



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

MBA PROFESSIONAL REPORT

**Strategic Retirement Reform: Identifying the
Broader Strategic Effects from Changes in
Human Capital**

**By: Robert E. Proulx, and
Kelley Slaughter
December 2012**

**Advisors: Nick Dew,
Marco Dierenzo**

Approved for public release; distribution is unlimited

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE December 2012	3. REPORT TYPE AND DATES COVERED MBA Professional Report	
4. TITLE AND SUBTITLE Strategic Retirement Reform: Identifying the Broader Strategic Effects from Changes in Human Capital			5. FUNDING NUMBERS	
6. AUTHOR(S) Robert E. Proulx and Kelley Slaughter				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number NPS.2012.0090-IR-EP7-A.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited			12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) <p>This project seeks to understand the changes in the decision-making process to stay or leave the military upon adoption of a defined contribution retirement system, and the potential implications of human capital that might follow. Multiple theses have been written regarding potential cost savings of a defined contribution plan and how a change of this nature could affect military personnel retention rates. This project differs from other research in the field in that we assume the Department of Defense will shift the retirement compensation away from a pension system and 20-year vesting of benefits in the near future. This report focuses on the decision-making process that service member's use and the potential implications for the services that might follow under a DC plan, and how that decision-making process might change. Specifically, we utilize the unfolding model of voluntary turnover to assess the decision-making process for military personnel and assess the potential impacts from a voluntary turnover, retention, and Human Capital Theory perspective.</p>				
14. SUBJECT TERMS Defense Business Board, DBB, Defined Contribution, Knowledge Retention, Knowledge Loss, Employability, Voluntary Turnover, Turnover, Defined Benefit, Human Capital, Human Capital Externalities.			15. NUMBER OF PAGES 141	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU	

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release; distribution is unlimited

**STRATEGIC RETIREMENT REFORM: IDENTIFYING THE BROADER
STRATEGIC EFFECTS FROM CHANGES IN HUMAN CAPITAL**

Robert E. Proulx, Captain, United States Marine Corps
Kelley Slaughter, Lieutenant, United States Navy

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION

from the

**NAVAL POSTGRADUATE SCHOOL
December 2012**

Authors:

Robert E. Proulx

Kelley Slaughter

Approved by:

Nick Dew, Lead Advisor

Marco Dorenzo, Support Advisor

William R. Gates, Dean
Graduate School of Business and Public Policy

THIS PAGE INTENTIONALLY LEFT BLANK

STRATEGIC RETIREMENT REFORM: IDENTIFYING THE BROADER STRATEGIC EFFECTS FROM CHANGES IN HUMAN CAPITAL

ABSTRACT

This project seeks to understand the changes in the decision-making process to stay or leave the military upon adoption of a defined contribution retirement system, and the potential implications of human capital that might follow. Multiple theses have been written regarding potential cost savings of a defined contribution plan and how a change of this nature could affect military personnel retention rates. This project differs from other research in the field in that we assume the Department of Defense will shift the retirement compensation away from a pension system and 20-year vesting of benefits in the near future. This report focuses on the decision-making process that service member's use and the potential implications for the services that might follow under a DC plan and how that decision-making process might change. Specifically, we utilize the unfolding model of voluntary turnover to assess the decision-making process for military personnel and assess the potential impacts from a voluntary turnover, retention, and Human Capital Theory perspective.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	BACKGROUND	2
1.	Brief History of the Military Retirement System.....	2
2.	Current Military Retirement System.....	4
B.	PREVIOUS RETIREMENT COMMITTEES.....	6
1.	Hook Commission	6
2.	Defense Officer Personnel Management Act.....	6
3.	Military Reform Act of 1986 (REDUX)	7
4.	Tenth Quadrennial Review of Military Compensation	8
5.	Defense Business Board.....	9
C.	PROBLEM STATEMENT	11
D.	RESEARCH QUESTION	11
E.	LIMITATION AND SCOPE	12
F.	SIGNIFICANCE OF STUDY	12
II.	LITERATURE REVIEW	15
A.	OVERVIEW	15
B.	MILITARY RETIREMENT LITERATURE	15
1.	Retirement Reform Analysis.....	15
2.	Models	16
C.	VOLUNTARY TURNOVER.....	20
D.	KNOWLEDGE RETENTION	23
1.	Knowledge Retention Strategies.....	23
2.	Consequences of Knowledge Loss	25
III.	METHODOLOGY	31
A.	INTRODUCTION.....	31
B.	FOCUS GROUP RATIONALE	31
C.	STUDY DESIGN.....	32
D.	LIMITATIONS	34
E.	CONCLUSION	36
IV.	VOLUNTARY TURNOVER AND THE DECISION TO STAY OR QUIT	37
A.	OVERVIEW	37
B.	THE UNFOLDING MODEL OF VOLUNTARY TURNOVER	37
1.	Shocks.....	40
2.	Script	42
3.	Image Violation	43
4.	Search/evaluation of alternatives and job offers.....	43
C.	TURNOVER AND DECISION MAKING UNDER CURRENT RETIREMENT SYSTEM.....	45
1.	Decision making after the Initial Term of Service	47
2.	Decision Making at the Midcareer Point	48
3.	Decision Making past 20 YOS	51

4.	Decision Making for Existing Personnel upon Modification of the Current Retirement System.....	51
D.	TURNOVER AND DECISION MAKING UNDER A DEFINED CONTRIBUTION SYSTEM	53
1.	Decision Making after the Initial Term of Service	54
2.	Decision Making at the Midcareer Point	56
3.	Decision making past 20 YOS	61
E.	CONCLUSION	63
1.	Terms of Service Produce Naturally Occurring Shocks That Initiate the Decision-making Process at Predictable Time Intervals	63
2.	The Midcareer Point Is the Key Decision-making Time Frame under both Retirement Systems	63
3.	The Effects of Modifying the Current System Without Grandfathering Are Dangerous.....	64
4.	Human Capital Under a DC	64
V.	IMPLICATIONS TO THE FORCE FROM SWITCHING FROM DEFINED BENEFIT TO DEFINED CONTRIBUTION RETIRMENT SYSTEMS	65
A.	OVERVIEW	65
B.	BACKGROUND & FRAMING	65
C.	METHODOLOGY AND ORGANIZATION.....	66
D.	RESULTS AND ANALYSIS	67
1.	Implications to Retention and Recruitment	67
2.	Implications for the Military Pay and Compensation	71
3.	Implications to Assignment Detailing	73
4.	Implications for Knowledge Loss	79
E.	CONCLUSION	80
VI.	RECOMMENDATIONS AND CONCLUSIONS.....	81
A.	OVERVIEW	81
B.	GENERAL RECOMMENDATIONS	82
C.	SPECIFIC MANPOWER RECOMMENDATIONS	85
1.	Recruiting and Retention Recommendations.....	85
2.	Pay and Other Compensation Recommendations	87
3.	Recommendations for Assignment Detailing	89
D.	CONCLUSIONS	90
	APPENDIX A. MAJOR MILITARY RETIREMENT REFORM PROPOSALS, 1976–2011.....	93
	APPENDIX B. FOCUS GROUP MEMBERS DATA	107
	APPENDIX C. FOCUS GROUP RAW DATA OF POSTIVE/NEGATIVE IMPLICATIONS AND MITIGATIONS.....	109
	APPENDIX D. DECISION-MAKING FACTORS	115
	BIBLIOGRAPHY	117
	INITIAL DISTRIBUTION LIST	125

LIST OF FIGURES

Figure 1.	The Unfolding Model of Voluntary Turnover Adapted for Military Service..	39
Figure 2.	Decision Paths Leading to Voluntary Turnover	40
Figure 3.	Unfolding Model between Midcareer and 20 YOS.	50
Figure 4.	Assignment Detailing in Relation to Current Model of Retirement	76
Figure 5.	Assignment Detailing in Relation to Proposed Model of Retirement	77

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

Table 1.	Aggregate Decision-making Factors (Outside is lower, should be up)	41
Table 2.	Search for Alternatives and Job Offers	44
Table 3.	Search for Alternatives and Job Offers at Midcareer.....	45
Table 4.	Results of Military Personnel Experiencing some Attribute of the Unfolding Model.....	46
Table 5.	Percentage of Participants That Fell into One of the Decision Paths	47
Table 6.	Script Data after Initial Term of Service.....	48
Table 7.	Ideas Generated on Adopting Defined Contribution after Initial Term.....	54
Table 8.	Major Themes and Associated Comments for after the Initial Term of Service.....	55
Table 9.	Decision-making Data for the Midcareer stage	57
Table 10.	Potential Image Violations with Supporting Comments from Focus Groups.....	59
Table 11.	Summary of Response Data in Relation to Manpower.....	67
Table 12.	Comparison of DBB data to Focus Group Responses	69
Table 13.	Focus Group Response to a Defined Contribution as Related to Pay and Other Compensation	72
Table 14.	Members Perception of Benefits Based on Comparison of Systems.....	74

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

ACOL	Actual Cost of Leaving
CALL	Center for Army Lessons Learned
COLA	Cost of Living Adjustment
CPI	Consumer Price Index
CSB	Career Status Bonus
CSBA	Center for Strategic and Budgetary Assessment
DB	Defined Benefit
DBB	Defense Business Board
DC	Defined Contribution
DIEMS	Date of Initial Entry into Military Service
DLI	Defense Language Institute
DoD	Department of Defense
DOPMA	Defense Officer Personnel Management Act
DRM	Dynamic Retention Model
FERS	Federal Employees Retirement System
HC	Human Capital
IE	Indispensable Employee
IRB	Institutional Review Board
MCCLL	Marine Corps Center for Lessons Learned
MOS	Military Occupational Specialty
NDAA	National Defense Authorization Act
NCO	Non-Commissioned Officer
NPS	Naval Postgraduate School
PVCOL	Present Value Cost of Leaving
REDUX	Term used to describe Military Reform Act of August 1986
Tenth QRMC	Tenth Quadrennial Review on Military Compensation
TSP	Thrift Savings Plan
UCMJ	Uniform Code of Military Justice
YOS	Years of Service

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

According to the *Tenth Quadrennial Review on Military Compensation*, the purpose of military retirement is:

- to provide members and former members of the nation's uniformed services with a socially acceptable level of payment during their old age
- to provide members with a retirement system that is competitive with those provided by the private sector and the federal civil service
- to provide a force-shaping tool that offers an incentive for members to stay until 20 years of service and an incentive to leave thereafter, thereby providing promotion opportunities for younger members
- to provide a pool of experienced military manpower that the nation can call on in time of war or national emergency to augment active duty forces¹

Although the specific eligibility requirements to qualify for military retirement have evolved over the years, the underlying aims of the previous four statements have changed little since the Hook Commission established the basis for the current retirement system in 1948. Over the past 64 years, the methods used to achieve the four aims of the retirement system have been studied by 11 federally mandated reviews of military compensation and numerous other governmental agencies and commissions. As the Department of Defense budget has become increasingly strained, calls for military retirement compensation reform have steadily grown in number and intensity. Prevailing wisdom indicates eventual retirement reform is inevitable, but the framework of the system is the subject of intense debate. Criticism of military retirement compensation varies widely, depending upon the point of view of the stakeholder, however, the Defense Business Board captured the consensus of the criticism in its 2011 report. The Defense

¹ Department of Defense, Report of the Tenth Quadrennial Review of Military Compensation (Washington, DC: Department of Defense, 2008), 7.

Business Board described the current military retirement system as inflexible, unfair, and economically unsustainable in the current fiscal and economic environment.²

A. BACKGROUND

1. Brief History of the Military Retirement System

The uniformed services can trace the origin of its military retirement system all the way back to August 3, 1861.³ The Act of 1861 provided for the voluntary retirement of officers from all service branches after 40 years of service with the concurrence of and at the discretion of the president of the United States. While this act provided the basis of a retirement system, it did not address how the system was to be administered. Congress attempted to standardize the retirement system via the Act of 1916.⁴ The 1916 Act focused on two foundational principles which still exist in some form today. The first principles integrated the idea of a move up or move out promotion system that was selective in nature. The second principle established the formula by which much of military compensation was calculated up until 1980. It settled on a formula that would pay 2.5% of base pay for every year of service up to a maximum amount of 75% for a 30-year career.⁵

The first significant reform or change to the manner in which military retirement compensation was calculated resulted from the Defense Officer Personnel Management Act (DOPMA).⁶ DOPMA, enacted in September of 1980, changed the formula by which military retirement compensation is calculated. Prior to DOPMA, retirement compensation paid 2.5% of basic pay per year for up to 30 years. It also based those

² Defense Business Board, *Modernizing the Military Retirement System* (Washington, DC: Defense Business Board, 2011), 2–3.

³ Gibert, Jeffrey, A. “Reforming the Military Retirement System,” (Research Project, United States Army War College, 1999). DTIC (19990614 041).

⁴ Ibid., 4.

⁵ Ibid., 5.

⁶ U.S. Library of Congress, Congressional Research Service, A Summary of Major Military Retirement Reform Proposals, 1976–2006, by Rex Hudson, (Washington, DC: Federal Research Division, 2007), 6.

calculations off of the last month of basic pay. Under DOPMA, the percentages did not change; however, instead of payments based on the last month of basic pay, the average of the highest three years of basic pay was used to determine retirement compensation. While the data are not entirely conclusive in every retirement case, the general consensus was the change to averaging three years of basic pay reduced retirement benefits throughout the force between 5 and 10%.

Before 1986, the retirement administration of officer and enlisted personnel were kept separate. The enlisted personnel retirement system was established by congressional act in February of 1885 to include the voluntary retirement of Army and Marine Corps personnel. The baseline act was modified in 1889 to include Navy personnel, and again in 1907 to include all branches of service.⁷ Since 1907, both officer and enlisted retirement compensation has been governed by one statute.

The largest change to military compensation affecting all of the services was the result of the passage of the Military Reform Act of August 1986. The Military Reform Act introduced the REDUX retirement system. Prior to 1986, military retirement pay had been calculated based on DOPMA. The introduction of the REDUX system brought about significant changes. First, the baseline percentage of 50% of retirement benefits for 20 years of service was changed to 40% of benefits for the same career length of 20 years. REDUX still allows a service member to earn the 75% retirement benefit for 30 years. It accomplishes this by adjusting the percentage value assigned for each year of service. Under DOMPA, each year of service was worth 2.5% of benefits. Under REDUX, each year up to 20 years is reduced from 2.5% to 2%; however, each year in excess of 20 is worth 3.5% rather than 2.5%. After 30 years of service, the service member would still enjoy 75% of benefits. REDUX instituted another important change. Cost of Living Adjustments (COLA) that were given annually were changed to allow them to grow and one percentage point less than the Consumer Price Index (CPI). It did include a onetime

⁷ Gibert, *Reforming Military Retirement System*, 6.

upward adjustment at age 62. REDUX applied to all members who joined any branch of the armed service after on or after August 1, 1986.⁸

Compulsory REDUX remained in effect until late 1999. Based upon support from President Bill Clinton's administration to repeal REDUX, The National Defense Authorization Act (NDAA) of fiscal year 2000 offered members two distinct retirement options. Service members were given the option to remain under the pre-REDUX retirement system and receive 2.5% of retirement benefits for each year of service, or they could opt to remain under the REDUX system and qualify for a cash payment of \$30,000 payable at 15 years of service.⁹ Since the effective repeal of compulsory REDUX in late 1999, no significant changes to military retirement compensation have been enacted.

2. Current Military Retirement System

The current military retirement system applies to all service members; however, three separate methods for calculating retirement compensation exist. The specific method used to calculate compensation depends upon the day when the service member began his active duty service. This day is called the Date of Initial Entry into Military Service (DIEMS). The DIEMS date once established never changes. The first of the three methods is called Final Basic Pay. The Final Basic Pay method applies to service members who joined the armed services before September 8, 1980. Under this method, retirement pay is calculated by taking the last month of basic pay, multiplying it by 2.5% for each full year served, and further multiplying by the number of years of service. Fractional years are added to the final totals by multiplying the fractional years by 1/12th for each fractional year.¹⁰ Thus, a military member who completes exactly 20 years of

⁸ Ibid., 7.

⁹ Library of Congress, Major Military Retirement Reform Proposals, 9–10.

¹⁰ U.S. Library of Congress, Congressional Research Service, Military Retirement Reform: A Review of Proposals and Options for Congress, by Charles A. Henning, CRS Report XXXX (Washington, DC: Office of Congressional Information and Publishing, 2011), 3.

service will receive exactly 50% of their final months' pay as retirement compensation. Cost of Living Adjustments, or COLA, are directly related to increases in the Consumer Price Index (CPI).

The second method of retirement compensation calculation is named High-3. High-3 applies to all service members entering the armed services between September 9, 1980, and July 31, 1986. Under the High-3 method, retirement compensation is calculated by averaging the highest 36 months of a member's basic pay throughout his career. That average is then multiplied using the same formula used to calculate compensation under the Final Basic Pay method.¹¹ The annual cost of living adjustment is also indexed to the CPI.

The final method of retirement compensation is REDUX. REDUX applies to service members who entered military service on or after August 1, 1986. REDUX currently encompasses two options. A member can choose to retire under the High-3 system or opt for the REDUX system. The REDUX system retains the methodology of averaging the highest 36 months of basic pay. That average is multiplied by 2% for each complete year of service. Fractional years are accounted for in the same manner as Final Pay and High-3. An added component of REDUX is the Career Status Bonus (CSB). The Career Status Bonus is a \$30,000 cash bonus payable after 15 years of service. Thus, a member opting for the REDUX system will receive a \$30K cash bonus after 15 years of service. At 20 years of service, that member would be eligible for 40% of retirement benefits. Additional years above 20 years of service are credited at 3.5% per year. This change allows for a member to receive the same 75% retirement benefit for a 30-year career as a member retiring under the Final Pay or High-3 retirement systems.¹² Cost of Living Adjustments to retirement pay are equal to the CPI minus 1 percentage point.

¹¹ Ibid., 4.

¹² Ibid., 5.

B. PREVIOUS RETIREMENT COMMITTEES

1. Hook Commission

The Hook Commission of 1948 was the first study of military compensation. Its work was completed in late 1948, and its findings formed the foundation of the Career Compensation Act of 1949.¹³ This act established the military compensation that is largely in force today. The military retirement system created by the Hook Commission established immediate retirement benefits for enlisted personnel and officers after a 30-year career. Officers retiring with between 20 and 30 years of service would receive retirement benefits upon reaching the age of 60, while enlisted personnel could draw benefits upon reaching the age of 50.¹⁴ In addition, the Hook Commission established the non-contributory aspect of military retirement. This aspect of the compensation system still exists today.

2. Defense Officer Personnel Management Act

The Defense Officer Personnel Management Act of 1980 (DOPMA) and the supporting Department of Defense Authorization Act of 1981 were responsible for the major military retirement reforms of the early part of the 1980s. While the introduction of the High-3 formula for computing retirement pay and the establishment of non-disability retirement at 20 years of service were the major changes, these acts made several other significant changes to the military retirement system. DOPMA stipulated that no contributions were to be made by service members toward their own retirement benefits and that no military retirement trust fund need be established. Furthermore, reserve military retirement was aligned with active duty service retirement. The policies and administration of reserve retirement were not the same as active duty, however, DOPMA ensured active and reserve retirement components were governed by common law. Vesting of retirement benefits and recall of retired service members were also addressed by DOPMA. Under DOPMA reform, no vesting of retirement benefits

¹³ Department of Defense, *Tenth Review Military Compensation*, 54.

¹⁴ *Ibid.*, 55.

occurred until after 20 full years of creditable military service. Recall of retired service members was also authorized under DOPMA. Upon retirement, service members were placed on the Inactive Ready Reserve and subject to recall. Furthermore, DOPMA extended the authority of the Uniform Code of Military Justice (UCMJ) over retired members. This served to limit their activities post-retirement.

3. Military Reform Act of 1986 (REDUX)

The watershed military retirement compensation reform legislation was the Military Retirement Reform Act of 1986. This act is more commonly referred to as the REDUX Act due to the REDUX system of retirement it introduced. REDUX differs from the DMC, PCMC, Grace Commission, and Fifth QRMC because it was not a retirement proposal or study; however, its policies are the basis for the current retirement compensation system. To reiterate, REDUX reduced the baseline retirement benefit for a 20 year career from 50% to 40%. It also partly decoupled the Cost of Living Adjustment from the Consumer Price Index by subtracting one percentage point.¹⁵ Although, REDUX represented significant retirement compensation reform, it was also a cost cutting measure. By reducing the baseline benefit by 10 percentage points and by decoupling the COLA from the CPI, the annual cost to the government of military retirees was reduced by almost one-third as compared to pre-1980 costs.¹⁶ As such, it struck a balance between those who believed retirement compensation should be used as a force-shaping tool, and those who were primarily interested in cutting the government costs of military retirement. Still, many were not satisfied with REDUX and in late 1999, with support from the Clinton administration, REDUX was effectively repealed with the passage of the FY2000 National Defense Authorization Act.¹⁷ The NDAA allowed service members to choose to retire with the prior High-3 system of benefits or retain REDUX. REDUX was also augmented with \$30,000 cash payment payable at 15 years of service.

¹⁵ Ibid., 10.

¹⁶ Ibid., 11.

¹⁷ Ibid., 12.

4. Tenth Quadrennial Review of Military Compensation

The Tenth Quadrennial Review of Military Compensation (Tenth QRMC) released its report on military retirement compensation in July of 2008. It was a comprehensive review of the entire compensation system to include health care and educational benefits. It was specifically tasked to address many of the long-held criticisms of the current retirement system. Specifically, it was designed to address the notion that the current system provided an incentive for members with 10–12 years of service to remain in the uniformed services, while providing members with 20 or more years of service incentive to retire and begin to draw benefits.¹⁸ The Tenth QRMC proposal combined concepts of a defined benefit plan and a confined contribution plan. Under the defined benefit component of the plan, members would receive 2.5% of retirement benefits for each complete year of service. Compensation would be calculated under the High-3 of basic pay. However, the vesting options and age a member could begin to receive benefits would change. Under the proposal submitted by the Tenth QRMC, retirement benefits would vest after 10 years of service. The panel reasoned this change aligned the military system with the bulk of civilian sector plans.¹⁹ The true retirement age also changes under the Tenth QRMC proposal. Service members completing a 20 year career would be eligible to draw benefits upon reaching the age of 57. For members serving fewer than 20 years, the age adjusts upward to 60. The plan does allow for the immediate payment of benefits upon completion of 20 or more years; however, the benefit is reduced by 5 percentage points for each year the member is shy of age 57.²⁰ The defined contribution component of the system is structured around the Uniform Thrift Savings Plan. It calls for the government to establish an account for each service member and contribute up to 5 percent of a member's basic pay. This account would also vest at 10 years and provide members with benefits upon reaching their 60th birthday. The Tenth QRMC also provides for two special types of pay as part of its

¹⁸ Department of Defense, *Tenth Review Military Compensation*, 64.

¹⁹ *Ibid*, 63.

²⁰ *Ibid*, 64.

compensation package. The first of these pays is called Gate Pay. Gate Pay rewards service members for reaching certain length of service milestones. It would be based upon a multiple of the member's basic pay and is payable as soon as the member reaches the milestone. This addresses the criticism of the current system by allowing for more upfront compensation as opposed to waiting for the member to retire before receiving any benefits. The second special pay is Separation Pay. It is payable to eligible service members upon leaving the military. This pay is not directly related to retirement compensation, but it does offer members choosing to leave the service before full vesting of benefits to leave with some form of compensation. Nevertheless, due to the broad scope of the Tenth QRMC's focus, it was included in the proposal.

5. Defense Business Board

In May of 2010, Secretary of Defense William Gates tasked the Defense Business Board to examine current military business operations, and identify policies and options to reduce overhead and streamline business operations. In July of 2011, the Defense Business Board (DBB) released their "recommendations to modernize the military retirement system."²¹ The report arrived at its recommendations/findings after analyzing the origin and purpose of the military retirement system and compared it other types of retirement compensation in the public and private sector. A full description of alternate retirement proposals is located in Appendix A. The DBB concluded that the current military retirement compensation system was unjustly suited to retain a force structure of sufficient quantity and quality of personnel. It further went on to state that the inflexibility of the current system with respect to full vesting of benefits led to a disproportionate amount of service members leaving the service between 20 and 25 years of service. In addition, the DBB concluded that the military retirement system is inherently unfair. Because only 15 percent of enlisted members and 47 percent of officers ever reach the 20 year of service milestone, a relatively small number ever receive

²¹ Defense Business Board, *Modernizing the Military Retirement System* (Washington, DC: Defense Business Board, 2011), 7.

retirement benefits as compared to the large number of people who actually serve time in the uniformed services.²²

The DBB recommended a significant military retirement system overhaul with changes to the vesting options and the addition of DoD contributions to the current Thrift Savings Plan account. These changes would be in addition to the current TSP accounts service members are eligible to establish and contribute portions of their military pay. The DBB also recommended a change to the vesting options currently in place. The current military system vests at 20 years of service. No retirement benefits are paid to members who do not complete 20 years of service. In addition, TSP contributions would be risk adjusted based on the type of jobs performed by the service member. Increased contributions for service in a war zone or hardship tours would be established. Hard-to-fill jobs across the force would be eligible for increased contributions or lower retirement ages. TSP payout options would also be flexible under the DBB plan. Payout options would range from lump sum to annuity payments with partial payouts for education and survivorship rights for dependents of military members.²³

The DBB notes in its report that one of the major reasons military retirement reform is necessary and advisable results from the fact the “cliff vesting” or vesting of military retirement at 20 years of service offers a service member little incentive to continue a military career past 20 years.²⁴ As such, the board argues that without reform, service members would be given incentive to retire shortly after reaching 20 years of service. In many cases, the service would prefer to retain members past 20 years of service, especially in cases where members have significant technical training or when filling highly specialized jobs. As currently constructed, the military retirement compensation system does not provide a mechanism to entice members to continue their career past 20 years of service. Often, members reaching this milestone are weighing the transferability of their skills to the private sector and the relative certainty of retirement

²² Ibid., 26–30.

²³ Ibid., 32.

²⁴ Ibid., 27.

benefits when making their decision. In fact, the ability to receive retirement benefits immediately upon retirement often pushes service members to retire vice continuing their service. Without reform, commanders are powerless to use the lure of additional retirement benefits to target specific skills sets and jobs for retention.

