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The Retention Impacts of the Forthcoming USA Military Retirement Reform

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Abstract

In 2018, the USA military will introduce a new retirement system that reduces the value of the traditional 20 years-of-service cliff-vesting pension and introduces a defined contribution for all service members. The personnel planning and budgetary consequences of this change depend crucially on how it will impact service member's retention decisions. Survey results from USA military personnel suggest there will be a small increase in retention of enlisted service members in the early-career years, and a considerable decrease in retention of officers at mid-career.

Keywords: Retention; Retirement; Military

Introduction

Many believe that the current USA military retirement system– a defined benefit with a 20 years-of-service (YOS) cliff-vest– is more expensive than necessary to maintain the all-volunteer force. The proposed solution is the Modernized Retirement System (MRS), which reduces the defined benefit (still vesting at 20 YOS), introduces a defined contribution for all service members, and allows for a continuation bonus at YOS 12. The MRS will be mandatory for personnel hired as of 2018, and it will be optional for personnel with 12 YOS or less in 2017.

The MRS is expected to considerably reduce Department of Defense retirement costs without affecting employee turnover [1]. The assumption about turnover is of fundamental importance because replacing and training personnel in the USA military is costly, owing to the lack of lateral entry and significant general and on-the-job training. The main changes under the MRS will likely have opposite effects on service members' labor decisions: the introduction of defined contributions and the continuation bonus may induce longer job tenure, but the reduction in pension payments may induce people to separate earlier[1]. In this paper, we provide the first empirical estimates of the retention impacts of the MRS. We surveyed members of the USA Marine Corps to elicit their expected length of service under each system, and whether they would opt-in to the MRS. Responses suggest that there will be a small increase in retention rates of enlisted personnel in the early-career years; for officers, retention will be similar up to 12 YOS, at which point there will be a considerable decrease in retention rates under the MRS. These findings are in contrast to the simulations [1], who conclude that retention rates would not appreciably change under the MRS; furthermore, despite the fact that our data reflect stated preferences and not actual choices, these findings echo the actual retention behavior of Australian military members who made a similar choice between a defined benefit and defined contribution retirement scheme in the 1990s [2]. This paper also contributes to the broader empirical literature on choices in military retirement systems [2-4].

The Retirement Systems

We briefly describe the retirement systems; for full details refer to MCRMC (2015) [5].

The current system (High-3/Redux)

The current retirement system is a pension that vests after 20 YOS. The defined benefit is the average of the final three years of basic pay multiplied by an index for each YOS; this index is determined by a choice the individual made at 15 YOS, between the High-3 and Redux plans. The High-3 index is 2.5%, while the Redux index is 2% for the first 20 YOS, 3.5% for the next 10 YOS, and 2.5% for each YOS thereafter. At age 62, Redux payments are increased to match what they would have been under High-3. The compensation for the lower initial Redux multiplier is a $30,000 bonus at YOS 15.

Members can also contribute to the Thrift Savings Plan (TSP), a tax-deferred savings plan with a broad menu of investment funds. There are currently no government contributions into the TSP.

The new system (MRS)

The MRS has four components: (i) a defined benefit vesting at 20 YOS equal to the average of the final three years of basic pay multiplied by 2% per YOS; (ii) a government TSP contribution for all members equal to 1% of basic pay and, after the second YOS, a government match of individual TSP contributions up to 4% of basic pay; (iii) a bonus of 2.5 times monthly basic pay at 12 YOS; and (iv) retirees may elect to receive a portion of future pension payments upon retirement in exchange for lower pension payments.

The transition period

Individuals who join as of January 1, 2018 will be enrolled in the MRS. As of that date, current military members with over 12 YOS will be grandfathered into the current plan and those with 12 YOS or less will have the choice to opt-in to the MRS or stay with the current system.

For individuals, the MRS dominates the current system for YOS less than 20. With 20 or more YOS, the superiority of the MRS is a function of years served and the TSP balance (which is, in turn, a function of

[1]The MRS may also impact enlistment decisions, but this is beyond the scope of our empirical exercise.

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individual contributions and the choice of investment fund). However, the 2015 MCRMC report suggests the MRS will dominate for most individuals: it includes one illustrative example of an MRS member who contributes 3% of basic pay to a diversified stock TSP fund (in total investing 7% of basic pay) and will likely have a total discounted retirement package at 20 YOS worth about 15% more than the discounted value of the comparable High-3 plan. On the other hand, this example does not consider the possibility that private investments made by service members affect their retirement decisions[2].

