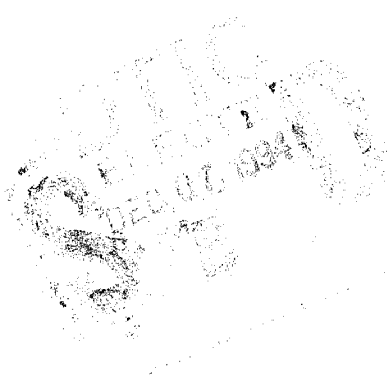


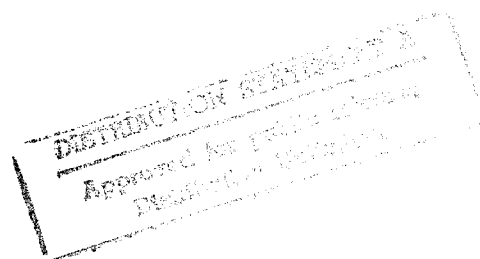
RAND

*Future Career Management
Systems for U.S. Military
Officers*

*National Defense Research Institute,
Defense Manpower Research Center*



National Defense Research Institute



19941201 078

The research described in this report was sponsored by the Office of the Secretary of Defense under RAND's National Defense Research Institute, a federally funded research and development center supported by the Office of the Secretary of Defense, the Joint Staff, and the defense agencies, Contract MDA903-90-C-0004.

Library of Congress Cataloging in Publication Data

Thie, Harry.

Future career Management Systems for U.S. military officers

/ Harry A. Thie, Roger A. Brown.

p. cm.

"Sponsored by the Assistant Secretary of Defense for Personnel and Readiness."

"MR 470 OSD."

Includes bibliographical references.

ISBN 0-8330-1572-9

1. United States-- Armed Forces-- Officers. 2. United States-- Armed Forces-- Personnel management. 3. United States-- Armed Forces-- Promotions. 4. World politics--1989-- I. Brown, Roger. II. RAND. III. United States. Office of the Assistant Secretary of Defense for Personnel and Readiness. IV. Title. UB413.T45 1994

355.332 02373--dc20

94-30296

CIP

RAND
Copyright © 1994

RAND is a nonprofit institution that helps improve public policy through research and analysis. RAND's publications do not necessarily reflect the opinions or policies of its research sponsors.

Published 1994 by RAND

1700 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138

To order RAND documents or to obtain additional information, contact Distribution Services: Telephone: (310) 451-7002; Fax: (310) 451-6915; Internet: order@rand.org.

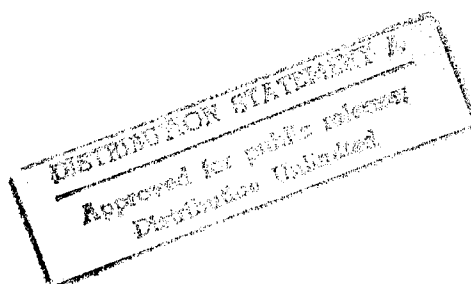
RAND

*Future Career Management
Systems for U.S. Military
Officers*

*National Defense Research Institute,
Defense Manpower Research Center*

*Prepared for the
Office of the Secretary of Defense*

National Defense Research Institute



Approved for public release; distribution unlimited

FUTURE CAREER MANAGEMENT SYSTEMS FOR U.S. MILITARY OFFICERS
A National Defense Research Institute Study

Study Directors

Harry J. Thie
Roger A. Brown

Alternative Career Management Systems

Harry J. Thie
Mark Berends
Roger A. Brown
Rudolph H. Ehrenberg, Jr.
Ann Flanagan
Claire Mitchell Levy
William W. Taylor

Evaluation

Rudolph H. Ehrenberg, Jr.
Mark Berends
Roger A. Brown
Richard Leo Eisenman
William Fedorochko, Jr.
Clifford M. Graf II
Harry J. Thie

Models and Data

Richard Leo Eisenman
Mark Hoyer
William W. Taylor

Future Requirements Options

Roger A. Brown
Paul Bracken
William Fedorochko, Jr.
Norman T. O'Meara

Communications Analyst

Jerry Sollinger
Judith Larson

Administrative Support

Katherine D. Mills
Nancy L. Rizor

Defense Manpower Research Center

Bernard D. Rostker

RAND Reviewers

Glenn Gotz
C. Robert Roll

Logistics Management Institute

Colin O. Halvorson
Norman T. O'Meara

Task leaders are designated in bold type face.

Preface

Section 502 of Public Law 102-484, National Defense Authorization Act for Fiscal Year 1993, required the Secretary of Defense to "provide for a federally funded research and development center [FFRDC] that is independent of the military departments to review the officer personnel management system of each of the military departments and to determine and evaluate the effects of the post-Cold War officer strength reduction on that officer personnel management system." RAND's National Defense Research Institute (NDRI), an FFRDC sponsored by the Office of the Secretary of Defense, the Joint Staff, and the defense agencies, was chosen to conduct the study.