C. PROBLEM STATEMENT

With the ever-increasing scrutiny of the Department of Defense Budget and the focus on military retirement reform, it is a virtual certainty military retirement compensation reform will be instituted. While any type of retirement reform is certain to impact military retention, the impact of retention on the overall force structure is not completely captured by simple retention rates. The retention rate represents just one of the many effects resulting from a change of this type. To truly understand the full effect of a fundamental change of military retirement, it is important to study the process and factors that impact the decisions military officers make about continued military service. In order to completely model the potential impact of decisions of this type, factors affecting voluntary employment turnover and Human Capital Theory must be considered. Without considering these important factors, any personnel model would be incomplete and could lead to the unnecessary loss of experienced personnel from both the enlisted and officer ranks. This would lead to negative structural and relational capital loss effects felt throughout the armed services.²⁵

D. RESEARCH QUESTION

This professional report endeavors to answer the following research question: What model, if any, do military officers use to decide when to terminate military service and how does retirement policy affect that model? Secondary questions these report attempts to answer are:

- What are the implications to the military services are associated with adoption of a defined contribution military retirement system?

²⁵ Massingham, Peter, *Measuring the Impact of Knowledge Loss* (Los Angeles: Sage Publications, 2008), 5.

- What organizational policies are necessary to mitigate the risks of associated with changing DoD retirement policy?

E. LIMITATION AND SCOPE

The military retirement benefit is continuously cited as a reason many service members make a career of out of service in the armed forces. It is also universally cited as a key factor of retention. Retention rates are certainly an important consideration when considering how to change the military retirement system; however it is not the focus of this report. This report assumes retirement compensation will change and that retention rates will also change to some degree. This report attempts to discover or clarify the process and factors by which military officers choose to continue their service. It also attempts to uncover other factors or issues stemming from a potential change in military retirement policy that have not been previously discussed. These are referred to as secondary effects or unintended consequences. Often the cumulative effects of these unintended consequences combine to outweigh the primary reasons behind the decision to implement change in the first place. This report attempts to identify and capture these effects through focus groups and present them as potential additions to any model we may develop. However, we realize that any effects we discover may ultimately not be definitive.

F. SIGNIFICANCE OF STUDY

The value of the pursuit of answers to our primary research question and its associated questions lies in the ability to identify the often unintended consequence of implementing a significant change in an organization. Should the Department of Defense enact the majority of the reforms recommended by the DBB, it would represent the most significant change to the military retirement system since August 1986 with the implementation of the Military Reform Act. Depending upon the implementation of such as change, attitudes regarding the value of a career of military service by those internal and external to the uniformed services may change. As such, there is value in identifying and attempting to mitigate any potential difficulties arising from a decision of this magnitude. This would allow the services latitude to ready contingency plans to mitigate

any risks to overall force structure. In addition, the opportunity to survey enlisted and officer personnel spanning all services to obtain their views on the value of organizational knowledge loss and military retirement reform allows for direct feedback from the force. This direct feedback is often lacking when decision makers are contemplating changes that affect the entire force. Regardless of whether the feedback is positive or negative, it is true feedback. Furthermore, as the force transitions after the wars in Iraq and Afghanistan, the opinions of a representative sample of the force is particularly relevant to determine the strategies to best lead change throughout the armed services.

THIS PAGE INTENTIONALLY LEFT BLANK

II. LITERATURE REVIEW

A. OVERVIEW

This chapter is a review of the literature that has been conducted regarding military retirement, voluntary turnover, and knowledge retention. The previous chapter discussed heavily the background on the basic structure of the system as codified in 1949,²⁶ and identified several groups commissioned to explore reforms of military compensation of which retirement is a large part. Those studies will not be discussed in this section, as we will focus on analysis and models developed by outside scholars.²⁷

B. MILITARY RETIREMENT LITERATURE

1. Retirement Reform Analysis

Military retirement has been analyzed and criticized many times over the past 60 years. Several proposals have been brought forth by various commissions and retirement system reviews. Robert Goldich summarized eight proposals in the 10 years from 1969 – 1979 in his 1983 work.²⁸ He outlined several criticisms of the system still observed today but also noted that many of the criticism are biased toward “American civilian-oriented, utilitarian approach to war and military affairs, rather than a more specifically military, geopolitical, and strategic”²⁹ bias. He further concluded:

The major identifiable conceptual underpinning for military non-disability retirement reform and supporting analysis consist of tacitly or explicitly equating military service with civilian employment, and of the military as an organization with civilian business or commercial enterprises.³⁰

²⁶ Robert L. Goldich, “Military Nondisability Retirement Reform, 1969–1979: Analysis and Reality,” *Armed Forces and Society* 10, no. 1 (1983): 64. doi: 10.1177/0095327X8301000103.

²⁷ Please note that many of these scholars also worked for defense think tanks tasked by DoD such as RAND and CNA.

²⁸ The overview of these eight proposals can be seen at Goldich, “Retirement Reform,” 62–64.

²⁹ Goldich, “Retirement Reform,” 60.

³⁰ *Ibid.*, 73.

Indeed, much of the retirement reform talk has been over cost reductions and efficiency gains; two ideas harped on in the civilian business world that do not fit well with the military world accomplish the mission at an all-costs attitude. During wartime, costs are secondary to winning and staying alive.

Further calls for reform also appeared in 1985 from Martin Binkin.³¹ He argued that need for a more effective force is more important than even the large and growing retirement costs. Technological innovation and sophisticated weapon systems call for a more intelligent and experienced force than past forces which relied heavily on “youth and vigor.”³² Technology is even more advanced now with the advent of the Internet, and telecommunications capabilities that allow constant monitoring and communication capabilities. These technologies take years to learn, and even longer to truly master their intricacies. Yet the current system with 20year vesting creates a huge incentive to retire right at 20 years when the experience gained over a career would be most useful.

This idea was highlighted by Klopfer³³ who stated that 20 years “coincides with the height of capability and expertise.” His work argued that the system needs a completely new design that would be better for DoD and the individual service members. A contributory system modeled after the Federal Employees Retirement System (FERS) would allow this.

2. Models

Analysis of the retirement system cannot be done without analyzing the entire military personnel and compensation system as a whole. Retirement policy and changes to it affect overall personnel compensation which in turn impacts retention.

Several models have been developed to analyze retirement reform effects on the military force structure. These models attempt to forecast changes in retention given

³¹ Martin Binkin, “Military Pensions: The Need for Informed Reform,” *The Brookings Review*, 3, no. 3 (Spring, 1985): 8–15. <http://www.jstor.org/stable/20079877>.

³² *Ibid.*, 8.

³³ Mathew Klopfer, “Charting a Course Away from the Pension,” *Proceedings Magazine*, August 2011, <http://www.usni.org/magazines/proceedings/2011-08/charting-course-away-pension>.

changes in military personnel policy. Gotz and McCall developed a cost of leaving model termed the present value cost of leaving (PVCOL) model.³⁴³⁵ That model was further developed by John Warner in 1979³⁶ who added a taste variable to it. He further used the model to analyze three separate retirement proposals suggested by past compensation committees. All three plans were analyzed to predict retention patterns for each of the services.³⁷ The ACOL model was further used to “evaluate the relative efficiency” of the system in 1984 with two proposals for reform.³⁸ The analysis revealed a similar force size and shape at reduced cost to the government. The authors also postulated that one of these two systems might “improve overall personnel management...by reducing the dominance of the retirement system in the overall military compensation system.”³⁹ Problems with retirement reform were also identified for how to actually get one of the plans implemented. One was Congress and the other resistance from within the military.⁴⁰ Warner agreed with this notion and stated “one source of resistance to change of course would come from within the military, where the current retirement system seems almost sacrosanct. But the more important source of resistance to change lies within the fact that they offer little prospect of near term savings.”⁴¹ Indeed any plan adopted would raise costs in the near term which isn’t very palatable in our current fiscal environment.

³⁴ Glenn Gotz and John J. McCall, “The Retirement Decision: A Numerical Analysis of a Dynamic Retention Model,” WN-9628-AF, The Rand Corporation, Santa Monica, California, March 1977.

³⁵ PVCOL was termed by John Warner in his 1979 work on alternative military retirement systems.

³⁶ John T. Warner, *Alternative Military Retirement Systems: Their Effects on Enlisted Retention*. Alexandria, Virginia: Center for Naval Analysis, September 1979. DTIC (ADA084805).

³⁷ Results of the model can be viewed in Warner, *Alternative Military Retirement Systems*, Appendix B, 1–13. Appendix A includes actual retention statistics for 1977 as a comparison.

³⁸ John H. Enns, Gary R. Nelson, and John T. Warner, “Retention and Retirement: The Case of the U.S. Military.” *Policy Sciences* 17, no. 2: 101–121. *Business Source Complete*, EBSCOhost (16854177).

³⁹ *Ibid.*, 114.

⁴⁰ A common theme with all reform proposals is they are seen as reductions in benefits, and thus senior military staff are heavily reluctant to endorse any type of reform.

⁴¹ Enns, Nelson, and Warner, “Retention and Retirement,” 114.

The dynamic retention model (DRM)⁴² was developed by Gotz and McCall specifically to model Air Force officer retention. This model significantly improved over past models as it was “designed to estimate voluntary retention rates under a broad range of compensation, retirement, and personnel policies.”⁴³ The model “eliminate several types of systematic prediction errors”⁴⁴ observed with the PVCOL and ACOL models and has the ability to handle many policy changes at once. One drawback to the model is it requires much “more data than simpler models.”⁴⁵

Arguden researched and evaluated the adequacy of the ACOL, PVCOL, and DRM for retirement policy analysis.⁴⁶ He was able to quantify their limitations, suggest possible improvements, and developed “a simulation methodology to test the improvements.”⁴⁷ He concluded that the DRM was “the most theoretically sound”⁴⁸ while the others exhibited several biases. Of note the ACOL model was said to “under predict the effects of retirement policy changes on retention rates.”⁴⁹ Arguden also highlights some general lessons when analyzing retirement reform using these models:

(1) explicitly laying out the assumptions of the theoretical model and the estimation procedure is essential in understanding and using econometric models, and in ensuring internal consistency; (2) not doing so can lead to significant prediction errors; (3) a theoretically superior model is not necessarily the best one to use for policy analysis because estimation of its parameters can be very difficult, and simpler models may be able to approximate the complex models (and the real world) closely enough for analysis of many policies; (4) a theoretically rigorous and consistent view

⁴² Glenn Gotz and John J. McCall, *A Dynamic Retention Model for Air Force Officers: Theory and Estimates*. Santa Monica, California: The RAND Corporation, December 1984. DTIC (ADA149736).

⁴³ Gotz and McCall, *A Dynamic Retention Model*, 1.

⁴⁴ *Ibid.*, v.

⁴⁵ *Ibid.*, 64.

⁴⁶ R. Yilmaz Arguden, *Personnel Management in the Military: Effects of Retirement Policies on the Retention of Personnel*, Santa Monica, California: The RAND Corporation, January 1986: DTIC (ADA166909).

⁴⁷ *Ibid.*, iii.

⁴⁸ *Ibid.*, vi.

⁴⁹ *Ibid.*, viii.

of the world is essential in understanding the limitations and applicability of different approximations to reality (models).⁵⁰

Similar findings appeared in Trumble and Flanagan's work on the feasibility of the ACOL model.⁵¹ The study agreed with Arguden on using simulation to model retirement, and also pointed out that retirement pay analysis should be done with a DRM vice the ACOL model.

Asch and Warner⁵² built on the theoretically sound DRM by adding several variables to model "microeconomic issues of effort supply and ability sorting."⁵³ They developed A Theory of Military Compensation and Personnel Policy that married "military compensation and retention with the emerging economic literature on compensation and incentives in large, hierarchical organizations."⁵⁴ Their model could then be used to identify the impacts on retention from retirement reform, but also on what those reforms would mean for effort put forth by personnel. To that aim four problems were identified with the system as it pertains to ability of personnel and effort supply:

- It creates an implicit contract problem: The services appear to "demand" large numbers of mid-career personnel because the personnel are there and will not quit, and separating them prior to year of service (YOS) 20 would be viewed as unfairly breaking an implicit-contract. The services are therefore constrained to retain personnel who would not be retained were the terms of separation different.
- Since the reward for an intermediate-length career is low, personnel must decide early on whether they want to be long-term careerists or leave. Some personnel who might have stayed longer under an alternative system leave very early.

⁵⁰ Ibid., 147.

⁵¹ David Trumble and Deborah Flanagan, *Feasibility Study to Update Annualized Cost of Leaving (ACOL) Procedures at the Navy Personnel Research and Development Center (NPRDC)*, Oak Ridge, Tennessee: Oak Ridge National Laboratory, December 1990. doi: 10.2172/6214536.

⁵² Beth Asch and John T. Warner, *A Theory of Military Compensation and Personnel Policy*, Santa Monica, California: RAND (1994). DTIC (ADA288654).

⁵³ Asch and Warner, *Military Compensation*, xiv.

⁵⁴ Ibid., 2.

- Third, the midcareer “bulge” slows down promotion opportunities for younger personnel and blunts the rewards to “fast-trackers,” i.e., high-ability people who should move up more quickly.
- Finally, although the system effectively skews the pay system for younger personnel who are still trying to advance, it reduces skewness for those who are vested and may thereby diminish their effort and advancement incentives.⁵⁵

Asch and Warner used their theory and model to analyze several alternative policies recommended by various commissions.⁵⁶ He concluded that the model was “capable of replicating the Army’s enlisted and officer forces”⁵⁷ and that “the responsiveness of retention to changes in pay is consistent with estimates from econometric studies of retention.”⁵⁸ Band-aid vesting⁵⁹ and reduction of vesting time to 15 years both yielded negative results with increased costs, less productive work force, and ineffective force structure. Warner also analyzes a system with separation pay and old age annuity finding that the separation pay could be used as a force management tool allowing to target what specialties need higher retention. However, pay raises would be needed to maintain a capable military force and overall costs would remain about the same. The results are also dependent on what sets of assumptions are used for the future.

C. VOLUNTARY TURNOVER

The models mentioned above were developed in an attempt to measure the impact on personnel retention, given some exogenous shock such as a policy change. However, they don’t take into account what causes personnel to leave in the first place. The models have been used as a tool to predict the impacts on retention (or the level of turnover), not the cause. There is a vast amount of literature on the subject of voluntary turnover, but little as it applies to the military. The military has an extremely high turnover rate with

⁵⁵ Ibid, xvi-xvii.

⁵⁶ Beth Asch and John T. Warner, *A Policy Analysis of Alternative Military Retirement Systems*, Santa Monica, California: RAND (1995). Proquest (1994–1211120).

⁵⁷ Ibid., 71.

⁵⁸ Ibid., 71.

⁵⁹ Ibid., 45.

close to 50% leaving after a first term. Only 17% of all service members stay long enough to retire and collect benefits.⁶⁰

Previous works on turnover have centered around two main concepts: job satisfaction and job alternatives as antecedents to turnover.⁶¹ Mobley developed an intermediate linkages model which described several links between job dissatisfaction and eventual turnover, and highlighted the “psychological process”⁶² of these links that further researchers could test. Steers and Mowday summarized several works and generalized these linkages into a three steps sequence noting the sequence could differ across employees. Hulin et al. “recognized that job alternatives and satisfaction could have substantially different effects on employee turnover across various populations.”⁶³ So job satisfaction might have a direct effect on one type of employee, but not on another. The key here is that while much research has been done “the research on the traditional models has explained only a modest proportion of variance in actual employee turnover.”⁶⁴

Many of the studies of turnover in a military context have centered on traditional models. For instance Holt and company⁶⁵ pointed out “studies examining turnover in a military context have been grounded in the idea that systematic evaluations are made by members’ job satisfaction, commitment, and job-search behaviors are central to these decisions to leave.”⁶⁶ Holt also pointed out that “traditional models are narrowly focused on rational, systematic evaluations of the current job and how specific job attitudes

⁶⁰ Defense Business Board, “Modernizing the Military Retirement System,” (Report, Office of the Secretary of Defense, Washington, D.C., July 21, 2011): 8. <http://dbb.defense.gov/reports2011.html>.

⁶¹ Thomas W. Lee and Terence R. Mitchell. “An Alternative Approach: The Unfolding Model of Voluntary Employee Turnover.” *The Academy of Management Review* 19, no. 1 (1994): 51–89. Proquest research library (00814614).

⁶² Ibid., 53.

⁶³ Ibid., 54.

⁶⁴ Ibid., 56.

⁶⁵ Daniel T. Holt, Michael T. Rehg, Jeffrey H.S. Lin, and Jennifer Miller, “An Application of the Unfolding Model to Explain Turnover in a Sample of Military Officers.” *Human Resource Management* 46, no. 1 (Spring 2007): 35–49. Proquest (2007–03432–004).

⁶⁶ Ibid., 37.

trigger one's withdrawal decision."⁶⁷ As well, the current retention models discussed above are based on rational decision making and the ability to accurately quantify cost/benefit's.

Lytell and Drasgow⁶⁸ examined military turnover rates using event history analysis. Their models showed several predictors of turnover to include "background variables, military satisfaction, organizational commitment, withdrawal intentions, job withdrawal, and comparisons of military and civilian work and lifestyles."⁶⁹ Of these predictors, "withdrawal intentions, job withdrawal, organizational commitment, and military tenure consistently predicted voluntary turnover."⁷⁰ Where many past studies treated turnover as a "binary event"⁷¹, this study treated turnover as dynamic to see when turnover occurs as well as what might predict it. Retention models have attempted to capture military satisfaction and comparison of military and civilian work lifestyles, both of which are not very good predictors of turnover, and thus won't be good at predicting retention.⁷²

Lee and Mitchel broke from the traditional view and developed the unfolding model of voluntary turnover. Their model suggests that "existing models are too simple"⁷³ and don't adequately explain employee decisions to stay or quit an organization. They argue that employee turnover is a complex process whereby "people follow one of four psychological and behavioral paths when quitting."⁷⁴ Where

⁶⁷ Ibid., 37.

⁶⁸ Lytell, Maria C. and Fritz Drasgow. "'Timely' Methods: Examining Turnover Rates in the U.S. Military." *Military Psychology* 21, no. 3 (2009): 334. doi: 10.1080/08995600902914693.

⁶⁹ Ibid., 334.

⁷⁰ Ibid., 334.

⁷¹ Ibid., 335.

⁷² The taste variable is used in both the ACOL and DRM models and can be seen as a surrogate for military satisfaction. They also both make comparisons between military and civilian earnings, which doesn't necessarily equate to work lifestyle. See Warner, *Military Retirement Systems*, and Gotz and McCall, *Dynamic Retention Model*.

⁷³ Lee and Mitchel, "An Alternative Approach," 84.

⁷⁴ Thomas W. Lee, Terence R. Mitchell, Brooks C. Holtom, Linda S. McDaniel, and John W. Hill. "The Unfolding Model of Voluntary Turnover: A Replication and Extension." *Academy of Management Journal* 42, no. 4 (1999): 450–462. Proquest (01877590).

traditional research had little impact on explaining turnover decisions, the unfolding model was able to explain a good portion of decisions to quit. In 1996, Lee and company applied the unfolding model and found that the four paths described by the model described 63%⁷⁵ of the sample, a vast improvement over previous works. An update to the model was presented in a 1999 piece by Lee, Mitchell, Holtom, McDaniel, and Hill. This work presented several modifications to the existing model which increased the classification of job leavers by 30.1%.⁷⁶

The unfolding model was applied to the military by Holt, Rehg, Lin, and Miller in 2007⁷⁷. Holt et al. pointed out that there are “fundamental differences between military service and civilian employment” so they added two additional decision paths. The original model accounted for 53% of turnover, while the revised model accounted for 83% of the decisions to leave.

D. KNOWLEDGE RETENTION

1. Knowledge Retention Strategies

Knowledge retention strategies and techniques have gained considerable attention in recent years as the realization of an aging baby boom generation set to begin retiring will have tremendous impacts on organizations human capital stores. It can be defined as the procedures developed and implemented to mitigate knowledge loss. Entire books have been written on the subject to educate managers and decision makers on the subject. Delong posits that “knowledge retention consists of 3 activities – knowledge acquisition, storage, and retrieval.”⁷⁸ “Knowledge acquisition describes the practices, processes, and routines used to move knowledge into a state where it is kept available for future use.”⁷⁹ An example of this would be a senior officer mentoring a junior on leadership techniques,

⁷⁵ Ibid., 451.

⁷⁶ Ibid., 458.

⁷⁷ Holt et al., “Application of the Unfolding Model,” 58.

⁷⁸ David W. Delong, *Lost Knowledge: Confronting the Threat of an Aging Workforce*, (New York: Oxford University Press, 2004), 23. <http://site.ebrary.com/lib/nps/Doc?id=10103670>.

⁷⁹ Ibid., 23.

or a non-commissioned officer (NCO) instructing a class on technical aspects of a specific military occupational specialty (MOS). “Storage represents the processes and facilities used to keep knowledge and information until it is needed.”⁸⁰ For instance many of our strategies and doctrine are written down and published for new officers and enlisted personnel to read and understand. Retrieval includes behaviors, routines, and processes used to access and reuse information and knowledge in new situations, such as searching an expert database, calling colleague, remembering a past experience, brainstorming with a group about past experience, or searching a document database.”⁸¹ There have been several attempts at this within the military service such as the Center for Army Lessons Learned (CALL) and Marine Corps Center for Lessons Learned.

Similarly, Liebowitz has also published a great amount of work on knowledge retention. In his 2009 book *Knowledge Retention: Strategies and Solutions*⁸² he describes four pillars to knowledge retention:

- Recognition and reward structure: making it part of everyday life
- Bidirectional knowledge flow: learning from your elders and from your juniors
- Personalization and codification: looking at the connections and collections
- The golden gem: bringing back the golden talent

Several techniques are also presented in his work, some of which have already been adopted by several of the services. After action reviews⁸³ are conducted after every additional duty trips, or big exercises such as Mojave Viper. Oral histories and storytelling⁸⁴ are another knowledge retention technique used for years in the services. For instance the Navy and Marine Corps frequently tell “sea stories” about past

⁸⁰ Ibid., 24.

⁸¹ Ibid., 24.

⁸² Jay Liebowitz, *Knowledge Retention: Strategies and Solutions*, (Boca Raton: Auerbach Publications, 2009), 26.

⁸³ Ibid., 23.

⁸⁴ Ibid., 23.

experiences aboard ships and deployments. These techniques can be quite affective at transferring knowledge throughout the organization.

Parise, Cross, and Davenport looked at knowledge retention strategies by certain network roles.⁸⁵ The three key network roles within an organization are the central connector, broker, and peripheral Player⁸⁶ each requiring different strategies to increase knowledge retention. For instance central connectors often have key relationships allowing knowledge to transfer throughout the organization so using “personal network profiles in career development...to create network redundancies” would be a potential course of action.⁸⁷ The peripheral player often has external relationships vital to the organization so a technique for retaining his/her knowledge would be rewards for “bringing in external ideas and connections.” Personnel within the services make many contacts, especially when working in a joint environment, which can be used to increase our knowledge stores.

Droege and Hoobler also found strategies to help in knowledge retention. They posited that 1) tacit knowledge can be preserved, in part, when firms promote employee interaction, collaboration, and diffusion of non-redundant tacit knowledge, and 2) characteristics of a firms social network, including density and an optimal mix of weak and strong ties, promote interaction, collaboration, and non-redundant tacit knowledge diffusion.⁸⁸

2. Consequences of Knowledge Loss

Much of the work on knowledge retention has focused on strategies and solutions; however, less work has been done on the potential impacts from knowledge loss. Starke,

⁸⁵ Salvatore Parise, Rob Cross, Thomas H. Davenport. “Strategies for Preventing a Knowledge-Loss Crisis.” *MIT Sloan Management Review* 47, no. 4 (Summer 2006): 31–38.
<http://search.proquest.com/docview/224961343?accountid=12702>.

⁸⁶ Ibid., 33.

⁸⁷ Ibid., 34.

⁸⁸ Scott B. Droege and Jenny M. Hoobler, “Employee Turnover And Tacit Knowledge Diffusion: A Network Perspective,” *Journal of Managerial Issues* XV, no. 1 (Spring 2009): 50–64.
<http://libproxy.nps.edu/login?url=http://search.proquest.com.libproxy.nps.edu/docview/194165860?accountid=12702>.

Dyck, and Mauws studied the impacts of knowledge lost when an indispensable employee (IE) left the organization.⁸⁹ They found that a great deal of tacit knowledge flowed from the IE to other employees which provided a safety net for others as the IE could help prevent mistakes.

Eucker⁹⁰ attempted to convey what impacts might be felt from tacit knowledge loss. He argued that knowledge is a function of information, experience, and context.⁹¹ It is the experience and context that makes tacit knowledge so important and the loss of someone with those two attributes would be devastating. For instance, he gives the example of a fireman and crew running into a burning building and when the situation doesn't look or feel right the commander evacuated his men just before the house collapsed. The idea here is the commander large tacit knowledge stores from experience and context and was able to recognize when a situation was turning very dangerous. Without the experience and context a much worse outcome could have occurred, a potentially deadly impact. This particular case is similar to many service men and women who have built up vast amounts of tacit knowledge from fighting in Iraq and Afghanistan. Increased turnover of these people could potentially cause DoD to lose vast amounts of knowledge that could be applied to our next battles.

However, there is evidence that the potential loss of knowledge will be less dramatic than thought. The skills and knowledge acquired by personnel within DoD can be considered firm specific; many skills are "idiosyncratic and therefore useless at other firms."⁹² In their work on the portability of stars performance, Groysberg and Lee found

⁸⁹ Frederick A. Starke, Bruno Dyck, and Michael K. Mauws. "Coping with the Sudden Loss of an Indispensable Employee: An Exploratory Case Study." *The Journal of Applied Behavioral Science* 39, no. 2 (2003): 208–228. <http://search.proquest.com/docview/236251732?accountid=12702>.

⁹⁰ Tom R. Eucker, "Understanding the Impact of Tacit Knowledge Loss: Defining implicit knowledge and why explicit knowledge = information," *Knowledge Management Review* 10, no. 1 (Mar/Apr 2007): 10–13. <http://libproxy.nps.edu/login?url=http://search.proquest.com.libproxy.nps.edu/docview/217499985?accountid=12702>.

⁹¹ Ibid., 12.