For the government, the MRS is expected to lower expenditures on retirement because the reduction in future pension payments will likely be less than governmental TSP matching contributions and the 12 YOS retention bonus [1,5]. However, if the MRS increases turnover, recruiting and training costs will also increase.

Sample

We designed an online survey that first explained the features and monetary payoffs of the current and new retirement systems and then elicited respondent's expected YOS under each system. We also asked whether they would opt in to the MRS[3].

Our survey population was the I Marine Expeditionary Force (I MEF). A MEF is a fully independent war-fighting body and is the most representative unit of the Marine Corps. In turn, the Marine Corps exhibits features of the other USA armed forces in terms of occupations, as it contains air, land, and sea forces, as well as noncombat supporting units (e.g., administrative, maintenance, and supply) [6]. Nevertheless, the USA marines have special characteristics that might reduce the external validity of our results for the whole USA military, such as the facts that the former have a unique organizational culture, are located mainly on the coast, and have more rigorous selection criteria.

Samples	Survey participants	Survey non-participants
	(1)	(2)
	Mean (s.e.)	Mean (s.e.)
Male	0.90 (0.01)	0.92 (0.00)
Single	0.41 (0.01)	0.56 (0.00)
Age	26.43 (0.08)	23.94 (0.02)
Officer	0.23 (0.01)	0.07 (0.00)
Years of service	7.89 (0.06)	6.03 (0.02)
White	0.81 (0.01)	0.82 (0.00)
Black	0.08 (0.01)	0.09 (0.00)
Other race	0.11 (0.01)	0.09 (0.00)
High school diploma	0.76 (0.01)	0.92 (0.00)
Bachelor's degree or higher	0.24 (0.01)	0.08 (0.00)
Combat arms	0.17 (0.01)	0.26 (0.00)
Combat service support	0.52 (0.01)	0.45 (0.00)
Aviation	0.31 (0.01)	0.29 (0.00)
Armed forces qualifying test percentile	68.70 (0.46)	63.19 (0.11)
Observations	1,948	26,106

Notes: The armed forces qualifying test is only taken by enlisted personnel. Combat arms, combat service support and aviation are exhaustive categories of occupations.

Table 1: Summary statistics of the sample and the survey population.

[2]For instance, a military member who decided not to save in the TSP and obtained greater returns on his personal investments than TSP participants could prefer to remain in the High-3 plan.

[3]The survey can be found at: http://faculty.nps.edu/aamenich/Papers/MRS_Survey.pdf.

Samples	All	Enlisted only	Officers only
Outcomes	Opt-in to the MRS	Opt-in to the MRS	Opt-in to the MRS
	(1)	(2)	(3)
	Marginal effect (s.e.)	Marginal effect (s.e.)	Marginal effect (s.e.)
Officer	-0.609*** (0.161)	--	--
Male	-0.049 (0.038)	-0.039 (0.043)	-0.099 (0.067)
Married	0.016 (0.024)	0.042 (0.029)	-0.054* (0.030)
Age	0.007 (0.005)	0.012* (0.006)	-0.010 (0.009)
Years of service	-0.041*** (0.006)	-0.049*** (0.008)	-0.010 (0.010)
Black	0.013 (0.040)	0.028 (0.046)	-0.054 (0.040)
Other race	0.050 (0.036)	0.068 (0.041)	-0.034 (0.035)
Bachelor degree or higher	-0.071 (0.058)	-0.136** (0.068)	0.032 (0.049)
Combat service support	0.033 (0.031)	0.051 (0.037)	-0.033 (0.034)
Aviation	0.077** (0.035)	0.088** (0.042)	0.017 (0.036)
Armed forces qualifying test score	0.001 (0.001)	0.001 (0.001)	--
Observations	1,948	1,502	446
Mean opt-in rate	0.326	0.390	0.112

Notes: The armed forces qualifying test is only taken by enlisted personnel; in column 1, it is imputed with a constant for officers. Omitted variables include white race. High school diploma and combat arms occupation category.

Table 2: Probit regressions explaining the preference for opting-in to the new retirement system.

We emailed the survey in February 2016 to the 28,054 I MEF marines who will have 12 YOS or less as of January 01, 2018, 1,948 individuals responded, and we merged responses with demographic data from administrative records.

