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14. ABSTRACT
At their 15th year of service, military personnel who are eligible and intend to serve for 20 years must choose either: (1) High-3 retirement plan or (2) A reduced retirement (REDUX) and a $30,000 bonus paid at the 15th year of service. This paper is designed to help servicemembers make that decision. We describe the REDUX/bonus option as an early, partial cash-out of the servicemember's retirement pension that the member pays back in the form of reduced retirement checks over his or her entire lifetime. We calculate how much the servicemember will "pay back" (the reduction in pension benefits) and we calculate the implied APR or interest rate for this loan. For example, an E-7 who retires at age 38 with 20 years of service is paying an implicit interest rate of 14.8% and would see his or her retired pay reduced by $381,203 if he or she lived to 79 years. Even if the servicemember received the bonus tax free, the repayment amount is over 12 times the amount of the loan ($30,000). If this servicemember lives to 85, the repayment amount would be $504,085. For

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2012 Retirement Choices

Aline O. Quester • Lewis G. Lee • Anita U. Hattiangadi • Robert W. Shuford

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Photo credit line: Col Drexel Heard, director, Distribution Management Center, salutes LtGen Willie J. Williams, director, Marine Corps Staff, Headquarters Marine Corps, and the ceremony's retiring official, during his retirement ceremony at Schmid Field. Heard served 25 years in the Marine Corps and eight in the Navy.

Approved for distribution: June 2012

Anita Hattiangadi

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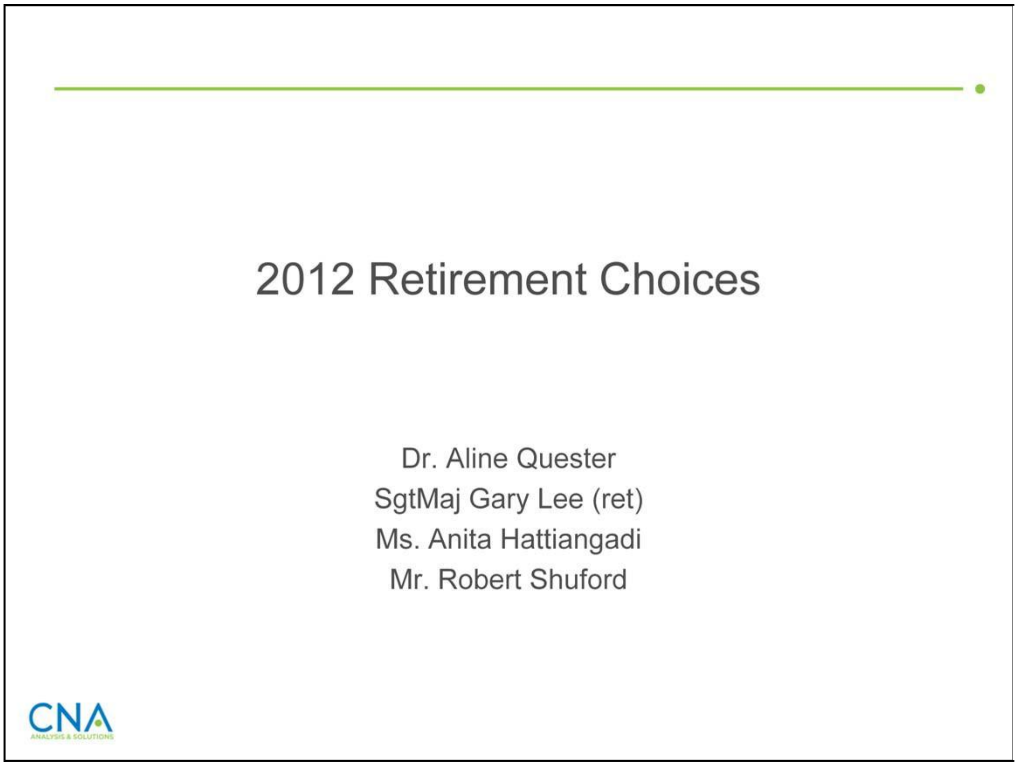

This briefing is designed to assist Marines considering the choice between High-3 retirement and a REDUX retirement with a $30,000 Career Status Bonus. For virtually every Marine, choosing REDUX/bonus results in a significant loss in retirement income over the course of a Marine's lifetime.

Military retirements come in the form of pensions. Pensions are risk-free, tax-sheltered, inflation-adjusted annuities with options for spousal benefits (such as the Survivor Benefit Plan) on the death of the member. Such private pension provisions are very expensive, and only a few companies offer them.

But some Marines are making irrevocable choices that don't maximize their retirement incomes. This briefing addresses those choices and how decisions can be made that best suit a Marine's unique set of circumstances.

Date of Entry into Armed Forces (DEAF)

- Obscure, but critical, date
  - Determines which is *your* retirement plan
  - Is on Statement of Leave and Earnings
- Date first enlisted/commissioned into *any* component of the armed forces
  - Has no bearing on longevity for pay or years of service
  - Should never change: not adjusted for broken time or time lost
- Other services/OSD call the date DIEMS or DIEUS

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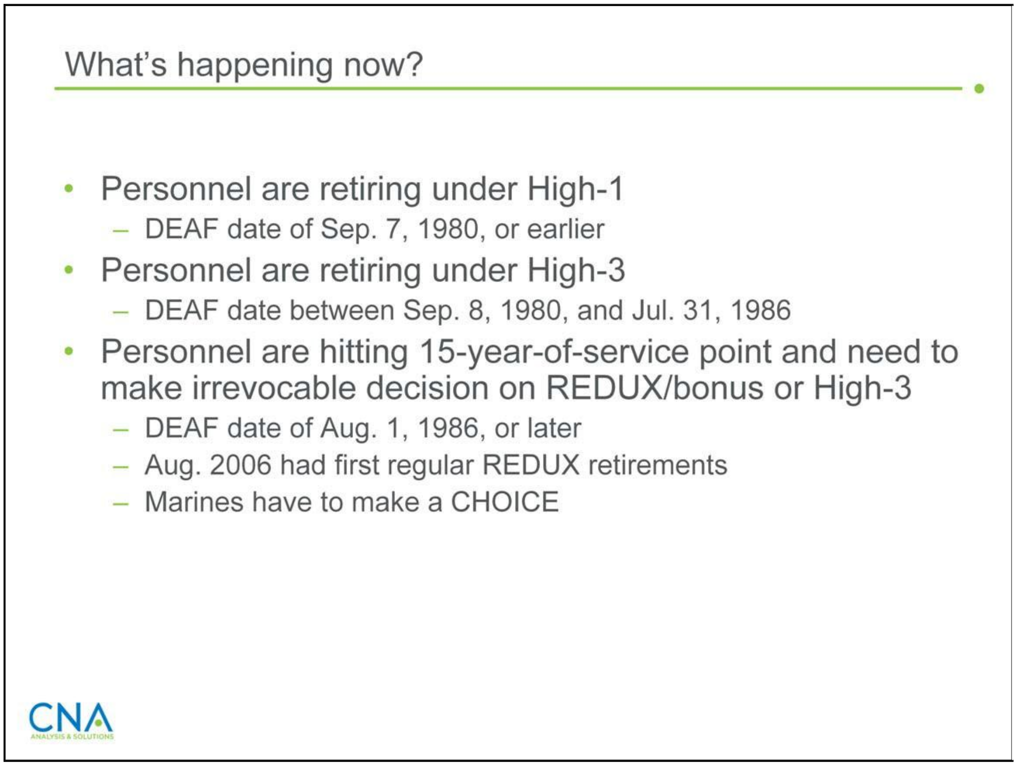
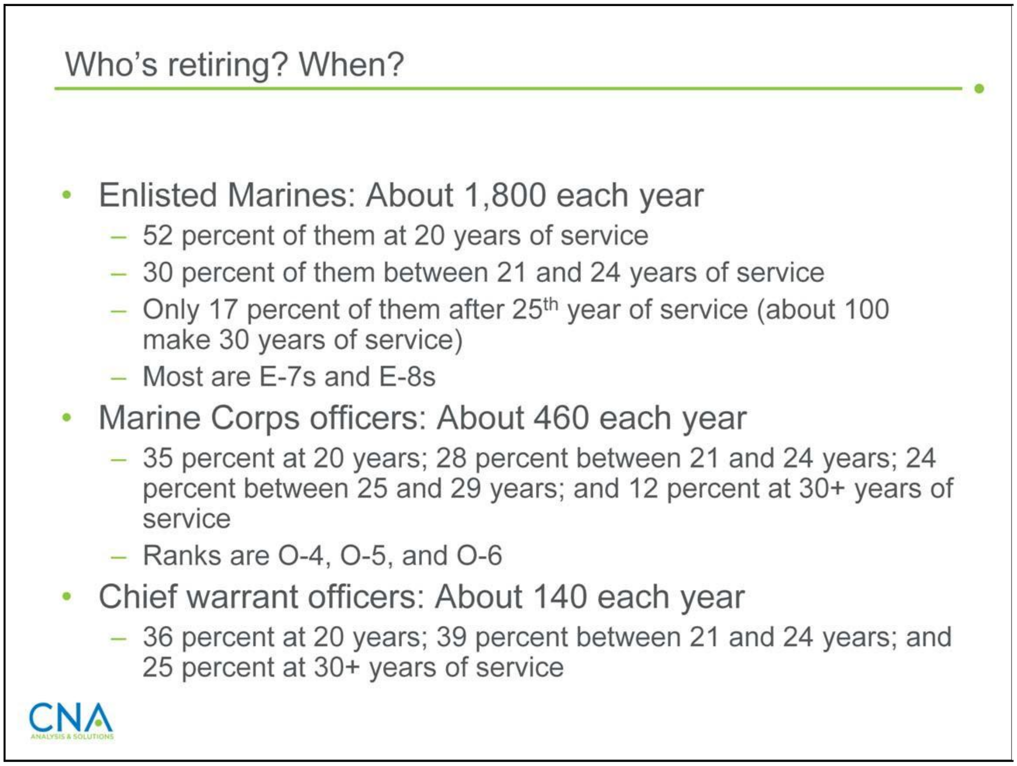
Military retirement is determined by federal laws and statutes that change when Congress periodically updates them. A Marine's eligibility for a certain retirement plan depends on the very first date that he or she entered military service. It will not change for those who were in both the active and reserve components or those who transferred from another branch of the military. It is called Date of Entry into Armed Forces (DEAF), Date of Initial Entry to Military Service (DIEMS), or Date of Initial Entry to Uniformed Service (DIEUS). This date is used to determine under which plan a Marine can retire, and it can be found on a Marine's Statement of Leave and Earnings.