⁹² Boris Groysberg and Linda-Eling Lee, "Can They Take It With Them? The Portability of Star Knowledge Workers' Performance," *Management Science* 54, no. 7 (2008): 1214. doi: 10.1287/mnsc.1070.0809.

that “The performance of an outstanding worker is not owned by the worker alone; it is a property of the worker/firm combination, and encompasses firm specific human capital embedded in colleague relationships and firm capabilities.”⁹³ Given this relationship it is safe to assume that not all the knowledge and skills would be lost given increased turnover, because much of it is embedded in the institutions, culture, and relationships established through years of service. Since the Military and DoD in general emphasize teamwork to such a high degree, the loss of high quality personnel doesn’t lead to a one-for-one decrease in the knowledge base.

Droege and Hoobler⁹⁴ looked at tacit knowledge diffusion and employee turnover and found a link between the two and that “social networks explicate the connection between employee turnover and tacit knowledge loss.”⁹⁵ They found that “tacit knowledge loss...stands to disadvantage firms with high employee turnover.”⁹⁶ Indeed, the military can be characterized as having high employee turnover, with close to 50% of personnel leaving after the first 4 year term, and only 17% of all who join making it to retirement.⁹⁷

Schmitt and company⁹⁸ sought to develop a model for knowledge retention during employee downsizing, a popular form of cost cutting over the last couple of decades. They made several arguments that downsizing “affects organizational factors such as organizational routines, procedures and culture.”⁹⁹ Effects on the firm was not just seen in the financial numbers, but also in many non-financial measures not captured such as “erosion of skills, disrupted organizational networks and survivors negative response

⁹³ Ibid., 1226.

⁹⁴ Droege and hoobler, “Employee Turnover,” 50-64.

⁹⁵ Ibid., 51.

⁹⁶ Ibid., 59.

⁹⁷ Defense Business Board, “Modernizing the Military Retirement System,” 8.

⁹⁸ Achim Schmitt, Stefano Borzillo, and Gilbert Probst, “Don’t let knowledge walk away: Knowledge retention during employee downsizing,” *Management Learning* 43, no. 53 (2011): 53–74. doi: 10.1177/1350507611411630.

⁹⁹ Ibid., 57.

behavior. Survivors often feel increased job dissatisfaction and organizational commitment,¹⁰⁰ two factors that are part of the turnover process as defined by Lee.¹⁰¹

Nicholas Scalzo studied the effects of knowledge retention during radical change initiatives,¹⁰² such as military retirement reform. He found nine themes which emerged from the data. Some of these themes were positive such as employees began seeking out information from multiple staff members, and the firm wasn't handicapped as much of the knowledge still existed within the organization. These findings are also supported by Starke,¹⁰³ who found that the organization he was studying didn't lose any significant production capability. Some of the knowledge lost could be obsolete, allowing new knowledge to gain in the firm and allow new ideas to emerge.

Finally, Massingham¹⁰⁴ developed a model for measuring the impact of knowledge loss by examining the impacts through an intellectual capital lens. His findings showed 1) lost human capital may produce decreased organizational output and productivity, 2) lost social capital may reduce organizational memory, 3) lost structural capital may diminish knowledge flows, and 4) lost relational capital may produce disrupted external knowledge flows.¹⁰⁵ Several of these finding have been suggested in past studies such as lost organizational output and productivity.¹⁰⁶

Much has been studied regarding retirement reform, voluntary turnover, and knowledge retention. Our main contribution is to bring these areas of research together and identify what changes in the retirement system would have on turnover and

¹⁰⁰ Massingham, Peter. "Measuring the Impact of Knowledge Loss: More than Ripples on a Pond?" *Management Learning* 39, no. 5 (2008): 542. doi:10.1177/1350507608096040.

¹⁰¹ Lee, 1994 and 1999. The unfolding model of voluntary turnover.

¹⁰² Nicholas Scalzo, "Memory Loss? Corporate knowledge and radical change," *Journal of Business Strategy* 27, no. 4 (2006): 60–69. doi: 10.1108/02756660610677137.

¹⁰³ Starke et al., "Sudden Loss," 208–228.

¹⁰⁴ Massingham, "Impact of Knowledge Loss," 541–560.

¹⁰⁵ Ibid., 541.

¹⁰⁶ Ibid., 543.

subsequently knowledge stores. To date, many works have been done each subject, but none bring them together.

THIS PAGE INTENTIONALLY LEFT BLANK

III. METHODOLOGY

A. INTRODUCTION

A great deal of thought and effort was spent determining the optimal method to gather data to answer the primary research questions. The basic research questions are:

- What process do military officers use when deciding to continue or terminate military service and what factors influence their decisions?
- What are the potential implications from adopting a defined contribution military retirement system?

In order to answer the research questions, several pieces of key information needed to be collected from the participants. First, a list of factors related to the military service profession must be collected. After collection, the authors needed to gain insight into the process each service member used or believed they would use to arrive at the stay or leave decision. At first glance, this process seems simple and fairly linear in nature, however it is actually extremely complex. The complexity lies in the fact that these questions, while asked in group setting, apply uniquely to each military member. As such every person will consider a combination of different factors and each will weigh them differently in arriving at their decision. This provides for an almost unlimited amount of combinations and permutations that would be impossible to fully model statistically. Thus, the data required to answer the primary research questions is largely qualitative in nature and the method chosen to collect the necessary data had to account for the type of data sought.

B. FOCUS GROUP RATIONALE

Building upon the qualitative nature of the data sought to answer the research questions, the authors considered several different data collection methods. These methods included surveys, interviews, and focus groups. Each of these methods had its strengths and weaknesses, however it was determined that focus groups offered the best chance to obtain the necessary data. The focus group method allowed the authors to ask open-ended questions that encouraged the participants to reveal not only the factors they

considered or would consider, but also insight into the model they used or would use to make their decisions.

Focus groups also cast the authors as moderators in a discussion on military retirement policy rather than examiners questioning the value of changing military retirement policy. These ideas are reinforced by the research of Professor Jenny Kitzinger, who writes in her paper that the focus group dynamic “allows the participants to work alongside the researcher.” Kitzinger goes on to suggest that attitudes are not necessarily always captured by responses to direct questioning and a more complete responses to questions are one of the many benefits of the focus group approach.¹⁰⁷ Since the quality of the research is directly related to the quality of the data collected, complete and thoughtful responses to the focus group questions were paramount above other factors. In addition, since focus groups encourage participants to consider the rationale behind their responses, the authors felt they could evoke rational rather than emotional responses from the participants. Focus groups ultimately offered the best chance to obtain the type and quality of data desired, necessitating its choice as the data collection method.

C. STUDY DESIGN

The design of the study was relatively straightforward. The authors sought to recruit both enlisted and officer personnel across all services from the Naval Postgraduate School (NPS) and the Defense Language Institute (DLI), both located in Monterey, California. Each group was targeted for between 6 and 12 participants each. The authors would moderate the focus groups and record all of the data via voice recorder and whiteboard. Since the research required interaction with human subjects, the authors had to seek approval from the Institutional Review Board (IRB) at both NPS and DLI before conducting any research. After completing the necessary paperwork and training, the authors received approval from the IRB at NPS to conduct the focus groups. The IRB at DLI declined the authors’ application to conduct research on their students. IRB administrators at DLI cited the large workload and relative lack of military experience

¹⁰⁷ Jenny Kitzinger, “Qualitative Research: Introducing Focus Groups,” *BMJ* 311 (July 1995): 299–302.

and knowledge about retirement policy among their students as reasons to deny the research request. As a result, almost all of the potential enlisted participants were eliminated from the study. Thus, the data obtained for this study was drawn exclusively from the Naval Postgraduate School officer population.

Recruitment of participants from the study was accomplished through two primary means. First, a recruitment letter announcement was posted on the student check-in page on the NPS intranet. All students must logon to the student check-in page daily so all students were given the opportunity to participate in the focus groups if they chose to do so. Next, an e-mail was sent from the Graduate School of Business and Public Policy Program Officer to other curricula program officers to solicit participation from students and military faculty. Potential participants were able to sign up for the time slot that best accommodated their personal schedules.

After initial sign up, the focus groups were organized and conducted. Focus groups were scheduled to last approximately 50–60 minutes, however the author/moderators would not cut off dialogue if the participants wished to continue the discussion. The focus groups were held in a classroom on the Naval Postgraduate School campus. The primary research questions were written on the whiteboards, and one of the authors listed the dominant themes or answers that emerged from the discussion while the other author moderated. The questions that were written on the boards were as follows:

- How would a defined contribution retirement system change the decision making process to stay or leave the military?
- What factors do you consider when deciding to continue or terminate your military service?
- What are the potential implications from adoption of a Defined Contribution system?
- How do you mitigate the potential negative implications identified when switching from a defined benefit to a defined contribution retirement system?
- What are the potential implications for the knowledge base if a defined contribution system is adopted?

Each session started with a question about the participant's familiarity with the DBB's proposal and recommendations. Based on the participants' responses, the authors

would briefly outline the major themes and proposals of the DBB. Other than the initial introduction of the DBB proposals and the focus questions contained on the whiteboards, the focus groups were free flowing and exploratory. Participants were encouraged to talk about any and all of the questions in any order they chose. The authors/moderators were involved in the discussion to the extent of keeping the conversation going, but did not steer the conversation in any particular direction and did not inject their personal opinions or beliefs into the discussion.

D. LIMITATIONS

Limitations in research are always present. Limitations are introduced into research either by the design of the data collection method, or the participants in the research. While the focus group method of obtaining data for the research questions was the best approach for this particular problem, it was not without its limitations. The authors tried to mitigate the impacts these limitations had on the overall data collection process and the potential follow on effects on the results, but it is impossible to eliminate every limitation.

There are some inherent limitations with the focus group method that are present in this study. To begin with, the population from which focusgroup participants were drawn was comprised of all military officers. As mentioned earlier, permission was not given to conduct focus groups with enlisted service members at the Defense Language Institute. This limited the research data to what was gathered from military officers at the Naval Postgraduate School. Thus, this report cannot directly attribute any of the themes or patterns from the focus groups to enlisted service members. Another round of focus groups with enlisted members would need to be conducted in order to present a comprehensive model representing both enlisted and officer viewpoints. Another limitation of the focus group method is the lack of statistical analysis. Focus groups research does not involve numerical analysis; rather it provides dominant themes and ideas that can be validated by successive focus groups. Iowa State University writes in their article “Focus Group Fundamentals” that numerical analysis of focus group data “is

not the preferred technique.”¹⁰⁸ The limitation manifests itself in that the data cannot be represented numerically in traditional tables and graphs or projected from a small sample to a larger population with any measure of statistical certainty.

In addition to the limitations imposed by the method of data collection, human subjects themselves inject limitations into research. Bias or a lack of knowledge about the subject of the research affects the quality of the data and can subsequently affect the results of the research. In the case of this study, the authors were forced to rely on the knowledge and sophistication of the focus group participants as it relates to military retirement policy reform. The focus groups were open to all students at NPS without qualification. Hence, an assumption was made that military officers who agreed to participate were interested in the nature of the research and possessed a level of knowledge that allowed them to substantively contribute to the individual focus group discussions.

Furthermore, participants were drawn from all military services across different ranks and possessing varying amounts of military service. However, they were asked to describe their decision-making process at varying stages of a military career whether they had reached those milestones or not. Thus, many of the responses are projections of what they might do or think rather than what they actually did or thought. Finally, all of the officers participating in the focus groups are subject to the current military retirement system. The focus group questions asked them to craft their responses under the framework of a defined contribution system they know does not currently apply to them. Hence, their responses are essentially projections based on what they perceive to be the benefits and limitations of a defined contribution system compared to current policy. This limits or potentially biases the data by advancing or confirming both individual and group themes that may or may not be actual representations of preference. This premise is confirmed by Kitzinger in her writing on focus groups. She reasons that a potential negative of focus groups and human subject research is that the group dynamic can often silence individual viewpoints and a dominant individual may be successful in passing off

¹⁰⁸ Iowa State University Extension, “Focus Group Fundamentals,” PM1969B (May 2004): 1–6.

an individual theme as a group theme.¹⁰⁹ A situation such as the one described here potentially biases the data and affects the research, and its effects are compounded by the inability to eliminate its effects from the research design.¹¹⁰

E. CONCLUSION

This chapter briefly describes the methodology used to capture data for use in analyzing and answering the primary research questions. Several data collection methods were considered, but ultimately the focus group method offered the best combination of providing quality data with the least amount of limitations. The focus groups were conducted very simply with a large emphasis on the free-flowing exchange of information and ideas among voluntary participants in order to elicit unencumbered responses with limited bias. This emphasis on unencumbered responses allows for more complete analysis and a smaller chance of tainted data.

¹⁰⁹ Jenny Kitzinger, “Qualitative Research: Introducing Focus Groups,” *BMJ* 311 (July 1995): 299–302.

¹¹⁰ *Ibid.*, 299–302.

IV. VOLUNTARY TURNOVER AND THE DECISION TO STAY OR QUIT

A. OVERVIEW

This chapter provides an introduction to the unfolding model of voluntary turnover as developed by Lee and Mitchel,¹¹¹ later refined by Lee and colleagues, and subsequently modified and adapted for military application by Daniel Holt et al. Within the chapter is a description of the unfolding model as it applies to military service, an application of that model under the current retirement system, and finally an application to the military under a proposed defined contribution system. The data used for this analysis was gathered during the six focus groups from the questions “How would adoption of a defined contribution retirement system change the decision making process to stay or leave the military,” and “What factors are considered when deciding to stay or quit the military.” The data was used to discern the applicability and appropriateness of the model to military service under the potential new system.

B. THE UNFOLDING MODEL OF VOLUNTARY TURNOVER

The unfolding model was developed in an attempt to better explain “how and why people leave organizations.”¹¹² Lee and his colleagues both from the original model and the 1999 refined model recognized that the decision to leave was more complicated than traditional models suggest, and “the ability to predict voluntary turnover remained remarkably weak.”¹¹³ Traditional models were primarily based on the assumption that individuals made decisions in a rational manner in order to maximize utility. The unfolding model differs from this concept and recognizes that people do not always act rationally with respect to voluntary turnover. In contrast to a purely economic view of decision making, the unfolding model incorporates aspects of Image theory, a generic

¹¹¹ Lee and Mitchel, “An Alternative Approach,” 51–89.

¹¹² Lee et al, “Replication and Extension,” 450.

¹¹³ Wendy S. Harman, Thomas W. Lee, Terence R. Mitchell, William Felps, and Bradley P. Owens, “The Psychology of Voluntary Employee Turnover,” *Current Directions in Psychological Science* 16, no. 1 (2007): 51. doi: 10.1111/j.1467-8721.2007.00474.x.

decision making model where individuals screen new information and determine compatibility with three job related images: Value, Trajectory, and Strategic images.

The value image is described as the set of general values, standards, and individual principles that defines a person. The trajectory image is defined as the set of goals that energizes and directs an individual's behavior. The strategic image is defined as the set of behavioral tactics and strategies that an individual believes to be effective in attaining his or her goals.¹¹⁴

The process yields alternative options to the current situation and these alternatives are most often compared to the status quo. The status quo often prevails in this comparison and the individual's current circumstances remain unchanged. In the rare event multiple alternatives exist more traditional methods such as cost/benefit comparisons are made before a decision is reached.

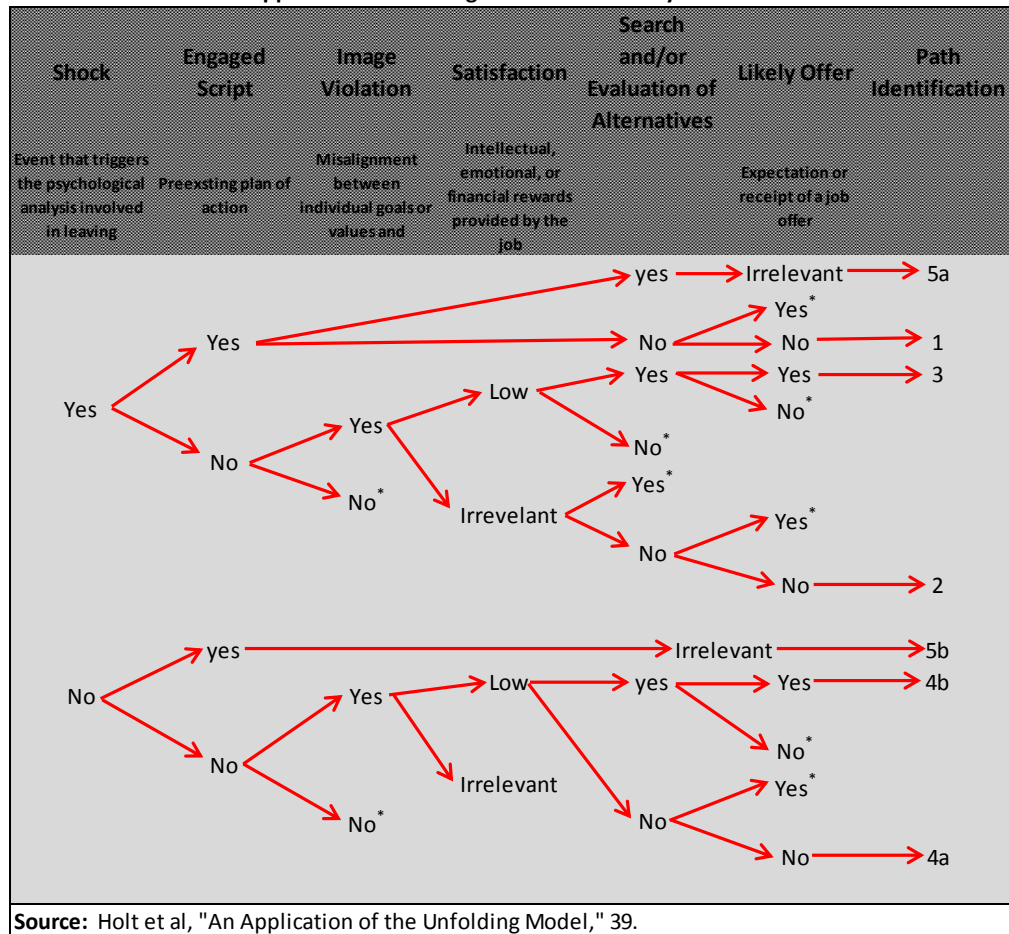
Using image theory as the basis for making decisions, the unfolding model characterized the decision to leave an organization as a psychological process with a "sequence of deliberations"¹¹⁵ whereby some positive or negative shock, or some other factor, compels a person to "evaluate against (a) a preexisting plan of action; (b) the individual's values and goals; and (c) job satisfaction and fulfillment (both professional and personal)."¹¹⁶ These deliberations lead the individual down one of seven paths to leave the organization.¹¹⁷ Figure 1 is a graphic depiction of the unfolding model, and Table 1 describes each of the associated decision paths.

¹¹⁴ Lee and Mitchel, "An Alternative Approach," 58.

¹¹⁵ Holt et al, "Application of the Unfolding Model," 38.

¹¹⁶ Ibid., 36.

¹¹⁷ Lee's original model had 5 potential paths leading to voluntary turnover. For the purposes of this research when we discuss the unfolding model we will be referring to the model as adapted by Holt and colleagues.



NOTES:

1. An asterisk (*) indicates that the route is not classifiable, and that it represents a theory falsification - a way in which a person can leave an organization that would not be part of the models paths.
2. This model includes two military unique paths which are not included in the original and extended unfolding model.

Figure 1. The Unfolding Model of Voluntary Turnover Adapted for Military Service

Decision Paths	
1	A shock triggers the enactment of a preexisting action plan or script. The person who has experienced the shock leaves without considering his or her current attachment to the organization and without his or her current attachment to the organization and without considering alternatives. Job satisfaction is irrelevant.
2	A shock prompts the person to reconsider his or her organizational attachment because image violations have occurred. After completing these deliberations, the person leaves without a search for alternatives.
3	A shock produces image violations that, in turn, initiate the persons evaluation of both the current job and various alternatives; thus in path 3, leaving typically includes search and evaluation.
4a	Lower levels of job satisfaction become so salient that people leave without considering alternatives.
4b	Lower levels of job satisfaction lead explicitly to job search and subsequent evaluation of alternatives.
	NOTE: Lower levels of job satisfaction become the precipitator instead of a shock.
5a	A shock occurs that triggers the enactment of a preexisting script. The member decides to execute the script and leave the organization upon end of enlistment or term.
5b	No shock occurs and the members execute the preexisting action plan. The plan in this case is the term of service.
	Military unique paths: Individuals may choose to leave the service based on an unexplored combination of shocks and scripts. That is the end of a term or enlistment is the shocking event that triggers a reevaluation of the relationship the member has with the organization. The script represents the preexisting plan to leave when that commitment is up.
Source: Holt et al., "An Application of the Unfolding Model," 38–40.	

Figure 2. Decision Paths Leading to Voluntary Turnover

1. Shocks

Four of the seven paths are triggered by an event that disturbs or upsets an individual's current state of affairs, termed a shock. A shock is not limited to being negative. It can be positive or neutral, expected or unexpected, and internal or external. For instance, Holt and company identified the end of a term of service could be considered a shock. This subsequently triggers deliberations of deciding to stay or quit, or enact a preexisting plan of action to voluntarily leave the service. We analyzed our focus group data for shocks. Little direct evidence appears in our data regarding shocks, but it can be used to infer many potential shocks by analyzing the decision making factors found in Appendix E. The decision making factors represent considerations that service

members contemplate when thoughts of quitting arise. So it would follow that if one or more of these factors are violated, the service member would perceive it as a jarring event thereby inducing one of the paths leading to turnover.

Aggregated Factors	Number of groups factor mentioned in.
Family Life -Stability of life -Not moving so much -Spouse career track -Geographic Stability -Family support during deployment	5
Civilian Job Market -outside Employment Offer -Comparable Civilian Salary	4

Table 1. Aggregate Decision-making Factors (Outside is lower, should be up)

Several factors can induce the decision making process to begin. Table 1 contains a portion of the aggregated decision making factors that were identified during the focus groups. Several potential shocks can be identified when analyzing these factors. Family life was identified in five of the focus groups conducted indicating that this is a major component of the decision to stay or quit. For instance, any sort of moving or geographic instability can be extremely shocking for the service member and the family. Service members understand they will have to PCS multiple times in a career; however, they do not always occur at opportune times. Consider a service member and spouse who have moved into base housing and found several families of similar size and dynamics. They families all become close friends, have weekend and holiday barbecues in the court, and develop very close friendships to include their children. Friendships and bonds such as these are hard to come by in the military given the frequency at which we change jobs. Having to leave a scenario such as this and move to a completely unfamiliar area can be very jarring to the entire family. While the service members must accept the circumstances, the family may not want to and the entire relationship could become very

unstable. Thus, thoughts of leaving the service enter in order increase the stability of family life and attempt to regain the scenario outlined above.

Another area that stood out in all the focus groups that could potentially yield a shock was the civilian job market. There was almost a universal opinion that jobs are readily available in the civilian sector, and that officers were employable. Several groups specifically mentioned contractors would aggressively recruit standouts in the military for their organizations. Job offers from contractors can also act as a shock to initiate the turnover process, especially for those with a large knowledge base, or with particular business skills such as those in the procurement area.

While most of the decision paths begin with a shock, three of the seven do not. However, decreased job satisfaction and reassessment of commitment to the organization over time serve to initiate the process. Military life is hard and very taxing at times which can cause members to simply get burned out and reassess their values and priorities. Frequent deployments, field training exercises, and time at sea can take a toll on members especially when that time takes away from family. The severity of the dissatisfaction leads the employee to either quit without exploring alternatives or begin the search for new employment and compare offers to the current situation.

2. Script

The next phase of the model involves the script. A script is a pre-existing plan of action that individual service members may or may not have. The focus groups identified that individuals have vastly differing reasons for joining the service, and many never intend on fulfilling a career. The plan is therefore to join the military and complete one or two terms of service. In other words, a pre-existing plan to leave already exists. This plan might be activated on a pre-existing timeline, or it could be activated by the experience of a shock. Reasons for this could be to acquire certain skills that can later be applied in the civilian world, or to acquire money for college expenses in the form of the GI Bill. Others join to fulfill a career, and some decide to make it a career after their initial term or enlistment. Still others might be forced into service in order to satisfy the will of a family member who served in past years. Such a decision might cause the individual to serve a

term and then leave the service for their own interests regardless of whether a shock was experienced.

3. Image Violation

The third phase in the process is to determine whether an image violation has occurred. “An image violation occurs when an individual’s values, goals, and strategies for goal attainment don’t fit with those of the employing organization or those implied by the shock.”¹¹⁸ For instance, the current pension which is received immediately after 20 YOS is largely regarded as a sacred entitlement that is off the table for cutting. Similarly the services have an implicit contract problem where separation of personnel prior to 20 YOS is “viewed as unfairly breaking an implicit-contract.”¹¹⁹ Because no benefits accrue prior to 20 YOS, they are unwilling to separate individuals with 15+ YOS despite whatever force management issues are prevailing at that given time. Such an act would be viewed as breaking the implicit contract and is ingrained into the culture of the military.

4. Search/evaluation of alternatives and job offers

The final phase of the process is a search and evaluation of alternatives and potential job offers. Ample evidence is provided from the collected data that search/evaluation of alternatives is factored into decision making process. Table 2 and 3 contain the statements and points emphasized during the focus groups. Given the amount of time spent on this particular subject during the focus groups, it is highly likely that service members will not leave the service without job offers or a high probability of obtaining civilian employment. This speaks directly to the idea of employability the “capacity to control one’s employment options through the creation, identification, and realization of career opportunities.”¹²⁰ The fact that this subject was discussed in all the

¹¹⁸ Lee et al, “Replication and Extension,” 451.

¹¹⁹ Asch and Warner, *Military Compensation*, xvi.

¹²⁰ Marco S. Drenzo and Jeffrey H. Greenhaus, “Job Search and Voluntary Turnover in a Boundaryless World: A Control Theory Perspective,” *Academy of Management Review* 36, no. 3 (2011): 575. doi: 10.5465/AMR.2011.61031812.

focus groups leads us to believe that service members, especially the midcareer personnel who participated in the focus groups, believe they are highly employable and capable of moving into another field, or will seek to become highly employable if one of the decision paths is initiated.