This report describes the outcomes of NDRI's research, which centered on three main tasks:

- Identify and evaluate the effects of the post-Cold War officer strength reduction and other environmental changes on future requirements for officers.
- Review the officer personnel management systems of the military departments and specify alternative career management systems that include features suggested by the Congress, the Department of Defense, and NDRI.
- Assess the adequacy of the alternative systems for managing the officer force in the late 1990s and beyond.

The work was sponsored by the Undersecretary of Defense for Personnel and Readiness and was undertaken within NDRI's Defense Manpower Research Center. NDRI was supported in this study by the Logistics Management Institute (LMI), an FFRDC chartered to support the Office of the Secretary of Defense. LMI was fully engaged with the NDRI study team in the identification of future requirements for officers.

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist.	Avail and/or Special
A-1	

Contents

Preface	iii
Figures	ix
Tables	xiii
Summary	xvii
Acknowledgments	xxxiii
1. INTRODUCTION	1
Background of the Study	1
Antecedents of Current Officer Career Management	1
The Current Study	4
Purpose of the Study	5
Research Approach	6
Purpose and Objectives of Officer Career Management	7
How This Document Is Organized	9
2. OFFICER REQUIREMENTS	10
Introduction	10
The Basis for Determining Military Officer Requirements	10
Key Determinants of Military and Officer Requirements	12
National Military Strategy	13
Organizational Design and Structures	14
Force Size and Active-Reserve Component Force Mix	17
Doctrine and Operational Concepts	19
Technology	21
The Combined Effect of the Determinants on Officer	
End Strength and Grade Levels	23
How Major Determinants Might Change	27
Determination of Officer Positions Within Total Military	
Requirements	28
Description of Current Military Officer Requirements	32
Composite Skill Content by DoDOC for FY 1994 Programmed	
Officer Manpower Requirements	34
Current Military Officer Skills	36
Composite Grade Content for FY 1994 Programmed Officer	
Manpower Requirements	39
Total Programmed Officer Manpower Requirements and the	
Individual Accounts	39
3. FUTURE OFFICER REQUIREMENTS OPTIONS	43
Overview	43
The Baseline Force	44
Development of Officer Requirements Options	44

Consideration of Size in Developing Options	46
Consideration of Organization in Developing Options	48
Consideration of Technology in Developing Options	50
Summary of Officer Requirements Options	54
Detailed Description and Definition of Future Officer	
Requirements Options	55
Underlying Methodology and Quantitative Highlights of the	
Notional Force (Option 0)	56
Detailed Description of the Reduced Force (Option 1)	59
Detailed Description of the Enlarged Force (Option 2)	60
Detailed Description of the Streamlined and Reengineered	
Force (Option 3)	63
Detailed Description of the Specialist Force (Option 4)	66
Detailed Description of the Generalist Force (Option 5)	67
Comparative Dimensions of the Officer Requirement Options	69
Size	69
Field-Grade Content	70
Skill Group Mix and Changes	70
Service-Specific Effects	70
Summary of Officer Requirements Options	71
4. CAREER MANAGEMENT PRINCIPLES AND APPLICATION	
TO OFFICER CAREERS	72
General Personnel Management Model	72
Basic Personnel Functions	72
Policies Determine How Functions Are Discharged	74
Designing Alternative Career Management Systems	74
Philosophies Relating to Career Flow Structures	75
Career Flow Structures	77
Up-or-Out	78
Up-and-Stay	79
In-and-Out	80
Mixed	81
Personnel Functions Provide Variation Within Career	
Flow Structures	82
Personnel Functions	82
Accessing	83
Developing	85
Promoting	89
Transitioning	95
An Illustration of the Effect of Personnel Functions	
Within Career Flow Structures	99
Summary	102
5. CAREER MANAGEMENT IN PRACTICE	103
Introduction	103
Military Department Career Management	104
General Observations	104
Accessing	105
Developing	105
Promoting	106
Transitioning	109

