navy in 1899.

By the middle of World War I, the limit on the number of officers who could be placed on the retired list was causing stagnating promotion in the Navy. To alleviate the problem, Congress established selection boards for promotion to Rear Admiral, Captain, and Commanders on the basis of age-in-grade in 1916 (P.L. 64-241). Service-in-grade replaced age-in-grade in 1926 (P.L. 69-413). Those officers not selected for promotion were retired at 2 ½ percent of pay per year of service, not to exceed 75 percent of pay. This was the first recognition of length of service as well as grade in the computation of retired pay.

The act of 1916 (P.L. 64-241) also created the Fleet Naval Reserve, to provide a pool of experienced personnel who could be recalled to active duty in an emergency. While technically different than retirement, the practical effect was that it was possible for enlistees of the Navy and Marine Corps to "retire" with as little as 16 years of service (raised to 20 in 1925) and become entitled to "retainer pay."

By 1938 (P.L. 75-706), the Navy was again experiencing stagnating promotion caused by the large influx of officers throughout World War I. Almost all of these officers were in the same age and years of service groups. To remedy the situation, Congress extended the selection board process to all grades above Lieutenant (junior grade); set limits on years of service for Lieutenant Commanders through Captains; and provided for voluntary retirement at 20 years of service at the discretion of the President.

Following World War II, allegations of unfairness, inequity, and inefficiency in the existing disability retirement system became extensive. A new system for disability retirement was created by the Career Compensation Act of 1949 (P.L. 81-351). Under this system, all disabilities had to be rated under the standard schedule of rating disabilities in use by the VA, and the resulting ratings became a factor in disability retired pay entitlement and taxability. The new system covered officer and enlisted personnel of both the regular and reserve components, and it authorized temporary as well as permanent disability retirements. The disability retirement system remains basically unchanged from the way it was enacted in 1949, although legislation has been passed recently, as well as additional process improvements, in an attempt to modernize the disability system.

Meanwhile, the Officer Personnel Act of 1947 (P.L. 80-381) brought the Army and Air Force under a selection process similar to the Navy system. It also provided that those officers who failed promotion and were not eligible to retire would receive severance pay of two months per year of service, but not exceeding two years' pay.

Standardized nondisability retirement laws for all Services were brought about by the Army and Air Force Vitalization and Retirement Equalization Act of 1948 (P.L. 80-810). The act established 20 years as the minimum requirement for voluntary retirement, thereby placing

the Army and Air Force on a par with the Navy. It also provided for the removal of substandard officers with severance pay equal to one month's pay per year of service, but not exceeding one year's pay. This law resulted, for the first time in history, in uniform voluntary retirement authority among the officers of all branches of service.

P.L. 96-513 changed the retired pay formula for persons who first became a service member after September 7, 1980. For this group, the 2 ½ percent times years of service is multiplied by the average of the highest 36 months of pay, rather than by final pay. This is sometimes referred to as the High-3 formula, where the highest 36 months of pay generally occurs within the highest 3 years of average annual pay. This first major change to retired pay computation since 1948 was endorsed in findings by various committees and commissions.

P.L. 99-348, enacted July 1, 1986, made extensive changes in the retired pay formula for persons entering service after July 31, 1986. These persons are credited with 2 percent for each of the first twenty years of service, 3 ½ percent for each of the next 10 years, and 2 ½ percent thereafter. At the member's age 62, the annuity is recomputed to equal the annuity that would have been in effect if a level 2 ½ percent had been used for each year of service. In addition, the COLA for this group no longer keeps up with inflation, as described later. This is referred to as the Redux benefit formula.

P.L. 106-65, enacted October 1, 1999, enhanced benefits for military members previously covered by the Redux benefit formula (those who entered service on or after August 1, 1986) by converting these members to the High-3 formula. At the 15 year-of-service mark, these full-time members now have the choice of remaining in High-3 or electing the Career Status Bonus (CSB), which is not paid out of the MRF, and converting to the Redux benefit formula. Those who elect the bonus must commit to remaining continuously in service until completing 20 years or forfeit a portion of the \$30,000. Part-time reservists previously covered by Redux do not have the option of electing the bonus, and so remain under the High-3 benefit formula. This is referred to as the CSB/Redux benefit formula. The four different retirement systems currently in effect for members of the uniformed services are summarized in Table B-1.

P.L. 108-136, enacted November 23, 2003, provides a phase-out of the offset to military retired pay due to receipt of VA disability compensation for members whose combined disability rating is 50% or greater, effective January 1, 2004. Members retired under disability provisions must have at least 20 years of service. P.L. 108-136 also expands eligibility under the Combat Related Special Compensation program to include qualified retirees at any combined percentage rating for certain combat-related disabilities compensated by the VA. Through 2003, retired pay earned from DoD for military service was offset by any payment received from VA for a VA-rated disability. These VA benefits were in place of or in combination with DoD retired pay but were not fully additive. Thus the law is commonly referred to as Concurrent Receipt.

Subsequent to P.L. 108-136, a series of legislation has been enacted that increasingly reduces or eliminates the offset to military retired pay due to receipt of VA disability compensation. This is described further in Appendix A.

P.L. 109-364, enacted October 17, 2006, eliminated the 75 percent multiplier cap for nondisability retirements with sufficient years of service for members retiring after December 31, 2006, and P.L. 111-383, enacted January 7, 2011, removed the cap for disability

retirements after the date of enactment. A member can now retire with a retired pay multiplier greater than 100 percent if their years of service are high enough. The various percentage multipliers by years of service and benefit system are shown in Table B-2. P.L. 109-364 also removed a reduction to the rate of basic pay used in the computation of retired pay for general and flag officers (those with pay grades of O-7 through O-10) retiring after September 30, 2006.

P.L. 114-92 established the “Blended Retirement System (BRS),” a major reform to military compensation. The BRS lowers the nondisabled retired pay multiplier from 2.50% per year to 2.00% and allows for multiple retired pay distribution options. The BRS provides members (except for those who retire on disability) the choice of receiving a portion (either 25 percent or 50 percent) of their retired pay entitlement from when the member is eligible to begin receiving retired pay to normal Social Security retirement age (usually 67) as a discounted lump sum instead of an annuity. The newly established compensation system is supplemented with a TSP account government match and a mandatory mid-career continuation bonus. The changes apply to all members first entering service after December 31, 2017. Members with fewer than 12 completed years of service as of December 31, 2017, have the option to fully participate in the BRS via an irrevocable election during a one year (calendar year 2018) open season. Additionally, P.L. 114-92 sunsets the CSB/Redux benefit tier by not allowing any CSB elections after December 31, 2017, and repeals all aspects of BBA 2013.

History of Retired Pay – Reserve Duty

The motivation behind the reserve duty retirement (non-regular service) is to establish a nondisability retirement system to authorize retired pay for service in the reserve components. This provides an incentive for qualified personnel to retain membership and continue training in these components, providing a pool of skilled, trained, and readily available manpower to assist active duty forces in times of national emergency.

Title III of the Army and Air Force Vitalization and Retirement Equalization Act of 1948 (P.L. 80-810) created a nondisability retirement program for reserve personnel. The above motivation was explained as part of the House Report accompanying the legislation. The reserve retirement system remained basically unchanged from the original 1948 legislation until 1993. The modifications made over that time were more corrective than substantive.

The National Defense Authorization Act for Fiscal Year 1993 (P.L. 102-484) adopted two provisions intended to induce Selected Reserves members to apply for transfer to the retired reserve through temporary special retirement mechanisms. Subsequent legislation authorized further downsizing of the military during the mid-1990’s, which was extended until October 1, 2001.

P.L. 107-314 permanently reduced the required reserve service eligibility years for retired pay from eight years to six years. This law also authorized an additional 10 percent in retired pay, not to exceed 75 percent, for enlisted members (active or reserve) credited with extraordinary heroism in the line of duty during their career.

P.L. 110-181, enacted January 28, 2008, reduces the retirement age for a reserve retirement below age 60 by three months for each aggregate of 90 days of certain active service performed within any fiscal year after January 28, 2008. P.L. 113-291 amended this provision to

provide that the qualifying days of service may be accumulated between two consecutive fiscal years, effective after September 30, 2014. However, in no case may the retirement age drop below age 50. Eligibility for subsidized retiree health benefits remains at age 60 even if the eligibility age for retired pay is reduced.

P.L. 114-92, BRS also applies to Reserves with some differences, e.g., the eligibility threshold for opting in to BRS for Reserves is based on creditable points.

Adjustments – Cost-of-Living

COLA provide a mechanism for adjusting retired pay entitlements to compensate for the effects of inflation. The ideal system is one that protects the initial value of pay to insure that members who retire from the military do not have the purchasing power of their pay eroded by inflation.

Prior to 1958, retired pay was generally increased in direct proportion to changes in active duty pay. The practice was discontinued with the act of May 1958 (P.L. 85-422), when it was realized that a single 6 percent cost-of-living increase would cost only \$35 million, as opposed to \$65 million for linking the retired pay to active duty pay. The 6 percent approximated the increase in the cost of living since 1955 when retired pay was last increased. In 1963, a permanent system of increasing retired pay (P.L. 88-132) based on a formula geared to increases in the cost-of-living was adopted. In 1965, the adjustment mechanism was modified slightly (P.L. 89-132). This system granted cost-of-living increases whenever the CPI went up at least 3 percent and remained up for three months. The benefit increase was equal to the percentage rise in the CPI. In 1969 (P.L. 91-179), an additional 1 percent was added to compensate for the fact that five months elapsed between the time that the index increased 3 percent and the time that benefits increased.

Effective March 1977, COLAs were scheduled to occur every six months, on March 1 and September 1. This would be reflected in checks issued those months and the additional 1 percent was eliminated (P.L. 94-440). The cost-of-living increase, effective March 1, was computed by calculating the percentage increase (adjusted to the nearest tenth of a percent) in the CPI from the previous June to the previous December. Similarly, the cost-of-living increase effective September 1 was obtained by calculating the percentage increase in the June CPI over the CPI from the previous December.

In August 1981 (P.L. 97-35), once-a-year cost-of-living increases were implemented by eliminating the September increase. Full annual cost-of-living increases were given in March of each year based on the percentage increase in the CPI between the two previous Decembers.

In August 1982, P.L. 97-253 created a temporary deviation to the calculation and timing of the cost-of-living increase. Consequently, in FY 1983, the increase was delayed until April and the full increase of 3.9 percent was given only to survivors, disabled persons and nondisabled persons over age 61. Nondisabled retirees under age 62 received 3.3 percent instead of 3.9 percent.

P.L. 98-270, enacted in April 1984, eliminated the FY 1984 increase and modified the permanent law. Under the modified system, the COLA equals the percentage increase in the

average of the CPIs for July, August, and September over the averaged indexes for the same three months of the prior year. These increases become effective for entitlements earned in December. P.L. 98-369 directed that entitlements for a particular month should be paid at the beginning of the subsequent month rather than at the end of the month of entitlement and became effective with the December 1984 adjustment. P.L. 111-383 required amounts of retired and retainer pay (excluding survivor annuitant pay and CRSC) due a retired member of the uniformed services shall be paid on the first day of each month beginning after the month in which the right to such pay accrues; unless the first falls on a non-business day, then the payment is made on the preceding business day.

P.L. 99-348, enacted July 1, 1986, changed the cost-of-living increase for members entering the service after July 31, 1986. Their retiree and survivor benefits are increased annually by the full COLA minus 1 percent (except if the full adjustment is less than or equal to 1 percent). A one-time catch-up is given on the first day of the month after the *retiree's* 62nd birthday. At this time, the retiree benefit (or survivor benefit if the retiree is deceased) is increased to the amount that would have been payable had full adjustments been made. Annual partial increases continue after this catch-up. For persons entering the service prior to August 1, 1986, full COLAs are still applied to the retiree and survivor benefits. P.L. 106-65 called for full COLAs to be applied to the retiree and survivor benefits of post- July 31, 1986, entrants who decline the CSB/Redux and retire under the HI-3 benefit formula. As discussed above, P.L. 114-92 sunsets the CSB/Redux benefit tier by not allowing any CSB elections after December 31, 2017, and repeals all aspects of BBA 2013.

Retired pay cost-of-living increases from 1958 to the present are shown in Table B-3. Additional discussion regarding cost-of-living increases can be found in Appendix D.

Adjustments – Basic Pay

Basic pay scale increases are analogous to retired pay cost-of-living increases for the current active duty and drilling reserve population. These increases are typically credited and paid at the beginning of the calendar year. The annual basic pay scale increases are designed to establish a crude comparability with the private sector and American economy in general.

The Act of 1790 provided funds for “militia employed in the service of the United States” payable to “the troops of the United States.” Although the components of the pay system, basic pay plus allowances, have changed throughout its history, the system itself has been remarkably enduring. However, the proliferation of special allowances has caused confusion and complexity surrounding compensation.

The Career Compensation Act of 1949 (P.L. 81-351) revamped the military compensation structure to provide pay that was equitable to personnel yet responsive to the needs of the United States in attracting and retaining the necessary personnel following World War II. The Uniformed Services Pay Act of 1958 (P.L. 85-422) was the beginning of regular basic pay adjustments intended to make personnel pay more competitive.

In the Act of 1967 (P.L. 90-207) Congress adopted new basic pay rate adjustment mechanisms. The adjustments were to be a “comparable increase” to the general schedule compensation for federal classified employees (Civil Service employees). This legislation

resulted in a more systematic procedure for increasing basic pay rates as opposed to the prior methods which were solely dependent on Congressional discretion. The military-civilian pay adjustment remains loosely linked through present day.

The Department of Defense Authorization Act of 1981 (P.L. 96-342) granted personnel substantial basic pay adjustments with the intent of further convergence between military and civilian wages. The legislation also allowed the President greater flexibility in adjusting military compensation by allocating greater increases to “career” members. In the years that followed, Congress expressed dissatisfaction with the pay adjustment mechanisms shown in the military-civilian link. The Senate proposed linking military pay to the Employment Cost Index (ECI) as a method to correct the military-civilian pay inequity. This discussion continued for some years.

Beginning in 2000 (P.L. 106-65), legislative change responded to the military-civilian pay inequity by tying basic pay increases to the ECI plus an additional 0.5 percent for the five years that followed (through FY 2006). After FY 2006, the increases were tied directly to ECI; however, covenants are embedded within the law which gives the President the authority to propose an alternate adjustment. Subsequent legislation used targeted basic pay scale increases to be granted for specific pay grades and ranks in order to meet the necessary retention and recruitment needs.

Basic pay scale increases from 1958 to the present are shown in Table B-4. Additional discussion regarding basic pay scale increases can be found in Appendix D.

Funding of Retirement Benefits

Prior to 1935, the Navy had a pension fund which provided payments to persons retired for disability whenever there was a sufficient amount in the fund. The income to the fund consisted of the government’s share of the proceeds from the sale of enemy or pirate ships captured by the Navy, and from interest received on fund investments. This fund was abolished in 1935, and the Military Retirement System moved to an unfunded or “pay-as-you-go” basis. P.L. 98-94 (currently Chapter 74 of Title 10, U.S.C.), signed in September 1983, established the MRF starting October 1, 1984. Under this accrual accounting system, funds are allocated for the individual services via the Department of Defense annually by Congress. These funds are transferred to the MRF in an amount sufficient, along with the Department of the Treasury (Treasury) contributions resulting from P.L. 108-136 and interest earnings, to cover the expected retirement costs associated with the current active duty force. This system helps to apprise all stakeholders of the total costs of manpower decisions made each year.

As explained by Congress (House Report No. 98-107 – Committee on Armed Services – p. 225), the reasons for adoption of the Department of Defense MRF were as follows:

“Most retirement plans in the private sector are funded, either partially or fully, and the trend--as a result of the Employee Retirement and Income Security Act (ERISA)--is toward full funding. Security of a retirement plan, *i.e.*, the probability that promised benefits will be paid, is generally related to the method of funding. Full funding provides greater security than partial funding.

Of course, the security of payments from the Federal government is not generally related to the method of funding. From the Federal government's perspective, the issue of funding is primarily

a matter of timing. Should funds be raised by taxing and borrowing when the obligation becomes due, or should funds be set aside through taxing and borrowing when the obligation is incurred?”

This funding law stated that DoD will make normal cost payments into the Fund and the Treasury will make payments from general revenues to amortize the unfunded liability. P.L.99-661, enacted in November 1986, mandated that two separate normal cost percentages (NCPs) be used to compute the normal cost payment of the Military Retirement System. One NCP is for active-duty personnel and full-time reservists and the second NCP is for drilling reservists (part-time). These normal cost payments are designed to be sufficient to pay for the future retirement benefits for a cohort of new entrants. The unfunded liability exists primarily because such payments were not made in the past, although deviations of actual compared to expected experience increase or decrease the unfunded liability over time.

P.L. 108-136, enacted November 2003, required the Treasury to pay the normal cost arising from the increased benefits due to Concurrent Receipt at the beginning of each fiscal year. Beginning with FY 2005, Treasury includes the annual normal cost payment along with the unfunded liability payment in the October 1st contribution.

The original funding law also established an independent three-member DoD Retirement Board of Actuaries (Board), appointed by the President (changed to the Secretary of Defense as part of the 2008 National Defense Authorization Act (P.L. 110-181)). House Report No. 98-107 – Committee on Armed Services – p. 227, states:

“Care must be exercised to minimize the ability to manipulate the interest rate. The committee recommends that an independent Board of Actuaries be established and that they, alone, be charged with the responsibility for determining the interest rate and other actuarial assumptions in accordance with generally accepted actuarial principles and practices.”

The Board is required to approve methods and assumptions for determining the normal cost and unfunded liability; to review valuations of the Military Retirement System; to determine the method of amortizing unfunded liabilities; to annually report to the Secretary of Defense; and to report to the President and Congress on the status of the Fund not less than every four years. P.L. 110-181 renamed the Board the “DoD Board of Actuaries,” and added oversight of other trust funds deemed to be necessary by the Secretary of Defense.

TABLE B-1

MILITARY RETIREMENT SYSTEM PROPERTIES
(FOR NONDISABILITY RETIREMENT FROM ACTIVE DUTY)

Benefit System	Final Pay	High-3 (HI-3)	Career Status Bonus (CSB)/Redux	Blended Retirement System (BRS)
Applies to Members Who Joined a Uniformed Service:	<ul style="list-style-type: none"> before September 8, 1980 	<ul style="list-style-type: none"> on or after September 8, 1980 and before August 1, 1986 on or after August 1, 1986 and before January 1, 2003 who do not elect to accept the Career Status Bonus (CSB) at the 15-year anniversary on or after January 1, 2003 and before January 1, 2006 on or after January 1, 2006 and before January 1, 2018 who do not elect to participate in BRS 	<ul style="list-style-type: none"> on or after August 1, 1986 and before January 1, 2003 who elect to accept the Career Status Bonus (CSB) with additional 5-year service obligation 	<ul style="list-style-type: none"> on or after January 1, 2018 on or after January 1, 2006 and before January 1, 2018 who elect to participate in BRS
Retired Pay Computation Basis	Final basic pay rate	Highest 36 months of basic pay rate	Highest 36 months of basic pay rate	Highest 36 months of basic pay rate
Multiplier	2.5% per year of service	2.5% per year of service	2.5% per year of service less 1% for each year of service less than 30 (restored at age 62)	2.0% per year of service
Cost-of-Living Adjustment Mechanism	Full CPL-W	Full CPL-W	Full CPI-W minus 1% (one-time catch-up at age 62)	Full CPL-W
Additional Benefit(s)	---	---	<ul style="list-style-type: none"> \$30,000 Career Status Bonus (CSB) payable at 15-year anniversary upon assumption of 5-year obligation to remain on continuous active duty 	<ul style="list-style-type: none"> Choice of receiving a portion (either 25% or 50%) of the retired pay entitlement from retirement age to normal Social Security retirement age (usually 67) as a discounted lump sum instead of an annuity Automatic and matching Government contributions to Thrift Savings Plan (TSP) account Mandatory mid-career continuation bonus if member agrees to serve additional time

Notes: - Due to breaks in service and technical differences in the definition of qualifying years of service under different benefit systems, in some cases above it's not possible to precisely define which benefit systems cover the appropriate members based solely on dates of entry. The above table does not cover every possibility.
- For additional up-to-date information, refer to the DoD Office of Military Compensation website (<http://militarypay.defense.gov/>).

TABLE B-2

MILITARY RETIREMENT SYSTEM MULTIPLIERS
(FOR NONDISABILITY RETIREMENT FROM ACTIVE DUTY)

Years of Service	Final Pay/Hi-3 Multiplier	CSB/Redux Multiplier		BRS Multiplier
		Before Age 62	After Age 62	
20	50.0%	40.0%	50.0%	40.0%
21	52.5	43.5	52.5	42.0
22	55.0	47.0	55.0	44.0
23	57.5	50.5	57.5	46.0
24	60.0	54.0	60.0	48.0
25	62.5	57.5	62.5	50.0
26	65.0	61.0	65.0	52.0
27	67.5	64.5	67.5	54.0
28	70.0	68.0	70.0	56.0
29	72.5	71.5	72.5	58.0
30	75.0	75.0	75.0	60.0
31	77.5	77.5	77.5	62.0
32	80.0	80.0	80.0	64.0
33	82.5	82.5	82.5	66.0
34	85.0	85.0	85.0	68.0
35	87.5	87.5	87.5	70.0
36	90.0	90.0	90.0	72.0
37	92.5	92.5	92.5	74.0
38	95.0	95.0	95.0	76.0
39	97.5	97.5	97.5	78.0
40	100.0	100.0	100.0	80.0
41	102.5	102.5	102.5	82.0
42	105.0	105.0	105.0	84.0
43	107.5	107.5	107.5	86.0
44	110.0	110.0	110.0	88.0
45	112.5	112.5	112.5	90.0
46	115.0	115.0	115.0	92.0
47	117.5	117.5	117.5	94.0
48	120.0	120.0	120.0	96.0
49	122.5	122.5	122.5	98.0
50	125.0	125.0	125.0	100.0
51	127.5	127.5	127.5	102.0
:	:	:	:	:

TABLE B-3

MILITARY RETIRED PAY COST-OF-LIVING INCREASES
(JUNE 1958 TO PRESENT)

<u>Date of Increase</u>		<u>Percentage Increase</u>		<u>Cumulative % From Date of Increase</u>
6/1/58		6.0 %		918.6 %
10/1/63		5.0		860.9
9/1/65		4.4		815.2
12/1/66		3.7		776.6
4/1/68		3.9		745.3
2/1/69		4.0		713.6
11/1/69		5.3		682.3
8/1/70		5.6		642.9
6/1/71		4.5		603.5
7/1/72	one percent over	4.8		573.2
7/1/73	inflation was	6.1		542.4
1/1/74	added during	5.5		505.5
7/1/74	these years	6.3		473.9
1/1/75		7.3		439.9
8/1/75		5.1		403.2
3/1/76		5.4		378.8
3/1/77		4.8		354.2
9/1/77		4.3		333.4
3/1/78		2.4		315.6
9/1/78	twice-a-year	4.9		305.8
3/1/79	increases	3.9		286.9
9/1/79		6.9		272.3
3/1/80		6.0		248.3
9/1/80		7.7		228.6
3/1/81	once-a-year	4.4		205.1
3/1/82	increases	8.7		192.2
4/1/83	(Dec to Dec)	3.9	(1)	168.8
12/1/84		3.5	(2)	158.8
12/1/85		-	(3)	150.0
12/1/86	once-a-year	1.3		150.0
12/1/87	increases (3rd	4.2		146.8
12/1/88	qtr to 3rd qtr)	4.0		136.8
12/1/89		4.7		127.7
12/1/90		5.4		117.5
12/1/91		3.7		106.4
12/1/92		3.0		99.0
3/1/94		2.6	(4)	93.2
3/1/95		2.8	(5)	88.3
3/1/96		2.6	(6)	83.2
12/1/96		2.9		78.5
12/1/97		2.1		73.5
12/1/98		1.3		69.9
12/1/99		2.4		67.8
12/1/00		3.5		63.8
12/1/01		2.6		58.3
12/1/02		1.4		54.3
12/1/03		2.1		52.1
12/1/04		2.7		49.0
12/1/05		4.1		45.1
12/1/06		3.3		39.4
12/1/07		2.3		34.9
12/1/08		5.8		31.9
12/1/09		-		24.7
12/1/10		-		24.7
12/1/11		3.6		24.7
12/1/12		1.7		20.3
12/1/13		1.5		18.3
12/1/14		1.7		16.6
12/1/15		-		14.6
12/1/16		0.3		14.6
12/1/17		2.0		14.3
12/1/18		2.8		12.0
12/1/19		1.6		9.0
12/1/20		1.3		7.3
12/1/21		5.9		5.9

(1) Nondisabled retirees under age 62 received 3.3%.

(2) Starting December 1984, entitlements earned in a particular month are paid at the beginning of the next month.

(3) A cost-of-living adjustment of 3.1%, scheduled for 12/1/85, was suspended as a consequence of P.L. 99-177.

(4) Disabled retirees and survivors received 2.6% on 12/1/93.

(5) Disabled retirees and survivors received 2.8% on 12/1/94.

(6) Disabled retirees and survivors received 2.6% on 12/1/95.

TABLE B-4

**MILITARY BASIC PAY SCALE INCREASES
(JUNE 1958 TO PRESENT)**

<u>Date of Increase</u>	<u>Percentage Increase</u>	<u>Cumulative % From Date of Increase</u>
6/1/58	8.3 %	1568.4 %
10/1/63	14.2	1440.5
9/1/64	2.3	1249.0
9/1/65	10.4	1218.6
7/1/66	3.2	1094.4
10/1/67	5.6	1057.4
7/1/68	6.9	996.0
7/1/69	12.6	925.3
1/1/70	8.1	810.5
1/1/71	7.9	742.3
11/14/71	11.6	680.6
1/1/72	7.2	599.5
10/1/72	6.7	552.5
10/1/73	6.2	511.5
10/1/74	5.5	475.8
10/1/75	5.0	445.8
10/1/76	3.6	419.8
10/1/77	6.2	401.8
10/1/78	5.5	372.5
10/1/79	7.0	347.8
10/1/80	11.7	318.5
10/1/81	14.3 (1)	274.7
10/1/82	4.0 (2)	227.8
1/1/84	4.0 (2)	215.2
1/1/85	4.0	203.1
10/1/85	3.0	191.4
1/1/87	3.0	182.9
1/1/88	2.0	174.7
1/1/89	4.1	169.3
1/1/90	3.6	158.7
1/1/91	4.1	149.7
1/1/92	4.2	139.9
1/1/93	3.7	130.2
1/1/94	2.2	122.0
1/1/95	2.6	117.2
1/1/96	2.4	111.7
1/1/97	3.0	106.8
1/1/98	2.8	100.7
1/1/99	3.6	95.3
1/1/00	4.8 (3)	88.5
1/1/01	3.7 (3)	79.9
1/1/02	4.6 (3)	73.4
1/1/03	4.1 (3)	65.8
1/1/04	3.7 (3)	59.3
1/1/05	3.5	53.6
1/1/06	3.1	48.4
1/1/07	2.2 (3)	43.9
1/1/08	3.5	40.8
1/1/09	3.9	36.1
1/1/10	3.4	31.0
1/1/11	1.4	26.7
1/1/12	1.6	24.9
1/1/13	1.7	22.9
1/1/14	1.0	20.9
1/1/15	1.0 (4)	19.7
1/1/16	1.3 (4)	18.5
1/1/17	2.1	17.0
1/1/18	2.4	14.6
1/1/19	2.6	11.9
1/1/20	3.1	9.1
1/1/21	3.0	5.8
1/1/22	2.7	2.7

(1) Basic pay increases for enlisted personnel ranged from 10% for E-1; 10.7% for E-2, E-3; 13% for E-4; 16.5% for E-5, E-6; and 17% for E-7, E-8, E-9. For officers, the increase was 14.3%.

(2) Except for E-1 with less than 4 months service.

(3) The increases do not include additional targeted pay increases.

(4) Excludes General and Flag Officers (O-7 through O-10), who did not receive a pay increase.

APPENDIX C

VALUATION DATA

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VALUATION DATA NOTES

The following are relevant notes to the valuation data displayed in this appendix:

- These population- and pay-related data represent the appropriate beginning counts (“inputs”) to Closed Group and Open Group projections.
- Valuation input data were extracted from files maintained by the Defense Manpower Data Center (DMDC). Data on individual retirees and survivors came from official files submitted by the Defense Finance and Accounting Service (DFAS). Active data were obtained from the Active Duty Military Personnel Master File, and reserve data were obtained from the Reserve Component Common Personnel Data System (RCCPDS) Master File, the official source for all component strengths and statistics, respectively.
- Active Duty and Selected Reserve personnel data were not further adjusted to match the official end strength totals supplied by the DoD Comptroller. They were each within 0.1% of aggregate end strength totals.
- The DoD Office of the Actuary (OACT) reviews the data for reasonableness and consistency, but does not audit the data and relies on the file suppliers for its accuracy and comprehensiveness.
- Table-specific notes are included at the bottom of the valuation data tables.
- Some totals may not add due to rounding.

Technical Reference to the FY 2021 Valuation of the Military Retirement System

DoD Enlisted Active Duty Personnel by Years of Service and Age for FY 2021 Valuation

Age	Years of Active Service (VAS)																														Total					
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		30+				
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	13,710	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143	13,801
19	33,773	13,543	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47,409
20	25,749	33,558	14,262	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73,634
21	14,747	25,287	35,355	13,150	21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88,561
22	9,880	14,890	25,084	32,049	8,133	16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90,653
23	7,996	9,892	14,707	22,266	21,458	5,646	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81,775
24	6,270	7,704	10,102	13,272	16,325	15,323	4,199	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73,201
25	4,775	6,238	7,867	9,145	10,659	12,681	11,970	3,022	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65,761
26	3,756	4,866	6,455	6,983	7,216	8,080	10,088	9,685	2,931	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60,066
27	2,938	3,813	5,079	5,837	5,660	5,854	6,515	6,855	8,897	2,085	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55,333
28	2,261	2,926	3,860	4,576	4,737	4,812	4,836	5,850	8,451	6,845	1,617	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50,775
29	1,757	2,355	2,983	3,529	3,745	4,015	4,837	4,389	5,812	6,904	5,364	1,258	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45,939
30	1,454	1,813	2,450	2,688	2,972	3,253	3,150	3,590	4,463	4,877	5,727	4,323	1,512	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42,287
31	1,076	1,470	1,895	2,015	2,311	2,523	2,628	2,964	3,576	3,706	4,151	4,389	1,792	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39,742
32	875	1,170	1,455	1,504	1,761	1,836	2,101	2,330	2,845	2,942	3,039	3,991	4,413	4,472	1,721	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36,467
33	694	881	1,144	1,168	1,331	1,291	1,399	1,785	2,246	2,526	2,531	2,984	3,344	3,987	4,446	1,800	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33,545
34	623	703	896	822	1,017	1,089	1,142	1,305	1,665	1,975	2,172	2,540	2,693	2,977	3,864	4,612	1,540	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31,644
35	482	599	697	657	762	802	820	985	1,285	1,471	1,607	2,156	2,098	2,331	2,878	4,214	4,228	1,876	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29,912
36	264	495	571	496	599	571	607	780	954	1,158	1,277	1,697	1,810	1,884	2,222	3,180	3,801	4,842	2,008	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29,229
37	160	277	465	440	520	476	488	531	721	886	967	1,247	1,455	1,484	1,841	2,398	2,466	4,291	4,809	2,137	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28,071
38	166	165	306	359	440	382	408	373	550	669	802	1,066	1,034	1,137	1,777	1,974	2,977	3,867	4,826	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26,455
39	153	174	202	204	361	325	325	342	422	510	593	812	826	917	1,081	1,529	2,260	2,775	3,628	3,479	1,362	8	0	0	0	0	0	0	0	0	0	0	0	0	0	23,799
40	124	129	127	162	183	261	267	297	345	358	419	611	640	722	922	1,099	1,225	1,714	2,036	2,467	2,370	2,609	906	2	0	0	0	0	0	0	0	0	0	0	0	20,000
41	33	111	124	104	101	154	208	249	283	291	316	453	485	541	641	834	948	1,353	1,511	1,853	1,490	1,801	666	3	0	0	0	0	0	0	0	0	0	0	0	16,262
42	5	35	110	92	108	110	110	214	207	243	256	361	322	434	500	632	725	1,030	1,191	1,470	1,081	1,071	1,279	1,391	426	1	0	0	0	0	0	0	0	0	13,406	
43	1	13	41	64	94	77	77	96	176	190	197	283	313	287	389	480	540	782	934	1,093	760	777	775	982	824	295	0	0	0	0	0	0	0	0	10,541	
44	1	8	22	46	59	67	82	73	92	196	170	252	210	246	267	365	435	624	737	835	572	543	520	576	613	647	172	0	0	0	0	0	0	0	8,431	
45	0	7	18	29	43	72	68	64	62	100	150	166	166	187	247	280	289	457	516	643	455	387	377	408	414	468	384	135	0	0	0	0	0	0	6,593	
46	2	5	13	25	29	43	41	54	43	77	120	183	148	154	165	218	238	357	420	528	366	328	221	282	257	300	261	271	116	1	0	0	0	5,267		
47	0	8	13	10	21	27	34	40	50	40	89	111	119	166	157	177	209	262	348	291	235	218	214	193	222	162	226	108	0	0	0	0	0	0	4,452	
48	0	5	11	18	16	20	16	38	30	51	84	101	95	115	137	168	164	245	203	332	213	159	138	164	138	123	107	225	207	24	0	0	0	3,584		
49	0	2	12	13	19	23	26	22	35	32	58	81	95	92	131	146	171	205	242	230	168	141	119	101	100	114	95	77	130	157	70	0	0	2,897		
50	1	2	6	15	24	20	25	21	18	20	69	79	84	119	128	163	203	193	242	206	154	109	95	83	93	80	57	54	74	96	82	0	0	0	2,451	
51	0	2	11	17	11	22	28	25	31	35	47	70	63	81	102	103	142	157	191	218	125	108	74	85	48	62	39	54	51	65	62	0	0	2,130		
52	0	1	5	5	26	14	19	18	34	20	44	49	57	61	90	78	95	150	176	187	108	98	57	51	46	41	24	29	24	40	46	0	0	0	1,694	
53	0	2	7	11	13	13	13	17	23	15	29	46	51	40	55	67	71	83	169	139	79	64	47	50	45	43	15	20	23	31	22	0	0	0	1,304	
54	0	1	4	9	11	14	17	18	15	12	25	22	34	35	59	52	45	82	88	127	71	60	37	33	27	30	16	15	19	15	17	0	0	0	1,011	
55	0	1	1	6	9	12	11	10	13	11	18	20	20	40	40	49	46	46	71	78	51	48	35	34	13	21	12	18	9	16	16	0	0	0	786	
56	0	0	4	2	5	10	5	14	9	13	14	12	20	24	34	21	21	40	50	74	53	39	38	22	23	14	6	3	10	8	3	0	0	0	591	
57	0	1	3	1	2	9	12	12	9	15	9	10	8	13	20	24	24	34	53	49	18	21	23	16	12	11	1	8	7	6	6	0	0	0	437	
58	0	0	1	3	4	3	8	6	4	7	10	8	14	12	18	13	25	30	42	44	24	18	15	15	7	4	4	7	4	5	4	0	0	0	359	
59	0	0	1	1	5	3	5	5	10	5	5	5	2	6	11	10	10	26	38	25	21	14	10	7	9	8	3	2	1	4	2	0	0	0	250	
60+	6	1	0	0	0	0	1	4	3	2	1	1	2	3	6	3	8	5	21	22	11	2	8	4	4	4	1	0	2	2	6	0	0	0	135	
Total	13																																			

All DoD Non-Selected Reserve Personnel With 20 Good Years by PEBD Years of Service and Age for FY 2021 Valuation

Age	Completed Pay Entry Base Date (PEBD) Years Of Service (YOS)																				Total				
	<19	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37		38	39	40	41
<37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	0	80	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	0	43	246	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	112
39	0	34	342	515	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	351
40	0	20	214	641	562	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	949
41	0	20	141	432	755	639	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,495
42	0	19	161	255	547	919	675	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,046
43	0	11	138	248	343	619	894	614	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,639
44	0	13	78	233	354	429	689	878	558	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,925
45	0	12	69	188	297	377	453	693	843	583	73	0	0	0	0	0	0	0	0	0	0	0	0	0	3,275
46	0	11	47	115	203	343	468	485	621	954	675	73	0	0	0	0	0	0	0	0	0	0	0	0	3,588
47	0	6	45	95	150	249	420	458	465	832	1,060	789	64	0	0	0	0	0	0	0	0	0	0	0	3,995
48	0	7	43	95	140	174	330	448	498	600	860	1,179	645	85	0	0	0	0	0	0	0	0	0	0	4,633
49	0	6	38	75	131	199	236	334	479	523	697	991	1,177	1,049	133	0	0	0	0	0	0	0	0	0	5,105
50	0	6	28	73	103	148	236	286	359	510	712	824	1,151	1,643	1,427	151	0	0	0	0	0	0	0	0	6,068
51	0	3	25	70	82	166	233	262	308	485	760	862	952	1,419	2,094	1,591	91	0	0	0	0	0	0	0	7,658
52	0	4	21	54	86	102	170	223	237	322	537	847	1,000	1,002	1,660	2,183	1,728	152	0	0	0	0	0	0	9,405
53	0	4	19	44	75	109	142	189	226	271	338	520	920	1,232	1,235	1,714	2,536	1,844	174	0	0	0	0	0	10,330
54	0	6	19	39	73	101	120	139	185	255	300	362	584	1,046	1,360	1,238	1,969	2,625	1,856	328	0	0	0	0	11,593
55	0	2	13	40	65	89	123	134	152	210	282	350	441	688	1,323	1,496	1,546	2,186	2,197	2,200	227	0	0	0	12,606
56	0	3	28	55	64	90	104	127	158	211	236	303	382	526	868	1,353	1,659	1,657	1,813	2,807	2,167	217	0	0	13,765
57	0	3	10	37	64	95	111	122	141	186	231	264	320	449	637	918	1,579	1,925	1,442	2,321	3,044	2,410	293	0	14,830
58	0	1	5	30	61	63	106	129	111	177	185	250	383	383	564	736	1,107	1,734	1,844	1,718	2,409	3,082	2,606	271	16,603
59	0	1	14	30	44	51	86	119	116	118	161	196	255	318	390	536	733	1,114	1,652	1,836	1,686	2,346	3,097	2,599	17,893
60	0	2	1	14	11	28	41	56	55	47	69	83	116	125	176	243	356	420	593	952	1,057	1,340	1,440	2,731	17,499
61	0	0	1	0	0	4	9	8	8	3	5	7	21	15	17	27	52	67	54	75	96	124	110	412	1,115
62	0	0	0	0	0	3	2	2	3	3	4	5	9	5	11	8	19	27	32	50	53	61	82	293	670
63	0	0	0	0	0	0	0	0	2	6	3	10	14	32	18	41	43	71	74	67	115	109	155	1,549	2,313
Total	0	318	1,779	3,443	4,269	5,051	5,713	5,771	5,584	6,340	7,189	7,916	8,373	10,017	11,914	12,235	13,418	13,823	11,731	12,353	10,761	9,406	7,683	7,856	182,944

Notes: Data taken from the actuarial valuation file created by the DoD Office of the Actuary.

Age is age nearest birthday as of the end of the fiscal year.

Age 63 is 63 and over and YOS 41 is 41 and over.

Average Age: 53.6

Average PEBD Years of Service: 32.4

Technical Reference to the FY 2021 Valuation of the Military Retirement System

DoD Retired Military Valuation Data as of Year-End FY 2021

All Officers

Age	Number				Average Annual Net Retired Pay				Reserve Retired				Average Annual Net Retired Pay				Reserve Retired			
	Non-Disabled	Perm Disabled	Temp Disabled	Reserve Retired	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis	Total	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis	Total	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis		
16	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
17	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
18	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
19	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
20	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
21	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
22	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
23	0	2	1	3	0	0	0	0	\$18,046	\$20,232	\$0	\$0	\$18,775	\$18,775	\$0	\$0	\$0	\$0		
24	0	1	2	3	0	0	0	0	\$7,637	\$9,499	\$0	\$0	\$8,879	\$8,879	\$0	\$0	\$0	\$0		
25	0	10	14	24	0	0	0	0	\$9,747	\$7,192	\$0	\$0	\$8,257	\$8,257	\$0	\$0	\$0	\$0		
26	0	23	22	45	0	0	0	0	\$5,504	\$9,018	\$0	\$0	\$7,222	\$7,222	\$0	\$0	\$0	\$0		
27	1	36	23	60	0	0	0	0	\$8,269	\$10,997	\$0	\$0	\$9,878	\$9,878	\$0	\$0	\$0	\$0		
28	0	59	25	84	0	0	0	0	\$6,716	\$10,299	\$0	\$0	\$7,782	\$7,782	\$0	\$0	\$0	\$0		
29	0	74	33	107	0	0	0	0	\$8,162	\$13,783	\$0	\$0	\$9,896	\$9,896	\$0	\$0	\$0	\$0		
30	0	84	33	117	0	0	0	0	\$9,926	\$13,116	\$0	\$0	\$10,826	\$10,826	\$0	\$0	\$0	\$0		
31	0	112	37	149	0	0	0	0	\$9,386	\$11,234	\$0	\$0	\$9,845	\$9,845	\$0	\$0	\$0	\$0		
32	1	172	43	216	0	0	0	0	\$10,909	\$12,008	\$0	\$0	\$11,371	\$11,371	\$0	\$0	\$0	\$0		
33	1	172	40	213	0	0	0	0	\$48,336	\$13,437	\$0	\$0	\$10,390	\$10,390	\$0	\$0	\$0	\$0		
34	1	189	37	227	0	0	0	0	\$49,080	\$17,419	\$0	\$0	\$12,280	\$12,280	\$0	\$0	\$0	\$0		
35	2	267	45	314	2	0	0	0	\$11,798	\$14,519	\$0	\$0	\$12,253	\$12,253	\$0	\$0	\$0	\$0		
36	2	288	34	324	2	0	1	0	\$24,662	\$16,153	\$0	\$0	\$12,055	\$12,055	\$0	\$0	\$0	\$4,552		
37	3	305	33	341	3	0	0	0	\$13,432	\$17,548	\$0	\$0	\$13,914	\$13,914	\$0	\$0	\$0	\$0		
38	40	370	31	441	11	0	0	0	\$15,256	\$17,738	\$0	\$0	\$15,473	\$15,473	\$0	\$0	\$0	\$0		
39	209	391	49	649	12	0	7	0	\$37,542	\$22,866	\$0	\$0	\$23,194	\$23,194	\$0	\$0	\$0	\$19,125		
40	397	403	45	845	18	0	28	6	\$38,469	\$25,077	\$0	\$0	\$26,834	\$26,834	\$0	\$0	\$0	\$24,554		
41	633	489	54	1,176	40	0	47	11	\$39,634	\$18,275	\$0	\$0	\$29,430	\$29,430	\$0	\$0	\$0	\$31,595		
42	1,086	519	71	1,676	81	0	59	17	\$41,246	\$20,523	\$0	\$0	\$34,445	\$34,445	\$0	\$0	\$0	\$29,356		
43	1,692	476	36	2,204	122	0	89	20	\$43,995	\$22,912	\$0	\$0	\$39,279	\$39,279	\$0	\$0	\$0	\$33,682		
44	2,390	527	49	2,966	254	0	110	26	\$44,744	\$23,538	\$0	\$0	\$40,855	\$40,855	\$0	\$0	\$0	\$33,034		
45	3,152	480	29	3,661	366	0	158	25	\$45,797	\$26,566	\$0	\$0	\$43,223	\$43,223	\$0	\$0	\$0	\$33,352		
46	3,767	500	29	4,296	376	0	222	34	\$47,102	\$27,518	\$0	\$0	\$44,798	\$44,798	\$0	\$0	\$0	\$37,596		
47	4,343	554	43	4,940	296	0	276	41	\$48,657	\$29,326	\$0	\$0	\$46,443	\$46,443	\$0	\$0	\$0	\$35,741		
48	4,949	551	25	5,523	248	0	333	51	\$50,452	\$31,977	\$0	\$0	\$48,581	\$48,581	\$0	\$0	\$0	\$41,199		
49	5,602	596	30	6,228	207	0	418	58	\$52,402	\$32,095	\$0	\$0	\$50,451	\$50,451	\$0	\$0	\$0	\$43,742		
50	6,494	614	21	7,129	188	0	538	57	\$53,787	\$32,777	\$0	\$0	\$51,969	\$51,969	\$0	\$0	\$0	\$45,441		
51	7,495	671	27	8,194	127	0	647	55	\$55,531	\$33,678	\$0	\$0	\$52,624	\$52,624	\$0	\$0	\$0	\$46,378		
52	7,767	603	25	8,404	92	0	726	54	\$56,844	\$33,863	\$0	\$0	\$53,374	\$53,374	\$0	\$0	\$0	\$46,314		
53	7,784	536	19	8,352	66	0	563	47	\$58,200	\$34,434	\$0	\$0	\$54,850	\$54,850	\$0	\$0	\$0	\$48,578		
54	8,050	502	15	8,606	36	0	358	29	\$59,390	\$33,109	\$0	\$0	\$57,918	\$57,918	\$0	\$0	\$0	\$48,251		
55	8,428	476	4	8,975	38	0	257	15	\$60,044	\$34,965	\$0	\$0	\$58,071	\$58,071	\$0	\$0	\$0	\$48,947		
56	8,852	474	5	9,469	23	0	191	9	\$60,249	\$35,806	\$0	\$0	\$58,879	\$58,879	\$0	\$0	\$0	\$48,074		
57	9,292	476	5	10,019	32	0	137	7	\$60,410	\$36,181	\$0	\$0	\$59,991	\$59,991	\$0	\$0	\$0	\$48,460		
58	9,506	447	9	10,418	42	0	98	6	\$59,688	\$33,590	\$0	\$0	\$58,008	\$58,008	\$0	\$0	\$0	\$48,983		
59	9,199	415	1	10,339	72	2	73	3	\$60,279	\$31,935	\$0	\$0	\$58,076	\$58,076	\$0	\$0	\$0	\$49,932		
60	9,097	371	8	12,092	105	40	45	1	\$60,592	\$35,056	\$0	\$0	\$56,821	\$56,821	\$0	\$0	\$0	\$46,276		
61	9,056	353	2	14,436	218	154	35	1	\$60,699	\$36,633	\$0	\$0	\$50,464	\$50,464	\$0	\$0	\$0	\$29,811		
62	9,116	342	1	14,579	437	222	27	0	\$60,165	\$33,488	\$0	\$0	\$49,717	\$49,717	\$0	\$0	\$0	\$35,892		
63	9,395	315	2	15,847	758	209	16	2	\$59,580	\$33,624	\$0	\$0	\$52,175	\$52,175	\$0	\$0	\$0	\$22,034		
64	9,747	312	1	15,336	1,152	282	10	1	\$58,727	\$29,842	\$0	\$0	\$49,071	\$49,071	\$0	\$0	\$0	\$40,404		
65	9,864	299	0	15,542	1,379	322	14	1	\$57,718	\$33,734	\$0	\$0	\$51,412	\$51,412	\$0	\$0	\$0	\$39,970		
66	10,124	268	0	15,839	1,530	315	7	0	\$56,572	\$34,447	\$0	\$0	\$51,396	\$51,396	\$0	\$0	\$0	\$56,122		
67	10,124	283	0	15,653	1,472	266	7	0	\$56,504	\$29,996	\$0	\$0	\$47,511	\$47,511	\$0	\$0	\$0	\$60,199		
68	10,294	295	0	15,847	1,281	232	3	0	\$53,798	\$33,798	\$0	\$0	\$50,129	\$50,129	\$0	\$0	\$0	\$44,158		
69	10,229	279	0	16,090	987	205	4	0	\$55,882	\$32,445	\$0	\$0	\$46,232	\$46,232	\$0	\$0	\$0	\$44,927		
70	9,969	257	0	15,026	726	145	7	1	\$55,276	\$35,177	\$0	\$0	\$45,801	\$45,801	\$0	\$0	\$0	\$54,395		

Technical Reference to the FY 2021 Valuation of the Military Retirement System

DoD Retired Military Valuation Data as of Year-End FY 2021

All Officers

Age	Number			Reserve Retired			Temp Disabled			Perm Disabled			Non Disabled			Temp Disabled			Perm Disabled			Non Disabled			Average Annual Net Retired Pay			CSB Dis		
	Non Disabled	Temp Disabled	Reserve Retired	Total	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis	Non Disabled	Temp Disabled	Perm Disabled	Non Disabled	Temp Disabled	Perm Disabled	Non Disabled	Temp Disabled	Perm Disabled	Total	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis
71	10,074	286	0	5,848	445	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$45,026	\$35,852	\$19,610	\$0	\$0	\$19,610	\$0	\$0	
72	10,552	306	0	6,646	455	123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$46,466	\$36,141	\$22,319	\$0	\$0	\$22,319	\$0	\$0	
73	11,160	326	0	7,593	278	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$46,676	\$37,895	\$18,783	\$0	\$0	\$18,783	\$0	\$0	
74	11,859	404	0	8,288	203	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$46,697	\$38,138	\$18,475	\$0	\$0	\$18,475	\$0	\$0	
75	12,390	505	0	8,673	215	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$46,969	\$39,360	\$17,931	\$0	\$0	\$17,931	\$0	\$0	
76	8,487	366	0	6,172	115	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$46,487	\$41,820	\$17,404	\$0	\$0	\$17,404	\$0	\$0	
77	8,406	357	0	5,925	74	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$46,653	\$39,645	\$19,971	\$0	\$0	\$19,971	\$0	\$0	
78	8,343	335	0	5,530	58	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$46,014	\$41,330	\$19,592	\$0	\$0	\$19,592	\$0	\$0	
79	8,040	344	0	5,350	52	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$45,442	\$42,964	\$15,257	\$0	\$0	\$15,257	\$0	\$0	
80	6,839	237	0	4,189	31	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$44,702	\$44,907	\$13,221	\$0	\$0	\$13,221	\$0	\$0	
81	6,601	226	0	3,608	12	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$24,743	\$40,918	\$15,953	\$0	\$0	\$15,953	\$0	\$0	
82	6,460	188	0	3,293	11	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$24,551	\$45,806	\$14,790	\$0	\$0	\$14,790	\$0	\$0	
83	5,897	165	0	3,167	7	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$23,703	\$43,899	\$17,109	\$0	\$0	\$17,109	\$0	\$0	
84	5,440	145	0	2,923	6	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$23,126	\$45,931	\$17,187	\$0	\$0	\$17,187	\$0	\$0	
85	4,923	125	0	2,597	5	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$23,072	\$46,232	\$16,392	\$0	\$0	\$16,392	\$0	\$0	
86	4,422	108	0	2,345	6	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$22,452	\$46,592	\$13,708	\$0	\$0	\$13,708	\$0	\$0	
87	4,337	100	0	2,216	4	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$21,434	\$47,830	\$13,363	\$0	\$0	\$13,363	\$0	\$0	
88	3,707	91	0	1,886	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$21,053	\$48,638	\$12,051	\$0	\$0	\$12,051	\$0	\$0	
89	3,364	80	0	1,771	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$22,693	\$48,324	\$47,365	\$0	\$0	\$20,096	\$0	\$0	
90	2,864	83	0	1,562	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$22,072	\$48,810	\$53,253	\$0	\$0	\$23,253	\$0	\$0	
91	2,480	70	0	1,519	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$21,905	\$48,121	\$0	\$0	\$0	\$0	\$0	\$0	
92	1,821	68	0	1,234	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$21,438	\$47,787	\$0	\$0	\$0	\$0	\$0	\$0	
93	1,383	57	0	875	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$21,219	\$49,411	\$0	\$0	\$0	\$26,400	\$0	\$0	
94	820	29	0	531	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$22,523	\$50,639	\$29,184	\$0	\$0	\$0	\$0	\$0	
95	479	27	0	368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$21,843	\$50,099	\$59,647	\$0	\$0	\$0	\$0	\$0	
96	425	27	0	386	838	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$20,414	\$47,644	\$0	\$0	\$0	\$0	\$0	\$0	
97	412	27	0	369	808	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$19,178	\$47,315	\$0	\$0	\$0	\$0	\$0	\$0	
98	264	20	0	280	564	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$18,817	\$44,278	\$0	\$0	\$0	\$0	\$0	\$0	
99	213	24	0	209	446	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$19,226	\$44,886	\$0	\$0	\$0	\$0	\$0	\$0	
100	146	31	0	151	328	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$19,092	\$45,291	\$0	\$0	\$0	\$0	\$0	\$0	
101	111	27	0	103	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$19,615	\$43,387	\$0	\$0	\$0	\$0	\$0	\$0	
102	71	7	0	61	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$20,122	\$44,986	\$0	\$0	\$0	\$0	\$0	\$0	
103	32	6	0	41	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$22,439	\$40,730	\$0	\$0	\$0	\$0	\$0	\$0	
104	19	3	0	7	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$27,545	\$59,304	\$0	\$0	\$0	\$0	\$0	\$0	
105	6	3	0	9	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$21,409	\$38,803	\$0	\$0	\$0	\$0	\$0	\$0	
106	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$23,385	\$39,759	\$0	\$0	\$0	\$0	\$0	\$0	
107	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$28,004	\$60,691	\$0	\$0	\$0	\$0	\$0	\$0	
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
110+	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	152,856	5,203	0	95,732	1,894	856	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$25,141	\$38,274	\$18,444	\$0	\$0	\$18,444	\$0	\$0	
60+	152,856	5,203	0	95,732	1,894	856	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$25,141	\$38,274	\$18,444	\$0	\$0	\$18,444	\$0	\$0	
62+	152,856	5,203	0	95,732	1,894	856	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$25,141	\$38,274	\$18,444	\$0	\$0	\$18,444	\$0	\$0	
65+	152,856	5,203	0	95,732	1,894	856	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$25,141	\$38,274	\$18,444	\$0	\$0	\$18,444	\$0	\$0	

Notes: Age is retiree's current age nearest birthday at end of fiscal year.
60+ is total for ages 60 and over.
62+ is total for ages 62 and over.
65+ is total for ages 65 and over.
Includes only retirees receiving payment from DoD.
Temporary Early Retirement Act (TERA) retirees and payments are shown for informational purposes only.
Career Status Bonus (CSB) retirees and payments are shown for informational purposes only.
TERA and CSB numbers and payments are included in the appropriate categories.
Pay amounts do not include the 12/1/21 cost of living increase of 5.9%.