Search/Evaluation of Alternatives and Job Offers (After Initial Term of Service)
<ol style="list-style-type: none"> 1. Would always be comparing military life to civilian opportunities 2. At any point it is easier to make the decision to stay or get out. But there still needs to be a job available. 3. Always looking for something better. 4. Will go where the money is. 5. Will entertain the civilian world more frequently.

Table 2. Search for Alternatives and Job Offers

Table 2 contains statements and ideas from the focus groups regarding search and evaluation of job alternatives after the initial term of service. The statements and ideas generated seemed to be very financially oriented. For instance, bullet 4 directly states that first term personnel will likely go where the money is. A likely explanation for this is first term personnel are still very junior even after four or five years, and many don't take into account all aspects of their compensation. Often base pay is the only factor looked at by service members. Consequently, when evaluating employment opportunities only regular or base pay is considered, which might be much lower than potential civilian jobs offer. So potentially the junior personnel view employability in terms of the ability to find a job in which the immediate income is greater than the current income. The long term career prospects and other benefits are less of a factor at this stage.

In contrast, the data on midcareer personnel were heavily focused on the level of skills, leadership, and knowledge acquired after 8–10 YOS. In other words, they become more focused on their level of employability in terms of furthering their long term careers. Table 3 contains several ideas for search and evaluation of job alternatives for the midcareer personnel that focus on this aspect of employability. A key factor here is that midcareer personnel are mainly in the E-6/O-3 pay grades, the middle managers directly involved with day-to-day operations of the military. These folks have developed

multiple skills, both technical and leadership. The experience gained would be very useful in the civilian world. In particular, contracting officers have very business oriented skill sets and knowledge of the procurement process for DoD. This knowledge could be extremely useful for a defense contractor, or some other company wanting to gain business from government spending. These skills could be used over multiple firms and multiple career fields. Another specialty within DoD which contains very employable personnel are the information technology fields. These areas of DoD have very sought after skill sets, and a vast amount of education is put into this area. It is also a growing sector of the economy which will make individuals with technical knowledge to be even more employable in the future.

Search/Evaluation of Alternatives and Job Offers (Midcareer)
<ol style="list-style-type: none"> 1. Must consider that while you might have an engineer degree, you haven't used it while in the military. Skills erode. 2. Encourages members to leave at the mid-career point - economy dependent. 3. Hemmorage E-6/O-3's. Middle management. 4. Contractors can make more in civilian world. Their skills transfer. 5. More senior guys getting out. 6. Hard to change careers as you get older...you are that much further behind in the civilian workforce.

Table 3. Search for Alternatives and Job Offers at Midcareer

C. TURNOVER AND DECISION MAKING UNDER CURRENT RETIREMENT SYSTEM

The data collected for the decision-making process supports the unfolding model and provides evidence for the decision making process for military members. However, there are some unique characteristics for service personnel that differ from civilian employment. For enlisted personnel, their service is broken up into terms of 4–6 years, where each term must be fulfilled before the individual can leave the service. This aspect implies that natural shocks will occur periodically in intervals of 4–6 years. After each term the member must decide whether to reenlist for another term or leave the service. The term of service is essentially a script, a preexisting plan committing the service member to remain on duty for the specified period of time. During that time period other

shocks may occur aside from those naturally occurring one, or general decreases in commitment to the organization could initiate a reevaluation their service. Since the member must complete the contract, the ability to act is limited, which might also increase the desirability of leaving the organization. For officers the initial term mirrors that of enlisted personnel. However, some branches, such as the Marine Corps, require the officers to be augmented or selected to continue service. If selected to continue, there are no longer terms of service and the officer can stay or quit at any time. This is equivalent to many civilian jobs where the decision to stay can be made at any time. Of course there are always special situations where benefits are given to the individual in exchange for commitment to service time. One such situation is selection for Naval Postgraduate School (NPS). NPS is a graduate level school that provides an opportunity for selected members to receive a Master's degree. Upon completion the officer must pay back the service for the opportunity by committing to a specified number of years of service. This might constitute a new plan for the individual to complete the degree and the associated term of service, or might be part of an existing plan already in place. The end of the payback time could also serve as a shock to initiate one of the decision paths, although there is no forcing mechanisms making the member leave the service as there is with the end of a contract for the enlisted personnel. So nothing inherent in the payback period ending prompts the officer to make a stay/leave decision.

Holt and his colleagues were able to classify 83% of the participants into one of the decision paths outlined by their modified model. Tables 6 and 7 provide a summary of the results gathered from Holt's application of the unfolding model.

	% Experiencing attribute of model
Shock	62%
Script	38%
Image Violation	84%
Job Satisfaction Low	83%
Search/Evaluation	94%

Table 4. Results of Military Personnel Experiencing some Attribute of the Unfolding Model

Decision Path	% Classified
1	3%
2	0.55%
3	25%
4a	0.55%
4b	17%
5a	25%
5b	10%

Table 5. Percentage of Participants That Fell into One of the Decision Paths

While the data collected during the focus groups is not sufficient to verify the numbers generated by the Holt study, they can be used to identify what potential shocks can be identified, or what image violations may occur during the decision making process. All the groups provided decision making factors which can be classified into one of the three images outlined by image theory. The data gathered on the decision making process also identify that individuals join the services for various reasons such as for educational benefits or to gain experience in a profession. Support for the model is also found in the search and evaluation criteria. All the focus groups identified searching for alternative employment as part of the decision making process to stay or leave, and they identified this both after initial enlistment and during the midcareer stage.

1. Decision making after the Initial Term of Service

Each member serves an initial term of service for 4–6 years and each member has some sort of script to follow, although this preexisting plan might be as simple as completing the term and leaving the service. The end of the term serves as a natural shock beginning the psychological process of deciding to stay or leave, comparing their value, trajectory, and strategic images with alternatives, search and evaluation of job alternatives, and finally a decision to stay or quit.

Script Data (After initial Term)
<ol style="list-style-type: none"> 1. Some come in with a plan. 2. Initial joins are for various reasons. 3. Career dependent - Acquisition corp, some have plan (Education / Experience), some join just for retirement. 4. Different motivations for joining.

Table 6. Script Data after Initial Term of Service

Holt identified that 38% of the personnel who left had some sort of plan in place. Table 6 contains some of the statements that support this notion. For instance, many service members join for various reasons to include acquiring education and experience. The plan here is to complete the initial term and reevaluate. If the level of education and experience is sufficient, the member can simply complete the contract and follow decision path 5b. If the member engages in some sort of job search and evaluation then path 5a is followed. We are unable to discern whether or not a shock occurred other than the end of term and the data obtained do not identify particular shocks. While 38% of individuals did have a preexisting plan to follow, 62% did not have a plan so turnover must have occurred via another path.

Holt's data identified image violations occurring in 84% of the turnover decisions and job search and evaluation in 94% of the cases suggesting a large amount of turnover for military members occurs via paths 3 and 4. While the decision making factors gathered can be used to speculate on what image violations might occur, it was clear during the focus groups that retirement is likely not something that causes them at this point. Several groups stated that retirement isn't a decisive consideration at this point in a career. Twenty YOS is a very long ways off, and much of the thinking for younger personnel is short term in nature. The DBB research also cited that retirement doesn't become a factor until at least the 8–10 YOS point.

2. Decision Making at the Midcareer Point

The midcareer point is considered the period of service in the 8–12 YOS range, and is the critical period of the decision making process for military members. At this

point in the career the decision to stay realistically commits the member to 20 YOS. The retirement system is directly attributable to the decision making process at this point. At this juncture if the member commits to staying, the thought process is “If I stay another 10 years I’ll receive lifetime annuity of 50% of base pay with cost of living increases yearly.” The majority of members who remain after 8–10 YOS will stay until the 20 YOS point and then leave with full benefits. In essence, the member forms a new plan to remain in the service until that 20-year point. The power of the 20-year vesting rule and the value of the pension are so great that rarely will any shock, or image violations, or negative job satisfaction be able to force the individual to quit. Decision path 5a or 5b hold here in this instance. The shock experienced could be the end of a 20-year career and the preexisting plan is retirement. Image violations and job satisfaction become irrelevant at this stage.

The basic implication here is that 20-year vesting insulates the individual from paths 3, and 4. The opportunities to make a stay/leave decision are limited between the initial term of service and the midcareer point, and the cliff vesting serves to lock the individual into a 20 year plan during the midcareer years. The benefits that must be given up are too large to give up.

Figure 3 depicts the unfolding model as it applies to a military career from the midcareer to 20 YOS. Decision paths 1 and 5a are essentially the same. In path 1 the end of the final term serves as the shock which initiates the decision making-process. Since it is the final term of service and the member is eligible for the pension, he/she simply retires from active duty with no job search or employment offers. This can be viewed as a typical retirement scenario where the individual retires from the work force and pursues other goals. While this is possible, it is unlikely as most members retiring at 20 YOS are still fairly young, and living off of the pension alone can be challenging especially if the member has children who are close to college age. Under decision path 5a the member plan was to finish out a 20 year career and then transition into a second career stage. Given that the member intends to begin a second career upon leaving the service, they engage in search and evaluation of alternatives and leave with expectations of a job offer in hand of to obtain one soon after leaving the service. Decision path 2 is also not very

likely as it depicts a service member leaving in an irrational manner with no plan, and no search and/or evaluation of alternatives and no likely offers. Since the data collected focused quite a bit on employability and job availability, it is unlikely many service members would leave via this path. Finally, path 5b is most likely associated with the officer corps vice the enlisted side. Under path 5b, a general decrease in the level of commitment to military service occurs. This decrease in satisfaction and commitment isn't great enough to give up the lifetime annuity, so the plan to retire is enacted and the search/evaluation criteria become irrelevant. It is very possible under this scenario that while no job search is conducted, the plan might be to retire and spend time with family, or simply relax for a while after 20 years of deployment, frequent PCS moves, and multiple field exercises.

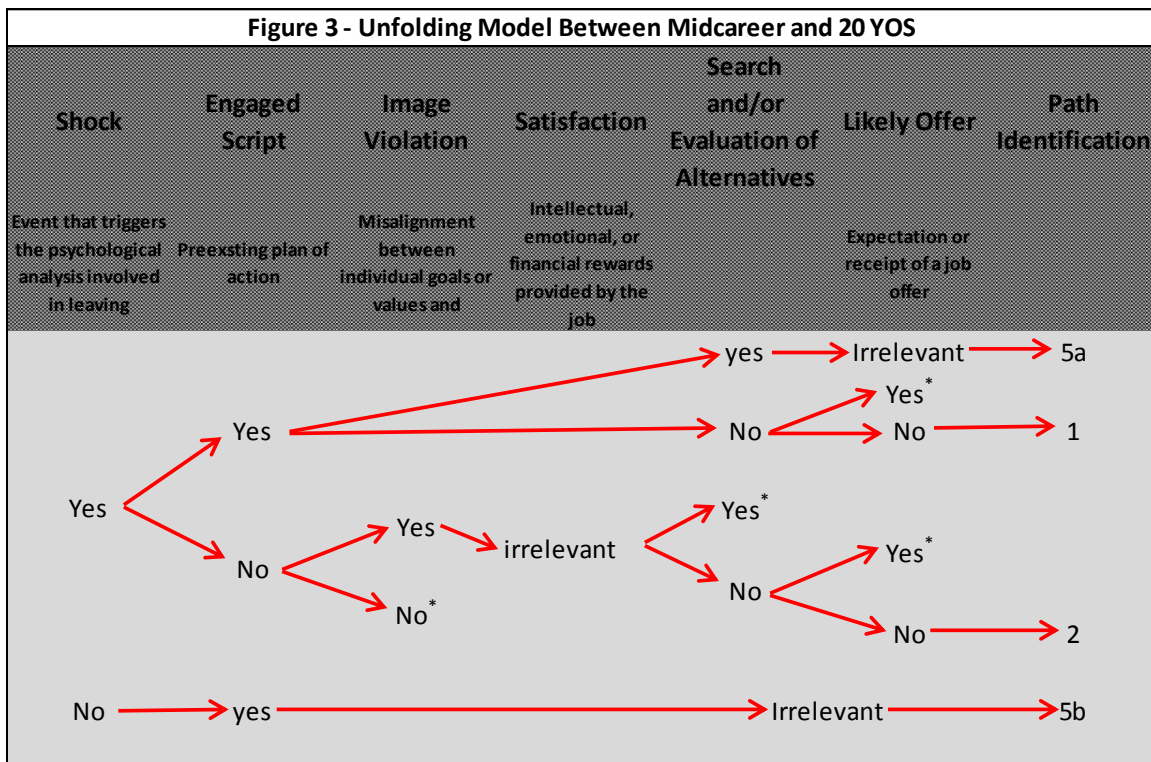


Figure 3. Unfolding Model between Midcareer and 20 YOS.

3. Decision Making past 20 YOS

Little data was collected regarding decision making after the 20 YOS point as most of the volunteers were in their midcareer and had difficulty visualizing what they would be thinking at that stage in a career. However, our belief is that the unfolding model still holds after the 20 YOS point. It is likely that retirement as a factor in the decision making process becomes less important. Each individual knows they can retire with at least 50% of their base pay and the incentive to leave is very high as the intent of the system is to incentivize people to leave after 20 to promote youth and vigor within the ranks.

Given that the system as it stands is structured to incentivize people to leave, perhaps it is more appropriate to focus on why individuals decide to stay past 20 YOS. One of the measures of the retirement system is selective retention, the idea that the services want to retain certain individuals past the 20 YOS point. The individuals targeted are highly skilled, with vast experience that can only be attained over a lengthy career. Perhaps the reason these people stay have to deal with career orientation, or goals for attaining certain rank. Or maybe individuals decide to stay because of a lack of employability. There are many jobs within the services such as combat arms which generate a great deal of firm specific knowledge for the individual making them highly skilled in the within their organization. However, firm specific skills do not readily transfer into the civilian job market, thus personnel in the combat arms specialties might feel they lack sufficient employability and decide to stay in the service.

4. Decision Making for Existing Personnel upon Modification of the Current Retirement System

Since the DBB proposal is such a radical shift in concept for a retirement system, it is fitting to discuss what the decision making process might look like for existing service members who experience a change in the system during some portion of a career. The DBB proposed to two alternatives for transition to a revised system: a high and low cost alternative. The high-cost alternative grandfathered existing service members into the current system. The low-cost alternative would force service members to transition to

the new system immediately, with proportional accrued from the old plan. So a member at 10 YOS would receive 25% of base pay upon retiring after 20 YOS, and begin accruing the DC benefit from 10 YOS until retirement. The effects on decision making would likely be very different under these two alternatives.

Under the low-cost (to government) alternative, modification and forced transition would be the shock triggering one of the decision paths (1, 2, or 3). A shock such as this would be viewed by service members as breaking the psychological contract mentioned earlier, especially for those that have passed the midcareer point. These service members essentially accept an unwritten contract to serve at least 20 YOS and expect the full pension to be paid upon retiring from the service. Taking that away would certainly create multiple image violations, thoughts of quitting, and ultimately, turnover. The magnitude of the turnover is not a focus of this paper, but we infer it would be significant given the image violations from breaking the implicit contract between the military and its service members. These assumption lead us favor decision path 2 and 3. However, decision path 1 is still an alternative. The results of the DBB proposal have been known for several years giving members time to develop scripts in case modification of the system didn't include grandfathering; but, the Secretary of Defense has said multiple times that existing service members would be grandfathered so we view this as the most likely case upon implementation of any changes.

The high cost alternative would include grandfathering of current members, and affect only the incoming service members. While we believe that this would mitigate the enormous shock and subsequent image violations felt without grandfathering current members, there is a possibility of increasing turnover initially in the newer service members. One of the focus groups mentioned the psychological impacts of members with differing retirement plans, especially for the junior personnel with clearly less benefits. The perception of inequality could increase image violations for these personnel initially, and therefore turnover might increase in the lower ranks until a steady state of the new DC system is attained. This leads us to lean towards turnover occurring via paths 4 or 5. The perception of inequality leads to general dissatisfaction and decreased commitment to the force.

Regardless of an increase in turnover in the junior personnel under this scenario, it is our view that the impacts to the force will be much greater under a scenario without grandfathering. The breaking of the psychological contract cannot be overstated. It has been engrained into the culture of the services since codification of the retirement system in 1949. To not honor this contract could potentially cause ripples within the force, that would be incredibly difficult to repair.

D. TURNOVER AND DECISION MAKING UNDER A DEFINED CONTRIBUTION SYSTEM

The decision making process to stay or leave changes dramatically under a defined contribution system. Under a DC plan the hook of the immediate pension and cliff vesting ceases to exist as a factor pulling members to 20 YOS. The personnel making stay/leave decisions no longer have to focus on “vertical career advancement within a single employment setting.”¹²¹ Instead they gain the ability to pursue a boundary-less career, one characterized by “independence from, rather than dependence on, traditional organizational career arrangements.”¹²² These same phenomena have been ongoing in the civilian sector where “job tenure and job stability”¹²³ have been decreasing for the past few decades. Consequently, the focus of employees has shifted from the “organization toward personal career development.”¹²⁴ Since the pension will cease to play such a major factor in deciding to stay or leave the military, it forces individual members to focus on career development and employability in order to remain competitive. This is not to say that members will lose the commitment to service that many feel and pursue civilian careers; but it does mean that they have that option since the notion of a 20-year career is gone. In this case all the decision-making factors identified will be used to screen incoming information in deciding to stay or quit. Essentially, the decision to stay/leave can be made more frequently and on a continuous

¹²¹ Dizenzo and Greenhaus, “Job Search,” 570.

¹²² Ibid.

¹²³ Ibid., 569.

¹²⁴ Ibid., 570.

basis. While members will still have to complete their terms of service, they won't be influenced or have to worry about giving up a lifetime annuity. In other words the whole decision tree outlined in the unfolding model becomes extremely relevant with no insulation from the decision paths post midcareer.

1. Decision Making after the Initial Term of Service

The decision-making process during the initial term of service should essentially follow the same paths as the current system. Many will choose to execute their script at the end of initial term (path 5a or 5b), and others will realize that military life and culture aren't a great fit for their particular images and decide to leave (paths 4a and 4b). For many individuals retirement still isn't a major component of the decision making process. A 20- or 30-year career seems like an eternity for younger personnel, and benefits accrued under a DC plan are relatively miniscule after only a few years. The benefits also can't be drawn until much later in life. Table 7 provides all the ideas generated by the focus groups that are pertinent to the decision-making process after the initial term.

Ideas generated on adopting defined contribution system
<ol style="list-style-type: none"> 1. Not thinking about retirement 2. Doesn't matter...they're not thinking about retirement anyway. 3. Process to make the decision doesn't actually change at this step (Can either execute plan or not). 4. Probably no impact here 5. Might decide to stay longer...1 more deployment 6. Dependent on term length (4, 5, 6, 8 year terms) 7. Might encourage folks to stay longer - dependent on why the member joined in the first place. 8. DC not so much of a factor at this point. Retirement in general not all that important here. 9. Not that much has been sacrificed at this point / not as much time invested so can stay a little longer and not be hurt. 10. Start questioning do I want to stay / do I like the service? 11. Both easier to make the decision to stay in or get out.

Table 7. Ideas Generated on Adopting Defined Contribution after Initial Term

While the decision-making process is relatively similar at this point, there is evidence that the defined contribution system might help increase retention after the

initial term. Table 8 breaks the data down into two major themes that were observed for decision making after the initial term of service.

Major Theme	Direct Comments from Focus Groups
No Change / Not a factor	<ol style="list-style-type: none"> 1. Process to make the decision doesn't actually change at this step (Can either execute plan or not). 2. Probably no impact here 3. Doesn't matter...they're not thinking about retirement anyway. 4. DC not so much of a factor at this point. Retirement in general not all that important here.
Stay longer	<ol style="list-style-type: none"> 1. Might decide to stay longer...1 more deployment 2. Might encourage folks to stay longer - dependent on why the member joined in the first place. 3. Not that much has been sacrificed at this point / not as much time invested so can stay a little longer and not be hurt.

Table 8. Major Themes and Associated Comments for after the Initial Term of Service

What changes under the DC plan is the ability of the members to accrue benefits, which they couldn't do under the pension system. Accrual of benefits allows the member to remain in the service for longer without having to sacrifice much. For instance, if an individual has been with a unit for several years and deployed several times with them there is a sense of loyalty and camaraderie that is established. The individual might have a preexisting plan to finish out the current contract reevaluate the alternatives. Now the unit is set to deploy close to the individuals end of service date, but the end of contract forces the individual begin the decision making process to stay or quit. Under the old system, if a member stayed in the service they accrued no benefits, but would have to commit to 4 more year of service. Under a DC system, the decision to stay and deploy with the unit is easier since the member would continue to accrue benefits. Even though retirement is not a key factor in the decision making process at this time, the idea that committing to more service with no added accrual in benefits no longer exists. Further, if the member decides to leave after the second term the accrued benefits would follow him, and could continue to grow under a new employer.

Another potential reason why individuals might choose to stay another term is to increase their employability. First term service members will have gained much education during their initial term, but not a great deal of experience. It is experience coupled with education which produces tacit knowledge and the skills necessary for career progression and increased employability. During the initial term there isn't very much time for more than one tour, but another term will allow the individual to have one or two more tours of duty thereby increasing the experience and skill level. This might also help the individual increase the level of social capital (who you know), which could be of great assistance in transitioning from the military into a civilian career.

2. Decision Making at the Midcareer Point

The midcareer point is where the most significant difference occurs in regards to the decision-making process. All of the focus groups identified the 8–10 year point as being the critical time in deciding to stay or leave. Table 9 is an aggregated table of the comments and ideas regarding the midcareer. Much of the discussion during the focus groups revolved around this idea, as well as many of the directed points stated that idea outright. Where the pension system would mitigate some of the image violations and job satisfaction issues, a DC system doesn't mitigate any of them. For this reason any shocks that trigger thoughts of leaving, or general loss of commitment to the military will have no offset. The services become wide open to image violations and members don't need to commit basically a 10-year script and retire at 20 YOS.

Midcareer (8-12 YOS): Critical Decision Making Point
<ol style="list-style-type: none"> 1. Process changes for the mid career field. 2. Incentives would need to be placed here for retention 3. Decision to stay/leave might need to be made at the 6-7 year point. 4. No incentive to stay 5. Easier to leave 6. This will become the defining decision time period on whether to stay or leave. (Implies that after this period people are members would be more likely to stay in for longer time period) 7. Encourages members to leave at the mid-career point - economy dependent. 8. This would remain the decision point to stay/leave. 9. Easier to leave here with a lump sum of money. 10. Retirement at the forefront of your mind here. 11. 11 year mark 12. More people getting out. 13. Hemmorage E-6/O-3's. Middle management. 14. Educated middle management - critical decision making point for them. 15. This is the critical decision making time. 16. After 10 years it would be easy to leaver with benefits. 17. Hard to change careers as you get older...you are that much further behind in the civilian workforce.

Table 9. Decision-making Data for the Midcareer stage

Several factors are at play at the midcareer point that make this time period so critical in the decision making process. The first factor is that the 20 year pension that was so instrumental in locking in members to stay for at least 20 years is no longer a factor. The decision process becomes much more difficult and a DC plan and all the decision making factors (Appendix E) will come be used when deciding to stay or quit. Instead of committing to a 10 year plan of action and making a simple financial decision (lifetime annuity after 20 YOS), the member must now go through deliberation process as outlined in the unfolding model. The bottom line from all the collected data is a DC plan provides no incentive to stay for a 20 year career.

There are also many other criteria that factor into the equation during this time frame. During this time frame service members are in their late twenties, are potentially married, have several years of experience, and good skill sets. Table 10 Table 10? is a modification of Table 3 and displays the potential image violations that were discussed in

at least three of the focus groups and adds comments from the decision making process questions that correspond to those images. The most frequent image violation was family life, according to the decision-making factors. This image violation makes complete sense because at the midcareer point many service members have deployed multiple times, families suffer while their spouses and parents are gone, and multiple permanent change of station moves have probably occurred. Each of these can be considered a shock which initiates one of the decision paths. Since family life plays such a heavy role in the value image, we can discern that image violations will occur and without the benefit of the lifetime annuity the chance to leave the service with some benefits accrued is appealing.

Image	Potential Image Violations	Comments from FG
Value Image (Set of important values regarding his/her job)	1. Medical Benefits / Healthcare	
	2. Quality of life	1. Always be looking at QOL/Job Opportunities.
	3. Family Life -Stability of life -Not moving so much -Wife career track -Geographic Stability -Family support during deployment	1. reasons for staying change at this point...marriage/children. 2. Family becomes important decision criteria.
Trajectory Image (Set of goals that motivate job behavior)	1. Civilian Job Market -outside Employment -Comparable Civilian Salary	1. Must consider that while you might have an engineer degree, you haven't used it while in the military. Skills erode. 2. Encourages members to leave at the mid-career point - economy dependent. 3. Hard to change careers as you get older...you are that much further behind in the civilian workforce. 4. Would always be comparing military life to civilian opportunities
	2. Current compensation -Non-Cash Benefits -Tax Benefits -Real Military Compensation (RMC)	1. Easier to leave here with a lump sum of money. 2. Contractors can make more in civilian world. Their skills transfer. 3. Will go where the money is.
Strategic Image (Behavioral tactics and strategies that the person believes are effective in job-related goals)	1. Career Progression -Promotion Opportunities -Job Variety -Command Opportunities -Leadership Opportunities -Job Satisfaction	1. Dependent on how career is going. 2. Know what system you joined and how it works

Table 10. Potential Image Violations with Supporting Comments from Focus Groups

Current compensation is another factor that was discussed in at least three of the groups. The adoption of a DC plan is a clear reduction in military compensation, with the risk of retirement security shifted to the individual. The much-needed security for retirement becomes another factor to consider. If the individual can increase take home pay in the civilian job market, it would allow the individual to increase retirement savings and in turn retirement security. The major point here is that the military retirement system becomes comparable to most civilian programs so the military loses its status as being a differentiator. It is ironic that one of the measures of the retirement system is civilian comparability and the pension system has been criticized for not being comparable. Adopting a DC system fixes that metric, but leaves the services wide open competition with the civilian job market. The military will always be disadvantaged in this area because it is an internal labor market which must promote from within in order to achieve the necessary force structure. The civilian sector in contrast doesn't have this constraint and can choose to utilize military members to fill important positions. Indeed much of the data suggested that military members believed they were highly employable and that jobs would be available for military service members with experience and a broad base of human capital (HC). Certain specialties such as pilots, information technology (IT) personnel, and contractors have specific transferrable skills that are in high demand in the civilian world.