Potential Future Evaluation Criteria and Design Features	
Derived from Military Department Career Management	111
Foreign Military Career Management Systems	112
Accessing	112
Developing	113
Promoting	114
Transitioning	115
Summary	116
Potential Future Design Characteristics Derived from	
Foreign Military Officer Systems	117
Public Sector Organizations	118
Accessing	118
Developing	118
Promoting	119
Transitioning	120
Potential Future Design Characteristics Derived from	
Comparable Organizations	121
Private Sector Practices	122
Business Strategy	122
Organizational Culture	123
Management Development	125
Workforce Flexibility	125
Summary of Career Management	126
6. ALTERNATIVE OFFICER CAREER MANAGEMENT SYSTEMS	127
Introduction	127
Design of Alternative Career Systems	127
Assumptions	129
Alternative A: DOPMA Short	130
Alternative B: DOPMA Long	132
Alternative C: Lateral Entry	132
Alternative D: Long, Stable	134
Alternative E: Career Selection	137
Summary	138
7. EVALUATION METHODOLOGY	141
Introduction	141
Objectives as Evaluation Criteria	142
Meet Officer Requirements	142
Attract and Develop Officers	142
Foster Careers	146
Provide Flexibility to Adapt to Change	148
Considerations as Evaluation Criteria	151
Cost	151
Uniformity	152
Public Confidence in the Military as an Institution	153
Numbers of Officers Entering, In, and Leaving Careers	154
Summary	155
8. EVALUATION OF ALTERNATIVE OFFICER CAREER SYSTEMS	157

Introduction	157
Discussion of the Evaluation	160
Requirements	160
Attract and Develop Officers	160
Foster Careers	165
Flexibility	170
Measurement of Other Considerations	177
Relative Cost	177
Uniformity	179
Maintain Public Confidence in the Military as an Institution	182
Number of Officers	185
Summary Evaluation by Alternative	190
Alternative A: DOPMA Short	191
Alternative B: DOPMA Long	191
Alternative C: Lateral Entry	191
Alternative D: Long, Stable	192
Alternative E: Career Selection	192
Section Summary	192
9. CONCLUSIONS	193
Congressional and DoD Issues	193
Officer Requirements	193
Alternative Officer Career Management Systems	196
Study Team Observations and Conclusions	203
Next Steps	206
Appendix	
A. Methodology for Sizing the Officer Requirements Options	207
B. Officership	212
C. Career Satisfaction	222
D. Description of Officer Career Management Systems of the Military Departments	236
E. Description of Foreign Officer Career Management Systems	294
F. Description of Military-Like Public Sector Organizations	315
G. Developing Alternatives for Future Officer Management	345
H. Illustrative Example of Increasing Warrant Officer Requirements ...	352
I. Military Experience	361

Figures

2.1. U.S. Officer Requirements, FY 1980 to FY 1994	24
2.2. Defense Planning and Programming Categories and Definitions	25
2.3. Changes in Officer Requirements by Defense Planning and Programming Category, FY 1990–FY 1994	25
2.4. Percentage Changes in Officer Requirements by DPPC, FY 1990–FY 1994	26
2.5. Air Force Officer Requirements Algorithm	31
2.6. British Royal Navy Algorithm for Determining Officer Requirements	32
2.7. Design Definition of Officer Skill Groupings	37
2.8. Distribution of Officers by Military Service for FY 1978–1992 Reported in the Individual Accounts	40
3.1. Summary of Officer Requirements Alternatives	55
3.2. Reduced Force (Option 1): Percentage of Changes in Officer Requirements from Notional Force	60
3.3. Enlarged Force (Option 2): Percentage of Changes in Officer Requirements from Notional Force	62
3.4. Streamlined and Reengineered Force (Option 3): Percentage of Changes in Officer Requirements from Notional Force	65
3.5. Specialized Force (Option 4): Percentage of Changes in Officer Requirements from Notional Force	67
3.6. Generalist Force (Option 5): Percentage of Changes in Officer Requirements from Notional Force	68
4.1. Notional Workforce	73
4.2. Career and Promotion Outcomes in an Up-or-Out System	100
4.3. Career and Promotion Outcomes in a Structure Combining Up-or-Out with Up-and-Stay	101
4.4. Career and Promotion Outcomes in a Structure Combining Up-or-Out with In-and-Out	102
5.1. Proportion of Entering Officers Remaining at Each Year of Service	107
5.2. Proportion of Entering Officers Remaining at the End of Each Year of Service in Career Segment 1	108
5.3. Proportion of Officers Completing Career Segment 1 Who Are Remaining at the End of Each Year of Service in Career Segment 2	108
5.4. Proportion of Officers Completing Career Segment 2 Who Are Remaining at the End of Each Year of Service in Career Segment 3	109
5.5. Pictorial Representation of the Sliding Scale Grade Table	110
6.1. Typical Grade and Service Profile for Alternative A: DOPMA Short	131
6.2. Typical Grade and Service Profile for Alternative B: DOPMA Long	133