DoD Retired Military Valuation Data as of Year-End FY 2021

All Enlisted

Age	Number				Average Annual Net Retired Pay				Reserve Retired				Average Annual Net Retired Pay				Reserve Retired			
	Non-Disabled	Perm Disabled	Temp Disabled	Reserve Retired	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	3	0	6	0	0	0	0	\$8,916	\$9,732	\$0	\$9,324	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20	0	0	6	0	21	0	0	0	0	\$2,068	\$11,677	\$0	\$8,932	\$0	\$0	\$0	\$0	\$0	\$0	\$0
21	0	31	42	0	73	0	0	0	0	\$7,709	\$9,775	\$0	\$8,897	\$0	\$0	\$0	\$0	\$0	\$0	\$0
22	0	57	86	0	143	0	0	0	0	\$3,096	\$7,238	\$0	\$5,587	\$0	\$0	\$0	\$0	\$0	\$0	\$0
23	0	90	88	0	178	0	0	0	0	\$5,047	\$6,543	\$0	\$5,787	\$0	\$0	\$0	\$0	\$0	\$0	\$0
24	1	139	123	0	263	0	0	0	\$23,203	\$3,156	\$5,206	\$0	\$4,191	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25	0	207	127	0	334	0	0	0	0	\$3,456	\$4,025	\$0	\$3,672	\$0	\$0	\$0	\$0	\$0	\$0	\$0
26	0	218	121	0	339	0	0	0	0	\$3,215	\$4,706	\$0	\$3,747	\$0	\$0	\$0	\$0	\$0	\$0	\$0
27	0	304	121	0	425	0	0	0	0	\$5,551	\$5,356	\$0	\$4,065	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	0	415	121	0	536	0	0	0	0	\$3,490	\$5,110	\$0	\$3,856	\$0	\$0	\$0	\$0	\$0	\$0	\$0
29	0	545	123	0	668	0	0	0	0	\$3,519	\$5,676	\$0	\$3,916	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30	1	876	121	0	998	0	0	0	0	\$3,493	\$5,596	\$0	\$3,765	\$0	\$0	\$0	\$0	\$0	\$0	\$0
31	0	1,170	123	0	1,293	0	0	0	0	\$3,662	\$6,355	\$0	\$3,918	\$0	\$0	\$0	\$0	\$0	\$0	\$0
32	1	1,449	130	0	1,580	1	0	0	\$19,128	\$4,021	\$6,646	\$0	\$4,247	\$19,128	\$0	\$0	\$0	\$0	\$0	\$0
33	1	1,834	112	0	1,947	0	0	0	\$22,932	\$4,331	\$6,715	\$0	\$4,478	\$0	\$22,932	\$0	\$0	\$0	\$0	\$0
34	11	2,226	118	0	2,355	11	0	0	\$17,434	\$4,747	\$6,917	\$0	\$4,915	\$17,434	\$0	\$0	\$0	\$0	\$0	\$0
35	31	2,864	118	0	3,013	30	0	0	\$18,566	\$5,183	\$8,854	\$0	\$5,465	\$18,088	\$0	\$0	\$0	\$0	\$0	\$0
36	70	3,142	135	0	3,347	67	1	1	\$18,921	\$5,494	\$9,517	\$0	\$5,937	\$18,472	\$0	\$19,085	\$0	\$0	\$0	\$9,814
37	94	3,579	125	0	3,798	92	2	6	\$19,171	\$6,002	\$10,055	\$0	\$6,461	\$18,452	\$0	\$10,563	\$0	\$0	\$0	\$10,773
38	704	3,565	108	0	4,377	153	87	13	\$24,341	\$6,465	\$12,713	\$0	\$9,494	\$18,586	\$0	\$20,653	\$0	\$0	\$0	\$16,160
39	2,674	3,608	140	0	6,422	217	345	40	\$25,317	\$7,340	\$14,851	\$0	\$14,989	\$17,448	\$0	\$21,015	\$0	\$0	\$0	\$17,478
40	5,183	3,391	171	0	8,745	364	733	84	\$25,278	\$8,393	\$19,678	\$0	\$18,621	\$17,077	\$0	\$21,034	\$0	\$0	\$0	\$18,560
41	7,878	3,199	176	0	11,253	660	1,214	149	\$25,127	\$9,417	\$21,889	\$0	\$20,610	\$16,445	\$0	\$20,762	\$0	\$0	\$0	\$19,795
42	10,192	3,070	157	0	13,419	935	1,789	160	\$10,631	\$24,028	\$24,028	\$0	\$21,817	\$16,516	\$0	\$20,702	\$0	\$0	\$0	\$21,175
43	11,779	2,927	139	0	14,845	973	2,264	210	\$25,581	\$11,789	\$26,059	\$0	\$22,866	\$16,771	\$0	\$21,107	\$0	\$0	\$0	\$20,776
44	13,055	2,765	117	0	15,937	940	2,842	265	\$25,897	\$12,986	\$24,406	\$0	\$23,646	\$17,404	\$0	\$21,772	\$0	\$0	\$0	\$20,686
45	14,001	2,622	100	0	16,723	763	3,357	324	\$26,382	\$14,043	\$27,135	\$0	\$24,452	\$17,918	\$0	\$22,167	\$0	\$0	\$0	\$21,416
46	15,194	2,443	71	0	17,708	551	4,045	319	\$26,604	\$14,309	\$25,841	\$0	\$24,905	\$18,416	\$0	\$22,819	\$0	\$0	\$0	\$21,810
47	16,441	2,411	56	0	18,908	384	4,797	373	\$26,808	\$15,722	\$26,152	\$0	\$25,392	\$18,131	\$0	\$22,974	\$0	\$0	\$0	\$22,140
48	17,550	2,346	50	0	19,946	258	5,642	382	\$27,038	\$15,957	\$26,429	\$0	\$25,733	\$18,658	\$0	\$23,303	\$0	\$0	\$0	\$23,380
49	18,952	2,406	42	0	21,400	185	6,489	382	\$27,549	\$16,376	\$23,327	\$0	\$26,285	\$18,452	\$0	\$24,077	\$0	\$0	\$0	\$23,519
50	21,281	2,347	37	0	23,665	138	7,442	384	\$27,759	\$16,554	\$24,338	\$0	\$26,642	\$19,035	\$0	\$24,264	\$0	\$0	\$0	\$24,658
51	23,031	2,360	37	2	25,430	114	8,653	383	\$27,786	\$16,310	\$25,469	\$28,196	\$28,718	\$19,217	\$0	\$24,415	\$0	\$0	\$0	\$25,585
52	22,775	2,142	36	4	24,957	61	8,904	311	\$27,688	\$16,732	\$28,935	\$29,291	\$26,750	\$19,681	\$0	\$24,341	\$0	\$0	\$0	\$25,050
53	23,494	1,989	34	10	25,527	47	7,135	246	\$27,845	\$16,953	\$21,758	\$27,512	\$26,989	\$21,691	\$0	\$23,990	\$0	\$0	\$0	\$26,148
54	25,074	1,774	20	13	26,881	43	4,848	173	\$28,018	\$16,594	\$30,149	\$26,312	\$27,265	\$17,444	\$22,872	\$23,377	\$0	\$0	\$0	\$26,917
55	27,236	1,771	33	25	29,065	52	3,159	120	\$28,056	\$16,177	\$26,628	\$29,494	\$27,332	\$14,969	\$0	\$23,312	\$0	\$0	\$0	\$27,275
56	29,463	1,658	11	62	31,194	168	2,235	71	\$28,065	\$15,552	\$19,817	\$27,459	\$27,396	\$13,602	\$13,861	\$22,960	\$0	\$0	\$0	\$23,345
57	32,125	1,703	17	138	33,983	361	1,666	72	\$27,794	\$16,158	\$25,354	\$26,736	\$27,205	\$13,776	\$0	\$22,459	\$0	\$0	\$0	\$24,856
58	33,908	1,640	12	330	35,890	811	1,188	46	\$27,186	\$16,053	\$30,342	\$26,031	\$26,659	\$13,322	\$0	\$22,734	\$0	\$0	\$0	\$25,793
59	35,298	1,674	7	774	37,753	1,557	873	32	\$26,823	\$16,344	\$27,196	\$22,953	\$26,279	\$13,776	\$11,296	\$22,295	\$0	\$0	\$0	\$25,864
60	36,417	1,519	15	5,120	43,071	2,720	655	12	\$26,446	\$16,049	\$31,333	\$16,527	\$24,878	\$13,993	\$9,284	\$22,542	\$0	\$0	\$0	\$24,713
61	36,926	1,503	4	12,611	51,044	472	433	11	\$28,065	\$15,552	\$18,817	\$14,752	\$22,749	\$14,371	\$14,752	\$21,976	\$0	\$0	\$0	\$25,585
62	36,106	1,447	3	12,698	50,254	481	324	11	\$25,488	\$15,433	\$39,707	\$14,380	\$22,392	\$15,104	\$9,045	\$23,546	\$0	\$0	\$0	\$27,057
63	34,664	1,235	0	12,455	48,354	498	200	5	\$25,154	\$15,265	\$14,099	\$14,099	\$21,654	\$15,875	\$8,813	\$25,444	\$0	\$0	\$0	\$25,569
64	33,597	1,277	0	12,555	47,429	502	175	3	\$24,811	\$15,187	\$0	\$14,796	\$21,636	\$16,290	\$9,175	\$26,508	\$0	\$0	\$0	\$31,969
65	31,716	1,210	0	12,376	45,302	3,818	419	124	\$24,645	\$15,045	\$0	\$13,334	\$21,298	\$16,581	\$8,237	\$25,899	\$0	\$0	\$0	\$26,531
66	30,544	1,196	0	11,784	43,524	2,828	78	4	\$24,649	\$15,005	\$0	\$12,999	\$21,240	\$16,660	\$8,296	\$24,491	\$0	\$0	\$0	\$27,652
67	29,905	1,189	0	10,994	42,088	2,071	400	2	\$24,572	\$15,303	\$0	\$12,966	\$21,270	\$16,550	\$8,258	\$22,590	\$0	\$0	\$0	\$30,186
68	28,378	1,170	0	11,113	40,661	1,426	381	33	\$24,554	\$14,905	\$0	\$12,825	\$20,671	\$16,652	\$8,019	\$23,313	\$0	\$0	\$0	\$27,950
69	27,976	1,205	0	12,530	41,711	1,008	333	24	\$24,789	\$14,830	\$0	\$12,564	\$20,769	\$16,574	\$8,405	\$22,154	\$0	\$0	\$0	\$48,000
70	25,263	1,181	0	12,452	38,896	802	329	0	\$24,939	\$14,709	\$0	\$12,357	\$20,601	\$16,847	\$7,948	\$23,539	\$0	\$0	\$0	\$0

Technical Reference to the FY 2021 Valuation of the Military Retirement System

DoD Retired Military Valuation Data as of Year-End FY 2021

All Enlisted

Age	Number				Reserve Retired				Average Annual Net Retired Pay				TERA		CSB	
	Non Disabled	Perm Disabled	Temp Disabled	Total	Non Disabled	Perm Disabled	Temp Disabled	Total	Non-Dis	Res Ret	Non-Dis	Res Ret	Non-Dis	Dis	Non-Dis	Dis
71	23,853	1,451	0	38,373	611	284	0	0	\$23,352	\$13,019	\$0	\$12,118	\$20,379	\$17,422	\$7,986	\$0
72	23,696	1,787	0	39,662	461	312	0	0	\$10,852	\$11,809	\$0	\$11,809	\$20,108	\$18,029	\$7,561	\$0
73	23,288	2,065	0	40,052	375	360	0	0	\$26,170	\$9,749	\$0	\$11,915	\$20,092	\$18,427	\$7,599	\$0
74	22,853	2,078	0	40,309	320	351	0	0	\$26,627	\$9,483	\$0	\$11,971	\$20,152	\$18,644	\$7,890	\$0
75	21,961	1,741	0	38,673	264	307	0	0	\$27,024	\$10,555	\$0	\$11,588	\$20,307	\$19,855	\$7,740	\$0
76	14,914	1,070	0	26,159	158	204	0	0	\$27,040	\$12,443	\$0	\$11,604	\$20,439	\$19,815	\$7,788	\$0
77	14,600	876	0	24,638	105	161	0	0	\$27,133	\$13,618	\$0	\$11,595	\$20,875	\$20,950	\$7,539	\$0
78	15,140	703	0	24,292	87	133	0	0	\$27,028	\$15,689	\$0	\$11,419	\$21,271	\$21,308	\$8,185	\$0
79	15,889	659	0	24,351	53	119	0	0	\$26,832	\$16,874	\$0	\$11,358	\$21,604	\$21,102	\$8,016	\$0
80	14,198	555	0	20,731	45	101	0	0	\$26,669	\$16,502	\$0	\$10,893	\$21,847	\$21,974	\$7,053	\$0
81	13,187	463	0	18,512	21	68	0	0	\$26,536	\$19,025	\$0	\$10,628	\$22,170	\$23,060	\$6,895	\$0
82	12,384	348	0	17,358	14	76	0	0	\$26,260	\$18,968	\$0	\$10,629	\$23,948	\$23,351	\$6,285	\$0
83	12,333	367	0	17,058	17	83	0	0	\$26,451	\$18,773	\$0	\$10,376	\$22,179	\$23,024	\$6,939	\$0
84	12,504	322	0	16,867	6	83	0	0	\$26,719	\$19,303	\$0	\$10,385	\$22,664	\$19,212	\$5,895	\$0
85	11,390	274	0	15,286	6	72	0	0	\$27,067	\$18,879	\$0	\$10,454	\$22,983	\$22,517	\$5,925	\$0
86	10,267	256	0	13,757	2	79	0	0	\$27,154	\$19,069	\$0	\$10,541	\$23,926	\$25,761	\$6,752	\$0
87	8,679	262	0	11,494	0	42	0	0	\$27,260	\$18,758	\$0	\$10,852	\$23,422	\$23,422	\$6,718	\$0
88	7,305	256	0	9,535	0	37	0	0	\$27,551	\$17,366	\$0	\$11,247	\$23,902	\$23,902	\$6,362	\$0
89	6,400	270	0	8,361	4	4	0	0	\$27,958	\$17,000	\$0	\$11,029	\$24,180	\$24,180	\$5,664	\$0
90	5,423	253	0	7,156	0	2	0	0	\$28,035	\$16,355	\$0	\$10,983	\$24,096	\$24,096	\$5,107	\$0
91	4,674	238	0	6,180	1	0	0	0	\$27,698	\$16,743	\$0	\$11,371	\$23,926	\$23,926	\$5,413	\$0
92	3,601	217	0	4,675	0	0	0	0	\$27,756	\$17,801	\$0	\$11,432	\$24,301	\$24,301	\$6,301	\$0
93	2,437	148	0	3,185	0	0	0	0	\$27,815	\$19,542	\$0	\$11,519	\$24,361	\$24,361	\$6,301	\$0
94	1,659	93	0	2,082	0	0	0	0	\$27,451	\$19,417	\$0	\$12,005	\$24,644	\$24,644	\$6,301	\$0
95	963	42	0	1,251	0	0	0	0	\$26,837	\$23,993	\$0	\$11,976	\$23,820	\$23,820	\$6,301	\$0
96	626	27	0	834	0	0	0	0	\$27,309	\$21,337	\$0	\$11,971	\$23,787	\$23,787	\$6,301	\$0
97	447	20	0	606	0	0	0	0	\$27,941	\$25,053	\$0	\$12,041	\$24,199	\$24,199	\$6,301	\$0
98	286	8	0	382	0	0	0	0	\$26,722	\$19,750	\$0	\$11,487	\$23,066	\$23,066	\$6,301	\$0
99	190	12	0	246	0	0	0	0	\$26,007	\$16,849	\$0	\$11,315	\$22,933	\$22,933	\$6,301	\$0
100	113	9	0	160	0	0	0	0	\$24,020	\$22,442	\$0	\$11,226	\$20,892	\$20,892	\$6,301	\$0
101	73	3	0	99	0	0	0	0	\$24,855	\$30,616	\$0	\$10,009	\$21,581	\$21,581	\$6,301	\$0
102	41	7	0	58	0	0	0	0	\$25,496	\$27,612	\$0	\$10,466	\$23,160	\$23,160	\$6,301	\$0
103	21	1	0	27	0	0	0	0	\$24,405	\$4,176	\$0	\$12,785	\$19,948	\$19,948	\$6,301	\$0
104	9	0	0	12	0	0	0	0	\$21,237	\$0	\$0	\$15,076	\$19,697	\$19,697	\$6,301	\$0
105	5	0	0	6	0	0	0	0	\$26,074	\$0	\$0	\$19,584	\$24,992	\$24,992	\$6,301	\$0
106	2	0	0	1	0	0	0	0	\$17,994	\$0	\$0	\$10,632	\$15,540	\$15,540	\$6,301	\$0
107	2	1	0	4	0	0	0	0	\$20,789	\$1,105	\$0	\$5,324	\$12,002	\$12,002	\$6,301	\$0
108	1	0	0	1	0	0	0	0	\$32,532	\$0	\$0	\$0	\$32,532	\$32,532	\$6,301	\$0
109	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,301	\$0
110+	1	0	0	1	0	0	0	0	\$22,272	\$0	\$0	\$0	\$22,272	\$22,272	\$6,301	\$0
Total	305,415	16,882	0	150,139	472,436	2,545	2,879	0	\$26,682	\$13,339	\$0	\$11,470	\$21,371	\$18,809	\$7,499	\$0
60+	305,415	16,882	0	150,139	472,436	2,545	2,879	0	\$26,682	\$13,339	\$0	\$11,470	\$21,371	\$18,809	\$7,499	\$0
62+	305,415	16,882	0	150,139	472,436	2,545	2,879	0	\$26,682	\$13,339	\$0	\$11,470	\$21,371	\$18,809	\$7,499	\$0
65+	305,415	16,882	0	150,139	472,436	2,545	2,879	0	\$26,682	\$13,339	\$0	\$11,470	\$21,371	\$18,809	\$7,499	\$0

Notes: Age is retiree's current age nearest birthday at end of fiscal year.
60+ is total for ages 60 and over.
62+ is total for ages 62 and over.
65+ is total for ages 65 and over.
Includes only retirees receiving payment from DoD.
Temporary Early Retirement Act (TERA) retirees and payments are shown for informational purposes only.
Career Status Bonus (CSB) retirees and payments are shown for informational purposes only.
TERA and CSB numbers and payments are included in the appropriate categories.
Pay amounts do not include the 12/1/21 cost of living increase of 5.9%.

DoD Retired Military Valuation Data as of Year-End FY 2021

All DoD

Age	Number				Average Annual Net Retired Pay				Reserve				
	Non-Disabled	Perm Disabled	Temp Disabled	Total	TERA Non-Dis	TERA Res Ret	CSB Non-Dis	CSB Dis	Res Ret	Non-Dis	Dis	Total	Non-Dis
16	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0
17	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0
18	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0
19	0	0	3	6	0	0	0	0	\$9,324	\$0	\$9,324	\$0	\$0
20	0	0	6	21	0	0	0	0	\$8,932	\$0	\$8,932	\$0	\$0
21	0	31	42	73	0	0	0	0	\$8,897	\$0	\$8,897	\$0	\$0
22	0	57	86	143	0	0	0	0	\$7,238	\$0	\$7,238	\$0	\$0
23	0	92	89	181	0	0	0	0	\$6,002	\$0	\$6,002	\$0	\$0
24	1	140	125	266	0	0	0	0	\$4,244	\$0	\$4,244	\$0	\$0
25	0	217	141	358	0	0	0	0	\$3,979	\$0	\$3,979	\$0	\$0
26	0	241	143	384	0	0	0	0	\$4,155	\$0	\$4,155	\$0	\$0
27	1	340	144	485	0	0	0	0	\$4,784	\$0	\$4,784	\$0	\$0
28	0	474	146	620	0	0	0	0	\$4,388	\$0	\$4,388	\$0	\$0
29	0	619	156	775	0	0	1	0	\$4,074	\$0	\$4,074	\$0	\$40,140
30	1	960	154	1,115	0	0	1	0	\$4,056	\$0	\$4,056	\$0	\$20,437
31	0	1,282	160	1,442	0	0	0	0	\$4,531	\$0	\$4,531	\$0	\$0
32	2	1,621	173	1,796	1	0	0	0	\$5,103	\$19,128	\$24,231	\$0	\$0
33	2	2,006	152	2,160	0	1	0	0	\$5,061	\$0	\$5,061	\$0	\$22,932
34	12	2,415	155	2,582	11	0	0	0	\$15,742	\$18,464	\$34,206	\$0	\$0
35	33	3,131	163	3,327	32	0	0	0	\$6,105	\$17,434	\$23,539	\$0	\$0
36	72	3,430	169	3,671	69	0	2	0	\$10,852	\$18,651	\$29,503	\$0	\$19,085
37	97	3,884	158	4,139	95	0	2	0	\$6,477	\$19,680	\$26,157	\$0	\$7,183
38	744	3,955	139	4,818	164	0	87	13	\$7,075	\$19,096	\$26,171	\$0	\$10,563
39	2,883	3,999	189	7,071	229	0	355	90	\$10,041	\$19,096	\$29,137	\$0	\$16,160
40	5,580	3,794	216	9,590	382	0	761	90	\$15,742	\$18,464	\$34,206	\$0	\$21,161
41	8,511	3,688	230	12,429	706	0	1,261	160	\$19,155	\$20,803	\$39,958	\$0	\$18,960
42	11,278	3,589	228	15,095	1,016	0	1,848	177	\$10,591	\$24,052	\$34,643	\$0	\$21,166
43	13,445	3,403	175	17,049	1,095	0	2,353	230	\$12,062	\$25,881	\$37,943	\$0	\$21,085
44	15,445	3,292	166	18,903	1,194	0	2,952	291	\$13,345	\$27,703	\$41,048	\$0	\$21,478
45	17,153	3,102	129	20,384	1,129	0	3,515	349	\$14,679	\$28,189	\$42,868	\$0	\$21,662
46	18,961	2,943	100	22,004	927	0	4,267	353	\$15,981	\$29,830	\$45,811	\$0	\$22,056
47	20,784	2,965	99	23,848	680	0	5,073	414	\$16,553	\$30,951	\$47,504	\$0	\$23,587
48	22,499	2,897	75	25,471	506	0	5,975	433	\$18,264	\$33,630	\$51,894	\$0	\$23,779
49	24,554	3,002	72	27,628	392	0	6,907	440	\$19,004	\$32,326	\$51,330	\$0	\$23,818
50	27,775	2,961	58	30,794	326	0	8,000	441	\$19,497	\$34,817	\$54,314	\$0	\$24,098
51	30,526	3,031	64	33,624	241	0	9,300	438	\$19,918	\$33,945	\$53,863	\$0	\$25,337
52	30,542	2,745	61	33,361	153	0	9,630	365	\$20,155	\$36,350	\$56,505	\$0	\$25,741
53	31,278	2,525	53	33,879	113	0	7,698	293	\$20,495	\$34,704	\$55,200	\$0	\$25,943
54	33,124	2,276	35	35,487	79	1	5,206	202	\$20,664	\$32,986	\$53,650	\$0	\$26,149
55	35,664	2,247	37	38,040	90	0	3,416	135	\$20,678	\$37,704	\$58,382	\$0	\$28,463
56	38,315	2,132	16	40,663	191	1	2,426	80	\$20,616	\$30,275	\$50,891	\$0	\$25,241
57	41,417	2,179	22	44,002	393	0	1,803	79	\$20,055	\$32,315	\$52,370	\$0	\$24,937
58	43,414	2,087	21	46,308	853	3	1,286	52	\$20,740	\$28,740	\$49,480	\$0	\$24,578
59	44,497	2,089	8	48,092	1,629	7	946	35	\$19,809	\$42,786	\$62,595	\$0	\$27,479
60	45,514	1,890	23	50,166	2,825	175	700	13	\$19,442	\$30,180	\$49,622	\$0	\$27,777
61	45,982	1,856	6	50,666	3,933	626	468	12	\$19,780	\$34,789	\$54,569	\$0	\$26,280
62	45,222	1,789	4	48,833	4,790	703	351	12	\$19,331	\$32,265	\$51,596	\$0	\$26,064
63	44,059	1,550	2	46,146	5,482	707	216	7	\$18,885	\$34,537	\$53,422	\$0	\$23,195
64	43,344	1,589	1	45,833	6,276	784	185	4	\$18,996	\$36,635	\$55,631	\$0	\$23,935
65	45,514	1,509	0	47,023	5,711	784	185	4	\$18,064	\$19,291	\$37,355	\$0	\$23,845
66	40,675	1,464	0	42,139	60,844	5,197	138	2	\$18,748	\$0	\$18,748	\$0	\$23,078
67	40,029	1,472	0	41,501	59,363	4,358	85	4	\$18,809	\$28,158	\$46,967	\$0	\$18,250
68	38,672	1,465	0	39,137	57,741	666	93	2	\$18,591	\$23,324	\$41,915	\$0	\$27,652
69	38,205	1,484	0	39,689	56,508	613	36	0	\$18,866	\$28,318	\$47,184	\$0	\$14,404
70	35,252	1,438	0	36,690	57,801	1,995	28	1	\$18,710	\$25,149	\$43,859	\$0	\$30,186
					57,801	1,995	28	1	\$17,610	\$25,900	\$43,510	\$0	\$30,186
					54,522	1,528	14	1	\$17,535	\$25,927	\$43,462	\$0	\$48,000
									\$17,535	\$25,927	\$43,462	\$0	\$21,118

Technical Reference to the FY 2021 Valuation of the Military Retirement System

DoD Retired Military Valuation Data as of Year-End FY 2021

All DoD

Age	Number			Reserve Retired			Temp Disabled			TERRA			TERRA			Average Annual Net Retired Pay			TERRA					
	Non Disabled	Perm Disabled	Total	Non-Dis	Temp Disabled	Total	Res Ret	Non-Dis	Dis	Non-Dis	Temp Disabled	Dis	Res Ret	Non-Dis	Dis	Total	Res Ret	Non-Dis	Dis	Total	Res Ret	Non-Dis	Dis	
71	33,927	1,737	54,581	1,056	0	1,056	399	0	0	\$16,826	\$17,016	\$27,698	\$25,188	\$11,336	\$0	\$17,016	\$27,698	\$25,188	\$11,336	\$0	\$17,016	\$27,698	\$25,188	\$11,336
72	34,248	2,093	57,166	816	0	816	435	0	0	\$14,147	\$16,486	\$27,327	\$25,908	\$11,734	\$0	\$16,486	\$27,327	\$25,908	\$11,734	\$0	\$16,486	\$27,327	\$25,908	\$11,734
73	34,448	2,391	59,131	653	0	653	461	0	0	\$12,755	\$16,697	\$27,379	\$26,715	\$10,049	\$0	\$16,697	\$27,379	\$26,715	\$10,049	\$0	\$16,697	\$27,379	\$26,715	\$10,049
74	34,712	2,482	60,860	559	0	559	438	0	0	\$13,240	\$16,949	\$27,665	\$26,979	\$9,993	\$0	\$16,949	\$27,665	\$26,979	\$9,993	\$0	\$16,949	\$27,665	\$26,979	\$9,993
75	34,351	2,246	60,241	449	0	449	400	0	0	\$15,228	\$16,863	\$28,475	\$27,892	\$10,109	\$0	\$16,863	\$28,475	\$27,892	\$10,109	\$0	\$16,863	\$28,475	\$27,892	\$10,109
76	23,401	1,436	41,184	273	0	273	255	0	0	\$16,347	\$17,223	\$28,759	\$29,084	\$9,691	\$0	\$17,223	\$28,759	\$29,084	\$9,691	\$0	\$17,223	\$28,759	\$29,084	\$9,691
77	23,006	1,233	39,326	179	0	179	198	0	0	\$18,079	\$17,509	\$29,409	\$29,409	\$9,862	\$0	\$17,509	\$29,409	\$29,409	\$9,862	\$0	\$17,509	\$29,409	\$29,409	\$9,862
78	23,483	1,038	38,500	145	0	145	164	0	0	\$17,532	\$17,193	\$29,700	\$29,700	\$10,341	\$0	\$17,193	\$29,700	\$29,700	\$10,341	\$0	\$17,193	\$29,700	\$29,700	\$10,341
79	23,929	1,003	38,085	105	0	105	155	0	0	\$22,266	\$17,087	\$29,553	\$31,929	\$9,698	\$0	\$17,087	\$29,553	\$31,929	\$9,698	\$0	\$17,087	\$29,553	\$31,929	\$9,698
80	21,037	792	31,996	76	0	76	126	0	0	\$36,296	\$16,582	\$29,664	\$31,317	\$8,297	\$0	\$16,582	\$29,664	\$31,317	\$8,297	\$0	\$16,582	\$29,664	\$31,317	\$8,297
81	19,788	689	28,947	33	0	33	93	0	0	\$24,999	\$16,641	\$30,332	\$29,554	\$9,330	\$0	\$16,641	\$30,332	\$29,554	\$9,330	\$0	\$16,641	\$30,332	\$29,554	\$9,330
82	18,844	536	27,299	25	0	25	103	0	0	\$26,962	\$16,419	\$30,636	\$36,060	\$8,515	\$0	\$16,419	\$30,636	\$36,060	\$8,515	\$0	\$16,419	\$30,636	\$36,060	\$8,515
83	18,230	532	26,287	24	0	24	112	0	0	\$25,738	\$15,985	\$32,029	\$32,029	\$8,261	\$0	\$15,985	\$32,029	\$32,029	\$8,261	\$0	\$15,985	\$32,029	\$32,029	\$8,261
84	17,944	467	25,375	12	0	12	105	0	0	\$26,306	\$15,733	\$30,465	\$39,210	\$8,261	\$0	\$15,733	\$30,465	\$39,210	\$8,261	\$0	\$15,733	\$30,465	\$39,210	\$8,261
85	16,313	399	22,931	11	0	11	85	0	0	\$25,972	\$15,704	\$30,734	\$32,566	\$7,525	\$0	\$15,704	\$30,734	\$32,566	\$7,525	\$0	\$15,704	\$30,734	\$32,566	\$7,525
86	14,689	364	20,632	8	0	8	88	0	0	\$25,950	\$15,548	\$30,927	\$38,398	\$7,463	\$0	\$15,548	\$30,927	\$38,398	\$7,463	\$0	\$15,548	\$30,927	\$38,398	\$7,463
87	13,016	362	18,147	4	0	4	58	0	0	\$26,177	\$16,234	\$32,370	\$44,064	\$8,262	\$0	\$16,234	\$32,370	\$44,064	\$8,262	\$0	\$16,234	\$32,370	\$44,064	\$8,262
88	11,012	347	15,219	2	0	2	45	0	0	\$26,019	\$17,016	\$33,141	\$39,285	\$7,374	\$0	\$17,016	\$33,141	\$39,285	\$7,374	\$0	\$17,016	\$33,141	\$39,285	\$7,374
89	9,764	350	13,576	4	0	4	7	0	0	\$24,218	\$16,995	\$33,455	\$47,365	\$11,849	\$0	\$16,995	\$33,455	\$47,365	\$11,849	\$0	\$16,995	\$33,455	\$47,365	\$11,849
90	8,287	336	11,665	3	0	3	5	0	0	\$24,784	\$16,677	\$33,648	\$53,075	\$18,474	\$0	\$16,677	\$33,648	\$53,075	\$18,474	\$0	\$16,677	\$33,648	\$53,075	\$18,474
91	7,154	308	10,249	0	1	1	1	0	0	\$40,297	\$24,971	\$33,532	\$0	\$5,413	\$0	\$24,971	\$33,532	\$0	\$5,413	\$0	\$24,971	\$33,532	\$0	\$5,413
92	5,422	285	7,798	0	0	0	2	0	0	\$40,478	\$25,001	\$33,707	\$0	\$0	\$0	\$25,001	\$33,707	\$0	\$0	\$0	\$25,001	\$33,707	\$0	\$0
93	3,820	205	5,500	0	0	0	2	0	0	\$42,073	\$28,176	\$34,905	\$0	\$26,400	\$0	\$28,176	\$34,905	\$0	\$26,400	\$0	\$28,176	\$34,905	\$0	\$26,400
94	2,479	122	3,462	1	0	1	0	0	0	\$27,441	\$18,492	\$35,006	\$29,184	\$0	\$18,492	\$35,006	\$29,184	\$0	\$18,492	\$35,006	\$29,184	\$0	\$18,492	
95	1,442	69	2,125	1	0	1	0	0	0	\$35,419	\$17,890	\$34,628	\$59,647	\$0	\$17,890	\$34,628	\$59,647	\$0	\$17,890	\$34,628	\$59,647	\$0	\$17,890	
96	1,051	54	1,672	0	0	0	0	0	0	\$37,856	\$17,719	\$35,744	\$0	\$0	\$0	\$17,719	\$35,744	\$0	\$0	\$0	\$17,719	\$35,744	\$0	\$0
97	859	47	1,414	0	0	0	0	0	0	\$34,840	\$17,225	\$37,408	\$0	\$0	\$0	\$17,225	\$37,408	\$0	\$0	\$0	\$17,225	\$37,408	\$0	\$0
98	550	28	946	0	0	0	0	0	0	\$38,978	\$17,064	\$35,712	\$0	\$0	\$0	\$17,064	\$35,712	\$0	\$0	\$0	\$17,064	\$35,712	\$0	\$0
99	403	36	692	0	0	0	0	0	0	\$39,447	\$17,850	\$37,726	\$0	\$0	\$0	\$17,850	\$37,726	\$0	\$0	\$0	\$17,850	\$37,726	\$0	\$0
100	259	40	488	0	0	0	0	0	0	\$37,456	\$17,510	\$37,291	\$0	\$0	\$0	\$17,510	\$37,291	\$0	\$0	\$0	\$17,510	\$37,291	\$0	\$0
101	184	30	340	0	0	0	0	0	0	\$42,419	\$17,861	\$37,038	\$0	\$0	\$0	\$17,861	\$37,038	\$0	\$0	\$0	\$17,861	\$37,038	\$0	\$0
102	112	14	197	0	0	0	0	0	0	\$33,564	\$18,762	\$38,560	\$0	\$0	\$0	\$18,762	\$38,560	\$0	\$0	\$0	\$18,762	\$38,560	\$0	\$0
103	53	7	106	0	0	0	0	0	0	\$38,882	\$21,389	\$35,436	\$0	\$0	\$0	\$21,389	\$35,436	\$0	\$0	\$0	\$21,389	\$35,436	\$0	\$0
104	28	3	41	0	0	0	0	0	0	\$80,736	\$23,804	\$47,711	\$0	\$0	\$0	\$23,804	\$47,711	\$0	\$0	\$0	\$23,804	\$47,711	\$0	\$0
105	11	3	24	0	0	0	0	0	0	\$39,071	\$21,227	\$35,350	\$0	\$0	\$0	\$21,227	\$35,350	\$0	\$0	\$0	\$21,227	\$35,350	\$0	\$0
106	6	1	11	0	0	0	0	0	0	\$43,420	\$20,834	\$33,154	\$0	\$0	\$0	\$20,834	\$33,154	\$0	\$0	\$0	\$20,834	\$33,154	\$0	\$0
107	6	1	11	0	0	0	0	0	0	\$1,105	\$42,986	\$42,986	\$0	\$0	\$0	\$42,986	\$42,986	\$0	\$0	\$0	\$42,986	\$42,986	\$0	\$0
108	1	0	1	0	0	0	0	0	0	\$0	\$22,334	\$22,334	\$0	\$0	\$0	\$22,334	\$22,334	\$0	\$0	\$0	\$22,334	\$22,334	\$0	\$0
109	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
110+	2	0	2	0	0	0	0	0	0	\$34,614	\$0	\$34,614	\$0	\$0	\$0	\$0	\$34,614	\$0	\$0	\$0	\$0	\$34,614	\$0	\$0
Total	458,271	22,085	726,227	4,439	0	4,439	3,735	0	0	\$36,861	\$16,793	\$29,514	\$27,114	\$10,007	\$0	\$16,793	\$29,514	\$27,114	\$10,007	\$0	\$16,793	\$29,514	\$27,114	\$10,007
60+	458,271	22,085	726,227	4,439	0	4,439	3,735	0	0	\$36,861	\$16,793	\$29,514	\$27,114	\$10,007	\$0	\$16,793	\$29,514	\$27,114	\$10,007	\$0	\$16,793	\$29,514	\$27,114	\$10,007
62+	458,271	22,085	726,227	4,439	0	4,439	3,735	0	0	\$36,861	\$16,793	\$29,514	\$27,114	\$10,007	\$0	\$16,793	\$29,514	\$27,114	\$10,007	\$0	\$16,793	\$29,514	\$27,114	\$10,007
65+	458,271	22,085	726,227	4,439	0	4,439	3,735	0	0	\$36,861	\$16,793	\$29,514	\$27,114	\$10,007	\$0	\$16,793	\$29,514	\$27,114	\$10,007	\$0	\$16,793	\$29,514	\$27,114	\$10,007

Notes: Age is retiree's current age nearest birthday at end of fiscal year.
 60+ is total for ages 60 and over.
 62+ is total for ages 62 and over.
 65+ is total for ages 65 and over.
 Includes only retirees receiving payment from DoD.
 Temporary Early Retirement Act (TERA) retirees and payments are shown for informational purposes only.
 Career Status Bonus (CSB) retirees and payments are shown for informational purposes only.
 TERA and CSB numbers and payments are included in the appropriate categories.
 Payments do not include the 12/1/21 cost of living increase of 5.9%.

Technical Reference to the FY 2021 Valuation of the Military Retirement System

DoD Survivor Valuation Data as of Year-End FY 2021

Age	Number						Average Annual Net Survivor Pay					
	Active	Reserves	Minimum Income	Death on Active Duty	RSFPP	Total	Active	Reserves	Minimum Income	Death on Active Duty	RSFPP	Total
0	11	6	0	14	0	31	\$21,105	\$7,256	\$0	\$7,629	\$0	\$12,338
1	0	1	0	46	0	47	\$0	\$564	\$0	\$8,131	\$0	\$7,970
2	2	0	0	29	0	31	\$4,956	\$0	\$0	\$8,344	\$0	\$8,126
3	0	0	0	108	0	108	\$0	\$0	\$0	\$7,881	\$0	\$7,881
4	5	0	0	171	0	176	\$5,893	\$0	\$0	\$7,956	\$0	\$7,897
5	1	2	0	148	0	151	\$3,996	\$1,086	\$0	\$7,796	\$0	\$7,682
6	20	3	0	389	1	413	\$4,384	\$6,644	\$0	\$8,345	\$2,556	\$8,126
7	12	1	0	290	0	303	\$6,149	\$11,628	\$0	\$7,523	\$0	\$7,483
8	25	0	0	776	0	801	\$6,191	\$0	\$0	\$8,063	\$0	\$8,005
9	34	0	0	987	0	1,021	\$6,883	\$0	\$0	\$7,607	\$0	\$7,583
10	54	0	0	1,154	0	1,208	\$7,251	\$0	\$0	\$7,900	\$0	\$7,871
11	68	6	0	1,055	0	1,129	\$6,708	\$2,102	\$0	\$8,555	\$0	\$8,409
12	73	3	0	797	0	873	\$6,988	\$2,932	\$0	\$9,106	\$0	\$8,908
13	135	16	0	951	0	1,102	\$7,974	\$6,978	\$0	\$10,812	\$0	\$10,409
14	93	9	0	439	0	541	\$10,891	\$5,692	\$0	\$12,821	\$0	\$12,371
15	174	28	0	556	0	758	\$10,656	\$5,513	\$0	\$13,399	\$0	\$12,478
16	104	22	0	205	0	331	\$12,092	\$6,084	\$0	\$13,347	\$0	\$12,470
17	180	33	0	208	0	421	\$13,054	\$8,115	\$0	\$15,989	\$0	\$14,117
18	137	16	0	121	0	274	\$12,009	\$8,639	\$0	\$14,704	\$0	\$13,003
19	119	14	0	107	2	242	\$12,810	\$8,439	\$0	\$13,195	\$7,350	\$12,682
20	60	9	0	70	0	139	\$12,259	\$6,779	\$0	\$12,239	\$0	\$11,894
21	82	15	0	100	0	197	\$12,967	\$8,133	\$0	\$13,436	\$0	\$12,837
22	32	9	0	63	0	104	\$13,772	\$13,209	\$0	\$12,395	\$0	\$12,890
23	31	7	0	35	0	73	\$13,554	\$11,429	\$0	\$11,013	\$0	\$12,132
24	70	9	0	56	1	136	\$17,332	\$6,464	\$0	\$10,063	\$2,052	\$13,507
25	26	1	0	41	0	68	\$10,333	\$20,196	\$0	\$9,236	\$0	\$9,817
26	40	3	0	50	0	93	\$11,823	\$10,680	\$0	\$10,390	\$0	\$11,016
27	36	3	0	65	0	104	\$12,256	\$3,744	\$0	\$10,481	\$0	\$10,901
28	36	8	0	66	0	110	\$17,275	\$7,844	\$0	\$11,162	\$0	\$12,921
29	34	10	0	75	2	121	\$18,118	\$8,518	\$0	\$10,384	\$4,209	\$12,301
30	47	9	0	85	0	141	\$12,995	\$8,112	\$0	\$12,234	\$0	\$12,225
31	39	4	0	110	0	153	\$13,423	\$6,393	\$0	\$11,243	\$0	\$11,672
32	48	8	0	129	0	185	\$13,282	\$7,467	\$0	\$12,870	\$0	\$12,744
33	43	4	0	122	0	169	\$14,799	\$11,202	\$0	\$11,358	\$0	\$12,230
34	72	13	0	110	0	195	\$16,125	\$7,902	\$0	\$13,003	\$0	\$13,816
35	92	7	0	140	0	239	\$13,884	\$8,695	\$0	\$13,347	\$0	\$13,417
36	96	11	0	133	0	240	\$15,182	\$7,682	\$0	\$14,217	\$0	\$14,303
37	103	17	0	166	2	288	\$14,871	\$7,750	\$0	\$13,650	\$2,598	\$13,662
38	96	17	0	163	0	276	\$13,713	\$9,130	\$0	\$14,705	\$0	\$14,017
39	73	11	0	153	0	237	\$11,680	\$6,935	\$0	\$15,398	\$0	\$13,860
40	166	23	0	137	0	326	\$15,137	\$9,019	\$0	\$16,076	\$0	\$15,100
41	131	31	0	139	3	304	\$15,181	\$7,622	\$0	\$16,920	\$986	\$15,065
42	141	32	0	129	0	302	\$15,646	\$8,193	\$0	\$17,971	\$0	\$15,849
43	196	37	0	119	1	353	\$15,869	\$9,732	\$0	\$18,495	\$1,104	\$16,069
44	123	32	0	119	0	274	\$15,163	\$9,806	\$0	\$20,920	\$0	\$17,038
45	204	55	0	120	0	379	\$16,888	\$8,507	\$0	\$22,615	\$0	\$17,485
46	259	47	0	100	9	415	\$17,688	\$9,439	\$0	\$21,994	\$4,894	\$17,514
47	261	56	0	120	1	438	\$17,010	\$9,422	\$0	\$23,049	\$2,088	\$17,661
48	275	83	0	102	9	469	\$16,231	\$9,873	\$0	\$23,892	\$2,230	\$16,503
49	328	107	0	109	4	548	\$16,757	\$9,662	\$0	\$27,563	\$3,723	\$17,426
50	342	104	0	100	3	549	\$16,365	\$9,020	\$0	\$24,069	\$2,112	\$16,299
51	454	151	0	131	10	746	\$17,268	\$9,029	\$0	\$24,534	\$2,416	\$16,677
52	598	175	0	122	20	915	\$18,486	\$8,764	\$0	\$26,664	\$3,059	\$17,380
53	689	226	0	115	24	1,054	\$18,079	\$9,236	\$0	\$25,071	\$2,954	\$16,602
54	537	188	0	113	0	838	\$16,359	\$9,968	\$0	\$25,260	\$0	\$16,125
55	639	233	0	105	1	978	\$15,404	\$8,815	\$0	\$29,286	\$3,288	\$15,312
56	758	291	0	112	5	1,166	\$14,976	\$8,834	\$0	\$27,707	\$2,333	\$14,612
57	912	361	0	120	4	1,397	\$15,141	\$9,325	\$0	\$26,930	\$2,705	\$14,615
58	1,048	439	0	86	7	1,580	\$15,675	\$9,150	\$0	\$28,073	\$2,187	\$14,477
59	1,171	541	0	100	6	1,818	\$15,026	\$9,219	\$0	\$29,910	\$3,616	\$14,079

Technical Reference to the FY 2021 Valuation of the Military Retirement System

DoD Survivor Valuation Data as of Year-End FY 2021

Age	Number						Average Annual Net Survivor Pay					
	Active	Reserves	Minimum Income	Death on Active Duty	RSFPP	Total	Active	Reserves	Minimum Income	Death on Active Duty	RSFPP	Total
60	1,333	599	0	106	8	2,046	\$15,301	\$8,589	\$0	\$32,537	\$3,200	\$14,182
61	1,530	645	0	94	15	2,284	\$15,208	\$8,866	\$0	\$30,599	\$3,710	\$13,975
62	1,759	757	0	77	5	2,598	\$15,258	\$8,958	\$0	\$27,570	\$4,087	\$13,766
63	1,908	876	0	85	10	2,879	\$14,438	\$9,074	\$0	\$29,282	\$2,111	\$13,201
64	2,173	1,085	0	78	20	3,356	\$14,507	\$8,889	\$0	\$29,053	\$2,519	\$12,958
65	2,406	1,190	0	89	21	3,706	\$14,778	\$9,233	\$0	\$29,898	\$4,123	\$13,300
66	2,651	1,304	0	65	8	4,028	\$14,927	\$8,873	\$0	\$30,996	\$4,892	\$13,207
67	2,940	1,566	0	60	4	4,570	\$14,752	\$8,752	\$0	\$29,369	\$6,450	\$12,881
68	3,262	1,745	0	67	11	5,085	\$14,960	\$8,786	\$0	\$29,750	\$2,971	\$13,010
69	3,590	2,057	0	59	9	5,715	\$14,892	\$8,716	\$0	\$28,195	\$3,742	\$12,788
70	3,791	2,334	0	66	6	6,197	\$14,960	\$8,675	\$0	\$25,199	\$2,834	\$12,690
71	4,241	2,478	0	62	7	6,788	\$14,997	\$8,686	\$0	\$27,615	\$4,725	\$12,977
72	4,591	2,762	0	63	10	7,426	\$15,518	\$8,626	\$0	\$28,489	\$3,526	\$13,048
73	5,023	3,088	1	46	13	8,171	\$15,334	\$8,657	\$8,510	\$25,591	\$2,887	\$12,847
74	5,704	3,537	0	56	8	9,305	\$15,558	\$8,816	\$0	\$26,117	\$3,114	\$13,048
75	6,313	3,680	1	46	2	10,042	\$15,971	\$8,943	\$9,337	\$27,512	\$1,116	\$13,445
76	5,271	2,874	0	45	7	8,197	\$15,744	\$8,855	\$0	\$22,270	\$1,489	\$13,352
77	6,044	3,094	0	51	10	9,199	\$15,879	\$8,867	\$0	\$25,578	\$1,780	\$13,559
78	6,863	3,328	1	48	8	10,248	\$15,981	\$8,878	\$9,337	\$24,279	\$1,520	\$13,701
79	7,632	3,568	0	62	20	11,282	\$16,072	\$8,964	\$0	\$27,262	\$2,298	\$13,861
80	7,589	3,371	0	48	19	11,027	\$15,935	\$8,986	\$0	\$25,115	\$2,181	\$13,827
81	7,940	3,249	1	46	37	11,273	\$16,147	\$8,799	\$9,337	\$24,255	\$2,847	\$14,018
82	8,320	3,288	0	59	38	11,705	\$16,198	\$8,819	\$0	\$25,249	\$1,705	\$14,124
83	8,685	3,428	2	37	36	12,188	\$16,767	\$8,777	\$9,337	\$26,842	\$1,847	\$14,505
84	8,868	3,311	1	46	45	12,271	\$16,891	\$8,989	\$7,911	\$23,530	\$2,331	\$14,730
85	8,684	3,242	3	65	87	12,081	\$17,099	\$9,032	\$8,494	\$23,775	\$2,174	\$14,861
86	8,724	3,236	4	42	108	12,114	\$17,507	\$8,903	\$8,160	\$24,555	\$2,521	\$15,096
87	8,141	3,149	1	58	132	11,481	\$17,922	\$9,057	\$9,337	\$24,963	\$2,246	\$15,345
88	7,544	2,790	1	50	160	10,545	\$18,599	\$9,152	\$4,885	\$27,032	\$2,152	\$15,889
89	7,214	2,766	1	57	203	10,241	\$19,032	\$9,267	\$7,747	\$24,864	\$1,975	\$16,087
90	6,435	2,473	1	47	192	9,148	\$19,382	\$9,259	\$4,810	\$23,790	\$2,747	\$16,317
91	5,669	2,206	1	38	236	8,150	\$20,064	\$9,683	\$9,337	\$21,866	\$2,712	\$16,759
92	4,511	1,891	2	41	198	6,643	\$20,468	\$9,314	\$8,503	\$19,834	\$2,389	\$16,747
93	3,824	1,748	3	36	188	5,799	\$20,809	\$9,665	\$8,991	\$20,346	\$2,496	\$16,847
94	3,130	1,429	1	31	166	4,757	\$21,256	\$9,801	\$9,337	\$16,180	\$2,570	\$17,127
95	2,640	1,276	3	35	170	4,124	\$22,182	\$10,009	\$10,645	\$15,393	\$2,969	\$17,558
96	2,249	1,073	2	18	157	3,499	\$23,194	\$10,168	\$9,337	\$16,084	\$2,583	\$18,230
97	1,776	906	1	19	140	2,842	\$23,122	\$9,954	\$9,337	\$10,483	\$3,398	\$17,863
98	1,428	735	4	26	108	2,301	\$24,474	\$10,363	\$10,359	\$17,408	\$3,157	\$18,862
99	1,005	504	1	15	84	1,609	\$24,955	\$10,751	\$5,857	\$16,019	\$3,105	\$19,270
100	719	404	2	11	64	1,200	\$25,059	\$10,434	\$9,337	\$22,018	\$2,858	\$18,897
101	419	267	0	3	45	734	\$24,667	\$11,278	\$0	\$3,248	\$3,769	\$18,428
102	225	136	1	2	31	395	\$26,410	\$10,939	\$7,447	\$3,248	\$4,959	\$19,234
103	125	61	0	3	7	196	\$24,916	\$11,713	\$0	\$3,248	\$1,537	\$19,640
104	60	47	1	1	8	117	\$23,934	\$11,106	\$9,337	\$32,184	\$2,633	\$17,270
105	33	21	0	1	0	55	\$26,183	\$12,120	\$0	\$3,248	\$0	\$20,396
106	19	8	0	0	2	29	\$17,292	\$14,375	\$0	\$0	\$864	\$15,354
107	7	3	0	0	0	10	\$24,278	\$11,600	\$0	\$0	\$0	\$20,474
108	7	6	0	0	1	14	\$19,135	\$9,978	\$0	\$0	\$6,264	\$14,291
109	2	1	0	0	0	3	\$25,116	\$3,792	\$0	\$0	\$0	\$18,008
110	3	1	0	0	0	4	\$19,972	\$2,988	\$0	\$0	\$0	\$15,726
111	1	0	0	0	0	1	\$30,876	\$0	\$0	\$0	\$0	\$30,876
112	0	0	1	0	1	2	\$0	\$0	\$9,073	\$0	\$0	\$4,537
113	1	0	0	0	0	1	\$22,116	\$0	\$0	\$0	\$0	\$22,116
114	2	1	2	0	0	5	\$17,087	\$9,040	\$8,646	\$14,470	\$2,660	\$12,101
Total	195,024	89,594	43	2,160	2,865	289,686	\$17,193	\$9,041	\$8,831	\$26,035	\$2,647	\$14,593
60+	195,024	89,594	43	2,160	2,865	289,686	\$17,193	\$9,041	\$8,831	\$26,035	\$2,647	\$14,593
62+	192,161	88,350	43	1,960	2,842	285,356	\$17,222	\$9,045	\$8,831	\$25,464	\$2,640	\$14,601
65+	186,321	85,632	43	1,720	2,807	276,523	\$17,301	\$9,048	\$8,831	\$25,019	\$2,640	\$14,643

Notes: Age is survivor's current age nearest birthday at end of fiscal year.
 Includes only survivors receiving payment from DoD.
 Survivors receiving payment under SBP and RSFPP are counted twice.
 Two-life survivors are given by the age of the adult survivor.
 Children of the same deceased member receiving separate benefit payments are counted individually.
 Pay amounts do not include the 12/1/21 cost of living increase of 5.9%.
 Amounts include increased survivor benefits as part of Special Survivor Indemnity Allowance (NDAA 2008, P.L. 111-31, and 115-91).
 Amounts do not reflect reduction due to VA's DIC offset.

APPENDIX D

ECONOMIC ASSUMPTIONS

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ECONOMIC ASSUMPTIONS

In June 2021, the Board approved the following economic assumptions for use in the valuation as of September 30, 2021: the rate of inflation (CPI) is assumed to be 2.50 percent per year; the investment return (interest rate) is 4.00 percent per year; and the basic pay scale increases are 2.75 percent per year. For access to the official transcript of the meeting, follow this link: <https://actuary.defense.gov/External-Links/>

As noted in the “Valuation Data and Procedure” section in the FY 2021 Valuation Report, the valuation results are highly sensitive to changes in these three primary economic assumptions. As background for approving the economic assumptions, the Board receives information from economists and actuaries as well as extensive historical data on inflation, interest rates, and wage growth. The Board analyzes past trends, the current environment, and future expectations. As part of their assessment of the current environment, the Board also considers what other federal retirement and social insurance systems are assuming as well as other government agencies and financial experts. Table D-1 shows the Board’s approved long-term economic assumptions by valuation year since the Fund’s inception in 1984.

The comparisons to Civil Service and Social Security in this appendix are not meant to imply an expectation that all three systems should use the same assumptions. There are differences in terms of the trust funds themselves and the programs financed by the trust funds.

Inflation

The CPI-W, one of the consumer price indexes published by the Bureau of Labor Statistics (BLS), is emphasized as an inflation measure since it is used in calculating military retired pay cost-of-living increases. The CPI-W measures the average price change for Urban Wage Earners and Clerical Workers and covers approximately 29 percent of the U.S population. (The CPI-W is a subset of the broader CPI-U measure which computes the average price change for All Urban Consumers and covers approximately 93 percent of the U.S. population). The CPI-W is the common index used to make COLAs for labor contracts.

The DoD assumption for CPI is reasonably consistent with what is used in other parts of the government. In its 2021 report, the Civil Service Retirement System (CSRS) assumes a 2.40 percent CPI increase. The Trustees of the Social Security Administration (SSA) in their 2021 Annual Report made projections under three alternative sets of assumptions. Their intermediate assumption for CPI was 2.40 percent. The Board has noted that in certain respects, the effect of the CPI on the valuation is relatively minor in a system where retirement benefits are fully indexed and expressed as a percentage of payroll.

Interest Rate

The Board focuses on “real” interest rates. To simplify discussion, the real interest rate is defined as the difference between the nominal interest rate and the CPI. Other things being equal, a lower element of risk in an investment will give a lower real interest rate. Because the MRF must be invested in obligations of the U.S. Government, a highly secure investment, the real interest rates are expected to be relatively low. As noted in the “Assets” section in the FY

2021 Valuation Report, the Fund is currently heavily invested in Treasury Inflation-Protected Securities (TIPS). TIPS allow the investor/institution to lock in the real interest rate for a given period of time.

The Board examines what real interest rates the Fund is expected to earn by the types of public debt securities in which the Fund is invested, as well as how future contributions can be invested under current and projected capital market assumptions. The Board recognizes the importance of selecting a real interest rate that would prevail on average over a long period of time and that would not unduly weight recent experience or expected results in the near term.

After analyzing forecasts of government trust fund earnings, 1.50 percent was adopted as the assumed rate of real interest. Since 2.50 percent had been adopted as the inflation rate, the assumed nominal rate of interest is 4.00 percent ($4.00 = 2.50 + 1.50$). This is commonly known as the “building block method” in setting actuarial assumptions.

It is relevant to note the real interest rates being assumed by the other two major public benefit systems. The SSA Trustees used an intermediate ultimate real interest rate assumption of 2.3 percent in their 2021 report. The Board of Actuaries of the CSRS used a 1.60 percent real interest rate assumption in its 2021 valuation.

Wage Growth

For the salary increase assumption, recent historical data is used as well as expectations for the future. The Career Compensation Act of 1949 revamped the military compensation structure to provide an equitable pay and allowance system. Associated with this change was a large basic pay increase designed to establish rough comparability with the private sector. Additionally, the Army and Air Force Vitalization and Retirement Equalization Act of 1948 established for the first time a uniform voluntary retirement system authority among all branches of Service. The reserve retirement program was also established at this time. These two Acts provided the start of the modern-day compensation structure designed to attract and retain the number of Service members needed. In the analysis of basic pay scale increases, the Board looks at all data from this point forward.

The Military Pay Comparability Act of 2003 ensures that military pay increases are comparable to private sector pay growth, as measured by the Employment Cost Index (ECI) – Wages and Salaries index on a 15-month lag. (“Wages and Salaries” account for about 70 percent of the broader “Compensation” costs, with “Benefits” making up the remaining 30 percent.) Covenants are embedded within the Act which give the President the authority to propose an alternate basic pay adjustment. This Act specifically referenced fiscal years through 2006. However, Congress has continued to use the basic framework of the Act in the subsequent fiscal years.

In making its recommendation for the real rate of the annual basic pay scale increase, the Board considered information presented and approved a real basic pay growth assumption of 0.25 percent, leading to a nominal growth of 2.75 percent ($2.75 = 0.25 + 2.50$). The Board of Actuaries of the CSRS assumed 0.25 percent real wage growth for its 2021 valuation. The Social Security Trustees’ 2020 report had an intermediate ultimate assumption for real wage growth of 1.15 percent. (For the MRS and CSRS, wage increase relates to “across-the-board”

salary increase which excludes merit and certain longevity increases, whereas for Social Security, wage increase generally relates to the total salary increase.)

Table D-1

DoD Board of Actuaries' Long-Term Economic Assumptions

Fiscal Year	Inflation (1)	Interest (2)	Salary Growth (3)	'Real' Interest (4)	'Real' Salary (5)
1984	5.00%	6.60%	6.20%	1.60%	1.20%
1985	5.00	6.60	6.20	1.60	1.20
1986	5.00	6.60	6.20	1.60	1.20
1987	5.00	6.60	6.20	1.60	1.20
1988	5.00	7.00	5.75	2.00	0.75
1989	5.00	7.00	5.75	2.00	0.75
1990	5.00	7.00	5.75	2.00	0.75
1991	5.00	7.50	5.50	2.50	0.50
1992	5.00	7.50	5.50	2.50	0.50
1993	5.00	7.50	5.50	2.50	0.50
1994	4.00	6.75	4.50	2.75	0.50
1995	4.00	6.75	4.50	2.75	0.50
1996	3.50	6.50	4.00	3.00	0.50
1997	3.50	6.50	4.00	3.00	0.50
1998	3.50	6.50	4.00	3.00	0.50
1999	3.00	6.25	3.50	3.25	0.50
2000	3.00	6.25	3.50	3.25	0.50
2001	3.00	6.25	3.50	3.25	0.50
2002	3.00	6.25	3.50	3.25	0.50
2003	3.00	6.25	3.75	3.25	0.75
2004	3.00	6.25	3.75	3.25	0.75
2005	3.00	6.25	3.75	3.25	0.75
2006	3.00	6.00	3.75	3.00	0.75
2007	3.00	6.00	3.75	3.00	0.75
2008	3.00	5.75	3.75	2.75	0.75
2009	3.00	5.75	3.75	2.75	0.75
2010	3.00	5.75	3.75	2.75	0.75
2011	3.00	5.75	3.75	2.75	0.75
2012	3.00	5.50	3.50	2.50	0.50
2013	3.00	5.50	3.50	2.50	0.50
2014	3.00	5.50	3.50	2.50	0.50
2015	2.75	5.25	3.25	2.50	0.50
2016	2.75	5.25	3.25	2.50	0.50
2017	2.75	5.00	3.25	2.25	0.50
2018	2.75	5.00	3.25	2.25	0.50
2019	2.75	4.75	3.25	2.00	0.50
2020	2.50	4.25	2.75	1.75	0.25
2021	2.50	4.00	2.75	1.50	0.25

NOTES:

- (1) Board Assumption
- (2) Board Assumption
- (3) Board Assumption
- (4) = (2) - (1)
- (5) = (3) - (1)

APPENDIX E

NORMAL COST WEIGHTING FACTORS

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NORMAL COST WEIGHTING FACTORS

There are four different retirement benefit formulas that apply to different populations within the Military Retirement System⁴. (See Appendix A for a discussion of *Final Pay*, *High-3*, *CSB/Redux*, and *BRS* benefit formulas.) A single NCP for the entire population is obtained by weighting the NCP for each retirement group by its expected percentage of payroll in the relevant year⁵.