Job search and evaluation was mentioned consistently in all of the focus groups, and Holt observed that 94% of the turnover decisions had job search associated. It is likely that since alternative employment seems so important to the military community, that some specialty's will be able to turnover easier than others. One area that hasn't been mentioned is the information technology field. This is becoming an important sector within DoD and personnel in associated fields receive highly technical training making them very marketable. Because of these decision paths 3 and 4b might increase significantly under a DC system. The more technically oriented specialties will have an easier time finding employment than say combat arms personnel. Combat arms skills don't necessarily transfer as easily into the civilian sector which would likely help retain some of those personnel.

Finally, another key factor in the decision-making process is the idea of psychological mobility. Psychological mobility “is the subjective appraisal of ones capacity to make career transitions.”¹²⁵ This issue wasn’t discussed in any of the focus groups, but given the near universal opinion that 8–10 YOS would be the critical decision making point it is likely that service members believe that there ability to transition into a new career (or the civilian workforce) is highest at this particular time period. At this stage in a career it is likely that individuals haven’t completely embedded themselves in the routines and culture of their respective service, thus it is easier to make the transition into the civilian workforce. They also likely realize that the longer they stay in the military, the potential to transition into the civilian job market diminishes as the added skills and experience that are acquired become more firm specific. Firm specific skills are the skills and knowledge acquired that relate specifically to an individual or organizational context. Contrast that with general human capital that is “non-firm specific skills that are acquired through via education and on-the-job general training.” In effect the longer the individual remains in the military the more his skills become viable for military career progression, but not necessarily for use in the civilian job market.

3. Decision making past 20 YOS

There was very little data collected for the decision making process in the later stages of a military career. However, it was mentioned that members who remained in the service until the later career stages would likely remain until forced out. The reason is that there is no incentive to get out and retire. One of the main goals of the current system is to encourage people to turnover at the 20 year point or shortly thereafter. DC plans don’t force that issue.

Psychological mobility and the idea of job embeddedness also can play a role in decision making in the later stages of a military career. It has already been mentioned that psychological mobility will tend to decrease the longer the service member remains on active duty unless their skills are directly transferrable to the civilian sector. Job

¹²⁵ Direnzo and Greenhaus, “Job Search,” 576.

embeddedness can also play a role in the decision to stay or leave. Job embeddedness “is composed of (1) the fit between a person’s job and other important facets of life, (2) the links or ties an individual has with coworkers and work activities, and (3) the personal sacrifices that would need to be made if an individual were to leave his or her position.”¹²⁶ As military personnel remain in the service for longer time periods the level of embeddedness increases, and it remains harder and harder to leave the organization. For instance, we believe the members who are likely to stay for at least 20 years are those that highly embody the military lifestyle and culture, or those that feel a lack of employability (thus value job security) or don’t feel they have the capacity to move into a new position or begin a new career. Over a 20 year career service members develop deep ties to fellow brothers in arms, and a high sense of camaraderie that is difficult to let go. They have also become familiar with a certain lifestyle characterized by a rigid hierarchy of command and control. This lifestyle is very appealing to many, especially the ones who choose to remain in the services that long under a defined contribution system. These members would be staying because they want, not necessarily because they are being pulled by a large financial incentive. Also, the longer the member remains in the service past 20 years the harder it is to leave and start a second career.

Another factor might be the realization that the ability to earn the comparable benefits in the civilian sector is diminished. This fact has been observed over the years as most military retirees earn less than the wages prior to retirement. The annuity under the old system helped offset this earnings loss, so a decrease in pay wasn’t realized. In many situations the member could actually see an increase in pay when the annuity is added in. Under a DC system, this advantage no longer exists, which makes remaining in the service a more attractive option.

Since the DC system doesn’t incentivize individuals to leave the service, it is likely that this would cause an aging of the force structure, particularly at the upper end of the rank structure. An older force structure would have a positive impact on the level of human capital as the firm specific skills and tacit knowledge acquired remain in the

¹²⁶ Ibid.

services. Since the level of HC increases at the top, it would allow for it to filter down into the rest of the force potentially increasing the level of HC for the entire force. However, the areas of the force with highly transferrable skills may not experience these phenomena as those individuals are the ones most likely to leave in the midcareer range; so highly qualified and skilled individuals will be lacking in the upper ranks of the force.

E. CONCLUSION

The unfolding model is a vast improvement over previous turnover models, and has been much more successful in identifying why people leave organizations. It also proved successful in explaining military turnover and even better when the two military specific paths are added to account for the terms of service associated with military life. The following are several key takeaways from our analysis of the decision making process.

1. Terms of Service Produce Naturally Occurring Shocks That Initiate the Decision-making Process at Predictable Time Intervals

The terms of service create natural shocks periodically which could trigger turnover via one of the decision paths under either system. While they limit the number of times a member must make a stay/leave decision, they also serve as a trigger initiating the process. The terms provide a sense of stability and job security for members, and can be viewed as a preexisting plan of action that can be enacted at the end of the term, or by some other shock.

2. The Midcareer Point Is the Key Decision-making Time Frame under both Retirement Systems

It was clear throughout all of the focus groups that the midcareer is the key decision making point. Under the current system, this time period is when the hook of 20 year vesting grabs members and allows them to create a long term plan to serve 20 years. The power of this hook is so great that job dissatisfaction and image violations become essentially irrelevant as a script is developed for members to complete 20 YOS before reevaluating. Therefore, turnover is drastically reduced under this system. The service members and military departments are insulated from decision paths 3 and 4.

Under a DC system the midcareer becomes the point at which employability in the civilian sector is highest, especially for those specialties and skill sets that transfer easily into the civilian sector. There is also a high degree of psychological mobility for members in this time period. Contracting officers, pilots, and information technology personnel are examples of specialties which provide transferrable skills and knowledge to enhance career progression in a civilian setting. For these reasons we believe turnover will likely increase and retention of the E-6/O-3 cohort could become quite difficult. The DBB mentions that a DC system would add flexibility to force management; however, it negates to mention that while the services will have flexibility the individual members who make up the force also gain more flexibility.

3. The Effects of Modifying the Current System Without Grandfathering Are Dangerous

Modification of the system is likely to produce increased turnover; however, grandfathering serves to mitigate some of that risk. Eliminating the pension for current service member's breaks the psychological contract that is implicit under the current system, and multiple image violations would occur without grandfathering forcing members to leave the service in a dysfunctional manner. The magnitude of this type of turnover could be potentially devastating.

4. Human Capital Under a DC

The DC system allows the midcareer personnel the ability to pursue alternative career paths, and thus increases in turnover will appear in the E-6/O-3 personnel. This would leave the most dedicated and military oriented individuals to remain in the service, with no incentive to leave as employability and psychological mobility decrease the longer the individuals remain in the service. Since there is no incentive to leave the age of the workforce would increase and thus produce an increase in HC at the upper echelon of personnel. However, the loss of many midcareer personnel especially, those with high demand skills and knowledge, would leave a void in the services in these areas. Thus, a decrease in HC would be experienced in these areas which are most likely critical for our future success as a military organization.

V. IMPLICATIONS TO THE FORCE FROM SWITCHING FROM DEFINED BENEFIT TO DEFINED CONTRIBUTION RETIRMENT SYSTEMS

A. OVERVIEW

The previous chapter dealt with the decision-making process military officers use when deciding to stay or leave military service and compared the focus group data to an established model. Building upon that data analysis, this chapter analyzes the focus group data and presents implications to the force resulting from potential changes to DoD military retirement policy. It is necessary to first understand the decision-making process military members use because force implications develop as a reaction to or as a result of a perceived change in the value of military retirement benefits by the service-member. This triggers the decision-making process discussed in the previous chapter and the outcomes of that process aggregated force-wide constitute implications to the force.

B. BACKGROUND & FRAMING

Since the basis of this report revolves around the potential adoption of a defined contribution plan similar to the one proposed by the DBB, its findings and arguments are particularly relevant to our data analysis. Chief among the DBB findings are the arguments that the current military retirement system “is more generous and more expensive compared to the private sector” and that it is unaffordable.¹²⁷ The DBB goes on to outline, in appendices E and F of their report, the cost savings to DoD from switching to a defined contribution plan under an immediate or phased transition from the current system.¹²⁸ The most significant aspect of the DBB argument is that the cost savings are entirely the result of reduced contributions to the military trust fund resulting from the recommended policy change. Thus, while the DBB never explicitly states that the goal or objective of its proposal is the reduction of military retirement benefits, an analysis of its argument and its supporting documentation strongly suggests benefit

¹²⁷ Defense Business Board, 24.

¹²⁸ Ibid., 39-40.

reduction is possible if not likely. It is certainly reasonable to assert based on the report that a change of this type introduces variability and risk to benefits that do not currently exist in the system as constituted. This perception of a reduced retirement benefit as a result of the implementation of the DBB's proposal or something similar was prevalent throughout the focus groups. This drove the participants to consider the impacts both individually and organizationally.

C. METHODOLOGY AND ORGANIZATION

As discussed in Chapter 3 of this report, the focus group approach of data collection does not lend itself to numerical analysis. Thus, numerical analysis is not used here. Instead, dominant themes from each focus group and decision factors used to arrive at a stay or leave decision are used in the analysis. The frequency with which these themes and decision factors were mentioned among all six focus groups indicates their relative strength or weakness. These themes and factors are presented in their entirety in Appendices C and E, respectively, and are referenced and reproduced in part throughout this chapter. The implications were then analyzed by focus group and in the aggregate to determine what the participants felt were the largest and most important implications resulting from changing retirement policy.

An analysis of the data presented in Appendix C indicates that nearly all of the implications from transitioning from a defined benefit to defined contribution retirement system relate to manpower. However, since manpower is a very broad topic, further refinement is necessary to effectively analyze the responses in a meaningful way that lends itself to the logical conclusions. Analysis of the response data in Table 11 reveals the following subcategories as they relate the broader topic of manpower:

- Recruiting and Retention
- Pay and other compensation
- Assignment Detailing
- Knowledge Loss/Other Factors

Summary of Response Data in relation to manpower	
Recruiting and Retention	<p>Certain skill sets have more incentive to leave.</p> <p>Individual MOS doesn't matter. It's a personal decision and its likely retention won't change much. People that would have stayed will stay and those that wouldn't have won't.</p> <p>May have an increase in retention without the stigma of a 20 YOS pension.</p> <p>Faster promotions</p>
Pay and other compensation	<p>Gives people a chance (or forces them) to make a cost/benefit analysis decision.</p> <p>Equity among members</p> <p>Allows them to leave with something.</p>
Assignment Detailing	<p>Easier to turn down tough jobs and leave the service if benefits are transferrable.</p> <p>Manpower has to be rethought.</p> <p>Potential to lose the most tech savvy individuals (E-6/O-3) if they leave rather than accept hardship jobs</p>
Other Factors	<p>Force structure would be more junior.</p> <p>Fewer mid-grades to senior personnel.</p> <p>Better ability to manage the force.</p>

Table 11. Summary of Response Data in Relation to Manpower

These four categories capture the majority of the themes and decision factors as relayed to the authors from the participants in all six focus groups. Taken together, they hint at the significant impact to the force in terms of manpower that DoD faces when considering a change of this magnitude with respect to retirement policy.

D. RESULTS AND ANALYSIS

1. Implications to Retention and Recruitment

The DBB argues that the current retirement system is inherently unfair. In support of this argument they offer the following statistics. Only 17% of the entire force structure

receives a retirement benefit.¹²⁹ Historically only 13% of enlisted personnel and 43% of officer personnel receive a pension.¹³⁰ They go on to assert that 76% of the force that does retire transitions between 20 and 25 years of service.¹³¹ The DBB plan advocates for a removal of the “cliff vesting” requirement to complete 20 years of service. They do not offer a specific recommendation of an appropriate vesting period; instead they suggest that one approach is to vest personnel after an initial commitment of some length. The data in Appendix C suggests that the removal of the 20 YOS requirement has a significant impact on recruiting and retention. All six focus groups remarked that removal of this requirement would make it far easier to leave at the mid-career point since their benefits become portable under a DC plan. Personnel would no longer face the prospect of a total loss of retirement benefits under a plan in which they accrue benefits as they serve rather than after an arbitrary number of years of service. The DBB touts the flexibility and portability of a DC plan as a significant improvement over the current system.¹³² From the board’s perspective, the new plan allows personnel to leave short of 20 YOS without a loss of all benefits. This satisfies though who argue the “cliff vesting” aspect of the current system is unfair. In addition, the risk associated with separation prior to 20 YOS is eliminated. From a DoD perspective, this flexibility allows DoD to separate personnel to separate at any point after initial vesting without considering how the service-member’s benefits are impacted. They would simply transition with benefits accrued to date. Furthermore, this new plan provides DoD with a force-shaping tool that is less constrained by retirement policy and structure. However, the data collected by the focus groups largely contradicts this assertion. A comparison of DBB’s assertion as compared to focus group data is listed in Table 12.

¹²⁹ Ibid., 26

¹³⁰ Ibid., 5.

¹³¹ Ibid., 6.

¹³² Ibid., 12.

Comparison of DBB Data to Focus Group Responses						
DBB	FG1	FG2	FG3	FG4	FG5	FG6
<p>Current Retirement Plan is Inflexible</p> <p>Only 7% of personnel leave between the 15th and 20th year of service, compared to 76% of those serving 20 to 25 years</p> <p>Modifying the retirement system would create an effective force shaping tool</p>	No incentive to stay anymore.	No incentive to stay (the hook to remain is the pension at 20 years).	The benefits at 20 YOS are a big carrot keeping people in until 20 YOS.	<p>Little to keep people in.</p> <p>Potential to lose the most tech savvy individuals (E-6/O-3)</p>	<p>Civilian comparable jobs could be hit the worst.</p> <p>Contractors will target military personnel for recruitment.</p>	<p>Many will look at the military like the civilian job market and try to snatch people up (Comm, defense industry)</p> <p>Manpower unstable.</p>

Table 12. Comparison of DBB data to Focus Group Responses

The DBB concludes that retirement benefits “have little to no impact on retention or recruiting for at least the first ten years of service.”¹³³ The focus group data tends to confirm that premise although it indicates 8 YOS as an upper cutoff rather than 10 YOS. This is largely due to the loose definitions that defined initial commitment and mid-career

¹³³ Ibid., 25.

in terms of YOS completed. 5 of 6 focus groups remarked that the decision process within the initial commitment window of up to 8 years does not consider retirement as a definitive factor in making a decision to enter or leave military service. The divergence between the DBB and the focus group data reveals itself at the mid-career stage. The focus group data overwhelmingly supports the premise that mid-career officer personnel (O3/O4) would be inclined to leave the service at the mid-career stage. Multiple factors were cited as reasons to leave the service at this point. The top reasons cited were:

- Portability of retirement benefits
- Age relative to civilian counterparts when starting a second career
- Marketability/Transferability of job skills
- Family considerations

However, all of these reasons were secondary to the idea that the elimination of the 20 year vesting requirement provides military personnel the freedom to explore other career opportunities outside of military service without the prospect of losing retirement benefits. The focus groups were universal in their assertion that DoD underestimates the amount of mid-career personnel that continue their service largely due to the limitation imposed upon them from “cliff vesting.” This is compelling considering the demographics of the focus group participants. The focus groups consisted of mid-grade career minded officers approximately 33 years of age with approximately 13.5 YOS; all seeking advanced education funded by the DoD. Furthermore, the DBB notes in its report that only 7% of personnel leave the force between 15–20 YOS¹³⁴. Thus, although the DBB touts the flexibility of a DC plan and its ability to help shape the force¹³⁵, the potential for large numbers of accomplished mid-career officers to leave military service at a time when they historically leave in miniscule numbers is perhaps an unintended and unwanted byproduct of changing retirement policy.

¹³⁴ Ibid., 11.

¹³⁵ Ibid., 29.

2. Implications for the Military Pay and Compensation

Retirement pay is but one part of the military compensation package that exists for military personnel. It is the one part of the compensation system that applies equally to all personnel. Members accrue benefits at the rate of 2.5% per year with no benefits vesting until 20 YOS are completed.¹³⁶ Variations do exist with respect to how benefits accrue and the payout structure depending upon whether the member opts for the REDUX option, but the base structure is as previously described. The DBB argues that the static structure of the current military retirement system does not adequately address or compensate those service members designated as high-risk such as those on combat duty or those experiencing some type of hardship.¹³⁷ Their recommendation for a new defined contribution based on the TSP supposedly offers system flexibility in the form of adjustments to TSP contributions based on risk factors such as combat duty, hardship tours, family separation, etc.¹³⁸ This assertion runs contrary to the data collected in the focus groups. Table 13 shows a summary of the responses received from the six focus groups when they were asked about the implications of switching to a defined contribution from a pay and other compensation perspective.

¹³⁶ Ibid., 4.

¹³⁷ Ibid., 25.

¹³⁸ Ibid., 31.

Focus Group Response To A Defined Contribution As Related to Pay and Other Compensations					
FG1	FG2	FG3	FG4	FG5	FG6
Some higher civilian employees make more than the 16.5% suggested in the DBB proposal. Percentage may need to increase.	The bonus getters are the same folks that would tend to leave early as they have the skills we'll need.	<p>Tuition assistance (T/A) and other educational opportunities would need to increase to offset reduced retirement benefits</p> <p>Potentially members would leave service with not enough money for retirement. The incentive wouldn't be there to save if contributions come directly from DoD. Defined benefit systems do not have that problem</p>	<p>Financial risk transferred to individual from employer</p> <p>Increase in cash incentives to reduce perceived or actual shortfall.</p> <p>Targeted incentives aimed at personnel needing to be retained.</p> <p>Need flexibility to target desirable personnel</p>	<p>Need new system for mid-career point:</p> <ul style="list-style-type: none"> -bigger pay raises / higher DC rate -Bonus for leadership levels -Adjust timeline of bonus pay. <p>Financial risk to member - must think about it in terms of overall financial goals.</p> <p>Combat arms should get paid more - but skills don't necessarily transfer (inequitable)</p>	<p>Increase bonuses - more money.</p> <p>Pay bonuses more often to alleviate shortfalls.</p> <p>DC % would have to be much larger than civilian to achieve equivalent defined benefit.</p>

Table 13. Focus Group Response to a Defined Contribution as Related to Pay and Other Compensation

From the table, it is clear that the focus group participants feel strongly that a defined contribution system does not provide needed flexibility; instead it further complicates an already complex compensation system by introducing extra variables that are already addressed via the regular pay and bonus system currently in existence. Military personnel serving in hardship tours, hazardous duty tours, or experiencing hardship already receive targeted compensation in the form of bonuses and special pays. They are free to contribute all or a portion of this compensation to their TSP accounts if they so choose. Hence, the data suggests that simply changing to a defined contribution plan does not solve the flexibility problem the DBB identifies. This is ostensibly due to the fact that a defined contribution benefit is seen as less valuable than the current benefit. This is certainly true based on the focus group data collected. As a result, the implication to the military compensation system is that to make up for the decreased retirement benefit, some other form of compensation must increase in sufficient quantity to make up for the perceived shortfall. Assuming this compensation takes on more than one form, changes to the current compensation system processes are needed to accommodate changes made to the retirement pay portion of the overall system. So, while changing the military retirement system obviously changes military retirement pay processes, it also may force DoD to change the compensation system as whole based on complexities introduced by the defined contribution system. This may be another unintended consequence the DoD may need to consider before implementing new retirement policy.

3. Implications to Assignment Detailing

At first glance, military assignment detailing seems to have little to no connection with military retirement policy, however an analysis of the data collected in the focus groups suggests otherwise. Military officers are organized by community or MOS. Within each community or MOS, a career path exists which governs the type and length of assignments military officers serve. The amount of choice officers have with respect to the types of assignments and their locations varies and is largely governed by their occupational specialty, specified career path, and the jobs available when an officer is ready to move. Military retirement policy has no direct effect on how assignment detailing is conducted in any of the military services. However, retirement policy,

through its influence on factors that affect voluntary turnover and retention, potentially strongly influences how officers interact with the assignment detailing system.

In order to illustrate how assignment detailing is affected by a change in retirement policy, it is first necessary to examine how military personnel perceive the current benefit as it compares to the proposed new system. Table 14 shows a comparison of the major features of the current and proposed systems and focus group perceptions of their retirement benefit under the new plan.

Members Perception of Benefits Based on Comparison of Systems		
Current System	Proposed New System (DBB)	Members Perception of Benefits
<ul style="list-style-type: none"> • Defined benefit • Optional additional TSP Contribution • No risk to pension benefit • Choice dependent investment risk to contribution 	<ul style="list-style-type: none"> • Defined Contribution – 16.5% of base pay to TSP account • Optional additional TSP contribution from member • Potential adjustments to contribution based on risk factors • Choice dependent investment risk for all choices except G fund 	<ul style="list-style-type: none"> • Financial risk transferred to individual under a DC plan. • DC % to TSP would have to be much large than civilian for equivalency • Some higher civilian employees make more than the 16.5% contribution suggested in the DBB proposal

Table 14. Members Perception of Benefits Based on Comparison of Systems

These perceptions seem to indicate that military personnel perceive the defined contribution military benefit to be at best more variable and risky than a defined benefit and at worst significantly less valuable. The perceptions regarding variability, risk, and decreased value are bolstered by the current structure of the Uniformed Services Military

Thrift Savings Program. The TSP offers 10 different investment funds and military personnel are able to choose among all 10 for their TSP contributions.¹³⁹ All of the funds except for the G fund that invests in government backed securities carry some risk of investment loss.¹⁴⁰ However, the safety of the G Fund carries the risk that investments may not appreciate to a level at least equal to the benefit available under a defined benefit plan. Thus, only the defined benefit plan offers a retirement benefit without any risk. A defined contribution plan invested solely in the G fund offers less risk of loss, but introduces investment appreciation risk. As a result, based on the data, the perception that a defined contribution system offers a reduced retirement benefit seems reasonable.

Returning to the issue of exactly how assignment detailing is affected by a change of this type, it is now necessary to consider how some of the secondary shocks or considerations military personnel consider when deciding to stay or leave military actually impact the decision-making process. A snapshot of the process under both systems is provided in Figures 4 and 5 respectively.

¹³⁹ Summary of the Thrift Savings Plan, 11.

¹⁴⁰ Ibid., 12.

Assignment Detailing in Relation to Current Model of Retirement

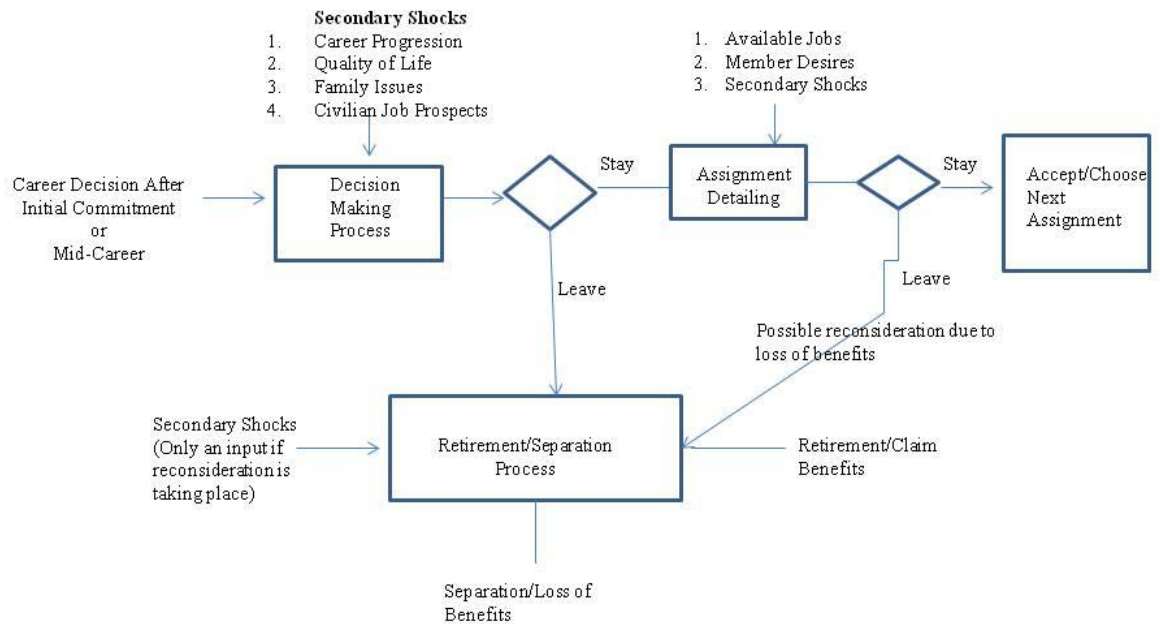


Figure 4. Assignment Detailing in Relation to Current Model of Retirement

Following Figure 4, the inputs to the decision are categorized as relatively standard. They consist of career progression and prospects, quality of life, family issues, and civilian job prospects. After the process is started, a decision is made to continue to serve or quit. If the decision is to quit, the retirement/separation process begins. The process is characterized by a determination of eligibility for retirement and pension benefits. If not eligible for retirement and the officer chooses to separate anyway, forfeiture of benefits occurs. If the decision is to continue service, that officer enters the assignment detailing process at various points in his career. The inputs to the process consist of the member's desires, available jobs and the same 4 inputs that were present as inputs to the initial stay or leave process. Out of this process another stay or leave decision is made. If the decision is to stay, the member chooses or accepts the next assignment, their career continues and the process concludes. If the decision is to quit, the retirement/separation process described above begins. The other line show in the figure is labeled reconsideration. This is due to the time lag between when an officer decides to

leave and when they actually retire or separate. The process to retire or separate takes some time and officers may decide to reconsider their decision to retire or separate for a variety of reasons. Some of those may include a change in status with respect to any of the initial 4 inputs to the process or a consideration of the enormity of the benefit lost if the officer has not completed 20 YOS and is not retirement eligible. So, as previously argued earlier in this chapter, the enormity of the benefit often incentivizes officers to stay simply to reach retirement eligibility of 20 YOS and claim benefits where absent this impediment they would otherwise separate. This decision severely limits their ability to turn down assignments they find less desirable and strips them of much of their power with respect to the assignment detailing process.