6.3. Typical Grade and Service Profile for Alternative C: DOPMA Lateral Entry	135
6.4. Typical Grade and Service Profile for Alternative D: Long, Stable	136
6.5. Typical Grade and Service Profile for Alternative E: Career Selection	139
8.1. Average Years of Military Experience for O-4 to O-6 Line Officers	161
8.2. Typical DOPMA Short Year of Service Variation in the Grades of O-4 to O-6	162
8.3. Typical DOPMA Long Year of Service Variation in the Grades of O-4, O-5, O-6 Compared with DOPMA Short	163
8.4. Typical DOPMA Lateral Entry Year of Service Variation in the Grades of O-4, O-5, O-6 Compared with DOPMA Short ...	164
8.5. Typical Long, Stable Year of Service Variation in the Grades of O-4, O-5, O-6 Compared with DOPMA Short	165
8.6. Typical Career Selection Year of Service Variation in the Grades of O-4, O-5, O-6 Compared with DOPMA Short	166
8.7. Effect of Grade Table on Requirements Options (Army Example)	174
8.8. Effect of Existing and Planned Grade Table on USMC Requirements Options	176
8.9. Expected Career Length	181
8.10. Line, Specialist, and Support Initial Accessions	186
8.11. Number of Line, Specialist, and Support Retirements	189
8.12. Line, Specialist, and Support Reserve Forces Pool	190
B.1. "Officership"	213
D.1. Air Force Officer Strength 1950-1992	237
D.2. Air Force Undergraduate Pilot Training 1950-1992	238
D.3. Air Force Officer Distribution by Year of Service 1954	241
D.4. Proportion of Entering Officers Remaining at Each Year of Service	242
D.5. Proportion of Entering Officers Remaining at the End of Each Year of Service in Career Segment 1	243
D.6. Proportion of Officers Entering Career Segment 2 Remaining at the End of Each Year of Service	244
D.7. Proportion of Officers Entering Career Segment 3 Remaining at the End of Each Year of Service	244
D.8. Change in USMC Field-Grade Table Since DOPMA	291
D.9. Pictorial Representation of the Sliding-Scale Grade Table	292
G.1. Requirements Options Are Defined by Service and Grade and Skill	346
G.2. Army DOPMA Continuation Rates Compared with Alternative A: DOPMA Short	347
G.3. Army Continuation Rates in Alternative A Compared with Alternative B: DOPMA Long	348
G.4. Army Continuation Rates in Alternative A Compared with Alternative C: Lateral Entry	349
G.5. Army Continuation Rates in Alternative A Compared with Alternative D: Long, Stable Careers	350

G.6. Army Continuation Rates in Alternative A Compared with Alternative E: Career Selection	351
I.1. Average Time in Service for Line Officers at Selected Years by Service	364
I.2. Type of Experience Required for Development	368
I.3. Proportion of Career Path	368

Tables

S.1. Alternative Officer Requirements Options	xxi
S.2. Key Characteristics of Five Career Management Alternatives	xxv
S.3. Criteria and Measures of Career Management Systems	xxvi
S.4. Impacts of Career Management Alternatives	xxvii
2.1. Major U.S. Force Elements, FY 1990, FY 1993, and FY 1999	19
2.2. DoD Occupational Codes	34
2.3. Baseline Force (Grade and DoDOC) Department of Defense Military Officer Requirements, FY 1994	35
2.4. Distribution of Officer Requirements by Service and Skill Groupings for Separate Management	38
2.5. Results of Regression Analysis of Military Service Officer Individual Accounts	42
3.1. Officer Requirements, Baseline Force	44
3.2. Officer Requirements, Notional Force (Option 0)	46
3.3. Officer Requirements, Reduced Force (Option 1)	47
3.4. Officer Requirements, Enlarged Force (Option 2)	48
3.5. Officer Requirements, Streamlined and Reengineered Force (Option 3)	50
3.6. Officer Requirements, Specialized Force (Option 4)	52
3.7. Officer Requirements, Generalist Force (Option 5)	54
3.8. Description of Notional Force (Option 0) Service Officer Requirements by Skill Groupings	57
3.9. DoD Estimated Officer Requirements, Notional Force (Option 0) (Grade and DoDOC)	58
3.10. Description of Reduced Force (Option 1) Service Officer Requirements by Skill Groupings	59
3.11. DoD Estimated Officer Requirements, Reduced Force (Option 1)	60
3.12. Description of Enlarged Force (Option 2) Service Officer Requirements by Skill Groupings	61
3.13. DoD Estimated Officer Requirements, Enlarged Force (Option 2)	62
3.14. Description of Streamlined and Reengineered Force (Option 3) Service Officer Requirements by Skill Groupings	64
3.15. DoD Estimated Officer Requirements, Streamlined and Reengineered Force (Option 3)	65
3.16. Description of Specialized Force (Option 4) Service Officer Requirements by Skill Groupings	66
3.17. Description of Generalist Force (Option 5) Service Officer Requirements by Skill Groupings	68
3.18. Summary Comparison of Officer Requirements Options (DoD-wide)	69
6.1. Key Characteristics of Career Management Alternatives	128
8.1. Effects of Career Management Alternatives	158