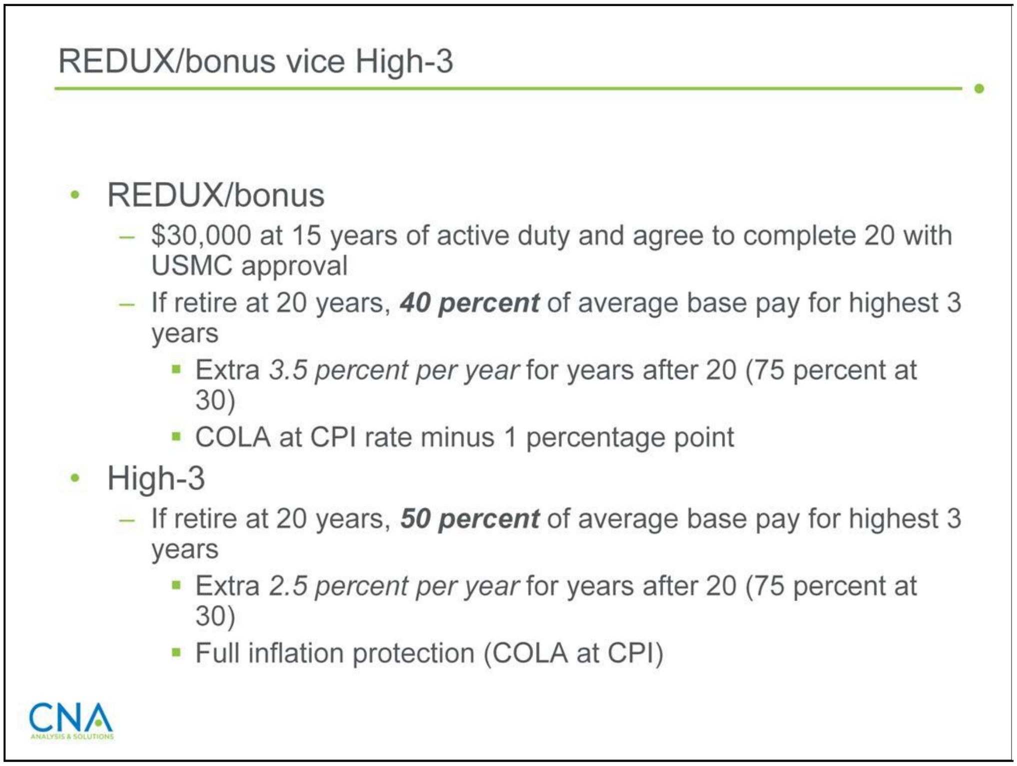


Retirement pay is based on the pay a Marine received while he or she was in the service. Those who initially entered service before Sep. 7, 1980, are retiring with their retirement pay calculated by the single highest paying year of basic pay (High-1). If a Marine entered the military between Sep. 8, 1980, and Jul. 31, 1986, his or her retirement is based on the average of the 3 highest paying years of basic pay, technically the highest paying 36 months (High-3).

Those who entered service on or after Aug. 1, 1986, have the option of High-3 or a reduced retirement with a bonus paid up front (REDUX/bonus). That decision has to be made at the 15-year point and is irrevocable; a Marine CANNOT change his or her retirement plan after election. The rest of this briefing addresses the monetary differences between these alternatives and how a Marine can make the best decision based on his or her personal situation.



Over the last decade, approximately 2,400 Marines (1,800 enlisted Marines, 460 officers, and 140 chief warrant officers) have retired each year. Of retiring enlisted Marines each year, about 52 percent have 20 years of service, while 17 percent have 25+ years of service. Most are gunnery sergeants and master sergeants/first sergeants. A little over a third of officers retire at 20 years of service and range from major to colonel. Most warrant officers retire between 21 and 24 years of service.



This slide compares the two retirement alternatives.

Under the REDUX/bonus option, a Marine receives a $30,000 Career Status Bonus, which is taxed, and agrees to complete at least 5 more years of active service (but must get the Marine Corps' approval for doing so). If the Marine retires at 20 years of service, he or she receives 40 percent of his or her average pay for the three highest paying years. For every year beyond 20 years of service (up to 30 years of service), the Marine receives an additional 3.5 percent increase to this amount. The retirement pay is adjusted each year to compensate for inflation (cost-of-living adjustment, or COLA) at the Consumer Price Index (CPI) rate minus 1 percent.

Under the High-3 option, a Marine who retires at 20 years of service receives 50 percent of his or her base pay. For every year beyond 20 years of service, the Marine receives an additional 2.5 percent increase to this amount (up to a maximum of 75 percent at 30 years of service). The retirement pay is adjusted each year to compensate for the full value of inflation (cost-of-living adjustment) at the CPI rate.

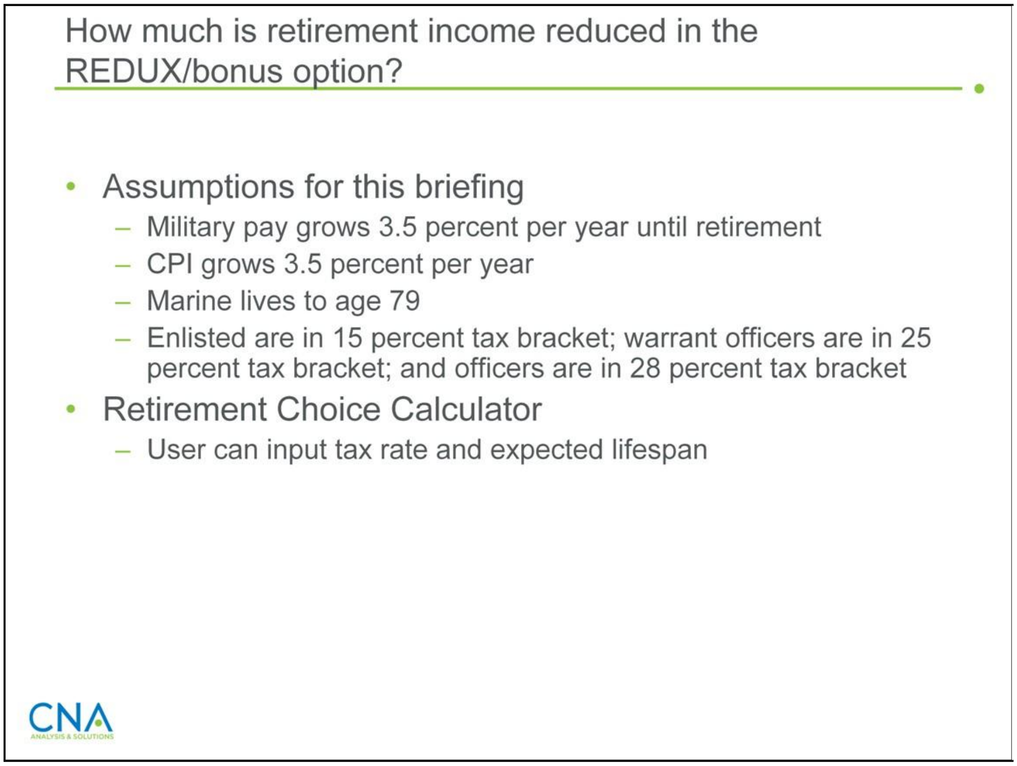
REDUX/bonus and High-3 features

Feature	REDUX/Bonus	High-3
% of basic pay (highest 36 months)	40	50
Risk	None – backed by U.S. government	None – backed by U.S. government
Taxes	Tax deferred until retirement begins	Tax deferred until retirement begins
Inflation Protection	Annual COLA increase (CPI – 1 percent)	Annual COLA increase (CPI)

Both retirement choices have the following features:

- Retirement income is a percentage of the average of the highest 36 months of basic pay. There is no risk; the retirement payments are specified by law and are guaranteed by the full faith and credit of the U.S. government.
- Income is deferred compensation for which no taxes are paid until the retired pay is received. Such plans are called tax-sheltered retirement plans. The service pays into the retirement fund each year, and the fund grows while the Marine is in the service. The Marine has no tax liability for the service's contributions to the retirement fund.
- Retirement income is protected against inflation. The High-3 has full inflation protection because it changes yearly with the CPI, whereas REDUX/bonus has less protection (CPI minus 1 percentage point). The value of inflation protection for retirement pay cannot be overemphasized. Most military members will be retired for about 40 years. In 40 years, one can expect prices to increase at least four times, meaning that what costs $1 at military retirement will end up costing $4.[1]

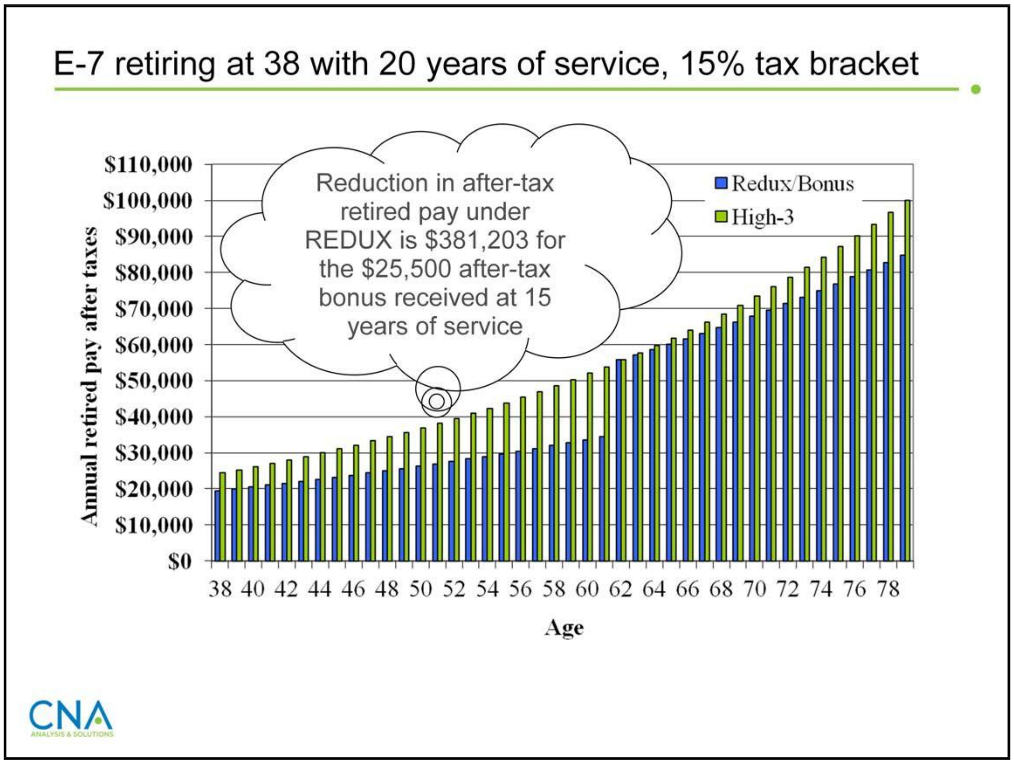
[1] The CPI in 2011 was over 7 times the level it was in 1960. This period includes the sharp inflation in 1974 (12.3 percent), 1979 (13.3 percent), and 1980 (12.5 percent). The commonly assumed 3.5-percent inflation rate leads to a fourfold increase in prices over a 40-year period.



To compare the two retirement plans, we must keep some aspects constant by making some assumptions. First, we assume that both military pay and the CPI will grow 3.5 percent each year. We also assume that the Marine lives to age 79, as the average life expectancy in the United States is approximately 79.[2] For tax purposes, we assume that enlisted Marines will fall in the 15-percent tax bracket, warrant officers will fall in the 25-percent tax bracket, and officers will be in the 28-percent tax bracket.

The calculator we developed allows the user to input the appropriate tax rate and expected lifespan to customize the information to his or her personal future circumstances. The calculator provides a more refined approximation of differences between the two plans.

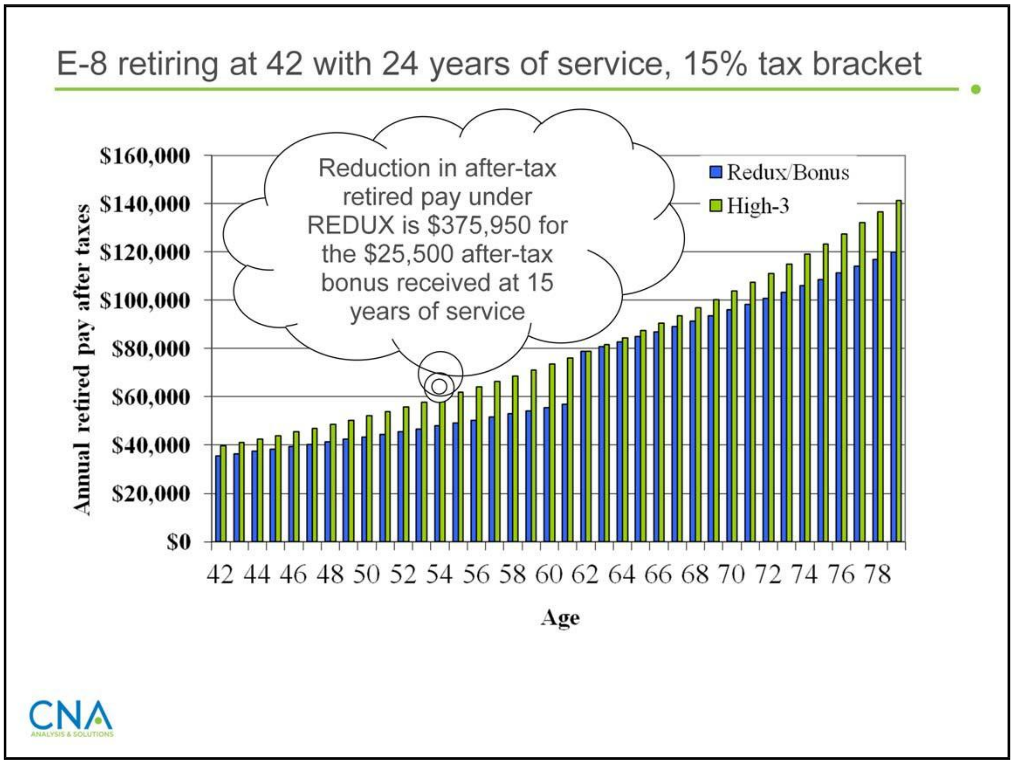
[2] The National Vital Statistics Reports show an additional 39.9 years for someone age 40, so we use an overall life expectancy of 79 years for military retirees. In a later section, we explore what happens if the servicemember lives past 79 years. See http://www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_09.pdf.



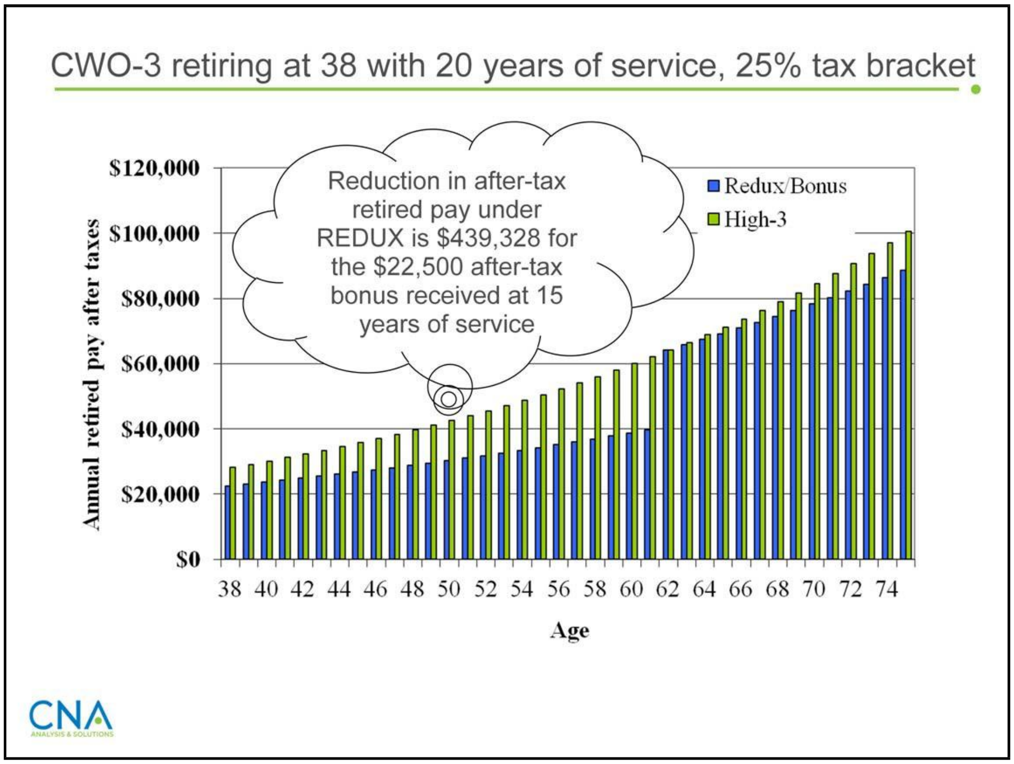
Some Marines may think that getting a lower amount of retirement income under the REDUX/bonus plan is appropriately offset by the bonus; however, over the life of a Marine, this $25,500 (after taxes) amount is drastically smaller than the reduction in future retirement income.

