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Author(s): MARVIN M. SMITH

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THE MILITARY RETIREMENT REFORM ACT OF 1986 - OR REDUX: A POSTMORTEM

MARVIN M. SMITH ¹
The Congressional Budget Office
Washington, DC

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INTRODUCTION

A continuing concern of the Department of Defense (DoD) is retaining enough military personnel to maintain a combat-ready force. This has become more of a task with the recent downsizing of the military. DoD manages the size of the military by controlling the number of new members who enter each year and by altering the incentives to encourage those already in the force to remain. One way to retain personnel is to change military pay and retirement benefits.

To increase retention, the Congress passed the Military Retirement Reform Act of 1986 (known as "Redux"), which altered the pensions of military personnel. However, after much disagreement and intense discourse over whether the reforms would help or hinder retention, Redux was repealed in 1999.

During much of the debate over Redux, there was a dearth of empirical evidence to draw upon. This paper presents some of the results that were available on the effects of Redux on the retention decisions of officers at their mid-career point. While many retention studies examine an individual's intent to stay or leave an organization, this paper operationalizes the retention variable as either currently serving in the military or being retired from military service.

FACTORS IN THE RETENTION DECISION

Previous studies have generally used one of three basic approaches to examine the retention decision of military personnel: (a) an individual-level approach that focuses on the role an individual's personal characteristics played in the retention decision; (b) an institutional or organizational approach that concentrates on the effects of organizational

¹ I would like to thank Delia Welsh, Rachel Schmidt and Deborah Clay-Mendez for their assistance. Also, the paper benefitted from the comments and suggestions of three anonymous referees. The views expressed in this paper are those of the author and should not be interpreted as those of the Congressional Budget Office.

policies and practices; and (c) approaches that deal with the conflicts between primary and secondary job commitments and the competition with family life.

The research using these approaches found that differing variables had a significant influence on the reenlistment/retention decision. In a study of Army reservists, Kocher and Thomas (1990) found that economic factors such as retirement benefits were an important factor in the retention decision. However, some differences emerged along gender lines. While economic incentives were more of an influence on men, job characteristics and family status tended to influence women. Quester and Thomason (1984) examined the relationship between the civilian economy and military retention. They found that the retention of personnel responded systematically to civilian job growth.

Other studies have found additional variables to be significant in the reenlistment or retention decision, such as earnings, civilian job-related training, years of military service, satisfaction with military duty, spouses' attitudes toward reserve participation, and general skill levels or schooling (see O'Donohue, 1988; Lakhani and Fugita, 1993; Kirby and Naftel, 2000; Hogan and Villa, 1991; and Parsons, 1977).

The analysis in this paper is based on the notion that military officers are *rational-economic* actors who evaluate the costs and benefits of their current financial package and other influences in arriving at a decision to stay in or leave military service. This analysis encompasses the first two approaches mentioned above - - the individual and institutional approaches.

HOW REDUX CHANGED RETIREMENT BENEFITS

The Military Retirement Reform Act of 1986 (known as "Redux"), made changes designed to motivate service members considering retirement at the 20-year point to remain on active duty for possibly a full 30-year career. Redux reduced the retirement benefits of military personnel who entered the service after July 31, 1986, and retired at 20 years of service, from 50 percent of basic pay to 40 percent.² Redux left intact the benefits for members who stay for 30 years, at 75 percent. In addition, while it lowered the annual cost-of-living adjustments retirees received, it also

² Under Redux, cost-of-living adjustments are capped at 1 percent below inflation. Moreover, service members under Redux receive 3.5 percent of basic pay per year for each additional year of service beyond 20. Those under the 50-percent plan receive 2.5 percent for each additional year after 20 years of service.

provided a one-time catch-up payment when a retiree reached age 62, in order to return benefits to what the pre-1986 system would have provided.³

However, the Military Coalition, an alliance of some 30 military associations, argued that Redux would have the opposite effect on retaining of military personnel.⁴ In fact, the Joint Chiefs of Staff urged the Congress to repeal Redux, since they thought it was causing retention problems and served as a disincentive to making the military a career.⁵

After some debate, the Congress passed legislation to improve retirement benefits under Redux.⁶ Under the legislation, service members covered under Redux can choose either a one-time \$30,000 bonus or better retirement benefits. If they choose the bonus, they would keep the current Redux benefits but receive the lump-sum bonus at the 15-year mark in return for agreeing to serve at least 20 years. If, instead, they opt for more retired pay, the more generous benefit package would provide for 50 percent of basic pay for 20 years of service and eliminate the caps on annual inflation adjustments.