8.2. Expected Field-Grade Years of Service	162
8.3. Evaluation of Fostering Careers	170
8.4. Ability of Alternatives to Meet Changes in Service Requirements	172
8.5. Percentage in Grades O-4 to O-6 in Each Requirements Option Compared with Percentage Allowed for That Option by the Grade Table	175
8.6. Effects of Career Management Alternatives on Costs	180
8.7. Comparison of Measures of Uniformity Across Services	182
8.8. Evaluation of Public Confidence	183
8.9. Line, Specialist, and Support Initial Accessions	186
8.10. Number of Promotions	187
8.11. Promotion Point (Years of Service)	187
8.12. Comparison of Average Promotion Timing Changes Across Alternative Officer Career Systems	188
8.13. Number of Line, Specialist, and Support Retirements	189
8.14. Line, Specialist, and Support Reserve Forces Pool	190
D.1. Army Command Selection Opportunity	275
D.2. Army Promotion Rate	278
D.3. Educational Level of Navy Officers (as of September 30, 1992)	283
D.4. Actual and Planned Promotion Opportunity, FY 1989-1994 (in percentage)—Navy	285
D.5. Promotion Timing, FY 1989-1992 (in years and months)— Navy	285
D.6. Educational Level of Marine Officers (as of September 30, 1992)	289
D.7. Actual and Planned Promotion Opportunity, FY 1989-1994 (in percentage)—Marine Corps	292
D.8. Actual and Planned Promotion Timing, FY 1989-1997 (in years and months)—Marine Corps	293
E.1. Summary Comparison of Foreign Military Officer Systems	314
H.1. Commissioned Officer Requirements for the End of FY 1992	353
H.2. FY 1992 Warrant Officer Requirements by DoDOC Area and Service	354
H.3. Commissioned Officer Requirements for Selected DoDOC Groups	357
H.4. Adjusted Commissioned Officer Requirements by Service	359
H.5. Summary of Service Warrant Officer Requirements Changes	359
I.1. Years of Experience at Each Grade for Line Officers for 1981 and 1990	364
I.2. Career Paths	366
I.3. Minimum Military-Unique Experience Based on Career Paths	367
I.4. Field-Grade Average Years of Service Provided by Career Management Alternatives by Skill Group	371

I.5. Field-Grade Average Years of Service Provided by Career Management Alternatives by Service and Skill Group	371
I.6. Desired vs. Provided Years of Service, Averaged Across All Services	371
I.7. Desired vs. Provided Years of Service, by Service by Skill Group	372

Summary

Historical Context

For 200 years, Congress has played an important role in managing the U.S. military officer corps. However, most major legislation on personnel issues has been enacted since World War II. The Officer Personnel Act of 1947 sought to correct problems in officer management that surfaced in the difficult transition from a small peacetime force in the 1930s to the huge wartime establishment of the 1940s. The Total Force Policy, which began in 1970, mandated an integrated use of all available personnel—active, reserve, and civilian—in planning force structures. This signaled a stronger role for the reserves, which were a source of trained officers, and it allowed civilians to be substituted for officers in certain positions where military experience was not considered essential. The All-Volunteer Force, instituted in 1973, made true volunteers the source of military manpower—including officers—which had broad implications with respect to career commitment and societal representation.

In 1980, Congress passed the Defense Officer Personnel Management Act (DOPMA), which further consolidated rules and regulations governing the careers of military officers and revised the constraints on the numbers of officers each service might have in the higher grades. The goal of DOPMA was to attract and retain a sufficient supply of high-quality officers and to provide reasonably consistent career opportunities among the services. It also established a single promotion system and an all-regular career force through augmentation of reserve officers into regular status.

Purpose of the Study

In the wake of the collapse of the Soviet Empire and the end of the Cold War, Congress recognized that the United States faced dramatically different national security challenges. Substantial force reductions had already drawn the officer corps to its lowest level in decades, and the existing management system had not shown itself to be very flexible in making the transition.

As part of the National Defense Authorization Act for Fiscal Year 1993, Congress directed the Secretary of Defense to commission a federally funded research and development center (FFRDC) to review the officer personnel management

systems of the military departments and to evaluate the effects of the post–Cold War officer strength reduction on those systems. To be included in the review were an examination of the timing and opportunities for officer promotion, the expected lengths of officer careers, and other features of the system under DOPMA. However, Congress granted considerable flexibility to investigate other aspects of officer management as well. The Secretary of Defense selected RAND’s National Defense Research Institute (NDRI) to conduct the study.

Research Approach

The NDRI study design comprised the following sequential steps:

- Define the overarching purpose of any officer career management system and the specific objectives that have to be accomplished to meet that purpose.
- Develop a range of possible future officer requirements that is broad enough to ensure the robustness of our analysis.
- Construct a general model of a career management system and analyze the effect of its various components on officer management.
- Design alternative career management systems by varying the key personnel functions of accession, development, promotion, and transition.
- Evaluate the alternative systems according to criteria derived during the review, and identify the aspects of officer career management that require special consideration in developing or modifying career management systems.