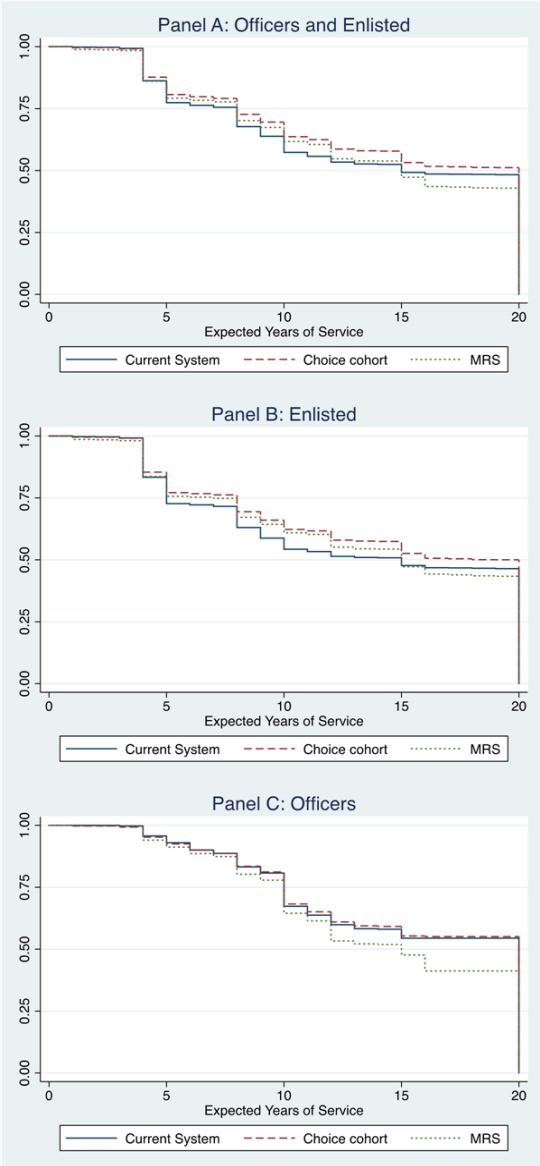
Table 1 contains summary statistics of respondents and non-respondents. Column 1 shows that 90% of respondents are male, 41% are single, 23% are officers, the average age is 26.43 years, the average YOS is 7.89, 81% are White, and the majority (52%) are in combat service support occupations. Comparing with Column 2, it seems that our sample is over-represented by officers, who are more likely to be married, older, and have more YOS (also, a college degree is required to be an officer). For this reason, we separate our analysis below by officers and enlisted personnel. One concern for the external validity of our results is that individuals with a heightened interest in retirement issues might have been more inclined to take the survey; however, we do not believe there is any particular reason to suspect that selection into taking the survey is correlated with preference for the new or the old system.

Results and Discussion

We first describe members' preference for opting-in to the MRS through probit regressions. Column 1 of Table 2 shows the opt-in rate is 32.6% overall, and that officers are 61% less likely to opt-in than enlisted personnel. Females, both officers and enlisted, are more likely to select MRS (albeit with marginal significance), the best option for parents who expect to leave service to raise children. As expected, those with more YOS are less likely to opt-in.

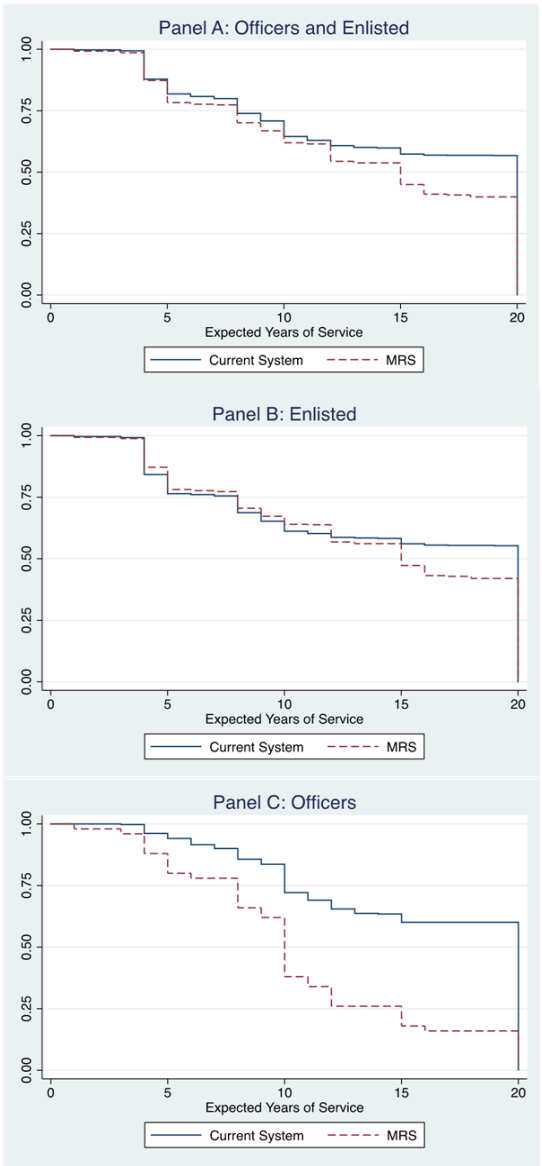
Next, we examine member's expected YOS under both retirement systems. Each panel in Figure 1 contains three Kaplan-Meier survival