This paper estimates the retention behavior of two cohorts (officers of the same year group) of Air Force and Navy officers to examine the impact of changes in the retirement system under Redux on retaining military officers. These cohorts contained officers who began their active duty service at the same time but were under different pension plans. We then compare these findings to those based on a similar cohort of Army officers (Dudley, 1999).

³ Under Redux, cost-of-living adjustments are capped at 1 percent below inflation. Moreover, service members under Redux receive 3/5 percent of basic pay per year for each additional year of service beyond 20. Those under the 50 percent plan receive 2.5 percent for each additional year after 20 years of service.

⁴ Rick Maze, "Restore retiree benefits, lobbyists tell Congress," *Army Times* (July 19, 1999), p. 16.

⁵ Rick Maze, "House and Senate begin work on Redux," *Air Force Times* (May 24, 1999), p. 8.

⁶ U.S. House of Representatives, *National Defense Authorization Act for Fiscal Year 2000*, conference report to accompany S. 1059, Report 106-301 (August 6, 1999), pp. 155-158.

ANALYTIC METHOD

SOURCE OF DATA

The data used in this analysis were drawn from the Department of Defense's Officer Master File by the Defense Manpower Data Center (DMDC). DMDC provided information from the individual records of Air Force and Navy officers in the 1986 and 1987 cohorts who were either service academy graduates, Reserve Officers Training Corps (ROTC) graduates who were on a military scholarship, or non-scholarship ROTC graduates.

The change in retirement benefits would be most relevant to those officers at or near their mid-career decision to remain in or leave military service. Thus, the 1986 cohort includes only those officers who entered active duty service in 1986 and were still in the force in 1994.

Moreover, each officer's record contained an indicator that specified whether the service member was still on active duty in 1996. Similarly, the 1987 cohort included officers who entered in 1987 and remained in the force through 1995, along with an indication of whether they were still on active duty in 1997.

The source of an officer's commission determines his or her retirement plan. Academy graduates and scholarship ROTC graduates are included under the retirement plan that was in effect when they entered the academy or committed to their scholarship. However, non-scholarship ROTC graduates fall under the plan that exists at the time of their commissioning. Thus, academy and scholarship ROTC graduates commissioned in 1987 are under the old retirement system, while non-scholarship ROTC officers commissioned in the same year are under Redux.

The Air Force sample included 3,858 officers who were in the 1986 or 1987 cohort – of those 901 were under Redux. The Navy sample contained 1,964 officers in the same two cohorts with 50 covered by Redux.

DESCRIPTION OF VARIABLES

Many factors affect an officer's choice to stay in or leave military service. Included among these factors are an officer's age, race, sex, marital status, civilian education level, source of commission (i.e., Service Academy, Reserve Officers Training Corps, or Officer Candidate/Training School), and military rank. In addition, the decrease in deferred compensation resulting from a lowering of retirement benefits, such as the change made by Redux in 1986, might also influence a member's decision.

Thus, for the analysis, each officer's record contained key demographic and socio-economic variables representing those factors mentioned above that might influence an officer's retirement decision.⁷ Also included were a set of occupational variables (such as fighter pilot, manpower personnel, administrator, etc.) to gauge their influence on retention. An additional variable was added that designated whether each officer was under the old (50 percent) or new (40 percent) retirement plan.

The specification of the explanatory variables used in the analysis varies. Some enter the regressions linearly, and others enter as binary-coded (zero-one) dummy variables. A description of the variables is presented in Table 1.