In order to continue to budget for NCPs well in advance of the valuation date, the Board decided to create a set of projected weighting factors. The relative stability of past experience indicates that this method gives reasonable results.

Current rates were created using 2020 data. Table E-1 displays the active duty and reserve basic payroll percentage distributions by completed years of service at the end of FY 2020.

⁴ The Blended Retirement System (enacted in NDAA 2016) is the fourth tier, effective January 1, 2018, for those who enter military service on or after January 1, 2018, or opt-in with fewer than 12 years of service during the one-year open season starting January 1, 2018. NDAA 2016 also sunsets CSB/Redux and repeals all aspects of BBA 2013 (reduced annual COLAs for “working age” retirees), as amended.

⁵ For BRS, assumptions for the proportions of eligible members who “opted-in” to the new plan are also needed. These assumptions are shown in Appendix F.

Table E-1

BASIC PAYROLL PERCENTAGE DISTRIBUTION
By COMPLETED YEARS OF SERVICE

Completed Years of Service	Percentage of Payroll on 9/30/2020:	
	Full-time	Part-time
0	3%	4%
1 or less	9%	9%
2 or less	15%	13%
3 or less	21%	18%
4 or less	26%	22%
5 or less	31%	27%
6 or less	35%	32%
7 or less	40%	36%
8 or less	44%	40%
9 or less	47%	43%
10 or less	51%	47%
11 or less	55%	51%
12 or less	58%	54%
13 or less	61%	57%
14 or less	64%	59%
15 or less	67%	62%
16 or less	70%	65%
17 or less	74%	68%
18 or less	77%	71%
19 or less	81%	75%
20 or less	84%	77%
21 or less	86%	80%
22 or less	88%	82%
23 or less	90%	83%
24 or less	92%	85%
25 or less	93%	86%
26 or less	94%	87%
27 or less	95%	89%
28 or less	96%	90%
29 or less	97%	91%
30 or less	97%	92%
31 or less	98%	94%
32 or less	99%	95%
33 or less	99%	96%
34 or less	99%	97%
35 or less	99%	98%
36 or less	100%	98%
37 or less	100%	99%
38 or less	100%	99%
39 and greater	100%	100%
TOTAL FORCE	100%	100%

Figures are assumed to represent fiscal year payroll proportions by year of entry. For example, for full-time members 3% of payroll in a fiscal year is assumed to apply to members who entered in that fiscal year; 9% of payroll is assumed to apply to members who entered in that fiscal year or the year prior; etc.

APPENDIX F

VALUATION PROGRAM PARAMETERS

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VALUATION PROGRAM PARAMETERS DESCRIPTION

GORGO is an actuarial projection model run in a spreadsheet environment with embedded Visual Basic programming. The purpose is to simulate future cash flows impacting the MRF. The model is used to compute the aggregate entry-age NCP, unfunded liability, and make long-term projections. In some cases slight adjustments to GORGO cash flow projections are made outside of GORGO. In addition to being affected by the decrement rates, GORGO has a number of parameters which affect its results. These parameters are generally summaries of recent experience and/or future expectations. Examples include the rates of election of SBP and member-spouse age differences.

P.L. 108-136 (“Concurrent Receipt”) requires additional breakouts of some parameters in order to calculate the DoD and Treasury normal cost components. Subsequent legislation required further breakouts.

A description of major valuation program parameters is given in Table F-1. The table is organized by population group with the economic factors reproduced for user convenience. Numerical values are also shown for selected items. Other parameters not described as well as numerical values not shown in the table may be requested from OACT if needed.

TABLE F-1

DESCRIPTION OF THE MAJOR VALUATION PROGRAM PARAMETERS

Economic Factors

<u>Item</u>	<u>Description/Value</u>
1) Salary Increase	A parameter for each of the next ten fiscal years specifies the annual percentage increase in basic pay for the active duty and reserve duty members. An 11th parameter specifies the percentage increase for subsequent years. The value for the valuation is 2.75 percent.
2) CPI (Inflation)	A parameter for each of the next nine fiscal years specifies the annual inflation rate for that year. A tenth parameter specifies the inflation rate for all subsequent years. The value for the valuation is 2.50 percent.
3) Interest Rate	A parameter for each of the next nine fiscal years specifies the annual interest rate for that year. A tenth parameter specifies the interest rate for all subsequent years. The value for the valuation is 4.00 percent.
4) Lump Sum Discount Rate	A parameter that specifies the assumed annual interest rate (in real economic terms) used to calculate BRS lump sums. The value for the valuation is 7.3%.

Active Duty

<u>Item</u>	<u>Description/Value</u>
1) Member Election of Spouse or Spouse/Child SBP Coverage	This gives the percentage of members by age, officer/enlisted status, and CSB election status who have elected spouse or spouse/child coverage under the SBP.

TABLE F-1 (continued)

<u>Item</u>	<u>Description/Value</u>
2) Full Offsets	<p>A member who is disabled may waive all or part of his or her retired pay to receive benefits from the VA. Furthermore, a member who decides to convert his or her military service to receive a federal civilian retirement also waives his or her right to a military pension. These amounts are not included when computing normal costs or unfunded liabilities. The percent of retired pay of new retirees that is fully offset is given by officer/enlisted status, benefit tier, and type of retirement (disability/nondisability). Disability status is given further by those with over and under 20 years of service.</p>
3) Partial VA Offsets	<p>It is possible to have part of DoD retired pay offset by VA compensation. The parameter is defined as the percent of retired pay out of the total paid new retirees. They are given by officer/enlisted status, benefit tier, and disability/nondisability status. Disability status is given further by those with over and under 20 years of service.</p>
4) Disability Factor	<p>When an active duty member is disabled and receives DoD disability retirement, retired pay is based on a minimum (30%), a maximum (given by the conditions discussed in Appendix A regarding Disability Retirement), and a disability rating. These are combined into a single officer/enlisted factor, expressed as a percentage of Final, or High-3, pay and given by length of service and temporary disability or permanent disability retirement.</p>

TABLE F-1 (continued)

<u>Item</u>	<u>Description/Value</u>
5) Percent Active Duty with Beneficiary	When a member dies from a Service-connected disability or on active duty, any surviving spouse is eligible for DIC from the VA. In addition, if the member dies in the line of duty or after completing 20 years of service, the surviving spouse is eligible for an SBP annuity from DoD which would bring the total amount of the benefit up to 55 percent of the member's retired pay. The excess of the SBP annuity over DIC comes from the MRF. If no spouse is present, the benefit passes on to an eligible child. If both spouse and eligible child are present then, under certain tax provisions, it is advantageous for the spouse to pass the benefits to the child. Thus, it is necessary to estimate the percent of active duty members with beneficiaries. The percentages are given by officer/enlisted status, and further allocated by spouse/child.
6) Reduction Factors for SBP	Premium amounts, as a percent of retired pay, by age, officer/enlisted status, and benefit tier.
7) Rounding Assumptions for Partially Completed Years of Service	When retired pay is computed, years of service are rounded down to the nearest completed month. An assumption must be made for the computation. The value for the valuation is 0.017.
8) CSB/Redux election proportion	The proportion of members who elect CSB/Redux. For the unfunded liability and open group valuations, the proportion varies by entry year and officer/enlisted status. For the normal cost (new entrant) valuation, the proportion is 10 percent. This value is essentially a representative rate needed to approximate the floating proportions (of CSB/Redux electors) used in the unfunded liability and open group valuations.

TABLE F-1 (continued)

<u>Item</u>	<u>Description/Value</u>
9) Initial Annual Pay of Active Duty Officer	This value is used to allocate a portion of part-time benefits to full-time in normal cost valuations, thus linking the radixes (i.e., notional starting populations) and pay of full- and part-time members. The value for the valuation is \$39,868.
10) Accumulated Value of Partial Pay in the First Year of Service	This amount is used to properly align the decrement rates with the assumption, in a normal cost run, of a new entrant cohort starting with zero years of service.
11) BRS Opt-In Rates	Rates used to determine the portion of members with fewer than 12 years of service as of December 31, 2017, electing, during the calendar year 2018 Open Season, to opt-in to BRS. Varies by years of service, officer/enlisted and active/reserve.

YOS	<u>Active</u> Off / Enl	<u>Reserves</u> Off / Enl
0	100%	100%
1	100%	100%
2	86%	80%
3	44%	21%
4	45%	21%
5	42%	21%
6	41%	22%
7	39%	21%
8	36%	21%
9	31%	19%
10	28%	18%
11	22%	15%
12	18%	13%
13	13%	11%
14	9%	9%
15	4%	7%
16	2%	5%
17	1%	4%
18	1%	3%
19	0%	2%

TABLE F-1 (continued)

<u>Item</u>	<u>Description/Value</u>
12) BRS Lump Sum Election Rates	This is the rate of election of lump sums by those who are covered under BRS. The value is based on a study completed by an external organization and represents members having a “Low Personal Discount Rate and Aware of Tax and VA Offset Implications.” It is an interpolated value for active duty using an assumed lump sum discount rate (used to calculate lump sums) of 7.3%; the assumptions are 5.2% for officers and 22.8% for enlisted. Of those who elect lump sums, all are assumed to elect the 50% lump sum option.

Reserve Duty

<u>Item</u>	<u>Description/Value</u>
1) Ratio of Net to Gross Retired Pay For Reserves	This is the ratio of reserve net retired pay to gross retired pay. This is given by officer/enlisted status, age, and benefit tier.
2) Proportion of Points Based on Active Service	This amount is used to allocate the part of the reserve normal cost that are paid for as a part of the active duty normal cost. The value for the valuation is 51%.
3) Initial Annual Pay of new Selected Reserve member	This array is used to set initial pay for a new Selected Reserve member in a normal cost run. The values for the valuation are updated with an across-the-board salary increase each year.
4) Ratio of Reserve to Active Payroll	For the purposes of the allocation referred to in item 2) above, this value represents the assumed ratio of reserve duty to active duty basic payroll. The value for the valuation is 10%.
5) BRS Opt-In Rates	Rates used to determine the portion of members with fewer than 4,320 points as of December 31, 2017, opting into BRS during the calendar year 2018 Open Season. Varies by years of service and active/reserve. See item (11) of the Active Duty section.

TABLE F-1 (continued)

<u>Item</u>	<u>Description/Value</u>
6) BRS Lump Sum Election Rates	These rates are based on a study done by an external organization and represent members having a “Low Personal Discount Rate and Aware of Tax and VA Offset Implications.” It is an interpolated value for reserves using an assumed lump sum discount rate (used to calculate lump sums) of 7.3%; the assumptions are 2.0% for officers and 8.4% for enlisted. Of those who elect lump sums, all are assumed to elect the 50% lump sum.

Retiree

<u>Item</u>	<u>Description/Value</u>
1) Retired Pay Adjustment Factors	Retired pay of current retirees is adjusted for VA compensation, SBP offset changes, and other non-COLA effects during the year. They are given by officer/enlisted status, disability/nondisability, and whether or not the member has elected SBP spouse or spouse/child coverage.
2) Retired Pay Adjustment to Members With SBP Spouse Coverage	These factors model data that show mortality is better (or less), and non-death loss from paid status is generally higher, for those retired members who elect SBP spouse coverage. Rather than developing additional sets of mortality and loss rates, the respective retiree death and loss rates (Appendix I) are adjusted with these factors. This impacts retirees with SBP spouse coverage. The factors are given by active/reserve, disability/nondisability status, and officer/enlisted status.

TABLE F-1 (continued)

Survivor

<u>Item</u>	<u>Description/Value</u>
1) Member-Survivor Age Difference	When a member dies, a survivor is assumed to be a certain number of years younger (or older) than the member. This is given by active/reserve, age, officer/enlisted status, type of retirement (i.e., nondisability, temporary disability, permanent disability), and type of survivor (i.e., spouse, child, insurable interest).
2) Ratio of SBP Base Amount to Net Retired Pay	Under SBP the retiree may elect an amount less than his or her gross retired pay as a base in computing the survivor annuity. Base amounts can also exceed net retired pay because of factors that reduce gross retired pay to net retired pay. This is expressed as a percentage of net retired pay and is given by age, officer/enlisted status, benefit tier, and type of retirement (disability/nondisability/reserve). Additional adjustments are made to the factors as part of Concurrent Receipt.
3) Ratio of RSFPP Survivor Benefit To Net Retired Pay	For RSFPP (Retired Servicemen's Family Protection Plan), this gives the ratio of the survivor payment to the net amount of retired pay.
4) Reservists' Election of RCSBP	Proportion of reservists who have elected the Reserve Component Survivor Benefit Plan (RCSBP) by immediate and deferred annuity, age, and officer/enlisted status.
5) Rates for Electing SBP Options	Given that a member elects SBP, there is still a choice of options: spouse only, child only, spouse and child, or insurable interest (some other designated beneficiary in the absence of a spouse or child). These are expressed as ratios to those electing spouse only or spouse/child coverage, and are given by age, officer/enlisted status, and type of retirement (disability/nondisability/reserve).

TABLE F-1 (continued)

<u>Item</u>	<u>Description/Value</u>
6) Rates for Election of RSFPP Options	Given that a member elected an RSFPP option, there was a choice of options: spouse only, child only, or spouse and child. These are expressed as ratios to those electing spouse only or spouse/child coverage, and are given by age and officer/enlisted status.
7) Survivor Pay Adjustment Factors	Survivor pay of current survivors is adjusted for changes in DIC and other non-COLA effects during the year.

APPENDIX G

ACTIVE DUTY RATES

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ACTIVE DUTY RATE DESCRIPTION

The active duty rates consist principally of decrement rates related to the probabilities of a member leaving a category of military service for a specific reason. In addition, they include a new entrant distribution, a set of reentrant ratios, and ratios for promotion and merit pay increases. For the purposes of active duty rate development, full-time support reservists (excluding Army National Guard) are included in the data.

The active duty decrement rates are used to project active duty deaths, temporary and permanent disability retirements, nondisability retirements, and withdrawals (i.e., other losses). The valuation results for active duty members and the full-time normal costs are sensitive to the withdrawal rates. The active duty decrements also include rates of transfer from enlisted to officer. The death rates are given by age nearest birthday for officers and enlistees separately. The remaining decrement rates are given by completed years of active service for officers and enlistees separately. The formulas used to derive the active duty rates are given on the following page. The fiscal years on which various rates are based are given on the subsequent page. The experience period was selected such that the sum of the active force size changes for the included periods was near zero. Full-time reservist experience is included in the data used. Even though in reality some active duty members terminate and later join the reserves, for valuation purposes there is no assumption modeling anyone who terminates from the active duty and is rehired as a reservist.

The Board approved the use of all updated active decrement rates for FY 2021. The new active decrement rates are based on an experience period from FY 2015 to FY 2019.

The death rates were graduated (smoothed) using the GAM function in the “mgcv” package in R, a widely used language and environment for statistical computing and graphics. The typical active duty career has inherent discontinuities at select points (reenlistment, promotion, retirement, etc.). Rates were separated into ranges where assumptions of continuity were reasonable.

A reentrant is defined as someone who is on active duty at year-end, who was not on active duty a year earlier, and who is not a new entrant. The reentrant ratios give the expected number of reentrants per year, per active member, in each cell. The cells are defined by length of active service and by officer/enlisted status.

The new entrant distribution gives the percentages of new entrants to the military by age and by officer/enlisted status. This distribution is only used in the normal cost (new entrant) valuation and the open-group projection.

The promotion and merit increase scales (PAMS) give the expected annual percentage increase in pay regardless of whether or not there are across-the-board increases in the active duty pay table. The PAMS do not include adjustments for inflation or productivity increases. They are defined by length of service, by entry age, and by officer/enlisted status. The PAMS were created by first arraying the average pay for each entry age along a dimension of increasing years of service. The PAMS were then computed by dividing the average pay at the next year of service by the average pay at the current year of service.

ACTIVE DUTY RATE FORMULAS

ACTIVE DEATH (by age nearest birthday)

$$\frac{\text{Deaths during year}}{\text{[Number at beginning of year - } \frac{1}{2} \text{ (withdrawals + nondisability retirements during year)]}}$$

NONDISABILITY RETIREMENT (by completed years of service)

$$\frac{\text{New retirees during year}}{\text{Number at beginning of year}}$$

TEMPORARY DISABILITY RETIREMENT (by completed years of service)

$$\frac{\text{New temporary disabilities during year}}{\text{[Number at beginning of year - } \frac{1}{2} \text{ (withdrawals + nondisability retirements during year)]}}$$

PERMANENT DISABILITY RETIREMENT (by completed years of service)

$$\frac{\text{New permanent disabilities during year}}{\text{[Number at beginning of year - } \frac{1}{2} \text{ (withdrawals + nondisability retirements during year)]}}$$

WITHDRAWAL (by completed years of service)

$$\frac{\text{Withdrawals during year}}{\text{Number at beginning of year}}$$

REENTRANT RATIOS (by completed years of service)

$$\frac{\text{Number reentering during year}}{\text{Number at beginning of year}}$$

PERCENTAGE DISTRIBUTION OF NEW ENTRANTS (by age nearest birthday)

$$\frac{\text{New entrants during year}}{\text{Total new entrants}}$$

PAYGRADE TRANSFER (by completed years of service)

$$\frac{\text{Transfers to category during year}}{\text{[Number at beginning of year - } \frac{1}{2} \text{ (withdrawals + nondisability retirements during year)]}}$$

PROMOTION AND MERIT SCALES (by entry age and completed years of service)

$$\frac{\text{Average basic pay at next year of service using current year pay table}}{\text{Average basic pay at current year of service}}$$

SUMMARY OF YEARS ON WHICH ACTIVE DUTY RATES ARE BASED

By Fiscal Year

<u>RATE</u>	<u>2015-2019</u>
Death	X
Nondisability Retirement	X
Temporary Disability Retirement	X
Permanent Disability Retirement	X
Withdrawal (other losses)	X
Reentrant Ratios	X
New Entrant Distribution	X
Paygrade Transfer	X
Promotion and Merit Scales (PAMS)	X

DEATH RATES FOR NONRETIRED MILITARY

(AGE NEAREST BIRTHDAY)

<u>Age</u>	<u>Officer</u>	<u>Enlisted</u>
16	0.00031	0.00053
17	0.00031	0.00057
18	0.00032	0.00062
19	0.00032	0.00067
20	0.00032	0.00071
21	0.00033	0.00075
22	0.00033	0.00076
23	0.00034	0.00074
24	0.00035	0.00071
25	0.00036	0.00070
26	0.00036	0.00067
27	0.00038	0.00066
28	0.00038	0.00065
29	0.00040	0.00065
30	0.00040	0.00065
31	0.00042	0.00064
32	0.00042	0.00065
33	0.00044	0.00065
34	0.00044	0.00065
35	0.00045	0.00067
36	0.00045	0.00067
37	0.00046	0.00068
38	0.00047	0.00069
39	0.00047	0.00069
40	0.00048	0.00070
41	0.00047	0.00070
42	0.00047	0.00070
43	0.00048	0.00070
44	0.00047	0.00070
45	0.00047	0.00070
46	0.00046	0.00069
47	0.00046	0.00068
48	0.00047	0.00068
49	0.00046	0.00068
50	0.00047	0.00068
51	0.00049	0.00073
52	0.00053	0.00077
53	0.00057	0.00083
54	0.00060	0.00089
55	0.00064	0.00095
56	0.00069	0.00102
57	0.00075	0.00109
58	0.00080	0.00118
59	0.00087	0.00127
60	0.00093	0.00137

- Note: 1. These death rates should not be compared to other published rates or used for other purposes without examining the exposure formula used in the derivation.
2. These death rates are mortality rates for Fiscal Year 2021

**NONDISABILITY, TEMPORARY DISABILITY &
PERMANENT DISABILITY RETIREMENT RATES**

OFFICERS (BY COMPLETED YEARS OF SERVICE)

<u>Years of Service</u>	<u>Non-disability</u>	<u>Temporary Disability ***</u>	<u>Permanent Disability ***</u>
0	0.00000	0.00030	0.00050
1	0.00000	0.00095	0.00113
2	0.00000	0.00155	0.00175
3	0.00000	0.00176	0.00219
4	0.00000	0.00193	0.00261
5	0.00000	0.00190	0.00310
6	0.00000	0.00212	0.00335
7	0.00000	0.00242	0.00353
8	0.00000	0.00288	0.00355
9	0.00000	0.00227	0.00374
10	0.00000	0.00303	0.00396
11	0.00000	0.00271	0.00398
12	0.00000	0.00299	0.00333
13	0.00000	0.00298	0.00297
14	0.00000	0.00228	0.00289
15	0.00000	0.00233	0.00280
16	0.00000	0.00180	0.00237
17	0.00000	0.00183	0.00171
18	0.00000	0.00085	0.00120
19	0.29403	0.00338	0.00532
20	0.16779	0.00555	0.00915
21	0.14554	0.00346	0.00698
22	0.13847	0.00279	0.00646
23	0.14688	0.00258	0.00574
24	0.15556	0.00195	0.00631
25	0.16765	0.00250	0.00596
26	0.16944	0.00134	0.00466
27	0.18323	0.00129	0.00466
28	0.17728	0.00140	0.00442
29	0.37643	0.00166	0.00432
30	0.32271	0.00292	0.00537
31	0.22694	0.00151	0.00481
32	0.22616	0.00151	0.00481
33	0.26632	0.00151	0.00481
34	0.26337	0.00151	0.00481
35	0.26825	0.00151	0.00481
36	0.27241	0.00151	0.00481
37	0.36614	0.00151	0.00481
38	0.30560	0.00151	0.00481
39	0.50633	0.00151	0.00481
40	1.00000	0.00151	0.00481

*** The increase in disability rates, particularly between 18 and 19 years of service, may be due to the removal of the 30% disability rating minimum for members with 20 years of service. The tax advantages accorded disability retired pay described in Appendix A may result in members choosing disability over nondisability retirements. Disabilities were increased to reflect recent trends.

Example: Nine completed years of service could include anything from 9.0 to 9.999 years of service. The associated rate applied to the number of people at the beginning of the year in the category will produce the expected number of occurrences during the following year.

**NONDISABILITY, TEMPORARY DISABILITY &
PERMANENT DISABILITY RETIREMENT RATES**

<u>Years of Service</u>	<u>Non- disability</u>	<u>Temporary Disability ***</u>	<u>Permanent Disability ***</u>
0	0.00000	0.00071	0.00049
1	0.00000	0.00293	0.00250
2	0.00000	0.00523	0.00524
3	0.00000	0.00670	0.00624
4	0.00000	0.00692	0.00756
5	0.00000	0.00743	0.00823
6	0.00000	0.00817	0.00870
7	0.00000	0.00887	0.00917
8	0.00000	0.00930	0.00949
9	0.00000	0.00947	0.00997
10	0.00000	0.00924	0.00994
11	0.00000	0.00969	0.01003
12	0.00000	0.00874	0.01000
13	0.00000	0.00829	0.00967
14	0.00000	0.00736	0.00884
15	0.00000	0.00594	0.00768
16	0.00000	0.00537	0.00656
17	0.00000	0.00450	0.00521
18	0.00000	0.00308	0.00359
19	0.44646	0.00718	0.01239
20	0.24403	0.01022	0.02069
21	0.21888	0.00761	0.01793
22	0.22832	0.00745	0.01693
23	0.36389	0.00607	0.01405
24	0.24012	0.00565	0.01646
25	0.42157	0.00545	0.01439
26	0.21405	0.00455	0.01314
27	0.18270	0.00442	0.01001
28	0.21955	0.00493	0.00950
29	0.65357	0.00489	0.00826
30	0.56604	0.00450	0.01350
31	0.57998	0.00780	0.02220
32	0.56550	0.00780	0.02220
33	0.53907	0.00780	0.02220
34	0.57436	0.00780	0.02220
35	0.54193	0.00780	0.02220
36	0.54193	0.00780	0.02220
37	0.54193	0.00780	0.02220
38	0.54193	0.00780	0.02220
39	0.54193	0.00780	0.02220
40	1.00000	0.00780	0.02220

*** The increase in disability rates, particularly between 18 and 19 years of service, may be due to the removal of the 30% disability rating minimum for members with 20 years of service. The tax advantages accorded disability retired pay described in Appendix A may result in members choosing disability over nondisability retirements. Disabilities were increased to reflect recent trends.

Example: Nine completed years of service could include anything from 9.0 to 9.999 years of service. The associated rate applied to the number of people at the beginning of the year in the category will produce the expected number of occurrences during the following year.

WITHDRAWAL, REENTRANT, AND NET LOSS RATES
FOR ACTIVE DUTY PERSONNEL

OFFICERS (BY COMPLETED YEARS OF SERVICE)

<u>Years of Service</u>	<u>Withdrawal</u>	<u>Reentrant ***</u>	<u>Net Loss</u>
0	0.00598	0.25021	-0.24423
1	0.00933	0.01792	-0.00859
2	0.02707	0.01788	0.00919
3	0.07932	0.02102	0.05830
4	0.09222	0.01924	0.07298
5	0.07260	0.01771	0.05489
6	0.08255	0.01617	0.06638
7	0.08597	0.01636	0.06961
8	0.06623	0.01484	0.05139
9	0.05855	0.01378	0.04477
10	0.08470	0.01274	0.07196
11	0.06448	0.01467	0.04981
12	0.04453	0.01313	0.03140
13	0.03107	0.01152	0.01955
14	0.02274	0.00804	0.01470
15	0.01625	0.00693	0.00932
16	0.01136	0.00602	0.00534
17	0.00774	0.00551	0.00223
18	0.00405	0.00492	-0.00087
19	0.00000	0.00272	-0.00272
20	0.00000	0.00298	-0.00298
21	0.00000	0.00256	-0.00256
22	0.00000	0.00227	-0.00227
23	0.00000	0.00234	-0.00234
24	0.00000	0.00157	-0.00157
25	0.00000	0.00135	-0.00135
26	0.00000	0.00180	-0.00180
27	0.00000	0.00179	-0.00179
28	0.00000	0.00104	-0.00104
29	0.00000	0.00076	-0.00076
30	0.00000	0.00231	-0.00231
31	0.00000	0.00157	-0.00157
32	0.00000	0.00134	-0.00134
33	0.00000	0.00118	-0.00118
34	0.00000	0.00113	-0.00113
35	0.00000	0.00102	-0.00102
36	0.00000	0.00083	-0.00083
37	0.00000	0.00079	-0.00079
38	0.00000	0.00064	-0.00064
39	0.00000	0.00048	-0.00048
40	0.00000	0.00000	0.00000

*** The reentrant (and all other) rates are developed for valuation purposes to be consistent with the data sources used in the valuation. For example, high reentrant rates for members with zero completed years of service at the beginning of the year reflect members showing up on the valuation data files with one completed year of service at year end, who were not on the data files at the beginning of the year, and who were not new entrants. For this reason, the above rates should not be used for other purposes.

Example: Nine completed years of service could include anything from 9.0 to 9.999 years of service. The associated rate applied to the number of people at the beginning of the year in the category will produce the expected number of occurrences during the following year.

**WITHDRAWAL, REENTRANT, AND NET LOSS RATES
FOR ACTIVE DUTY PERSONNEL**

ENLISTED (BY COMPLETED YEARS OF SERVICE)

<u>Years of Service</u>	<u>Withdrawal</u>	<u>Reentrant ***</u>	<u>Net Loss</u>
0	0.07250	0.02377	0.04873
1	0.05576	0.00855	0.04721
2	0.09772	0.00741	0.09031
3	0.26795	0.01103	0.25692
4	0.18400	0.00953	0.17447
5	0.17611	0.00902	0.16709
6	0.10506	0.00830	0.09676
7	0.14336	0.00815	0.13521
8	0.09028	0.00736	0.08292
9	0.08105	0.00678	0.07427
10	0.06290	0.00543	0.05747
11	0.05449	0.00491	0.04958
12	0.04363	0.00476	0.03887
13	0.05195	0.00410	0.04785
14	0.04700	0.00360	0.04340
15	0.01822	0.00279	0.01543
16	0.01524	0.00219	0.01305
17	0.00909	0.00187	0.00722
18	0.00356	0.00160	0.00196
19	0.00000	0.00084	-0.00084
20	0.00000	0.00110	-0.00110
21	0.00000	0.00104	-0.00104
22	0.00000	0.00088	-0.00088
23	0.00000	0.00125	-0.00125
24	0.00000	0.00146	-0.00146
25	0.00000	0.00135	-0.00135
26	0.00000	0.00273	-0.00273
27	0.00000	0.00121	-0.00121
28	0.00000	0.00166	-0.00166
29	0.00000	0.00167	-0.00167
30	0.00000	0.00230	-0.00230
31	0.00000	0.00844	-0.00844
32	0.00000	0.00871	-0.00871
33	0.00000	0.00724	-0.00724
34	0.00000	0.00769	-0.00769
35	0.00000	0.00757	-0.00757
36	0.00000	0.00513	-0.00513
37	0.00000	0.00435	-0.00435
38	0.00000	0.00357	-0.00357
39	0.00000	0.00444	-0.00444
40	0.00000	0.00000	0.00000

*** The reentrant (and all other) rates are developed for valuation purposes to be consistent with the data sources used in the valuation. For example, high reentrant rates for members with zero completed years of service at the beginning of the year reflect members showing up on the valuation data files with one completed year of service at year end, who were not on the data files at the beginning of the year, and who were not new entrants. For this reason, the above rates should not be used for other purposes.

Example: Nine completed years of service could include anything from 9.0 to 9.999 years of service. The associated rate applied to the number of people at the beginning of the year in the category will produce the expected number of occurrences during the following year.

PERCENTAGE DISTRIBUTION OF NEW ENTRANTS

(AGE NEAREST BIRTHDAY)

<u>Age</u>	<u>Officers</u>	<u>Enlisted</u>	<u>Total</u>
16	0.00000	0.00000	0.00000
17	0.00000	0.00050	0.00050
18	0.00000	0.09671	0.09671
19	0.00001	0.24693	0.24694
20	0.00004	0.18239	0.18243
21	0.00019	0.10786	0.10805
22	0.01306	0.07295	0.08601
23	0.02407	0.05589	0.07996
24	0.01025	0.04433	0.05458
25	0.00405	0.03366	0.03771
26	0.00354	0.02485	0.02839
27	0.00359	0.01769	0.02128
28	0.00253	0.01302	0.01555
29	0.00191	0.00950	0.01141
30	0.00128	0.00676	0.00804
31	0.00098	0.00489	0.00587
32	0.00071	0.00375	0.00446
33	0.00061	0.00285	0.00346
34	0.00047	0.00234	0.00281
35	0.00035	0.00196	0.00231
36	0.00025	0.00081	0.00106
37	0.00021	0.00038	0.00059
38	0.00018	0.00028	0.00046
39	0.00013	0.00028	0.00041
40	0.00014	0.00022	0.00036
41	0.00011	0.00007	0.00018
42	0.00009	0.00002	0.00011
43	0.00005	0.00003	0.00008
44	0.00004	0.00001	0.00005
45	0.00003	0.00001	0.00004
46	0.00002	0.00000	0.00002
47	0.00003	0.00001	0.00004
48	0.00003	0.00000	0.00003
49	0.00002	0.00001	0.00003
50	0.00002	0.00001	0.00003
51	0.00001	0.00000	0.00001
52	0.00001	0.00001	0.00002
53	0.00000	0.00000	0.00000
54	0.00001	0.00000	0.00001
55	0.00000	0.00000	0.00000
56	0.00000	0.00000	0.00000
57	0.00000	0.00000	0.00000
58	0.00000	0.00000	0.00000
59	0.00000	0.00000	0.00000
60	0.00000	0.00000	0.00000
Total	0.06902	0.93098	1.00000

PAYGRADE TRANSFER RATES

STATUS (BY COMPLETED YEARS OF SERVICE)

<u>Years of Service</u>	<u>Enlisted to Officer</u>
0	0.00625
1	0.00135
2	0.00155
3	0.00191
4	0.00258
5	0.00306
6	0.00395
7	0.00547
8	0.00701
9	0.00886
10	0.00999
11	0.01118
12	0.01056
13	0.00905
14	0.00757
15	0.00569
16	0.00432
17	0.00330
18	0.00285
19	0.00261
20	0.00132
21	0.00148
22	0.00099
23	0.00075
24	0.00043
25	0.00025
26	0.00000
27	0.00000
28	0.00000
29	0.00000
30	0.00000
31	0.00000
32	0.00000
33	0.00000
34	0.00000
35	0.00000
36	0.00000
37	0.00000
38	0.00000
39	0.00000
40	0.00000

Example: Nine completed years of service could include anything from 9.0 to 9.999 years of service. The associated rate applied to the number of people at the beginning of the year in the category will produce the expected number of occurrences during the following year.

PROMOTION AND MERIT BASIC PAY INCREASE SCALES

OFFICERS (BY ENTRY AGE)

Years of Service	Entry Age										
	16	17	18	19	20	21	22	23	24	25	26
1	1.09800	1.09800	1.09800	1.09800	1.05300	1.07400	1.01400	1.01800	1.04600	1.07400	1.09000
2	1.09800	1.09800	1.09800	1.09800	1.15700	1.14700	1.27200	1.26300	1.22600	1.21200	1.16200
3	1.12500	1.12500	1.12500	1.12500	1.20200	1.20400	1.16200	1.14900	1.12600	1.13700	1.10700
4	1.06800	1.06800	1.06800	1.01600	1.06900	1.12200	1.15000	1.14400	1.12600	1.11200	1.08700
5	0.99600	0.99600	0.99600	1.05700	1.09500	1.05000	1.02000	1.02400	1.03200	1.03500	1.02800
6	1.03000	1.03000	1.03000	1.03700	1.05400	1.07600	1.05000	1.04500	1.03800	1.04600	1.06500
7	1.26100	1.26100	1.26100	1.20100	1.09000	1.05100	1.00400	1.00700	1.01700	1.02100	1.02400
8	1.12300	1.12300	1.12300	1.10000	1.06500	1.05400	1.04900	1.04700	1.04300	1.04900	1.05200
9	1.03800	1.03800	1.06400	1.06900	1.04600	1.03000	1.00700	1.01000	1.02400	1.02700	1.02300
10	1.11600	1.11600	1.08300	1.07200	1.06900	1.06000	1.08600	1.08800	1.07900	1.06800	1.05100
11	1.07500	1.07500	1.05500	1.06100	1.04800	1.04200	1.04600	1.04400	1.04000	1.03600	1.02600
12	1.04400	1.04400	1.08000	1.07900	1.07700	1.07400	1.05400	1.05200	1.04700	1.04700	1.04100
13	1.03700	1.03700	1.04600	1.05700	1.05100	1.04000	1.00800	1.00800	1.01300	1.01600	1.01700
14	1.01600	1.01600	1.08500	1.07800	1.06800	1.05500	1.03800	1.03500	1.03200	1.03400	1.03100
15	1.08700	1.08700	1.04600	1.04400	1.03800	1.03200	1.02000	1.01900	1.02200	1.02200	1.01800
16	1.04800	1.04800	1.05900	1.05400	1.04900	1.04600	1.04900	1.04800	1.04100	1.03600	1.03300
17	1.04000	1.04000	1.03700	1.03300	1.03600	1.02800	1.02700	1.02700	1.02900	1.02600	1.02000
18	1.04600	1.04600	1.05300	1.05200	1.04800	1.04200	1.03300	1.03100	1.02900	1.02800	1.03100
19	1.03900	1.03900	1.03100	1.03000	1.02900	1.02800	1.01000	1.00900	1.01100	1.01500	1.01400
20	1.05400	1.05400	1.04400	1.04500	1.04200	1.03800	1.03900	1.03800	1.03800	1.03800	1.04000
21	1.01700	1.01700	1.02300	1.02400	1.02200	1.02300	1.02400	1.02800	1.03000	1.02900	1.02100
22	1.04800	1.04800	1.03400	1.03400	1.03200	1.03700	1.06800	1.06700	1.05200	1.04300	1.03100
23	1.05900	1.05900	1.02300	1.02400	1.02300	1.03000	1.02300	1.02600	1.02700	1.02800	1.01800
24	1.00000	1.00000	1.03500	1.03300	1.03400	1.03500	1.03400	1.03100	1.02900	1.03000	1.02200
25	1.04800	1.04800	1.01900	1.02500	1.02600	1.02200	1.01600	1.02000	1.02400	1.02400	1.01600
26	1.04300	1.04300	1.03600	1.03700	1.03500	1.04000	1.04300	1.03500	1.02800	1.02600	1.02800
27	1.03300	1.03300	1.02800	1.02500	1.02500	1.02600	1.01200	1.01200	1.01300	1.00700	1.01000
28	1.00500	1.00500	1.02500	1.02400	1.02200	1.02400	1.02300	1.01900	1.01000	1.01000	1.01600
29	1.02300	1.02300	1.02500	1.02300	1.02500	1.01600	1.01700	1.01800	1.01100	1.00400	1.01100
30	1.02100	1.02100	1.04800	1.05700	1.05500	1.05900	1.06200	1.05400	1.03600	1.03000	1.00000
31	1.03500	1.03500	1.05700	1.04600	1.04200	1.03500	1.05100	1.04800	1.01700	1.02100	1.01100
32	1.03600	1.03600	1.02300	1.02700	1.02800	1.00800	1.03700	1.04900	1.02600	1.01800	1.01800
33	1.02600	1.02600	1.02800	1.02200	1.01600	1.02700	1.03700	1.03800	1.02200	1.04500	1.00000
34	1.03600	1.03600	1.02900	1.03000	1.02900	1.03100	1.04200	1.03900	1.07200	1.01200	1.02200
35	0.99700	0.99700	1.03100	1.02200	1.02700	1.02800	1.02600	1.01200	1.02700	1.02800	0.98300
36	1.00500	1.00500	1.02900	1.02800	1.02000	1.02200	1.00500	1.02400	0.99500	1.02200	0.98300
37	1.01500	1.01500	1.02700	1.01900	1.01300	1.02400	1.00300	0.98300	1.01200	1.01300	0.98300
38	1.01000	1.01000	1.02000	1.02300	1.05300	1.02700	0.98500	1.00500	1.01200	1.01300	0.98300
39	1.02600	1.02600	1.00400	1.02600	1.03100	1.01900	0.98700	1.00500	1.01200	1.01300	0.98300
40	0.98200	0.98200	1.02100	0.95300	1.00300	1.04900	0.98700	1.00500	1.01200	1.01300	0.98300

Note: The number that appears, for example, in the column marked '20' and the row marked '2' is the ratio of basic pay at two years of service to basic pay at one year of service for a member who entered at age 20.

PROMOTION AND MERIT BASIC PAY INCREASE SCALES

Years of Service	ENLISTED (BY ENTRY AGE)										
	Entry Age										
	16	17	18	19	20	21	22	23	24	25	26
1	1.12700	1.12700	1.11400	1.10300	1.08600	1.08200	1.08000	1.07900	1.07700	1.07900	1.09800
2	1.10700	1.10700	1.11600	1.11600	1.11800	1.11800	1.11900	1.11700	1.11700	1.11800	1.13000
3	1.08400	1.08400	1.09700	1.09500	1.09200	1.09100	1.09100	1.09200	1.09300	1.09400	1.10400
4	1.06500	1.06500	1.08700	1.08500	1.08200	1.08200	1.08400	1.08700	1.08900	1.09100	1.09800
5	1.05100	1.05100	1.03600	1.03400	1.03100	1.03100	1.03200	1.03400	1.03500	1.03700	1.04800
6	1.08400	1.08400	1.09000	1.09100	1.09100	1.09000	1.08900	1.08800	1.09000	1.09000	1.09100
7	1.01300	1.01300	1.02300	1.02300	1.02300	1.02400	1.02600	1.02700	1.02800	1.02900	1.03800
8	1.09600	1.09600	1.09900	1.09800	1.09700	1.09600	1.09600	1.09500	1.09400	1.09400	1.08900
9	1.02000	1.02000	1.02500	1.02400	1.02300	1.02400	1.02500	1.02600	1.02800	1.02700	1.03200
10	1.06100	1.06100	1.06300	1.06200	1.06200	1.06100	1.06000	1.05800	1.05700	1.05500	1.05000
11	1.01800	1.01800	1.02200	1.02200	1.02100	1.02300	1.02400	1.02500	1.02600	1.02700	1.02800
12	1.07100	1.07100	1.07100	1.06800	1.06600	1.06300	1.06200	1.05900	1.05800	1.05800	1.04800
13	1.01600	1.01600	1.02300	1.02300	1.02400	1.02400	1.02400	1.02500	1.02500	1.02500	1.02600
14	1.03700	1.03700	1.05000	1.04900	1.04700	1.04700	1.04500	1.04600	1.04500	1.04400	1.04000
15	1.02500	1.02500	1.02400	1.02500	1.02600	1.02800	1.02800	1.02700	1.02600	1.02700	1.02800
16	1.04000	1.04000	1.04100	1.04000	1.03900	1.03900	1.03700	1.03500	1.03500	1.03500	1.02900
17	1.01600	1.01600	1.01700	1.01900	1.01900	1.02000	1.02000	1.02200	1.01900	1.02000	1.02200
18	1.05100	1.05100	1.04700	1.04500	1.04200	1.04000	1.03900	1.03800	1.03700	1.03600	1.02800
19	1.00600	1.00600	1.01400	1.01400	1.01400	1.01400	1.01400	1.01400	1.01300	1.01600	1.01100
20	1.06400	1.06400	1.05900	1.06300	1.07100	1.07500	1.07300	1.07500	1.07700	1.07700	1.07200
21	1.03800	1.03800	1.03000	1.02900	1.02800	1.02800	1.02900	1.03300	1.03300	1.03000	1.02800
22	1.05000	1.05000	1.06600	1.06400	1.06100	1.06000	1.05900	1.05700	1.05500	1.05100	1.04000
23	1.08200	1.08200	1.02900	1.02900	1.02900	1.03300	1.03400	1.03700	1.03700	1.03700	1.03600
24	1.09700	1.09700	1.07900	1.08300	1.08700	1.07900	1.07900	1.07700	1.07200	1.06800	1.05900
25	1.11900	1.11900	1.03000	1.03500	1.03500	1.03700	1.03500	1.04100	1.03900	1.03400	1.03800
26	1.10700	1.10700	1.11800	1.11600	1.11400	1.11200	1.10700	1.11300	1.09900	1.11300	1.10100
27	1.00000	1.00000	1.02300	1.02000	1.01900	1.02600	1.02300	1.02700	1.02700	1.01900	1.02200
28	1.00000	1.00000	1.01300	1.01200	1.01300	1.01200	1.02000	1.01400	1.02000	1.01200	1.02300
29	1.00700	1.00700	1.01600	1.01500	1.01400	1.01600	1.01800	1.01600	1.02100	1.02200	1.02300
30	1.06900	1.06900	1.04700	1.04800	1.04300	1.04000	1.04400	1.04600	1.05400	1.04400	1.04900
31	1.00800	1.00800	1.00500	1.00200	1.00100	1.00900	1.00500	1.02300	1.00300	0.99800	1.02200
32	1.00400	1.00400	1.00500	1.00800	0.98800	0.99900	1.00000	0.99900	1.00300	0.99800	1.03500
33	1.00000	1.00000	1.00300	1.00100	1.00900	1.00100	0.94600	1.00400	1.00800	0.99800	1.04400
34	1.06700	1.06700	1.04900	1.03800	1.05000	1.02500	0.94900	1.06600	1.09300	0.99800	1.00000
35	1.06700	1.06700	1.04900	0.94200	0.92500	1.01700	0.98400	1.06600	0.98400	1.04600	1.00000
36	1.06700	1.06700	1.04900	0.94200	0.92500	1.01700	1.02000	1.06600	0.95200	1.04600	1.00000
37	1.06700	1.06700	1.04900	0.94200	0.92500	1.01700	1.06800	1.06600	0.95200	1.04600	1.00000
38	1.00000	1.00000	1.04900	0.94200	0.93800	1.01700	1.02400	1.06600	0.95200	1.04600	1.00000
39	1.00000	1.00000	1.04900	0.94200	0.93800	1.01700	1.00000	1.06600	0.95200	1.04600	1.00000
40	1.00000	1.00000	1.00000	0.94200	1.00000	1.01700	1.00000	1.06600	0.95200	1.04600	1.00000

Note: The number that appears, for example, in the column marked '20' and the row marked '2' is the ratio of basic pay at two years of service to basic pay at one year of service for a member who entered at age 20.

APPENDIX H

RESERVE DUTY RATES

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RESERVE DUTY RATES DESCRIPTION

Modeling decrement rates for reserves is similar to modeling decrement rates for active duty. Although there are additional challenges due to members moving between active and reserve components, the structure of the reserve force, limitations of the reserve data, and changes in how the reserves are used.

Reserves are modeled in two population categories in the portion of their career prior to receiving retired pay – Selected Reserves and non-Selected Reserves with 20 good years. The Selected Reserves include only part-time members and are the reservists for whom normal costs are paid. The non-Selected Reserves with 20 good years⁶ are modeled because they have enough service to qualify for retirement.

The reserve rates consist primarily of decrement rates related to the probabilities of a member leaving a category of military service for a specific reason. In addition, they include a new entrant distribution; a set of reentrant ratios; ratios for promotion and merit pay increases; average points per year; transfer to 20-year non-Selected Reserve status; and blow-up⁷ factors. The decrement rates are mainly given by age nearest birthday at entry and completed years of service since Pay Entry Base Date (PEBD), for officers and enlisted separately. “Entry Age” is constructed on an assumption of no breaks in service; e.g., an “entry age” of 57 could represent a member who started at a much earlier age with a long break in service. Below is a description of the rates used in the reserve valuation process.

Most of the reserve rates were updated for the September 30, 2021, valuation. In general, the date for the rates was taken from the RCCPDS files as of September 30 for the years 2017 through 2019. The experience period was selected such that the sum of the part-time Selected Reserve force size changes for the included period was near zero. The fiscal years on which the rates are based is given on a subsequent page. A summary qualitative description follows in the below text, in addition to being displayed at the bottom of the respective rate tables in this appendix. The general formula derivation is similar to those of the Active Duty rates (Appendix G) and Retiree/Survivor rates (Appendix I). The reserve rate formulas are not shown, but may be requested from OACT.

The separation rates give the probability that a member in a given status at the beginning of the fiscal year leaves that status during the fiscal year. Separation rates from the Selected Reserve include standard losses, transfers to active duty, transfers to the full-time reserves, discharge, and death. They do not include transfers to non-Selected Reserves with 20 good years, or retirement. Separation rates from the non-Selected Reserve with 20 good years include

⁶ This includes the category commonly referred to as the “grey area” as well as other non-Selected Reservists with 20 qualifying retirement years.

⁷ These are used to adjust for persistent patterns of actual outcomes not conforming to expectations based on known data. For example, some new reserve retirees show up in the data each year who were not in the data as eligible-to-retire reservists the year before. The need for such “blow up” factors is one of many challenges in modeling reservists.

transfer to Selected Reserve, death, discharge, and file corrections and timing delays. They do not include transfer to retirement status.

A reentrant is defined as someone who is in the Selected Reserves at year end, who was not in the same status a year earlier, and who is not a new entrant (as defined by having greater than zero completed years of PEBD service). It can include transfers from active duty; former Selected Reserve or active members returning after breaks in service; reserve members returning after being attached to a non-Selected Reserve component (Individual Ready Reserve or Inactive National Guard); and members transferring to the part-time Selected Reserves from the full-time reserves.

The new entrant distribution gives the percentages of new entrants (as defined by having zero completed years of PEBD service) to the part-time Selected Reserves by age and by officer/enlisted status. The distribution is only used in the normal cost (new entrant) valuation and the open group projection.

In most cases the separation and reentrant rates and ratios are not smoothed (graduated). However, cells with numerators of fewer than 10 cases are combined with other cells.

The PAMS give the expected annual percentage increase in pay independent of the across-the-board increases in the active duty pay scale. The PAMS do not include adjustments for inflation or productivity increases. The PAMS are defined by length of PEBD service, by age, and by officer/enlisted status. They are computed by dividing the average pay at age (x+1), years of service (y+1) by the average pay at age (x), years of service (y) one year earlier. An adjustment is made to compute the averages for the numerator and denominator based on the same pay table, and cells based on few observations are combined with other cells.

SUMMARY OF YEARS ON WHICH RESERVE RATES ARE BASED

	By Fiscal Year				
<u>RATE</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
New Entrant Distribution <i>(Officer/Enlisted)</i>			X	X	X
Death <i>(Officer/Enlisted; Selected/Non-Selected)</i>	X	X	X	X	X
Separation <i>(Officer/Enlisted; Selected/Non-Selected)</i>			X	X	X
Reentrant <i>(Officer/Enlisted; Selected)</i>			X	X	X
Paygrade Transfer <i>(Enlisted; Selected)</i>			X	X	X
Status Transfer <i>(Officer/Enlisted; Selected-to- Non-Selected)</i>			X	X	X
Retirement <i>(Officer/Enlisted; Selected/Non-Selected)</i>			X	X	X
Disability Retirement <i>(Permanent/Temporary; Officer/Enlisted; Selected)</i>			X	X	X
Average Points Per Year <i>(Officer/Enlisted; Selected/Non- Selected)</i>			X	X	X
Career Points Adjustment <i>(Officer/Enlisted; Selected)</i>			X	X	X
Reentering Average Points <i>(Officer/Enlisted; Selected)</i>			X	X	X
Blow-up Factor <i>(Officer/Enlisted; Non-Selected to Retired)</i>				X	X
Transfer Blow-up Factor <i>(Officer/Enlisted; Selected-to- Non-Selected)</i>			X	X	X
Selected Reserve PAMS <i>(Officer/Enlisted)</i>			X	X	X
Non-Selected Reserve PAMS <i>(Officer/Enlisted)</i>			X	X	X

New Entrant Distribution

By Paygrade (Officer/Enlisted)

<u>Entry Age</u>	<u>Officer</u>	<u>Enlisted</u>	<u>Total</u>
17	0.00000	0.02166	0.02166
18	0.00000	0.20339	0.20339
19	0.00000	0.23829	0.23829
20	0.00009	0.14083	0.14092
21	0.00012	0.08611	0.08623
22	0.00155	0.05645	0.05800
23	0.00358	0.04284	0.04642
24	0.00218	0.03464	0.03682
25	0.00120	0.02816	0.02936
26	0.00111	0.02358	0.02469
27	0.00115	0.01956	0.02071
28	0.00104	0.01684	0.01788
29	0.00125	0.01397	0.01522
30	0.00134	0.01077	0.01211
31	0.00118	0.00908	0.01026
32	0.00125	0.00772	0.00897
33	0.00111	0.00675	0.00786
34	0.00100	0.00627	0.00727
35	0.00096	0.00609	0.00705
36	0.00082	0.00324	0.00406
37	0.00095	0.00188	0.00283
38	0.00000	0.00000	0.00000
39	0.00000	0.00000	0.00000
40	0.00000	0.00000	0.00000
41	0.00000	0.00000	0.00000
42	0.00000	0.00000	0.00000
43	0.00000	0.00000	0.00000
44	0.00000	0.00000	0.00000
45	0.00000	0.00000	0.00000
46	0.00000	0.00000	0.00000
47	0.00000	0.00000	0.00000
48	0.00000	0.00000	0.00000
49	0.00000	0.00000	0.00000
50	0.00000	0.00000	0.00000
51	0.00000	0.00000	0.00000
52	0.00000	0.00000	0.00000
53	0.00000	0.00000	0.00000
54	0.00000	0.00000	0.00000
55	0.00000	0.00000	0.00000
56	0.00000	0.00000	0.00000
57	0.00000	0.00000	0.00000
58	0.00000	0.00000	0.00000
59	0.00000	0.00000	0.00000
60	0.00000	0.00000	0.00000
61	0.00000	0.00000	0.00000
>62	0.00000	0.00000	0.00000
Total	0.02188	0.97812	1.00000

DESCRIPTION: New Entrant distribution for a normal cost valuation (as well as open group), where a new entrant is defined as: a part-time selected reserve on the file as of year-end, who was not in that status in the prior year, and has zero completed PEBD years of service.

Arrayed by entry age and paygrade (officer/enlisted). Populates age scatter of new entrant cohort. Model assumes no new entrants older than age 37.