curves for expected YOS (YOS are top-coded at 20): under (i) the current system, (ii) the MRS, and (iii) the respondents' preferred system ("choice cohort"). The MRS survival curve is an estimate of retention rates for future military members who will enter post-2018[4] and the choice cohort survival curve is an estimate of retention behavior of cohorts serving during the 2017 transition period. The general shape of all curves is the same: the flat initial years of the survival curves reflect the obligations of initial service contracts, the relatively high negative slope up to 10 YOS reflects individuals selecting out of or settling into their military career, and the relatively flat curves after 15 YOS reflect the high value of vesting one's pension[5].



Notes: Expected years of service above 20 are coded as 20 YOS. MRS=Modernized Retirement System.

Figure 1: Kaplan-Meier survival curves of expected years of service under the current system, under the MRS, and for the choice cohort under their preferred system.



Notes: Expected years of service above 20 are coded as 20 YOS. MRS=Modernized Retirement System.

Figure 2: Kaplan-Meier survival curves for the choice cohort, by preferred retirement system.

Under the MRS, expected retention rates of enlisted personnel (Panel B) are higher for all YOS between 5 and 15. For officers (Panel C), retention rates under the MRS are similar to the current system below YOS 12. At YOS 12, retention sharply declines under the MRS, which suggests that a larger retention bonus at YOS 12 might be needed to maintain current retention rates.

Figure 2 decomposes the survival curves for the choice cohort into those who would opt-in to MRS and those who would not. Enlisted personnel (Panel B) who opt-in is slightly more inclined to remain in service early in their careers, and approximately 10 percentage points more likely to leave service around YOS 15. Officers (Panel C) who opt-

[4]This assumes that the change of retirement systems will not influence who enters the military.

[5]Kolmogorov-Smirnov tests confirm the distributions of expected YOS are significantly different
across all groups other than for officers between the current system and the choice cohort.

in are planning to stay considerably less than those choosing to stay in the current system.

Conclusion

Proponents of the MRS highlight the likely reduction in retirement costs to the government; however, total costs necessarily include any costs associated with changes in turnover. We provide the first empirical estimates of future turnover under the MRS, and show that it will likely be larger than under the current system.

Our study has the following limitations. First, our data do not contain information on on-the-job service member quality (e.g., time-to-promotion), and thus we are not able to empirically study whether the MRS will change the quality of service members who both enter and persist in the military; clearly, service member quality could be an even more important consideration than turnover from an overall organizational perspective. Second, survey participants were not incentivized to respond truthfully, which could lead to inaccurate responses. Third, our sample of USA Marines may not be fully representative of the entire USA armed forces, reducing the external validity of our results. We encourage future research that addresses these issues, and explores ways to quantify the full cost impacts of the forthcoming policy change.

References

1. Asch B, Michael M, James H (2015) Reforming military retirement. RAND Corporation, Santa Monica, USA.
2. Cunha J, Amilcar M, Adam C (2015) The retention effects of high years of service cliff-vesting pension plans. Eco Letters 126: 6-9.
3. Simon C, John W, Saul P (2015) Discounting, cognition, and financial awareness: New evidence from a change in the military retirement system. Eco Inquiry 53: 318-334.
4. Cunha J, Amilcar M (2014) Pensions and intertemporal choice: Evidence from the USA Military. NPS Technical Report, Monterey, USA.
5. Final report. (2015) Military Compensation and Retirement Modernization Commission (MCRMC), USA.
6. USA military demographics report profile of the military community. (2014) Office of the Deputy Assistant Secretary of Defense, USA