For an E-7 who retires at age 38 with 20 years of service and who is in the 15-percent tax bracket, the difference between retiring under High-3 and REDUX/bonus is $381,203 over his or her lifetime, assuming he or she lives until age 79. The design of the two plans makes them equal when the Marine is 62; however, before and after that age, the Marine receives less retirement pay under REDUX/bonus than the High-3 plan, largely because of the reduced COLA.

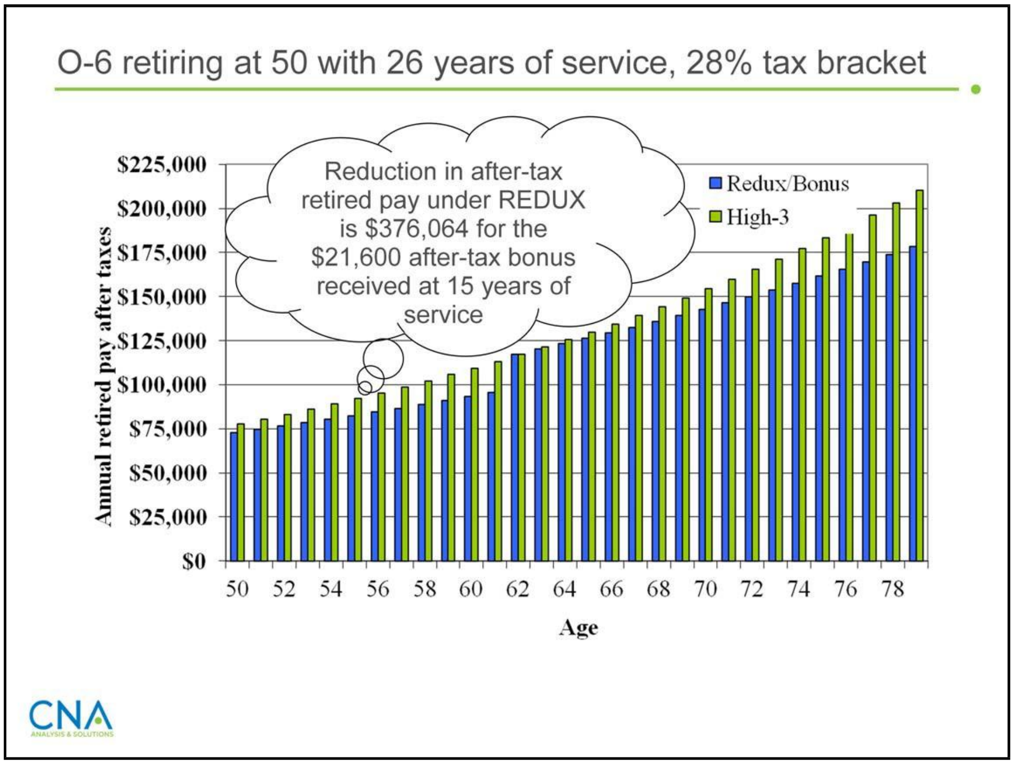
The higher the Marine's grade and the lower the years of service at retirement, the greater the reduction. In other words, fast-trackers who retire very early are penalized most severely. For *all* military personnel, however, REDUX retirement income is *substantially lower* than retirement income under High-3.



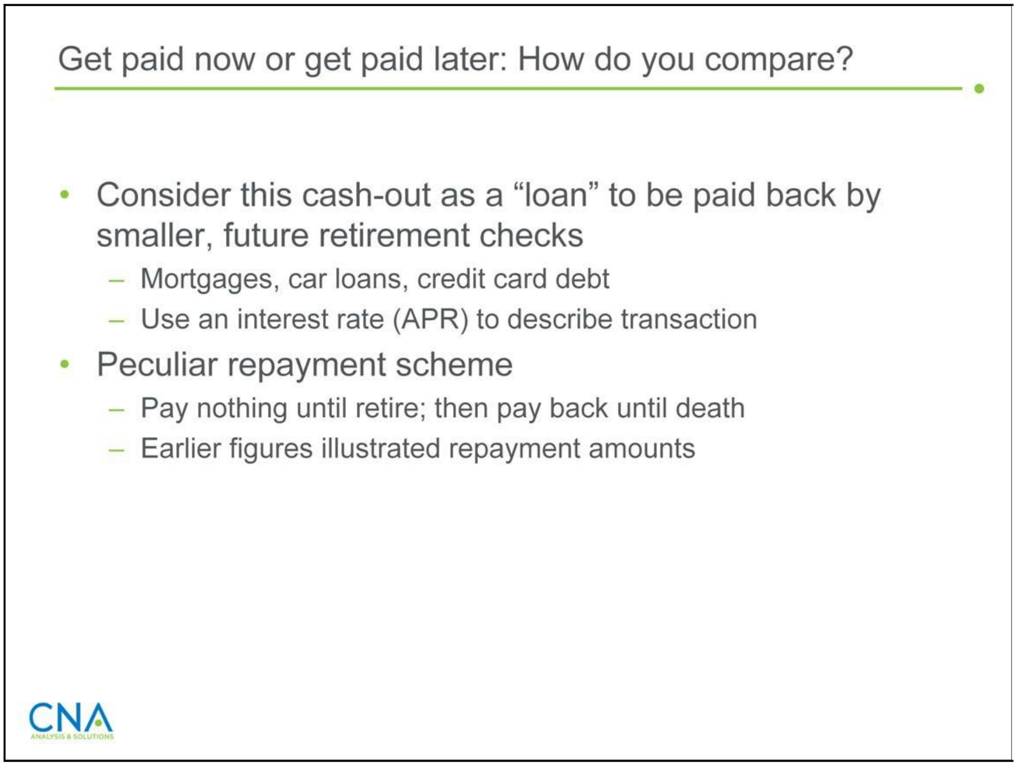
This slide shows the difference in payments for a Marine who expects to retire as an E-8 at age 42 with 24 years of service. Here, the reduction in retired pay ($375,950) is just a little less than that for the E-7 who retires at 38 with 20 years of service (previous slide).



This slide shows the situation for a CWO-3 who expects to retire at age 38 with 20 years of service. Here, the reduction in retirement pay is substantially higher under REDUX/bonus ($439,328).



This slide shows the situation for an O-6 who expects to retire at age 50 with 26 years of service. Here the officer's retired after-tax pay is $376,064 less under REDUX/bonus than it would have been under High-3.



Bonus-takers will get some of their retirement income early, at the 15-year-of-service point. The best way to think about this is to consider REDUX's $30,000 Career Status Bonus as an early cash-out of part of a Marine's retirement pension. We can calculate how much this cash-out costs the Marine by thinking of it as a "loan" to be paid back later in the form of lower retirement checks.

This so-called loan, given at 15 years of service, is paid back over the Marine's entire retired lifetime. Most people are familiar with car loans, mortgages, and credit card debt. Car loans and mortgages have fixed loan periods, often 5 years for cars and 30 years for mortgages. Credit card debt is a little different, requiring only a minimum payment per month. We characterize all of these loans by the interest rates and interest payments attached to them.

The $30,000 bonus has a rather peculiar payback scheme. The Marine pays nothing until retirement, pays quite a bit from the beginning of retirement until age 62, and then continues to pay back smaller amounts over the rest of his or her life. The "payments" are the differences in the height of the High-3 and REDUX/bonus bars in the four previous slides. Although this payment scheme is peculiar, we can calculate the implied interest rate, or annual percentage rate (APR).

Repayment amounts for the $30,000 Career Status Bonus

- Retiring at 20 years of service, age 40
  - $287,538 for E-6s
  - $335,557 for E-7s
  - $367,027 for E-8s
  - $419,730 for E-9s
  - $386,721 for CWO-3s
  - $426,537 for O-4s (retirement age 42)
  - $472,746 for O-5s (retirement age 42)
- If Marine lives to age 85, add another $100,000