Reserve Death Rates

By Reserve Status and Paygrade

Age	Selected		Non-Selected	
	Officer	Enlisted	Officer	Enlisted
16	0.00015	0.00066		
17	0.00016	0.00069		
18	0.00017	0.00073		
19	0.00018	0.00078		
20	0.00019	0.00081		
21	0.00019	0.00084		
22	0.00020	0.00087		
23	0.00020	0.00088		
24	0.00021	0.00089		
25	0.00022	0.00088		
26	0.00022	0.00087		
27	0.00023	0.00085		
28	0.00025	0.00082		
29	0.00026	0.00080		
30	0.00029	0.00078	0.00039	0.00080
31	0.00030	0.00076	0.00040	0.00080
32	0.00032	0.00075	0.00040	0.00081
33	0.00033	0.00075	0.00040	0.00082
34	0.00036	0.00075	0.00040	0.00082
35	0.00037	0.00076	0.00041	0.00082
36	0.00039	0.00078	0.00041	0.00082
37	0.00040	0.00079	0.00040	0.00082
38	0.00043	0.00079	0.00041	0.00083
39	0.00045	0.00080	0.00041	0.00083
40	0.00046	0.00081	0.00042	0.00085
41	0.00048	0.00083	0.00042	0.00086
42	0.00050	0.00084	0.00043	0.00079
43	0.00052	0.00084	0.00043	0.00074
44	0.00054	0.00086	0.00045	0.00074
45	0.00057	0.00088	0.00045	0.00078
46	0.00059	0.00090	0.00046	0.00088
47	0.00061	0.00095	0.00049	0.00102
48	0.00064	0.00101	0.00052	0.00118
49	0.00067	0.00107	0.00060	0.00127
50	0.00071	0.00115	0.00069	0.00132
51	0.00076	0.00124	0.00081	0.00140
52	0.00081	0.00135	0.00094	0.00156
53	0.00087	0.00146	0.00110	0.00179
54	0.00093	0.00159	0.00131	0.00203
55	0.00100	0.00172	0.00152	0.00228
56	0.00109	0.00186	0.00171	0.00265
57	0.00118	0.00200	0.00187	0.00314
58	0.00128	0.00215	0.00202	0.00359
59	0.00139	0.00230	0.00220	0.00379
60	0.00152	0.00246	0.00251	0.00395
61	0.00166	0.00263	0.00309	0.00456
62	0.00180	0.00281	0.00405	0.00599
63	0.00196	0.00300	0.00550	0.00841

<p>DESCRIPTION: Reserve Death Rates Arrayed by reserve status (Selected/Non-Selected), age (nearest birthday), and paygrade (officer/enlisted). Probability that a member dies in the next year. Should not be compared to other published rates or used for other purposes without examining how they are derived.</p>
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Enlisted Selected Reserve Net Separation Rates (Non-Transfer/Retirement)

PEBD Years of Service	By Entry Age																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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1	0.000	0.041	0.078	0.079	0.083	0.082	0.082	0.085	0.089	0.096	0.103	0.110	0.117	0.124	0.131	0.138	0.145	0.152	0.159	0.166	0.173	0.180	0.187	0.194	0.201	0.208	0.215	0.222	0.229	0.236	0.243	0.250	0.257	0.264	0.271	0.278	0.285	0.292	0.299	0.306	0.313	0.320	0.327	0.334	0.341	0.348	0.355	0.362	0.369	0.376	0.383	0.390	0.397	0.404	0.411	0.418	0.425	0.432	0.439	0.446	0.453	0.460	0.467	0.474	0.481	0.488	0.495	0.502	0.509	0.516	0.523	0.530	0.537	0.544	0.551	0.558	0.565	0.572	0.579	0.586	0.593	0.600	0.607	0.614	0.621	0.628	0.635	0.642	0.649	0.656	0.663	0.670	0.677	0.684	0.691	0.698	0.705	0.712	0.719	0.726	0.733	0.740	0.747	0.754	0.761	0.768	0.775	0.782	0.789	0.796	0.803	0.810	0.817	0.824	0.831	0.838	0.845	0.852	0.859	0.866	0.873	0.880	0.887	0.894	0.901	0.908	0.915	0.922	0.929	0.936	0.943	0.950	0.957	0.964	0.971	0.978	0.985	0.992	0.999	1.006	1.013	1.020	1.027	1.034	1.041	1.048	1.055	1.062	1.069	1.076	1.083	1.090	1.097	1.104	1.111	1.118	1.125	1.132	1.139	1.146	1.153	1.160	1.167	1.174	1.181	1.188	1.195	1.202	1.209	1.216	1.223	1.230	1.237	1.244	1.251	1.258	1.265	1.272	1.279	1.286	1.293	1.300	1.307	1.314	1.321	1.328	1.335	1.342	1.349	1.356	1.363	1.370	1.377	1.384	1.391	1.398	1.405	1.412	1.419	1.426	1.433	1.440	1.447	1.454	1.461	1.468	1.475	1.482	1.489	1.496	1.503	1.510	1.517	1.524	1.531	1.538	1.545	1.552	1.559	1.566	1.573	1.580	1.587	1.594	1.601	1.608	1.615	1.622	1.629	1.636	1.643	1.650	1.657	1.664	1.671	1.678	1.685	1.692	1.699	1.706	1.713	1.720	1.727	1.734	1.741	1.748	1.755	1.762	1.769	1.776	1.783	1.790	1.797	1.804	1.811	1.818	1.825	1.832	1.839	1.846	1.853	1.860	1.867	1.874	1.881	1.888	1.895	1.902	1.909	1.916	1.923	1.930	1.937	1.944	1.951	1.958	1.965	1.972	1.979	1.986	1.993	2.000	2.007	2.014	2.021	2.028	2.035	2.042	2.049	2.056	2.063	2.070	2.077	2.084	2.091	2.098	2.105	2.112	2.119	2.126	2.133	2.140	2.147	2.154	2.161	2.168	2.175	2.182	2.189	2.196	2.203	2.210	2.217	2.224	2.231	2.238	2.245	2.252	2.259	2.266	2.273	2.280	2.287	2.294	2.301	2.308	2.315	2.322	2.329	2.336	2.343	2.350	2.357	2.364	2.371	2.378	2.385	2.392	2.399	2.406	2.413	2.420	2.427	2.434	2.441	2.448	2.455	2.462	2.469	2.476	2.483	2.490	2.497	2.504	2.511	2.518	2.525	2.532	2.539	2.546	2.553	2.560	2.567	2.574	2.581	2.588	2.595	2.602	2.609	2.616	2.623	2.630	2.637	2.644	2.651	2.658	2.665	2.672	2.679	2.686	2.693	2.700	2.707	2.714	2.721	2.728	2.735	2.742	2.749	2.756	2.763	2.770	2.777	2.784	2.791	2.798	2.805	2.812	2.819	2.826	2.833	2.840	2.847	2.854	2.861	2.868	2.875	2.882	2.889	2.896	2.903	2.910	2.917	2.924	2.931	2.938	2.945	2.952	2.959	2.966	2.973	2.980	2.987	2.994	3.001	3.008	3.015	3.022	3.029	3.036	3.043	3.050	3.057	3.064	3.071	3.078	3.085	3.092	3.099	3.106	3.113	3.120	3.127	3.134	3.141	3.148	3.155	3.162	3.169	3.176	3.183	3.190	3.197	3.204	3.211	3.218	3.225	3.232	3.239	3.246	3.253	3.260	3.267	3.274	3.281	3.288	3.295	3.302	3.309	3.316	3.323	3.330	3.337	3.344	3.351	3.358	3.365	3.372	3.379	3.386	3.393	3.400	3.407	3.414	3.421	3.428	3.435	3.442	3.449	3.456	3.463	3.470	3.477	3.484	3.491	3.498	3.505	3.512	3.519	3.526	3.533	3.540	3.547	3.554	3.561	3.568	3.575	3.582	3.589	3.596	3.603	3.610	3.617	3.624	3.631	3.638	3.645	3.652	3.659	3.666	3.673	3.680	3.687	3.694	3.701	3.708	3.715	3.722	3.729	3.736	3.743	3.750	3.757	3.764	3.771	3.778	3.785	3.792	3.799	3.806	3.813	3.820	3.827	3.834	3.841	3.848	3.855	3.862	3.869	3.876	3.883	3.890	3.897	3.904	3.911	3.918	3.925	3.932	3.939	3.946	3.953	3.960	3.967	3.974	3.981	3.988	3.995	4.002	4.009	4.016	4.023	4.030	4.037	4.044	4.051	4.058	4.065	4.072	4.079	4.086	4.093	4.100	4.107	4.114	4.121	4.128	4.135	4.142	4.149	4.156	4.163	4.170	4.177	4.184	4.191	4.198	4.205	4.212	4.219	4.226	4.233	4.240	4.247	4.254	4.261	4.268	4.275	4.282	4.289	4.296	4.303	4.310	4.317	4.324	4.331	4.338	4.345	4.352	4.359	4.366	4.373	4.380	4.387	4.394	4.401	4.408	4.415	4.422	4.429	4.436	4.443	4.450	4.457	4.464	4.471	4.478	4.485	4.492	4.499	4.506	4.513	4.520	4.527	4.534	4.541	4.548	4.555	4.562	4.569	4.576	4.583	4.590	4.597	4.604	4.611	4.618	4.625	4.632	4.639	4.646	4.653	4.660	4.667	4.674	4.681	4.688	4.695	4.702	4.709	4.716	4.723	4.730	4.737	4.744	4.751	4.758	4.765	4.772	4.779	4.786	4.793	4.800	4.807	4.814	4.821	4.828	4.835	4.842	4.849	4.856	4.863	4.870	4.877	4.884	4.891	4.898	4.905	4.912	4.919	4.926	4.933	4.940	4.947	4.954	4.961	4.968	4.975	4.982	4.989	4.996	5.003	5.010	5.017	5.024	5.031	5.038	5.045	5.052	5.059	5.066	5.073	5.080	5.087	5.094	5.101	5.108	5.115	5.122	5.129	5.136	5.143	5.150	5.157	5.164	5.171	5.178	5.185	5.192	5.199	5.206	5.213	5.220	5.227	5.234	5.241	5.248	5.255	5.262	5.269	5.276	5.283	5.290	5.297	5.304	5.311	5.318	5.325	5.332	5.339	5.346	5.353	5.360	5.367	5.374	5.381	5.388	5.395	5.402	5.409	5.416	5.423	5.430	5.437	5.444	5.451	5.458	5.465	5.472	5.479	5.486	5.493	5.500	5.507	5.514	5.521	5.528	5.535	5.542	5.549	5.556	5.563	5.570	5.577	5.584	5.591	5.598	5.605	5.612	5.619	5.626	5.633	5.640	5.647	5.654	5.661	5.668	5.675	5.682	5.689	5.696	5.703	5.710	5.717	5.724	5.731	5.738	5.745	5.752	5.759	5.766	5.773	5.780	5.787	5.794	5.801	5.808	5.815	5.822	5.829	5.836	5.843	5.850	5.857	5.864	5.871	5.878	5.885	5.892	5.899	5.906	5.913	5.920	5.927	5.934	5.941	5.948	5.955	5.962	5.969	5.976	5.983	5.990	5.997	6.004	6.011	6.018	6.025	6.032	6.039	6.046	6.053	6.060	6.067	6.074	6.081	6.088	6.095	6.102	6.109	6.116	6.123	6.130	6.137	6.144	6.151	6.158	6.165	6.172	6.179	6.186	6.193	6.200	6.207	6.214	6.221	6.228	6.235	6.242	6.249	6.256	6.263	6.270	6.277	6.284	6.291	6.298	6.305	6.312	6.319	6.326	6.333	6.340	6.347	6.354	6.361	6.368	6.375	6.382	6.389	6.396	6.403	6.410	6.417	6.424	6.431	6.438	6.445	6.452	6.459	6.466	6.473	6.480	6.487	6.494	6.501	6.508	6.515	6.522	6.529	6.536	6.543	6.550	6.557	6.564	6.571	6.578	6.585	6.592	6.599	6.606	6.613	6.620	6.627	6.634	6.641	6.648	6.655	6.662	6.669	6.676	6.683	6.690	6.697	6.704	6.711	6.718	6.725	6.732	6.739	6.746	6.753	6.760	6.767	6.774	6.781	6.788	6.795	6.802	6.809	6.816	6.823	6.830	6.837	6.844	6.851	6.858	6.865	6.872	6.879	6.886	6.893	6.900	6.907	6.914	6.921	6.928	6.935	6.942	6.949	6.956	6.963	6.970	6.977	6.984	6.991	6.998	7.005	7.012	7.019	7.026	7.033	7.040	7.047	7.054	7.061	7.068	7.075	7.082	7.089	7.096	7.103	7.110	7.117	7.124	7.131	7.138	7.145	7.152	7.159	7.166	7.173	7.180	7.187	7.194	7.201	7.208	7.215	7.222	7.229	7.236	7.243	7.250	7.257	7.264	7.271	7.278	7.285	7.292	7.299	7.306	7.313	7.320	7.327	7.334	7.341	7.348	7.355	7.362	7.369	7.376	7.383	7.390	7.397	7.404	7.411	7.418	7.425	7.432	7.439	7.446	7.453	7.460	7.467	7.474	7.481	7.488	7.495	7.502	7.509	7.516	7.523	7.530	7.537	7.544	7.551	7.558	7.565	7.572	7.579	7.586	7.593	7.600	7.607	7.614	7.621	7.628	7.635	7.642	7.649	7.656	7.663	7.670	7.677	7.684	7.691	7.698	7.705	7.712	7.719	7.726	7.733	7.740	7.747	7.754	7.761	7.768	7.775	7.782	7.789	7.796	7.803	7.810	7.817	7.824	7.831	7.838	7.845	7.852	7.859	7.866	7.873	7.880	7.887	7.894	7.901	7.908	7.915	7.922	7.929	7.936	7.943	7.950	7.957	7.964	7.971	7.978	7.985	7.992	7.999	8.006	8.013	8.020	8.027	8.034	8.041	8.048	8.055	8.062	8.069	8.076	8.083	8.090	8.097	8.104	8.111	8.118	8.125	8.132

Reserve Retirement Rates

By Reserve Status and Paygrade

<u>Age</u>	<u>Selected</u>		<u>Non-Selected</u>	
	<u>Officer</u>	<u>Enlisted</u>	<u>Officer</u>	<u>Enlisted</u>
17	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000
31	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000
34	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000
38	0.000	0.000	0.000	0.000
39	0.001	0.001	0.000	0.000
40	0.001	0.002	0.000	0.000
41	0.001	0.001	0.001	0.000
42	0.001	0.002	0.000	0.000
43	0.002	0.002	0.002	0.000
44	0.002	0.003	0.002	0.000
45	0.002	0.003	0.001	0.000
46	0.002	0.003	0.001	0.000
47	0.003	0.003	0.001	0.000
48	0.004	0.004	0.001	0.000
49	0.004	0.004	0.001	0.000
50	0.006	0.004	0.002	0.006
51	0.006	0.004	0.002	0.000
52	0.010	0.003	0.002	0.000
53	0.011	0.004	0.004	0.000
54	0.015	0.004	0.007	0.001
55	0.013	0.007	0.011	0.001
56	0.025	0.011	0.019	0.004
57	0.048	0.023	0.032	0.008
58	0.060	0.076	0.054	0.023
59	0.275	0.397	0.457	0.399
60	0.462	0.813	0.906	0.850
61	0.234	0.515	0.382	0.284
62	0.317	0.660	0.234	0.133
>62	1.000	1.000	1.000	1.000

DESCRIPTION: Selected Reserve and Non-Selected Reserve with 20 Good Years ('Grey Area') Retirement Rates.
 Arrayed by reserve status (Selected/Non-Selected), age (nearest birthday), and paygrade (officer/enlisted).
 Probability that a member retires during the fiscal year.

Selected Reserve Disability Retirement Rates

By Disability Type and Paygrade

PEBD Years of Service	Permanent		Temporary	
	Officer	Enlisted	Officer	Enlisted
Under 1	0.00055	0.00011	0.00010	0.00008
1	0.00055	0.00016	0.00010	0.00010
2	0.00055	0.00024	0.00010	0.00011
3	0.00055	0.00036	0.00010	0.00013
4	0.00055	0.00054	0.00010	0.00016
5	0.00068	0.00082	0.00010	0.00021
6	0.00084	0.00124	0.00010	0.00028
7	0.00100	0.00183	0.00019	0.00036
8	0.00117	0.00257	0.00026	0.00044
9	0.00131	0.00336	0.00030	0.00053
10	0.00144	0.00406	0.00032	0.00060
11	0.00156	0.00459	0.00032	0.00067
12	0.00167	0.00495	0.00033	0.00074
13	0.00179	0.00522	0.00033	0.00080
14	0.00192	0.00546	0.00036	0.00087
15	0.00207	0.00574	0.00039	0.00093
16	0.00225	0.00608	0.00043	0.00100
17	0.00247	0.00650	0.00048	0.00107
18	0.00272	0.00703	0.00053	0.00114
19	0.00301	0.00770	0.00057	0.00121
20	0.00331	0.00843	0.00060	0.00127
21	0.00361	0.00913	0.00063	0.00132
22	0.00388	0.00966	0.00065	0.00135
23	0.00409	0.00989	0.00066	0.00135
24	0.00424	0.00984	0.00067	0.00133
25	0.00435	0.00961	0.00068	0.00131
26	0.00441	0.00933	0.00072	0.00131
27	0.00447	0.00911	0.00076	0.00132
28	0.00454	0.00898	0.00082	0.00135
29	0.00467	0.00894	0.00088	0.00137
30	0.00487	0.00895	0.00092	0.00137
31	0.00516	0.00898	0.00095	0.00135
32	0.00555	0.00903	0.00097	0.00132
33	0.00602	0.00910	0.00096	0.00128
34	0.00660	0.00921	0.00094	0.00128
35	0.00727	0.00940	0.00090	0.00128
36	0.00803	0.00968	0.00084	0.00128
37	0.00803	0.01006	0.00084	0.00128
38	0.00803	0.01055	0.00084	0.00128
39	0.00803	0.01111	0.00084	0.00128
40	0.00803	0.01173	0.00084	0.00128
41	0.00803	0.01173	0.00084	0.00128

DESCRIPTION: Selected Reserve Disability Retirement Rates
 Arrayed by disability type (Permanent/Temporary), completed PEBD YOS,
 and paygrade (officer/enlisted).
 Probability that a member receives a disability retirement during the fiscal year.

Officer Non-Selected Reserve with 20 Good Years Average Points Per Year

MRS Value of Service	By Entry Age																																																							
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62									
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39	0																																																							
40	0																																																							
41	0																																																							

DESCRIPTION: Non-Selected Reserve with 20 Good Years ("Grey Area") Average Points Earned Per Year
 Arrayed by entry age, completed PEAD YOS, and paygrade (officer/enlisted).
 Annual retirement points (for benefit purposes) accumulated by a Grey Area retiree during a fiscal year.
 Blank cells should be considered a value of zero (0).

Non-Selected Reserve with 20 Good Years Blow-up Factors

By Modeling Type and Paygrade

Age	Person		Pay	
	Officer	Enlisted	Officer	Enlisted
17	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000
31	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000
34	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000
38	0.000	0.000	0.000	0.000
39	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000
42	0.000	0.000	0.000	0.000
43	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000
46	0.000	0.000	0.000	0.000
47	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000
51	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000
54	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000
58	0.000	0.000	0.000	0.000
59	1.031	1.072	0.990	0.977
60	1.054	1.091	0.986	0.977
61	1.443	2.609	0.910	0.917
62	2.870	6.591	0.823	1.045
>62	2.313	5.818	0.969	0.976

DESCRIPTION: Non-Selected Reserve with 20 Good Years ("Grey Area") Nondisabled Retirement Ratios ("Blow-up" factors or "Loads") Arrayed by modeling type (person/pay), age, and paygrade (officer/enlisted). These factors are applied to each year's new-retirement-from-the-Grey-Area projections to account for new retirees who were not present in the prior year's reserve data files.

Officer Selected Reserve Promotion and Merit Increase Scales (PAMS)

PEBD Service	By Entry Age																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Under 1	0.000	1.015	1.030	1.045	1.060	1.075	1.090	1.105	1.120	1.135	1.150	1.165	1.180	1.195	1.210	1.225	1.240	1.255	1.270	1.285	1.300	1.315	1.330	1.345	1.360	1.375	1.390	1.405	1.420	1.435	1.450	1.465	1.480	1.495	1.510	1.525	1.540	1.555	1.570	1.585	1.600	1.615	1.630	1.645	1.660	1.675	1.690	1.705	1.720	1.735	1.750	1.765	1.780	1.795	1.810	1.825	1.840	1.855	1.870	1.885	1.900	1.915	1.930	1.945	1.960	1.975	1.990	2.005	2.020	2.035	2.050	2.065	2.080	2.095	2.110	2.125	2.140	2.155	2.170	2.185	2.200	2.215	2.230	2.245	2.260	2.275	2.290	2.305	2.320	2.335	2.350	2.365	2.380	2.395	2.410	2.425	2.440	2.455	2.470	2.485	2.500	2.515	2.530	2.545	2.560	2.575	2.590	2.605	2.620	2.635	2.650	2.665	2.680	2.695	2.710	2.725	2.740	2.755	2.770	2.785	2.800	2.815	2.830	2.845	2.860	2.875	2.890	2.905	2.920	2.935	2.950	2.965	2.980	2.995	3.010	3.025	3.040	3.055	3.070	3.085	3.100	3.115	3.130	3.145	3.160	3.175	3.190	3.205	3.220	3.235	3.250	3.265	3.280	3.295	3.310	3.325	3.340	3.355	3.370	3.385	3.400	3.415	3.430	3.445	3.460	3.475	3.490	3.505	3.520	3.535	3.550	3.565	3.580	3.595	3.610	3.625	3.640	3.655	3.670	3.685	3.700	3.715	3.730	3.745	3.760	3.775	3.790	3.805	3.820	3.835	3.850	3.865	3.880	3.895	3.910	3.925	3.940	3.955	3.970	3.985	4.000	4.015	4.030	4.045	4.060	4.075	4.090	4.105	4.120	4.135	4.150	4.165	4.180	4.195	4.210	4.225	4.240	4.255	4.270	4.285	4.300	4.315	4.330	4.345	4.360	4.375	4.390	4.405	4.420	4.435	4.450	4.465	4.480	4.495	4.510	4.525	4.540	4.555	4.570	4.585	4.600	4.615	4.630	4.645	4.660	4.675	4.690	4.705	4.720	4.735	4.750	4.765	4.780	4.795	4.810	4.825	4.840	4.855	4.870	4.885	4.900	4.915	4.930	4.945	4.960	4.975	4.990	5.005	5.020	5.035	5.050	5.065	5.080	5.095	5.110	5.125	5.140	5.155	5.170	5.185	5.200	5.215	5.230	5.245	5.260	5.275	5.290	5.305	5.320	5.335	5.350	5.365	5.380	5.395	5.410	5.425	5.440	5.455	5.470	5.485	5.500	5.515	5.530	5.545	5.560	5.575	5.590	5.605	5.620	5.635	5.650	5.665	5.680	5.695	5.710	5.725	5.740	5.755	5.770	5.785	5.800	5.815	5.830	5.845	5.860	5.875	5.890	5.905	5.920	5.935	5.950	5.965	5.980	5.995	6.010	6.025	6.040	6.055	6.070	6.085	6.100	6.115	6.130	6.145	6.160	6.175	6.190	6.205	6.220	6.235	6.250	6.265	6.280	6.295	6.310	6.325	6.340	6.355	6.370	6.385	6.400	6.415	6.430	6.445	6.460	6.475	6.490	6.505	6.520	6.535	6.550	6.565	6.580	6.595	6.610	6.625	6.640	6.655	6.670	6.685	6.700	6.715	6.730	6.745	6.760	6.775	6.790	6.805	6.820	6.835	6.850	6.865	6.880	6.895	6.910	6.925	6.940	6.955	6.970	6.985	7.000	7.015	7.030	7.045	7.060	7.075	7.090	7.105	7.120	7.135	7.150	7.165	7.180	7.195	7.210	7.225	7.240	7.255	7.270	7.285	7.300	7.315	7.330	7.345	7.360	7.375	7.390	7.405	7.420	7.435	7.450	7.465	7.480	7.495	7.510	7.525	7.540	7.555	7.570	7.585	7.600	7.615	7.630	7.645	7.660	7.675	7.690	7.705	7.720	7.735	7.750	7.765	7.780	7.795	7.810	7.825	7.840	7.855	7.870	7.885	7.900	7.915	7.930	7.945	7.960	7.975	7.990	8.005	8.020	8.035	8.050	8.065	8.080	8.095	8.110	8.125	8.140	8.155	8.170	8.185	8.200	8.215	8.230	8.245	8.260	8.275	8.290	8.305	8.320	8.335	8.350	8.365	8.380	8.395	8.410	8.425	8.440	8.455	8.470	8.485	8.500	8.515	8.530	8.545	8.560	8.575	8.590	8.605	8.620	8.635	8.650	8.665	8.680	8.695	8.710	8.725	8.740	8.755	8.770	8.785	8.800	8.815	8.830	8.845	8.860	8.875	8.890	8.905	8.920	8.935	8.950	8.965	8.980	8.995	9.010	9.025	9.040	9.055	9.070	9.085	9.100	9.115	9.130	9.145	9.160	9.175	9.190	9.205	9.220	9.235	9.250	9.265	9.280	9.295	9.310	9.325	9.340	9.355	9.370	9.385	9.400	9.415	9.430	9.445	9.460	9.475	9.490	9.505	9.520	9.535	9.550	9.565	9.580	9.595	9.610	9.625	9.640	9.655	9.670	9.685	9.700	9.715	9.730	9.745	9.760	9.775	9.790	9.805	9.820	9.835	9.850	9.865	9.880	9.895	9.910	9.925	9.940	9.955	9.970	9.985	10.000	10.015	10.030	10.045	10.060	10.075	10.090	10.105	10.120	10.135	10.150	10.165	10.180	10.195	10.210	10.225	10.240	10.255	10.270	10.285	10.300	10.315	10.330	10.345	10.360	10.375	10.390	10.405	10.420	10.435	10.450	10.465	10.480	10.495	10.510	10.525	10.540	10.555	10.570	10.585	10.600	10.615	10.630	10.645	10.660	10.675	10.690	10.705	10.720	10.735	10.750	10.765	10.780	10.795	10.810	10.825	10.840	10.855	10.870	10.885	10.900	10.915	10.930	10.945	10.960	10.975	10.990	11.005	11.020	11.035	11.050	11.065	11.080	11.095	11.110	11.125	11.140	11.155	11.170	11.185	11.200	11.215	11.230	11.245	11.260	11.275	11.290	11.305	11.320	11.335	11.350	11.365	11.380	11.395	11.410	11.425	11.440	11.455	11.470	11.485	11.500	11.515	11.530	11.545	11.560	11.575	11.590	11.605	11.620	11.635	11.650	11.665	11.680	11.695	11.710	11.725	11.740	11.755	11.770	11.785	11.800	11.815	11.830	11.845	11.860	11.875	11.890	11.905	11.920	11.935	11.950	11.965	11.980	11.995	12.010	12.025	12.040	12.055	12.070	12.085	12.100	12.115	12.130	12.145	12.160	12.175	12.190	12.205	12.220	12.235	12.250	12.265	12.280	12.295	12.310	12.325	12.340	12.355	12.370	12.385	12.400	12.415	12.430	12.445	12.460	12.475	12.490	12.505	12.520	12.535	12.550	12.565	12.580	12.595	12.610	12.625	12.640	12.655	12.670	12.685	12.700	12.715	12.730	12.745	12.760	12.775	12.790	12.805	12.820	12.835	12.850	12.865	12.880	12.895	12.910	12.925	12.940	12.955	12.970	12.985	12.999	13.013	13.027	13.041	13.055	13.069	13.083	13.097	13.111	13.125	13.139	13.153	13.167	13.181	13.195	13.209	13.223	13.237	13.251	13.265	13.279	13.293	13.307	13.321	13.335	13.349	13.363	13.377	13.391	13.405	13.419	13.433	13.447	13.461	13.475	13.489	13.503	13.517	13.531	13.545	13.559	13.573	13.587	13.601	13.615	13.629	13.643	13.657	13.671	13.685	13.699	13.713	13.727	13.741	13.755	13.769	13.783	13.797	13.811	13.825	13.839	13.853	13.867	13.881	13.895	13.909	13.923	13.937	13.951	13.965	13.979	13.993	14.007	14.021	14.035	14.049	14.063	14.077	14.091	14.105	14.119	14.133	14.147	14.161	14.175	14.189	14.203	14.217	14.231	14.245	14.259	14.273	14.287	14.301	14.315	14.329	14.343	14.357	14.371	14.385	14.399	14.413	14.427	14.441	14.455	14.469	14.483	14.497	14.511	14.525	14.539	14.553	14.567	14.581	14.595	14.609	14.623	14.637	14.651	14.665	14.679	14.693	14.707	14.721	14.735	14.749	14.763	14.777	14.791	14.805	14.819	14.833	14.847	14.861	14.875	14.889	14.903	14.917	14.931	14.945	14.959	14.973	14.987	15.001	15.015	15.029	15.043	15.057	15.071	15.085	15.099	15.113	15.127	15.141	15.155	15.169	15.183	15.197	15.211	15.225	15.239	15.253	15.267	15.281	15.295	15.309	15.323	15.337	15.351	15.365	15.379	15.393	15.407	15.421	15.435	15.449	15.463	15.477	15.491	15.505	15.519	15.533	15.547	15.561	15.575	15.589	15.603	15.617	15.631	15.645	15.659	15.673	15.687	15.701	15.715	15.729	15.743	15.757	15.771	15.785	15.799	15.813	15.827	15.841	15.855	15.869	15.883	15.897	15.911	15.925	15.939	15.953	15.967	15.981	15.995	16.009	16.023	16.037	16.051	16.065	16.079	16.093	16.107	16.121	16.135	16.149	16.163	16.177	16.191	16.205	16.219	16.233	16.247	16.261	16.275	16.289	16.303	16.317	16.331	16.345	16.359	16.373	16.387	16.401	16.415	16.429	16.443	16.457	16.471	16.485	16.499	16.513	16.527	16.541	16.555	16.569	16.583	16.597	16.611	16.625	16.639	16.653	16.667	16.681	16.695	16.709	16.723	16.737	16.751	16.765	16.779	16.793	16.807	16.821	16.835	16.849	16.863	16.877	16.891	16.905	16.919	16.933	16.947	16.961	16.975	16.989	17.003	17.017	17.031	17.045	17.059	17.073	17.087	17.101	17.115	17.129	17.143	17.157	17.171	17.185	17.199	17.213	17.227	17.241	17.255	17.269	17.283	17.29

APPENDIX I

RETIREE AND SURVIVOR RATES

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RETIREE AND SURVIVOR RATES DESCRIPTION

The military retiree and survivor decrement rates are used to project death, “other” losses from pay status, and rates of transfer from temporary disability to permanent disability. The “other” losses consist primarily of returns to active duty and full waiver of retired pay to receive a higher annuity from the VA or Civil Service. In order to compute the normal cost contributions with and without regard to Concurrent Receipt benefits (P.L. 108-136), DoD- and Treasury-specific “other” loss rates, among others, are developed. The rates are arrayed by age nearest birthday for officers and enlisted separately, and by retirement type--nondisability, temporary disability, and permanent disability. For temporary disability retirees, select rates were created for each of the first five years of retirement. After a certain number of years, those who are still in the temporary disability status are transferred to a permanent disability status.⁸

The data for the retiree and survivor rates were taken from files maintained by DMDC as of September 30 for the years 2007 through 2016. These files were created by DFAS, which has responsibility for sending monthly retired pay checks to military retirees. A military retiree can be in “paid status” or “nonpaid status.” Nonpaid status indicates that a retiree has an entitlement to an annuity, but the annuity is fully reduced by offsets. Retirees who terminate from paid status during a fiscal year are on the retiree file at the end of that fiscal year with a termination code indicating the type of termination.

The rate development process begins by matching two consecutive fiscal year-end files by Social Security number. Cases no longer in paid status are categorized by type of loss. Cases returned to paid status from non-paid status at the start of the year are subtracted from a given type of loss. After following the above procedures, crude rates are created using the formulas given on the following pages. These rates are smoothed using a Whittaker-Henderson type B graduation, or by fitting a polynomial to the crude rates. Where there is reason to suspect valid discontinuities in the underlying rates, those segments are not smoothed. A summary of the years on which various rates are based is given on the page following the formulas.

Note to Reader:

Some death rates are greater than 1.00000 in this appendix because the death rates are expressed as central rates. These death rates should not be compared to other published rates or used for other purposes without carefully examining the exposure formula used in their derivation.

⁸ P.L. 114-328 changed the maximum temporary disability period from five years to three years for members placed on temporary disability after January 1, 2017. Members placed on temporary disability prior to that date were grandfathered. Temporary disabled retirees in the starting census in this valuation with more than three years were set equal to three years, and the three year rates were applied to them. Hence, the temporary disability rates shown in this report only go through three years. Notwithstanding what is shown in the rates, those still remaining on temporary disability at the end of the temporary disability period are assumed to be transferred to permanent disability.

RETIREE AND SURVIVOR DECREMENT RATE FORMULAS

DEATH OF NONDISABILITY RETIREES (by age nearest birthday and retired from active/reserve duty)

$$\frac{\text{Nondisability deaths during the year}}{\text{[Number at beginning of year} - \frac{1}{2} \text{(Nondisability deaths + other losses)]}}$$

DEATH OF PERMANENT DISABILITY RETIREES (by age nearest birthday)

$$\frac{\text{Permanent disability deaths during the year}}{\text{[Number at beginning of year} - \frac{1}{2} \text{(Permanent disability deaths + other losses)]}}$$

DEATH OF TEMPORARY DISABILITY RETIREES (by age nearest birthday and years retired)

$$\frac{\text{Temporary disability deaths in category during the year}^9}{\text{[Number at beginning of year} - \frac{1}{2} \text{(Deaths + transfers + other losses)]}}$$

OTHER LOSSES FROM NONDISABILITY (by age nearest birthday and retired from active/reserve duty)

$$\frac{\text{Losses other than death during the year}}{\text{Number at beginning of year}}$$

OTHER AND NON-TRANSFER LOSSES FROM TEMPORARY DISABILITY (by age nearest birthday and years retired)

$$\frac{\text{Losses other than death or transfers to permanent disability during the year}}{\text{Number at beginning of year}}$$

TRANSFER FROM TEMPORARY TO PERMANENT DISABILITY (by age nearest birthday and years retired)

$$\frac{\text{Transfers to permanent disability during the year}}{\text{Number at beginning of year}}$$

OTHER LOSSES FROM PERMANENT DISABILITY (by age nearest birthday)

$$\frac{\text{Losses other than death during the year}}{\text{Number at beginning of year}}$$

⁹ Includes deaths of members who were temporarily disabled at the beginning of the year, then transferred to permanent disability, and later died before the end of the year. Determined for each year of the temporary disability retirement category.

**RETIREE AND SURVIVOR DECREMENT RATE FORMULAS
(cont.)**

DIVORCE OF RETIREE (weighted by coverage amount, by age nearest birthday)

$$\frac{\text{Net retiree divorces during the year}}{\text{Number at beginning of year}}$$

REMARRIAGE OF SURVIVING SPOUSE (by age nearest birthday)

$$\frac{\text{Surviving spouse remarriages during the year}}{\text{Number at beginning of year}}$$

TERMINATION OF SURVIVING CHILD (by age nearest birthday)

$$\frac{\text{Child terminations during the year}}{\text{Number at beginning of year}}$$

DEATH OF SURVIVING SPOUSE (by age nearest birthday)¹⁰

$$\frac{\text{Surviving spouse deaths during the year}}{\text{Number at beginning of year}}$$

OTHER LOSS OF SURVIVING SPOUSE (by age nearest birthday)

$$\frac{\text{Survivor losses other than deaths during the year}}{\text{Number at beginning of year}}$$

¹⁰ Death rates of spouses of living retirees who elected SBP spouse, or spouse & child, coverage are based on a standard actuarial mortality table using data from private, public, and federal pension plans. This table is published by the Society of Actuaries (SOA) as ‘RPH-2014 – Female/Male Tables.’

SUMMARY OF YEARS ON WHICH RETIREE AND SURVIVOR RATES ARE BASED

By Fiscal Year

<u>DEATH RATES</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
ND Officer/Enlisted				X	X	X						
PD Officer/Enlisted								X	X	X		
TD Officer/Enlisted	X	X	X	X								
 <u>OTHER LOSS RATES</u>												
ND Officer/Enlisted				X	X	X						
PD Officer/Enlisted								X	X	X		
TD Officer/Enlisted	X	X	X	X								
 <u>TRANSFER RATES FROM TD TO PD</u>												
Officer/Enlisted	X	X	X	X								
 <u>RETIREE DIVORCE</u>											X	X
 <u>SURVIVOR RATES</u>												
Remarriage								X	X	X		
Child Coverage Termination								X	X	X		
Surviving Spouse Death								X	X	X		
Surviving Spouse Other Loss								X	X	X		

Key: ND = Nondisabled
 PD = Permanently Disabled
 TD = Temporarily Disabled

OFFICER RETIRED DEATH RATES

(Age Nearest Birthday)

Age	Non-Disability		Permanent Disability	Temporary Disability		
	Active	Reserve		Year of Retirement		
				One	Two	Three
16	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
17	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
18	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
19	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
20	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
21	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
22	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
23	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
24	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
25	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
26	0.00027	0.00032	0.00272	0.00939	0.00890	0.00841
27	0.00027	0.00032	0.00273	0.00939	0.00890	0.00841
28	0.00027	0.00032	0.00273	0.00939	0.00890	0.00841
29	0.00027	0.00032	0.00273	0.00939	0.00890	0.00841
30	0.00027	0.00032	0.00273	0.00939	0.00890	0.00841
31	0.00029	0.00034	0.00273	0.00939	0.00890	0.00841
32	0.00030	0.00036	0.00273	0.00939	0.00890	0.00841
33	0.00032	0.00039	0.00273	0.00939	0.00890	0.00841
34	0.00033	0.00042	0.00273	0.00939	0.00890	0.00841
35	0.00034	0.00045	0.00292	0.00939	0.00890	0.00841
36	0.00036	0.00048	0.00292	0.00939	0.00890	0.00841
37	0.00037	0.00052	0.00292	0.00939	0.00890	0.00841
38	0.00039	0.00056	0.00292	0.00939	0.00890	0.00841
39	0.00041	0.00060	0.00293	0.00939	0.00890	0.00841
40	0.00042	0.00064	0.00239	0.00939	0.00890	0.00841
41	0.00044	0.00069	0.00239	0.00939	0.00890	0.00841
42	0.00046	0.00074	0.00239	0.00939	0.00890	0.00841
43	0.00049	0.00080	0.00239	0.00939	0.00890	0.00841
44	0.00051	0.00086	0.00239	0.00939	0.00890	0.00841
45	0.00053	0.00093	0.00370	0.00939	0.00890	0.00841
46	0.00055	0.00100	0.00340	0.00939	0.00890	0.00841
47	0.00058	0.00108	0.00315	0.00939	0.00890	0.00841
48	0.00064	0.00115	0.00297	0.00939	0.00890	0.00841
49	0.00072	0.00124	0.00284	0.00939	0.00890	0.00841
50	0.00081	0.00133	0.00278	0.00939	0.00890	0.00841
51	0.00091	0.00143	0.00278	0.00939	0.00890	0.00841
52	0.00103	0.00154	0.00286	0.00939	0.00890	0.00841
53	0.00117	0.00165	0.00301	0.00939	0.00890	0.00841
54	0.00131	0.00177	0.00323	0.00939	0.00890	0.00841
55	0.00148	0.00190	0.00352	0.00939	0.00890	0.00841
56	0.00167	0.00204	0.00388	0.00939	0.00890	0.00841
57	0.00188	0.00219	0.00431	0.00939	0.00890	0.00841
58	0.00211	0.00235	0.00482	0.00939	0.00890	0.00841
59	0.00236	0.00252	0.00540	0.00939	0.00890	0.00841
60	0.00266	0.00271	0.00606	0.00939	0.00890	0.00841
61	0.00300	0.00299	0.00680	0.00939	0.00890	0.00841
62	0.00338	0.00336	0.00762	0.00939	0.00890	0.00841
63	0.00383	0.00381	0.00853	0.00939	0.00890	0.00841
64	0.00435	0.00435	0.00953	0.00939	0.00890	0.00841
65	0.00494	0.00496	0.01065	0.00939	0.00890	0.00841

*** As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

OFFICER RETIRED DEATH RATES (continued)

(Age Nearest Birthday)

Age	Non-Disability		Permanent Disability	Temporary Disability		
	Active	Reserve		Year of Retirement		
				One	Two	Three
66	0.00562	0.00566	0.01190			
67	0.00640	0.00645	0.01329			
68	0.00730	0.00734	0.01485			
69	0.00833	0.00835	0.01661			
70	0.00952	0.00950	0.01861			
71	0.01090	0.01080	0.02088			
72	0.01252	0.01230	0.02347			
73	0.01440	0.01403	0.02642			
74	0.01658	0.01602	0.02979			
75	0.01912	0.01835	0.03360			
76	0.02207	0.02108	0.03793			
77	0.02548	0.02428	0.04283			
78	0.02942	0.02803	0.04835			
79	0.03396	0.03244	0.05456			
80	0.03919	0.03759	0.06151			
81	0.04522	0.04363	0.06931			
82	0.05215	0.05064	0.07802			
83	0.06011	0.05876	0.08771			
84	0.06923	0.06809	0.09848			
85	0.07964	0.07873	0.11041			
86	0.09148	0.09078	0.12358			
87	0.10489	0.10429	0.13806			
88	0.12001	0.11932	0.15391			
89	0.13696	0.13587	0.17121			
90	0.15588	0.15395	0.19000			
91	0.17688	0.17353	0.21035			
92	0.20007	0.19462	0.23229			
93	0.22557	0.21719	0.25588			
94	0.25355	0.24129	0.28115			
95	0.28416	0.26691	0.30815			
96	0.31757	0.29406	0.33687			
97	0.35743	0.32677	0.36737			
98	0.40630	0.36760	0.39969			
99	0.46582	0.41794	0.43385			
100	0.53687	0.47821	0.46989			
101	0.61980	0.54302	0.50516			
102	0.69679	0.61458	0.54352			
103	0.77878	0.69167	0.58444			
104	0.86434	0.77295	0.62806			
105	0.95241	0.85766	0.67455			
106	1.04256	0.94580	0.72413			
107	1.13521	1.03931	0.77743			
108	1.23057	1.13695	0.83465			
109	1.32711	1.23751	0.89609			
110	1.42275	1.33912	0.96204			
111	1.51814	1.44686	1.03980			
112	1.60466	1.54380	1.11632			
113	1.68255	1.63404	1.19848			
114	1.74949	1.71499	1.28668			
115	1.80374	1.78452	1.38136			
116	1.84922	1.83991	1.48213			
117	1.89743	1.89055	1.59743			

NONE AFTER AGE 65

*** As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

ENLISTED RETIRED DEATH RATES

(Age Nearest Birthday)

Age	Non-Disability		Permanent Disability	Temporary Disability		
	Active	Reserve		Year of Retirement		
				One	Two	Three
16	0.00048	0.00041	0.00072	0.00616	0.00565	0.00514
17	0.00048	0.00041	0.00072	0.00616	0.00565	0.00514
18	0.00048	0.00041	0.00072	0.00616	0.00565	0.00514
19	0.00048	0.00041	0.00072	0.00616	0.00565	0.00514
20	0.00048	0.00041	0.00072	0.00616	0.00565	0.00514
21	0.00048	0.00041	0.00072	0.00616	0.00565	0.00514
22	0.00048	0.00041	0.00073	0.00616	0.00565	0.00514
23	0.00048	0.00041	0.00146	0.00616	0.00565	0.00514
24	0.00048	0.00041	0.00148	0.00616	0.00565	0.00514
25	0.00048	0.00041	0.00150	0.00616	0.00565	0.00514
26	0.00048	0.00041	0.00153	0.00616	0.00565	0.00514
27	0.00048	0.00041	0.00155	0.00616	0.00565	0.00514
28	0.00048	0.00041	0.00158	0.00616	0.00565	0.00514
29	0.00048	0.00041	0.00161	0.00616	0.00565	0.00514
30	0.00048	0.00041	0.00164	0.00616	0.00565	0.00514
31	0.00051	0.00045	0.00167	0.00616	0.00565	0.00514
32	0.00055	0.00049	0.00170	0.00616	0.00565	0.00514
33	0.00059	0.00054	0.00174	0.00616	0.00565	0.00514
34	0.00064	0.00059	0.00178	0.00616	0.00565	0.00514
35	0.00069	0.00064	0.00183	0.00616	0.00565	0.00514
36	0.00074	0.00070	0.00188	0.00616	0.00565	0.00514
37	0.00080	0.00076	0.00195	0.00616	0.00565	0.00514
38	0.00086	0.00083	0.00202	0.00616	0.00565	0.00514
39	0.00092	0.00090	0.00209	0.00616	0.00565	0.00514
40	0.00098	0.00098	0.00217	0.00616	0.00565	0.00514
41	0.00104	0.00107	0.00225	0.00616	0.00565	0.00514
42	0.00109	0.00117	0.00234	0.00616	0.00565	0.00514
43	0.00115	0.00127	0.00243	0.00616	0.00565	0.00514
44	0.00121	0.00138	0.00254	0.00616	0.00565	0.00514
45	0.00126	0.00151	0.00267	0.00616	0.00565	0.00514
46	0.00133	0.00165	0.00283	0.00616	0.00565	0.00514
47	0.00142	0.00179	0.00303	0.00616	0.00565	0.00514
48	0.00153	0.00196	0.00328	0.00616	0.00565	0.00514
49	0.00166	0.00213	0.00358	0.00616	0.00565	0.00514
50	0.00184	0.00231	0.00395	0.00616	0.00565	0.00514
51	0.00204	0.00253	0.00438	0.00616	0.00565	0.00514
52	0.00228	0.00275	0.00489	0.00616	0.00565	0.00514
53	0.00254	0.00299	0.00548	0.00616	0.00565	0.00514
54	0.00284	0.00326	0.00614	0.00616	0.00565	0.00514
55	0.00318	0.00355	0.00689	0.00616	0.00565	0.00514
56	0.00356	0.00386	0.00771	0.00616	0.00565	0.00514
57	0.00401	0.00421	0.00861	0.00616	0.00565	0.00514
58	0.00454	0.00458	0.00960	0.00616	0.00565	0.00514
59	0.00515	0.00498	0.01067	0.00616	0.00565	0.00514
60	0.00586	0.00543	0.01184	0.00616	0.00565	0.00514
61	0.00670	0.00594	0.01311	0.00616	0.00565	0.00514
62	0.00765	0.00656	0.01450	0.00616	0.00565	0.00514
63	0.00875	0.00730	0.01602	0.00616	0.00565	0.00514
64	0.01000	0.00817	0.01770	0.00616	0.00565	0.00514
65	0.01142	0.00916	0.01954	0.00616	0.00565	0.00514

*** As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

ENLISTED RETIRED DEATH RATES (continued)

(Age Nearest Birthday)

Age	Non-Disability		Permanent Disability	Temporary Disability		
	Active	Reserve		Year of Retirement		
				One	Two	Three
66	0.01302	0.01029	0.02158			
67	0.01482	0.01155	0.02383			
68	0.01683	0.01297	0.02635			
69	0.01908	0.01455	0.02915			
70	0.02159	0.01631	0.03227			
71	0.02440	0.01829	0.03574			
72	0.02751	0.02053	0.03960			
73	0.03097	0.02304	0.04385			
74	0.03478	0.02591	0.04852			
75	0.03893	0.02916	0.05362			
76	0.04343	0.03289	0.05920			
77	0.04832	0.03715	0.06529			
78	0.05365	0.04204	0.07191			
79	0.05945	0.04763	0.07909			
80	0.06580	0.05399	0.08687			
81	0.07280	0.06117	0.09528			
82	0.08052	0.06924	0.10432			
83	0.08906	0.07824	0.11406			
84	0.09856	0.08828	0.12453			
85	0.10916	0.09941	0.13580			
86	0.12100	0.11172	0.14791			
87	0.13425	0.12528	0.16093			
88	0.14905	0.14013	0.17492			
89	0.16558	0.15633	0.18992			
90	0.18402	0.17392	0.20603			
91	0.20460	0.19294	0.22332			
92	0.22750	0.21344	0.24190			
93	0.25295	0.23545	0.26183			
94	0.28123	0.25900	0.28319			
95	0.31261	0.28415	0.30604			
96	0.34734	0.31084	0.33038			
97	0.38863	0.34312	0.35629			
98	0.43880	0.38334	0.38379			
99	0.49928	0.43263	0.41293			
100	0.54924	0.49101	0.44373			
101	0.60381	0.55429	0.48010			
102	0.66170	0.62353	0.51875			
103	0.72156	0.69738	0.55980			
104	0.78233	0.77458	0.60337			
105	0.84334	0.85448	0.64953			
106	0.90609	0.93738	0.69848			
107	0.97177	1.02516	0.75118			
108	1.03995	1.11687	0.80785			
109	1.11009	1.21134	0.86879			
110	1.18152	1.30708	0.93432			
111	1.26109	1.41819	1.01155			
112	1.33270	1.51165	1.08783			
113	1.40245	1.60006	1.16986			
114	1.46900	1.68122	1.25807			
115	1.53094	1.75320	1.35291			
116	1.59874	1.81425	1.45385			
117	1.67131	1.86721	1.57452			

NONE AFTER AGE 65

*** As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

ACTIVE DUTY OTHER LOSSES FROM NONDISABILITY

(Age Nearest Birthday)

Age	DoD		Treasury		Age	DoD		Treasury	
	Officer	Enlisted	Officer	Enlisted		Officer	Enlisted	Officer	Enlisted
16	0.0000	0.0000	0.0000	0.0000	56	0.0001	0.0041	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	57	0.0002	0.0043	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	58	0.0003	0.0047	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	59	0.0004	0.0051	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	60	0.0005	0.0056	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	61	0.0006	0.0061	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	62	0.0007	0.0066	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	63	0.0009	0.0072	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	64	0.0010	0.0078	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	65	0.0011	0.0083	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	66	0.0013	0.0089	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	67	0.0014	0.0094	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	68	0.0015	0.0099	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	69	0.0017	0.0104	0.0000	0.0000
30	0.0068	0.0363	0.0000	0.0000	70	0.0018	0.0108	0.0000	0.0000
31	0.0068	0.0363	0.0000	0.0000	71	0.0019	0.0111	0.0000	0.0000
32	0.0068	0.0363	0.0000	0.0000	72	0.0019	0.0114	0.0000	0.0000
33	0.0068	0.0363	0.0000	0.0000	73	0.0020	0.0116	0.0000	0.0000
34	0.0068	0.0363	0.0000	0.0000	74	0.0021	0.0117	0.0000	0.0000
35	0.0068	0.0363	0.0000	0.0000	75	0.0021	0.0117	0.0000	0.0000
36	0.0068	0.0363	0.0000	0.0000	76	0.0021	0.0116	0.0000	0.0000
37	0.0068	0.0363	0.0000	0.0000	77	0.0021	0.0114	0.0000	0.0000
38	0.0068	0.0363	0.0000	0.0000	78	0.0021	0.0111	0.0000	0.0000
39	0.0068	0.0313	0.0000	0.0000	79	0.0020	0.0107	0.0000	0.0000
40	0.0057	0.0269	0.0000	0.0000	80	0.0019	0.0102	0.0000	0.0000
41	0.0048	0.0230	0.0000	0.0000	81	0.0018	0.0095	0.0000	0.0000
42	0.0040	0.0196	0.0000	0.0000	82	0.0017	0.0088	0.0000	0.0000
43	0.0033	0.0166	0.0000	0.0000	83	0.0015	0.0078	0.0000	0.0000
44	0.0026	0.0140	0.0000	0.0000	84	0.0013	0.0068	0.0000	0.0000
45	0.0021	0.0118	0.0000	0.0000	85	0.0011	0.0056	0.0000	0.0000
46	0.0016	0.0099	0.0000	0.0000	86	0.0008	0.0042	0.0000	0.0000
47	0.0013	0.0083	0.0000	0.0000	87	0.0005	0.0027	0.0000	0.0000
48	0.0009	0.0070	0.0000	0.0000	88	0.0002	0.0010	0.0000	0.0000
49	0.0007	0.0060	0.0000	0.0000	89	0.0000	0.0000	0.0000	0.0000
50	0.0005	0.0052	0.0000	0.0000	90	0.0000	0.0000	0.0000	0.0000
51	0.0003	0.0046	0.0000	0.0000	91	0.0000	0.0000	0.0000	0.0000
52	0.0002	0.0042	0.0000	0.0000	92	0.0000	0.0000	0.0000	0.0000
53	0.0001	0.0039	0.0000	0.0000	93	0.0000	0.0000	0.0000	0.0000
54	0.0001	0.0038	0.0000	0.0000	94	0.0000	0.0000	0.0000	0.0000
55	0.0001	0.0039	0.0000	0.0000	95	0.0000	0.0000	0.0000	0.0000

*** The above DoD/Treasury distinction is needed for P.L. 108-136 calculations.
 "Treasury" rates of '0.0000' are shown for effect.

*** As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

RESERVE DUTY OTHER LOSSES FROM NONDISABILITY.

(Age Nearest Birthday)

Age	DoD		Treasury		Age	DoD		Treasury	
	Officer	Enlisted	Officer	Enlisted		Officer	Enlisted	Officer	Enlisted
16	0.0000	0.0000	0.0000	0.0000	56	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	57	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	58	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	59	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	60	0.0016	0.0115	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	61	0.0034	0.0176	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	62	0.0023	0.0184	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	63	0.0028	0.0150	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	64	0.0030	0.0114	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	65	0.0032	0.0107	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	66	0.0032	0.0085	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	67	0.0037	0.0080	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	68	0.0029	0.0061	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	69	0.0027	0.0053	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	70	0.0025	0.0054	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000	71	0.0019	0.0029	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000	72	0.0020	0.0037	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000	73	0.0013	0.0029	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000	74	0.0018	0.0036	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000	75	0.0020	0.0021	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000	76	0.0020	0.0027	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000	77	0.0017	0.0041	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000	78	0.0020	0.0031	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000	79	0.0025	0.0035	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000	80	0.0007	0.0040	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000	81	0.0007	0.0028	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000	82	0.0017	0.0026	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000	83	0.0010	0.0047	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000	84	0.0023	0.0013	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000	85	0.0016	0.0042	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000	86	0.0011	0.0043	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000	87	0.0008	0.0051	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000	88	0.0016	0.0019	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000	89	0.0016	0.0027	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000	90	0.0017	0.0011	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000	91	0.0030	0.0023	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000	92	0.0010	0.0042	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000	93	0.0021	0.0032	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000	94	0.0012	0.0049	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000	95	0.0000	0.0000	0.0000	0.0000

*** The above DoD/Treasury distinction is needed for P.L. 108-136 calculations.
 "Treasury" rates of '0.0000' are shown for effect.

*** As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

OTHER LOSS AND NONTRANSFER LOSSES FROM TEMPORARY DISABILITY ***

(Age Nearest Birthday)

Age	Officers			Enlisted		
	Year of Retirement			Year of Retirement		
	One	Two	Three	One	Two	Three
16	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
17	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
18	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
19	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
20	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
21	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
22	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
23	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
24	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
25	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
26	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
27	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
28	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
29	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
30	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
31	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
32	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
33	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
34	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
35	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
36	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
37	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
38	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
39	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
40	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
41	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
42	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
43	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
44	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
45	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
46	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
47	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
48	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
49	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
50	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
51	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
52	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
53	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
54	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
55	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
56	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
57	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
58	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
59	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
60	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
61	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
62	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
63	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
64	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598
65	0.0264	0.0881	0.2771	0.1740	0.2433	0.5598

Year of Retirement			Year of Retirement		
One	Two	Three	One	Two	Three
1.639	1.176	1.070	1.368	1.228	1.067

Example: The DoD-specific Other/Nontransfer Loss rate (across all ages) for Officers in Year One of Retirement would be 0.0433, the product of 0.0264 and 1.639.

TRANSFER RATES FROM TEMPORARY DISABILITY TO PERMANENT DISABILITY

(Age Nearest Birthday)

Age	Officers		Enlisted	
	Year of Retirement		Year of Retirement	
	One	Two	One	Two
16	0.1281	0.1740	0.0626	0.0947
17	0.1281	0.1740	0.0626	0.0947
18	0.1281	0.1740	0.0626	0.0947
19	0.1281	0.1740	0.0626	0.0947
20	0.1281	0.1740	0.0626	0.0947
21	0.1281	0.1740	0.0626	0.0947
22	0.1281	0.1740	0.0626	0.0947
23	0.1281	0.1740	0.0626	0.0947
24	0.1281	0.1740	0.0626	0.0947
25	0.1281	0.1740	0.0626	0.0947
26	0.1281	0.1740	0.0626	0.0947
27	0.1281	0.1740	0.0626	0.0947
28	0.1281	0.1740	0.0626	0.0947
29	0.1281	0.1740	0.0626	0.0947
30	0.1281	0.1740	0.0626	0.0947
31	0.1281	0.1740	0.0626	0.0947
32	0.1281	0.1740	0.0626	0.0947
33	0.1281	0.1740	0.0626	0.0947
34	0.1281	0.1740	0.0626	0.0947
35	0.1281	0.1740	0.0626	0.0947
36	0.1281	0.1740	0.0626	0.0947
37	0.1281	0.1740	0.0626	0.0947
38	0.1281	0.1740	0.0626	0.0947
39	0.1281	0.1740	0.0626	0.0947
40	0.1281	0.1740	0.0626	0.0947
41	0.1281	0.1740	0.0626	0.0947
42	0.1281	0.1740	0.0626	0.0947
43	0.1281	0.1740	0.0626	0.0947
44	0.1281	0.1740	0.0626	0.0947
45	0.1281	0.1740	0.0626	0.0947
46	0.1281	0.1740	0.0626	0.0947
47	0.1281	0.1740	0.0626	0.0947
48	0.1281	0.1740	0.0626	0.0947
49	0.1281	0.1740	0.0626	0.0947
50	0.1281	0.1740	0.0626	0.0947
51	0.1281	0.1740	0.0626	0.0947
52	0.1281	0.1740	0.0626	0.0947
53	0.1281	0.1740	0.0626	0.0947
54	0.1281	0.1740	0.0626	0.0947
55	0.1281	0.1740	0.0626	0.0947
56	0.1281	0.1740	0.0626	0.0947
57	0.1281	0.1740	0.0626	0.0947
58	0.1281	0.1740	0.0626	0.0947
59	0.1281	0.1740	0.0626	0.0947
60	0.1281	0.1740	0.0626	0.0947
61	0.1281	0.1740	0.0626	0.0947
62	0.1281	0.1740	0.0626	0.0947
63	0.1281	0.1740	0.0626	0.0947
64	0.1281	0.1740	0.0626	0.0947
65	0.1281	0.1740	0.0626	0.0947

* Those still remaining on temporary disability at the end of the temporary disability period are assumed to be transferred to permanent disability.

OTHER LOSSES FROM PERMANENT DISABILITY

(Age Nearest Birthday)

<u>DoD</u>		<u>Treasury</u>		<u>DoD</u>		<u>Treasury</u>			
<u>Age</u>	<u>Officer</u>	<u>Enlisted</u>	<u>Officer</u>	<u>Enlisted</u>	<u>Age</u>	<u>Officer</u>	<u>Enlisted</u>	<u>Officer</u>	<u>Enlisted</u>
16	0.0709	0.3602	0.0344	0.3028	54	0.0119	0.0468	0.0077	0.0215
17	0.0709	0.3602	0.0344	0.3028	55	0.0114	0.0435	0.0073	0.0207
18	0.0709	0.3602	0.0344	0.3028	56	0.0110	0.0408	0.0069	0.0197
19	0.0709	0.3602	0.0344	0.3028	57	0.0107	0.0384	0.0065	0.0186
20	0.0709	0.3346	0.0344	0.2624	58	0.0105	0.0364	0.0061	0.0174
21	0.0709	0.3107	0.0344	0.2253	59	0.0103	0.0347	0.0058	0.0161
22	0.0709	0.2887	0.0344	0.1916	60	0.0102	0.0333	0.0054	0.0146
23	0.0709	0.2685	0.0344	0.1611	61	0.0102	0.0321	0.0051	0.0132
24	0.0709	0.2501	0.0344	0.1339	62	0.0102	0.0312	0.0048	0.0116
25	0.0709	0.2334	0.0344	0.1100	63	0.0102	0.0304	0.0046	0.0102
26	0.0670	0.2186	0.0323	0.0894	64	0.0103	0.0297	0.0043	0.0087
27	0.0633	0.2055	0.0302	0.0720	65	0.0103	0.0291	0.0041	0.0074
28	0.0598	0.1941	0.0283	0.0576	66	0.0103	0.0285	0.0040	0.0062
29	0.0565	0.1842	0.0266	0.0462	67	0.0103	0.0279	0.0038	0.0053
30	0.0533	0.1758	0.0249	0.0376	68	0.0102	0.0273	0.0037	0.0045
31	0.0503	0.1687	0.0234	0.0313	69	0.0101	0.0267	0.0037	0.0040
32	0.0475	0.1625	0.0220	0.0272	70	0.0100	0.0261	0.0036	0.0036
33	0.0448	0.1572	0.0207	0.0248	71	0.0098	0.0254	0.0036	0.0034
34	0.0422	0.1524	0.0195	0.0237	72	0.0095	0.0247	0.0036	0.0034
35	0.0398	0.1479	0.0184	0.0236	73	0.0092	0.0239	0.0036	0.0034
36	0.0375	0.1436	0.0175	0.0242	74	0.0089	0.0231	0.0036	0.0035
37	0.0354	0.1393	0.0166	0.0251	75	0.0086	0.0223	0.0036	0.0037
38	0.0333	0.1348	0.0157	0.0261	76	0.0082	0.0214	0.0037	0.0038
39	0.0313	0.1301	0.0150	0.0270	77	0.0079	0.0205	0.0037	0.0039
40	0.0294	0.1250	0.0143	0.0278	78	0.0075	0.0196	0.0038	0.0040
41	0.0275	0.1195	0.0137	0.0283	79	0.0071	0.0187	0.0038	0.0040
42	0.0258	0.1137	0.0131	0.0285	80	0.0068	0.0177	0.0039	0.0040
43	0.0241	0.1076	0.0125	0.0284	81	0.0064	0.0168	0.0039	0.0039
44	0.0225	0.1013	0.0120	0.0281	82	0.0060	0.0158	0.0040	0.0038
45	0.0210	0.0948	0.0115	0.0277	83	0.0057	0.0148	0.0041	0.0036
46	0.0196	0.0884	0.0111	0.0271	84	0.0054	0.0139	0.0042	0.0033
47	0.0182	0.0820	0.0106	0.0265	85	0.0051	0.0129	0.0043	0.0031
48	0.0170	0.0758	0.0102	0.0258	86	0.0048	0.0119	0.0044	0.0027
49	0.0159	0.0699	0.0098	0.0251	87	0.0046	0.0109	0.0045	0.0024
50	0.0149	0.0644	0.0094	0.0244	88	0.0044	0.0099	0.0047	0.0020
51	0.0140	0.0593	0.0090	0.0238	89	0.0042	0.0089	0.0049	0.0016
52	0.0131	0.0546	0.0085	0.0231	90	0.0041	0.0079	0.0050	0.0012
53	0.0125	0.0504	0.0081	0.0223					

*** The above DoD/Treasury distinction is needed for P.L. 108-136 calculations.

*** As noted in Item 2 in the Retiree section of Appendix F, additional adjustments are made for retirees who elect SBP spouse coverage.