Assignment Detailing in Relation to Proposed Model of Retirement

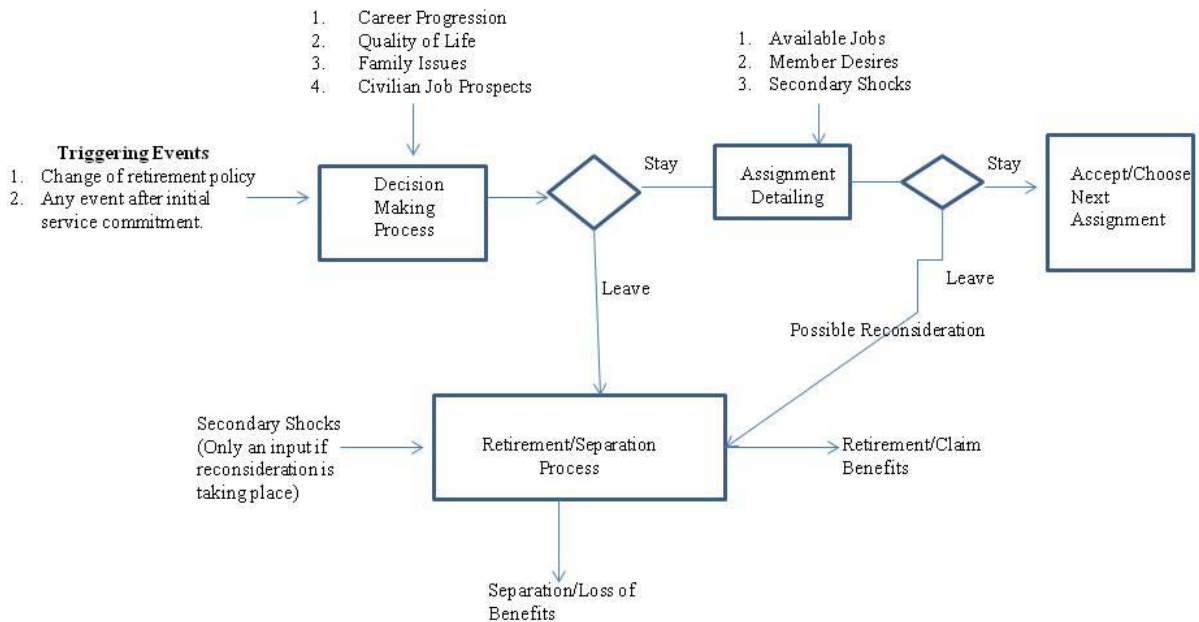


Figure 5. Assignment Detailing in Relation to Proposed Model of Retirement

Now consider the process outlined in Figure 5. This figure depicts the process under the new proposed plan. Under this process, the initiating event is either the primary shock of a change to retirement policy and benefits or any other shock strong enough to

initiate the process. These other shocks are potentially numerous and unique to the individual officer. These same shocks, which under the old system were secondary, now potentially become primary and exert more influence on the decision process. The overall process proceeds almost exactly like the process described for Figure 3 with one notable exception. In the new system, the 20 YOS requirement for qualification of benefits is removed. Officers would still not be able to retire, but they would be able to claim the benefits accrued to date, significantly softening the negative financial implications of separating. Without the prospect of loss of benefits to consider, it is still possible some officers would reconsider separation and continue their careers, but if the jobs offered in the assignment detailing process are deemed unsatisfactory, it is conceivably much easier to separate and transition into the civilian job market.

The removal of the negative financial consequences of separating at any point after initial commitment, but especially in the mid-career stage significantly reduces the leverage assignment detailers have over military officers in the assignment process. As a result, it is entirely reasonable to envision a scenario where assignment detailers in various officer communities are left with lists of viable military assignments that cannot be filled due to their nature. This may be because they involve combat duty, geographic separation, or other traits that military officers deem undesirable. The specific type of assignment, while important, is not the central issue at hand. Rather, the central issue or implication that must be considered is how to persuade military officers to accept the same types of assignments if they perceive they will derive a smaller benefit or utility from their completion. This is especially true if the coercive influence embodied by cliff vesting of benefits is removed. It can certainly be argued that coercive assignment detailing is a sub-optimal method, but it is effective in accomplishing the goal of merely filling billets. At the very least, it would be prudent to examine the size and impact of the phenomena created by changing the policy to determine whether further incentives to fill those assignments need to be created or increased. So, while military retirement policy has no direct effect on assignment detailing, its ability to significantly influence factors that do directly affect the process cannot be discounted or underemphasized. This is yet

another potential implication the DoD must consider before deciding to change existing retirement policy.

4. Implications for Knowledge Loss

Knowledge loss is another topic which seemingly has only an indirect connection or correlation with military retirement policy. However, despite the lack of a direct connection, the prospect of an overall decrease in the tacit or functional knowledge is a very real possibility. As discussed in the section on retention and recruiting, military retirement policy exhibits no discernible effect on the services' ability to recruit and retain people up to approximately 8–10 YOS. Therefore, it is reasonable to assume that with few exceptions, officers with that number of YOS have completed their initial training and have varying levels of operational experience in their specialty. During this initial phase of their careers, military officers are gaining the baseline knowledge and operational experience necessary to enable them to fulfill assignments of greater responsibility during the mid-career phase of their careers. Thus, the flow of knowledge during the early stages of a military officers' career is primarily from the designated service to the service-member in the form of initial technical and operational training. This results in no net loss of knowledge on the part of the services.

As the officers enter the mid-career phase of their careers, they have completed all of their initial training and have some level of operational experience. This varies according to the occupational specialty chosen, but given that officers have achieved the rank of O3 or O4 by the 10-year point in this career, this is a reasonable assumption. Recalling the focus group demographic averages of 33 years of age and 13.5 YOS, it seems clear that many of the officers in the focus group fit the definition of a mid-career officer. These officers are all obtaining advanced education degrees from the Naval Postgraduate School, adding to the knowledge level or knowledge base of their component services and DoD as a whole. Based on their responses pertaining to retention about recruiting as provided in Table 11 and Table 12, it is clear these types of officers are precisely the ones who would seek to leave under a DC system. This becomes problematic for two primary reasons. First, the services suffer a dilution of officers in the

middle portion of their rank structure. This causes a weakening or breakdown of the mentor/mentee relationship many of the services rely on for the transfer of operational experience between seniors and subordinates. Second, the services rely on the continued career progression of these mid-career officers to fulfill the senior positions within their respective communities. As they transition from mid-career officers to senior officers, they acquire additional knowledge and become the stewards and developers of their communities' programs and policies. An interruption of this process, in the form of a loss of significant numbers of mid-career officers, interrupts the acquisition and passage of knowledge from seniors to juniors. The resulting force is characterized by a smaller number of more experienced senior officers that lack sufficient numbers of mid-career personnel to mentor, train, and teach officers during their initial terms of service. Over time, as the most senior officers leave the service, core knowledge in the various communities dissipates due to a lack of personnel to refresh, refine, and sustain the knowledge base in the mid-career ranks. Hence, a seemingly unrelated policy decision about retirement has potentially significant impact on how the services and DoD retain and transfer knowledge among military personnel.

E. CONCLUSION

The analysis of the data in this chapter illustrates some of the many implications that result from changing the military retirement system from a pension based system to a contributory system. The broad category of manpower seems to encompass many of the implications. This chapter has used the data collected in the focus groups to categorize the implications and refine the broader category of manpower into more specific sub-categories. By analyzing the implications indicated by the data in these smaller categories, more specific conclusions about the true impacts DoD must consider before changing a policy of this magnitude are able to be developed. As a result, a more informed decision can be made with respect to if a change actually needs to be made. Moreover, if a change is deemed necessary, an understanding of the implications leads to more detailed and better policy decisions regarding design and implementation of the necessary changes. This leads to more efficient and less costly changes and the potential for easier adoption and acceptance by military personnel.

VI. RECOMMENDATIONS AND CONCLUSIONS

A. OVERVIEW

The all-volunteer force concept of military service took effect in 1973. President Nixon, acting on the recommendations of the Gates Commission formed in 1969, actually signed the law in 1971, but induction authority ended in January of 1973.¹⁴¹ Since that time, the all-volunteer force concept is credited with the transformation of the military service into the youngest, most diverse, most professional fighting force in the history of the United States. Bernard Rostker, in his book, *I Want You! The Evolution of the All Volunteer Force* argues that the past, current, and continued future success of the all-volunteer force depends on four distinct factors:¹⁴²

- Attention and Leadership
- Quantitative Analysis of Policies
- Recruiting
- Financial Resources

Based on the sheer amount of resources DoD expends cultivation these 4 factors, it is clear DoD has adopted these principles as the foundation of its human capital strategy with respect to the military services. In addition, based on the sheer volume of commissions, reviews, reports, and other analysis regarding retirement reform addressing these 4 factors, it is clear that any potential change of military retirement policy must adequately address each of these factors to merit further consideration.

The Defense Business Board's proposal makes a compelling case regarding for changing existing retirement policy. The DBB proposal addresses specific issues regarding current and future costs, structural disadvantages, and equality of benefits. However, analysis of other manpower related factors such as recruiting and retention is largely lacking, and what analysis exists is entirely presented from a DoD perspective.

¹⁴¹ Rostker, Bernard D., "The Evolution of the All Volunteer Force." In *I Want You! The Evolution of the All Volunteer Force*, by Bernard D. Rostker, 1-5. Santa Monica: Rand Corporation, 2006.

¹⁴² *Ibid.*, 6.

Thus, it seems to not adequately address at least one of the four tenets of DoD's human capital strategy. This may indicate why, even with proposals such as the DBB to consider, DoD is still searching for ways to deal with the ever increasing cost of military personnel, both active and retired. As recently as November 2012, the Congressional Budget Office released a report entitled *Costs of Military Pay and Benefits in the Defense Budget* detailing the projected costs of military retirement and a description of alternate retirement proposals and their advantages.¹⁴³ As the DoD grapples with potentially shrinking budgets, compensation reform, especially retirement compensation will continue to be at the forefront of the debate regarding fiscal responsibility and cost control.

The research data collected in this report suggests significant potential implications and repercussions exist with respect to manpower that would accompany a switch to a defined contribution system. It also captures the attitudes and perceptions of military officers regarding the potential reduction of retirement benefits resulting from a potential policy change. These implications and attitudes potentially directly affect the ability of the DoD to execute its human capital strategy in the future. This chapter provides general and specific recommendations to mitigate the potential undesirable or unintended consequences associated with implementation of a defined contribution system. It also concludes this report with a look back at our original research questions and a summary of possible answers.

B. GENERAL RECOMMENDATIONS

Department of Defense military retirement policy affects the entire force. As such, any discussions or deliberations pertaining to its possible change must encompass both agency and personnel viewpoints and perspectives. Just as the composition and structure of the armed services are influenced by strategic documents such as the National Security Strategy, National Defense Strategy, National Military Strategy, and the Guidance for the Employment of the Force; the system designed to compensate military personnel must

¹⁴³ Congressional Budget Office. *Costs of Military Pay and Benefits in the Defense Budget*, Washington D.C.: Government Printing Office, 2012, 1-49.

also reflect and support those shared ideals. All too often, reports and surveys connected to this topic approach this complex and emotionally charged issue with either agency or personnel colored lenses. This inability to effectively consider all aspects of the issue leads DoD to field incomplete and inflexible solutions that fail to address conceptual, structural, and process related problems present in the current retirement system. Thus, the first step in crafting meaningful and lasting retirement reform is a clear articulation of the desired end-state and flexibility of the system developed after careful consideration of:

- Applicable laws
- Constraints (Financial, DoD specific)
- Agency objectives
- Stakeholder desires

Only after a consideration of all the factors involved can a mutually beneficial solution be developed.

To facilitate the development of a comprehensive retirement solution, the DoD should consider supplementing the already mandated reviews of military compensation with data gathered from military personnel and other stakeholders. Their attitudes or perceptions of any proposed changes would be especially useful in deciding if the changes are indeed necessary or if the costs outweigh potential savings or benefits. This data collection could be combined with existing surveys and exit interviews conducted by the individual services at various points throughout the careers of service members. The data could then be subdivided by personnel type (officer, enlisted) or job type (combat arms, support). Any category that yields the necessary data granularity needed to make an informed analysis adds value to the analysis. Additional data analysis ensures the opinions and views of military personnel and other stakeholders are considered, providing greater transparency to the overall process. After collection and analysis, preliminary policy positions should be compared with recommendations advanced by various independent research organizations. The DoD would arrive at final positions for further submission based on the outcome of the comparison process. Concurrent with the development of preliminary positions, the DoD should also perform a feasibility and adaptability study of its current military retirement processes to ensure it can

accommodate potential changes before a final policy determination is made. Adopting a process such as the one outlined ensures that both the DoD and the military personnel remain partners in any potential change to retirement policy and that the policy works for the benefit of all involved.

A further recommendation for DoD to consider is the expansion of this study's design and methods to enlisted service members. Although the Unfolding Model seems universal in nature, a study of this type for enlisted personnel would serve to confirm this premise and the implications from such a study would be useful in understanding the similarities and differences in decision processes among various personnel types. This may lead DoD to reconsider the notion of a "one size fits all" mentality regarding military retirement policy. Indeed, the DBB in its report laments the inflexibility of the current system and offers this as one of the primary reasons for suggesting the system change. The research data also indicates additional flexibility may indeed be needed to accomplish manpower goals if the system is changed. Regardless of the decision the DoD and Congress ultimately makes, an additional study of this type would only increase the availability of quality information to consider in deliberations.

Finally, a further expansion of this study should not only consider why people leave, as this study attempted to convey with the potential decision making factors and potential mitigation techniques, but also why people stay. Thomas Lee and Terence Mitchell, the founders of the unfolding model, have also developed a model to answer the question of why people stay. They outline this model in "Why People Stay: using job embedment to predict voluntary turnover."¹⁴⁴ They look at the "overall level of embedment" through three dimensions: links, fit, and sacrifice. These dimensions are also analyzed in terms of individual organization and within the community.¹⁴⁵ Analysis under the job embedment umbrella might provide significant insight as to what might

¹⁴⁴ Terence R. Mitchell, Brooks C. Holtom, Thomas W. Lee, Chrhis J. Sablinski, and Miriam Erez, "Why People Stay: Using Job Embeddedness to Predict Voluntary Turnover," *Academy of Management Journal* 44, no.6 (Dec 2001), 1102-1121. Proquest (199789164).

¹⁴⁵ Ibid., 1104.

compel individuals within the military services stay for an entire career under a DC system.

C. SPECIFIC MANPOWER RECOMMENDATIONS

1. Recruiting and Retention Recommendations

Any defined contribution system must address the perception of decreased benefits and the shift of financial risk from the DoD to the service member. To ensure the viability of the all-volunteer structure of the military force, the DoD must take the necessary steps to empower the services to recruit and retain sufficient forces in both quality and number. This calls for a compensation package that compares favorably to equivalent civilian employment and also addresses the unique sacrifices that military personnel make both financially and otherwise to begin or continue military service. Hence, any retirement proposal, whether defined benefit, defined contribution, or a hybrid of the two must consider the employment opportunities available to military officers in the civilian workplace while acknowledging the uniqueness of military service.

Specific recruiting and retention incentives are difficult to formulate due to a variety of factors. These factors include age, physical ability, mental ability, language skills, service culture, etc. The individual services, under the umbrella of established DoD policy, are best equipped to decide what tools are needed to recruit and retain the people needed to complete the variety of missions undertaken. However, by looking at the current amounts and types of compensation that are available currently and combining them with some of the components of proposed DC plans, some generic recommendations can be made. First, for those officer communities currently receiving bonuses for career milestone accomplishments, one option is to alter the payout structure of the bonus for additional service. For example, the Navy offers Surface Warfare Officers at the O-4 rank the Surface Warfare Officer Critical Skills Bonus. It pays

eligible officers \$46,000 to serve through 15 YOS.¹⁴⁶ The payout is according to the following schedule:

- \$22,000 at the 2nd anniversary of promotion to O-4
- \$12,000 at the 3rd anniversary of promotion to O-4
- \$12,000 at the 4th anniversary of promotion to O-4

The bonus payout structure or amount could conceivably be changed to incentivize an officer to make an increased YOS commitment. This could be accomplished by agreeing to pay the bonus in a lump sum if the officer agrees to a longer term of service or commits the entirety of the bonus directly to his TSP account. The benefit of a proposal such as this is twofold. The service potentially gains an increased service commitment for essentially the same amount of money it was already willing to pay and the officer benefits from a large contribution to his or her TSP account that has a longer time period to accumulate additional earnings. A plan such as this conceivably increases costs by forcing the service to pay bonuses in lump sums, but that is potentially mitigated by a more stable force structure among the demographic group the research data suggests would be inclined to leave under the new DC plan. The DoD should query the other services to look at other bonuses of this type and consider if similar proposals are appropriate to meet their goals. For recruiting, both the DBB and the research data indicates that consideration of retirement benefits bears little on the decision to enter the military or continue service up to the mid-career point at approximately 10 YOS. Thus, no specific recommendation is needed here. The individual services simply need to monitor their existing accession goals to determine if other measures are required. Current measures such as accelerated initial service bonuses or advanced training opportunity guarantees can be used to target communities experiencing personnel shortages.

While bonuses and other special pays have played a key role in retaining individuals during time of conflict, money is not always needed to solve retention issues.

¹⁴⁶ Navy Personnel Command. "Surface Warfare Officer Critical Skills Bonus", Department of the Navy, <http://www.public.navy.mil/bupers-npc/officer/Detailing/surfacewarfare/pay/Pages/SWOCS.aspx>.

DoD should look at non-monetary factors such as homesteading, duty station choice, educational opportunities, or quality of life initiatives to mitigate potential loss of personnel. Measures such as these are not monetary in terms of DoD paying the member, they do have value in potentially saving DoD money while offering another recruiting and retention inducement. These were discussed and brought up by all the focus groups and could potentially provide a means to help shape and mold the force for the future.

2. Pay and Other Compensation Recommendations

Building upon the recruiting and retention recommendations, the proposal to mitigate some of the negative consequences regarding pay and other compensation are similar. The DoD should instruct the services to identify and prioritize the various officer communities that are undermanned or critical to the success of their mission. They already do this to a large extent in various communities such as Aviation, Submarine, Special Forces, Medical officers, and others. One look at the Special and Incentive Pay section of the Defense Finance and Accounting Service's website shows a multitude of special pays available for the different officer communities.¹⁴⁷ This strongly suggests that additional financial inducements are often necessary to maintain sufficient levels of personnel with advanced skills as they progress through their careers. This problem is potentially exacerbated with the switch to a DC plan due to removal of the immediate lifetime annuity at 20 YOS. Without the lifetime annuity available immediately upon retirement, it is likely retiring service members will need to find civilian employment to bridge the gap between military retirement and availability of benefits under a DC plan. To deal with the impending shortfall, it is reasonable to expect that military personnel may demand higher levels of current compensation throughout their military careers to enable them to increase their retirement benefit and provide for potential increased levels of non-retirement savings capable of reducing financial risk. Hence, the recommendation for the DoD is to consider the sufficiency and flexibility of current special pay and current regular military pay systems in meeting this new demand. This enables the DoD

¹⁴⁷ Defense Finance and Accounting Service. "Special and Incentive Pays" Department of Defense, <http://www.dfas.mil/militarymembers/payentitlements/specialpay.html>.

to provide Congressional leadership with well thought out proposals to consider should the need to reform regular military compensation arise.

Further recommendations regarding pay and compensation revolve around service members' knowledge and understanding of all of the various forms of compensation to which they may be entitled. As noted early on in Chapter 3 of our report, DLI rejected our request to speak to their enlisted students as part of our research. They cited the students' youth and lack of knowledge about military retirement as one of the primary reasons the request was denied. While we certainly respect the authority of the IRB at DLI to reject our request, we could not disagree more with the cited reasons for the denial of the request. Ignorance about compensation in general, but particularly retirement compensation, is behind many of the misconceptions that exist about military retirement. In addition, as the DBB notes and the research data confirms, younger military personnel tend not to consider the impact of military compensation on their overall career and financial goals during the initial service commitment. This argument is further bolstered by Todd Harrison of the Center for Strategic and Budgetary Assessments (CSBA) in his report *Rebalancing Military Compensation: An Evidence Based Approach*. Harrison notes in its report that over 80% of respondents in 4 different age groups among a sample size of 2600 would be willing to delay retirement to age 50 for an additional 1% increase in current pay.¹⁴⁸ Given that Harrison calculated an average retirement age for officers of 47, the potential is there for an officer to forfeit up to 3 years of benefits for less than \$1000.00 annually in most cases.¹⁴⁹ Reports such as this show that personnel perform incomplete evaluations of the impacts potential changes to retirement policy can have on their long-term financial goals. As such, the DoD should institute a mandatory training program centered on educating military personnel about the value and importance of their retirement benefits. This education program should encompass both officer and enlisted personnel and should be repeated either at career milestones or YOS gates to ensure members are able to make the most informed decision possible about their benefits. An

¹⁴⁸ Harrison, Todd. *Rebalancing Military Compensation: An Evidence Based Approach*

¹⁴⁹ *Ibid.*, 49.

educational program of this type would decrease the number of bad or questionable financial decisions made by younger military personnel due to their ignorance of military retirement policy. It would also allow for a frank and open discussion about the impact of changes to policy without the uniformed emotional debate that often accompanies such policy discussions. The final and perhaps most important benefit DoD would gain from a program of this type is the perception that an informed personnel base is important even if it results in attrition once all alternatives are considered.

3. Recommendations for Assignment Detailing

Since there seems to be no direct connection between military retirement policy and assignment detailing, there are no specific policy recommendations. Recalling Figures 3 and 4 from Chapter 5, it is clear that numerous triggers or events may start the process that ultimately affects assignment detailing. Since these triggers are largely unique to the service member, it is impossible to predict what triggers or events require planning to mitigate. Therefore, the individual services just need to continue to evaluate their personnel assignment process for any indications of additional difficulties filling hardship, hazardous duty, or combat assignments. Should difficulties increase, the services would need to act quickly to determine the root causes and implement plans to mitigate them. They may take the form of additional bonuses to supplement regular or retirement compensation. They could also consider offering follow-on job assignment guarantees, choice of geographical location or other benefits based on root cause identification. It might also help to highlight the transferability of skills learned in the assignment to potential future assignments either in or out of military service. Ultimately, each service would take responsibility for deciding how to mitigate and counteract any negative impacts to assignment detailing. The severity of the problem and its causes would dictate the size and scope of the responses necessary. However, this may be difficult to assess due to a lack of a direct causal relationship between retirement policy and the assignment detailing process.

D. CONCLUSIONS

Even without the added pressure of shrinking defense budgets and possible sequestration, any discussion of changing or reducing military retirement benefits would be met with stiff resistance. That the discussion is happening in a time and environment of great uncertainty only adds to the uneasiness of such discussions. The nation is transitioning from a constant period of war and conflict. These wars have stressed defense budgets and military personnel in ways unimaginable little more than a decade ago. As the military transitions, an opportunity exists for the DoD and the various services to reshape themselves with a structure that sustains the force in the short term and secures its long term fiscal health while still providing the necessary military strength to confront and defeat all threats. One of the fundamental questions the military must consistently answer is:

- How do we recruit and retain the necessary forces to meet the nation's needs?
- How do we compensate those who choose to serve a career in the military as they transition into retirement?

These two questions taken in combination with the abundance of studies both internal and external to the DoD calling for retirement policy change led to the primary research questions forming the basis of this report:

- How would adoption of a defined contribution retirement system change the decision-making process to stay or leave?
- What are the implications to the military services associated with adoption of a defined contribution military retirement system?
- What organizational policies are necessary to mitigate the risks of associated with changing DoD retirement policy?

The answers to these questions are vital because if DoD and the military services fail to adequately predict and mitigate risk with respect to their Human Capital strategy, the viability of the all-volunteer military force could be at risk.

The DBB proposals certainly provide a way for DoD to fiscally sustain the military retirement system. However, a fiscally solvent system absent of at least tacit acceptance and approval by military personnel is no better than a fiscally unsustainable system with broad military personnel acceptance. Either extreme system provides for a

sub-optimal force in both number and quality. As a result, any proposal must strike the delicate balance of compensating military personnel for the risks they incur serving their country while remaining fiscally sustainable over the long-term. Otherwise, the force that results is not capable of meeting the nation's security challenges.

Having reviewed and analyzed the data collected throughout the research process, it is clear that an adoption of a defined contribution system would necessitate a fundamental re-examination of the manpower systems of the DoD and its component military services. The removal of several bedrock principles of the current retirement system such as the 20-year vesting requirement and the lifetime annuity at 20 YOS introduce a level of variability and risk into a system that has served the nations needs since 1949. This type of change fundamentally alters the perceptions regarding the value of military retirement benefits and the value of a career in the armed services. These new value judgments combined with the elimination of career switching costs potentially impact every existing policy with respect to how DoD and the services, recruit, retain, pay, and assign military personnel.

To mitigate the risks associated with changing to a DC plan, the DoD and the services will need manpower policies that are as agile and flexible as the military personnel they serve. The policies and the systems that support them will require constant re-evaluation and updating to ensure they continue to support the objectives of the DoD and the services, but also the military personnel. No longer will the DoD be able to make decisions in a vacuum and take the "wait and see" approach with respect to manpower and personnel management that characterize many of the retirement policy decisions of the past. A defined contribution retirement system makes the employment environment for military officers significantly more fluid. Any system supporting that environment will need to be equally fluid.

To ensure DoD has a complete retirement policy solution, several other factors outside of the scope of this report must be considered. As stated previously, this report did not obtain data from enlisted military personnel. Obviously any comprehensive policy must address this group. Data needs to be collected and compared to determine the similarities and differences between the data presented in this report. Analyzing the data

for enlisted personnel provides DoD a complete picture of the total manpower situation. Building upon this, DoD decision-makers will be better able to evaluate the tradeoff between a potential exodus of mid-career personnel and the ability to retain possibly a smaller number of longer term career personnel resulting from a new policy. In addition, the triggers and shocks that begin the process leading to one of the seven paths of the Unfolding model require further analysis to develop mitigation or avoidance strategies. These strategies potentially reduce sub-optimal outcomes of the decision-making process. This leads to an analysis of alternative incentives or an incentive structure that may be necessary to deal with or counter many of the implications detailed in this report.