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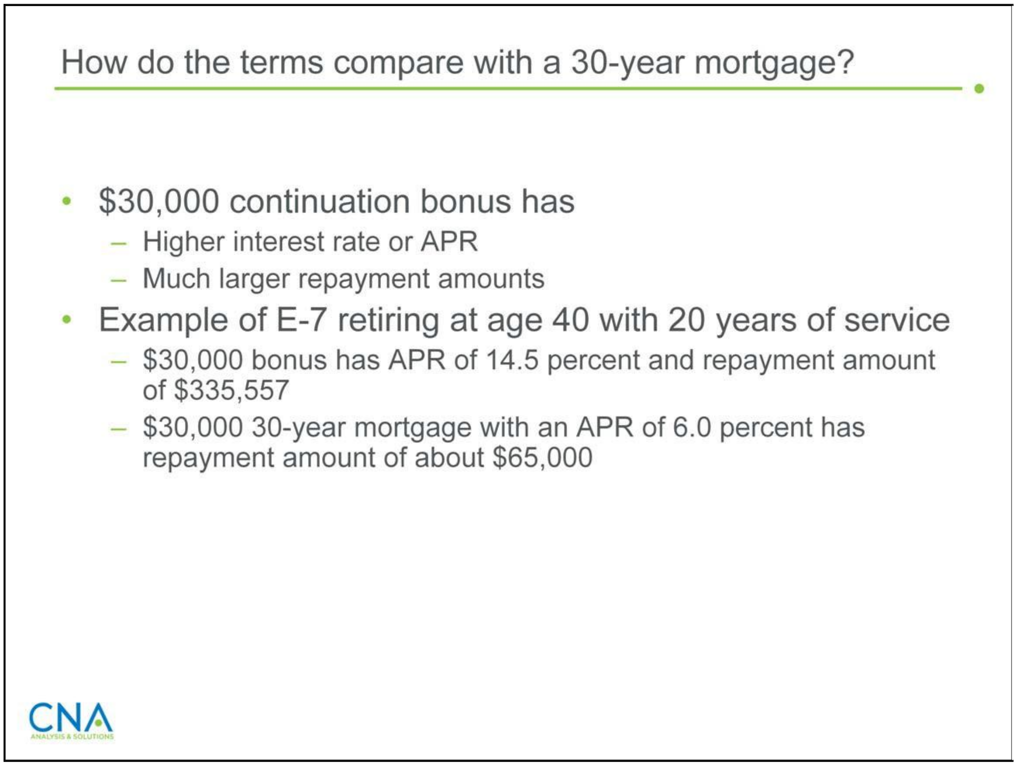
If an E-6 expects to retire at age 40 with 20 years of service and lives to age 79, our calculations show that, by selecting REDUX/bonus at 15 years of service, the Marine:

- Pays an implicit interest rate of 13.3 percent for the cash-out (this is after tax)
- Loses $287,538 in after-tax retirement income
- Would be required to earn at least 15.7 percent before tax *each year* until age 79 on the invested bonus to make up the difference between the REDUX retirement plan and the High-3 retirement plan.

If the Marine lives until age 85, the retirement income loss includes roughly another $100,000.



Even for a 9-percent, 30-year home mortgage loan—a *very high* interest rate by current standards—one pays back a little under three times the amount borrowed. For the after-tax portion of the $30,000 bonus, our calculations show that the Marine is paying back from 9 to over 18 times the bonus (i.e., the amount “borrowed”)![3] One might ask, “Why are the repayment amounts so large for this $30,000 ‘loan’”?

If the Marine dies at the retirement point, there is no repayment, the Marine received the $30,000 at the 15-year point but died before collecting any retirement monies. But most Marines will live well beyond the retirement point, so one reason why repayment amounts are so large is because the terms of this financial arrangement are *reduced retirement checks over the entire lifetime*.[4] Indeed, average life expectancy is 79 and Marines (who are in better physical condition than comparably aged civilians) likely live longer and lose more money since this “loan” cannot be paid off early and has no termination point.

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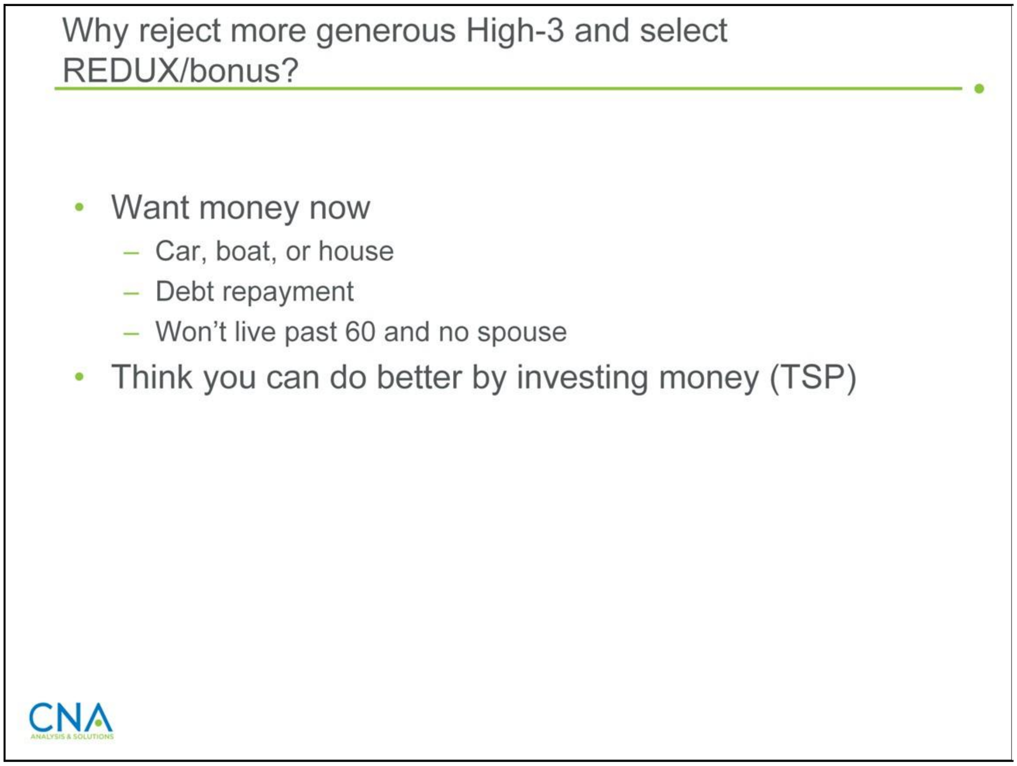
[3] All calculations are after taxes. An E-6 with 20 years of service who retires at age 42 pays back $252,092 for the $25,500 ($252,092/$25,500) = 9.9; an E-9 who retires with 20 years of service at age 38 pays back 18.7 times the amount borrowed ($476,827/$25,500).

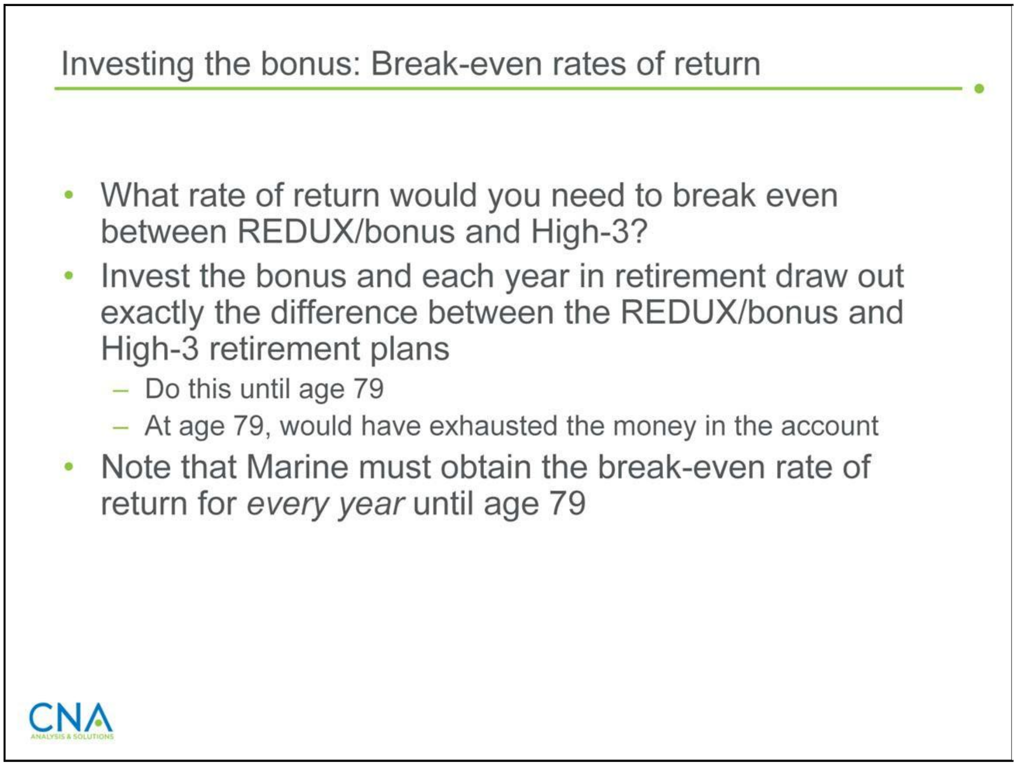
[4] We have not addressed survivor benefits in this analysis, but the reduced retirement income may make the Survivor Benefit Plan (SBP) unaffordable for some REDUX retirees.