RETIREE DIVORCE RATES***

(Age Nearest Birthday)

<u>Active</u>		<u>Reserve</u>		<u>Active</u>		<u>Reserve</u>			
<u>Age</u>	<u>Officer</u>	<u>Enlisted</u>	<u>Officer</u>	<u>Enlisted</u>	<u>Age</u>	<u>Officer</u>	<u>Enlisted</u>	<u>Officer</u>	<u>Enlisted</u>
16	0.0408	0.0408	0.0408	0.0408	50	0.0068	0.0068	0.0068	0.0068
17	0.0376	0.0376	0.0376	0.0376	51	0.0059	0.0059	0.0059	0.0059
18	0.0345	0.0345	0.0345	0.0345	52	0.0051	0.0051	0.0051	0.0051
19	0.0318	0.0318	0.0318	0.0318	53	0.0043	0.0043	0.0043	0.0043
20	0.0292	0.0292	0.0292	0.0292	54	0.0037	0.0037	0.0037	0.0037
21	0.0269	0.0269	0.0269	0.0269	55	0.0031	0.0031	0.0031	0.0031
22	0.0247	0.0247	0.0247	0.0247	56	0.0028	0.0028	0.0028	0.0028
23	0.0227	0.0227	0.0227	0.0227	57	0.0026	0.0026	0.0026	0.0026
24	0.0208	0.0208	0.0208	0.0208	58	0.0026	0.0026	0.0026	0.0026
25	0.0190	0.0190	0.0190	0.0190	59	0.0026	0.0026	0.0026	0.0026
26	0.0175	0.0175	0.0175	0.0175	60	0.0027	0.0027	0.0027	0.0027
27	0.0161	0.0161	0.0161	0.0161	61	0.0027	0.0027	0.0027	0.0027
28	0.0148	0.0148	0.0148	0.0148	62	0.0025	0.0025	0.0025	0.0025
29	0.0138	0.0138	0.0138	0.0138	63	0.0021	0.0021	0.0021	0.0021
30	0.0129	0.0129	0.0129	0.0129	64	0.0016	0.0016	0.0016	0.0016
31	0.0124	0.0124	0.0124	0.0124	65	0.0010	0.0010	0.0010	0.0010
32	0.0121	0.0121	0.0121	0.0121	66	0.0004	0.0004	0.0004	0.0004
33	0.0121	0.0121	0.0121	0.0121	67	0.0000	0.0000	0.0000	0.0000
34	0.0123	0.0123	0.0123	0.0123	68	0.0000	0.0000	0.0000	0.0000
35	0.0129	0.0129	0.0129	0.0129	69	0.0000	0.0000	0.0000	0.0000
36	0.0136	0.0136	0.0136	0.0136	70	0.0000	0.0000	0.0000	0.0000
37	0.0144	0.0144	0.0144	0.0144	71	0.0000	0.0000	0.0000	0.0000
38	0.0151	0.0151	0.0151	0.0151	72	0.0000	0.0000	0.0000	0.0000
39	0.0156	0.0156	0.0156	0.0156	73	0.0000	0.0000	0.0000	0.0000
40	0.0157	0.0157	0.0157	0.0157	74	0.0000	0.0000	0.0000	0.0000
41	0.0155	0.0155	0.0155	0.0155	75	0.0000	0.0000	0.0000	0.0000
42	0.0150	0.0150	0.0150	0.0150	76	0.0000	0.0000	0.0000	0.0000
43	0.0142	0.0142	0.0142	0.0142	77	0.0000	0.0000	0.0000	0.0000
44	0.0132	0.0132	0.0132	0.0132	78	0.0000	0.0000	0.0000	0.0000
45	0.0121	0.0121	0.0121	0.0121	79	0.0000	0.0000	0.0000	0.0000
46	0.0109	0.0109	0.0109	0.0109	80	0.0000	0.0000	0.0000	0.0000
47	0.0098	0.0098	0.0098	0.0098	81	0.0000	0.0000	0.0000	0.0000
48	0.0088	0.0088	0.0088	0.0088	82	0.0000	0.0000	0.0000	0.0000
49	0.0078	0.0078	0.0078	0.0078					

*** The "Retiree Divorce" rates are the same for officer/enlisted status, and by active/reserve.
The rates are displayed for effect.

SURVIVING SPOUSE REMARRIAGE RATES

(Age Nearest Birthday)

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
16	0.0100	38	0.0135
17	0.0100	39	0.0135
18	0.0100	40	0.0160
19	0.0100	41	0.0160
20	0.0100	42	0.0160
21	0.0100	43	0.0160
22	0.0100	44	0.0160
23	0.0100	45	0.0125
24	0.0100	46	0.0125
25	0.0100	47	0.0125
26	0.0100	48	0.0125
27	0.0100	49	0.0125
28	0.0100	50	0.0088
29	0.0100	51	0.0088
30	0.0260	52	0.0088
31	0.0260	53	0.0088
32	0.0260	54	0.0088
33	0.0260	55	0.0000
34	0.0260	56	0.0000
35	0.0135	57	0.0000
36	0.0135	58	0.0000
37	0.0135	59	0.0000

SURVIVING CHILD COVERAGE TERMINATION RATES

(Age Nearest Birthday)

<u>Age</u>	<u>Rate</u>
0	0.000
1	0.000
2	0.000
3	0.000
4	0.000
5	0.000
6	0.000
7	0.000
8	0.000
9	0.000
10	0.000
11	0.000
12	0.000
13	0.000
14	0.000
15	0.000
16	0.000
17	0.256
18	0.356
19	0.143
20	0.091
21	0.400
22	0.590
23	0.149

SURVIVOR DEATH RATES ***

(Age Nearest Birthday)

Age	Rate	Age	Rate
0	0.00568	60	0.00830
1	0.00034	61	0.00875
2	0.00023	62	0.00934
3	0.00018	63	0.01008
4	0.00014	64	0.01095
5	0.00013	65	0.01195
6	0.00011	66	0.01308
7	0.00010	67	0.01431
8	0.00009	68	0.01562
9	0.00008	69	0.01703
10	0.00007	70	0.01852
11	0.00007	71	0.02009
12	0.00010	72	0.02176
13	0.00013	73	0.02353
14	0.00016	74	0.02546
15	0.00020	75	0.02759
16	0.00024	76	0.02998
17	0.00027	77	0.03272
18	0.00040	78	0.03586
19	0.00045	79	0.03947
20	0.00051	80	0.04363
21	0.00056	81	0.04842
22	0.00061	82	0.05389
23	0.00064	83	0.06012
24	0.00067	84	0.06720
25	0.00070	85	0.07517
26	0.00073	86	0.08413
27	0.00076	87	0.09410
28	0.00080	88	0.10517
29	0.00086	89	0.11735
30	0.00091	90	0.13071
31	0.00097	91	0.14527
32	0.00102	92	0.16106
33	0.00109	93	0.17810
34	0.00116	94	0.19643
35	0.00124	95	0.21604
36	0.00132	96	0.23690
37	0.00142	97	0.25905
38	0.00152	98	0.28248
39	0.00163	99	0.30718
40	0.00176	100	0.33317
41	0.00190	101	0.36079
42	0.00207	102	0.38975
43	0.00227	103	0.42004
44	0.00250	104	0.45169
45	0.00274	105	0.48470
46	0.00300	106	0.50881
47	0.00329	107	0.53412
48	0.00361	108	0.56069
49	0.00396	109	0.58858
50	0.00435	110	0.99455
51	0.00474	111	0.99549
52	0.00514	112	0.99643
53	0.00554	113	0.99737
54	0.00594	114	0.99830
55	0.00639	115	0.99924
56	0.00688	116	0.99950
57	0.00738	118	0.99971
58	0.00786	118	0.99986
59	0.00801	119	0.99995

*** "Survivor" is defined as annuitant(s) of deceased retirees who elected to be covered by SBP.
Rates based on actual plan experience.

BENEFICIARY DEATH RATES ***

(Age Nearest Birthday)

Age	Rate	Age	Rate
0	0.00783	60	0.00596
1	0.00047	61	0.00636
2	0.00031	62	0.00680
3	0.00025	63	0.00730
4	0.00019	64	0.00787
5	0.00017	65	0.00851
6	0.00016	66	0.00925
7	0.00014	67	0.01007
8	0.00012	68	0.01102
9	0.00011	69	0.01207
10	0.00010	70	0.01327
11	0.00010	71	0.01461
12	0.00013	72	0.01608
13	0.00017	73	0.01774
14	0.00022	74	0.01956
15	0.00028	75	0.02157
16	0.00033	76	0.02379
17	0.00038	77	0.02625
18	0.00032	78	0.02900
19	0.00034	79	0.03206
20	0.00037	80	0.03551
21	0.00040	81	0.03939
22	0.00043	82	0.04380
23	0.00046	83	0.04880
24	0.00050	84	0.05447
25	0.00053	85	0.06090
26	0.00058	86	0.06816
27	0.00063	87	0.07634
28	0.00068	88	0.08553
29	0.00074	89	0.09583
30	0.00079	90	0.10735
31	0.00086	91	0.11984
32	0.00092	92	0.13320
33	0.00098	93	0.14734
34	0.00105	94	0.16223
35	0.00113	95	0.17786
36	0.00121	96	0.19422
37	0.00131	97	0.21136
38	0.00143	98	0.22928
39	0.00156	99	0.24792
40	0.00171	100	0.26721
41	0.00188	101	0.28726
42	0.00207	102	0.30757
43	0.00228	103	0.32800
44	0.00250	104	0.34836
45	0.00273	105	0.36850
46	0.00296	106	0.38826
47	0.00320	107	0.40746
48	0.00347	108	0.42597
49	0.00375	109	0.44369
50	0.00405	110	0.46054
51	0.00414	111	0.47644
52	0.00423	112	0.49138
53	0.00434	113	0.49868
54	0.00448	114	0.49915
55	0.00464	115	0.49962
56	0.00483	116	0.50000
57	0.00505	118	0.50000
58	0.00531	118	0.50000
59	0.00561	119	0.50000

*** "Beneficiary" is defined the selected annuitant(s) of living retirees who elected to be covered by SBP.
 Rates based on standard actuarial mortality table -- 'RPH-2014 - Female/Male Tables'

SURVIVOR OTHER LOSS RATES

(Age Nearest Birthday)

Age	Rate	Age	Rate
0	0.00783	60	0.00596
1	0.00047	61	0.00636
2	0.00031	62	0.00680
3	0.00025	63	0.00730
4	0.00019	64	0.00787
5	0.00017	65	0.00851
6	0.00016	66	0.00925
7	0.00014	67	0.01007
8	0.00012	68	0.01102
9	0.00011	69	0.01207
10	0.00010	70	0.01327
11	0.00010	71	0.01461
12	0.00013	72	0.01608
13	0.00017	73	0.01774
14	0.00022	74	0.01956
15	0.00028	75	0.02157
16	0.00033	76	0.02379
17	0.00038	77	0.02625
18	0.00032	78	0.02900
19	0.00034	79	0.03206
20	0.00037	80	0.03551
21	0.00040	81	0.03939
22	0.00043	82	0.04380
23	0.00046	83	0.04880
24	0.00050	84	0.05447
25	0.00053	85	0.06090
26	0.00058	86	0.06816
27	0.00063	87	0.07634
28	0.00068	88	0.08553
29	0.00074	89	0.09583
30	0.00079	90	0.10735
31	0.00086	91	0.11984
32	0.00092	92	0.13320
33	0.00098	93	0.14734
34	0.00105	94	0.16223
35	0.00113	95	0.17786
36	0.00121	96	0.19422
37	0.00131	97	0.21136
38	0.00143	98	0.22928
39	0.00156	99	0.24792
40	0.00171	100	0.26721
41	0.00188	101	0.28726
42	0.00207	102	0.30757
43	0.00228	103	0.32800
44	0.00250	104	0.34836
45	0.00273	105	0.36850
46	0.00296	106	0.38826
47	0.00320	107	0.40746
48	0.00347	108	0.42597
49	0.00375	109	0.44369
50	0.00405	110	0.46054
51	0.00414	111	0.47644
52	0.00423	112	0.49138
53	0.00434	113	0.49868
54	0.00448	114	0.49915
55	0.00464	115	0.49962
56	0.00483	116	0.50000
57	0.00505	118	0.50000
58	0.00531	118	0.50000
59	0.00561	119	0.50000

*** "Beneficiary" is defined the selected annuitant(s) of living retirees who elected to be covered by SBP.
 Rates based on standard actuarial mortality table -- 'RPH-2014 - Female/Male Tables'

APPENDIX J

MORTALITY IMPROVEMENT FACTORS

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MORTALITY IMPROVEMENT FACTORS DESCRIPTION

Mortality rates in the valuation for active and reserve duty personnel, nondisabled retirees (from Active and Reserve Duty), disabled retirees, and survivors/spouses are decreased (or “improved”) over time in order to reflect the long-term trend toward such declines.

Mortality improvement (MI) factors project increasing life expectancies. The MI factors are applied on a fully generational basis and use military data from FY 2000 through FY 2020. Methods and assumptions for smoothing and projection utilize techniques similar to those used by the Society of Actuaries (SOA) in their report on mortality improvement factors, titled “MP-2020¹¹”. These factors are used for retirees, survivors, and spouses of retirees.

Gender-specific adjustment factors are used to account for changes in the gender distribution and subsequent mortality expected to occur over time. These adjustment factors are applied similar to MI factors. From FY 2000 through 2020, the percentage of females among all retirees increased from about 3% to about 9%. As the percentage of female retirees increases, the mortality used to project the military retiree population is based on an increased weighting of female experience.

Active and reserve duty personnel MI factors are based on the SOA standard actuarial mortality projection table, “MP-2020.” They are adjusted to reflect an 80%/20% male/female military population composition.

Projecting future mortality trends presents a challenge due to fluctuations in the pattern of improvement over time. Emerging experience will continue to be monitored and reflect advanced modeling techniques in the projection of mortality, finding a reasonable balance between past experience, current conditions, and future expectations.

To keep this report manageable and prevent unintentional misuse, the MI factors and gender adjustment factors are not shown for each year of the projection (through FY 2099 and beyond). They may be requested from OACT if needed.

¹¹ For an in-depth discussion of MP-2020, see:
<https://www.soa.org/resources/experience-studies/2020/mortality-improvement-scale-mp-2020/>

MORTALITY IMPROVEMENT FACTORS

Applied to: Active and Reserve Duty Personnel

Gender Mix: 80% Male / 20% Female

(Age Nearest Birthday)

Age	Projection Year										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
< 21	1.02016	1.01844	1.01600	1.01296	1.00952	1.00596	1.00252	0.99938	0.99684	0.99502	0.99380
21	1.02072	1.01900	1.01646	1.01330	1.00984	1.00618	1.00264	0.99940	0.99684	0.99502	0.99380
22	1.02234	1.01990	1.01724	1.01400	1.01040	1.00650	1.00284	0.99958	0.99684	0.99502	0.99380
23	1.02462	1.02170	1.01832	1.01486	1.01094	1.00698	1.00312	0.99968	0.99694	0.99502	0.99380
24	1.02750	1.02412	1.02010	1.01584	1.01178	1.00754	1.00350	0.99986	0.99694	0.99502	0.99380
25	1.03074	1.02700	1.02244	1.01760	1.01264	1.00812	1.00388	1.00006	0.99702	0.99502	0.99380
26	1.03426	1.03014	1.02512	1.01964	1.01404	1.00878	1.00426	1.00024	0.99704	0.99502	0.99380
27	1.03776	1.03338	1.02798	1.02194	1.01578	1.00988	1.00464	1.00044	0.99712	0.99502	0.99380
28	1.04108	1.03660	1.03090	1.02442	1.01770	1.01124	1.00544	1.00054	0.99714	0.99502	0.99380
29	1.04410	1.03962	1.03374	1.02696	1.01980	1.01278	1.00644	1.00114	0.99714	0.99502	0.99380
30	1.04670	1.04232	1.03636	1.02932	1.02186	1.01448	1.00768	1.00186	0.99756	0.99502	0.99380
31	1.04886	1.04454	1.03860	1.03154	1.02390	1.01618	1.00900	1.00290	0.99816	0.99534	0.99380
32	1.05050	1.04638	1.04048	1.03346	1.02574	1.01784	1.01040	1.00394	0.99892	0.99584	0.99402
33	1.05156	1.04768	1.04194	1.03496	1.02728	1.01940	1.01180	1.00516	0.99988	0.99652	0.99442
34	1.05198	1.04836	1.04294	1.03612	1.02866	1.02066	1.01308	1.00628	1.00090	0.99730	0.99500
35	1.05168	1.04840	1.04324	1.03678	1.02940	1.02162	1.01418	1.00740	1.00194	0.99824	0.99658
36	1.05058	1.04774	1.04302	1.03684	1.02980	1.02236	1.01506	1.00840	1.00290	0.99910	0.99644
37	1.04896	1.04630	1.04210	1.03644	1.02980	1.02270	1.01566	1.00914	1.00382	0.99996	0.99720
38	1.04578	1.04410	1.04044	1.03540	1.02928	1.02264	1.01594	1.00976	1.00458	1.00080	0.99796
39	1.04212	1.04102	1.03812	1.03370	1.02828	1.02218	1.01602	1.01018	1.00522	1.00154	0.99862
40	1.03776	1.03730	1.03514	1.03150	1.02680	1.02142	1.01578	1.01046	1.00574	1.00210	0.99928
41	1.03290	1.03298	1.03150	1.02870	1.02486	1.02018	1.01524	1.01044	1.00606	1.00262	0.99982
42	1.02772	1.02824	1.02750	1.02546	1.02248	1.01866	1.01442	1.01012	1.00616	1.00296	1.00018
43	1.02232	1.02330	1.02308	1.02188	1.01966	1.01676	1.01330	1.00960	1.00614	1.00316	1.00050
44	1.01716	1.01838	1.01864	1.01806	1.01666	1.01454	1.01182	1.00888	1.00582	1.00316	1.00064
45	1.01224	1.01354	1.01422	1.01420	1.01344	1.01204	1.01008	1.00782	1.00532	1.00296	1.00064
46	1.00776	1.00912	1.00996	1.01038	1.01016	1.00940	1.00818	1.00654	1.00454	1.00258	1.00054
47	1.00390	1.00514	1.00614	1.00680	1.00702	1.00678	1.00610	1.00496	1.00358	1.00198	1.00018
48	1.00066	1.00176	1.00272	1.00354	1.00400	1.00412	1.00388	1.00326	1.00234	1.00114	0.99970
49	0.99822	0.99910	0.99992	1.00070	1.00132	1.00168	1.00176	1.00150	1.00096	1.00010	0.99896
50	0.99650	0.99706	0.99774	0.99836	0.99894	0.99944	0.99970	0.99968	0.99948	0.99900	0.99812
51	0.99560	0.99582	0.99616	0.99656	0.99698	0.99744	0.99774	0.99796	0.99792	0.99762	0.99704
52	0.99546	0.99528	0.99520	0.99534	0.99554	0.99584	0.99608	0.99628	0.99640	0.99626	0.99596
53	0.99592	0.99534	0.99492	0.99464	0.99448	0.99454	0.99466	0.99480	0.99488	0.99500	0.99480
54	0.99696	0.99606	0.99514	0.99452	0.99400	0.99364	0.99352	0.99352	0.99358	0.99370	0.99374
55	0.99834	0.99714	0.99592	0.99478	0.99384	0.99314	0.99268	0.99244	0.99238	0.99256	0.99268
56	1.00014	0.99866	0.99704	0.99550	0.99414	0.99300	0.99212	0.99158	0.99138	0.99154	0.99166
57	1.00202	1.00030	0.99840	0.99646	0.99462	0.99308	0.99188	0.99110	0.99068	0.99064	0.99082
58	1.00382	1.00204	0.99988	0.99768	0.99546	0.99352	0.99190	0.99072	0.99010	0.98994	0.99010
59	1.00546	1.00366	1.00138	0.99892	0.99642	0.99412	0.99212	0.99064	0.98980	0.98942	0.98948
60	1.00672	1.00500	1.00268	1.00010	0.99736	0.99480	0.99260	0.99084	0.98962	0.98912	0.98906
61	1.00740	1.00592	1.00370	1.00110	0.99832	0.99552	0.99310	0.99114	0.98972	0.98902	0.98884
62	1.00762	1.00640	1.00434	1.00184	0.99906	0.99630	0.99372	0.99154	0.99002	0.98912	0.98874
63	1.00720	1.00632	1.00462	1.00230	0.99970	0.99696	0.99434	0.99218	0.99042	0.98942	0.98892
64	1.00622	1.00566	1.00432	1.00244	1.00004	0.99754	0.99502	0.99280	0.99098	0.98988	0.98920
65	1.00480	1.00462	1.00370	1.00218	1.00012	0.99784	0.99556	0.99340	0.99160	0.99036	0.98956
66	1.00306	1.00316	1.00264	1.00154	0.99992	0.99798	0.99596	0.99398	0.99222	0.99098	0.99002
67	1.00114	1.00140	1.00124	1.00054	0.99944	0.99792	0.99616	0.99442	0.99280	0.99158	0.99054
68	0.99922	0.99964	0.99972	0.99946	0.99868	0.99766	0.99630	0.99472	0.99334	0.99208	0.99106
69	0.99740	0.99794	0.99818	0.99818	0.99784	0.99712	0.99618	0.99500	0.99374	0.99262	0.99154
70	0.99586	0.99636	0.99672	0.99688	0.99686	0.99650	0.99586	0.99498	0.99396	0.99294	0.99200
71	0.99458	0.99502	0.99544	0.99572	0.99584	0.99574	0.99544	0.99486	0.99412	0.99326	0.99232
72	0.99370	0.99402	0.99430	0.99462	0.99488	0.99492	0.99486	0.99454	0.99402	0.99344	0.99264
73	0.99312	0.99324	0.99348	0.99374	0.99404	0.99420	0.99422	0.99416	0.99382	0.99344	0.99276
74	0.99282	0.99284	0.99296	0.99310	0.99334	0.99348	0.99362	0.99362	0.99352	0.99326	0.99286
75	0.99280	0.99272	0.99272	0.99274	0.99278	0.99294	0.99306	0.99310	0.99318	0.99308	0.99278
76	0.99302	0.99284	0.99266	0.99250	0.99250	0.99254	0.99260	0.99272	0.99276	0.99274	0.99264
77	0.99334	0.99308	0.99272	0.99252	0.99232	0.99226	0.99228	0.99228	0.99238	0.99242	0.99240
78	0.99374	0.99338	0.99300	0.99262	0.99234	0.99208	0.99198	0.99194	0.99202	0.99214	0.99218
79	0.99412	0.99376	0.99330	0.99284	0.99244	0.99214	0.99188	0.99180	0.99178	0.99188	0.99198
80	0.99450	0.99414	0.99368	0.99312	0.99264	0.99224	0.99188	0.99170	0.99164	0.99172	0.99182
81	0.99496	0.99452	0.99404	0.99356	0.99300	0.99252	0.99214	0.99186	0.99186	0.99178	0.99186
82	0.99540	0.99496	0.99450	0.99392	0.99336	0.99288	0.99250	0.99214	0.99196	0.99194	0.99200
83	0.99574	0.99538	0.99484	0.99436	0.99380	0.99332	0.99284	0.99248	0.99224	0.99218	0.99224
84	0.99606	0.99572	0.99526	0.99470	0.99422	0.99366	0.99320	0.99282	0.99266	0.99252	0.99250
85	0.99646	0.99604	0.99560	0.99512	0.99456	0.99408	0.99362	0.99326	0.99300	0.99288	0.99284
86	0.99676	0.99644	0.99600	0.99546	0.99498	0.99442	0.99396	0.99360	0.99334	0.99328	0.99326
87	0.99696	0.99664	0.99630	0.99576	0.99530	0.99484	0.99438	0.99402	0.99376	0.99362	0.99360
88	0.99724	0.99692	0.99650	0.99614	0.99562	0.99516	0.99478	0.99442	0.99418	0.99404	0.99394
89	0.99732	0.99712	0.99678	0.99636	0.99592	0.99554	0.99510	0.99476	0.99450	0.99438	0.99434
90	0.99740	0.99720	0.99696	0.99656	0.99620	0.99586	0.99550	0.99516	0.99492	0.99478	0.99476
91	0.99730	0.99720	0.99706	0.99674	0.99640	0.99606	0.99580	0.99548	0.99532	0.99520	0.99508
92	0.99718	0.99716	0.99704	0.99682	0.99660	0.99636	0.99610	0.99586	0.99564	0.99552	0.99548
93	0.99688	0.99696	0.99694	0.99682	0.99670	0.99654	0.99632	0.99618	0.99604	0.99592	0.99588
94	0.99648	0.99666	0.99674	0.99680	0.99678	0.99674	0.99660	0.99648	0.99636	0.99632	0.99620
95	0.99590	0.99618	0.99644	0.99662	0.99676	0.99682	0.99680	0.99678	0.99674	0.99662	0.99660
96	0.99570	0.99606	0.99642	0.99660	0.99678	0.99692	0.99698	0.99696	0.99694	0.99692	0.99680
97	0.99596	0.99586	0.99624	0.99660	0.99684	0.99702	0.99708	0.99716	0.99716	0.99712	0.99700
98	0.99614	0.99614	0.99612	0.99648	0.99676	0.99702	0.99718	0.99726	0.99732	0.99730	0.99720
99	0.99642	0.99632	0.99630	0.99630	0.99674	0.99700	0.99726	0.99736	0.99742	0.99750	0.99740
100	0.99660	0.99650	0.99650	0.99656	0.99664	0.99692	0.99726	0.99744	0.99752	0.99760	0.99760
101	0.99680	0.99678	0.99676	0.99674	0.99674	0.99680	0.99718	0.99744	0.99762	0.99770	0.99778
102	0.99706	0.99696	0.99694	0.99694	0.99692	0.99700	0.99708	0.99744	0.99770	0.99780	0.99788</

MORTALITY IMPROVEMENT FACTORS (continued)

Applied to: Active and Reserve Duty Personnel
Gender Mix: 80% Male / 20% Female

(Age Nearest Birthday)

Age	Projection Year									
	2028	2029	2030	2031	2032	2033	2034	2035	2036+	
< 21	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
21	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
22	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
23	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
24	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
25	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
26	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
27	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
28	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
29	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
30	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
31	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
32	0.99250	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
33	0.99270	0.99136	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
34	0.99310	0.99148	0.99016	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
35	0.99358	0.99178	0.99036	0.98914	0.98832	0.98752	0.98700	0.98660	0.98650	
36	0.99416	0.99216	0.99056	0.98924	0.98832	0.98752	0.98700	0.98660	0.98650	
37	0.99474	0.99264	0.99084	0.98944	0.98834	0.98752	0.98700	0.98660	0.98650	
38	0.99538	0.99312	0.99114	0.98964	0.98844	0.98760	0.98700	0.98660	0.98650	
39	0.99596	0.99360	0.99152	0.98992	0.98862	0.98762	0.98700	0.98660	0.98650	
40	0.99654	0.99408	0.99190	0.99012	0.98872	0.98772	0.98702	0.98660	0.98650	
41	0.99708	0.99454	0.99228	0.99040	0.98892	0.98782	0.98710	0.98660	0.98650	
42	0.99746	0.99492	0.99266	0.99068	0.98910	0.98790	0.98710	0.98662	0.98650	
43	0.99782	0.99528	0.99302	0.99096	0.98930	0.98800	0.98720	0.98670	0.98650	
44	0.99806	0.99556	0.99322	0.99116	0.98948	0.98810	0.98720	0.98670	0.98650	
45	0.99820	0.99580	0.99348	0.99134	0.98966	0.98820	0.98728	0.98670	0.98650	
46	0.99822	0.99586	0.99364	0.99152	0.98976	0.98830	0.98730	0.98670	0.98650	
47	0.99814	0.99590	0.99370	0.99168	0.98984	0.98838	0.98730	0.98670	0.98650	
48	0.99788	0.99582	0.99368	0.99168	0.98992	0.98846	0.98738	0.98670	0.98650	
49	0.99742	0.99558	0.99362	0.99172	0.99000	0.98846	0.98738	0.98670	0.98650	
50	0.99680	0.99524	0.99348	0.99170	0.98998	0.98854	0.98738	0.98670	0.98650	
51	0.99608	0.99480	0.99316	0.99156	0.98996	0.98854	0.98746	0.98670	0.98650	
52	0.99526	0.99420	0.99282	0.99134	0.98984	0.98852	0.98746	0.98670	0.98650	
53	0.99438	0.99350	0.99240	0.99112	0.98972	0.98842	0.98746	0.98670	0.98650	
54	0.99340	0.99280	0.99190	0.99072	0.98952	0.98840	0.98736	0.98670	0.98650	
55	0.99246	0.99202	0.99132	0.99042	0.98932	0.98830	0.98736	0.98670	0.98650	
56	0.99160	0.99126	0.99074	0.99002	0.98910	0.98818	0.98734	0.98670	0.98650	
57	0.99084	0.99060	0.99016	0.98954	0.98882	0.98800	0.98726	0.98670	0.98650	
58	0.99010	0.99004	0.98970	0.98916	0.98852	0.98788	0.98716	0.98668	0.98650	
59	0.98948	0.98948	0.98922	0.98888	0.98834	0.98770	0.98714	0.98668	0.98650	
60	0.98904	0.98894	0.98886	0.98850	0.98814	0.98760	0.98706	0.98668	0.98650	
61	0.98870	0.98860	0.98850	0.98824	0.98796	0.98752	0.98706	0.98668	0.98650	
62	0.98856	0.98836	0.98824	0.98806	0.98778	0.98742	0.98706	0.98668	0.98650	
63	0.98854	0.98830	0.98808	0.98798	0.98770	0.98744	0.98708	0.98680	0.98660	
64	0.98870	0.98836	0.98812	0.98792	0.98772	0.98744	0.98718	0.98690	0.98680	
65	0.98898	0.98850	0.98816	0.98794	0.98774	0.98746	0.98728	0.98708	0.98690	
66	0.98932	0.98876	0.98830	0.98798	0.98776	0.98756	0.98738	0.98720	0.98710	
67	0.98968	0.98900	0.98854	0.98812	0.98788	0.98768	0.98748	0.98730	0.98720	
68	0.99018	0.98942	0.98878	0.98834	0.98800	0.98778	0.98760	0.98740	0.98730	
69	0.99060	0.98976	0.98910	0.98856	0.98822	0.98790	0.98770	0.98760	0.98750	
70	0.99108	0.99016	0.98942	0.98886	0.98834	0.98810	0.98790	0.98770	0.98760	
71	0.99144	0.99054	0.98974	0.98910	0.98864	0.98822	0.98800	0.98780	0.98770	
72	0.99170	0.99084	0.99010	0.98938	0.98886	0.98844	0.98820	0.98800	0.98790	
73	0.99204	0.99110	0.99038	0.98968	0.98906	0.98864	0.98832	0.98810	0.98800	
74	0.99226	0.99144	0.99066	0.98988	0.98926	0.98884	0.98850	0.98830	0.98820	
75	0.99230	0.99166	0.99092	0.99014	0.98954	0.98902	0.98862	0.98840	0.98830	
76	0.99232	0.99180	0.99116	0.99042	0.98972	0.98922	0.98882	0.98860	0.98840	
77	0.99226	0.99186	0.99132	0.99068	0.99000	0.98932	0.98900	0.98870	0.98860	
78	0.99214	0.99182	0.99140	0.99086	0.99028	0.98970	0.98912	0.98890	0.98870	
79	0.99202	0.99180	0.99146	0.99102	0.99048	0.98990	0.98940	0.98900	0.98890	
80	0.99184	0.99178	0.99154	0.99120	0.99074	0.99018	0.98970	0.98930	0.98900	
81	0.99196	0.99190	0.99174	0.99148	0.99104	0.99066	0.99018	0.98980	0.98950	
82	0.99210	0.99202	0.99194	0.99178	0.99142	0.99106	0.99060	0.99020	0.98990	
83	0.99224	0.99224	0.99216	0.99198	0.99172	0.99144	0.99108	0.99070	0.99040	
84	0.99248	0.99248	0.99246	0.99230	0.99212	0.99184	0.99148	0.99118	0.99090	
85	0.99282	0.99280	0.99270	0.99262	0.99244	0.99224	0.99188	0.99160	0.99130	
86	0.99316	0.99314	0.99304	0.99294	0.99284	0.99266	0.99238	0.99208	0.99180	
87	0.99358	0.99356	0.99344	0.99334	0.99316	0.99298	0.99278	0.99250	0.99230	
88	0.99390	0.99398	0.99386	0.99376	0.99358	0.99346	0.99320	0.99300	0.99270	
89	0.99432	0.99430	0.99428	0.99418	0.99398	0.99388	0.99368	0.99340	0.99320	
90	0.99464	0.99462	0.99460	0.99460	0.99448	0.99428	0.99410	0.99390	0.99370	
91	0.99504	0.99502	0.99492	0.99490	0.99490	0.99478	0.99458	0.99440	0.99410	
92	0.99546	0.99534	0.99532	0.99530	0.99520	0.99520	0.99500	0.99480	0.99460	
93	0.99578	0.99574	0.99564	0.99562	0.99560	0.99550	0.99550	0.99530	0.99510	
94	0.99618	0.99606	0.99604	0.99602	0.99592	0.99590	0.99580	0.99580	0.99550	
95	0.99648	0.99646	0.99636	0.99632	0.99630	0.99620	0.99620	0.99610	0.99600	
96	0.99678	0.99666	0.99664	0.99654	0.99652	0.99642	0.99640	0.99630	0.99620	
97	0.99698	0.99688	0.99684	0.99674	0.99672	0.99662	0.99660	0.99650	0.99640	
98	0.99718	0.99708	0.99704	0.99694	0.99692	0.99682	0.99680	0.99670	0.99660	
99	0.99738	0.99736	0.99726	0.99714	0.99712	0.99702	0.99700	0.99690	0.99680	
100	0.99758	0.99756	0.99746	0.99742	0.99732	0.99722	0.99720	0.99710	0.99700	
101	0.99778	0.99776	0.99766	0.99762	0.99752	0.99742	0.99740	0.99730	0.99720	
102	0.99796	0.99786	0.99786	0.99782	0.99772	0.99762	0.99760	0.99750	0.99740	
103	0.99806	0.99806	0.99804	0.99802	0.99792	0.99782	0.99780	0.99770	0.99760	
104	0.99818	0.99826	0.99824	0.99822	0.99812	0.99802	0.99800	0.99790	0.99780	
105	0.99828	0.99836	0.99844	0.99844	0.99832	0.99822	0.99820	0.99810	0.99800	
106	0.99836	0.99846	0.99854	0.99854	0.99852	0.99842	0.99840	0.99830	0.99820	
107	0.99846	0.99856	0.99866	0.99872	0.99872	0.99862	0.99860	0.99850	0.99840	
108	0.99856	0.99866	0.99884	0.99884	0.99892	0.99882	0.99880	0.99870	0.99860	
109	0.99868	0.99884	0.99894	0.99902	0.99902	0.99902	0.99900	0.99890	0.99880	
110	0.99886	0.99894	0.99904	0.99914	0.99922	0.99922	0.99920	0.99910	0.99900	
111	0.99896	0.99906	0.99914	0.99924	0.99934	0.99940	0.99940	0.99930	0.99920	
112	0.99914	0.99924	0.99932	0.99942	0.99952	0.99960	0.99952	0.99950	0.99940	
113	0.99934	0.99934	0.99944	0.99952	0.99962	0.99970	0.99972	0.99970	0.99960	
114	0.99954	0.99954	0.99964	0.99972	0.99982	0.99990	0.99982	0.99980	0.99980	
115	0.99972	0.99972	0.99972	0.99972	0.99982	0.99990	0.99992	1.00000	1.00000	
> 115	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	

MORTALITY IMPROVEMENT FACTORS

Applied to: Nondisability Retirees from Active Duty -- Officer [Factors only shown through 2037.]
 Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
< 21	0.96780	0.96733	0.96606	0.96698	0.96837	0.97004	0.97190	0.97385	0.97574	0.97745	0.97885
21	0.96780	0.96733	0.96606	0.96699	0.96838	0.97004	0.97191	0.97386	0.97575	0.97746	0.97886
22	0.96780	0.96733	0.96608	0.96701	0.96839	0.97006	0.97193	0.97387	0.97576	0.97747	0.97887
23	0.96780	0.96733	0.96610	0.96703	0.96841	0.97008	0.97195	0.97389	0.97579	0.97750	0.97890
24	0.96780	0.96733	0.96612	0.96705	0.96844	0.97011	0.97197	0.97392	0.97581	0.97752	0.97893
25	0.96780	0.96733	0.96616	0.96708	0.96847	0.97014	0.97201	0.97396	0.97585	0.97756	0.97896
26	0.96780	0.96733	0.96619	0.96711	0.96850	0.97017	0.97204	0.97399	0.97588	0.97760	0.97900
27	0.96780	0.96733	0.96622	0.96714	0.96853	0.97020	0.97207	0.97402	0.97592	0.97763	0.97904
28	0.96780	0.96733	0.96626	0.96718	0.96857	0.97024	0.97212	0.97407	0.97596	0.97768	0.97908
29	0.96780	0.96733	0.96628	0.96721	0.96859	0.97027	0.97214	0.97409	0.97599	0.97770	0.97911
30	0.96780	0.96733	0.96628	0.96721	0.96859	0.97027	0.97214	0.97410	0.97599	0.97771	0.97911
31	0.96780	0.96733	0.96627	0.96720	0.96859	0.97026	0.97213	0.97409	0.97598	0.97770	0.97910
32	0.96780	0.96733	0.96626	0.96719	0.96857	0.97025	0.97212	0.97407	0.97597	0.97768	0.97909
33	0.96780	0.96733	0.96625	0.96718	0.96856	0.97024	0.97211	0.97406	0.97596	0.97767	0.97907
34	0.96780	0.96733	0.96626	0.96719	0.96858	0.97025	0.97212	0.97407	0.97597	0.97769	0.97909
35	0.96780	0.96733	0.96628	0.96721	0.96859	0.97027	0.97214	0.97409	0.97599	0.97771	0.97911
36	0.96780	0.96733	0.96631	0.96723	0.96862	0.97030	0.97217	0.97412	0.97602	0.97774	0.97914
37	0.96780	0.96733	0.96634	0.96727	0.96865	0.97033	0.97221	0.97416	0.97606	0.97778	0.97918
38	0.96780	0.96733	0.96638	0.96730	0.96869	0.97037	0.97224	0.97420	0.97610	0.97781	0.97922
39	0.96780	0.96733	0.96641	0.96733	0.96872	0.97040	0.97228	0.97423	0.97613	0.97785	0.97926
40	0.96780	0.96733	0.96646	0.96738	0.96877	0.97045	0.97233	0.97429	0.97619	0.97791	0.97932
41	0.96780	0.96733	0.96652	0.96745	0.96883	0.97052	0.97240	0.97436	0.97626	0.97798	0.97939
42	0.96780	0.96733	0.96663	0.96756	0.96894	0.97063	0.97251	0.97448	0.97638	0.97811	0.97952
43	0.96780	0.96733	0.96680	0.96773	0.96911	0.97080	0.97270	0.97466	0.97657	0.97830	0.97972
44	0.96780	0.96733	0.96695	0.96788	0.96927	0.97096	0.97286	0.97483	0.97675	0.97848	0.97989
45	0.96780	0.96733	0.96709	0.96802	0.96941	0.97111	0.97301	0.97498	0.97690	0.97864	0.98006
46	0.96780	0.96733	0.96724	0.96817	0.96955	0.97125	0.97316	0.97514	0.97706	0.97880	0.98022
47	0.96780	0.96733	0.96733	0.96826	0.96965	0.97135	0.97325	0.97524	0.97716	0.97890	0.98033
48	0.96780	0.96733	0.96735	0.96828	0.96967	0.97138	0.97329	0.97528	0.97719	0.97893	0.98035
49	0.96780	0.96733	0.96738	0.96832	0.96971	0.97143	0.97334	0.97533	0.97722	0.97896	0.98039
50	0.96776	0.96750	0.96751	0.96844	0.96982	0.97153	0.97343	0.97540	0.97731	0.97902	0.98044
51	0.96771	0.96768	0.96770	0.96864	0.96999	0.97162	0.97351	0.97547	0.97737	0.97908	0.98047
52	0.96766	0.96786	0.96789	0.96882	0.97000	0.97169	0.97358	0.97553	0.97742	0.97912	0.98051
53	0.96762	0.96804	0.96805	0.96887	0.97015	0.97175	0.97362	0.97556	0.97745	0.97914	0.98053
54	0.96758	0.96824	0.96820	0.96901	0.97027	0.97186	0.97364	0.97557	0.97745	0.97914	0.98052
55	0.96755	0.96844	0.96834	0.96914	0.97039	0.97195	0.97371	0.97556	0.97742	0.97910	0.98048
56	0.96753	0.96866	0.96848	0.96926	0.97049	0.97203	0.97378	0.97560	0.97739	0.97906	0.98043
57	0.96753	0.96889	0.96863	0.96940	0.97061	0.97213	0.97385	0.97565	0.97742	0.97902	0.98039
58	0.96756	0.96913	0.96880	0.96956	0.97074	0.97224	0.97394	0.97572	0.97746	0.97904	0.98035
59	0.96762	0.96939	0.96901	0.96974	0.97091	0.97238	0.97405	0.97581	0.97753	0.97909	0.98039
60	0.96772	0.96967	0.96925	0.96996	0.97110	0.97255	0.97419	0.97592	0.97761	0.97916	0.98044
61	0.96786	0.96996	0.96951	0.97020	0.97132	0.97273	0.97435	0.97604	0.97771	0.97924	0.98050
62	0.96807	0.97029	0.96980	0.97047	0.97156	0.97294	0.97452	0.97618	0.97782	0.97932	0.98057
63	0.96834	0.97066	0.97013	0.97077	0.97183	0.97319	0.97474	0.97638	0.97800	0.97948	0.98071
64	0.96869	0.97107	0.97050	0.97112	0.97215	0.97347	0.97499	0.97660	0.97818	0.97964	0.98086
65	0.96914	0.97154	0.97094	0.97152	0.97252	0.97380	0.97526	0.97684	0.97840	0.97983	0.98103
66	0.96968	0.97207	0.97145	0.97199	0.97294	0.97418	0.97561	0.97712	0.97864	0.98004	0.98121
67	0.97031	0.97265	0.97203	0.97252	0.97343	0.97461	0.97600	0.97746	0.97891	0.98027	0.98143
68	0.97102	0.97328	0.97267	0.97312	0.97397	0.97510	0.97643	0.97785	0.97925	0.98063	0.98166
69	0.97180	0.97396	0.97337	0.97377	0.97456	0.97563	0.97690	0.97826	0.97962	0.98087	0.98190
70	0.97265	0.97469	0.97412	0.97447	0.97520	0.97620	0.97740	0.97870	0.98001	0.98121	0.98222
71	0.97356	0.97547	0.97491	0.97521	0.97588	0.97681	0.97794	0.97917	0.98041	0.98157	0.98255
72	0.97451	0.97627	0.97573	0.97598	0.97659	0.97745	0.97850	0.97966	0.98084	0.98194	0.98288
73	0.97549	0.97710	0.97658	0.97678	0.97732	0.97812	0.97909	0.98018	0.98128	0.98233	0.98323
74	0.97649	0.97793	0.97743	0.97760	0.97808	0.97880	0.97970	0.98071	0.98175	0.98273	0.98359
75	0.97749	0.97875	0.97829	0.97843	0.97886	0.97951	0.98033	0.98126	0.98223	0.98316	0.98397
76	0.97848	0.97956	0.97914	0.97925	0.97963	0.98022	0.98097	0.98183	0.98272	0.98359	0.98436
77	0.97947	0.98037	0.97997	0.98005	0.98040	0.98093	0.98162	0.98241	0.98323	0.98403	0.98475
78	0.98048	0.98119	0.98080	0.98085	0.98116	0.98165	0.98227	0.98299	0.98375	0.98449	0.98516
79	0.98153	0.98205	0.98164	0.98166	0.98192	0.98236	0.98293	0.98358	0.98427	0.98495	0.98557
80	0.98262	0.98295	0.98253	0.98249	0.98269	0.98307	0.98359	0.98418	0.98481	0.98542	0.98599
81	0.98377	0.98392	0.98347	0.98338	0.98353	0.98386	0.98433	0.98489	0.98547	0.98605	0.98658
82	0.98497	0.98495	0.98447	0.98433	0.98441	0.98467	0.98507	0.98558	0.98615	0.98668	0.98718
83	0.98622	0.98604	0.98553	0.98532	0.98533	0.98551	0.98584	0.98628	0.98678	0.98731	0.98777
84	0.98751	0.98719	0.98665	0.98637	0.98629	0.98639	0.98663	0.98698	0.98741	0.98789	0.98836
85	0.98883	0.98838	0.98781	0.98747	0.98730	0.98744	0.98770	0.98805	0.98845	0.98888	0.98935
86	0.99016	0.98963	0.98900	0.98860	0.98835	0.98825	0.98828	0.98844	0.98869	0.98902	0.98939
87	0.99150	0.99091	0.99023	0.98977	0.98943	0.98923	0.98915	0.98919	0.98935	0.98959	0.98989
88	0.99285	0.99224	0.99150	0.99097	0.99055	0.99024	0.99005	0.98998	0.99002	0.99016	0.99039
89	0.99422	0.99363	0.99281	0.99221	0.99169	0.99128	0.99098	0.99079	0.99071	0.99075	0.99090
90	0.99561	0.99507	0.99416	0.99349	0.99288	0.99236	0.99193	0.99162	0.99143	0.99137	0.99143
91	0.99703	0.99657	0.99558	0.99482	0.99412	0.99348	0.99293	0.99249	0.99218	0.99200	0.99197
92	0.99848	0.99814	0.99706	0.99622	0.99540	0.99464	0.99396	0.99339	0.99295	0.99266	0.99254
93	0.99998	0.99979	0.99862	0.99768	0.99675	0.99585	0.99503	0.99432	0.99375	0.99334	0.99312
94	1.00156	1.00155	1.00027	0.99923	0.99817	0.99713	0.99615	0.99529	0.99458	0.99405	0.99373
95	1.00322	1.00342	1.00203	1.00087	0.99967	0.99847	0.99733	0.99631	0.99544	0.99477	0.99435
96	1.00501	1.00543	1.00391	1.00261	1.00124	0.99985	0.99851	0.99729	0.99623	0.99541	0.99486
97	1.00692	1.00759	1.00594	1.00448	1.00292	1.00131	0.99976	0.99832	0.99707	0.99602	0.99539
98	1.00896	1.00989	1.00812	1.00648	1.00471	1.00287	1.00107	0.99941	0.99794	0.99676	0.99594
99	1.01112	1.01233	1.01043	1.00862	1.00661	1.00453	1.00247	1.00055	0.99886	0.99748	0.99651
100	1.01338	1.01487	1.01286	1.01087	1.00863	1.00627	1.00395	1.00176	0.99982	0.99823	0.99710
101	1.01574	1.01751	1.01540	1.01323	1.01075	1.00811	1.00549	1.00303	1.00082	0.99901	0.99771
102	1.01461	1.01626	1.01609	1.01391	1.01141	1.00876	1.00612	1.00365	1.00145	0.99963	0.99829
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MORTALITY IMPROVEMENT FACTORS (continued)

Applied to: Nondisability Retirees from Active Duty -- Officer [Factors only shown through 2037.]
 Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
< 21	0.97981	0.98049	0.98115	0.98176	0.98233	0.98284	0.98329	0.98367	0.98395	0.98420	0.98436
21	0.97982	0.98050	0.98116	0.98177	0.98234	0.98285	0.98331	0.98368	0.98396	0.98421	0.98437
22	0.97984	0.98052	0.98118	0.98179	0.98236	0.98287	0.98333	0.98370	0.98398	0.98423	0.98439
23	0.97986	0.98054	0.98120	0.98182	0.98239	0.98290	0.98335	0.98373	0.98401	0.98426	0.98442
24	0.97989	0.98057	0.98123	0.98185	0.98242	0.98294	0.98339	0.98377	0.98405	0.98430	0.98445
25	0.97993	0.98061	0.98127	0.98189	0.98246	0.98298	0.98343	0.98381	0.98410	0.98434	0.98450
26	0.97996	0.98065	0.98131	0.98193	0.98250	0.98302	0.98348	0.98385	0.98414	0.98438	0.98454
27	0.98000	0.98069	0.98135	0.98197	0.98255	0.98306	0.98352	0.98390	0.98419	0.98443	0.98458
28	0.98005	0.98073	0.98140	0.98202	0.98260	0.98312	0.98357	0.98395	0.98424	0.98448	0.98463
29	0.98007	0.98076	0.98142	0.98205	0.98263	0.98315	0.98361	0.98399	0.98427	0.98452	0.98466
30	0.98008	0.98076	0.98143	0.98205	0.98263	0.98315	0.98361	0.98399	0.98428	0.98452	0.98467
31	0.98007	0.98075	0.98142	0.98204	0.98262	0.98314	0.98360	0.98398	0.98427	0.98451	0.98466
32	0.98005	0.98074	0.98140	0.98203	0.98260	0.98312	0.98358	0.98396	0.98425	0.98449	0.98464
33	0.98004	0.98072	0.98139	0.98201	0.98259	0.98311	0.98357	0.98394	0.98423	0.98447	0.98463
34	0.98006	0.98074	0.98141	0.98203	0.98261	0.98313	0.98358	0.98396	0.98425	0.98449	0.98464
35	0.98008	0.98076	0.98143	0.98205	0.98263	0.98315	0.98361	0.98399	0.98428	0.98452	0.98467
36	0.98011	0.98079	0.98146	0.98209	0.98266	0.98319	0.98365	0.98403	0.98432	0.98456	0.98470
37	0.98015	0.98084	0.98150	0.98213	0.98271	0.98323	0.98369	0.98408	0.98437	0.98461	0.98475
38	0.98019	0.98088	0.98154	0.98217	0.98275	0.98328	0.98374	0.98412	0.98441	0.98465	0.98480
39	0.98023	0.98091	0.98158	0.98221	0.98279	0.98332	0.98378	0.98417	0.98446	0.98470	0.98484
40	0.98029	0.98098	0.98165	0.98228	0.98286	0.98339	0.98386	0.98424	0.98453	0.98477	0.98491
41	0.98036	0.98105	0.98172	0.98236	0.98294	0.98347	0.98394	0.98433	0.98462	0.98486	0.98500
42	0.98049	0.98118	0.98186	0.98250	0.98308	0.98362	0.98409	0.98448	0.98478	0.98501	0.98514
43	0.98069	0.98139	0.98207	0.98271	0.98331	0.98385	0.98432	0.98472	0.98502	0.98524	0.98536
44	0.98087	0.98157	0.98225	0.98290	0.98351	0.98405	0.98453	0.98493	0.98523	0.98546	0.98557
45	0.98103	0.98174	0.98243	0.98308	0.98369	0.98424	0.98473	0.98513	0.98543	0.98565	0.98575
46	0.98120	0.98191	0.98260	0.98326	0.98387	0.98443	0.98492	0.98532	0.98563	0.98584	0.98594
47	0.98131	0.98202	0.98271	0.98337	0.98399	0.98455	0.98504	0.98545	0.98576	0.98597	0.98605
48	0.98133	0.98204	0.98274	0.98340	0.98402	0.98458	0.98507	0.98548	0.98579	0.98600	0.98609
49	0.98137	0.98208	0.98278	0.98344	0.98406	0.98462	0.98512	0.98552	0.98583	0.98604	0.98613
50	0.98142	0.98213	0.98282	0.98349	0.98411	0.98467	0.98517	0.98558	0.98589	0.98609	0.98618
51	0.98145	0.98216	0.98285	0.98352	0.98414	0.98471	0.98520	0.98561	0.98592	0.98613	0.98621
52	0.98146	0.98217	0.98287	0.98353	0.98415	0.98472	0.98521	0.98562	0.98593	0.98614	0.98622
53	0.98148	0.98215	0.98285	0.98352	0.98414	0.98470	0.98520	0.98561	0.98592	0.98613	0.98621
54	0.98147	0.98215	0.98281	0.98347	0.98409	0.98465	0.98515	0.98556	0.98587	0.98607	0.98616
55	0.98143	0.98212	0.98278	0.98340	0.98402	0.98458	0.98507	0.98548	0.98578	0.98599	0.98608
56	0.98139	0.98208	0.98274	0.98336	0.98392	0.98448	0.98497	0.98538	0.98569	0.98590	0.98599
57	0.98134	0.98203	0.98270	0.98332	0.98389	0.98439	0.98488	0.98528	0.98559	0.98580	0.98590
58	0.98131	0.98200	0.98267	0.98330	0.98387	0.98437	0.98486	0.98526	0.98557	0.98577	0.98587
59	0.98129	0.98200	0.98267	0.98330	0.98387	0.98438	0.98481	0.98515	0.98545	0.98567	0.98577
60	0.98134	0.98200	0.98268	0.98332	0.98389	0.98440	0.98484	0.98518	0.98548	0.98569	0.98574
61	0.98140	0.98206	0.98270	0.98334	0.98392	0.98444	0.98487	0.98522	0.98546	0.98561	0.98571
62	0.98146	0.98211	0.98276	0.98337	0.98395	0.98447	0.98491	0.98526	0.98550	0.98565	0.98569
63	0.98159	0.98224	0.98288	0.98349	0.98406	0.98458	0.98502	0.98537	0.98561	0.98577	0.98581
64	0.98173	0.98238	0.98302	0.98362	0.98419	0.98469	0.98514	0.98549	0.98574	0.98589	0.98593
65	0.98188	0.98253	0.98316	0.98377	0.98433	0.98483	0.98527	0.98562	0.98587	0.98603	0.98607
66	0.98206	0.98270	0.98333	0.98393	0.98449	0.98499	0.98543	0.98578	0.98603	0.98619	0.98623
67	0.98226	0.98289	0.98352	0.98412	0.98468	0.98518	0.98561	0.98596	0.98621	0.98637	0.98641
68	0.98248	0.98310	0.98373	0.98432	0.98488	0.98538	0.98581	0.98616	0.98641	0.98657	0.98661
69	0.98270	0.98333	0.98394	0.98454	0.98509	0.98559	0.98602	0.98637	0.98662	0.98678	0.98681
70	0.98294	0.98355	0.98416	0.98475	0.98530	0.98580	0.98623	0.98658	0.98683	0.98699	0.98702
71	0.98325	0.98377	0.98438	0.98496	0.98551	0.98601	0.98644	0.98679	0.98704	0.98719	0.98722
72	0.98357	0.98409	0.98459	0.98517	0.98572	0.98624	0.98664	0.98699	0.98724	0.98739	0.98741
73	0.98390	0.98442	0.98492	0.98538	0.98592	0.98642	0.98684	0.98719	0.98744	0.98758	0.98761
74	0.98424	0.98475	0.98525	0.98572	0.98613	0.98662	0.98704	0.98739	0.98764	0.98778	0.98780
75	0.98459	0.98509	0.98558	0.98605	0.98647	0.98682	0.98724	0.98759	0.98783	0.98798	0.98799
76	0.98495	0.98544	0.98592	0.98639	0.98680	0.98716	0.98744	0.98778	0.98803	0.98817	0.98818
77	0.98532	0.98579	0.98627	0.98672	0.98714	0.98750	0.98778	0.98797	0.98821	0.98835	0.98836
78	0.98569	0.98615	0.98661	0.98706	0.98747	0.98783	0.98811	0.98830	0.98852	0.98865	0.98863
79	0.98607	0.98651	0.98696	0.98739	0.98780	0.98815	0.98844	0.98863	0.98872	0.98889	0.98870
80	0.98646	0.98688	0.98731	0.98773	0.98813	0.98848	0.98876	0.98895	0.98904	0.98920	0.98886
81	0.98703	0.98742	0.98784	0.98824	0.98863	0.98897	0.98925	0.98944	0.98953	0.98950	0.98935
82	0.98759	0.98797	0.98837	0.98876	0.98913	0.98947	0.98974	0.98993	0.99002	0.98999	0.98983
83	0.98817	0.98853	0.98890	0.98928	0.98964	0.98996	0.99023	0.99041	0.99050	0.99047	0.99032
84	0.98873	0.98908	0.98944	0.98980	0.99014	0.99046	0.99071	0.99089	0.99098	0.99095	0.99079
85	0.98929	0.98962	0.98997	0.99031	0.99064	0.99094	0.99119	0.99136	0.99145	0.99142	0.99126
86	0.98976	0.99015	0.99049	0.99082	0.99114	0.99142	0.99166	0.99183	0.99190	0.99187	0.99172
87	0.99023	0.99060	0.99090	0.99122	0.99162	0.99189	0.99212	0.99228	0.99235	0.99232	0.99216
88	0.99069	0.99103	0.99140	0.99180	0.99209	0.99235	0.99257	0.99272	0.99278	0.99275	0.99259
89	0.99114	0.99145	0.99181	0.99218	0.99255	0.99280	0.99301	0.99315	0.99321	0.99317	0.99302
90	0.99161	0.99188	0.99221	0.99255	0.99291	0.99325	0.99345	0.99358	0.99363	0.99359	0.99344
91	0.99209	0.99232	0.99261	0.99293	0.99326	0.99358	0.99388	0.99401	0.99405	0.99401	0.99386
92	0.99260	0.99278	0.99303	0.99331	0.99362	0.99392	0.99420	0.99444	0.99448	0.99443	0.99428
93	0.99311	0.99325	0.99345	0.99370	0.99398	0.99426	0.99452	0.99474	0.99490	0.99486	0.99470
94	0.99365	0.99374	0.99390	0.99411	0.99435	0.99461	0.99485	0.99506	0.99521	0.99529	0.99513
95	0.99420	0.99424	0.99436	0.99453	0.99473	0.99496	0.99518	0.99537	0.99551	0.99559	0.99557
96	0.99464	0.99463	0.99470	0.99482	0.99500	0.99519	0.99539	0.99556	0.99569	0.99576	0.99574
97	0.99508	0.99503	0.99505	0.99513	0.99527	0.99543	0.99560	0.99576	0.99587	0.99593	0.99591
98	0.99555	0.99544	0.99541	0.99545	0.99555	0.99568	0.99582	0.99596	0.99606	0.99611	0.99609
99	0.99602	0.99586	0.99578	0.99578	0.99583	0.99593	0.99605	0.99616	0.99624	0.99629	0.99627
100	0.99652	0.99629	0.99616	0.99611	0.99613	0.99619	0.99627	0.99634	0.99644	0.99648	0.99645
101	0.99703	0.99674	0.99656	0.99646	0.99643	0.99645	0.99645	0.99655	0.99663	0.99668	0.99663
102	0.99755	0.99720	0.99696	0.99681	0.99673	0.99672	0.99675	0.99679	0.99683	0.99685	0.99682
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Technical Reference to the FY 2021 Valuation of the Military Retirement System