ESTIMATION PROCEDURE

To capture the possible impact of the 1986 change in military retirement on an officer's decision making, the model estimated in this paper reflects an officer's probability of remaining in the service. More specifically, the estimating equation takes into account the demographic and socio-economic factors mentioned previously, along with a variable that indicates whether an officer was under the old or new (Redux) retirement plan. Thus, the basic equation estimates the probability that an officer will remain on active duty as a function of personal attributes and career or military factors. The particular specification of the estimating equation is as follows:

$$\begin{aligned} \textit{Retention} = & \beta_0 + \beta_1 \textit{Age} + \beta_2 \textit{Sex} + \beta_3 \textit{Race} + \beta_4 \\ & \textit{Marital Status} + \beta_5 \textit{Dependents} + \beta_6 \textit{Education} + \\ & \beta_7 \textit{Rank} + \beta_8 \textit{Source of Commission} + \beta_9 \\ & \textit{Primary Occupation} + \beta_{10} \textit{FY} + \beta_{11} \textit{Retirement Plan} \end{aligned}$$

The equation was estimated separately for the Air Force and Navy using a logit estimation technique.⁸ It estimates the probability that the officers in the sample who reached their eighth year of service would still be on active duty in their tenth year. Officers in the 1986 cohort are under the old retirement plan. To control for any differences in retention of ROTC

⁷ The variable for education used in the analysis is a Master's degree. A graduate degree was chosen since it represents a major investment in human capital and may influence retention.

⁸ For others who have used a logit model to examine the retention decision see Simpson, 1991, Whalen, 1986, and Guzowski, 1990.

Table 1. Description of Variables

Symbol	Variable Description
AGE	Age of officer
DEPS	Number of dependents
ED	Master's degree
MAJ	Rank of Major
FY87	Member of 1987 Cohort
RPLAN	Covered under Redux
	Marital Status
MARST1	Single
MARST2	Married
MARST3	Other than single or married
	Sex
SEX1	Male
SEX2	Female
	Race
RACE1	White
RACE2	Black
RACE3	Other (Hispanic, American Indian, Asian, Alaskan Native, Pacific Islander, Other)
	Source of Commission
SOC1	Academy
SOC2	ROTC (Scholarship)
SOC3	ROTC (Non-scholarship)
SOC4	OTS/OCS
	Primary Occupation Code
PROCC1	Fighter Pilots
PROCC2	Other Fixed-Wing Pilots
PROCC3	Helicopter Pilots
PROCC4	Navigators
PROCC5	Aviation Maintenance
PROCC6	Manpower and Personnel
PROCC7	Supply, Procurement, and Allied Officers
PROCC8	Weapons Officers
PROCC9	Administrator

scholarship and non-scholarship officers before Redux, the 1986 cohort was included in the sample. Thus, the 1986 and 1987 cohorts were pooled and a dummy variable for fiscal year 1987 was included.

RESULTS AND DISCUSSION

The regression results for the two services are presented in Tables 2 and 3. Of primary interest is the impact of the Redux retirement plan on an officer's decision to remain on active duty. This influence is reflected in the retirement variable, after controlling for demographic and socio-economic factors. Only in the Air Force did the effect of being under Redux tend to reduce (with a 95 percent of confidence level) the retention of officers between the 8th and 10th years of service. In the Navy, there was no comparable significant impact of Redux on retention found. These findings are consistent with research on the effects of Redux on Army officers' retention decisions (Dudley, 1999).

In addition, the results show several noteworthy variables that have a significant impact on officer retention. Graduate education lowered the probability of retention in both services. This negative effect was likely due to the enhanced marketability of an officer's skills in the civilian sector and the desire to capitalize on them.

In both the Air Force and the Navy, being a military academy graduate had a positive effect on retention. However, the impact was statistically significant only in the Air Force. This effect is no doubt due to the penchant for military service on the part of those who chose a military education and the accompanying military obligation. The presence of dependents had a significant negative effect on retention in both services, despite the fact the military provides special benefits to families.

Several other variables were found to be statistically significant. Age and being female had a positive effect on retention in the Air Force. For the Navy, age, the rank of major, and being black or a member of the 1987 cohort had a negative effect on retention.

The influence of a service member's occupation also reveals some interesting findings. In particular, the occupational categories of fighter pilot and other fixed winged pilot (e.g., a tanker pilot in the Air Force and an airborne early warning pilot in the Navy) had a significant impact on officer retention. However, the effect of being a pilot in these categories was negative for the Air Force but positive for the Navy. This tends to confirm

Table 2. Logit Estimates of the Effects of Redux
on the Retention of Air Force Officers
(standard errors in parentheses)