Why would anyone reject the more generous High-3 retirement plan and select the bonus and associated reduced retirement payments under REDUX? There are two main reasons:

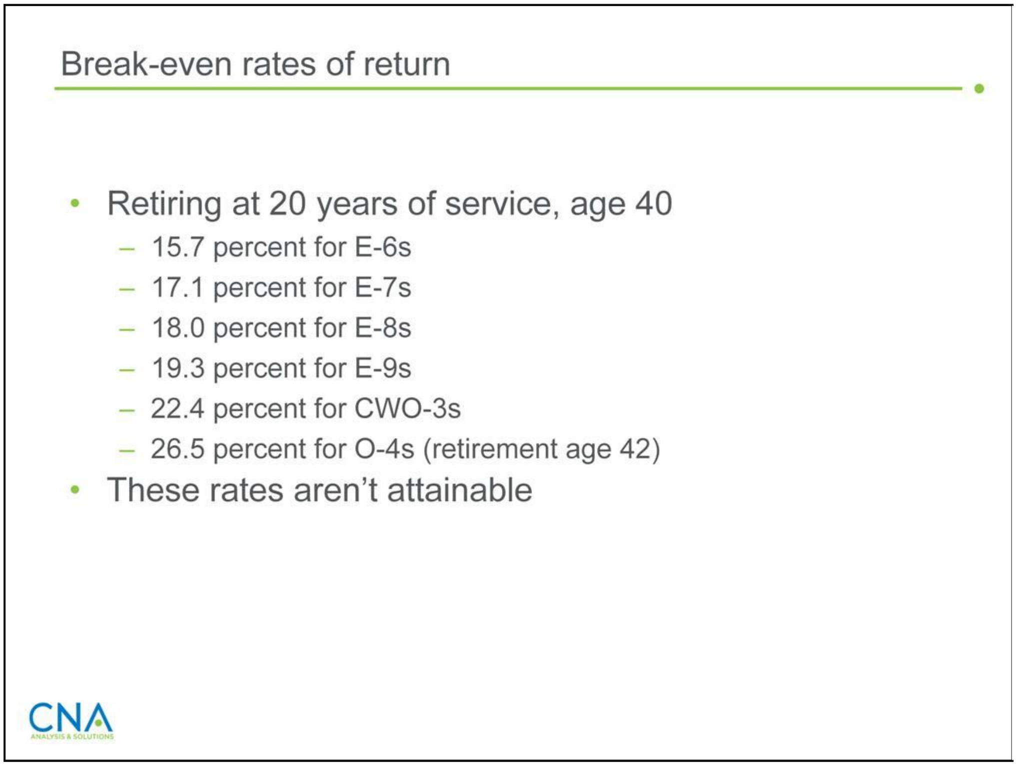
- Marines want or need money now.
- Marines think that they can do better by investing the $30,000.

Many have immediate financial needs, and many believe that the federal government's Thrift Savings Plan (TSP) provides especially good investment opportunities. Neither of these reasons, however, should justify the REDUX/ bonus choice. Marines who want or need money now should look into other (less costly) ways to obtain money. Are there alternatives for borrowing $30,000 that do not entail several hundred thousand dollars of interest payments?

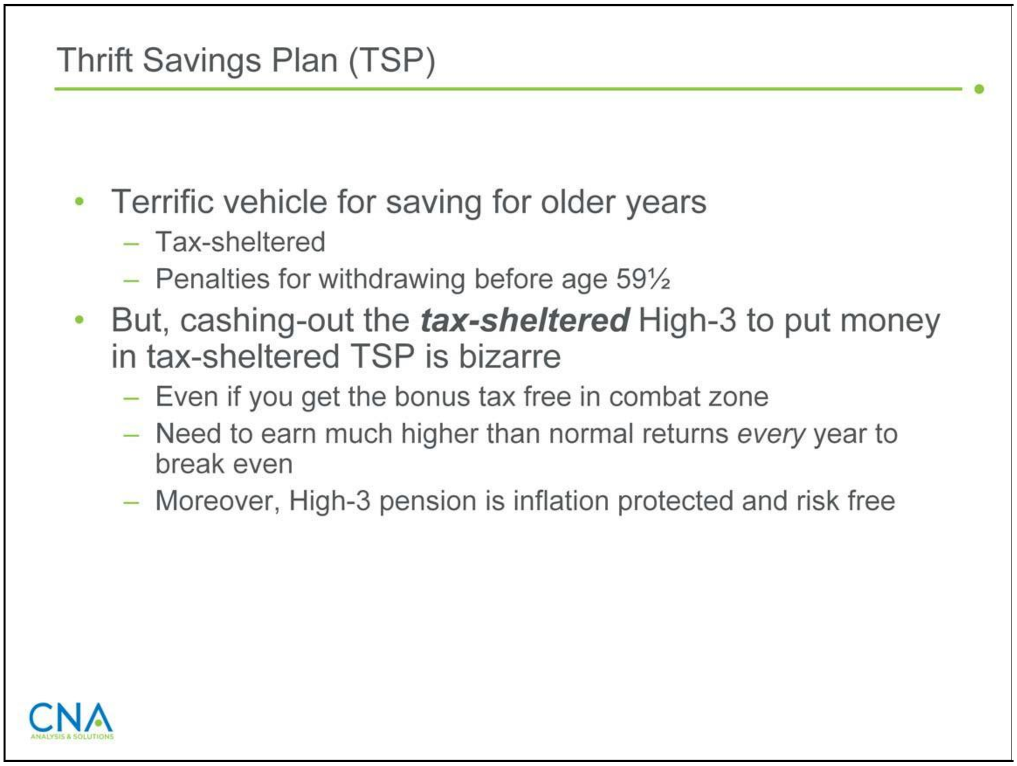


The break-even interest rate is the before-tax interest rate that a Marine would have to earn to equalize compensation under the High-3 and REDUX/bonus retirement packages. For example, if the Marine put the after-tax bonus into an investment account, that investment account would have to earn the break-even interest rate *every* year to generate an income equal to the yearly difference in retirement pensions. And, at age 79, the account would be exhausted. If, for only one year, the Marine earned less than the break-even interest rate, the account would be exhausted before the Marine's death.[5] The break-even interest rates are high enough that it will be virtually impossible for anyone to break even.

[5] The break-even interest rate is higher than the after-tax interest rate because taxes must be paid on investment income. The break-even interest rate times the tax rate is equal to the after-tax implicit interest rate.



In a strong and growing economy (which is not the current economic environment), investors commonly use 10 percent to indicate average or slightly above average growth in stocks. Sustaining a 15.7 percent rate of return *every* year during a Marine's retirement is unattainable.



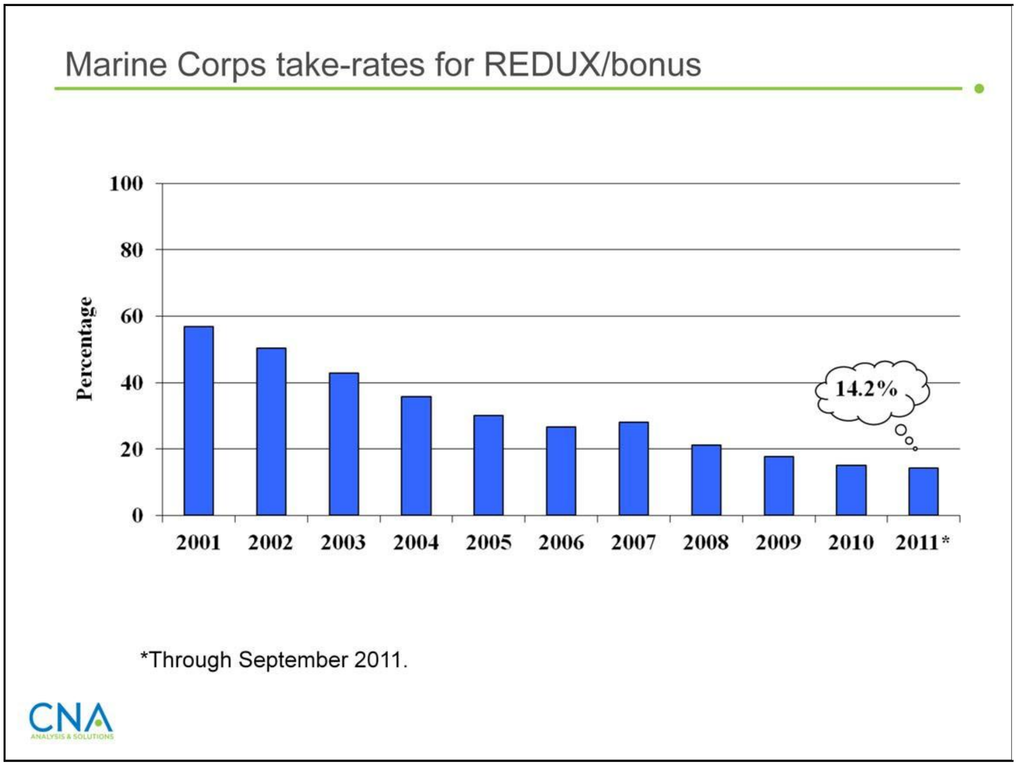
Marines now can contribute pre-tax dollars to a TSP. By doing so, uniformed personnel can save additional monies for the years in which they are truly retired. However, TSPs were designed to provide savings for a member's older years, so there are tax penalties for withdrawals before age 59½. In short, Marines should not put savings that they anticipate needing before their sixties in a TSP.[6]

Retirement savings plans such as the TSP share one feature with conventional military retirement plans—namely, the tax sheltering of pre-retirement income. Many Marines, in fact, do not seem to realize that military pensions are tax sheltered. Retirement tax sheltering means that no taxes are paid until the money is received in retirement. With military pensions, the Marine pays no taxes on the accrued benefits until the pensions are paid in retirement. TSPs involve pre-tax contributions, and taxes are not paid until the money is withdrawn. However, TSPs lack the two other important features of the High-3 retirement plan:

- Risk-free, guaranteed payments or returns
- Full inflation protection.

The TSP offered to military members allows the member to choose the fund, or funds, in which to invest the savings. These funds differ by the level of risk or variability of the investment returns. Funds that have higher risk will have higher average returns for long-term investors, but those returns will be more variable. None of the funds, however, have inflation protection or guaranteed returns.

[6] Under exceptional circumstances, the tax penalties for early withdrawals can be waived.