DoD has significant choices with respect to how to best structure a defined contribution retirement system. However, any choice made must consider both the service and the service member. The military personnel decision-making process and the perceptions regarding the value of military retirement must be part of the equation or the resulting system cannot succeed. As success is defined as the continued viability of the all-volunteer force, the prospect of failure is not something the DoD and the nation could possibly accept.

APPENDIX A. MAJOR MILITARY RETIREMENT REFORM PROPOSALS, 1976–2011

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Hook Commission, 1948	Officer: (1) At age 60 with 20 or more YOS; (2) At any age with 30 or more YOS. Enlisted members: (1) At age 50 with 20 or more YOS; (2) At any age with 30 or more YOS; (3) Service may allow retirement at 25 YOS according to needs.	At a rate of 2.5 percent per year not to exceed 75 percent of basic pay.	No.	No, but with provision for severance pay for involuntary separation.	(1) YOS 0 to 4: One-half month's basic pay times total years of active service. (2) YOS 5 to 9: 2.4 month's basic pay plus one month's basic pay times number of years of active service over five; (3) YOS 10 and over 7.5 months' basic pay plus 1.5 month's basic pay times number of YOS over 10, not to exceed two years' basic pay.	No offset.	Five-year phase-in period from enactment, allowing member to elect either Hook Plan or current service retirement plan.	None.
First Quadrennial Review of Military Compensation (First QRM), 1967-69	Step 1: Retire at 20 YOS with immediate annuity ranging from 24 percent at 20 YOS to 51 percent at 30 YOS. Step 2: Annuity is paid based on inverse function (age 55 at 30 YOS to age 60 at 20 YOS), or when age requirement is met after Step 1 retirement.	Step 1: Percentage of High 1 salary based on 20 to 40 YOS. Step 2: Increase retired pay up to 9 percent based on YOS and age by inverse function.	Yes, 6.5 percent of a salary determined by a formal comparability standard for setting pay levels.	Yes, member is vested to the amount of contribution.	Yes, lump sum after 10 YOS. No formula specified.	Integration formula needed to provide equal benefit to members with the same time in service. Contribution to retirement to include social security. Retirement offset by 50 percent of social security benefit.	Five-year phase-in.	CPI.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Interagency Committee (IAC), 1971	Reduced annuity for members retiring with fewer than 30 YOS, based on age and YOS; increased to full amount when members attain age threshold.	Through year 24, 2.5 percent; for years 25 to 30, 3 percent per year; for years 31 to 35, 2 percent per year. Maximum: 88 percent of highest three years of basic pay. Reduction: 2 percent reduction in retired pay for each year under the age threshold of age 60 for 20 to 24 YOS, or age 55 for 25 YOS. Reduction is lifted when member reaches age threshold. Example: for retirement with 20 YOS at age 42, usual retired pay is reduced by 36 percent.	No.	Yes, at 10 YOS; deferred annuity at age 60 or lump sum.	Yes, lump sum over five YOS (5 percent of final basic pay times YOS) for involuntary separation, officer and enlisted personnel.	Yes, 50 percent offset at age 60.	Transition accomplished within 10 pay raises following implementation.	CPI.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Retirement Modernization Act (RMA), 1972	Reduced annuity for members retiring with fewer than 30 YOS (two-step annuity); increased to full amount when member would have attained 30 YOS.	At 2.5 percent per year through year 24; 3 percent per year for years 25 to 30. Maximum: 78 percent of highest one year of basic pay. Reduction: For retirement with fewer than 30 YOS, multiplier is reduced 15 percentage points. Reduction is lifted at point where member would have attained 30 YOS. Example: For retirement with 20 YOS, the usual 50-percent multiplier is reduced to 35 percent initially; increased to 50 percent 10	No.	At 10 YOS; provides deferred annuity at age 60.	Vests after five YOS. Deferred annuity starting at age 60, plus one lump-sum readjustment payment; or two lump-sum payments (one for equity and one for readjustment)	Yes, 50 percent offset when old-age annuity received.	Based on number of years under new system before 20 YOS.	CPI.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Defense Manpower commission (DMC) 1975-76	Between 20–30 YOS based on time in combat or noncombat jobs (1.5 credits for each year in combat job, one point per year in noncombat pay). For those in combat arms occupations an immediate annuity after 20 YOS; for all others, an immediate annuity after completing 30 YOS.	Two-tier system: Maximum: 80 percent of highest three years of basic pay on attaining 30 retirement points; 2.66 percent per retirement point; Reduction: permanent actuarial reduction in retired pay for member who retires with 30 points and elects to receive retired pay before the 30-YOS point.	No.	At least 10 YOS; deferred annuity at age 60.	Yes. Vested members voluntarily separated receive deferred annuity effective at age 65 based on hi-3 times per-point retirement multiplier times YOS; adjusted periodically based on CPI. Involuntarily separated vested members with 10 YOS receive immediate cash payment for readjustment and either a deferred annuity or a second immediate cash payment equal to the readjustment pay, at member's	No offset. Formula for retired pay should consider social security benefit.	Changes would be prospective; would not apply to those already in the service.	Periodic two-part adjustment based on CPI and a catch-up payment

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Third Quadrennial Review of Military Compensation (Third QRMCM), 1975-76	Reduced annuity for members retiring with fewer than 30 YOS (two-step annuity); increased to full amount when member would have attained 30 YOS.	At 2.5 percent per year through year 24; 3 percent per year for years 25 to 30. Maximum: 78 percent of highest one year of basic pay. Reduction: For retirements with fewer than 30 YOS, multiplier is reduced 15 percentage points. Reduction is lifted at point where member would have attained 30 YOS. Example: For retirement with 20 YOS, the usual 50-percent multiplier is reduced to 35 percent initially; increased to 50 percent 10	No.	At 10 YOS; provides deferred annuity at age 60.	Yes. Vests after five YOS. Deferred annuity starting at age 60 plus lump-sum readjustment payment; or two lump-sum payments (one for equity and one fore readjustment)	None.	Based on numbe of years under new system before 20 YOS.	CPI.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Aspin Retirement Proposal, 1976	Voluntary retirement at age 55 with 30 or more YOS; age 60 with 20 to 29 YOS.	(1) 1.5 percent for one to five yaers, 1.75 percent for years six to 10, and 2 percent for 20 over 10 years; (2) Based on highest three years' average of regular military compensation (RMC); (3) Voluntary; no retired pay until: (a) age 62 with five to 19 YOS, (b) age 60 with 20 to 29 YOS, or (3) age 55 with 30 or more YOS; (4) Involuntary; immediate annuity reduced by one dollar for each two dollars of other earnings until age threshold.	No.	Vests after five YOS based on aformentione d rules.	None.	No offset.	Based on number of years under new sytem before 20 YOS.	CPI with minor changes.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
President's Commission on Military Compensation (PCMC) (Zwick Commission), 1978	Based on age and YOS	(1) 2 percent for one to five YOS, 2.25 percent for six to 10 YOS, and 2.75 percent for 11 to 35 YOS; (2) Maximum: 90 percent of Hi-3 basic pay in past 10 YOS; member can convert a portion of retirement account to current income; when leaving active duty, member can opt for deferred or accelerated receipt of vested account.	No.	At 10 YOS.	Yes. After five YOS for involuntary separation, for officers and enlisted personnel.	Varying offset based on YOS (25 percent to 37.5 percent) to begin at ages 62 or 65.	With five or more YOS, may retire under old rules. A cash transition fund, like the Thrift Saving Plan (TSP), with annual government contributions, permits member to withdraw fund on separation.	CPI.
Uniformed Services Retirement Benefits Act (USRBA), 1979.	Two-tier early withdrawal system.	First tier at completion of 20 YOS, second tier begins at age 60; vested to all members completing 10 plus YOS (but 20 percent to 25 percent reduction for 20-year career completed to existing system and 10 percent to 15 percent reduction for 30-year career, depending on grade). Maximum: 76.25 percent of Hi-2 basic pay.	No.	At 10 years.	Yes. Severance pay after five YOS for involuntary separation, officer and enlisted personnel.	Varying offset based on YOS to begin at ages 62 to 65.	Members on active duty on date of enactment have choice of old or new system.	CPI.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Office of the Secretary of Defense, 1979	Payment of 20 months' basic pay between YOS 10 and YOS 15 (maximum schedule is 10 months' basic pay at YOS 10 and two months' basic pay in YOS 11 to 15.	Two-tier system. First tier annuity: begins immediately on retiring for those who complete 20 YOS; second tier annuity: begins at age 60. No annuity for those who complete 10 to 19 YOS (first-tier annuity); age 60 (second-tier annuity). Annuity multiplier: $.375 + .2125 + .025 * (YOS - 20)$ (first-tier annuity); $.0275 * (YOS - 10)$ (second-tier annuity).	No.	At 20 YOS (first-tier annuity); at 10 YOS (second-tier annuity).	Yes. Vests after five YOS. Deferred annuity starting at age 60, plus one lump-sum readjustment payment; or two lump-sum payments (one for equity and one for readjustment)	No offset at age 65 (first-tier annuity); $.0125 * YOS$ (social security benefit attributable to military service) (second-tier annuity).	Based on number of years under new system before 20 YOS.	CPI.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Fifth Quadrennial Review of Military Compensation (Fifth QRM), September 1982-January 1984	One of four primary alternatives should be considered: (1) Reduced multiplier/early withdrawal; (2) Reduced cost of living adjustment (COLA)/early withdrawal; (3) 3 percent pre-30 YOS/early withdrawal; and (4) Combination/early withdrawal. The service member should have access to the early withdrawal eligibility point.	At the time of retirement, provide payment of appropriate early withdrawal amount from the total remaining earned retirement benefit. Structure current system to reduce or overcome the force impact of past implementation of the Hi-3. Give service members on active duty option to compute their initial retired pay under current system. Limit option to elect modified system in toto to those current	No.	Keep existing system: no vesting short of 20 years of active service (20 creditable YOS for the reserve components), except in the case of disability retirement.	No changes.	No offset. No integration with social security	Allow option to compute initial retired pay under current system or to elect modified system in toto if member has 12 or fewer YOS.	Provide a continuous and smooth in-service pay adjustment process with reduced COLA and continue full inflation protection for disability retirement and survivor benefits.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Presidents Private Sector Survey on Cost Control (Grace Commission), Task Force of Department of the Air Force, 1983	(1) Immediate annuity available only after 30 YOS; (2) Deferred annuity payable at age 60 for 20 to 29 YOS.	(1) 1.3 percent of Hi-3 average Basic Military Compensation (BMC) per YOS; (2) Maximum: 39 percent of Hi-3	No.	No.	No change.	No offset.	(1) Persons in Service at implementation receive 2.5 percent of basic pay for prior service; 1.3 percent of BMC for subsequent years. (2) Persons with more than 10 YOS retain right to immediate annuity at 20 YOS.	None.
Presidents Private Sector Survey on Cost Control (Grace Commission), Task Force of Office of the Secretary of Defense, 1983, Alternative 1 (OSD 23B)	No changes.	Offset one dollar of retired pay for every two dollars earned in retirement above two-thirds of service retired pay for persons under age 62. Four-year stepped transition from one-to-four to one-for-two.	No.	n.a.	n.a	37.5 percent maximum social security integration (1.25 percent per year for 20 to 30 YOS).	?	None.
Presidents Private Sector Survey on Cost Control (Grace Commission), Task Force of Office of the Secretary of Defense, 1983, Alternative 2 (OSD 24A)	No changes.	(1) 2.5 percent for each YOS; maximum: 75 percent of Hi-3 average basic pay; (2) Reduce retiree annuity of those leaving before 30 YOS at 0.5 percent per month.	No.	Yes, at 13 YOS with annuity payable at age 65, or as early as age 55 but reduced by 0.5 percent per month short of age 65.	None for persons with more than 12 YOS.	Maximum offset of 37.5 percent (1.25 percent per year).	All persons with more than 12 YOS remain under existing system, all others in the new system.	CPI at start of immediate annuity, but not until age 55 for deferred benefit from 12 to 19 years early vesting.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Sixth Quadrennial Review of Military Compensation (Sixth QRMC), 1988	Early annuity available on completion of 20 YOS. At age 60, all reservists receiving retired pay or first-tier retainer pay would be eligible for the same benefits as are all military retirees.	Two-tier early annuity system based on YOS rather than on age. First Tier: flat percentage of retired pay under Hi-3 and one-time catch up at age 62; Second Tier: At age 62. Two-tier system optional for current members, mandatory for future entrants.	No.	Allow reserve members to receive YOS credit for inactive-duty training.	No Change.	No offset specified.	Members not electing an early annuity would receive retired pay and benefits beginning at age 60.	CPI minus 1 percent for retired pay before and after age 62.
Defense Advisory Commission on Military Compensation, April 2006	Greater flexibility to encourage diverse career lengths. A defined pension plan beginning at age 60, in keeping with the reserve pension benefit.	Retirement annuity beginning at age 60, extending through 40 YOS, and computed under a formula similar to current retirement annuity. Offsetting compensation could take the form of cash payments at various YOS milestones or separation pay during the transition to a second career. Eliminating immediate annuity at 20 YOS would free significant resources to be allocated to the TSP benefit, retention	No.	Earlier 10-year vesting of some components of the system, eliminating the current all-or-nothing, 20-year cliff vesting.	Yes. Transition or separation pay of limited duration for those who leave military service after the vesting point. Additional pay in the form of a multiple of basic pay at key years-of-service milestones such as 10, 15, 20, 25, and 30 years. The member receives this pay or bonus on completing the relevant YOS.	No offset. Formula for retired pay should consider social security benefit.	Less deferred compensation, particularly in the "second career" period between leaving active duty and full withdrawal from the labor force. A cash transition fund, like the TSP, with annual government contributions of 5 percent of basic pay per year.	CPI.

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Tenth Quadrennial Review of Military Compensation (Tenth QRM), July 2008	Two part system of Defined Benefit (DB) and Defined Contribution (DC). Both vest after 10 YOS. DB payable at age 60 for less than 20 YOS, and age 57 for greater than 20 YOS. vests at 10 YOS. Defined Contribution vests at 10 YOS and payable at age 60.	(1) DB: 2.5 percent of High 3 Basic pay times YOS; (2) DC: Annual contributions up to 5% of annual basic pay; variable government match; Zero percent of annual basic pay for those with less than a year of service; 2 percent for members with up to two YOS; 3 Percent for those with more than two but less than five YOS; 4 percent for personnel with four but less than five YOS; and 5 percent for those with five or more YOS.	Yes. Automatic enrollment with variable government match. Maximum 5% for those with more than five YOS.	Vesting for both at 10 YOS.	Base pay*YOS + multiplier.	No offset.	Gate pay for reaching certain career milestones. Milestone determined by the service; base pay * YOS.	
Source: U.S. Library of Congress, Congressional Research Service, A Summary of Major Military Retirement Reform Proposals, 1976–2006, by Rex Hudson, (Washington, DC: Federal Research Division, 2007), 6.								

Major Study	Retirement Eligibility	Formula For Retired	Contributory	Vesting	Severance Pay	Social Security	Transition and Save Pay	Adjustment Mechanism
Defense Business Board report to the Secretary of Defense (DBB), Modernizing Military Retirement, June 2011	(1) DC system vesting after 3-5 YOS or members 1st term. Benefits fully transportable to civilian sector and back to the military. (2) Fully disabled participants would qualify for an immediate pension, which would be formulated with VA benefits, as presently structured. (3) The individual account would provide for rights for survivorship.	Contributions to the new plan would be made by the government. The amount of that contribution should be set at a rate to support retention in an ever changing global environment. For example, the government contribution could include an adjustment that would increase the contribution for longer serving military personnel to aid in retention. Investment options could also vary from 401(K) type plans to	Yes. Military members would also be able to make contributions to their own accounts. Furthermore, these accounts would be transportable into the private sector and back into the military. DoD contributions could vary depending on the needs of the services, such as larger contributions at certain retention gates, specific Military Occupational Specialty, or other demands to assist in force shaping.	Vest after 3-5 YOS or 1st Term.	Time formulated transition payment option should be considered to facilitate the change to a new career.	No offset.	Time formulated transition payment option should be considered to facilitate the change to a new career.	No adjustment mechanism.
Source: Defense Business Board, "Modernizing the Military Retirement System," (Report, Office of the Secretary of Defense, Washington, D.C., July 21, 2011); 8. http://dbb.defense.gov/reports2011.shtml .								

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B. FOCUS GROUP MEMBERS DATA

Focus Group 1				
1000-1130				
19-Oct Fri	Bldg 310, Rm 203			
	Service	Rank	Age	YOS
	1 Navy	Lt	31	9.5
	2 USMC	Capt	35	17
	3 Army	Capt (O-3)	30	8
	4 Army	Maj (O-4)	38	15
	5 Navy	LCdr (O-4)	34	12
	6 Navy	Lt (O-3)	32	10
	7 USMC	Capt (O-3)	35	11.5
	8 Navy	LCdr (O-4)	42	23
Median			34.5	11.8
Average			34.6	13.3

Focus Group 2				
1200 - 1250				
22-Oct Mon	Bldg 310, Rm 203			
	Service	Rank	Age	YOS
	1 Navy	LCdr	38	15.5
	2 Navy	LCdr	35	13
	3 USMC	Capt (O3E)	35	15.5
	4 Navy	Cdr (O-5)	39	18
	5 USMC	Capt (O3E)	32	14
	6			
	7			
	8			
Median			35	15.5
Average			35.8	15.2

Focus Group 3				
1200 - 1250				
23-Oct Mon	Bldg 310, Rm 203			
	Service	Rank	Age	YOS
	1 Navy	LCdr (O-4)	35	11
	2 USMC	Capt (O-3)	33	13
	3 USMC	Capt (O3E)	33	15
	4 Army	LTC (O-5)	40	18
	5 USCG	CDR (O-5)	42	24
	6 USCG	LT (O-3)	30	12
	7			
	8			
Median			34	14
Average			35.5	15.5

Focus Group 4				
1200 - 1250				
23-Oct Mon	Bldg 310, Rm 203			
	Service	Rank	Age	YOS
	1 Navy	LCdr (O-4)	36	11
	2 Air Force	Capt (O-3)		8
	3 Navy	Lt (O-3)	36	11
	4 USMC	Capt (O-3)	32	14
	5 Navy	LCdr (O-4)	33	12
	6 USMC	Capt (O-3)	26	5
	7 USMC	Maj (O-4)	35	12
	8 Air Force	Capt (O-3)	29	5
	9 USMC	Capt (O-3)		7
Median			33	11
Average			32.4	9.8

Focus Group 5				
1200 - 1250				
23-Oct Mon	Bldg 310, Rm 203			
	Service	Rank	Age	YOS
	1 Navy	LCdr (O-4)	36	17
	2 Navy	Lt (O-3)	34	15
	3 USMC	Capt (O-3)	32	11
	4 USMC	Capt (O-3)	30	12
	5 Air Force	Capt (O-3)	30	8
	6			
	7			
	8			
	9			
Median			32	12
Average			32.4	12.6

Focus Group 6				
1200 - 1250				
23-Oct Mon	Bldg 310, Rm 203			
	Service	Rank	Age	YOS
	1 USMC	Maj (O-4)	35	12
	2 USMC	Capt (O-3E)	36	18
	3 USMC	Maj (O-4)	39	14
	4 USMC	Capt (O-3)	37	16
	5 Navy	LCdr (O-4)	33	11
	6			
	7			
	8			
	9			
Median			36	14
Average			36	14.2

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX C. FOCUS GROUP RAW DATA OF POSTIVE/NEGATIVE IMPLICATIONS AND MITIGATIONS

Question: What are the potential implications from adoption of a Defined Contribution system.

Question: How do we mitigate those impacts?

Focus Group 1		
Positive	Negative	Mitigating Techniques
<p>1. Make the choice on retirement option at 2nd term point. 2nd term would be longer.</p> <p>2. Low benefits for personnel with <20 YOS. Help to get rid of the DWL.</p> <p>3. Allows them to leave with something.</p> <p>4. Gives people a chance (or forces them) to make a cost/benefit analysis decision.</p> <p>5. Better force management</p> <p>6. Help increase retention - the 20 year vesting pension isn't influencing the decision to join or leave.</p>	<p>1. Promotes people who can't get job outside to stay longer...the non-leaders just collecting a paycheck.</p> <p>2. Already hard to retain personnel in the Navy even with the 20 year vesting pension.</p> <p>3. Certain skill sets have more incentive to leave.</p> <p>4. Age matters for some skill sets / Jobs</p> <p>5. People who decide to serve will migrate toward the higher paying jobs within the military.</p> <p>6. Junior service members don't think about retirement so don't plan to save enough. Very bad with TSP.</p> <p>7. Some higher civilian employees make more than the 16.5% suggested in the DBB proposal.</p> <p>8. Lifestyle - work/combat. These are hard to get over when making decisions to stay/quit.</p> <p>9. Current bonuses aren't really used for retention. They are used to make RMC = Civilian Pay.</p> <p>10. No incentive to stay anymore.</p> <p>11. Youth and vigor needed in the Marine Corps.</p> <p>12. Dilution of HC</p> <p>13 Gap in E-5 to E-6 ranks in Navy (Shop supervisors/Skilled Workers): decrease in material readiness. Might increase with DC.</p> <p>14. Promoting too fast - not enough knowledge in certain ranks (Chief)</p> <p>15. Unique knowledge told through stories from Higher ranks...increased tacit knowledge</p> <p>16. Increase in KL.</p> <p>17. Need Experience</p> <p>18. Can't tie the retirement system to this.</p> <p>19. The stars would leave</p> <p>20. Have to get the manning process precise</p>	<p>1. Might help people stay past 20 years. For instance wife would inherit TSP upon death plus get SGLI.</p> <p>2. Would want to stay in longer with the DC. No forcing incentive to get out.</p> <p>3. Vest after the 1st term. Must complete first term to receive it.</p> <p>4. Increase size of retention bonuses</p> <p>5. Comprehensive retirement campaign to distribute the knowledge of the retirement system.</p> <p>6. Longer Tours</p> <p>7. Cultures</p> <p>8. Tier system by contribution system over time or better to use the compensation system.</p> <p>9. Gate Pays</p> <p>10. Change the term structure by MOS/Specialty</p> <p>11. Provide opportunity to change</p> <p>10. Give choices</p> <p>12. More favorable tax implications for WDL of 401K if get out.</p> <p>13. Must retain people longer in same grade (Navy)</p>

Focus Group 2		
Positive	Negative	Mitigating Techniques
<p>1. Decrease in costs potentially.</p> <p>2. Would still remain if decrease benefit to 40%, and get higher distribution in the future. (Not sure if this would actually decrease costs)</p> <p>3. Allows for a more direct comparison w/civilian benefits.</p> <p>4. Decisions will be based on what service the member is in...love of the service.</p> <p>5. More freedom for the individual to get out</p> <p>6. Shifts financial risk to the individual.</p> <p>7. Better ability to manage the force.</p> <p>8. Individual MOS doesn't matter. It's a personal decision and it's likely retention won't change much. People that would have stayed will stay and those that wouldn't have won't.</p> <p>9. Junior guys aren't worried about it.</p> <p>10. A more junior force structure could potentially increase the level of knowledge in those grades and provide for a better pool of people to promote from.</p>	<p>1. Older retirement systems are still in the minds of the current generation of servicemen. So they would have an influence on the new enlistees and possible pose a negative tone of any new system.</p> <p>2. Shouldn't be civilian like. We aren't a civilian institution.</p> <p>3. Bad for the detailers - they would have to be very good salesman.</p> <p>4. hard to manage the change to a new system. Will have to rework the personnel model (when is the new steady state going to be present). Bad for manpower management.</p> <p>5. No incentive to stay (the hook to remain is the pension at 20 years).</p> <p>6. Decrease in knowledge especially in the Senior Leadership</p> <p>7. The bonus getters are the same folks that would tend to leave early as they have the skills we'll need.</p> <p>8. Force structure would be more junior. Less mid-grade to senior personnel.</p> <p>9. Quality of leadership would decrease.</p> <p>10. The current generation of personnel, those who are looking for the pension at 20 YOS, are biased in our opinions. In other words it is hard to decouple the idea of not having a pension and try to make decision as if that was never part of the stay/leave</p>	<p>1. Might not be about money. Might need to use other factors.</p> <p>2. Career progression bonus must be stable / codified in writing.</p> <p>3. Option to choose where the bonus goes (straight to TSP or to the individual).</p> <p>4. Matching must be definitive.</p> <p>5. Overtime</p> <p>6. Quality of life must increase in order to get people to stay.</p> <p>7. Same duty station (PCA v. PCS) and longer tours.</p> <p>8. Needs to be 100% match with no cap on the contributions.</p> <p>9. Must hook senior personnel to want to stay.</p> <p>10. Increase quality of life.</p>

Focus Group 3		
Positive	Negative	Mitigating Techniques
<p>1. Allows choice of saving or not. Risky investments or not.</p> <p>2. May have an increase in retention without the stigma of a 20 YOS pension.</p> <p>3. Navy Supply Corps - if senior O-3/O-4 are prior enlisted so would a DC take away that desire to leave at 20 YOS?</p> <p>4. Increase in experience after initial enlistment. More HC as there is a likely chance that initial enlistees will stay longer.</p>	<p>1. Potentially members would leave service with not enough money for retirement. The incentive wouldn't be there to save if contributions come directly from DoD. Maybe increase compensation and make it a matching system vice just the service</p> <p>2. The benefits at 20 YOS are a big carrot keeping people in until 20 YOS.</p> <p>3. Easier to get rid of the non-performers.</p> <p>4. Lose the best people / only the not so talented people will stay.</p> <p>5. Navy Supply Corps - many senior O-3/O-4's leave early in the career due to large number of prior enlisted</p> <p>6. For some people the promotion opportunities at 18/19 YOS isn't enough to hold them in after 20 YOS.</p> <p>7. Seniority yields less choice so motivated to get out without the</p> <p>8. Get rid of retirement as a factor in the decision making process. Members would not be held hostage to it. Not slave to retirement. Increases members ability to choose.</p> <p>9. Navy - early promotions at senior O-3 and O-4 levels yield not enough HC in those ranks.</p> <p>10. Decrease in the level of HC. Not enough in the mid-career range</p> <p>11. Surgeons skills and CG Port Safety skills are very transferrable to the civilian sector so they will be easier to lose without the</p>	<p>1. Equivalent contributions for all members</p> <p>2. Choice: begin with a DC plan. At some point the member has the choice to transition to a DB after so many years of service.</p> <p>3. Longer tour lengths.</p> <p>4. Allow entrance in at O-4 for certain support billets (Disbursing/Comptroller).</p> <p>5. There is a difference between combat arms and support specialties.</p> <p>6. Revision of up or out policies.</p> <p>7. CG - Longer tours for senior personnel. Need to have the right job.</p> <p>8. Revision or rethinking of up or out policies</p> <p>9. Tuition assistance (T/A) and other educational opportunities: maybe these would need to have tour lengths associated with them.</p> <p>10. CG - Longer tours for senior personnel. Need to have the right job.</p>

Focus Group 4		
Positive	Negative	Mitigating Techniques
1. Faster promotions 2. Better force management 3. Incentivize stellar performers to stay 4. Can ask do I want people to stay until 20? 5. Equity among members 6. Retention better in bad economy	1. Little to keep people in. 2. Stellar performers may leave 3. Difficult to plan retirement 4. Financial risk transferred to individual. 5. Manpower needs to change. 6. Can't leave if economy is bad (individual) 7. Is it right that the service is completely cutting ties with the members? What do we swear an oath to? Officers handbook? 8. AF/Navy are more technical - need to retain 9. Would have less knowledgeable people 10. Potential to lose the most tech savvy individuals (E-6/O-3) 11. Many can wait to get training and then get out. (Then the HC doesn't increase in the service as the talent	1. Ties % contribution to performance/promotion 2. More opportunities for command - ties into performance/promotion above. 3. There must be more opportunities. 4. Base performance on MOS progression - lead to more retirement 5. Increase in cash incentives. 6. Targeted incentives. 7. Need flexibility to target needs 8. Use compensation system - closest to the decision maker.