Variable	Coefficient	Mean
Intercept	-5.139***** (0.983)	
AGE	0.114***** (0.029)	32.1879
DEPS	-0.153***** (0.056)	2.7058
MARST1	0.099 (0.174)	.1490
MARST3	0.055 (0.277)	.0391
SEX2	0.439***** (0.167)	.0925
RACE2	-0.187 (0.252)	.0487
RACE3	0.299* (0.232)	.0435
ED	-0.193* (0.131)	.3787
MAJ	-0.345 (0.318)	.0394
FY87	-0.171* (0.126)	.5243
RPLAN	-0.540*** (0.232)	.2335
PROCC1	-0.806***** (0.201)	.1768
PROCC2	-0.675***** (0.185)	.2045
PROCC3	0.104 (0.424)	.0150

PROCC4	-0.004**** (0.232)	.1029
PROCC5	0.383** (0.196)	.0687
PROCC6	0.333 (0.402)	.0137
PROCC7	-0.263 (0.289)	.0407
SOC1	0.308** (0.200)	.3561
SOC2	-0.247 (0.206)	.2976
Log Likelihood Function	-2,279.954	
Chi-square	122.136	

Statistically significant at: * $p \leq .1$; ** $p \leq .05$; *** $p \leq .025$; **** $p \leq .005$.
Omitted Occupations: PROCC3 and PROCC9.

Table 3. Logit Estimates of the Effects of Redux on the Retention of Navy Officers (standard errors in parentheses)

Variable	Coefficient	Mean
Intercept	4.523*** (2.103)	
AGE	-0.151*** (0.065)	31.49552
DEPS	-0.102* (0.071)	2.4313
MARST1	-0.002 (0.189)	.2413
SEX2	0.428* (0.327)	.0745
RACE2	-0.938*** (0.455)	.0402
RACE3	-0.467 (0.391)	.0290
ED	-1.027**** (0.209)	.2174
MAJ	-3.314**** (0.282)	.3725
FY87	-0.533**** (0.128)	.5139
RPLAN	0.604 (0.636)	.0253
PROCC1	0.432*** (0.217)	.0922
PROCC2	0.525**** (0.181)	.1424
PROCC3	-0.340* (0.208)	.1196
PROCC8	-0.299** (0.177)	.2909
PROCC9	-2.248**** (0.673)	.0395
SOC1	0.357 (0.457)	.4161
SOC2	0.174 (0.454)	.5357
Log Likelihood Function	-1,570.074	
Chi-square	486.684	

Statistically significant at: * $p \leq .1$; ** $p \leq .05$; *** $p \leq .025$; **** $p \leq .005$.
Omitted Occupations: PROCC4, PROCC5, PROCC6 and PROCC7.

the Air Force's concern about retaining its pilots.⁹ The positive impact for the Navy might be misleading. This might reflect the Navy pilots' being under a pilot bonus contract that precludes their leaving.

In the Air Force sample, being in the aviation maintenance category had a significant positive effect on retention. While personnel serving as navigators were significantly less likely to stay. This is possibly the result of the allure of lucrative employment opportunities in the civilian sector. In the Navy sample, the effect on retention of being in the categories of navy administrative and weapons officers was negative and significant.¹⁰

Although a statistically significant negative impact for the Redux variable was found in the Air Force, the size of the effect was rather small. Thus, while the average probability that Air Force officers would remain on active duty between 8 and 10 years of service was 91 percent, being under Redux lowered that probability by (a marginal effect of) only 3.9 percentage points. In fact, other variables had a greater negative effect on retention than Redux.¹¹

CONCLUSION

Based on the results of the mid-career retention decisions of the first Army, Air Force, and Navy officer cohorts covered under Redux, it would appear that the repeal of Redux may have been somewhat premature. However, the analysis focused on the quantifiable measures that were available and other relevant factors may not have been captured in our estimation.

Despite the lack of a *strong* negative effect of Redux on retention as suggested in this analysis, the vigorous campaign by the Joint Chiefs of Staff to repeal it, combined with the service members' growing awareness of its financial implications from published reports, could have eventually

⁹ Kent Miller and Jennifer Palmer, "Legislation offers \$300 million in bonus increases for pilots," *Air Force Times* (August 23, 1999), p. 14.

¹⁰ Officers in this occupation include those who are in charge of various types of missiles and other weapons systems.