Despite the significant downsides of the REDUX/bonus choice, many Marines still choose this option every year. Through September 2011, more than 26,000 Marines had made their choices. Of those who had decided:

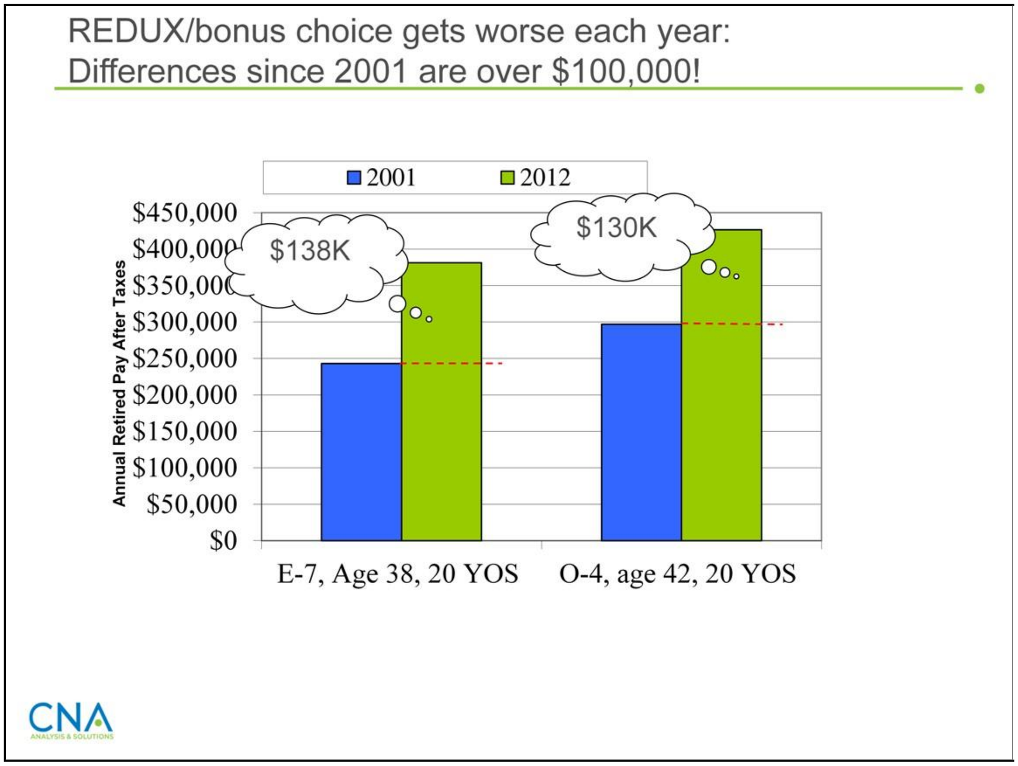
- A third of enlisted Marines chose the REDUX/bonus retirement
- 26 percent of warrant officers chose REDUX/bonus
- 7 percent of officers chose REDUX/bonus; O-1Es through O-3Es chose it at much higher rates.

These take rates have fallen sharply over time. Overall, the percentage of all Marines selecting the bonus declined from 57 percent in 2001 to 14 percent in September 2011. Thus, by 2011, fully 86 percent of Marines selected High-3 as their retirement plan.

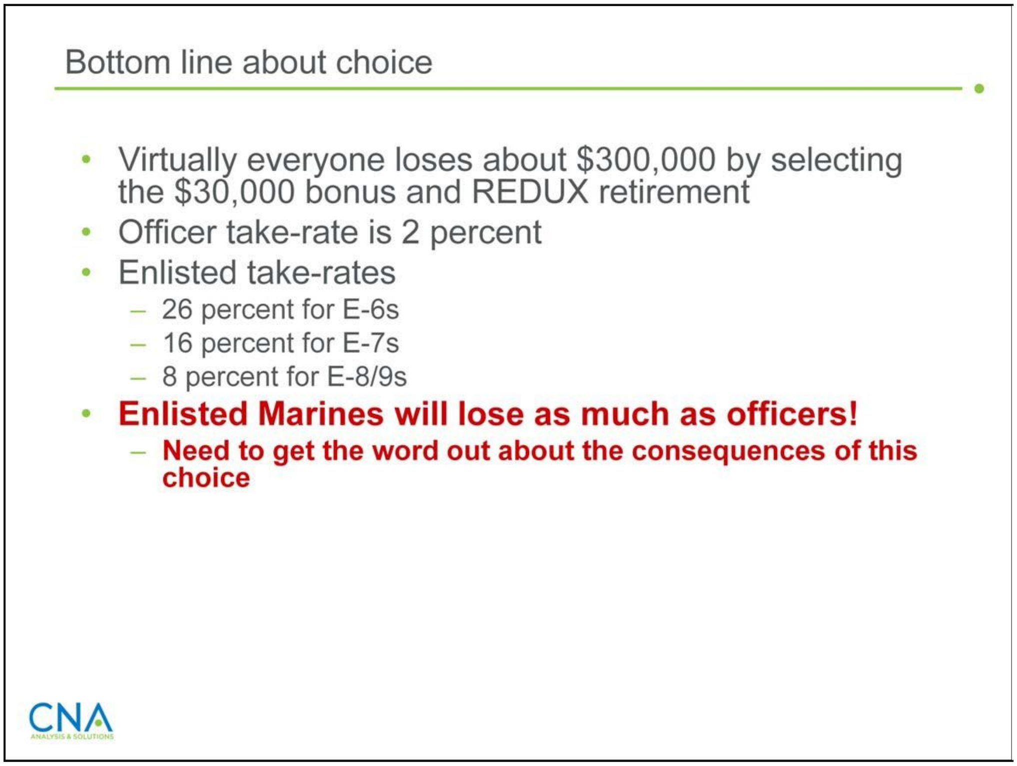
The take rates in 2011 (through September) were:

- 18 percent for enlisted Marines (26 percent for staff sergeants)
- 11 percent for warrant officers
- 2 percent for officers (6 percent for O-1Es through O-3Es).

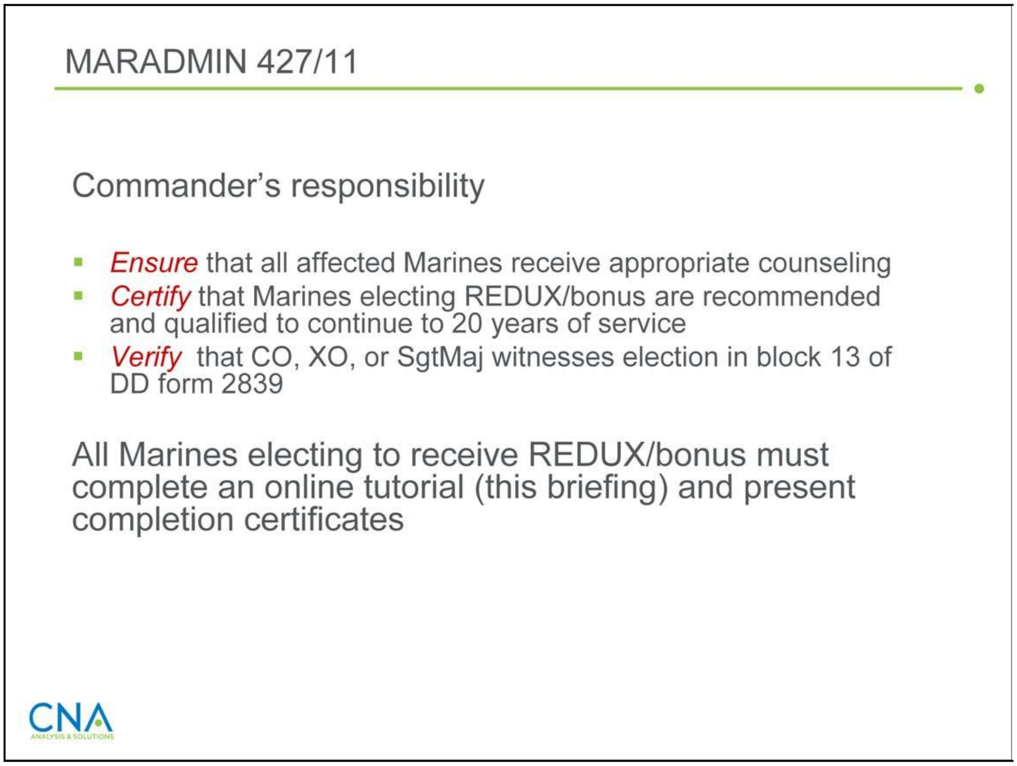
The share of E-7s choosing REDUX/bonus (the largest group making choices) fell from 54 percent to 16 percent over the 2001–2011 time period.



As each year passes, the difference between REDUX/bonus and High-3 retirement income increases. For example, the *additional* reduction in retirement income under REDUX/bonus for those making the choice in 2012 (compared with 2001) is over $100,000 for virtually all retirees! An E-7 who retires at age 38 with 20 years of service in 2012 loses $138,000 more under REDUX/bonus than if he of she had retired in 2001. For an O-4, the difference between 2001 and 2012 retirement pay values is $130,000.