The research team restricted its focus to active-duty commissioned officers in the ranks of O-1 (lieutenants and ensigns) through O-6 (colonels and Navy captains) in the four military services. The study was not designed to recommend a single “best” approach to officer management but to offer analyses and conclusions about the full range of issues raised by Congress and the Department of Defense.

Purpose of an Officer Management System

In the most general sense, the primary purpose of an officer management system is to provide officers able to discharge the national military strategy. But there are other important dimensions to consider. An effective system must meet the needs of its “customers”—those who use officers. For the U.S. military, users represent a broad spectrum, including the unified commanders (CINCs), the

military services, the joint and defense staff, and various other defense and nondefense organizations that rely on career military officers to fulfill their staffing requirements. Increasingly, these organizations are far removed from the traditional tactical units or planning headquarters. Instead, they mirror the complexity and diversity of the evolving national security environment.

The following key objectives for an effective career management system blend traditional views about managing military officers with current thinking about managing human resources. The system must

- meet national requirements for officers
- attract and develop officers who, from the perspective of users, have adequate ability and experience
- foster careers that provide satisfaction and opportunity in exchange for commitment
- possess sufficient flexibility to adapt to changes in the size and composition of the officer corps.

To further discriminate among a range of alternatives that might achieve these overall objectives, there are additional factors to take into account. Most important are

- relative cost
- uniformity among military services and skill groups
- public confidence in the military as an institution
- numbers of officers entering, pursuing, and leaving careers.

Future Defense Manpower Requirements

Key Determinants

Five major determinants shape the outline and content of defense manpower requirements in general and the numbers of officers—by service, grade, and skill—that are required in the force: national military strategy, doctrine and operational concepts, organizational design and structures, force size and active-reserve component force mix, and technology. Clearly, the individual determinants are interdependent in their effects on officer requirements; and, for the most part, they can be viewed as external forces that the military departments and services attempt to influence but cannot unilaterally control. The last three are particularly important because of their potentially great effect on demand for

officers in general and on the demand for officers with specific skills and grades in particular. Those are the determinants we considered in this study.

Future Officer Requirements: Six Options

Since the beginning of World War II, rapid buildups in officer strength to meet unexpected demands for U.S. forces have been followed by substantial reductions. In its recent "Bottom-Up Review," DoD aligned the new, regionally oriented national military strategy with its expectations of future defense resources and security threats, and it concluded that in FY 1999 an active force of about 1.4 million men and women would meet the nation's security needs. However, taking into account the boom-or-bust cycle of the past, we developed six officer requirement options to encompass the broad range of possibilities that might occur between the years 2000 and 2010, well beyond the current transition period.

Two major characteristics define officer billets: skill and grade. We translated the wide range of service skills represented in the current force structure into four major groups: line, specialist, support, and professional. We also derived grade distributions for each option. In formulating requirement options, we began with the congressionally approved FY 1994 active force, which totals about 1.6 million active-duty personnel and requires 203,400 officers (the difference between officer requirements and officer end strength reflects officers not filling programmed manpower structure spaces).

Notional Force. The first option represents our estimate of officer requirements associated with an FY 1999 active-duty end strength of about 1.4 million men and women. The Notional Force requires an estimated 177,300 officers.

Reduced Force. Rather than basing our force-size options on a projected global strategic environment, we estimated them parametrically by increasing and decreasing the Notional Force by plus-or-minus 0.4 million. This degree of variation reasonably reflects the actual experience of the recent past, and it enables us to address the effects of a variation in active-force size and officer end strength without specifying major force elements or composition. The Reduced Force option comprises 1.0 million active personnel and includes an estimated 128,300 officers.

Enlarged Force. Increasing the Notional Force by 0.4 million, the end strength of this option is 1.8 million people, with an estimated 220,800 officers.

Streamlined and Reengineered Force. This option streamlines the officer corps by using more civilians in positions requiring nonmilitary skills and by

downgrading certain field-grade officer positions. The active-force size is about 1.4 million, similar to that of the Notional Force, but with a much lower officer requirement of 156,000.

Specialized Force. This option retains the overall active-force size at 1.4 million with 177,300 officers (the level of the Notional Force), but it examines a skill mix associated with a highly specialized officer corps.

Generalist Force. Technology may, on the other hand, significantly reduce the demand for officers with specialized skills. This would support the expansion of a "generalist" officer population with a broad range of operationally oriented and management skills. To estimate this option, which is the antithesis of the Specialized Force, we again used the same strength for officers as in the Notional Force.

Table S.1 provides an overview of the six options. Each option gives a different perspective of future requirements for officers based on a projected change in one or more of the three major determinants most vulnerable to change: size, organization, and technology.