MORTALITY IMPROVEMENT FACTORS

Applied to: Nondisability Retirees from Active Duty -- Enlisted [Factors only shown through 2037.]
Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<21	1.00126	1.00362	1.00173	1.00091	0.99967	0.99810	0.99636	0.99460	0.99288	0.99133	0.99007
21	1.00126	1.00362	1.00135	1.00052	0.99928	0.99770	0.99596	0.99421	0.99249	0.99093	0.98968
22	1.00126	1.00362	1.00137	1.00054	0.99930	0.99772	0.99598	0.99423	0.99251	0.99095	0.98970
23	1.00126	1.00362	1.00139	1.00056	0.99933	0.99774	0.99600	0.99425	0.99253	0.99098	0.98972
24	1.00126	1.00362	1.00142	1.00059	0.99936	0.99778	0.99604	0.99428	0.99257	0.99101	0.98975
25	1.00126	1.00362	1.00146	1.00063	0.99940	0.99782	0.99608	0.99432	0.99261	0.99105	0.98979
26	1.00126	1.00362	1.00150	1.00067	0.99943	0.99785	0.99611	0.99436	0.99264	0.99109	0.98983
27	1.00126	1.00362	1.00154	1.00071	0.99947	0.99789	0.99616	0.99440	0.99268	0.99113	0.98987
28	1.00126	1.00362	1.00172	1.00090	0.99966	0.99809	0.99635	0.99459	0.99288	0.99132	0.99006
29	1.00126	1.00362	1.00191	1.00108	0.99985	0.99828	0.99654	0.99478	0.99307	0.99151	0.99025
30	1.00126	1.00362	1.00208	1.00125	1.00001	0.99845	0.99672	0.99496	0.99324	0.99168	0.99042
31	1.00126	1.00362	1.00223	1.00141	1.00017	0.99861	0.99688	0.99512	0.99340	0.99184	0.99057
32	1.00126	1.00362	1.00238	1.00155	1.00031	0.99876	0.99703	0.99527	0.99355	0.99199	0.99072
33	1.00126	1.00362	1.00238	1.00155	1.00031	0.99876	0.99703	0.99526	0.99354	0.99199	0.99072
34	1.00126	1.00362	1.00238	1.00156	1.00032	0.99876	0.99704	0.99527	0.99355	0.99199	0.99072
35	1.00126	1.00362	1.00238	1.00156	1.00032	0.99876	0.99703	0.99527	0.99355	0.99199	0.99072
36	1.00126	1.00362	1.00240	1.00157	1.00033	0.99878	0.99705	0.99528	0.99356	0.99201	0.99074
37	1.00126	1.00362	1.00244	1.00161	1.00037	0.99882	0.99709	0.99533	0.99361	0.99205	0.99078
38	1.00126	1.00362	1.00251	1.00169	1.00045	0.99889	0.99717	0.99540	0.99368	0.99212	0.99085
39	1.00126	1.00362	1.00257	1.00175	1.00051	0.99896	0.99723	0.99547	0.99374	0.99218	0.99092
40	1.00126	1.00362	1.00265	1.00182	1.00058	0.99903	0.99731	0.99554	0.99382	0.99226	0.99099
41	0.99921	1.00174	1.00176	1.00100	0.99987	0.99845	0.99687	0.99524	0.99364	0.99219	0.99099
42	0.99715	0.99984	0.99993	1.00018	0.99915	0.99786	0.99642	0.99493	0.99346	0.99212	0.99099
43	0.99504	0.99792	0.99808	0.99843	0.99842	0.99726	0.99596	0.99461	0.99328	0.99204	0.99098
44	0.99288	0.99595	0.99621	0.99667	0.99682	0.99567	0.99432	0.99297	0.99161	0.99037	0.98931
45	0.99067	0.99382	0.99431	0.99488	0.99518	0.99423	0.99287	0.99152	0.99017	0.98882	0.98757
46	0.98840	0.99182	0.99236	0.99307	0.99355	0.99379	0.99384	0.99373	0.99351	0.99319	0.99287
47	0.98607	0.98965	0.99031	0.99116	0.99182	0.99227	0.99254	0.99266	0.99262	0.99244	0.99211
48	0.98369	0.98742	0.98815	0.98914	0.98969	0.99067	0.99118	0.99152	0.99170	0.99172	0.99167
49	0.98127	0.98510	0.98588	0.98701	0.98806	0.98908	0.99074	0.99203	0.99303	0.99405	0.99509
50	0.97881	0.98270	0.98350	0.98480	0.98605	0.98721	0.98823	0.98909	0.98974	0.99016	0.99036
51	0.97635	0.98026	0.98107	0.98252	0.98399	0.98539	0.98669	0.98782	0.98873	0.98937	0.98972
52	0.97394	0.97782	0.97863	0.98022	0.98191	0.98356	0.98513	0.98654	0.98771	0.98858	0.98912
53	0.97164	0.97543	0.97620	0.97791	0.97980	0.98170	0.98354	0.98523	0.98666	0.98777	0.98849
54	0.96950	0.97315	0.97384	0.97563	0.97769	0.97982	0.98193	0.98389	0.98558	0.98692	0.98783
55	0.96756	0.97103	0.97160	0.97345	0.97564	0.97797	0.98032	0.98254	0.98449	0.98605	0.98715
56	0.96589	0.96913	0.96955	0.97141	0.97370	0.97619	0.97874	0.98120	0.98339	0.98517	0.98645
57	0.96452	0.96750	0.96773	0.96957	0.97190	0.97451	0.97722	0.97988	0.98228	0.98426	0.98572
58	0.96352	0.96621	0.96622	0.96800	0.97034	0.97300	0.97583	0.97864	0.98121	0.98337	0.98499
59	0.96293	0.96531	0.96510	0.96677	0.96905	0.97173	0.97461	0.97752	0.98021	0.98252	0.98428
60	0.96280	0.96486	0.96441	0.96591	0.96809	0.97071	0.97359	0.97653	0.97930	0.98170	0.98357
61	0.96314	0.96488	0.96418	0.96547	0.96748	0.96998	0.97279	0.97571	0.97849	0.98094	0.98289
62	0.96394	0.96536	0.96443	0.96547	0.96726	0.96957	0.97224	0.97506	0.97780	0.98025	0.98224
63	0.96519	0.96630	0.96513	0.96591	0.96743	0.96950	0.97197	0.97465	0.97729	0.97970	0.98169
64	0.96688	0.96769	0.96627	0.96678	0.96801	0.96977	0.97198	0.97444	0.97693	0.97924	0.98120
65	0.96898	0.96952	0.96785	0.96807	0.96943	0.97229	0.97447	0.97674	0.97890	0.98078	0.98208
66	0.97146	0.97175	0.96986	0.96977	0.97034	0.97143	0.97294	0.97476	0.97674	0.97870	0.98045
67	0.97422	0.97431	0.97223	0.97184	0.97204	0.97275	0.97388	0.97534	0.97695	0.97864	0.98024
68	0.97718	0.97713	0.97491	0.97423	0.97407	0.97436	0.97509	0.97615	0.97742	0.97877	0.98015
69	0.98026	0.98015	0.97782	0.97688	0.97637	0.97625	0.97654	0.97719	0.97808	0.97912	0.98020
70	0.98337	0.98328	0.98089	0.97972	0.97888	0.97837	0.97822	0.97844	0.97893	0.97964	0.98047
71	0.98640	0.98641	0.98403	0.98266	0.98152	0.98064	0.98008	0.97987	0.97966	0.98031	0.98089
72	0.98922	0.98941	0.98711	0.98561	0.98421	0.98299	0.98205	0.98143	0.98112	0.98113	0.98143
73	0.99169	0.99213	0.98999	0.98843	0.98684	0.98534	0.98406	0.98308	0.98241	0.98208	0.98211
74	0.99368	0.99440	0.99253	0.99099	0.98931	0.98761	0.98605	0.98476	0.98377	0.98314	0.98291
75	0.99506	0.99610	0.99455	0.99316	0.99148	0.98968	0.98794	0.98640	0.98516	0.98428	0.98381
76	0.99583	0.99719	0.99599	0.99483	0.99327	0.99149	0.98967	0.98798	0.98654	0.98545	0.98479
77	0.99610	0.99778	0.99687	0.99598	0.99465	0.99300	0.99121	0.98946	0.98790	0.98666	0.98582
78	0.99601	0.99798	0.99731	0.99665	0.99560	0.99417	0.99252	0.99081	0.98921	0.98787	0.98690
79	0.99569	0.99790	0.99740	0.99694	0.99613	0.99499	0.99356	0.99199	0.99043	0.98905	0.98800
80	0.99525	0.99766	0.99727	0.99696	0.99635	0.99545	0.99430	0.99295	0.99152	0.99018	0.98908
81	0.99480	0.99733	0.99700	0.99681	0.99639	0.99571	0.99482	0.99377	0.99256	0.99134	0.99027
82	0.99439	0.99699	0.99669	0.99657	0.99628	0.99579	0.99512	0.99431	0.99338	0.99235	0.99138
83	0.99409	0.99669	0.99637	0.99630	0.99609	0.99574	0.99526	0.99466	0.99395	0.99317	0.99235
84	0.99394	0.99648	0.99612	0.99606	0.99591	0.99565	0.99530	0.99486	0.99434	0.99375	0.99315
85	0.99401	0.99644	0.99599	0.99590	0.99577	0.99556	0.99530	0.99498	0.99460	0.99417	0.99371
86	0.99433	0.99658	0.99602	0.99587	0.99572	0.99552	0.99531	0.99506	0.99477	0.99446	0.99413
87	0.99488	0.99692	0.99623	0.99599	0.99577	0.99555	0.99534	0.99513	0.99490	0.99466	0.99443
88	0.99567	0.99743	0.99660	0.99627	0.99596	0.99568	0.99543	0.99521	0.99500	0.99480	0.99464
89	0.99670	0.99811	0.99714	0.99672	0.99631	0.99592	0.99559	0.99533	0.99511	0.99493	0.99479
90	0.99796	0.99897	0.99785	0.99732	0.99680	0.99629	0.99586	0.99552	0.99525	0.99505	0.99492
91	0.99945	1.00001	0.99873	0.99809	0.99744	0.99681	0.99625	0.99579	0.99544	0.99519	0.99505
92	1.00118	1.00124	0.99980	0.99903	0.99825	0.99748	0.99677	0.99619	0.99571	0.99537	0.99519
93	1.00315	1.00267	1.00106	1.00016	0.99922	0.99829	0.99743	0.99669	0.99608	0.99563	0.99538
94	1.00535	1.00432	1.00255	1.00148	1.00038	0.99927	0.99823	0.99732	0.99656	0.99597	0.99563
95	1.00780	1.00621	1.00426	1.00302	1.00172	1.00041	0.99917	0.99807	0.99712	0.99640	0.99593
96	1.01047	1.00832	1.00620	1.00476	1.00323	1.00166	1.00017	0.99884	0.99768	0.99677	0.99617
97	1.01334	1.01064	1.00836	1.00671	1.00492	1.00308	1.00131	0.99972	0.99833	0.99722	0.99647
98	1.01638	1.01312	1.01069	1.00883	1.00678	1.00464	1.00258	1.00070	0.99905	0.99773	0.99682
99	1.01955	1.01575	1.01318	1.01112	1.00879	1.00636	1.00397	1.00178	0.99985	0.99830	0.99722
100	1.01832	1.01476	1.01397	1.01186	1.00949	1.00699	1.00455	1.00231	1.00034	0.99874	0.99761
101	1.01710	1.01378	1.01297	1.01266	1.01024	1.00770	1.00520	1.00291	1.00088	0.99923	0.99804
102	1.01588	1.01279	1.01194	1.01169	1.01105	1.00846	1.00592	1.00357	1.00150	0.99977	0.99852

Technical Reference to the FY 2021 Valuation of the Military Retirement System

MORTALITY IMPROVEMENT FACTORS (continued)

Applied to: Nondisability Retirees from Active Duty -- Enlisted [Factors only shown through 2037.]

Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
<21	0.98920	0.98856	0.98795	0.98736	0.98680	0.98629	0.98586	0.98550	0.98523	0.98512	0.98513
21	0.98882	0.98817	0.98756	0.98698	0.98642	0.98592	0.98549	0.98513	0.98487	0.98477	0.98479
22	0.98883	0.98819	0.98758	0.98700	0.98644	0.98594	0.98551	0.98515	0.98488	0.98478	0.98481
23	0.98886	0.98822	0.98761	0.98702	0.98646	0.98596	0.98553	0.98518	0.98491	0.98481	0.98483
24	0.98889	0.98825	0.98764	0.98705	0.98649	0.98599	0.98556	0.98521	0.98494	0.98484	0.98486
25	0.98893	0.98829	0.98768	0.98709	0.98653	0.98603	0.98560	0.98524	0.98497	0.98487	0.98489
26	0.98897	0.98832	0.98771	0.98713	0.98657	0.98607	0.98564	0.98528	0.98501	0.98491	0.98492
27	0.98901	0.98836	0.98775	0.98717	0.98661	0.98611	0.98568	0.98532	0.98505	0.98494	0.98496
28	0.98919	0.98855	0.98794	0.98735	0.98679	0.98629	0.98586	0.98550	0.98523	0.98512	0.98513
29	0.98938	0.98874	0.98813	0.98754	0.98698	0.98647	0.98604	0.98568	0.98541	0.98529	0.98529
30	0.98955	0.98891	0.98829	0.98770	0.98714	0.98664	0.98620	0.98584	0.98557	0.98544	0.98544
31	0.98970	0.98906	0.98845	0.98786	0.98729	0.98679	0.98635	0.98599	0.98572	0.98559	0.98557
32	0.98985	0.98921	0.98859	0.98800	0.98744	0.98693	0.98650	0.98613	0.98586	0.98572	0.98570
33	0.98985	0.98921	0.98859	0.98800	0.98744	0.98693	0.98650	0.98613	0.98586	0.98572	0.98570
34	0.98985	0.98921	0.98859	0.98800	0.98744	0.98693	0.98650	0.98613	0.98586	0.98572	0.98570
35	0.98985	0.98921	0.98859	0.98800	0.98744	0.98693	0.98650	0.98613	0.98586	0.98572	0.98570
36	0.98987	0.98923	0.98861	0.98802	0.98746	0.98695	0.98651	0.98615	0.98588	0.98574	0.98572
37	0.98991	0.98927	0.98865	0.98806	0.98750	0.98699	0.98655	0.98619	0.98592	0.98577	0.98575
38	0.98998	0.98934	0.98872	0.98813	0.98757	0.98706	0.98662	0.98626	0.98599	0.98584	0.98581
39	0.99004	0.98940	0.98878	0.98819	0.98763	0.98712	0.98668	0.98632	0.98604	0.98589	0.98587
40	0.99012	0.98948	0.98886	0.98826	0.98770	0.98719	0.98675	0.98639	0.98611	0.98596	0.98593
41	0.99014	0.98950	0.98888	0.98829	0.98773	0.98722	0.98678	0.98641	0.98614	0.98599	0.98595
42	0.99017	0.98953	0.98891	0.98831	0.98775	0.98724	0.98680	0.98644	0.98616	0.98601	0.98598
43	0.99019	0.98955	0.98893	0.98833	0.98777	0.98726	0.98682	0.98646	0.98618	0.98603	0.98599
44	0.99024	0.98960	0.98898	0.98838	0.98782	0.98731	0.98687	0.98651	0.98623	0.98607	0.98604
45	0.99029	0.98965	0.98903	0.98844	0.98787	0.98737	0.98692	0.98656	0.98628	0.98612	0.98608
46	0.99038	0.98974	0.98912	0.98852	0.98796	0.98745	0.98701	0.98665	0.98636	0.98620	0.98616
47	0.99042	0.98978	0.98915	0.98856	0.98799	0.98749	0.98704	0.98668	0.98640	0.98623	0.98619
48	0.99042	0.98978	0.98915	0.98856	0.98799	0.98749	0.98704	0.98668	0.98640	0.98623	0.98619
49	0.99038	0.98974	0.98912	0.98852	0.98796	0.98745	0.98701	0.98664	0.98636	0.98620	0.98616
50	0.99032	0.98968	0.98906	0.98846	0.98790	0.98739	0.98695	0.98658	0.98631	0.98615	0.98611
51	0.98979	0.98915	0.98853	0.98793	0.98737	0.98686	0.98641	0.98604	0.98577	0.98561	0.98558
52	0.98927	0.98863	0.98801	0.98740	0.98684	0.98633	0.98588	0.98551	0.98524	0.98508	0.98505
53	0.98877	0.98812	0.98750	0.98689	0.98633	0.98582	0.98537	0.98499	0.98472	0.98456	0.98453
54	0.98823	0.98758	0.98696	0.98635	0.98579	0.98528	0.98483	0.98445	0.98418	0.98402	0.98399
55	0.98768	0.98703	0.98641	0.98580	0.98524	0.98473	0.98428	0.98389	0.98362	0.98346	0.98343
56	0.98711	0.98646	0.98584	0.98523	0.98467	0.98416	0.98371	0.98332	0.98304	0.98288	0.98285
57	0.98651	0.98586	0.98524	0.98463	0.98407	0.98356	0.98311	0.98271	0.98243	0.98227	0.98224
58	0.98592	0.98527	0.98465	0.98404	0.98348	0.98297	0.98252	0.98212	0.98184	0.98168	0.98165
59	0.98533	0.98468	0.98406	0.98345	0.98289	0.98238	0.98193	0.98153	0.98125	0.98109	0.98106
60	0.98474	0.98409	0.98347	0.98286	0.98230	0.98179	0.98134	0.98094	0.98066	0.98050	0.98047
61	0.98415	0.98350	0.98288	0.98227	0.98171	0.98120	0.98075	0.98035	0.98007	0.97991	0.97988
62	0.98357	0.98292	0.98230	0.98169	0.98113	0.98062	0.98017	0.97977	0.97949	0.97933	0.97930
63	0.98308	0.98243	0.98181	0.98120	0.98064	0.98013	0.97968	0.97928	0.97900	0.97884	0.97881
64	0.98261	0.98196	0.98134	0.98073	0.98017	0.97966	0.97921	0.97881	0.97853	0.97837	0.97834
65	0.98219	0.98154	0.98092	0.98031	0.97975	0.97924	0.97879	0.97839	0.97811	0.97795	0.97792
66	0.98184	0.98119	0.98057	0.97996	0.97940	0.97889	0.97844	0.97804	0.97776	0.97760	0.97757
67	0.98155	0.98090	0.98028	0.97967	0.97911	0.97860	0.97815	0.97775	0.97747	0.97731	0.97728
68	0.98137	0.98072	0.98010	0.97949	0.97893	0.97842	0.97797	0.97757	0.97729	0.97713	0.97710
69	0.98129	0.98064	0.98002	0.97941	0.97885	0.97834	0.97789	0.97749	0.97721	0.97705	0.97702
70	0.98134	0.98069	0.98007	0.97946	0.97890	0.97839	0.97794	0.97754	0.97726	0.97710	0.97707
71	0.98159	0.98094	0.98032	0.97971	0.97915	0.97864	0.97819	0.97779	0.97751	0.97735	0.97732
72	0.98197	0.98132	0.98070	0.98009	0.97953	0.97902	0.97857	0.97817	0.97789	0.97773	0.97770
73	0.98246	0.98181	0.98119	0.98058	0.98002	0.97951	0.97906	0.97866	0.97838	0.97822	0.97819
74	0.98307	0.98242	0.98180	0.98119	0.98063	0.98012	0.97967	0.97927	0.97899	0.97883	0.97880
75	0.98378	0.98313	0.98251	0.98190	0.98134	0.98083	0.98038	0.97998	0.97970	0.97954	0.97951
76	0.98458	0.98393	0.98331	0.98270	0.98214	0.98163	0.98118	0.98078	0.98050	0.98034	0.98031
77	0.98546	0.98481	0.98419	0.98358	0.98302	0.98251	0.98206	0.98166	0.98138	0.98122	0.98119
78	0.98640	0.98575	0.98513	0.98452	0.98396	0.98345	0.98299	0.98259	0.98231	0.98215	0.98212
79	0.98736	0.98671	0.98609	0.98548	0.98492	0.98441	0.98395	0.98355	0.98327	0.98311	0.98308
80	0.98835	0.98770	0.98708	0.98647	0.98591	0.98540	0.98494	0.98454	0.98426	0.98410	0.98407
81	0.98949	0.98884	0.98822	0.98761	0.98705	0.98654	0.98608	0.98568	0.98540	0.98524	0.98521
82	0.99060	0.98995	0.98933	0.98872	0.98816	0.98765	0.98719	0.98679	0.98651	0.98635	0.98632
83	0.99162	0.99097	0.99035	0.98974	0.98918	0.98867	0.98821	0.98781	0.98753	0.98737	0.98734
84	0.99253	0.99188	0.99126	0.99065	0.99009	0.98958	0.98912	0.98872	0.98844	0.98828	0.98825
85	0.99329	0.99264	0.99202	0.99141	0.99085	0.99034	0.98988	0.98948	0.98920	0.98904	0.98901
86	0.99382	0.99317	0.99255	0.99194	0.99138	0.99087	0.99041	0.99001	0.98973	0.98957	0.98954
87	0.99421	0.99356	0.99294	0.99233	0.99177	0.99126	0.99080	0.99040	0.99012	0.99000	0.99000
88	0.99450	0.99385	0.99323	0.99262	0.99206	0.99155	0.99109	0.99069	0.99041	0.99025	0.99022
89	0.99471	0.99406	0.99344	0.99283	0.99227	0.99176	0.99130	0.99090	0.99062	0.99046	0.99043
90	0.99488	0.99423	0.99361	0.99300	0.99244	0.99193	0.99147	0.99107	0.99079	0.99063	0.99060
91	0.99502	0.99437	0.99375	0.99314	0.99258	0.99207	0.99161	0.99121	0.99093	0.99077	0.99074
92	0.99517	0.99452	0.99390	0.99329	0.99273	0.99222	0.99176	0.99136	0.99108	0.99092	0.99089
93	0.99533	0.99468	0.99406	0.99345	0.99289	0.99238	0.99192	0.99152	0.99124	0.99108	0.99105
94	0.99553	0.99488	0.99426	0.99365	0.99309	0.99258	0.99212	0.99172	0.99144	0.99128	0.99125
95	0.99577	0.99512	0.99450	0.99389	0.99333	0.99282	0.99236	0.99196	0.99168	0.99152	0.99149
96	0.99594	0.99529	0.99467	0.99406	0.99350	0.99299	0.99253	0.99213	0.99185	0.99169	0.99166
97	0.99615	0.99550	0.99488	0.99427	0.99371	0.99320	0.99274	0.99234	0.99206	0.99190	0.99187
98	0.99640	0.99575	0.99513	0.99452	0.99396	0.99345	0.99299	0.99259	0.99231	0.99215	0.99212
99	0.99670	0.99605	0.99543	0.99482	0.99426	0.99375	0.99329	0.99289	0.99261	0.99245	0.99242
100	0.99703	0.99638	0.99576	0.99515	0.99459	0.99408	0.99362	0.99322	0.99294	0.99278	0.99275
101	0.99740	0.99675	0.99613	0.99552	0.99496	0.99445	0.99399	0.99359	0.99331	0.99315	0.99312
102	0.99779	0.99714	0.99652	0.99591	0.99535	0.99484	0.99438	0.9939			

Technical Reference to the FY 2021 Valuation of the Military Retirement System

MORTALITY IMPROVEMENT FACTORS

Applied to: Nondisability Retirees from Reserve Duty -- Officer [Factors only shown through 2037.]
Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<21	0.98342	0.98715	0.98348	0.98345	0.98340	0.98389	0.98403	0.98456	0.98462	0.98464	0.98469
21	0.98342	0.98715	0.98259	0.98256	0.98251	0.98313	0.98332	0.98400	0.98408	0.98413	0.98420
22	0.98342	0.98715	0.98263	0.98260	0.98255	0.98317	0.98336	0.98403	0.98411	0.98416	0.98422
23	0.98342	0.98715	0.98269	0.98266	0.98261	0.98322	0.98340	0.98406	0.98415	0.98419	0.98425
24	0.98342	0.98715	0.98276	0.98273	0.98268	0.98328	0.98346	0.98411	0.98419	0.98423	0.98429
25	0.98342	0.98715	0.98285	0.98282	0.98277	0.98335	0.98353	0.98417	0.98424	0.98429	0.98434
26	0.98342	0.98715	0.98293	0.98290	0.98286	0.98343	0.98360	0.98422	0.98429	0.98434	0.98439
27	0.98342	0.98715	0.98303	0.98300	0.98295	0.98351	0.98368	0.98428	0.98435	0.98439	0.98444
28	0.98342	0.98715	0.98314	0.98311	0.98306	0.98362	0.98376	0.98435	0.98442	0.98445	0.98450
29	0.98342	0.98715	0.98320	0.98317	0.98312	0.98365	0.98381	0.98439	0.98446	0.98449	0.98454
30	0.98342	0.98715	0.98321	0.98318	0.98313	0.98366	0.98382	0.98440	0.98446	0.98450	0.98455
31	0.98342	0.98715	0.98319	0.98316	0.98311	0.98364	0.98380	0.98438	0.98445	0.98448	0.98453
32	0.98342	0.98715	0.98315	0.98312	0.98307	0.98361	0.98377	0.98436	0.98443	0.98446	0.98451
33	0.98342	0.98715	0.98312	0.98309	0.98304	0.98358	0.98375	0.98434	0.98441	0.98444	0.98449
34	0.98342	0.98715	0.98316	0.98313	0.98308	0.98362	0.98378	0.98436	0.98443	0.98447	0.98452
35	0.98342	0.98715	0.98321	0.98318	0.98313	0.98366	0.98382	0.98440	0.98446	0.98450	0.98454
36	0.98342	0.98715	0.98328	0.98325	0.98320	0.98372	0.98388	0.98444	0.98451	0.98454	0.98459
37	0.98342	0.98715	0.98338	0.98335	0.98330	0.98381	0.98396	0.98451	0.98457	0.98460	0.98464
38	0.98342	0.98715	0.98348	0.98345	0.98340	0.98389	0.98404	0.98457	0.98462	0.98465	0.98469
39	0.98342	0.98715	0.98357	0.98353	0.98349	0.98397	0.98411	0.98462	0.98468	0.98474	0.98474
40	0.98342	0.98715	0.98371	0.98368	0.98364	0.98409	0.98422	0.98472	0.98477	0.98479	0.98483
41	0.98342	0.98715	0.98389	0.98386	0.98381	0.98424	0.98436	0.98483	0.98487	0.98489	0.98492
42	0.98342	0.98715	0.98420	0.98417	0.98412	0.98451	0.98461	0.98502	0.98506	0.98507	0.98509
43	0.98342	0.98715	0.98468	0.98465	0.98460	0.98492	0.98499	0.98533	0.98535	0.98535	0.98536
44	0.98342	0.98715	0.98512	0.98509	0.98504	0.98529	0.98529	0.98561	0.98561	0.98560	0.98560
45	0.98342	0.98715	0.98548	0.98545	0.98544	0.98562	0.98565	0.98595	0.98594	0.98582	0.98582
46	0.98342	0.98715	0.98591	0.98589	0.98584	0.98596	0.98597	0.98626	0.98626	0.98620	0.98612
47	0.98342	0.98715	0.98617	0.98614	0.98611	0.98617	0.98617	0.98622	0.98622	0.98623	0.98623
48	0.98342	0.98715	0.98623	0.98621	0.98617	0.98625	0.98623	0.98630	0.98627	0.98623	0.98621
49	0.98342	0.98715	0.98633	0.98630	0.98626	0.98633	0.98632	0.98638	0.98632	0.98629	0.98626
50	0.98342	0.98715	0.98644	0.98641	0.98638	0.98643	0.98641	0.98646	0.98641	0.98635	0.98632
51	0.98342	0.98715	0.98651	0.98649	0.98645	0.98650	0.98649	0.98652	0.98647	0.98641	0.98636
52	0.98342	0.98715	0.98653	0.98651	0.98648	0.98653	0.98651	0.98655	0.98650	0.98645	0.98640
53	0.98342	0.98715	0.98650	0.98648	0.98645	0.98651	0.98649	0.98654	0.98650	0.98645	0.98641
54	0.98342	0.98715	0.98639	0.98638	0.98635	0.98642	0.98642	0.98649	0.98646	0.98642	0.98638
55	0.98342	0.98715	0.98623	0.98622	0.98619	0.98629	0.98630	0.98640	0.98638	0.98635	0.98632
56	0.98342	0.98715	0.98603	0.98602	0.98600	0.98613	0.98616	0.98630	0.98628	0.98626	0.98624
57	0.98342	0.98715	0.98584	0.98582	0.98580	0.98597	0.98601	0.98619	0.98619	0.98618	0.98617
58	0.98342	0.98715	0.98568	0.98566	0.98565	0.98584	0.98590	0.98610	0.98611	0.98611	0.98611
59	0.98342	0.98715	0.98556	0.98555	0.98554	0.98575	0.98582	0.98604	0.98606	0.98607	0.98608
60	0.98342	0.98715	0.98549	0.98548	0.98547	0.98570	0.98577	0.98601	0.98604	0.98605	0.98606
61	0.98363	0.98735	0.98553	0.98552	0.98550	0.98572	0.98579	0.98603	0.98605	0.98605	0.98607
62	0.98382	0.98755	0.98569	0.98566	0.98563	0.98585	0.98581	0.98605	0.98606	0.98606	0.98607
63	0.98401	0.98775	0.98584	0.98582	0.98580	0.98601	0.98597	0.98621	0.98613	0.98613	0.98615
64	0.98419	0.98794	0.98601	0.98599	0.98595	0.98618	0.98614	0.98629	0.98620	0.98621	0.98623
65	0.98437	0.98814	0.98620	0.98618	0.98614	0.98635	0.98630	0.98648	0.98639	0.98639	0.98643
66	0.98454	0.98833	0.98643	0.98642	0.98639	0.98659	0.98657	0.98674	0.98667	0.98667	0.98670
67	0.98471	0.98851	0.98671	0.98669	0.98665	0.98686	0.98684	0.98701	0.98693	0.98693	0.98696
68	0.98489	0.98868	0.98702	0.98700	0.98696	0.98717	0.98714	0.98730	0.98721	0.98721	0.98724
69	0.98507	0.98884	0.98732	0.98730	0.98726	0.98747	0.98744	0.98760	0.98751	0.98751	0.98754
70	0.98526	0.98898	0.98761	0.98759	0.98755	0.98776	0.98773	0.98789	0.98780	0.98780	0.98783
71	0.98546	0.98910	0.98788	0.98786	0.98782	0.98803	0.98800	0.98816	0.98807	0.98807	0.98810
72	0.98569	0.98921	0.98812	0.98810	0.98806	0.98827	0.98824	0.98840	0.98831	0.98831	0.98834
73	0.98596	0.98933	0.98835	0.98833	0.98829	0.98850	0.98847	0.98863	0.98854	0.98854	0.98857
74	0.98628	0.98945	0.98859	0.98857	0.98853	0.98874	0.98871	0.98887	0.98878	0.98878	0.98881
75	0.98666	0.98961	0.98885	0.98883	0.98879	0.98900	0.98897	0.98913	0.98904	0.98904	0.98907
76	0.98711	0.98980	0.98913	0.98911	0.98907	0.98928	0.98925	0.98940	0.98931	0.98931	0.98934
77	0.98763	0.99002	0.98943	0.98941	0.98937	0.98958	0.98955	0.98969	0.98960	0.98960	0.98963
78	0.98821	0.99029	0.98975	0.98973	0.98969	0.98990	0.98987	0.98999	0.98990	0.98990	0.98993
79	0.98886	0.99061	0.99010	0.99008	0.99004	0.99025	0.99022	0.99037	0.99028	0.99028	0.99031
80	0.98957	0.99097	0.99048	0.99046	0.99042	0.99063	0.99060	0.99074	0.99065	0.99065	0.99068
81	0.99033	0.99139	0.99092	0.99090	0.99086	0.99107	0.99104	0.99118	0.99109	0.99109	0.99112
82	0.99113	0.99185	0.99139	0.99137	0.99133	0.99154	0.99151	0.99165	0.99156	0.99156	0.99159
83	0.99195	0.99234	0.99191	0.99189	0.99185	0.99206	0.99203	0.99217	0.99208	0.99208	0.99211
84	0.99276	0.99287	0.99243	0.99241	0.99237	0.99258	0.99255	0.99269	0.99260	0.99260	0.99263
85	0.99355	0.99341	0.99297	0.99295	0.99291	0.99312	0.99309	0.99323	0.99314	0.99314	0.99317
86	0.99429	0.99397	0.99350	0.99348	0.99344	0.99365	0.99362	0.99376	0.99367	0.99367	0.99370
87	0.99500	0.99457	0.99402	0.99400	0.99396	0.99417	0.99414	0.99428	0.99419	0.99419	0.99422
88	0.99569	0.99521	0.99466	0.99464	0.99460	0.99481	0.99478	0.99492	0.99483	0.99483	0.99486
89	0.99639	0.99593	0.99544	0.99542	0.99538	0.99559	0.99556	0.99570	0.99561	0.99561	0.99564
90	0.99711	0.99674	0.99620	0.99618	0.99614	0.99635	0.99632	0.99646	0.99637	0.99637	0.99640
91	0.99787	0.99766	0.99710	0.99708	0.99704	0.99725	0.99722	0.99736	0.99727	0.99727	0.99730
92	0.99868	0.99870	0.99814	0.99812	0.99808	0.99829	0.99826	0.99840	0.99831	0.99831	0.99834
93	0.99953	0.99984	0.99941	0.99939	0.99935	0.99956	0.99953	0.99967	0.99958	0.99958	0.99961
94	1.00043	1.00107	0.99960	0.99958	0.99954	0.99975	0.99972	0.99986	0.99977	0.99977	0.99980
95	1.00139	1.00239	1.00068	1.00066	1.00062	1.00083	1.00080	1.00094	1.00085	1.00085	1.00088
96	1.00239	1.00378	1.00195	1.00193	1.00189	1.00210	1.00207	1.00221	1.00212	1.00212	1.00215
97	1.00345	1.00524	1.00330	1.00328	1.00324	1.00345	1.00342	1.00356	1.00347	1.00347	1.00350
98	1.00454	1.00675	1.00471	1.00469	1.00465	1.00486	1.00483	1.00497	1.00488	1.00488	1.00491
99	1.00567	1.00831	1.00618	1.00616	1.00612	1.00633	1.00630	1.00644	1.00635	1.00635	1.00638
100	1.00683	1.00988	1.00767	1.00765	1.00761	1.00782	1.00779	1.00793	1.00784	1.00784	1.00787
101	1.00638	1.00922	1.00810	1.00808	1.00804	1.00825	1.00822	1.00836	1.00827	1.00827	1.00830
102	1.00592	1.00856	1.00742	1.00740	1.00736	1.00757	1.00754	1.00768	1.00759	1.00759	1.00762</

MORTALITY IMPROVEMENT FACTORS (continued)

Applied to: Nondisability Retirees from Reserve Duty -- Officer [Factors only shown through 2037.]

Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
<21	0.98483	0.98486	0.98488	0.98491	0.98484	0.98480	0.98475	0.98470	0.98464	0.98469	0.98470
21	0.98438	0.98443	0.98445	0.98447	0.98450	0.98442	0.98438	0.98431	0.98426	0.98419	0.98425
22	0.98440	0.98445	0.98447	0.98450	0.98442	0.98438	0.98431	0.98426	0.98419	0.98425	0.98427
23	0.98443	0.98448	0.98450	0.98455	0.98447	0.98443	0.98437	0.98431	0.98424	0.98430	0.98432
24	0.98447	0.98452	0.98454	0.98458	0.98451	0.98446	0.98440	0.98435	0.98428	0.98433	0.98436
25	0.98451	0.98456	0.98458	0.98462	0.98455	0.98451	0.98445	0.98439	0.98433	0.98438	0.98440
26	0.98456	0.98460	0.98462	0.98466	0.98459	0.98455	0.98449	0.98444	0.98437	0.98443	0.98444
27	0.98461	0.98465	0.98467	0.98471	0.98464	0.98460	0.98454	0.98448	0.98442	0.98447	0.98449
28	0.98466	0.98470	0.98472	0.98476	0.98469	0.98465	0.98459	0.98454	0.98448	0.98453	0.98455
29	0.98469	0.98474	0.98475	0.98479	0.98472	0.98468	0.98462	0.98457	0.98451	0.98456	0.98458
30	0.98470	0.98474	0.98476	0.98479	0.98473	0.98469	0.98463	0.98458	0.98452	0.98457	0.98459
31	0.98469	0.98473	0.98475	0.98478	0.98472	0.98468	0.98462	0.98457	0.98451	0.98456	0.98457
32	0.98467	0.98471	0.98473	0.98477	0.98470	0.98466	0.98460	0.98455	0.98449	0.98454	0.98455
33	0.98465	0.98469	0.98471	0.98475	0.98468	0.98464	0.98458	0.98453	0.98447	0.98452	0.98454
34	0.98467	0.98471	0.98473	0.98477	0.98470	0.98466	0.98460	0.98455	0.98449	0.98454	0.98456
35	0.98470	0.98474	0.98476	0.98479	0.98473	0.98469	0.98463	0.98458	0.98452	0.98457	0.98458
36	0.98474	0.98478	0.98479	0.98483	0.98476	0.98472	0.98467	0.98462	0.98456	0.98460	0.98462
37	0.98479	0.98483	0.98484	0.98488	0.98481	0.98477	0.98472	0.98467	0.98461	0.98466	0.98467
38	0.98484	0.98487	0.98489	0.98492	0.98486	0.98482	0.98477	0.98472	0.98466	0.98470	0.98472
39	0.98488	0.98492	0.98493	0.98496	0.98490	0.98486	0.98481	0.98476	0.98470	0.98475	0.98477
40	0.98495	0.98499	0.98500	0.98503	0.98497	0.98493	0.98488	0.98483	0.98478	0.98482	0.98484
41	0.98504	0.98507	0.98508	0.98511	0.98505	0.98502	0.98497	0.98492	0.98487	0.98491	0.98493
42	0.98520	0.98523	0.98523	0.98526	0.98520	0.98517	0.98512	0.98508	0.98503	0.98507	0.98508
43	0.98544	0.98546	0.98546	0.98548	0.98543	0.98540	0.98535	0.98532	0.98528	0.98531	0.98532
44	0.98566	0.98567	0.98567	0.98568	0.98563	0.98560	0.98557	0.98554	0.98550	0.98552	0.98553
45	0.98586	0.98586	0.98586	0.98586	0.98582	0.98579	0.98576	0.98573	0.98570	0.98572	0.98573
46	0.98606	0.98606	0.98606	0.98604	0.98601	0.98598	0.98595	0.98593	0.98590	0.98592	0.98592
47	0.98618	0.98618	0.98616	0.98616	0.98612	0.98610	0.98607	0.98605	0.98603	0.98604	0.98604
48	0.98622	0.98621	0.98619	0.98619	0.98615	0.98613	0.98611	0.98608	0.98606	0.98607	0.98607
49	0.98626	0.98625	0.98624	0.98623	0.98620	0.98618	0.98615	0.98613	0.98611	0.98612	0.98612
50	0.98632	0.98630	0.98629	0.98628	0.98625	0.98623	0.98620	0.98618	0.98616	0.98617	0.98617
51	0.98635	0.98634	0.98632	0.98631	0.98628	0.98626	0.98624	0.98622	0.98620	0.98620	0.98620
52	0.98636	0.98635	0.98633	0.98632	0.98629	0.98627	0.98625	0.98623	0.98621	0.98621	0.98621
53	0.98638	0.98633	0.98632	0.98630	0.98628	0.98625	0.98623	0.98621	0.98619	0.98620	0.98620
54	0.98636	0.98632	0.98627	0.98626	0.98623	0.98621	0.98618	0.98616	0.98614	0.98615	0.98615
55	0.98632	0.98629	0.98624	0.98618	0.98615	0.98613	0.98610	0.98608	0.98606	0.98607	0.98607
56	0.98625	0.98623	0.98619	0.98614	0.98610	0.98606	0.98604	0.98601	0.98599	0.98596	0.98597
57	0.98619	0.98618	0.98614	0.98610	0.98606	0.98604	0.98601	0.98599	0.98596	0.98598	0.98598
58	0.98615	0.98614	0.98611	0.98608	0.98600	0.98593	0.98584	0.98581	0.98578	0.98580	0.98580
59	0.98612	0.98612	0.98610	0.98608	0.98600	0.98593	0.98584	0.98581	0.98578	0.98574	0.98575
60	0.98612	0.98613	0.98611	0.98609	0.98602	0.98595	0.98587	0.98578	0.98569	0.98571	0.98571
61	0.98613	0.98614	0.98613	0.98612	0.98605	0.98599	0.98591	0.98582	0.98573	0.98568	0.98569
62	0.98614	0.98616	0.98615	0.98615	0.98608	0.98602	0.98594	0.98586	0.98577	0.98572	0.98566
63	0.98622	0.98624	0.98625	0.98625	0.98619	0.98613	0.98605	0.98597	0.98588	0.98584	0.98578
64	0.98631	0.98634	0.98635	0.98635	0.98630	0.98624	0.98617	0.98609	0.98601	0.98596	0.98590
65	0.98641	0.98645	0.98646	0.98647	0.98640	0.98633	0.98626	0.98619	0.98611	0.98604	0.98604
66	0.98654	0.98658	0.98660	0.98661	0.98656	0.98652	0.98646	0.98638	0.98630	0.98626	0.98620
67	0.98669	0.98673	0.98675	0.98677	0.98673	0.98669	0.98663	0.98656	0.98648	0.98644	0.98638
68	0.98686	0.98690	0.98693	0.98695	0.98691	0.98688	0.98682	0.98676	0.98668	0.98664	0.98658
69	0.98703	0.98708	0.98711	0.98713	0.98710	0.98707	0.98702	0.98696	0.98689	0.98685	0.98679
70	0.98720	0.98726	0.98729	0.98731	0.98729	0.98727	0.98722	0.98717	0.98710	0.98706	0.98700
71	0.98751	0.98743	0.98746	0.98749	0.98748	0.98746	0.98742	0.98737	0.98730	0.98726	0.98720
72	0.98781	0.98774	0.98774	0.98776	0.98776	0.98774	0.98771	0.98766	0.98760	0.98756	0.98750
73	0.98810	0.98804	0.98795	0.98784	0.98784	0.98783	0.98780	0.98775	0.98770	0.98765	0.98759
74	0.98839	0.98834	0.98826	0.98816	0.98802	0.98801	0.98799	0.98795	0.98789	0.98785	0.98779
75	0.98868	0.98864	0.98857	0.98848	0.98834	0.98819	0.98817	0.98814	0.98809	0.98804	0.98798
76	0.98897	0.98894	0.98887	0.98879	0.98867	0.98852	0.98835	0.98832	0.98828	0.98823	0.98817
77	0.98925	0.98922	0.98917	0.98910	0.98898	0.98885	0.98869	0.98850	0.98846	0.98842	0.98835
78	0.98951	0.98950	0.98946	0.98939	0.98929	0.98916	0.98901	0.98883	0.98863	0.98859	0.98853
79	0.98977	0.98977	0.98974	0.98968	0.98959	0.98947	0.98933	0.98916	0.98896	0.98876	0.98870
80	0.99001	0.99003	0.99001	0.98997	0.98989	0.98978	0.98964	0.98947	0.98928	0.98908	0.98886
81	0.99041	0.99045	0.99045	0.99041	0.99034	0.99024	0.99011	0.98995	0.98977	0.98957	0.98935
82	0.99081	0.99086	0.99087	0.99086	0.99080	0.99071	0.99058	0.99043	0.99025	0.99005	0.98983
83	0.99121	0.99127	0.99130	0.99129	0.99125	0.99117	0.99105	0.99091	0.99073	0.99054	0.99031
84	0.99160	0.99167	0.99171	0.99172	0.99169	0.99162	0.99151	0.99138	0.99121	0.99101	0.99079
85	0.99199	0.99207	0.99212	0.99214	0.99206	0.99196	0.99186	0.99173	0.99167	0.99148	0.99126
86	0.99231	0.99245	0.99251	0.99254	0.99253	0.99249	0.99240	0.99228	0.99212	0.99193	0.99171
87	0.99262	0.99276	0.99290	0.99294	0.99294	0.99290	0.99283	0.99271	0.99256	0.99237	0.99216
88	0.99294	0.99306	0.99320	0.99333	0.99333	0.99331	0.99324	0.99313	0.99298	0.99280	0.99259
89	0.99326	0.99337	0.99349	0.99362	0.99373	0.99371	0.99365	0.99354	0.99340	0.99323	0.99301
90	0.99358	0.99368	0.99379	0.99391	0.99401	0.99410	0.99405	0.99395	0.99381	0.99364	0.99343
91	0.99392	0.99400	0.99410	0.99421	0.99430	0.99439	0.99445	0.99436	0.99422	0.99406	0.99385
92	0.99427	0.99433	0.99442	0.99451	0.99460	0.99468	0.99474	0.99477	0.99464	0.99448	0.99427
93	0.99463	0.99468	0.99474	0.99483	0.99490	0.99497	0.99503	0.99506	0.99505	0.99490	0.99469
94	0.99501	0.99504	0.99509	0.99516	0.99522	0.99528	0.99533	0.99535	0.99535	0.99533	0.99512
95	0.99539	0.99540	0.99544	0.99549	0.99554	0.99559	0.99563	0.99565	0.99565	0.99562	0.99555
96	0.99565	0.99565	0.99566	0.99571	0.99574	0.99578	0.99581	0.99583	0.99581	0.99579	0.99572
97	0.99592	0.99590	0.99590	0.99593	0.99594	0.99597	0.99599	0.99600	0.99599	0.99597	0.99590
98	0.99621	0.99616	0.99614	0.99615	0.99616	0.99617	0.99618	0.99619	0.99617	0.99614	0.99607
99	0.99651	0.99643	0.99639	0.99639	0.99638	0.99638	0.99638	0.99638	0.99635	0.99632	0.99625
100	0.99684	0.99672	0.99665	0.99662	0.99659	0.99659	0.99658	0.99656	0.99653	0.99650	0.99643
101	0.99721	0.99703	0.99692	0.99687	0.99682	0.99680	0.99678	0.99675	0.99672	0.99669	0.99661
102	0.99760	0.99737	0.99721	0.99712	0.99705	0.99701	0.99698	0.99695	0.99690	0.99	

MORTALITY IMPROVEMENT FACTORS

Applied to: Nondisability Retirees from Reserve Duty -- Enlisted [Factors only shown through 2037.]

Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<21	0.98683	0.98886	0.98581	0.98570	0.98553	0.98552	0.98536	0.98538	0.98540	0.98537	0.98535
21	0.98683	0.98886	0.98508	0.98497	0.98480	0.98484	0.98469	0.98479	0.98486	0.98488	0.98490
22	0.98683	0.98886	0.98512	0.98500	0.98483	0.98487	0.98473	0.98482	0.98489	0.98490	0.98492
23	0.98683	0.98886	0.98516	0.98505	0.98488	0.98492	0.98477	0.98485	0.98492	0.98494	0.98495
24	0.98683	0.98886	0.98522	0.98511	0.98494	0.98497	0.98482	0.98490	0.98496	0.98497	0.98498
25	0.98683	0.98886	0.98529	0.98518	0.98501	0.98504	0.98489	0.98496	0.98502	0.98502	0.98503
26	0.98683	0.98886	0.98536	0.98525	0.98508	0.98510	0.98495	0.98502	0.98507	0.98507	0.98507
27	0.98683	0.98886	0.98544	0.98532	0.98515	0.98518	0.98502	0.98508	0.98513	0.98512	0.98512
28	0.98683	0.98886	0.98579	0.98568	0.98551	0.98551	0.98534	0.98537	0.98539	0.98536	0.98534
29	0.98683	0.98886	0.98614	0.98603	0.98586	0.98583	0.98566	0.98566	0.98565	0.98560	0.98556
30	0.98683	0.98886	0.98646	0.98635	0.98618	0.98613	0.98595	0.98592	0.98588	0.98582	0.98576
31	0.98683	0.98886	0.98676	0.98664	0.98647	0.98640	0.98622	0.98616	0.98610	0.98601	0.98594
32	0.98683	0.98886	0.98703	0.98692	0.98675	0.98666	0.98647	0.98639	0.98630	0.98620	0.98612
33	0.98683	0.98886	0.98703	0.98692	0.98674	0.98666	0.98647	0.98639	0.98630	0.98620	0.98611
34	0.98683	0.98886	0.98704	0.98693	0.98675	0.98667	0.98648	0.98640	0.98631	0.98620	0.98612
35	0.98683	0.98886	0.98704	0.98692	0.98675	0.98667	0.98648	0.98639	0.98631	0.98620	0.98612
36	0.98683	0.98886	0.98707	0.98695	0.98678	0.98669	0.98650	0.98642	0.98633	0.98622	0.98614
37	0.98683	0.98886	0.98715	0.98703	0.98686	0.98677	0.98658	0.98648	0.98638	0.98628	0.98619
38	0.98683	0.98886	0.98728	0.98717	0.98700	0.98690	0.98670	0.98660	0.98649	0.98637	0.98627
39	0.98683	0.98886	0.98740	0.98729	0.98712	0.98701	0.98681	0.98669	0.98657	0.98645	0.98634
40	0.98683	0.98886	0.98754	0.98743	0.98726	0.98713	0.98693	0.98680	0.98667	0.98654	0.98643
41	0.98683	0.98886	0.98759	0.98748	0.98731	0.98718	0.98698	0.98685	0.98671	0.98657	0.98646
42	0.98683	0.98886	0.98764	0.98753	0.98736	0.98723	0.98702	0.98689	0.98675	0.98661	0.98649
43	0.98683	0.98886	0.98768	0.98757	0.98740	0.98726	0.98706	0.98692	0.98678	0.98663	0.98652
44	0.98683	0.98886	0.98778	0.98766	0.98749	0.98735	0.98714	0.98699	0.98684	0.98670	0.98657
45	0.98683	0.98886	0.98788	0.98777	0.98760	0.98745	0.98724	0.98708	0.98692	0.98677	0.98664
46	0.98683	0.98886	0.98804	0.98793	0.98776	0.98760	0.98739	0.98721	0.98704	0.98687	0.98674
47	0.98683	0.98886	0.98812	0.98801	0.98784	0.98768	0.98745	0.98727	0.98709	0.98692	0.98678
48	0.98683	0.98886	0.98812	0.98801	0.98784	0.98768	0.98745	0.98727	0.98709	0.98692	0.98678
49	0.98683	0.98886	0.98804	0.98794	0.98777	0.98762	0.98741	0.98723	0.98704	0.98687	0.98674
50	0.98683	0.98886	0.98793	0.98783	0.98767	0.98752	0.98732	0.98715	0.98698	0.98680	0.98667
51	0.98683	0.98886	0.98782	0.98771	0.98755	0.98742	0.98722	0.98707	0.98691	0.98675	0.98660
52	0.98683	0.98886	0.98773	0.98763	0.98748	0.98735	0.98716	0.98702	0.98687	0.98671	0.98658
53	0.98683	0.98886	0.98763	0.98752	0.98737	0.98724	0.98707	0.98694	0.98681	0.98667	0.98654
54	0.98683	0.98886	0.98748	0.98738	0.98723	0.98713	0.98695	0.98684	0.98672	0.98659	0.98648
55	0.98683	0.98886	0.98733	0.98723	0.98708	0.98700	0.98682	0.98673	0.98663	0.98652	0.98641
56	0.98683	0.98886	0.98718	0.98708	0.98693	0.98686	0.98669	0.98662	0.98654	0.98644	0.98635
57	0.98683	0.98886	0.98700	0.98690	0.98674	0.98667	0.98654	0.98649	0.98643	0.98634	0.98627
58	0.98683	0.98886	0.98686	0.98677	0.98663	0.98658	0.98643	0.98640	0.98635	0.98628	0.98621
59	0.98683	0.98886	0.98678	0.98669	0.98655	0.98651	0.98637	0.98634	0.98631	0.98624	0.98619
60	0.98683	0.98886	0.98673	0.98664	0.98650	0.98648	0.98633	0.98632	0.98629	0.98624	0.98619
61	0.98697	0.98911	0.98683	0.98673	0.98658	0.98654	0.98638	0.98635	0.98632	0.98625	0.98621
62	0.98712	0.98936	0.98707	0.98698	0.98684	0.98682	0.98665	0.98661	0.98656	0.98649	0.98644
63	0.98728	0.98961	0.98731	0.98720	0.98705	0.98703	0.98685	0.98681	0.98676	0.98669	0.98663
64	0.98745	0.98987	0.98756	0.98745	0.98730	0.98728	0.98710	0.98706	0.98701	0.98694	0.98688
65	0.98766	0.99014	0.98784	0.98773	0.98758	0.98756	0.98737	0.98733	0.98728	0.98721	0.98715
66	0.98789	0.99043	0.98814	0.98799	0.98784	0.98782	0.98763	0.98759	0.98754	0.98747	0.98741
67	0.98817	0.99075	0.98848	0.98832	0.98817	0.98815	0.98796	0.98792	0.98787	0.98780	0.98774
68	0.98852	0.99112	0.98889	0.98873	0.98858	0.98856	0.98837	0.98833	0.98828	0.98821	0.98815
69	0.98896	0.99156	0.98937	0.98921	0.98906	0.98904	0.98885	0.98881	0.98876	0.98869	0.98863
70	0.98951	0.99208	0.98995	0.98979	0.98964	0.98962	0.98943	0.98939	0.98934	0.98927	0.98921
71	0.99017	0.99269	0.99064	0.99048	0.99033	0.99031	0.99012	0.99008	0.99003	0.98996	0.98990
72	0.99091	0.99337	0.99140	0.99124	0.99109	0.99107	0.99088	0.99084	0.99079	0.99072	0.99066
73	0.99170	0.99408	0.99222	0.99206	0.99191	0.99189	0.99170	0.99166	0.99161	0.99154	0.99148
74	0.99250	0.99479	0.99307	0.99291	0.99276	0.99274	0.99255	0.99251	0.99246	0.99239	0.99233
75	0.99329	0.99547	0.99389	0.99373	0.99358	0.99356	0.99337	0.99333	0.99328	0.99321	0.99315
76	0.99402	0.99609	0.99465	0.99449	0.99434	0.99432	0.99413	0.99409	0.99404	0.99397	0.99391
77	0.99468	0.99662	0.99532	0.99516	0.99501	0.99500	0.99481	0.99477	0.99472	0.99465	0.99459
78	0.99523	0.99706	0.99588	0.99572	0.99557	0.99555	0.99536	0.99532	0.99527	0.99520	0.99514
79	0.99566	0.99736	0.99630	0.99614	0.99599	0.99597	0.99578	0.99574	0.99569	0.99562	0.99556
80	0.99593	0.99751	0.99656	0.99640	0.99625	0.99623	0.99604	0.99600	0.99595	0.99588	0.99582
81	0.99604	0.99751	0.99666	0.99650	0.99635	0.99633	0.99614	0.99610	0.99605	0.99598	0.99592
82	0.99602	0.99737	0.99661	0.99645	0.99630	0.99628	0.99609	0.99605	0.99600	0.99593	0.99587
83	0.99592	0.99717	0.99645	0.99629	0.99614	0.99612	0.99593	0.99589	0.99584	0.99577	0.99571
84	0.99580	0.99695	0.99622	0.99606	0.99591	0.99589	0.99570	0.99566	0.99561	0.99554	0.99548
85	0.99571	0.99675	0.99599	0.99583	0.99568	0.99566	0.99547	0.99543	0.99538	0.99531	0.99525
86	0.99569	0.99663	0.99579	0.99563	0.99548	0.99546	0.99527	0.99523	0.99518	0.99511	0.99505
87	0.99576	0.99659	0.99566	0.99550	0.99535	0.99533	0.99514	0.99510	0.99505	0.99498	0.99492
88	0.99592	0.99665	0.99559	0.99543	0.99528	0.99526	0.99507	0.99503	0.99498	0.99491	0.99485
89	0.99615	0.99681	0.99560	0.99544	0.99529	0.99527	0.99508	0.99504	0.99499	0.99492	0.99486
90	0.99648	0.99706	0.99575	0.99559	0.99544	0.99542	0.99523	0.99519	0.99514	0.99507	0.99501
91	0.99688	0.99743	0.99590	0.99574	0.99559	0.99557	0.99538	0.99534	0.99529	0.99522	0.99516
92	0.99736	0.99790	0.99622	0.99606	0.99591	0.99589	0.99570	0.99566	0.99561	0.99554	0.99548
93	0.99791	0.99845	0.99664	0.99648	0.99633	0.99631	0.99612	0.99608	0.99603	0.99596	0.99590
94	0.99851	0.99908	0.99716	0.99700	0.99685	0.99683	0.99664	0.99660	0.99655	0.99648	0.99642
95	0.99915	0.99977	0.99776	0.99760	0.99745	0.99743	0.99724	0.99720	0.99715	0.99708	0.99702
96	0.99983	1.00051	0.99842	0.99826	0.99811	0.99809	0.99790	0.99786	0.99781	0.99774	0.99768
97	1.00054	1.00130	0.99913	0.99897	0.99882	0.99880	0.99861	0.99857	0.99852	0.99845	0.99839
98	1.00126	1.00211	0.99987	0.99971	0.99956	0.99954	0.99935	0.99931	0.99926	0.99919	0.99913
99	1.00200	1.00294	1.00063	0.99998	0.99982	0.99980	0.99961	0.99957	0.99952	0.99945	0.99939
100	1.00274	1.00379	1.00140	1.00075	1.00059	1.00057	0.99992	0.99987	0.99982	0.99975	0.99969
101	1.00256	1.00353	1.00161	1.00096	1.00080	1.00078	0.99992	0.99987	0.99982	0.99975	0.99969
102	1.00237	1.00328	1.00126	1.00061	1.00045	1.00043	0.99957	0.99952	0.99947	0.999	

Technical Reference to the FY 2021 Valuation of the Military Retirement System

MORTALITY IMPROVEMENT FACTORS (continued)

Applied to: Nondisability Retirees from Reserve Duty -- Enlisted [Factors only shown through 2037.]
 Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
< 21	0.98547	0.98541	0.98534	0.98529	0.98518	0.98511	0.98503	0.98495	0.98485	0.98481	0.98476
21	0.98507	0.98502	0.98495	0.98492	0.98480	0.98472	0.98465	0.98456	0.98444	0.98440	0.98434
22	0.98509	0.98504	0.98497	0.98493	0.98482	0.98474	0.98467	0.98458	0.98446	0.98442	0.98436
23	0.98511	0.98506	0.98500	0.98496	0.98484	0.98477	0.98469	0.98460	0.98448	0.98444	0.98439
24	0.98515	0.98509	0.98503	0.98499	0.98488	0.98480	0.98472	0.98464	0.98452	0.98448	0.98442
25	0.98519	0.98513	0.98507	0.98503	0.98491	0.98484	0.98476	0.98468	0.98456	0.98452	0.98447
26	0.98522	0.98517	0.98510	0.98506	0.98495	0.98488	0.98480	0.98471	0.98460	0.98456	0.98451
27	0.98527	0.98521	0.98514	0.98510	0.98499	0.98492	0.98484	0.98476	0.98464	0.98461	0.98455
28	0.98546	0.98540	0.98533	0.98529	0.98518	0.98511	0.98503	0.98495	0.98485	0.98481	0.98476
29	0.98565	0.98559	0.98552	0.98547	0.98537	0.98529	0.98522	0.98514	0.98505	0.98501	0.98497
30	0.98583	0.98576	0.98569	0.98564	0.98554	0.98546	0.98539	0.98532	0.98523	0.98519	0.98516
31	0.98599	0.98592	0.98584	0.98579	0.98569	0.98562	0.98555	0.98548	0.98539	0.98536	0.98533
32	0.98614	0.98607	0.98599	0.98593	0.98584	0.98576	0.98570	0.98563	0.98555	0.98552	0.98549
33	0.98613	0.98606	0.98599	0.98593	0.98583	0.98576	0.98569	0.98563	0.98555	0.98552	0.98549
34	0.98614	0.98607	0.98599	0.98593	0.98584	0.98577	0.98570	0.98563	0.98555	0.98552	0.98549
35	0.98614	0.98607	0.98599	0.98593	0.98584	0.98577	0.98570	0.98563	0.98555	0.98552	0.98549
36	0.98615	0.98608	0.98601	0.98595	0.98585	0.98578	0.98571	0.98565	0.98557	0.98554	0.98551
37	0.98620	0.98613	0.98605	0.98599	0.98590	0.98582	0.98576	0.98569	0.98561	0.98559	0.98556
38	0.98627	0.98620	0.98612	0.98606	0.98597	0.98590	0.98583	0.98576	0.98569	0.98566	0.98564
39	0.98634	0.98626	0.98618	0.98612	0.98603	0.98596	0.98589	0.98583	0.98576	0.98573	0.98570
40	0.98641	0.98633	0.98626	0.98619	0.98610	0.98603	0.98596	0.98590	0.98583	0.98581	0.98578
41	0.98644	0.98636	0.98628	0.98622	0.98613	0.98606	0.98599	0.98593	0.98586	0.98583	0.98581
42	0.98646	0.98639	0.98631	0.98624	0.98615	0.98608	0.98602	0.98595	0.98589	0.98586	0.98584
43	0.98648	0.98641	0.98633	0.98626	0.98617	0.98610	0.98604	0.98597	0.98591	0.98588	0.98586
44	0.98654	0.98646	0.98638	0.98631	0.98622	0.98615	0.98609	0.98602	0.98596	0.98594	0.98592
45	0.98659	0.98651	0.98643	0.98636	0.98628	0.98620	0.98614	0.98608	0.98602	0.98599	0.98597
46	0.98668	0.98660	0.98652	0.98644	0.98636	0.98629	0.98622	0.98616	0.98611	0.98608	0.98607
47	0.98672	0.98664	0.98655	0.98648	0.98640	0.98633	0.98626	0.98621	0.98615	0.98613	0.98611
48	0.98672	0.98664	0.98655	0.98648	0.98640	0.98633	0.98626	0.98621	0.98615	0.98613	0.98611
49	0.98668	0.98660	0.98652	0.98644	0.98636	0.98629	0.98622	0.98617	0.98611	0.98608	0.98607
50	0.98662	0.98654	0.98646	0.98639	0.98630	0.98623	0.98617	0.98611	0.98605	0.98602	0.98600
51	0.98656	0.98648	0.98640	0.98633	0.98624	0.98617	0.98611	0.98604	0.98599	0.98596	0.98594
52	0.98651	0.98643	0.98635	0.98628	0.98620	0.98613	0.98606	0.98600	0.98594	0.98591	0.98589
53	0.98649	0.98638	0.98630	0.98623	0.98614	0.98607	0.98601	0.98594	0.98588	0.98585	0.98583
54	0.98644	0.98634	0.98622	0.98616	0.98607	0.98600	0.98593	0.98587	0.98580	0.98577	0.98575
55	0.98640	0.98630	0.98619	0.98608	0.98599	0.98592	0.98585	0.98578	0.98571	0.98568	0.98566
56	0.98635	0.98626	0.98615	0.98605	0.98595	0.98584	0.98577	0.98570	0.98563	0.98560	0.98557
57	0.98629	0.98620	0.98610	0.98601	0.98587	0.98574	0.98567	0.98561	0.98553	0.98550	0.98547
58	0.98625	0.98617	0.98608	0.98599	0.98585	0.98573	0.98566	0.98559	0.98553	0.98548	0.98549
59	0.98624	0.98617	0.98608	0.98600	0.98586	0.98574	0.98567	0.98561	0.98554	0.98551	0.98548
60	0.98625	0.98618	0.98610	0.98602	0.98589	0.98578	0.98566	0.98558	0.98553	0.98548	0.98549
61	0.98627	0.98621	0.98613	0.98606	0.98593	0.98582	0.98570	0.98563	0.98558	0.98553	0.98550
62	0.98630	0.98625	0.98617	0.98611	0.98599	0.98588	0.98577	0.98564	0.98550	0.98540	0.98529
63	0.98640	0.98635	0.98628	0.98622	0.98611	0.98600	0.98589	0.98577	0.98563	0.98553	0.98543
64	0.98650	0.98646	0.98639	0.98634	0.98623	0.98613	0.98602	0.98590	0.98576	0.98567	0.98556
65	0.98661	0.98657	0.98651	0.98646	0.98635	0.98626	0.98616	0.98604	0.98590	0.98581	0.98571
66	0.98673	0.98670	0.98664	0.98659	0.98649	0.98640	0.98630	0.98619	0.98606	0.98596	0.98586
67	0.98686	0.98683	0.98678	0.98673	0.98664	0.98655	0.98646	0.98635	0.98622	0.98613	0.98603
68	0.98699	0.98697	0.98693	0.98689	0.98680	0.98671	0.98662	0.98652	0.98639	0.98630	0.98620
69	0.98714	0.98712	0.98709	0.98705	0.98696	0.98689	0.98680	0.98670	0.98657	0.98649	0.98639
70	0.98731	0.98729	0.98726	0.98722	0.98714	0.98707	0.98699	0.98689	0.98677	0.98669	0.98659
71	0.98762	0.98746	0.98743	0.98740	0.98733	0.98726	0.98718	0.98709	0.98697	0.98689	0.98680
72	0.98794	0.98779	0.98761	0.98759	0.98752	0.98746	0.98738	0.98729	0.98718	0.98710	0.98701
73	0.98826	0.98812	0.98795	0.98778	0.98772	0.98766	0.98759	0.98750	0.98740	0.98732	0.98723
74	0.98859	0.98845	0.98829	0.98812	0.98791	0.98786	0.98779	0.98771	0.98761	0.98754	0.98745
75	0.98892	0.98878	0.98863	0.98847	0.98826	0.98806	0.98792	0.98783	0.98775	0.98767	0.98757
76	0.98924	0.98910	0.98895	0.98880	0.98861	0.98841	0.98819	0.98812	0.98803	0.98796	0.98787
77	0.98955	0.98942	0.98927	0.98912	0.98894	0.98874	0.98853	0.98830	0.98822	0.98815	0.98807
78	0.98988	0.98973	0.98959	0.98944	0.98926	0.98907	0.98887	0.98864	0.98840	0.98833	0.98825
79	0.99020	0.99005	0.98989	0.98974	0.98957	0.98939	0.98919	0.98897	0.98873	0.98850	0.98842
80	0.99054	0.99036	0.99020	0.99004	0.98987	0.98969	0.98950	0.98929	0.98905	0.98882	0.98858
81	0.99105	0.99085	0.99067	0.99051	0.99033	0.99015	0.98996	0.98975	0.98953	0.98930	0.98906
82	0.99158	0.99135	0.99115	0.99097	0.99079	0.99061	0.99042	0.99022	0.98999	0.98977	0.98953
83	0.99210	0.99186	0.99164	0.99144	0.99125	0.99107	0.99088	0.99068	0.99045	0.99023	0.98999
84	0.99262	0.99237	0.99213	0.99192	0.99171	0.99152	0.99133	0.99113	0.99091	0.99069	0.99045
85	0.99312	0.99287	0.99262	0.99240	0.99218	0.99198	0.99178	0.99157	0.99135	0.99113	0.99090
86	0.99353	0.99335	0.99311	0.99288	0.99264	0.99243	0.99222	0.99202	0.99179	0.99157	0.99134
87	0.99391	0.99374	0.99358	0.99334	0.99310	0.99288	0.99266	0.99245	0.99222	0.99200	0.99177
88	0.99426	0.99410	0.99394	0.99380	0.99355	0.99332	0.99310	0.99287	0.99264	0.99242	0.99218
89	0.99456	0.99443	0.99428	0.99414	0.99399	0.99375	0.99352	0.99329	0.99305	0.99283	0.99259
90	0.99483	0.99473	0.99460	0.99446	0.99431	0.99418	0.99394	0.99371	0.99346	0.99324	0.99300
91	0.99505	0.99499	0.99489	0.99477	0.99462	0.99449	0.99436	0.99412	0.99387	0.99364	0.99340
92	0.99524	0.99523	0.99516	0.99507	0.99493	0.99479	0.99467	0.99454	0.99429	0.99405	0.99381
93	0.99543	0.99545	0.99542	0.99535	0.99523	0.99510	0.99497	0.99484	0.99471	0.99447	0.99423
94	0.99562	0.99566	0.99566	0.99562	0.99552	0.99541	0.99528	0.99515	0.99501	0.99490	0.99465
95	0.99583	0.99587	0.99589	0.99588	0.99580	0.99571	0.99559	0.99546	0.99532	0.99521	0.99509
96	0.99592	0.99597	0.99599	0.99600	0.99594	0.99587	0.99577	0.99564	0.99549	0.99538	0.99526
97	0.99604	0.99608	0.99610	0.99612	0.99608	0.99602	0.99594	0.99582	0.99567	0.99556	0.99544
98	0.99618	0.99620	0.99622	0.99624	0.99621	0.99617	0.99609	0.99599	0.99585	0.99574	0.99561
99	0.99634	0.99635	0.99635	0.99637	0.99634	0.99631	0.99625	0.99615	0.99602	0.99591	0.99579
100	0.99653	0.99651	0.99650	0.99651	0.99648	0.99645	0.99639	0.99631	0.99618	0.99608	0.99595
101	0.99672	0.99667	0.99664	0.99665	0.99661	0.99658	0.99653	0.99645	0.99633	0.99623	0.99610
102	0.99693	0.99685	0.99679	0.99678	0.99673	0.99670	0.99665	0.99657	0.99646	0.99636	0.99624
103											

MORTALITY IMPROVEMENT FACTORS

Applied to: Permanent Disability Retirees -- Officer [Factors only shown through 2037.]

Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
< 21	0.96415	0.96462	0.96309	0.96415	0.96573	0.96782	0.97015	0.97256	0.97483	0.97688	0.97856
21	0.96415	0.96462	0.96315	0.96420	0.96578	0.96787	0.97020	0.97260	0.97487	0.97692	0.97859
22	0.96415	0.96462	0.96323	0.96428	0.96586	0.96795	0.97027	0.97266	0.97493	0.97698	0.97865
23	0.96415	0.96462	0.96333	0.96439	0.96597	0.96805	0.97036	0.97275	0.97501	0.97705	0.97873
24	0.96415	0.96462	0.96345	0.96450	0.96608	0.96815	0.97046	0.97284	0.97510	0.97714	0.97881
25	0.96415	0.96462	0.96356	0.96462	0.96620	0.96826	0.97056	0.97293	0.97519	0.97722	0.97889
26	0.96415	0.96462	0.96367	0.96472	0.96630	0.96836	0.97065	0.97301	0.97527	0.97730	0.97896
27	0.96415	0.96462	0.96376	0.96482	0.96640	0.96845	0.97073	0.97309	0.97534	0.97737	0.97903
28	0.96415	0.96462	0.96384	0.96490	0.96648	0.96852	0.97080	0.97315	0.97540	0.97743	0.97909
29	0.96415	0.96462	0.96390	0.96496	0.96654	0.96858	0.97085	0.97320	0.97545	0.97747	0.97913
30	0.96415	0.96462	0.96394	0.96500	0.96658	0.96862	0.97088	0.97323	0.97548	0.97750	0.97916
31	0.96415	0.96462	0.96396	0.96502	0.96660	0.96863	0.97090	0.97324	0.97549	0.97751	0.97917
32	0.96415	0.96462	0.96396	0.96502	0.96660	0.96863	0.97090	0.97325	0.97549	0.97752	0.97917
33	0.96415	0.96462	0.96396	0.96502	0.96660	0.96863	0.97090	0.97325	0.97549	0.97751	0.97917
34	0.96415	0.96462	0.96397	0.96502	0.96661	0.96864	0.97091	0.97325	0.97549	0.97752	0.97918
35	0.96415	0.96462	0.96397	0.96502	0.96661	0.96864	0.97091	0.97325	0.97549	0.97752	0.97918
36	0.96415	0.96462	0.96398	0.96504	0.96662	0.96866	0.97092	0.97326	0.97551	0.97753	0.97919
37	0.96415	0.96462	0.96403	0.96509	0.96667	0.96870	0.97106	0.97340	0.97564	0.97786	0.97992
38	0.96415	0.96462	0.96411	0.96517	0.96675	0.96877	0.97103	0.97336	0.97560	0.97782	0.97988
39	0.96415	0.96462	0.96418	0.96524	0.96682	0.96884	0.97109	0.97342	0.97566	0.97787	0.97993
40	0.96415	0.96462	0.96426	0.96532	0.96690	0.96891	0.97116	0.97348	0.97572	0.97793	0.97998
41	0.96415	0.96462	0.96429	0.96535	0.96693	0.96894	0.97119	0.97351	0.97574	0.97795	0.97994
42	0.96415	0.96462	0.96432	0.96538	0.96696	0.96897	0.97121	0.97353	0.97576	0.97797	0.97943
43	0.96415	0.96462	0.96434	0.96540	0.96698	0.96899	0.97123	0.97355	0.97578	0.97799	0.97944
44	0.96415	0.96462	0.96440	0.96546	0.96704	0.96904	0.97128	0.97359	0.97582	0.97803	0.97948
45	0.96415	0.96462	0.96446	0.96552	0.96710	0.96910	0.97133	0.97364	0.97587	0.97808	0.97952
46	0.96415	0.96462	0.96455	0.96561	0.96720	0.96919	0.97141	0.97372	0.97594	0.97815	0.97959
47	0.96415	0.96462	0.96460	0.96566	0.96725	0.96924	0.97145	0.97375	0.97597	0.97818	0.97962
48	0.96415	0.96462	0.96460	0.96566	0.96725	0.96924	0.97146	0.97375	0.97597	0.97818	0.97962
49	0.96415	0.96462	0.96456	0.96562	0.96721	0.96921	0.97143	0.97373	0.97594	0.97815	0.97959
50	0.96415	0.96462	0.96449	0.96555	0.96715	0.96916	0.97139	0.97369	0.97591	0.97812	0.97954
51	0.96415	0.96462	0.96442	0.96549	0.96709	0.96910	0.97134	0.97366	0.97588	0.97807	0.97950
52	0.96564	0.96624	0.96516	0.96617	0.96768	0.96969	0.97171	0.97392	0.97604	0.97825	0.97952
53	0.96712	0.96785	0.96669	0.96768	0.96925	0.97106	0.97207	0.97417	0.97618	0.97801	0.97952
54	0.96861	0.96946	0.96819	0.96926	0.97080	0.97251	0.97421	0.97640	0.97831	0.98006	0.98151
55	0.97008	0.97106	0.96967	0.97073	0.97245	0.97416	0.97587	0.97806	0.98006	0.98181	0.98306
56	0.97154	0.97263	0.97113	0.97284	0.97455	0.97626	0.97797	0.98016	0.98216	0.98416	0.98541
57	0.97297	0.97417	0.97256	0.97427	0.97598	0.97769	0.97940	0.98160	0.98380	0.98600	0.98725
58	0.97437	0.97567	0.97397	0.97568	0.97739	0.97910	0.98081	0.98301	0.98521	0.98741	0.98916
59	0.97572	0.97711	0.97536	0.97707	0.97878	0.98049	0.98220	0.98440	0.98660	0.98880	0.99005
60	0.97701	0.97847	0.97671	0.97842	0.98013	0.98184	0.98355	0.98575	0.98795	0.99015	0.99190
61	0.97822	0.97974	0.97798	0.97969	0.98140	0.98311	0.98482	0.98702	0.98922	0.99142	0.99317
62	0.97934	0.98092	0.97919	0.98088	0.98257	0.98426	0.98595	0.98815	0.99035	0.99255	0.99430
63	0.98038	0.98201	0.98030	0.98199	0.98368	0.98537	0.98706	0.98926	0.99146	0.99366	0.99541
64	0.98135	0.98299	0.98131	0.98300	0.98469	0.98638	0.98807	0.99027	0.99247	0.99467	0.99642
65	0.98223	0.98389	0.98225	0.98394	0.98563	0.98732	0.98901	0.99121	0.99341	0.99561	0.99736
66	0.98304	0.98469	0.98310	0.98479	0.98648	0.98817	0.98986	0.99206	0.99426	0.99646	0.99821
67	0.98378	0.98540	0.98387	0.98556	0.98725	0.98894	0.99063	0.99283	0.99503	0.99723	0.99898
68	0.98447	0.98605	0.98458	0.98627	0.98796	0.98965	0.99134	0.99354	0.99574	0.99794	0.99969
69	0.98514	0.98666	0.98525	0.98694	0.98863	0.99032	0.99201	0.99421	0.99641	0.99861	0.99986
70	0.98579	0.98723	0.98590	0.98759	0.98928	0.99097	0.99266	0.99486	0.99706	0.99926	0.99981
71	0.98645	0.98779	0.98653	0.98822	0.98991	0.99160	0.99329	0.99549	0.99769	0.99989	0.99994
72	0.98713	0.98835	0.98716	0.98885	0.99054	0.99223	0.99392	0.99612	0.99832	0.99982	0.99987
73	0.98784	0.98892	0.98780	0.98949	0.99118	0.99287	0.99456	0.99676	0.99896	0.99996	0.99996
74	0.98857	0.98951	0.98846	0.98984	0.99122	0.99260	0.99398	0.99618	0.99838	0.99988	0.99993
75	0.98935	0.99013	0.98914	0.99052	0.99190	0.99328	0.99466	0.99686	0.99906	0.99996	0.99996
76	0.99016	0.99078	0.98984	0.99122	0.99260	0.99398	0.99536	0.99756	0.99976	0.99996	0.99996
77	0.99101	0.99149	0.99057	0.99119	0.99257	0.99395	0.99533	0.99753	0.99973	0.99993	0.99993
78	0.99190	0.99224	0.99134	0.99196	0.99334	0.99472	0.99610	0.99830	0.99990	0.99990	0.99990
79	0.99281	0.99303	0.99213	0.99275	0.99413	0.99551	0.99689	0.99909	0.99999	0.99999	0.99999
80	0.99375	0.99388	0.99296	0.99358	0.99496	0.99634	0.99772	0.99992	0.99992	0.99992	0.99992
81	0.99470	0.99477	0.99383	0.99445	0.99583	0.99721	0.99859	0.99979	0.99999	0.99999	0.99999
82	0.99566	0.99571	0.99474	0.99536	0.99674	0.99812	0.99950	0.99990	0.99990	0.99990	0.99990
83	0.99661	0.99667	0.99567	0.99629	0.99767	0.99905	0.99943	0.99993	0.99993	0.99993	0.99993
84	0.99755	0.99764	0.99662	0.99724	0.99862	0.99999	0.99999	0.99999	0.99999	0.99999	0.99999
85	0.99847	0.99861	0.99756	0.99818	0.99956	0.99994	0.99994	0.99994	0.99994	0.99994	0.99994
86	0.99935	0.99955	0.99847	0.99909	0.99947	0.99985	0.99985	0.99985	0.99985	0.99985	0.99985
87	1.00018	1.00046	0.99935	0.99997	0.99935	0.99973	0.99911	0.99949	0.99987	0.99987	0.99987
88	1.00097	1.00134	1.00019	0.99980	0.99844	0.99708	0.99572	0.99436	0.99299	0.99162	0.99025
89	1.00172	1.00219	1.00098	1.00018	0.99882	0.99746	0.99610	0.99474	0.99338	0.99201	0.99064
90	1.00243	1.00299	1.00173	1.00093	0.99957	0.99821	0.99685	0.99549	0.99413	0.99276	0.99139
91	1.00309	1.00374	1.00244	1.00164	1.00028	0.99892	0.99756	0.99620	0.99484	0.99348	0.99211
92	1.00371	1.00446	1.00310	1.00231	1.00095	0.99959	0.99823	0.99687	0.99551	0.99415	0.99278
93	1.00430	1.00515	1.00375	1.00296	1.00160	0.99924	0.99788	0.99652	0.99516	0.99380	0.99243
94	1.00487	1.00582	1.00438	1.00359	1.00223	0.99987	0.99851	0.99715	0.99579	0.99443	0.99306
95	1.00543	1.00648	1.00501	1.00422	1.00286	0.99950	0.99814	0.99678	0.99542	0.99406	0.99269
96	1.00600	1.00715	1.00565	1.00486	1.00350	0.99913	0.99777	0.99641	0.99505	0.99369	0.99232
97	1.00657	1.00784	1.00629	1.00550	1.00414	0.99976	0.99840	0.99704	0.99568	0.99432	0.99295
98	1.00716	1.00854	1.00695	1.00616	1.00480	0.99939	0.99803	0.99667	0.99531	0.99395	0.99258
99	1.00776	1.00925	1.00761	1.00682	1.00546	0.99902	0.99766	0.99630	0.99494	0.99358	0.99221
100	1.00838	1.00998	1.00829	1.00750	1.00614	0.99865	0.99729	0.99593	0.99457	0.99321	0.99184
101	1.00782	1.00932	1.00828	1.00736	1.00600	0.99828	0.99692	0.99556	0.99420	0.99284	0.99147
102	1.00728	1.00865	1.00756	1.00664	1.00528	0.99791	0.99655	0.99519	0.99383	0.99247	

MORTALITY IMPROVEMENT FACTORS (continued)

Applied to: Permanent Disability Retirees -- Officer [Factors only shown through 2037.]

Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
< 21	0.97972	0.98057	0.98141	0.98221	0.98296	0.98364	0.98424	0.98474	0.98512	0.98537	0.98548
21	0.97976	0.98061	0.98144	0.98224	0.98299	0.98367	0.98427	0.98477	0.98515	0.98540	0.98550
22	0.97981	0.98066	0.98150	0.98229	0.98304	0.98372	0.98432	0.98481	0.98519	0.98544	0.98555
23	0.97989	0.98073	0.98156	0.98236	0.98311	0.98378	0.98438	0.98488	0.98525	0.98550	0.98561
24	0.97996	0.98081	0.98164	0.98243	0.98318	0.98385	0.98445	0.98494	0.98532	0.98557	0.98567
25	0.98005	0.98089	0.98172	0.98251	0.98325	0.98393	0.98452	0.98501	0.98539	0.98563	0.98573
26	0.98012	0.98096	0.98178	0.98257	0.98331	0.98399	0.98458	0.98507	0.98545	0.98569	0.98579
27	0.98018	0.98102	0.98184	0.98263	0.98337	0.98404	0.98463	0.98512	0.98550	0.98574	0.98584
28	0.98024	0.98107	0.98190	0.98268	0.98342	0.98409	0.98468	0.98517	0.98554	0.98579	0.98588
29	0.98028	0.98112	0.98194	0.98273	0.98346	0.98413	0.98472	0.98521	0.98558	0.98582	0.98592
30	0.98031	0.98114	0.98196	0.98275	0.98349	0.98415	0.98474	0.98523	0.98560	0.98584	0.98594
31	0.98032	0.98116	0.98197	0.98276	0.98350	0.98417	0.98475	0.98524	0.98561	0.98585	0.98595
32	0.98032	0.98116	0.98198	0.98276	0.98350	0.98417	0.98475	0.98524	0.98561	0.98585	0.98595
33	0.98032	0.98116	0.98198	0.98276	0.98350	0.98417	0.98475	0.98524	0.98561	0.98585	0.98595
34	0.98032	0.98116	0.98198	0.98276	0.98350	0.98417	0.98475	0.98524	0.98561	0.98585	0.98595
35	0.98032	0.98116	0.98198	0.98277	0.98350	0.98417	0.98475	0.98524	0.98561	0.98585	0.98595
36	0.98033	0.98117	0.98199	0.98278	0.98351	0.98418	0.98477	0.98525	0.98562	0.98586	0.98596
37	0.98037	0.98120	0.98202	0.98281	0.98354	0.98421	0.98479	0.98528	0.98565	0.98589	0.98598
38	0.98042	0.98126	0.98207	0.98286	0.98359	0.98426	0.98484	0.98533	0.98570	0.98594	0.98603
39	0.98047	0.98130	0.98212	0.98290	0.98363	0.98430	0.98488	0.98537	0.98574	0.98598	0.98606
40	0.98052	0.98136	0.98217	0.98295	0.98368	0.98435	0.98493	0.98541	0.98578	0.98602	0.98611
41	0.98055	0.98138	0.98219	0.98297	0.98370	0.98437	0.98495	0.98543	0.98580	0.98603	0.98612
42	0.98057	0.98140	0.98221	0.98299	0.98372	0.98438	0.98497	0.98545	0.98581	0.98605	0.98614
43	0.98058	0.98141	0.98222	0.98300	0.98373	0.98440	0.98498	0.98546	0.98583	0.98606	0.98615
44	0.98062	0.98145	0.98226	0.98304	0.98377	0.98443	0.98501	0.98549	0.98586	0.98609	0.98618
45	0.98066	0.98149	0.98230	0.98308	0.98380	0.98447	0.98505	0.98553	0.98590	0.98613	0.98621
46	0.98072	0.98155	0.98236	0.98314	0.98386	0.98452	0.98510	0.98558	0.98594	0.98618	0.98626
47	0.98075	0.98158	0.98239	0.98316	0.98389	0.98455	0.98513	0.98561	0.98597	0.98620	0.98629
48	0.98075	0.98158	0.98239	0.98316	0.98389	0.98455	0.98513	0.98561	0.98597	0.98620	0.98629
49	0.98072	0.98155	0.98236	0.98314	0.98386	0.98452	0.98510	0.98558	0.98594	0.98618	0.98626
50	0.98068	0.98151	0.98232	0.98309	0.98382	0.98448	0.98506	0.98554	0.98591	0.98614	0.98623
51	0.98063	0.98146	0.98227	0.98305	0.98378	0.98444	0.98502	0.98550	0.98587	0.98611	0.98619
52	0.98060	0.98143	0.98224	0.98302	0.98375	0.98441	0.98500	0.98548	0.98584	0.98608	0.98617
53	0.98059	0.98139	0.98220	0.98298	0.98371	0.98438	0.98496	0.98544	0.98581	0.98604	0.98613
54	0.98057	0.98137	0.98215	0.98293	0.98366	0.98433	0.98491	0.98539	0.98576	0.98600	0.98609
55	0.98054	0.98135	0.98213	0.98291	0.98364	0.98431	0.98489	0.98537	0.98574	0.98598	0.98606
56	0.98051	0.98133	0.98212	0.98290	0.98363	0.98430	0.98488	0.98536	0.98573	0.98597	0.98605
57	0.98048	0.98130	0.98210	0.98288	0.98361	0.98428	0.98486	0.98534	0.98571	0.98595	0.98603
58	0.98046	0.98129	0.98209	0.98287	0.98360	0.98427	0.98485	0.98533	0.98570	0.98594	0.98602
59	0.98046	0.98129	0.98209	0.98287	0.98360	0.98427	0.98485	0.98533	0.98570	0.98594	0.98602
60	0.98047	0.98131	0.98213	0.98290	0.98363	0.98430	0.98488	0.98536	0.98573	0.98597	0.98605
61	0.98050	0.98134	0.98216	0.98293	0.98366	0.98433	0.98491	0.98539	0.98576	0.98600	0.98608
62	0.98093	0.98138	0.98221	0.98298	0.98370	0.98434	0.98492	0.98540	0.98577	0.98601	0.98609
63	0.98144	0.98183	0.98232	0.98310	0.98382	0.98446	0.98501	0.98549	0.98586	0.98610	0.98618
64	0.98194	0.98228	0.98271	0.98322	0.98394	0.98459	0.98514	0.98562	0.98599	0.98623	0.98631
65	0.98245	0.98274	0.98312	0.98357	0.98407	0.98472	0.98528	0.98572	0.98608	0.98632	0.98640
66	0.98296	0.98320	0.98353	0.98393	0.98443	0.98486	0.98542	0.98587	0.98624	0.98648	0.98656
67	0.98346	0.98366	0.98394	0.98429	0.98469	0.98513	0.98557	0.98602	0.98638	0.98662	0.98670
68	0.98397	0.98412	0.98435	0.98465	0.98501	0.98541	0.98580	0.98617	0.98650	0.98674	0.98682
69	0.98447	0.98458	0.98477	0.98503	0.98534	0.98569	0.98605	0.98639	0.98666	0.98689	0.98697
70	0.98495	0.98504	0.98519	0.98540	0.98567	0.98598	0.98630	0.98661	0.98686	0.98707	0.98715
71	0.98551	0.98548	0.98560	0.98578	0.98601	0.98627	0.98656	0.98683	0.98706	0.98721	0.98729
72	0.98604	0.98601	0.98601	0.98615	0.98634	0.98657	0.98682	0.98706	0.98726	0.98739	0.98747
73	0.98655	0.98652	0.98650	0.98651	0.98667	0.98686	0.98708	0.98729	0.98747	0.98758	0.98766
74	0.98704	0.98701	0.98699	0.98698	0.98699	0.98715	0.98733	0.98752	0.98767	0.98777	0.98785
75	0.98751	0.98747	0.98745	0.98744	0.98743	0.98744	0.98759	0.98774	0.98788	0.98796	0.98804
76	0.98794	0.98791	0.98789	0.98787	0.98785	0.98784	0.98783	0.98796	0.98807	0.98814	0.98821
77	0.98835	0.98833	0.98830	0.98828	0.98826	0.98824	0.98821	0.98817	0.98822	0.98828	0.98833
78	0.98873	0.98871	0.98870	0.98867	0.98865	0.98862	0.98858	0.98852	0.98845	0.98849	0.98854
79	0.98909	0.98908	0.98906	0.98904	0.98902	0.98898	0.98893	0.98887	0.98880	0.98885	0.98890
80	0.98943	0.98942	0.98941	0.98940	0.98937	0.98933	0.98927	0.98920	0.98910	0.98906	0.98911
81	0.98993	0.98992	0.98991	0.98989	0.98987	0.98983	0.98977	0.98969	0.98958	0.98944	0.98925
82	0.99042	0.99041	0.99040	0.99038	0.99036	0.99032	0.99025	0.99017	0.99006	0.98991	0.98971
83	0.99091	0.99089	0.99088	0.99086	0.99084	0.99079	0.99073	0.99064	0.99053	0.99038	0.99018
84	0.99140	0.99137	0.99135	0.99133	0.99131	0.99126	0.99120	0.99111	0.99099	0.99084	0.99064
85	0.99189	0.99185	0.99183	0.99180	0.99177	0.99173	0.99166	0.99157	0.99145	0.99130	0.99110
86	0.99232	0.99233	0.99230	0.99227	0.99223	0.99218	0.99212	0.99203	0.99191	0.99175	0.99155
87	0.99275	0.99274	0.99276	0.99272	0.99268	0.99264	0.99257	0.99248	0.99235	0.99220	0.99199
88	0.99319	0.99314	0.99315	0.99318	0.99313	0.99308	0.99301	0.99292	0.99279	0.99263	0.99243
89	0.99363	0.99356	0.99353	0.99354	0.99358	0.99352	0.99345	0.99335	0.99323	0.99307	0.99287
90	0.99408	0.99397	0.99392	0.99391	0.99392	0.99396	0.99388	0.99379	0.99366	0.99350	0.99330
91	0.99454	0.99440	0.99431	0.99428	0.99427	0.99429	0.99432	0.99422	0.99409	0.99393	0.99373
92	0.99502	0.99484	0.99472	0.99465	0.99463	0.99463	0.99464	0.99466	0.99453	0.99437	0.99417
93	0.99551	0.99530	0.99514	0.99505	0.99499	0.99497	0.99497	0.99497	0.99487	0.99471	0.99451
94	0.99601	0.99576	0.99558	0.99545	0.99537	0.99533	0.99531	0.99530	0.99529	0.99525	0.99520
95	0.99651	0.99624	0.99603	0.99587	0.99576	0.99566	0.99566	0.99563	0.99561	0.99557	0.99550
96	0.99698	0.99659	0.99635	0.99616	0.99602	0.99593	0.99587	0.99583	0.99580	0.99576	0.99569
97	0.99724	0.99693	0.99667	0.99645	0.99629	0.99618	0.99610	0.99604	0.99600	0.99595	0.99588
98	0.99759	0.99726	0.99698	0.99674	0.99656	0.99642	0.99632	0.99625	0.99619	0.99613	0.99606
99	0.99793	0.99759	0.99728	0.99703	0.99682	0.99666	0.99654	0.99645	0.99638	0.99632	0.99625
100	0.99826	0.99790	0.99758	0.99731	0.99708	0.99690	0.99676	0.99666	0.99657	0.99650	0.99643
101	0.99856	0.99819	0.99786	0.99757	0.99733	0.99713	0.99697	0.99685	0.99676	0.99668	0.99660
102	0.99884	0.99847	0.99812	0.99782	0.99756	0.99734	0.99717	0.99703	0.99693	0.99684</	

Technical Reference to the FY 2021 Valuation of the Military Retirement System

MORTALITY IMPROVEMENT FACTORS

Applied to: Permanent Disability Retirees -- Enlisted [Factors only shown through 2037.]

Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<21	0.91068	0.90451	0.90416	0.90812	0.91404	0.92151	0.92984	0.93847	0.94679	0.95431	0.96047
21	0.91068	0.90451	0.90421	0.90817	0.91409	0.92155	0.92988	0.93851	0.94683	0.95435	0.96050
22	0.91268	0.90678	0.90539	0.90926	0.91506	0.92236	0.93051	0.93897	0.94714	0.95452	0.96059
23	0.91467	0.90904	0.90771	0.91037	0.91604	0.92319	0.93117	0.93945	0.94746	0.95472	0.96070
24	0.91663	0.91129	0.91003	0.91259	0.91703	0.92401	0.93182	0.93993	0.94779	0.95491	0.96081
25	0.91855	0.91351	0.91233	0.91479	0.91908	0.92484	0.93247	0.94041	0.94811	0.95511	0.96092
26	0.92044	0.91571	0.91460	0.91696	0.92110	0.92666	0.93311	0.94088	0.94843	0.95530	0.96102
27	0.92227	0.91787	0.91683	0.91910	0.92308	0.92845	0.93468	0.94133	0.94873	0.95548	0.96112
28	0.92403	0.91988	0.91899	0.92118	0.92503	0.93021	0.93623	0.94265	0.94901	0.95565	0.96120
29	0.92571	0.92202	0.92109	0.92321	0.92692	0.93193	0.93774	0.94394	0.95010	0.95680	0.96128
30	0.92730	0.92398	0.92309	0.92514	0.92874	0.93358	0.93920	0.94520	0.95115	0.95666	0.96133
31	0.92877	0.92585	0.92499	0.92699	0.93048	0.93517	0.94060	0.94641	0.95217	0.95751	0.96202
32	0.93013	0.92762	0.92678	0.92874	0.93213	0.93669	0.94196	0.94759	0.95316	0.95833	0.96270
33	0.93138	0.92899	0.92817	0.93009	0.93370	0.93814	0.94326	0.94872	0.95413	0.95913	0.96336
34	0.93252	0.93084	0.93005	0.93195	0.93520	0.93952	0.94452	0.94983	0.95508	0.95993	0.96403
35	0.93354	0.93228	0.93152	0.93340	0.93659	0.94083	0.94570	0.95088	0.95599	0.96070	0.96468
36	0.93445	0.93360	0.93290	0.93477	0.93791	0.94206	0.94684	0.95189	0.95688	0.96147	0.96533
37	0.93527	0.93482	0.93418	0.93605	0.93916	0.94324	0.94792	0.95288	0.95775	0.96222	0.96599
38	0.93602	0.93594	0.93541	0.93728	0.94035	0.94438	0.94897	0.95383	0.95860	0.96298	0.96664
39	0.93672	0.93699	0.93655	0.93840	0.94145	0.94542	0.94995	0.95472	0.95940	0.96369	0.96727
40	0.93742	0.93799	0.93763	0.93948	0.94249	0.94641	0.95088	0.95557	0.96016	0.96437	0.96788
41	0.93812	0.93896	0.93863	0.94045	0.94343	0.94730	0.95170	0.95633	0.96085	0.96498	0.96842
42	0.93886	0.93992	0.93960	0.94139	0.94432	0.94814	0.95248	0.95704	0.96149	0.96556	0.96893
43	0.93967	0.94090	0.94057	0.94232	0.94520	0.94894	0.95321	0.95770	0.96209	0.96609	0.96941
44	0.94058	0.94191	0.94160	0.94330	0.94610	0.94977	0.95436	0.95896	0.96297	0.96688	0.96988
45	0.94162	0.94300	0.94270	0.94432	0.94704	0.95067	0.95470	0.95901	0.96324	0.96710	0.97031
46	0.94282	0.94417	0.94390	0.94543	0.94806	0.95151	0.95548	0.95969	0.96382	0.96760	0.97074
47	0.94421	0.94547	0.94516	0.94659	0.94909	0.95241	0.95625	0.96033	0.96435	0.96804	0.97112
48	0.94580	0.94692	0.94650	0.94781	0.95017	0.95334	0.95703	0.96096	0.96485	0.96844	0.97144
49	0.94762	0.94854	0.94796	0.94912	0.95132	0.95432	0.95784	0.96161	0.96534	0.96880	0.97172
50	0.94968	0.95036	0.94959	0.95068	0.95268	0.95538	0.95871	0.96229	0.96595	0.96916	0.97198
51	0.95202	0.95241	0.95142	0.95222	0.95400	0.95657	0.95967	0.96304	0.96641	0.96956	0.97223
52	0.95463	0.95470	0.95350	0.95408	0.95561	0.95793	0.96078	0.96398	0.96703	0.96999	0.97254
53	0.95749	0.95723	0.95581	0.95615	0.95740	0.95942	0.96196	0.96480	0.96770	0.97046	0.97285
54	0.96059	0.96002	0.95833	0.95843	0.95937	0.96107	0.96328	0.96580	0.96842	0.97095	0.97317
55	0.96390	0.96306	0.96110	0.96093	0.96155	0.96289	0.96474	0.96692	0.96922	0.97148	0.97352
56	0.96740	0.96635	0.96412	0.96367	0.96394	0.96490	0.96636	0.96815	0.97011	0.97208	0.97391
57	0.97103	0.96984	0.96734	0.96660	0.96652	0.96708	0.96811	0.96950	0.97108	0.97273	0.97432
58	0.97467	0.97343	0.97073	0.96973	0.96927	0.96942	0.97002	0.97098	0.97216	0.97348	0.97481
59	0.97820	0.97700	0.97420	0.97297	0.97217	0.97190	0.97206	0.97258	0.97335	0.97431	0.97538
60	0.98149	0.98046	0.97762	0.97623	0.97514	0.97447	0.97419	0.97427	0.97463	0.97524	0.97603
61	0.98445	0.98370	0.98089	0.97940	0.97807	0.97707	0.97638	0.97603	0.97598	0.97624	0.97675
62	0.98698	0.98662	0.98391	0.98239	0.98090	0.97963	0.97859	0.97784	0.97741	0.97732	0.97754
63	0.98907	0.98917	0.98660	0.98511	0.98353	0.98208	0.98078	0.97972	0.97893	0.97852	0.97847
64	0.99070	0.99130	0.98889	0.98749	0.98591	0.98435	0.98286	0.98155	0.98049	0.97978	0.97947
65	0.99185	0.99294	0.99076	0.98948	0.98796	0.98638	0.98478	0.98331	0.98203	0.98108	0.98054
66	0.99251	0.99404	0.99213	0.99104	0.98963	0.98811	0.98650	0.98493	0.98352	0.98240	0.98167
67	0.99272	0.99465	0.99299	0.99215	0.99092	0.98952	0.98798	0.98642	0.98492	0.98369	0.98282
68	0.99265	0.99488	0.99345	0.99284	0.99185	0.99063	0.98921	0.98773	0.98625	0.98494	0.98397
69	0.99243	0.99488	0.99362	0.99320	0.99245	0.99146	0.99023	0.98886	0.98746	0.98617	0.98510
70	0.99223	0.99479	0.99365	0.99335	0.99279	0.99203	0.99102	0.98983	0.98854	0.98730	0.98624
71	0.99218	0.99475	0.99366	0.99342	0.99298	0.99241	0.99161	0.99061	0.98947	0.98832	0.98729
72	0.99236	0.99483	0.99376	0.99350	0.99312	0.99266	0.99202	0.99122	0.99025	0.98921	0.98825
73	0.99276	0.99506	0.99400	0.99368	0.99328	0.99286	0.99232	0.99165	0.99085	0.98986	0.98909
74	0.99337	0.99544	0.99439	0.99400	0.99353	0.99307	0.99256	0.99198	0.99129	0.99055	0.98979
75	0.99415	0.99599	0.99493	0.99445	0.99390	0.99336	0.99280	0.99223	0.99161	0.99097	0.99034
76	0.99510	0.99672	0.99563	0.99504	0.99439	0.99374	0.99310	0.99248	0.99187	0.99128	0.99074
77	0.99617	0.99759	0.99648	0.99577	0.99500	0.99423	0.99347	0.99276	0.99209	0.99151	0.99102
78	0.99727	0.99854	0.99742	0.99661	0.99571	0.99481	0.99392	0.99309	0.99234	0.99171	0.99124
79	0.99834	0.99948	0.99839	0.99750	0.99647	0.99544	0.99442	0.99347	0.99261	0.99192	0.99142
80	0.99929	1.00034	0.99930	0.99838	0.99726	0.99609	0.99495	0.99388	0.99293	0.99215	0.99160
81	1.00004	1.00104	1.00008	0.99919	0.99805	0.99681	0.99557	0.99443	0.99340	0.99256	0.99196
82	1.00057	1.00154	1.00068	0.99986	0.99875	0.99750	0.99621	0.99498	0.99390	0.99300	0.99237
83	1.00092	1.00190	1.00111	1.00038	0.99934	0.99812	0.99682	0.99555	0.99441	0.99349	0.99280
84	1.00117	1.00215	1.00141	1.00076	0.99981	0.99867	0.99741	0.99613	0.99495	0.99397	0.99328
85	1.00137	1.00236	1.00162	1.00103	1.00017	0.99913	0.99793	0.99669	0.99551	0.99449	0.99375
86	1.00160	1.00256	1.00180	1.00124	1.00044	0.99948	0.99839	0.99722	0.99606	0.99504	0.99425
87	1.00189	1.00280	1.00198	1.00143	1.00067	0.99978	0.99876	0.99767	0.99657	0.99557	0.99477
88	1.00229	1.00310	1.00220	1.00164	1.00089	1.00004	0.99907	0.99806	0.99703	0.99607	0.99528
89	1.00281	1.00352	1.00250	1.00191	1.00114	1.00030	0.99937	0.99840	0.99742	0.99652	0.99576
90	1.00348	1.00407	1.00292	1.00227	1.00146	1.00060	0.99967	0.99872	0.99777	0.99691	0.99619
91	1.00433	1.00479	1.00348	1.00276	1.00188	1.00097	1.00001	0.99904	0.99807	0.99726	0.99657
92	1.00537	1.00570	1.00423	1.00340	1.00243	1.00144	1.00041	0.99940	0.99844	0.99759	0.99691
93	1.00657	1.00678	1.00516	1.00420	1.00311	1.00201	1.00090	0.99982	0.99880	0.99792	0.99723
94	1.00792	1.00799	1.00625	1.00518	1.00394	1.00271	1.00148	1.00030	0.99920	0.99826	0.99755
95	1.00938	1.00934	1.00748	1.00629	1.00492	1.00353	1.00215	1.00084	0.99964	0.99863	0.99787
96	1.01094	1.01078	1.00882	1.00752	1.00599	1.00442	1.00286	1.00138	1.00003	0.99891	0.99808
97	1.01258	1.01230	1.01025	1.00884	1.00716	1.00542	1.00366	1.00200	1.00048	0.99923	0.99832
98	1.01427	1.01390	1.01176	1.01023	1.00841	1.00650	1.00456	1.00270	1.00100	0.99960	0.99858
99	1.01601	1.01554	1.01332	1.01169	1.00973	1.00765	1.00552	1.00347	1.00158	1.00002	0.99888
100	1.01778	1.01722	1.01492	1.01319	1.01109	1.00885	1.00654	1.00430	1.00223	1.00050	0.99923
101	1.01659	1.01608	1.01515	1.01344	1.01135	1.00914	1.00687	1.00467	1.00261	1.00087	0.99957
102	1.01541	1.01493	1.01395	1.01268	1.01163	1.00945	1.00722	1.00504	1.00302	1.00128	

Technical Reference to the FY 2021 Valuation of the Military Retirement System

MORTALITY IMPROVEMENT FACTORS (continued)

Applied to: Permanent Disability Retirees -- Enlisted [Factors only shown through 2037.]

Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
<21	0.96471	0.96781	0.97084	0.97375	0.97647	0.97895	0.98111	0.98291	0.98428	0.98515	0.98548
21	0.96475	0.96784	0.97088	0.97378	0.97650	0.97898	0.98115	0.98294	0.98431	0.98518	0.98550
22	0.96481	0.96790	0.97093	0.97384	0.97656	0.97903	0.98119	0.98299	0.98435	0.98523	0.98555
23	0.96488	0.96797	0.97100	0.97390	0.97662	0.97909	0.98126	0.98305	0.98441	0.98529	0.98561
24	0.96495	0.96804	0.97107	0.97397	0.97669	0.97916	0.98132	0.98312	0.98448	0.98535	0.98567
25	0.96503	0.96812	0.97115	0.97405	0.97676	0.97923	0.98139	0.98319	0.98455	0.98542	0.98573
26	0.96510	0.96819	0.97121	0.97411	0.97683	0.97930	0.98146	0.98325	0.98460	0.98547	0.98579
27	0.96517	0.96825	0.97127	0.97417	0.97689	0.97935	0.98151	0.98330	0.98466	0.98552	0.98584
28	0.96522	0.96830	0.97133	0.97422	0.97693	0.97940	0.98156	0.98335	0.98470	0.98557	0.98588
29	0.96527	0.96835	0.97137	0.97426	0.97698	0.97944	0.98160	0.98338	0.98474	0.98560	0.98592
30	0.96529	0.96837	0.97139	0.97429	0.97700	0.97946	0.98162	0.98340	0.98476	0.98562	0.98594
31	0.96530	0.96838	0.97140	0.97430	0.97701	0.97947	0.98163	0.98342	0.98477	0.98563	0.98595
32	0.96587	0.96839	0.97141	0.97430	0.97701	0.97948	0.98163	0.98342	0.98477	0.98563	0.98595
33	0.96644	0.96887	0.97140	0.97430	0.97701	0.97947	0.98163	0.98342	0.98477	0.98563	0.98595
34	0.96700	0.96935	0.97181	0.97430	0.97701	0.97948	0.98163	0.98342	0.98477	0.98563	0.98595
35	0.96756	0.96983	0.97220	0.97462	0.97701	0.97948	0.98163	0.98342	0.98477	0.98563	0.98595
36	0.96812	0.97031	0.97261	0.97495	0.97727	0.97949	0.98164	0.98343	0.98478	0.98565	0.98596
37	0.96869	0.97081	0.97303	0.97530	0.97754	0.97969	0.98167	0.98346	0.98481	0.98567	0.98598
38	0.96927	0.97132	0.97347	0.97566	0.97783	0.97992	0.98184	0.98350	0.98486	0.98572	0.98603
39	0.96983	0.97182	0.97390	0.97601	0.97812	0.98013	0.98199	0.98361	0.98499	0.98576	0.98606
40	0.97037	0.97230	0.97432	0.97637	0.97840	0.98036	0.98216	0.98373	0.98497	0.98580	0.98611
41	0.97086	0.97274	0.97470	0.97669	0.97866	0.98055	0.98229	0.98381	0.98502	0.98583	0.98612
42	0.97132	0.97316	0.97506	0.97699	0.97890	0.98073	0.98242	0.98390	0.98507	0.98585	0.98614
43	0.97175	0.97355	0.97540	0.97728	0.97913	0.98091	0.98255	0.98398	0.98511	0.98587	0.98615
44	0.97218	0.97394	0.97575	0.97758	0.97938	0.98110	0.98269	0.98407	0.98517	0.98591	0.98618
45	0.97258	0.97431	0.97608	0.97787	0.97962	0.98129	0.98283	0.98417	0.98524	0.98595	0.98621
46	0.97297	0.97468	0.97642	0.97816	0.97987	0.98150	0.98299	0.98429	0.98532	0.98601	0.98626
47	0.97331	0.97499	0.97670	0.97841	0.98008	0.98165	0.98311	0.98437	0.98537	0.98604	0.98629
48	0.97359	0.97525	0.97693	0.97861	0.98024	0.98179	0.98320	0.98443	0.98540	0.98605	0.98629
49	0.97382	0.97546	0.97712	0.97877	0.98037	0.98189	0.98327	0.98446	0.98540	0.98603	0.98626
50	0.97403	0.97564	0.97727	0.97890	0.98047	0.98196	0.98331	0.98447	0.98539	0.98600	0.98623
51	0.97422	0.97580	0.97741	0.97901	0.98056	0.98202	0.98334	0.98448	0.98538	0.98597	0.98619
52	0.97443	0.97598	0.97756	0.97913	0.98066	0.98209	0.98338	0.98450	0.98537	0.98595	0.98617
53	0.97466	0.97614	0.97769	0.97923	0.98073	0.98214	0.98341	0.98450	0.98536	0.98592	0.98613
54	0.97490	0.97633	0.97780	0.97932	0.98079	0.98217	0.98342	0.98449	0.98533	0.98588	0.98609
55	0.97514	0.97653	0.97796	0.97939	0.98084	0.98219	0.98342	0.98447	0.98529	0.98584	0.98604
56	0.97541	0.97674	0.97813	0.97952	0.98088	0.98221	0.98342	0.98445	0.98526	0.98579	0.98599
57	0.97570	0.97696	0.97829	0.97965	0.98098	0.98223	0.98341	0.98442	0.98521	0.98574	0.98594
58	0.97604	0.97722	0.97849	0.97980	0.98109	0.98231	0.98341	0.98440	0.98518	0.98570	0.98589
59	0.97644	0.97753	0.97873	0.97999	0.98123	0.98242	0.98349	0.98440	0.98517	0.98567	0.98587
60	0.97691	0.97790	0.97902	0.98020	0.98140	0.98255	0.98359	0.98448	0.98516	0.98566	0.98585
61	0.97745	0.97831	0.97933	0.98044	0.98158	0.98269	0.98370	0.98457	0.98524	0.98565	0.98584
62	0.97805	0.97879	0.97970	0.98072	0.98179	0.98284	0.98382	0.98467	0.98532	0.98573	0.98584
63	0.97879	0.97938	0.98017	0.98109	0.98209	0.98308	0.98402	0.98483	0.98547	0.98587	0.98598
64	0.97958	0.98003	0.98068	0.98150	0.98240	0.98333	0.98422	0.98500	0.98562	0.98601	0.98611
65	0.98045	0.98073	0.98125	0.98194	0.98275	0.98361	0.98444	0.98519	0.98578	0.98615	0.98626
66	0.98139	0.98150	0.98186	0.98243	0.98313	0.98391	0.98468	0.98538	0.98594	0.98630	0.98640
67	0.98238	0.98232	0.98253	0.98296	0.98355	0.98423	0.98493	0.98558	0.98612	0.98646	0.98656
68	0.98341	0.98320	0.98325	0.98353	0.98399	0.98458	0.98520	0.98580	0.98630	0.98663	0.98671
69	0.98444	0.98410	0.98401	0.98414	0.98448	0.98495	0.98550	0.98604	0.98649	0.98680	0.98688
70	0.98545	0.98502	0.98479	0.98479	0.98500	0.98536	0.98581	0.98628	0.98670	0.98698	0.98705
71	0.98649	0.98591	0.98558	0.98546	0.98554	0.98578	0.98614	0.98654	0.98691	0.98716	0.98723
72	0.98746	0.98685	0.98636	0.98614	0.98610	0.98623	0.98649	0.98681	0.98713	0.98735	0.98741
73	0.98834	0.98773	0.98720	0.98679	0.98666	0.98669	0.98685	0.98710	0.98735	0.98755	0.98759
74	0.98912	0.98853	0.98799	0.98754	0.98721	0.98715	0.98722	0.98738	0.98758	0.98774	0.98778
75	0.98977	0.98924	0.98871	0.98824	0.98786	0.98759	0.98758	0.98767	0.98782	0.98794	0.98796
76	0.99028	0.98984	0.98935	0.98888	0.98847	0.98815	0.98793	0.98796	0.98804	0.98813	0.98813
77	0.99065	0.99031	0.98990	0.98945	0.98903	0.98868	0.98841	0.98823	0.98826	0.98831	0.98830
78	0.99093	0.99068	0.99034	0.98995	0.98954	0.98918	0.98887	0.98864	0.98847	0.98849	0.98847
79	0.99114	0.99095	0.99069	0.99036	0.98999	0.98963	0.98930	0.98904	0.98883	0.98865	0.98862
80	0.99132	0.99117	0.99096	0.99070	0.99038	0.99003	0.98970	0.98942	0.98918	0.98898	0.98877
81	0.99167	0.99153	0.99136	0.99114	0.99087	0.99056	0.99024	0.98994	0.98968	0.98946	0.98925
82	0.99204	0.99189	0.99173	0.99154	0.99131	0.99104	0.99074	0.99045	0.99017	0.98994	0.98971
83	0.99244	0.99227	0.99210	0.99193	0.99172	0.99148	0.99121	0.99093	0.99066	0.99041	0.99018
84	0.99288	0.99268	0.99249	0.99231	0.99212	0.99191	0.99166	0.99139	0.99112	0.99087	0.99064
85	0.99336	0.99311	0.99291	0.99271	0.99252	0.99232	0.99209	0.99184	0.99158	0.99133	0.99110
86	0.99380	0.99358	0.99334	0.99313	0.99293	0.99273	0.99251	0.99228	0.99203	0.99178	0.99155
87	0.99428	0.99400	0.99380	0.99356	0.99335	0.99314	0.99293	0.99271	0.99247	0.99223	0.99199
88	0.99476	0.99444	0.99419	0.99401	0.99378	0.99356	0.99335	0.99313	0.99290	0.99266	0.99243
89	0.99524	0.99489	0.99460	0.99438	0.99421	0.99398	0.99377	0.99355	0.99333	0.99310	0.99287
90	0.99569	0.99534	0.99503	0.99477	0.99456	0.99442	0.99419	0.99397	0.99375	0.99353	0.99330
91	0.99611	0.99577	0.99545	0.99516	0.99493	0.99475	0.99462	0.99440	0.99418	0.99396	0.99373
92	0.99648	0.99617	0.99586	0.99556	0.99531	0.99510	0.99495	0.99483	0.99461	0.99439	0.99417
93	0.99681	0.99654	0.99625	0.99596	0.99569	0.99547	0.99529	0.99515	0.99505	0.99483	0.99461
94	0.99713	0.99688	0.99661	0.99633	0.99607	0.99583	0.99564	0.99549	0.99537	0.99527	0.99515
95	0.99745	0.99720	0.99695	0.99669	0.99644	0.99620	0.99599	0.99582	0.99569	0.99559	0.99550
96	0.99763	0.99738	0.99714	0.99690	0.99665	0.99642	0.99621	0.99603	0.99589	0.99578	0.99569
97	0.99782	0.99757	0.99733	0.99709	0.99686	0.99663	0.99642	0.99624	0.99609	0.99597	0.99588
98	0.99803	0.99776	0.99751	0.99727	0.99705	0.99683	0.99662	0.99644	0.99628	0.99616	0.99606
99	0.99826	0.99796	0.99769	0.99745	0.99723	0.99701	0.99681	0.99663	0.99647	0.99634	0.99625
100	0.99853	0.99818	0.99789	0.99764	0.99741	0.99719	0.99699	0.99681	0.99666	0.99653	0.99643
101	0.99882	0.99842	0.99810	0.99782	0.99758	0.99736	0.99716	0.99699	0.99683	0.99670	0.99660
102	0.99915	0.99869	0.99831	0.99801	0.99775	0.99752	0.99732	0.99715	0.99699	0.99686</	

MORTALITY IMPROVEMENT FACTORS

Applied to: Surviving Spouses, and Current Spouses

(Age Nearest Birthday)

Age	Projection Year										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<21	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
21	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
22	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
23	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
24	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
25	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
26	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
27	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
28	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
29	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
30	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
31	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
32	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
33	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
34	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
35	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
36	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
37	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
38	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
39	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
40	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
41	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
42	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
43	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
44	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
45	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
46	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
47	1.00160	1.00285	1.00256	1.00177	1.00058	0.99912	0.99748	0.99578	0.99414	0.99265	0.99143
48	1.00160	1.00285	1.00256	1.00177	1.00060	0.99913	0.99749	0.99579	0.99415	0.99266	0.99144
49	1.00160	1.00285	1.00256	1.00178	1.00060	0.99914	0.99750	0.99580	0.99416	0.99267	0.99145
50	1.00160	1.00285	1.00256	1.00178	1.00060	0.99915	0.99751	0.99581	0.99417	0.99268	0.99146
51	1.00160	1.00285	1.00256	1.00178	1.00061	0.99915	0.99753	0.99583	0.99417	0.99268	0.99146
52	1.00160	1.00285	1.00256	1.00178	1.00061	0.99916	0.99754	0.99584	0.99419	0.99270	0.99149
53	1.00160	1.00285	1.00256	1.00178	1.00062	0.99917	0.99755	0.99586	0.99421	0.99272	0.99149
54	1.00160	1.00285	1.00256	1.00179	1.00062	0.99918	0.99756	0.99587	0.99423	0.99274	0.99151
55	1.00160	1.00285	1.00256	1.00179	1.00063	0.99918	0.99757	0.99589	0.99425	0.99277	0.99154
56	1.00160	1.00285	1.00256	1.00179	1.00063	0.99919	0.99758	0.99590	0.99427	0.99279	0.99157
57	1.00160	1.00285	1.00256	1.00179	1.00063	0.99920	0.99759	0.99592	0.99429	0.99282	0.99160
58	1.00151	1.00283	1.00256	1.00179	1.00063	0.99920	0.99760	0.99593	0.99431	0.99284	0.99163
59	1.00137	1.00278	1.00253	1.00177	1.00062	0.99919	0.99760	0.99594	0.99432	0.99286	0.99166
60	1.00118	1.00268	1.00246	1.00172	1.00058	0.99917	0.99758	0.99594	0.99433	0.99288	0.99169
61	1.00094	1.00252	1.00233	1.00162	1.00052	0.99912	0.99755	0.99592	0.99434	0.99290	0.99172
62	1.00062	1.00229	1.00214	1.00147	1.00041	0.99905	0.99751	0.99590	0.99433	0.99291	0.99174
63	1.00023	1.00199	1.00188	1.00127	1.00026	0.99896	0.99747	0.99590	0.99437	0.99298	0.99184
64	0.99978	1.00162	1.00155	1.00101	1.00007	0.99883	0.99740	0.99589	0.99441	0.99305	0.99193
65	0.99930	1.00120	1.00117	1.00069	0.99883	0.99867	0.99730	0.99586	0.99443	0.99311	0.99202
66	0.99880	1.00076	1.00076	1.00033	0.99954	0.99847	0.99720	0.99580	0.99444	0.99317	0.99211
67	0.99831	1.00032	1.00032	0.99994	0.99922	0.99824	0.99706	0.99576	0.99443	0.99322	0.99220
68	0.99784	0.99988	0.99989	0.99954	0.99889	0.99798	0.99689	0.99568	0.99444	0.99325	0.99227
69	0.99741	0.99946	0.99947	0.99915	0.99854	0.99771	0.99670	0.99559	0.99444	0.99326	0.99234
70	0.99703	0.99907	0.99908	0.99878	0.99821	0.99743	0.99650	0.99547	0.99440	0.99337	0.99245
71	0.99671	0.99872	0.99872	0.99843	0.99790	0.99717	0.99630	0.99534	0.99435	0.99340	0.99255
72	0.99644	0.99842	0.99840	0.99812	0.99761	0.99692	0.99611	0.99521	0.99429	0.99341	0.99262
73	0.99624	0.99816	0.99813	0.99785	0.99736	0.99670	0.99593	0.99509	0.99423	0.99341	0.99268
74	0.99612	0.99797	0.99792	0.99763	0.99715	0.99651	0.99577	0.99498	0.99417	0.99340	0.99272
75	0.99607	0.99783	0.99776	0.99746	0.99698	0.99636	0.99565	0.99488	0.99411	0.99339	0.99276
76	0.99608	0.99773	0.99764	0.99733	0.99685	0.99624	0.99555	0.99481	0.99407	0.99339	0.99280
77	0.99615	0.99766	0.99756	0.99725	0.99675	0.99615	0.99547	0.99475	0.99405	0.99339	0.99284
78	0.99628	0.99761	0.99751	0.99719	0.99671	0.99610	0.99542	0.99472	0.99404	0.99341	0.99288
79	0.99645	0.99758	0.99747	0.99715	0.99667	0.99607	0.99540	0.99471	0.99404	0.99344	0.99294
80	0.99666	0.99756	0.99744	0.99712	0.99665	0.99606	0.99541	0.99473	0.99407	0.99348	0.99300
81	0.99691	0.99755	0.99744	0.99713	0.99668	0.99612	0.99550	0.99487	0.99425	0.99369	0.99324
82	0.99719	0.99758	0.99746	0.99716	0.99673	0.99620	0.99561	0.99501	0.99445	0.99392	0.99350
83	0.99750	0.99765	0.99751	0.99722	0.99680	0.99630	0.99574	0.99517	0.99463	0.99417	0.99377
84	0.99784	0.99777	0.99761	0.99731	0.99690	0.99642	0.99589	0.99534	0.99483	0.99439	0.99406
85	0.99820	0.99794	0.99776	0.99745	0.99704	0.99656	0.99605	0.99553	0.99504	0.99462	0.99430
86	0.99856	0.99814	0.99795	0.99762	0.99721	0.99674	0.99623	0.99573	0.99526	0.99486	0.99455
87	0.99890	0.99836	0.99816	0.99783	0.99741	0.99693	0.99643	0.99594	0.99549	0.99510	0.99481
88	0.99918	0.99866	0.99838	0.99805	0.99762	0.99714	0.99665	0.99616	0.99572	0.99535	0.99507
89	0.99939	0.99874	0.99858	0.99826	0.99784	0.99737	0.99687	0.99640	0.99596	0.99560	0.99534
90	0.99950	0.99887	0.99873	0.99845	0.99805	0.99759	0.99711	0.99664	0.99621	0.99586	0.99561
91	0.99951	0.99893	0.99883	0.99859	0.99823	0.99780	0.99734	0.99689	0.99647	0.99613	0.99589
92	0.99944	0.99895	0.99888	0.99868	0.99838	0.99799	0.99757	0.99714	0.99675	0.99642	0.99618
93	0.99930	0.99892	0.99888	0.99873	0.99848	0.99816	0.99778	0.99740	0.99703	0.99671	0.99648
94	0.99911	0.99886	0.99885	0.99874	0.99855	0.99829	0.99797	0.99764	0.99731	0.99702	0.99680
95	0.99889	0.99878	0.99879	0.99872	0.99858	0.99838	0.99814	0.99787	0.99759	0.99733	0.99712
96	0.99866	0.99868	0.99870	0.99866	0.99855	0.99840	0.99821	0.99798	0.99775	0.99752	0.99732
97	0.99843	0.99857	0.99860	0.99858	0.99851	0.99840	0.99825	0.99808	0.99789	0.99769	0.99752
98	0.99820	0.99847	0.99850	0.99850	0.99846	0.99839	0.99828	0.99815	0.99801	0.99785	0.99771
99	0.99800	0.99838	0.99841	0.99842	0.99840	0.99837	0.99830	0.99821	0.99811	0.99800	0.99788
100	0.99782	0.99833	0.99834	0.99835	0.99835	0.99834	0.99832	0.99827	0.99820	0.99812	0.99804
101	0.99796	0.99844	0.99837	0.99837	0.99837	0.99836	0.99835	0.99834	0.99830	0.99825	0.99819
102	0.99811	0.99855	0.99848	0.99840	0.99839	0.99839	0.99838	0.99838	0.99839	0.99836	0.99832
103	0.99825	0.99866	0.99860								

MORTALITY IMPROVEMENT FACTORS (continued)

Applied to: Surviving Spouses, and Current Spouses

Gender Mix: Uses gender-based projection adjustment factors/scales

(Age Nearest Birthday)

Age	Projection Year										
	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037+
<21	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
21	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
22	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
23	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
24	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
25	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
26	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
27	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
28	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
29	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
30	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
31	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
32	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
33	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
34	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
35	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
36	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
37	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
38	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
39	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
40	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
41	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
42	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
43	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
44	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
45	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
46	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
47	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
48	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
49	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
50	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
51	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
52	0.99059	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
53	0.99062	0.98998	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
54	0.99066	0.99002	0.98938	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
55	0.99069	0.99006	0.98942	0.98880	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
56	0.99073	0.99010	0.98947	0.98885	0.98827	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
57	0.99076	0.99014	0.98951	0.98890	0.98832	0.98778	0.98735	0.98700	0.98673	0.98656	0.98650
58	0.99079	0.99018	0.98956	0.98895	0.98837	0.98784	0.98735	0.98700	0.98673	0.98656	0.98650
59	0.99083	0.99021	0.98960	0.98900	0.98843	0.98789	0.98741	0.98700	0.98673	0.98656	0.98650
60	0.99086	0.99025	0.98965	0.98905	0.98848	0.98795	0.98747	0.98706	0.98673	0.98656	0.98650
61	0.99090	0.99029	0.98969	0.98910	0.98854	0.98801	0.98754	0.98713	0.98680	0.98656	0.98650
62	0.99093	0.99033	0.98974	0.98915	0.98859	0.98807	0.98760	0.98719	0.98686	0.98663	0.98650
63	0.99104	0.99044	0.98985	0.98927	0.98872	0.98820	0.98773	0.98733	0.98700	0.98677	0.98664
64	0.99114	0.99055	0.98997	0.98939	0.98884	0.98833	0.98786	0.98746	0.98714	0.98690	0.98678
65	0.99125	0.99066	0.99008	0.98951	0.98896	0.98845	0.98799	0.98760	0.98727	0.98704	0.98692
66	0.99135	0.99077	0.99019	0.98963	0.98909	0.98858	0.98813	0.98773	0.98741	0.98718	0.98706
67	0.99145	0.99088	0.99031	0.98975	0.98921	0.98871	0.98826	0.98787	0.98755	0.98732	0.98719
68	0.99156	0.99099	0.99042	0.98987	0.98934	0.98884	0.98839	0.98800	0.98769	0.98746	0.98733
69	0.99165	0.99110	0.99054	0.98999	0.98946	0.98897	0.98852	0.98813	0.98782	0.98760	0.98747
70	0.99173	0.99120	0.99065	0.99011	0.98958	0.98909	0.98865	0.98827	0.98796	0.98774	0.98761
71	0.99187	0.99128	0.99076	0.99022	0.98971	0.98922	0.98878	0.98840	0.98810	0.98787	0.98775
72	0.99200	0.99145	0.99085	0.99034	0.98983	0.98935	0.98892	0.98854	0.98823	0.98801	0.98789
73	0.99211	0.99161	0.99104	0.99044	0.98995	0.98948	0.98905	0.98867	0.98837	0.98815	0.98803
74	0.99220	0.99175	0.99122	0.99066	0.99016	0.98969	0.98928	0.98881	0.98851	0.98829	0.98817
75	0.99229	0.99187	0.99139	0.99086	0.99036	0.98987	0.98943	0.98894	0.98864	0.98843	0.98831
76	0.99236	0.99199	0.99155	0.99105	0.99052	0.98998	0.98943	0.98908	0.98878	0.98857	0.98844
77	0.99244	0.99210	0.99170	0.99124	0.99074	0.99022	0.98970	0.98921	0.98892	0.98870	0.98858
78	0.99251	0.99221	0.99184	0.99142	0.99096	0.99047	0.98997	0.98949	0.98905	0.98884	0.98872
79	0.99260	0.99232	0.99198	0.99159	0.99116	0.99070	0.99023	0.98977	0.98935	0.98914	0.98902
80	0.99268	0.99243	0.99212	0.99177	0.99137	0.99094	0.99049	0.99005	0.98964	0.98943	0.98930
81	0.99295	0.99272	0.99243	0.99211	0.99174	0.99133	0.99091	0.99049	0.99010	0.98974	0.98962
82	0.99322	0.99301	0.99275	0.99245	0.99210	0.99173	0.99133	0.99093	0.99055	0.99021	0.98989
83	0.99351	0.99331	0.99307	0.99279	0.99248	0.99212	0.99175	0.99137	0.99100	0.99067	0.99040
84	0.99381	0.99363	0.99340	0.99315	0.99285	0.99252	0.99217	0.99181	0.99146	0.99114	0.99087
85	0.99412	0.99395	0.99375	0.99350	0.99325	0.99292	0.99259	0.99225	0.99191	0.99160	0.99133
86	0.99438	0.99429	0.99410	0.99387	0.99361	0.99333	0.99301	0.99269	0.99237	0.99206	0.99180
87	0.99465	0.99456	0.99446	0.99424	0.99400	0.99373	0.99344	0.99313	0.99282	0.99253	0.99227
88	0.99492	0.99483	0.99474	0.99462	0.99440	0.99414	0.99387	0.99357	0.99328	0.99299	0.99273
89	0.99519	0.99512	0.99502	0.99492	0.99480	0.99456	0.99429	0.99402	0.99373	0.99345	0.99320
90	0.99547	0.99540	0.99531	0.99521	0.99510	0.99498	0.99473	0.99446	0.99419	0.99392	0.99367
91	0.99576	0.99568	0.99560	0.99551	0.99540	0.99529	0.99516	0.99491	0.99464	0.99438	0.99413
92	0.99605	0.99598	0.99590	0.99581	0.99571	0.99560	0.99548	0.99536	0.99510	0.99484	0.99460
93	0.99635	0.99627	0.99620	0.99611	0.99602	0.99591	0.99580	0.99568	0.99556	0.99531	0.99507
94	0.99666	0.99658	0.99650	0.99642	0.99633	0.99623	0.99612	0.99600	0.99589	0.99577	0.99553
95	0.99698	0.99689	0.99681	0.99673	0.99664	0.99654	0.99644	0.99633	0.99622	0.99611	0.99600
96	0.99719	0.99709	0.99709	0.99701	0.99692	0.99682	0.99673	0.99663	0.99652	0.99641	0.99630
97	0.99739	0.99729	0.99719	0.99710	0.99701	0.99691	0.99682	0.99672	0.99661	0.99650	0.99640
98	0.99759	0.99749	0.99739	0.99729	0.99720	0.99710	0.99701	0.99691	0.99681	0.99670	0.99660
99	0.99779	0.99769	0.99759	0.99749	0.99739	0.99730	0.99720	0.99711	0.99700	0.99690	0.99680
100	0.99797	0.99787	0.99779	0.99769	0.99759	0.99750	0.99740	0.99730	0.99720	0.99710	0.99700
101	0.99813	0.99807	0.99799	0.99790	0.99780	0.99770	0.99760	0.99750	0.99740	0.99730	0.99720
102	0.99829	0.99824	0.99818	0.99809	0.99800	0.99790	0.99780	0.99770	0.99760	0.99750	0.9974

APPENDIX K

25 YEAR PROJECTIONS

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PROJECTION NOTES

The following are notes that apply to the projections shown in this appendix:

- Refer to the “NOTE REGARDING OPEN GROUP PROJECTIONS” in the Table 9 Footnotes in the FY 2021 Valuation Report for important caveats related to this appendix.
- Columns in this appendix may not add due to rounding.
- In some cases the number of personnel may show zero with the corresponding pay showing a non-zero value. This is a result of rounding the display to the nearest person.
- Future mortality improvement is assumed throughout this appendix (with the exception of temporary disabled retirees).
- Although Combat Related Special Compensation (CRSC) is not technically considered retired pay, it is paid from the MRF; hence these projections include CRSC.
- The FY 2011 National Defense Authorization Act (P.L. 111-383) required “amounts of retired pay and retainer pay due a retired member of the uniformed services shall be paid on the first day of each month beginning after the month in which the right to such pay accrues.” This means that when the first day of the month falls on a non-business day (weekend/holiday), the pay must be paid the preceding business day. This legislation did not apply to survivor annuitant pay and CRSC, which were included in later legislation. This results in retirees receiving 13 payments in some fiscal years and 11 payments in others, with 12 payments occurring in a typical fiscal year. Annual fiscal year amounts shown in this appendix assume 12 monthly payments each year.
- The following economic assumptions are applied to the projection of basic pay and retired outlays. This table is partially replicated from the Table 9 footnotes in the FY 2021 Valuation Report:

ANNUAL ECONOMIC ASSUMPTIONS USED IN PROJECTIONS OF
BASIC PAY AND RETIRED OUTLAYS

<u>Fiscal Year</u>	<u>Full COLA</u>	<u>Basic Pay</u>
2022	5.9%	2.7%
2023	4.3	4.6
2024	2.3	2.6
2025	2.3	2.6
2026	2.3	2.6
2027	2.3	2.6
2028	2.3	2.6
2029	2.3	2.6
2030	2.3	2.6
2031	2.5	2.6
2032+	2.5	2.75

ACTIVE DUTY PERSONNEL AND PAY BY FISCAL YEAR

(Dollar Amounts in Thousands)

Fiscal Year	People at Year End (September 30th)			Dollars During Fiscal Year		
	Officers	Enlisted	Total	Officers	Enlisted	Total
2021	254,213	1,169,396	1,423,609			
2022	256,406	1,168,854	1,425,260	\$22,201,832	\$45,496,304	\$67,698,136
2023	253,559	1,151,528	1,405,087	\$23,225,405	\$47,294,459	\$70,519,864
2024	252,436	1,144,325	1,396,761	\$23,757,868	\$48,057,993	\$71,815,861
2025	251,625	1,139,910	1,391,535	\$24,357,916	\$49,027,980	\$73,385,897
2026	250,766	1,135,365	1,386,131	\$24,969,984	\$50,083,038	\$75,053,022
2027	249,843	1,127,853	1,377,696	\$25,596,672	\$51,125,049	\$76,721,721
2028	249,843	1,127,853	1,377,696	\$26,276,656	\$52,273,781	\$78,550,437
2029	249,843	1,127,853	1,377,696	\$27,024,355	\$53,602,918	\$80,627,273
2030	249,843	1,127,853	1,377,696	\$27,788,959	\$54,972,969	\$82,761,928
2031	249,843	1,127,853	1,377,696	\$28,586,926	\$56,394,338	\$84,981,264
2032	249,843	1,127,853	1,377,696	\$29,466,741	\$57,946,453	\$87,413,194
2033	249,843	1,127,853	1,377,696	\$30,376,820	\$59,509,109	\$89,885,930
2034	249,843	1,127,853	1,377,696	\$31,313,064	\$61,107,262	\$92,420,327
2035	249,843	1,127,853	1,377,696	\$32,286,107	\$62,783,566	\$95,069,673
2036	249,843	1,127,853	1,377,696	\$33,272,204	\$64,493,984	\$97,766,188
2037	249,843	1,127,853	1,377,696	\$34,263,076	\$66,222,651	\$100,485,726
2038	249,843	1,127,853	1,377,696	\$35,245,033	\$67,976,821	\$103,221,854
2039	249,843	1,127,853	1,377,696	\$36,239,068	\$69,777,263	\$106,016,330
2040	249,843	1,127,853	1,377,696	\$37,278,382	\$71,636,465	\$108,914,847
2041	249,843	1,127,853	1,377,696	\$38,357,816	\$73,586,108	\$111,943,924
2042	249,843	1,127,853	1,377,696	\$39,402,396	\$75,581,875	\$114,984,271
2043	249,843	1,127,853	1,377,696	\$40,481,697	\$77,628,945	\$118,110,642
2044	249,843	1,127,853	1,377,696	\$41,645,789	\$79,765,151	\$121,410,940
2045	249,843	1,127,853	1,377,696	\$42,822,119	\$81,963,413	\$124,785,532
2046	249,843	1,127,853	1,377,696	\$44,020,111	\$84,221,122	\$128,241,232

NONRETIRED RESERVISTS PERSONNEL AND PAY BY FISCAL YEAR

(Dollar Amounts in Thousands)

Fiscal Year	People at Year End (September 30th)			Dollars During Fiscal Year		
	Officers	Enlisted	Total	Officers	Enlisted	Total
2021	116,989	585,640	702,629			
2022	115,576	591,890	707,466	\$2,910,823	\$5,524,772	\$8,435,595
2023	114,355	590,632	704,987	\$3,052,890	\$5,804,507	\$8,857,397
2024	114,177	587,757	701,934	\$3,148,205	\$5,908,317	\$9,056,523
2025	113,996	586,625	700,621	\$3,249,195	\$6,037,584	\$9,286,780
2026	113,919	584,351	698,270	\$3,350,779	\$6,176,484	\$9,527,263
2027	113,756	583,379	697,135	\$3,456,282	\$6,318,547	\$9,774,829
2028	113,756	583,379	697,135	\$3,566,389	\$6,486,019	\$10,052,408
2029	113,756	583,379	697,135	\$3,682,171	\$6,655,579	\$10,337,750
2030	113,756	583,379	697,135	\$3,799,564	\$6,823,411	\$10,622,975
2031	113,756	583,379	697,135	\$3,917,250	\$6,998,303	\$10,915,553
2032	113,756	583,379	697,135	\$4,043,294	\$7,187,911	\$11,231,204
2033	113,756	583,379	697,135	\$4,172,728	\$7,385,592	\$11,558,319
2034	113,756	583,379	697,135	\$4,302,381	\$7,592,238	\$11,894,620
2035	113,756	583,379	697,135	\$4,433,302	\$7,804,703	\$12,238,005
2036	113,756	583,379	697,135	\$4,572,788	\$8,022,443	\$12,595,232
2037	113,756	583,379	697,135	\$4,721,573	\$8,246,122	\$12,967,695
2038	113,756	583,379	697,135	\$4,876,882	\$8,476,225	\$13,353,108
2039	113,756	583,379	697,135	\$5,033,511	\$8,712,626	\$13,746,137
2040	113,756	583,379	697,135	\$5,191,717	\$8,955,514	\$14,147,231
2041	113,756	583,379	697,135	\$5,357,467	\$9,204,930	\$14,562,396
2042	113,756	583,379	697,135	\$5,534,073	\$9,460,110	\$14,994,183
2043	113,756	583,379	697,135	\$5,722,255	\$9,721,045	\$15,443,299
2044	113,756	583,379	697,135	\$5,919,073	\$9,988,451	\$15,907,524
2045	113,756	583,379	697,135	\$6,121,424	\$10,263,496	\$16,384,920
2046	113,756	583,379	697,135	\$6,331,646	\$10,546,955	\$16,878,601

TOTAL NUMBER OF RETIREES ON SEPTEMBER 30 OF EACH FISCAL YEAR

Fiscal Year	Nondisabled (non-CSB/Redux)			Nondisabled (CSB/Redux)			Disabled			Grand Total
	Officers	Enlisted	Total	Officers	Enlisted	Total	Officers	Enlisted	Total	
2021	518,323	1,260,739	1,779,062	5,540	81,851	87,391	22,499	107,525	130,024	1,996,477
2022	520,655	1,263,514	1,784,169	5,838	85,177	91,015	23,058	107,804	130,862	2,006,044
2023	522,454	1,265,071	1,787,526	6,082	87,869	93,951	23,601	107,870	131,471	2,012,944
2024	524,098	1,266,837	1,790,934	6,267	89,393	95,660	24,188	107,952	132,140	2,018,727
2025	525,159	1,265,735	1,790,894	6,417	90,404	96,822	24,759	107,781	132,540	2,020,244
2026	525,862	1,264,413	1,790,275	6,541	91,050	97,592	25,324	107,551	132,874	2,020,650
2027	526,066	1,260,814	1,786,880	6,639	91,399	98,038	25,883	107,313	133,196	2,017,881
2028	525,755	1,256,057	1,781,812	6,715	91,474	98,189	26,432	107,048	133,481	2,013,047
2029	525,113	1,250,124	1,775,237	6,772	91,391	98,163	26,975	106,769	133,745	2,006,422
2030	524,215	1,243,778	1,767,993	6,811	91,160	97,971	27,515	106,493	134,008	1,998,832
2031	522,751	1,235,853	1,758,604	6,836	90,833	97,669	28,048	106,243	134,291	1,988,882
2032	520,662	1,226,697	1,747,359	6,849	90,415	97,265	28,576	106,014	134,590	1,976,784
2033	518,225	1,216,959	1,735,184	6,851	89,912	96,763	29,105	105,830	134,935	1,963,484
2034	515,547	1,205,820	1,721,367	6,841	89,312	96,153	29,627	105,689	135,316	1,948,354
2035	512,656	1,194,035	1,706,691	6,825	88,634	95,459	30,144	105,548	135,692	1,932,119
2036	509,737	1,182,193	1,691,930	6,802	87,879	94,681	30,658	105,427	136,085	1,915,546
2037	507,143	1,170,776	1,677,919	6,773	87,043	93,816	31,174	105,331	136,505	1,899,400
2038	504,886	1,159,575	1,664,461	6,739	86,120	92,859	31,694	105,273	136,968	1,883,026
2039	502,803	1,148,850	1,651,653	6,699	85,104	91,803	32,213	105,244	137,457	1,866,316
2040	500,637	1,137,813	1,638,450	6,653	83,986	90,639	32,719	105,239	137,957	1,848,869
2041	499,088	1,126,594	1,625,682	6,601	82,761	89,362	33,213	105,231	138,443	1,831,569
2042	498,220	1,116,831	1,615,051	6,542	81,420	87,962	33,715	105,226	138,941	1,815,771
2043	496,607	1,106,334	1,602,941	6,475	79,957	86,432	34,209	105,247	139,456	1,798,408
2044	495,352	1,095,815	1,591,167	6,401	78,366	84,766	34,681	105,262	139,942	1,781,014
2045	494,127	1,085,145	1,579,272	6,317	76,641	82,958	35,146	105,291	140,437	1,763,263
2046	492,970	1,074,595	1,567,564	6,223	74,778	81,001	35,602	105,326	140,927	1,745,457

*This projection includes retired from active and reserve duty.

Non-CSB/Redux figures include both active and reserve duty retirees, while CSB/Redux figures include only active duty retirees.

**The number of retirees projected only considers those receiving non-zero retired pay from the Military Retirement Fund.

Technical Reference to the FY 2021 Valuation of the Military Retirement System

TOTAL ANNUAL RETIRED PAY FOR EACH FISCAL YEAR

(Dollar Amounts in Thousands)

Fiscal Year	Nondisabled (non-CSB/Redux)			Nondisabled (CSB/Redux)			Disabled			Grand Total
	Officers	Enlisted	Total	Officers	Enlisted	Total	Officers	Enlisted	Total	
2022	\$26,393,883	\$31,043,043	\$57,436,926	\$268,941	\$2,041,601	\$2,310,542	\$710,338	\$1,360,080	\$2,070,417	\$61,817,885
2023	\$27,805,598	\$32,553,663	\$60,359,261	\$298,377	\$2,221,309	\$2,519,686	\$749,201	\$1,399,750	\$2,148,952	\$65,027,898
2024	\$28,749,972	\$33,528,308	\$62,278,280	\$321,285	\$2,346,145	\$2,667,430	\$776,595	\$1,414,946	\$2,191,540	\$67,137,250
2025	\$29,574,879	\$34,358,303	\$63,933,182	\$341,606	\$2,444,025	\$2,785,631	\$802,991	\$1,427,150	\$2,230,141	\$68,948,954
2026	\$30,409,675	\$35,202,886	\$65,612,561	\$361,274	\$2,534,330	\$2,895,605	\$830,637	\$1,440,556	\$2,271,193	\$70,779,359
2027	\$31,250,270	\$36,048,284	\$67,298,553	\$380,573	\$2,619,944	\$3,000,516	\$859,590	\$1,455,617	\$2,315,207	\$72,614,277
2028	\$32,089,754	\$36,881,157	\$68,970,911	\$399,871	\$2,702,750	\$3,102,621	\$889,779	\$1,472,118	\$2,361,897	\$74,435,429
2029	\$32,933,862	\$37,714,684	\$70,648,546	\$419,309	\$2,789,236	\$3,208,545	\$921,057	\$1,489,608	\$2,410,665	\$76,267,757
2030	\$33,789,181	\$38,562,837	\$72,352,018	\$439,585	\$2,889,914	\$3,329,500	\$953,778	\$1,508,399	\$2,462,177	\$78,143,694
2031	\$34,696,984	\$39,465,521	\$74,162,505	\$463,491	\$3,020,258	\$3,483,748	\$989,392	\$1,530,986	\$2,520,379	\$80,166,632
2032	\$35,617,029	\$40,391,410	\$76,008,439	\$490,209	\$3,173,736	\$3,663,945	\$1,027,065	\$1,555,941	\$2,583,006	\$82,255,390
2033	\$36,532,739	\$41,328,768	\$77,861,507	\$514,895	\$3,324,664	\$3,839,559	\$1,066,587	\$1,582,930	\$2,649,517	\$84,350,584
2034	\$37,449,519	\$42,239,537	\$79,689,056	\$537,134	\$3,459,331	\$3,996,465	\$1,108,077	\$1,612,297	\$2,720,374	\$86,405,895
2035	\$38,371,705	\$43,146,093	\$81,517,799	\$555,953	\$3,581,621	\$4,137,574	\$1,151,445	\$1,643,268	\$2,794,713	\$88,450,086
2036	\$39,304,384	\$44,069,490	\$83,373,874	\$572,581	\$3,692,345	\$4,264,926	\$1,196,692	\$1,675,407	\$2,872,099	\$90,510,900
2037	\$40,267,435	\$45,029,477	\$85,296,912	\$587,499	\$3,792,619	\$4,380,118	\$1,244,093	\$1,708,991	\$2,953,083	\$92,630,113
2038	\$41,267,472	\$46,089,750	\$87,357,222	\$601,104	\$3,881,745	\$4,482,849	\$1,294,198	\$1,744,363	\$3,038,561	\$94,878,631
2039	\$42,299,960	\$47,177,797	\$89,477,757	\$613,063	\$3,960,917	\$4,573,979	\$1,347,067	\$1,781,394	\$3,128,461	\$97,180,198
2040	\$43,328,934	\$48,098,398	\$91,427,332	\$623,710	\$4,032,047	\$4,655,757	\$1,401,921	\$1,819,764	\$3,221,685	\$99,304,774
2041	\$44,395,759	\$48,987,906	\$93,383,664	\$633,297	\$4,093,319	\$4,726,616	\$1,457,818	\$1,858,675	\$3,316,493	\$101,426,773
2042	\$45,551,148	\$49,945,150	\$95,496,298	\$641,918	\$4,145,884	\$4,787,802	\$1,515,692	\$1,897,924	\$3,413,616	\$103,697,716
2043	\$46,661,664	\$50,784,389	\$97,446,054	\$649,151	\$4,186,683	\$4,835,834	\$1,576,195	\$1,937,980	\$3,514,175	\$105,796,063
2044	\$47,795,387	\$51,635,297	\$99,430,684	\$654,839	\$4,216,612	\$4,871,451	\$1,637,884	\$1,978,626	\$3,616,510	\$107,918,644
2045	\$48,945,051	\$52,447,678	\$101,392,730	\$659,142	\$4,233,248	\$4,892,389	\$1,700,641	\$2,019,702	\$3,720,343	\$110,005,462
2046	\$50,115,004	\$53,241,149	\$103,356,153	\$662,626	\$4,233,139	\$4,895,765	\$1,765,094	\$2,061,623	\$3,826,718	\$112,078,636

*This projection includes retired from active and reserve duty.

Non-CSB/Redux figures include both active and reserve duty retirees, while CSB/Redux figures include only active duty retirees.

RETIREE GAIN STATEMENT

Fiscal Year	Gains During the Fiscal Year						Average Starting Net Retired Pay Before CPI Increase					
	Nondisabled (non-CSB/Redux)		Nondisabled (CSB/Redux)		Disabled		Nondisabled (non-CSB/Redux)		Nondisabled (CSB/Redux)		Disabled	
	Officers	Enlisted	Officers	Enlisted	Officers	Enlisted	Officers	Enlisted	Officers	Enlisted	Officers	Enlisted
2022	15,706	37,705	304	3,510	1,323	5,257	\$50,768	\$22,471	\$67,253	\$31,560	\$51,779	\$22,679
2023	15,259	36,876	252	2,896	1,321	5,180	\$52,531	\$23,909	\$72,900	\$33,536	\$54,508	\$24,049
2024	15,223	37,438	193	1,751	1,326	5,134	\$54,420	\$25,339	\$82,376	\$39,985	\$57,560	\$25,610
2025	14,786	34,895	159	1,262	1,324	5,095	\$56,914	\$26,673	\$90,333	\$44,568	\$60,895	\$27,224
2026	14,592	34,901	134	922	1,318	5,026	\$59,034	\$27,756	\$97,985	\$49,341	\$64,211	\$28,714
2027	14,270	32,850	109	654	1,314	5,002	\$60,864	\$28,962	\$104,462	\$54,161	\$67,749	\$30,360
2028	13,943	31,909	89	412	1,308	4,953	\$62,843	\$29,930	\$111,632	\$61,412	\$71,589	\$31,980
2029	13,800	30,922	71	290	1,304	4,910	\$64,689	\$30,981	\$117,955	\$66,857	\$75,761	\$33,679
2030	13,727	30,658	54	182	1,304	4,883	\$66,607	\$32,053	\$125,572	\$74,694	\$80,540	\$35,468
2031	13,340	29,229	42	130	1,301	4,875	\$68,909	\$33,138	\$133,131	\$79,531	\$86,065	\$37,402
2032	12,877	28,072	32	88	1,299	4,865	\$71,574	\$34,717	\$140,145	\$84,536	\$91,700	\$39,387
2033	12,679	27,537	23	57	1,304	4,880	\$73,577	\$36,136	\$149,270	\$89,063	\$98,238	\$41,547
2034	12,571	26,271	15	20	1,300	4,897	\$75,426	\$37,256	\$163,018	\$97,006	\$105,242	\$43,866
2035	12,465	25,702	10	8	1,299	4,874	\$77,531	\$38,444	\$175,352	\$104,478	\$112,240	\$46,073
2036	12,516	25,660	7	3	1,299	4,870	\$79,462	\$39,616	\$186,765	\$112,006	\$119,771	\$48,379
2037	12,877	25,993	5	1	1,302	4,872	\$81,030	\$40,408	\$198,711	\$119,154	\$127,624	\$50,772
2038	13,211	25,611	3	1	1,310	4,885	\$82,340	\$40,214	\$212,174	\$125,858	\$136,251	\$53,687
2039	13,345	25,261	2	0	1,312	4,893	\$83,681	\$39,721	\$226,002	\$132,492	\$145,350	\$57,046
2040	13,206	24,719	1	0	1,303	4,897	\$85,067	\$39,806	\$239,254	\$138,532	\$154,822	\$60,425
2041	13,735	24,337	1	0	1,296	4,879	\$86,992	\$40,069	\$249,116	\$142,821	\$158,755	\$63,330
2042	14,215	25,249	0	0	1,311	4,865	\$87,058	\$39,776	\$249,665	\$144,585	\$170,630	\$65,775
2043	13,346	24,359	0	0	1,308	4,874	\$89,835	\$40,195	\$249,933	\$149,276	\$182,160	\$67,785
2044	13,505	23,944	0	0	1,294	4,853	\$91,131	\$40,568	\$261,394	\$146,864	\$190,816	\$69,206
2045	13,345	23,417	0	0	1,297	4,855	\$93,497	\$41,243	\$0	\$0	\$200,806	\$70,430
2046	13,217	23,113	0	0	1,297	4,853	\$95,736	\$42,098	\$0	\$0	\$210,287	\$71,306

*This projection includes retired from active and reserve duty.

Non-CSB/Redux figures include both new active and reserve duty retirements, while CSB/Redux figures include only new active duty retirements.

**The difference in average retired pay between Non-CSB/Redux and CSB/Redux is due to CSB/Redux retirees typically retiring with higher years of service and pay than non-CSB/Redux retirees.

***Gains during the year include those people who die before year end. All figures are after total and partial VA offsets.

TOTAL NUMBER OF SURVIVORS ON SEPTEMBER 30 OF EACH FISCAL YEAR

Fiscal Year	Active Non-CSB/Redux	Active CSB/Redux	Reserve	Minimum Income	Death on Active Duty	RSFPP	Total
2021	206,302	357	93,141	43	14,941	2,980	317,764
2022	206,530	417	95,389	33	14,936	2,568	319,873
2023	206,405	486	97,637	27	14,935	2,199	321,690
2024	205,958	565	99,955	23	14,845	1,874	323,221
2025	205,222	655	102,333	19	14,694	1,593	324,516
2026	204,239	757	104,745	16	14,420	1,351	325,528
2027	203,042	873	107,162	13	14,040	1,145	326,275
2028	201,662	1,003	109,559	11	13,550	971	326,755
2029	200,132	1,150	111,907	9	12,928	824	326,948
2030	198,498	1,314	114,174	7	12,239	702	326,933
2031	196,807	1,497	116,325	6	11,580	601	326,813
2032	195,106	1,702	118,322	5	11,072	517	326,719
2033	193,427	1,930	120,135	4	10,626	449	326,563
2034	191,809	2,182	121,738	3	10,249	393	326,363
2035	190,281	2,462	123,106	3	9,977	347	326,161
2036	188,859	2,771	124,216	2	9,815	310	325,953
2037	187,553	3,110	125,049	2	9,731	279	325,699
2038	186,363	3,483	125,594	1	9,683	254	325,345
2039	185,284	3,890	125,844	1	9,661	234	324,871
2040	184,303	4,334	125,806	1	9,653	216	324,258
2041	183,404	4,815	125,489	1	9,662	201	323,502
2042	182,570	5,335	124,912	0	9,674	188	322,593
2043	181,778	5,894	124,098	0	9,685	177	321,524
2044	181,010	6,491	123,081	0	9,698	166	320,313
2045	180,246	7,127	121,895	0	9,710	157	318,973
2046	179,465	7,800	120,576	0	9,719	147	317,512

*This projection includes survivors of members who retired from active and reserve duty.

Non-CSB/Redux figures include both survivors of active and reserve duty retirees, while CSB/Redux figures include only survivors of active duty retirees.

**The number of survivors projected only considers those receiving non-zero pay from the Military Retirement Fund.

***RCSBP survivors include all survivors of reservists, not just those electing pre-age 60 coverage.

TOTAL ANNUAL SURVIVOR BENEFITS FOR EACH FISCAL YEAR

(Dollar Amounts in Thousands)

(Dollar Amounts in Thousands)

Fiscal Year	Active Non-CSB/Redux	Active CSB/Redux	Reserve	Minimum Income	Death on Active Duty	RSFPP	Total
2022	\$3,683,891	\$5,445	\$888,128	\$364	\$225,649	\$7,520	\$4,810,997
2023	\$3,840,907	\$6,795	\$955,024	\$297	\$237,360	\$6,599	\$5,046,982
2024	\$3,928,569	\$8,281	\$1,008,658	\$252	\$244,434	\$5,749	\$5,195,941
2025	\$3,996,538	\$9,992	\$1,061,066	\$213	\$249,449	\$4,986	\$5,322,244
2026	\$4,063,126	\$12,019	\$1,116,713	\$180	\$253,282	\$4,326	\$5,449,646
2027	\$4,128,463	\$14,376	\$1,175,430	\$152	\$256,015	\$3,762	\$5,578,198
2028	\$4,192,687	\$17,146	\$1,237,048	\$129	\$258,028	\$3,282	\$5,708,320
2029	\$4,255,903	\$20,470	\$1,301,319	\$109	\$259,073	\$2,875	\$5,839,748
2030	\$4,318,451	\$24,295	\$1,367,921	\$92	\$259,445	\$2,532	\$5,972,736
2031	\$4,387,367	\$28,788	\$1,438,576	\$78	\$260,535	\$2,245	\$6,117,590
2032	\$4,459,283	\$33,954	\$1,511,663	\$66	\$263,285	\$2,009	\$6,270,259
2033	\$4,532,742	\$39,830	\$1,585,998	\$56	\$267,038	\$1,813	\$6,427,476
2034	\$4,608,483	\$46,549	\$1,661,090	\$47	\$271,606	\$1,652	\$6,589,426
2035	\$4,687,411	\$54,173	\$1,736,416	\$39	\$277,460	\$1,519	\$6,757,019
2036	\$4,770,198	\$62,773	\$1,811,400	\$32	\$284,649	\$1,412	\$6,930,465
2037	\$4,857,534	\$72,462	\$1,885,396	\$27	\$292,822	\$1,324	\$7,109,565
2038	\$4,949,867	\$83,379	\$1,957,856	\$22	\$301,448	\$1,252	\$7,293,824
2039	\$5,047,403	\$95,680	\$2,028,293	\$18	\$310,489	\$1,192	\$7,483,075
2040	\$5,150,331	\$109,495	\$2,096,331	\$15	\$319,855	\$1,142	\$7,677,168
2041	\$5,258,692	\$125,008	\$2,161,705	\$12	\$329,601	\$1,100	\$7,876,118
2042	\$5,372,518	\$142,348	\$2,224,282	\$9	\$339,546	\$1,062	\$8,079,765
2043	\$5,491,487	\$161,689	\$2,284,023	\$7	\$349,620	\$1,028	\$8,287,855
2044	\$5,615,707	\$183,206	\$2,341,039	\$6	\$359,913	\$996	\$8,500,866
2045	\$5,745,016	\$207,059	\$2,395,568	\$4	\$370,370	\$966	\$8,718,984
2046	\$5,878,945	\$233,391	\$2,447,869	\$3	\$380,960	\$935	\$8,942,104

*This projection includes survivors of members who retired from active and reserve duty.

Non-CSB/Redux figures include both survivors of active and reserve duty retirees, while CSB/Redux figures include only survivors of active duty retirees.

**RCSBP survivors include all survivors of reservists, not just those electing pre-age 60 coverage.

***The Special Survivor Indemnity Allowance benefits are included with the appropriate survivor category.

TOTAL PROJECTED BASIC PAY AND RETIRED OUTLAYS

(Dollar Amounts in Thousands)

<u>Fiscal Year</u>	<u>Total Projected Basic Pay</u>	<u>Total Projected Outlays</u>	<u>Retired Outlays Over Basic Pay</u>
2022	\$76,133,731	\$66,628,882	87.5%
2023	\$79,377,261	\$70,074,880	88.3%
2024	\$80,872,383	\$72,333,191	89.4%
2025	\$82,672,677	\$74,271,198	89.8%
2026	\$84,580,285	\$76,229,005	90.1%
2027	\$86,496,550	\$78,192,475	90.4%
2028	\$88,602,845	\$80,143,749	90.5%
2029	\$90,965,023	\$82,107,504	90.3%
2030	\$93,384,903	\$84,116,431	90.1%
2031	\$95,896,817	\$86,284,222	90.0%
2032	\$98,644,398	\$88,525,649	89.7%
2033	\$101,444,249	\$90,778,060	89.5%
2034	\$104,314,946	\$92,995,321	89.1%
2035	\$107,307,678	\$95,207,104	88.7%
2036	\$110,361,420	\$97,441,365	88.3%
2037	\$113,453,421	\$99,739,678	87.9%
2038	\$116,574,961	\$102,172,456	87.6%
2039	\$119,762,468	\$104,663,273	87.4%
2040	\$123,062,078	\$106,981,942	86.9%
2041	\$126,506,320	\$109,302,891	86.4%
2042	\$129,978,454	\$111,777,481	86.0%
2043	\$133,553,941	\$114,083,918	85.4%
2044	\$137,318,464	\$116,419,510	84.8%
2045	\$141,170,452	\$118,724,446	84.1%
2046	\$145,119,833	\$121,020,740	83.4%

*Basic pay includes reserve and active duty basic pay; outlays include retired pay and survivor benefits.

**This projection includes retired from active and reserve duty.

***This projection includes pay for those retirees eligible for Concurrent Receipt.

APPENDIX L

TREASURY PAYMENTS

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METHOD OF AMORTIZING CHANGES IN THE UNFUNDED LIABILITY OF THE MILITARY RETIREMENT SYSTEM

Introduction

Section 1465 of Title 10 states that the Secretary of Defense shall determine amortization methods and schedules for the annual amortization of changes in the unfunded liability (UFL) of the MRS. The section also states that these methods and assumptions must be approved by the Board. The resulting payments are made by the Treasury to the MRF and do not affect the DoD budget.

There are three causes of changes in the Military Retirement System's unfunded liability—changes in benefits, annual experience gains or losses resulting from actual experience deviating from expected experience, and changes in actuarial assumptions used in the projected liability calculations. When a change in the unfunded liability does not fit into one of the three categories, the Board determines the most appropriate one. The following describes the technical procedure of amortizing these types of changes, as approved by the Board.

Amortization Procedure

All three types of changes in the UFL are amortized by means of payment schedules so that: (1) the annual amortization payments increase each year by the long-term basic pay scale assumption; (2) the payment stream completely liquidates the additional liability, with a new overall weighted period determined using 20 years weighted by the absolute value of the new liability and the remaining period on the unamortized balance prior to the new liability weighted by the absolute value of that balance; and (3) the payments are expressed to the nearest million dollars. The amortization payments increase at the same rate as the increase in the total basic payroll for a particular year—an outcome that is consistent with the way the normal cost payments and payments to amortize the system's initial UFL are determined. This method is no longer common for many private sector pension plans and has given way to an amortization schedule with level payments in order to cover interest costs. It is also often required for private pension plans to amortize changes in unfunded liabilities over a shorter time period. However, the methods applied to the MRF are similar to those that are or have been used by other federal and public sector pension plans. Additionally, the Board has annual discussions regarding the appropriateness of the amortization procedure. At its July 2021 meeting, the Board adopted a methodology change for amortizing the unfunded liability, moving from maintaining separate remaining amortization periods for amortizing experience gains and losses, assumption changes, and benefit changes bases to a combined 20-year layered basis.

Under this method, the remaining amortization period for the benefit changes, actuarial assumption changes, and actuarial experience gains and losses base will be reset to 20 years as of October 1, 2021. Going forward, the amortization period for any new basis will be 20 years. Annual payments on the initial UFL are also calculated to increase each year by the long-term basic pay scale increase assumption, and the initial UFL is currently scheduled to be liquidated with the October 1, 2025 payment.

Experience gains and losses, which create changes in the UFL, occur every year. The payment streams to amortize these changes are combined. This produces one single payment stream for

the category of experience gains and losses and eliminates the tedious tracking of up to 30 different small amortization schedules. OACT can identify the separate segments if the need arises.

A similar method of combining amortization schedules is used for changes in the UFL caused by changes in actuarial assumptions. Beginning with the September 30, 1995, valuation, changes to the UFL due to all benefit changes are being combined and amortized in a single stream of payments.

Actuarial gains and losses are changes in the UFL that result from actual experience in a pension plan deviating from what was expected, benefit changes, or assumption changes. An actuarial gain is a *decrease* in the UFL and is usually expressed as a negative number. Conversely, a loss represents an *increase* in the UFL and is usually expressed as a positive number. The amortization payment for a negative change (gain) is also expressed as a negative number. These negative amortization payments offset any positive amortization payments otherwise payable, including the (positive) payments amortizing the system's initial UFL.

Amortization payments for changes in the UFL are structured to increase each year with the basic pay scale increase assumption. When the payments are negative, their absolute values increase. Although this means that the payments are actually decreasing mathematically, for simplicity of expression both positive and negative amortization payments are said to "increase" by the basic pay scale increase assumption.

CALCULATION OF THE OCTOBER 1, 2022,
TREASURY PAYMENT

The following pages display the calculation of the October 1, 2022, Treasury payment based on the September 30, 2021, valuation results and amortization methods and assumptions approved by the Board. In order to avoid a projected shortfall in the MRF, the Board determined that, beginning with the FY 1998 payment, the total amortization period of the initial UFL would be decreased from 60 to 50 years. The Board again shortened the initial UFL amortization period in 2007 to 42 years in order for the payments to cover interest on the unfunded liability each year.

P.L. 108-136 required the Treasury to pay for the increase in the normal cost due to Concurrent Receipt. Beginning with FY 2005, Treasury includes the annual normal cost payment due to Concurrent Receipt along with the UFL payment in the October 1st contribution.

Treasury concurrent receipt normal costs displayed on the next page reflect actuarially calculated amounts. However, due to the Budget Control Act of 2011, in both FY 2022 and 2023, actual Treasury contributions for these amounts were reduced (or sequestered). The reductions were 8.3% (or \$0.957 billion) in FY 2022 and 8.3% (or \$0.961 billion) in FY 2023. The Board decided to treat the FY 2022 sequestered amount of \$0.957 billion as an experience loss in the FY 2021 valuation, and amortized it (brought forward with valuation interest rate) over one year.

TABLE L-1

TOTAL TREASURY PAYMENT
OCTOBER 1, 2022 AND OCTOBER 1, 2021

(\$ in billions)

	<u>October 1, 2022</u>	<u>October 1, 2021</u>
Amortization payment for:		
1. Initial unfunded liability	\$105.404	\$103.197
2. Changes in benefits	\$7.676	\$7.679
3. Gains and Losses Amortization		
a. Changes in actuarial assumptions	\$17.162	\$15.309
b. Actuarial experience	-\$10.799	-\$12.651
c. Unpaid contribution	\$0.995	\$0.929
Total amortization payment	<u>\$120.438</u>	<u>\$114.463</u>
Normal cost payment	<u>\$11.573</u>	<u>\$11.526</u>
Total Treasury payment	\$132.011	\$125.989

Note: Normal cost payments have not reflected the sequestration-mandated reductions.

TABLE L-2

CALCULATION OF OCTOBER 1, 2022,
PAYMENT ON INITIAL UNFUNDED LIABILITY (UFL)

(\$ in billions)

1. Unamortized balance of initial UFL (10/1/20 balance x 1.0425)	9/30/21	\$501.348
2. Payment on UFL	10/01/21	\$103.197
3. Unamortized balance of initial UFL (1. - 2.)	10/01/21	\$398.151
4. Balance on 9/30/22 (3. x 1.0400)	9/30/22	\$414.077
5. Number of Annual Payments Remaining	9/30/22	4
6. Value of an annuity due for remaining amortization period at interest rate equal to $(1.0400 \div 1.0275) - 1$		3.9285
7. Payment on initial UFL due 10/1/22 (4. ÷ 6.)		\$105.404

TABLE L-3

CALCULATION OF OCTOBER 1, 2022,
PAYMENT ON UNFUNDED LIABILITY (UFL)
RESULTING FROM BENEFIT CHANGES

(\$ in billions)

1. Unamortized UFL balance due to benefit changes (10/1/20 balance x 1.0425)	9/30/21	\$134.289
2. Payment on UFL	10/01/21	\$7.679
3. Unamortized UFL balance after payment (1. - 2.)	10/01/21	\$126.610
4. Additional (new) UFL due to benefit changes	9/30/21	\$0.000
5. Unamortized UFL balance due to benefit changes (3. + 4.)	10/01/21	\$126.610
6. Balance on 9/30/22 (5. x 1.0400)	9/30/22	\$131.674
7. Number of years in new amortization schedule (absolute values used for all numbers)		19.09
8. Value of an annuity due for remaining amortization period at interest rate equal to $(1.0400 \div 1.0275) - 1$		17.1535
9. Payment on UFL due to benefit changes (6. \div 8.)	10/01/22	\$7.676

TABLE L-4

CALCULATION OF OCTOBER 1, 2022,
PAYMENT ON UNFUNDED LIABILITY (UFL)
RESULTING FROM ASSUMPTION CHANGES

(\$ in billions)

1. Unamortized balance of UFL due to assumption changes (10/1/20 balance x 1.0425)	9/30/21	\$267.731
2. Payment on UFL	10/01/21	\$15.309
3. Unamortized UFL balance after payment (1. - 2.)	10/01/21	\$252.422
4. Additional (new) UFL	9/30/21	\$30.643
5. Unamortized UFL balance due to assumption changes (3. + 4.)	10/01/21	\$283.065
6. Balance on 9/30/22 (5. x 1.0400)	9/30/22	\$294.387
7. Number of years in new amortization schedule (absolute values used for all numbers)		19.09
8. Value of an annuity due for remaining amortization period at interest rate equal to $(1.0400 \div 1.0275) - 1$		17.1535
9. Payment on UFL due to assumption changes (6. \div 8.)	10/01/22	\$17.162

TABLE L-5

CALCULATION OF OCTOBER 1, 2022,
PAYMENT ON UNFUNDED LIABILITY (UFL)
RESULTING FROM EXPERIENCE GAINS AND LOSSES

(\$ in billions)

1. Unamortized UFL balance due to experience gains and losses (10/1/20 balance x 1.0425)	9/30/21	-\$220.324
2. Payment on UFL	10/01/21	-\$11.722
3. Unamortized UFL balance after payment (1. - 2.)	10/01/21	-\$208.602
4. Additional (new) UFL	9/30/21	\$30.492
5. Unamortized UFL balance due to experience gains and losses (3. + 4.)	10/01/21	-\$178.110
6. Balance on 9/30/22 (5. x 1.0400)	9/30/22	-\$185.235
7. Number of years in new amortization schedule (absolute values used for all numbers)		19.09
8. Value of an annuity due for remaining amortization period at interest rate equal to $(1.0400 \div 1.0275) - 1$		17.1535
9. Payment* on UFL due to experience gains and losses (6. \div 8.)	10/01/22	-\$10.799

* Excludes payment on loss due to 10/1/20 unpaid (sequestered) contribution.