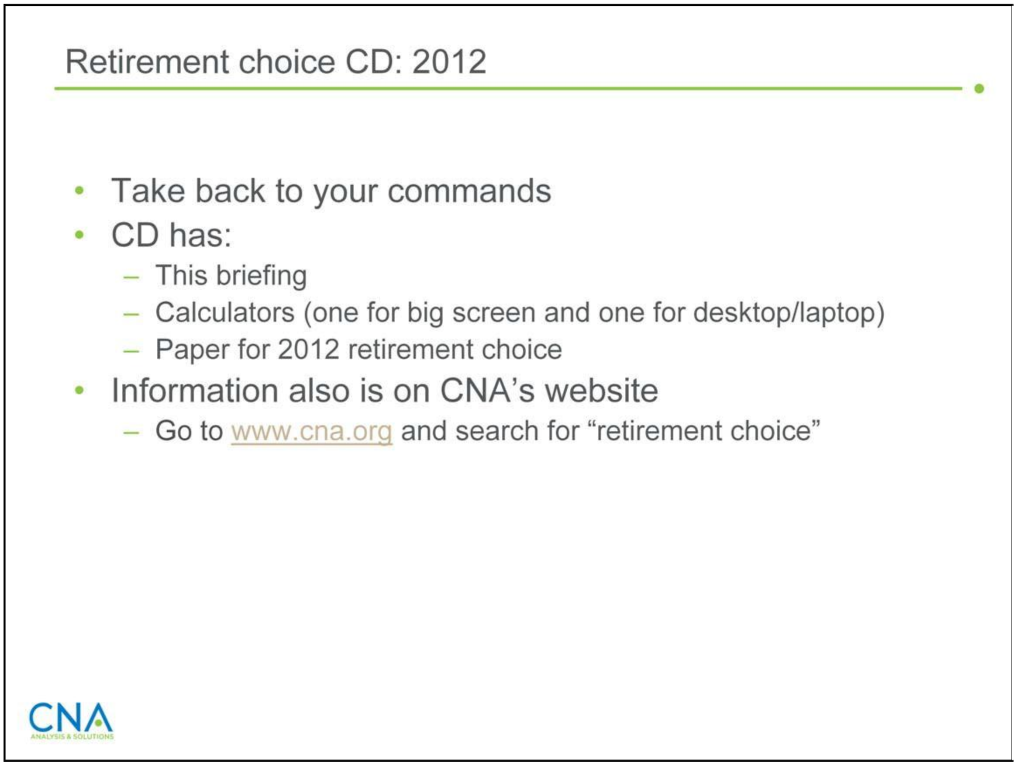
Retiring under REDUX/bonus results in lost retirement income—income that cannot be made up by investing the bonus. Enlisted Marines lose just as much money as officers under this retirement option, but only a small portion of officers take the REDUX/bonus option, compared with over a quarter of E-6s. Enlisted Marines need to know how much they stand to lose if they choose REDUX/bonus over High-3.



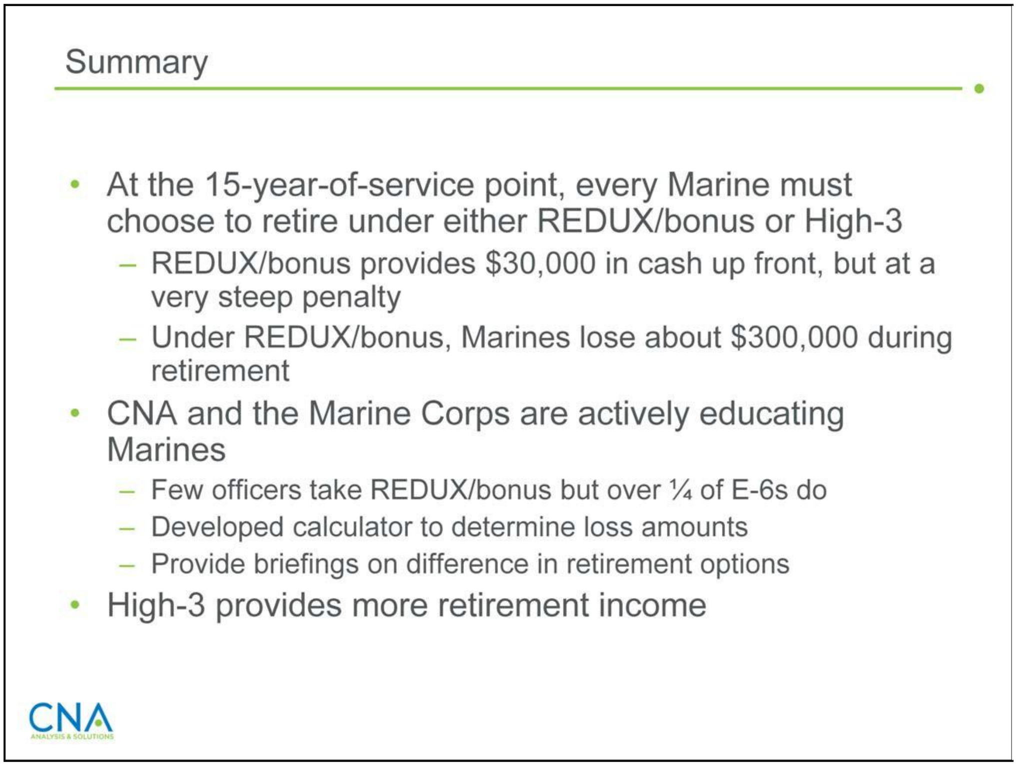
In an attempt to further educate its Marines, the Marine Corps has issued MARADMINs annually since 2007 that reinforce the Commander's responsibilities. If a Marine chooses the REDUX/bonus, the Commander must be certain that:

- He or she receives appropriate counseling about this choice
- He or she is recommended and qualified to continue to 20 years of service
- A commanding officer, executive officer, or sergeant major witnesses the election in block 13 of the DD form 2839.

Any Marine electing to receive REDUX/bonus must work through an online tutorial (namely, this briefing) and present certificates of completion.

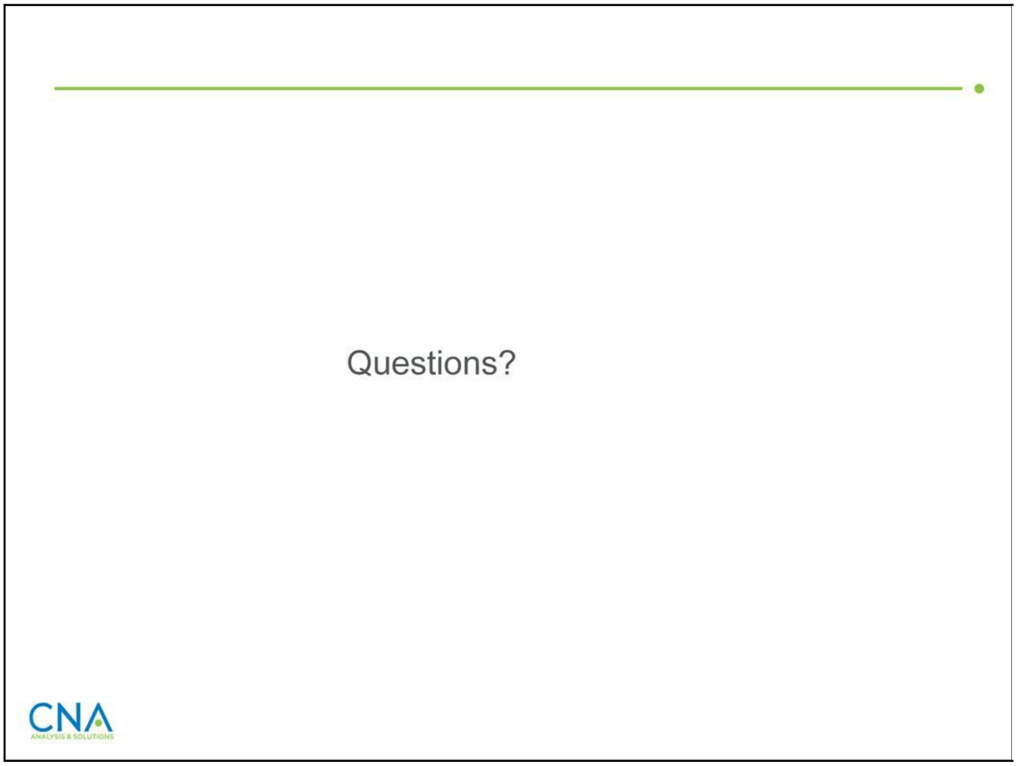


CNA has developed a CD that contains this briefing along with a calculator so that you can run numbers for yourself and your people. There are two versions of the calculator—one designed to be shown on a big screen monitor and one for a desktop or laptop. The CD also includes the paper that presents our findings. In addition, the information is available on CNA's website (www.cna.org); just search for "retirement choice." All of this information is for you to take back to your commands and your people. Please copy and distribute freely.



According to law, every Marine who entered on or after Aug. 1, 1986, has the choice to retire under REDUX/bonus or High-3. This decision is made at the 15-year-of-service point and is irrevocable. Through detailed analysis, CNA has determined the loss amounts for those who choose REDUX/bonus, which is at least $300,000 and, for some, almost $440,000. About 2 percent of officers take the REDUX/bonus retirement option, but 26 percent of E-6s take this option.

CNA and the Marine Corps have developed several products to assist in this decision, to include this briefing and a retirement calculator. Educating Marines to ensure that they have the most accurate information for their personal situations is critical so that they can make informed decisions about their retirements.



If you have questions about the content of this briefing, please contact the authors at CNA: 703-824-2000 or inquiries@cna.org.

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