Table S.1
Alternative Officer Requirements Options

Option	Size & Percentage of Change from Notional Force		% Field Grade Content	% Change in Skill Group Mix	Service Affected
Notional	177,300	N/A	47	N/A	N/A
Reduced	128,300	-28	44	<1 All groups	All
Enlarged	220,800	+25	42	<2 All groups	All
Streamlined and Reengineered	156,000	-12	42	=6 spt & prof	All
Specialist	177,300	0	47	<5 L & spec	AF,N,M
Generalist	177,300	0	47	<4 L & spec	All

NOTE: AF=Air Force, N=Navy, M=Marine Corps, L=line, spt=support, prof=professional, spec=specialist, N/A=not applicable.

A General Personnel Management Model for Officers

Having established a range of requirements, we identified the structures used to manage officers as the next step in building our general model. Managing a workforce requires the personnel system to acquire people, move them through the organization over time, and, eventually, transition them out of the organization.

Career Flow Structures

From our analysis of military and civilian personnel systems, we concluded that two policy choices are most important in determining career patterns because they fundamentally influence the nature of the career management system. The choices are binary and affect where in the organization people can enter and on what basis they leave. In a "closed" system, people must enter the organization at the bottom; in an "open" system, they may enter at any point along the career path. They may either leave at their own choice (natural attrition) or that of the organization (forced attrition).

Career flow structures are the most important variables in career management. They affect commitment by creating different expectations between the individual and the organization. They also affect the competence of the work force, the strength of organizational culture, and the networks of relationships that can be used to coordinate interdependent parts of the organization.

Four career flow structures are common. Each has application in a military setting.

Up-or-out. An up-or-out structure is characterized by entry into the military at the start of a career and forced or induced separation at a later point. It is important that the choice of forcing mechanisms accomplish organizational objectives. For example, if the objective is a young and vigorous officer corps, policymakers must choose a forcing mechanism related to age.

Up-and-stay. An up-and-stay structure is characterized by entry into the military at the start of a career and continuation at will of the individual for a full career even if he or she is not advanced. The military has used this structure for selected skills where shortages of officers exist.

In-and-out. An in-and-out structure—also called a lateral entry structure—allows entry and exit at multiple points in careers. Entry need not be at the beginning of a career; experienced people who leave can be replaced with experienced, but new, people with needed skills, knowledge, and abilities. In the military setting, officers entering laterally might come from civilian life, reserve status, another military service, or some other source. Attrition can be either forced or natural.

Mixed. Mixed structures can incorporate characteristics of any of the other three flow structures and thus can be designed in many ways. Entry can be open or closed and applied differently to different parts of the organization. Attrition can be natural or forced; it may apply across an organization or to selected parts.

Additionally, the characteristics of entry and attrition can be applied differently in different (early or late) segments of a career.

Personnel Functions

Personnel functions operate within career flow structures. Policy decisions about how to implement those functions result in widely varied career management systems that produce very different officer populations. For example, in an up-or-out structure, policy changes affecting opportunity for and timing of promotions can significantly alter the composition of the officer corps. We identified four primary personnel functions: accessing, developing, promoting, and transitioning.

Comparative Review of Operating Career Management Systems

As a final step in constructing our general model, we reviewed a range of career management systems in operation. This review assured us that the model would provide a complete framework from which to derive alternative systems, allow us to identify additional concepts to consider as we designed alternative career management systems, and suggest criteria and measures to be used in our evaluation. Sources for this information were the four U.S. military services, foreign military systems, comparable public-sector organizations (e.g., FBI, police, Secret Service), and the private sector.

Alternative Career Management Systems

With the general model serving as a starting point, we designed five alternative officer career management systems. The alternatives vary distinguishable characteristics in

- career flow structures
- accessing
- developing, including skill group migration
- promoting
- transitioning, including career length, vesting, and retirement options.

One alternative was constructed to replicate the DOPMA system. The other four capture issues of specific interest to the Congress and the Department of Defense. These issues include (1) differently regulated flows into, within, and out of the

officer corps; (2) rules that provide for less turnover and greater stability; (3) stable career advancement patterns that encourage longer careers; (4) greater use of lateral entry; and (5) longer careers as the rule rather than the exception, with up-or-out features of DOPMA adjusted accordingly.

Several important attributes of the alternative career management systems are summarized below.

DOPMA Short Career reflects the military's current up-or-out structure in that officers who twice fail promotion are separated.

DOPMA Long Career evaluates the effect of extending the maximum duration of service for careers within the up-or-out structure.

Lateral Entry Based on DOPMA allows individuals in all skill groups to enter at designated times. The major difference from other alternatives is more emphasis on skill experience. Lateral entrants are assumed to have the same skill experience as the cohort they join, but they may lack military experience.