¹¹ For instance, being an Air Force fighter of fixed-winged pilot or aircraft crew member had a larger negative impact on the probability or retention than being covered under Redux.

resulted in lower retention.¹² But given the recent legislation nullifying Redux, any potential retention effect of Redux is moot. Nonetheless, the services may continue to face retention problems stemming from other sources such as dissatisfaction with the quality of military life and employment opportunities in the civilian sector.¹³

The findings in this paper offer noteworthy implications in two areas: the impact of compensation on military retention and the process of policymaking. The results suggest that while a change in institutional policy influences individual behavior, the lower retirement compensation associated with Redux did not seem to have a *large* negative impact on the retention of military personnel. They also underscore the notion that an individual's personal characteristics play a role in the retention decision. And it counsels that, whenever possible, prudent policy decisions should be undertaken only after the pros and cons of the action have been fully explored.

REFERENCES

- Dudley, Dean D., and Gregory A. Wise
1999 "Army Personnel Issues: Retention and the Military Pension" (working paper, United States Military Academy at West Point).
- Guzowski, B.A.
1990 "A Methodology for Long-Term Forecasts of Air Force Pilot Retention Rates: A Management Perspective" (Master's Thesis, School of Systems and Logistics, Air Force Institute of Technology, Wright-Patterson AFB, Ohio).

¹² A number of articles on Redux were appearing in newspapers that serve the various military services, namely the *Army Times*, *Air Force Times*, and *Navy Times*. They provided service members with information to help them understand the financial impact of Redux. In fact, currently, the Department of Defense provides a financial calculator on the Internet to help military personnel weigh their options.

¹³ See Harry J. Thie and Christine A. Fossett, "Military Recruiting and Retention for the 21st Century" (available at <http://www.mors.org/Pubs/phalanx/dec/mrr.htm>).

- Hogan, Paul F., and Christine M. Villa
 1991 "Factors Affecting Reenlistment in the Army Reserves: Evidence from the 1986 DoD Survey," pp. 355-396 in Curtis L. Gilroy, David K. Horne, and D. Alton Smith (eds.), *Military Compensation and Personnel Retention: Models and Evidence*. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Kirby, Sheila N., and Scott Naftel
 2000 "The Impact of Deployment on the Retention of Military Reservists," *Armed Forces & Society*, Vol. 26, No. 2, (Winter): 259-284.
- Kocher, K., and G. Thomas
 1990 *Gender Differences in the Retention of Enlisted Army Reservists*. Monterey, CA: Naval Postgraduate School.
- Lakhani, Hyder, and S.S. Fugita
 1993 "Reserve/Guard Retention: Moonlighting or Patriotism?" *Military Psychology* 5:113-125.
- Maze, Rick
 1999 "House and Senate Begin Work on Redux," *Air Force Times* (May, 24): p. 8.
- Maze, Rick
 1999 "Restore Retiree Benefits, Lobbyists Tell Congress," *Army Times* (July, 19): p. 16.
- Miller, Kent, and Jennifer Palmer
 1999 "Legislation Offers \$300 Million in Bonus Increases for Pilots," *Air Force Times* (August 23): p. 14.
- O'Donohue, D.J.
 1988 *First-Term Retention of Enlisted Selected Marine Corps (SMCR) Reservists*. Monterey, CA: Naval Postgraduate School.
- Parsons, D.
 1977 "Models of Labor Market Turnover: A Theoretical and Empirical Survey," pp. 185-223 in Ronald G. Ehrenberg (ed.), *Research in Labor Economics*. Greenwich, Conn.: JAL Press.
- Quester, Aline O., and James S. Thomason
 1984 "Keeping the Force: Retaining Military Careerists," *Armed Forces & Society* 2 (Fall): 85-95.
- Simpson, James R.
 1991 "A Methodology for Forecasting Voluntary Retention Rates for Air Force Pilots" (Master's Thesis, School of Engineering, Naval Postgraduate School, Monterey, CA).

Thie, Harry J., and Christine A. Fossett

1999 "Military Recruiting and Retention for the 21st Century,"
(available at <http://www.mors.org/Pubs/phalanx/dec/mrr.htm>).

U.S. House of Representatives

1999 *National Defense Authorization Act For Fiscal Year 2000*,
conference report to accompany S. 1059, Report 106-301
(August 6): pp. 155-158.

Whalen, William P.

1986 "An Analysis of Factors Affecting the Retention of Medical
Officers in the United States Navy" (Master's Thesis,
School of Engineering, Naval Postgraduate School,
Monterey, CA).