Focus Group 5		
Positive	Negative	Mitigating Techniques
1. Easier to let people go. 2. Encourages those sticking around for extra benefits to get out as there isn't an incentive to stay around anymore. 3. Easier for service to manage the force. 4. More educational opportunities lead to increased HC and a better/smarter force. 5. Thinking about retirement is forced on people. They must save or not have enough money in retirement years. 6. Local management needs power to truly evaluate personnel.	1. Knowledge base gets cut the most with the senior leadership 2. MOS Dependent 3. Civilian comparable jobs could be hit the worst. 4. Dependent on mitigating factors. 5. Contractors will be sweeping people 6. Best people already gone. 7. Our health care sucks. 8. Life insurance goes away. 9. Financial risk to member - must think about it. 10. Combat arms should get paid more - but skills don't necessarily transfer (unequitable)	1. Longer tour lengths / Homesteading. 2. Can give more significant bonuses 3. Need new system for mid-career point: -bigger pay raises / higher DC rate -Bonus for leadership levels -Adjust timeline of bonus pay. 4. More educational type opportunities -directly related to next job. -need to lengthen the payback commitments -Education tied to promotion. 5. Need more control over career path 6. Manpower needs to be more flexible. -improve performance/evaluation system -promotion/Rank

Focus Group 6		
Positive	Negative	Mitigating Techniques
1. Freedom to move (Ind) 2. Non-Performers can leave earlier. 3. Easier to show the non-performers the door. 4. They will also naturally leave earlier.	1. Decrease in knowledge base - especially in the tougher (more physically taxing) MOS's 2. Timing of implementation needs to be thought through. 3. Not a drastic change in knowledge base - The institutions will remain and contain much of the culture/knowledge. The corps of the service. 4. Manpower unstable. 5. Skills do transfer. It's a mindset - there are many intangibles that we acquire, and experience in management. 6. People leave at the midcareer. 7. Many skills aren't readily transferrable (individual) 8. Many skills are (Pilot, Nuclear, communications, intel, medical,...) 9. Many will look at the military like the civilian job market and try to snatch people up (Comm, defense industry) 10. Negative impact on recruiting 11. Will have to offer too many incentives - system would get out of hand and hard to manage. 12. Manpower has to be rethought. 13. TSP based on market - can't count on it like the pension.	1. Increase bonuses - more money. 2. Pay bonuses more often 3. Need payoff to be farther out for younger personnel (combat/lousy jobs) 4. DC % would have to be much larger than civilian 5. Lock-in for critical MOS's 6. Different term structures. Need performers, middlemen, and laborers.

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX D. DECISION-MAKING FACTORS

Factor #	Aggregated Factors	Number of groups factor mentioned in.
1	Medical Benefits / Healthcare	4
2	Bonuses	1
3	Quality of Life	4
4	Career Progression -Promotion Opportunities -Job Variety -Command Opportunities -Leadership Opportunities -Job Satisfaction	4
5	Family Life -Stability of life -Not moving so much -Wife career track -Geographic Stability -Family support during deployment	5
6	Educational Opportunities -GI Bill turnover to children	2
7	Civilian Job Market -outside Employment -Comparable Civilian Salary	4
8	Job Satisfaction -Duty / Call to Service -Desire to serve -Deployment Tempo -PCS Moves -Comraderie	2
9	Current compensation -Non-Cash Benefits -Tax Benefits -Real Military Compensation (RMC)	3
10	Retirement	
11	Job Security	1
12	Age -Service member (do I want to start a new career/can I start a new career) -Children (do I want to keep moving them) -Don't want to do the grunt work anymore / too old to do the grunt work	2

THIS PAGE INTENTIONALLY LEFT BLANK

BIBLIOGRAPHY

- Acs, Zoltan J., Pontus Braunerhjelm, David B. Audretsch, and Bo Carlsson. "The Knowledge Spillover Theory of Entrepreneurship," *Small Business Economics* 32, no. 1 (Jan 2009): 15–30. doi: 10.1007/s11187-008-9157-3.
- Allen, David G., Phillip C. Bryant, and James M. Vardaman. "Retaining Talent: Replacing Misconceptions with Evidence-Based Strategies." *Academy of Management Perspectives* 24, no. 2 (May 2010): 48–64. doi: 10.5465/AMP.2010.51827775.
- Almeida, Beth and William B. Forna. *A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans*. (Washington, D.C.: National Institute on Retirement Security, 2008.)
<http://www.nirsonline.org/storage/nirs/documents/Bang%20for%20the%20Buck%20Report.pdf>.
- Asch, Beth J. and John T. Warner. *A Theory of Military Compensation and Personnel Policy*. (Santa Monica, California: RAND, 1994.)
<http://www.dtic.mil/dtic/tr/fulltext/u2/a288654.pdf>.
- . *A Policy Analysis of Alternative Military Retirement Systems*. (Santa Monica, California: RAND, 1994.)
http://www.rand.org/content/dam/rand/pubs/monograph_reports/2005/MR465.pdf.
- Asch, Beth and James Hosek. "Breaking Ranks: U.S. Commanders Need Flexible Ways to Manage Personnel." *Rand Review* 28, no. 3 (2004): 16–25.
http://www.rand.org/content/dam/rand/www/external/publications/randreview/issues/fall2004/RAND_Review_fall2004.pdf.
- Bacevich, Andrew J. "Don't Rewrite the Rules for Military Retirement." *The Washington Post*, August 19, 2011. http://www.washingtonpost.com/opinions/dont-rewrite-the-rules-for-military-retirement/2011/08/16/gIQAk1IMQJ_story.html.
- Batchelder, Craig D. and Lombard, Edward A. "The Uniformed Services' Thrift Savings Plan and Military Retirement Compensation Package Options." MBA, Naval Post-Graduate School, 2005. DTIC (ADA442825).
- Bennett, Julia. "Military Training can Suit Civilian Jobs." *Wall Street Journal - Eastern Edition* 259, no. 41 (2012): B9-B9.
<http://www.lucasegroup.com/pdfs/EmploymentTrendsMilitary.pdf>.
- Binkin, Martin. "Military Pensions: The Need for Informed Reform." *The Brookings Review* 3, no. 3 (Spring 1985): 8–15. <http://www.jstor.org/stable/20079877>.

- Brockmann, Erich N and William P. Anthony. "The Influence of Tacit Knowledge and Collective Mind on Strategic Planning." *Journal of Managerial Issues* 10, no. 2 (Summer 1998): 204–222. <http://www.jstor.org/stable/40604193>.
- Brockmann, Erich N and William P. Anthony. "Tacit Knowledge and Strategic Decision Making." *Group & Organization Management* 27, no. 4 (Dec 2002): 436–455. doi: 10.1177/1059601102238356.
- Cascio, Wayne F. "Downsizing: What Do We Know? What Have We Learned?" *The Executive* 7, no. 1 (Feb 1993): 95–104. <http://www.jstor.org/stable/4165111>.
- Christian, John. *An Overview of Past Proposals for Military Retirement Reform*. (Santa Monica, California: RAND, 1994.)
http://www.rand.org/content/dam/rand/pubs/technical_reports/2006/RAND_TR376.pdf.
- Clarke, Marilyn and Margaret Patrickson. "The New Covenant of Employability." *Employee Relations* 30, no. 2 (2008): 121–141. doi: 10.1108/01425450810843320.
- Davenport, Thomas H., Jeanne Harris, and Jeremy Shapiro. "Competing on Talent Analytics." *Harvard Business Review* 88, no. 10 (2010): 52–58. *Business Source Complete*, EBSCOHost (AN53862756).
- David W. De Long and Thomas Davenport. "Better Practices for Retaining Organizational Knowledge: Lessons from the Leading Edge." *Employment Relations Today* 30, no. 3 (Fall 2003). 51–63.
<http://onlinelibrary.wiley.com/doi/10.1002/ert.10098/pdf>.
- Defense Business Board. *Modernizing the Military Retirement System*, Government Report, Washington, D.C.: Defense Business Board, 2011, 2–32.
- Defense Finance and Accounting Service. *Special & Incentive Pays*. August 15, 2011, accessed November 24, 2012. <http://www.dfas.mil/militarymembers/payentitlements/specialpay.html>.
- Department of Defense. *Report of the Tenth Quadrennial Review of Military Compensation*. Government Report, Washington, D.C.: Department of Defense, 2008, 7–64.
- Direnzo, Marco S. and Jeffrey H. Greenhaus. "Job Search and Voluntary Turnover in a Boundaryless World: A Control Theory Perspective." *Academy of Management* 36, no. 3 (2011): 567–589. doi: 10.5465/AMR.2011.61031812.
- Donnelly, David P and Jeffrey J Quirin. "An Extension of Lee and Mitchell's Unfolding Model of Voluntary Turnover." *Journal of Organizational Behavior* 27, no. 1 (Feb 2006, 2006): 59–77. *Business Source Complete*, EBSCOhost, (doi: 10.1002/job.367).

- Droege, Scott B. and Jenny M Hoobler. "Employee Turnover and Tacit Knowledge Diffusion: A Network Perspective." *Journal of Managerial Issues* 15, no. 1 (Spring 2003, 2003): 50–64. <http://www.jstor.org/stable/40604414>.
- Ellig, Bruce R. "Employment and Employability: Foundation of the New Social Contract." *Human Resource Management* 37, no. 2 (Summer 1998): 173–175. doi: 10.1002/(sici)1099-050x(199822)37:2<173::aid-hrm7>3.0.co;2-t.
- Enns, John H., Gary R. Nelson, and John T. Warner. "Retention and Retirement: The Case of the U.S. Military." *Policy Sciences* 17, no. 2 (10, 1984): 101–121. <http://www.jstor.org/stable/4532015>.
- Eucker, Tom. "Maintaining Levels of Expertise at Intel." *Knowledge Management Review* 10, no. 3 (Jul/Aug 2007): 28–33. <http://search.proquest.com/docview/217487393?accountid=12702>.
- Eucker, Tom R. "Understanding the Impact of Tacit Knowledge Loss." *Knowledge Management Review* 10, no. 1 (Mar/Apr 2007): 10–13. <http://search.proquest.com/docview/217499985?accountid=12702>.
- Fenton, Matthew R. "Tax Advantage Retirement Savings for the Military." Masters Thesis, Ft. Belvoir, 1999. DTIC (ADA396594).
- Garrigus, Mark R. and Bryan G. Van Veldhuizen. *Uniformed Services Thrift Savings Plan : Analysis, Perceptions, and Alternatives*. Master's Thesis, Naval Postgraduate School, 2002. DTIC (ADA401618).
- General Accounting Office. "Military Retirement: Possible Changes Merit further Evaluation." (Gaithersburg, MD: GAO, 1996). <http://www.gao.gov/assets/160/155663.pdf>.
- Gibert, Jeffrey, A. *Reforming the Military Retirement System*. Master's Thesis, Carlisle Barracks: United States Army War College, 1999, 3–6.
- Glaser, Darrell J. "Time-Varying Effects of Human Capital on Military Retention." *Contemporary Economic Policy* 29, no. 2 (2011): 231–249. doi: 10.1111/j.1465-7287.2010.00220.x.
- Grant, Robert M. "The Knowledge-Based View of the Firm: Implications for Management Practice." *Long Range Planning* 30, no. 3 (Jun 1997, 1997): 450–454. doi: 10.1016/S0024-6301(97)00025-3.
- Grant, Robert M. "Toward a Knowledge Based Theory of the Firm." *Strategic Management Journal* (1986–1998) 17, no. 17 (Winter Special Issue 1996): 109–122. <http://search.proquest.com/docview/231085587?accountid=12702>.

Hall, Heather Leigh. "Knowledge Management in Times of Change: Tacit and Explicit Knowledge Transfers." Ph.D Diss., University of North Texas, 2005. Proquest (AAT 305429152).

Harrison, Todd. *Rebalancing Military Compensation: An Evidence Based Approach*. Research Report, Washington, D.C.: Center for Strategic and Budgetary Assessments, 2012, 1–102.

Hedlund, Jennifer, George B Forsythe, Joseph A Horvath, Wendy M Williams, Scott Snook, and et al. "Identifying and Assessing Tacit Knowledge: Understanding the Practical Intelligence of Military Leaders." *Leadership Quarterly* 14, no. 2 (Apr 2003): 117–140. doi: 10.1016/S1048-9843(03)00006-7.

Henning, Charles, A. *Military Retirement Reform: A Review of Proposal and Options for Congress*. Congressional Research Report, Washington, D.C.: Congressional Research Service, 2011, 3–5.

Holt, Daniel T., Michael T. Rehg, Jeffrey H. S. Lin, and Jennifer Miller. "An Application of the Unfolding Model to Explain Turnover in a Sample of Military Officers." *Human Resource Management* 46, no. 1 (Spring2007). 35–49. doi: 10.1002/hrm.20144.

Iowa State University Extension Program. Focus Group Fundamentals. Vol. PM1969B. Iowa City: Iowa State University, 2004.

Ives, John M. "Capturing Knowledge." *Military Intelligence Professional Bulletin* 34, no. 1 (Jan-Mar 2008): 42–46.
<http://search.proquest.com/docview/1017698797?accountid=12702>.

Jacobsen, G. L. "A Department of Defense Retirement System for the Future." Master's Thesis, Naval Postgraduate School, 2002. DTIC (ADA404933).

Kane, Tim. "Why Our Best Officers Are Leaving." *The Atlantic Monthly* 307, no. 1 (Jan/Feb 2011): 80–82,84–85.
<http://www.theatlantic.com/magazine/archive/2011/01/why-our-best-officers-are-leaving/308346/>.

Kilgore, Joe E. "The Relationship of Monetary Incentive on Retention: An Analysis of Special Forces Noncommissioned Officers." PhD Diss., Capella University, 2007.
<http://search.proquest.com/docview/304721343?accountid=12702>.

Kitzenger, Jenny. "Qualitative Research: Introducing Focus Groups." *BMJ Journal*, July 1995: 299–302.

Krishna Venkitachalam and Peter Busch. "Tacit Knowledge: Review and Possible Research Directions." *Journal of Knowledge Management* 16, no. 2 (2012): 357–372. doi: 10.1108/13673271211218915.

- Lamont, Judith. "Knowledge Sharing Supports the Military's Mission." *KM World* 20, no. 8 (Sep 2011): 6–7.
<http://www.kmworld.com/Articles/Editorial/Features/Knowledge-sharing-supports-the-militarys-mission-77165.aspx>.
- U.S. Library of Congress. Congressional Research Service. *A Summary of Major Military Retirement Reform Proposals, 1976–2006*. by Rex Hudson, (Washington, D.C: Federal Research Division, 2007): 6–12.
- Liebowitz, Jay. "Bridging the Knowledge and Skills Gap: Tapping Federal Retirees." *Public Personnel Management* 33, no. 4 (Winter 2004): 421–448. *Business Source Complete*, EBSCO Host (AN15418467).
- Liebowitz, Jay, Nirmala Ayyavoo, Hang Nguyen, Deborah Carran, and James Simien. "Cross-Generational Knowledge Flows in Edge Organizations." *Industrial Management + Data Systems* 107, no. 8 (2007): 1123–1153. doi: 10.1108/02635570710822787.
- Lance, William R. "Restructuring the Military Retirement System for Cost Savings and Increased Officer Satisfaction." Masters Thesis, Naval Postgraduate School, 2006. DTIC (ADA451740).
- Lazear, Edward P. "Pensions and Deferred Benefits as Strategic Compensation." *Industrial Relations* 29, no. 2 (Spring 1990): 263–280. doi: 10.1111/j.1468–232X.1990.tb00754.x.
- Lee, Thomas W. and Steven D. Maurer. "The Retention of Knowledge Workers with the Unfolding Model of Voluntary Turnover." *Human Resource Management Review* 7, no. 3 (Fall 1997): 247–275. doi: 10.1016/S1053–4822(97)90008–5.
- Lee, Thomas W. and Terence R. Mitchell. "An Alternative Approach: The Unfolding Model of Voluntary Employee Turnover." *The Academy of Management Review* 19, no. 1 (1994): 51–89. <http://www.jstor.org/stable/258835>.
- Lee, Thomas W, Terence R Mitchell, Brooks C Holtom, Linda S McDaniel, and John W Hill. "The Unfolding Model of Voluntary Turnover: A Replication and Extension." *Academy of Management Journal* 42, no. 4 (Aug 1999): 450–462. doi: 10.2307/257015.
- Liebowitz, Jay. "A Knowledge Management Implementation Plan at a Leading U.S. Technical Government Organization: A Case Study." *Knowledge & Process Management* 10, no. 4 (Oct, 2003): 254–259. doi: 10.1002/kpm.184.
- Madsen, Tammy L., Elaine Mosakowski, and Srilata Zaheer. "The Dynamics of Knowledge Flows: Human Capital Mobility, Knowledge Retention and Change." *Journal of Knowledge Management* 6, no. 2 (2002): 164–176. doi: 10.1108/13673270210424684.

- Mann, Tommy and David De Long. "Confronting the Chemical Industry Changing Workforce." *Chemical Market Reporter* 261, no. 22 (Jun 3, 2002): 26. *Business Source Complete*, EBSCOhost (AN 6933509).
- Maria C Lytell and Fritz Drasgow. "'Timely' Methods: Examining Turnover Rates in the U.S. Military." *Military Psychology* 21, no. 3 (Jul 2009): 334–350. doi: 10.1080/08995600902914693.
- Martin, Kyle R. "A Cost Analysis of the Military Retirement System." (Ft. Belvoir Defense Technical Information Center, 2004). <http://handle.dtic.mil/100.2/ADA422924>.
- Martins, Ellen Caroline and Hester W.J. Meyer. "Organizational and Behavioral Factors that Influence Knowledge Retention." *Journal of Knowledge Management* 16, no. 1 (2012): 77–96. doi: 10.1108/13673271211198954.
- Massingham, Peter. "Measuring the Impact of Knowledge Loss: More than Ripples on a Pond?" *Management Learning* 39, no. 5 (2008): 541–560. doi: 10.1177/1350507608096040.
- Matthew, Cynthia T. and Robert J. Sternberg. "Developing Experience-Based (Tacit) Knowledge through Reflection." *Learning and Individual Differences* 19, no. 4 (2009): 530–540. doi: 10.1016/j.lindif.2009.07.001.
- Mitchell, Terence R, Brooks C Holtom, Thomas W Lee, Chris J Sablinski, and Miriam Erez. "Why People Stay: Using Job Embeddedness to Predict Voluntary Turnover." *Academy of Management Journal* 44, no. 6 (Dec 2001): 1102–1121. doi: 10.2307/3069391.
- Navy Personnel Command. *Surface Warfare Officer Critical Skills Bonus*. July 7, 2012. <http://www.public.navy.mil/bupers-npc/officer/Detailing/surfacewarfare/pay/Pages/SWOCS.aspx> (accessed November 24, 2012).
- Nonaka, Ikujiro. "A Dynamic Theory of Organizational Knowledge Creation." *Organization Science* 5, no. 1 (02, 1994): 14–37. <http://www.jstor.org/stable/26350>.
- Parise, Salvatore, Rob Cross, and Thomas H. Davenport. "Strategies for Preventing a Knowledge-Loss Crisis." *MIT Sloan Management Review* 47, no. 4 (Summer 2006): 31–38. <http://search.proquest.com/docview/224961343?accountid=12702>.
- Patten, Thomas H., Jr. "How to Reform the Military Retirement System." *Compensation and Benefits Review (1986–1998)* 18, no. 2 (Mar/Apr 1986): 29–40. doi: 10.1177/088636878601800503.

- “Pentagon Considering Scrapping Traditional Pensions in its Proposed Retirement Plan Overhaul.” Foxnews.com. August 15, 2011. <http://www.foxnews.com/politics/2011/08/15/pentagon-scraps-traditional-pensions-in-its-proposed-retirement-program/>.
- Preenen, Paul T. Y., Irene E. De Pater, Annelies E. M. Van Vianen, and Laura Keijzer. “Managing Voluntary Turnover through Challenging Assignments.” *Group & Organization Management* 36, no. 3 (2011): 308–344. doi: 10.1177/1059601111402067.
- Rostker, Bernard D. “The Evolution of the All-Volunteer Force Research Brief.” In *I Want You! The Evolution of the All Volunteer Force*, by Bernard, D. Rostker, 1–5. Santa Monica: Rand Corporation, 2006.
- Scalzo, Nicholas J. “Memory Loss? Corporate Knowledge and Radical Change.” *Journal of Business Strategy* 27, no. 4 (07, 2006): 60–69. doi: 10.1108/02756660610677137.
- Schmitt, Achim, Stefano Borzillo, and Gilbert Probst. “Don’t Let Knowledge Walk Away: Knowledge Retention during Employee Downsizing.” *Management Learning* 43, no. 1 (2012): 53–74. doi: 10.1177/1350507611411630.
- Seidler-de Alwis, Ragna and Evi Hartmann. “The use of Tacit Knowledge within Innovative Companies: Knowledge Management in Innovative Enterprises.” *Journal of Knowledge Management* 12, no. 1 (2008): 133–147. doi: 10.1108/13673270810852449.
- Shafer, Vivian C. “Choosing between the High-Three and the Redux Military Retirement Programs: Thrift Savings Plan Participation a Valuable Option.” *The Army Lawyer* (Sep 2000): 18–23. <http://search.proquest.com/docview/227823044?accountid=12702>.
- Shah, Priti Pradhan. “Network Destruction: The Structural Implications of Downsizing.” *Academy of Management Journal* 43, no. 1 (Feb 2000): 101–112. doi: 10.2307/1556389.
- Sobel, Irvin. “Human Capital and Institutional Theories of the Labor Market: Rivals Or Complements?” *Journal of Economic Issues* 16, no. 1 (Mar 1982): 255–272. <http://www.jstor.org/stable/4225152>.
- Starke, Frederick A, Bruno Dyck, and Michael K Mauws. “Coping with the Sudden Loss of an Indispensable Employee: An Exploratory Case Study.” *The Journal of Applied Behavioral Science* 39, no. 2 (Jun 2003): 208–228. DOI: 10.1177/0021886303255959.
- Strober, Myra H. “Human Capital Theory: Implications for HR Managers.” *Industrial Relations* 29, no. 2 (Spring 1990): 214–239. DOI: 10.1111/j.1468–232X.1990.tb00752.x.

- Thaler, Richard H. "Mental Accounting and Consumer Choice." *Marketing Science* 27, no. 1 (Jan, 2008): 15–25.
<http://faculty.chicagobooth.edu/jesse.shapiro/research/premiumgasoline.pdf>.
- Tilghman, Andrew. "Plan to Cut Retirement Outrages Service Members." *ArmyTimes*, September 1, 2011, <http://www.armytimes.com/money/retirement/military-retirement-plan-troops-react-090111w/>.
- Trevor, Charlie O. and Anthony J. Nyberg. "Keeping Your Headcount when all about You are Losing theirs: Downsizing, Voluntary Turnover Rates, and the Moderating Role of Hr Practices." *Academy of Management Journal* 51, no. 2 (04, 2008): 259–276. http://www.emeraldinsight.com/bibliographic_databases.htm?id=1736659.
- Tversky, Amos and Daniel Kahneman. "Advances in Prospect Theory: Cumulative Representation of Uncertainty." *Journal of Risk and Uncertainty* 5, no. 4 (Oct 1992, 1992): 297–323. doi: 10.1007%2FBF00122574.
- Tziner, Aharon and Assa Birati. "Assessing Employee Turnover Costs: A Revised Approach." *Human Resource Management Review* 6, no. 2 (Summer 1996): 113–122. doi: 10.1016/S1053–4822(96)90015–7.
- Walker, James A. "Employment and Earnings of Recent Veterans: Data from the CPS." *Monthly Labor Review* 133, no. 7 (2010): 3–9.
<http://www.bls.gov/opub/mlr/2010/07/art1full.pdf>.
- Yilmaz, Arguden R. "There is no Free Lunch: Unintended Effects of the New Military Retirement System." *Journal of Policy Analysis and Management (1986–1998)* 7, no. 3 (Spring 1988): 529–541. doi: 10.2307/3323730.

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
Ft. Belvoir, Virginia
2. Dudley Knox Library
Naval Postgraduate School
Monterey, California
3. Marine Corps Representative
Naval Postgraduate School
Monterey, California
4. Director, Training and Education, MCCDC, Code C46
Quantico, Virginia
5. Director, Marine Corps Research Center, MCCDC, Code C40RC
Quantico, Virginia
6. Marine Corps Tactical Systems Support Activity (Attn: Operations Officer)
Camp Pendleton, California