Long, Stable Career demonstrates the up-and-stay career flow structure that encourages long careers because it does not force attrition before mandatory retirement. All officers who perform satisfactorily may choose to remain, independent of selection for promotion. Outplacement services and transition payments are used to support voluntary attrition prior to 10 years of service and for other force management needs.

Career Selection evaluates several related management concepts: linked flow structures that enable career selection at various points; a long-zone promotion option to support fast-track advancement of selected officers to one or more of the field grade ranks based on time in grade, while dampening overall emphasis on promotion opportunity; longer maximum careers; and vesting.

Table S.2 offers a snapshot of the five alternatives.

Evaluation of Alternative Career Management Systems

We measured the responsiveness of the alternative systems to a range of criteria derived from the purpose, objectives, and other important considerations discussed above. The evaluation combines quantitative and qualitative measures, which are shown in Table S.3.

Table S.2
Key Characteristics of Five Career Management Alternatives

Characteristics	DOPMA Short	DOPMA Long	Lateral Entry	Long, Stable	Career Selection
Career flow structure	Up-or-out	Up-or-out	Up-or-out In-and-out	Up-and-stay	Up-or-out first 10 years, then up-and- stay
Forced attrition means	Not promoted	Not promoted	Not promoted	None	Not selected
Accessing					
Entry point	Year 0	Year 0	Years 0, 5, 10	Year 0	Year 0
Initial tenure	Career	Career	Career	Career	Entry positions
Developing					
Early experience	Skill	Skill	Skill	Most in line	Skill
Skill group migration	As needed	As needed	As needed	Line to skills	As needed
Promoting					
Promotion timing	O-4=10 years O-5=16 years O-6=22 years	Adjusted to meet grade requirements	Adjusted to meet grade requirements	Adjusted to meet grade requirements	Adjusted to meet grade requirements
Promotion opportunity	O-4=80% O-5=70% O-6=50%	Same	Same	Similar % over a longer promotion zone	Similar % over a longer promotion zone
Promotion zone interval	1 year	1 year	1 year	5 years	5 years
Transitioning					
Maximum career length	30 years	35 years	30 years	35 years	35 years
Intermediate tenure	Yes	Yes	Yes	N/A	No
Outplacement services	No	No	No	Yes	Yes
Transition incentives	Limited	Limited	Limited	Yes	Yes
Vesting	None	None	None	10 years	10 years
Retirement with annuity	20 years	20 years	20 years	30 years	30 years
Mandatory retirement	30 years	35 years	30 years	35 years	35 years

Table S.3
Criteria and Measures of Career Management Systems

Criteria	How Measured
Meeting requirements	<ul style="list-style-type: none"> • Ability to meet grade and skill requirements of options
Attracting and developing officers	<ul style="list-style-type: none"> • Average field-grade military experience • Variation in years of service for each field grade
Fostering careers	<ul style="list-style-type: none"> • Contribution to key aspects of career satisfaction • Expected career length • Number of officers reaching retirement
Providing flexibility	<ul style="list-style-type: none"> • Change in continuation rates required to meet different options • Amount of change in promotion timing or opportunity across options • Ability to meet new requirements and remain within grade limitations
Cost	<ul style="list-style-type: none"> • Average cost per officer
Providing uniformity among services	<ul style="list-style-type: none"> • Promotion timing in each field grade • Expected career length
Maintaining public confidence	<ul style="list-style-type: none"> • Ability to provide competent officers who are reasonably representative of society • Compatibility with national career management practices
Numbers of officers entering, pursuing, and leaving careers	<ul style="list-style-type: none"> • Number of accessions, promotions, and retirements

The evaluation results are recorded in Table S.4.

Conclusions

During the course of this study, the NDRI research team addressed a range of issues specified by Congress and the Department of Defense. In addition, our analysis led us into other areas not explicitly included in the congressional mandate but relevant to its central concerns. Our research findings are summarized below.

Table S.4
Impacts of Career Management Alternatives

Criteria and Measures	DOPMA Short	DOPMA Long	Lateral Entry	Long, Stable	Career Selection
Objectives					
Meeting requirements (grade/skill)	Met	Met	Met	Met	Met
Attracting and developing officers	Inadequate	Adequate	Inadequate	Adequate	Adequate
Average years of service (O-4 to O-6)	16.9	18.8	17.6	19.2	19.5
Grade variation	Narrow	Narrow	Broad	Broad	Broad
Fostering careers	Adequate	Adequate	Inadequate	Advances	Advances
Career satisfaction	Less	Less	Least	Most	More
Career opportunity	Average	Average	Average	Most	More
Expected career length	12.7	13.7	12.7	17.4	14.2
Retirement percentage	35%	36%	38%	47%	33%
Providing overall flexibility	Limited	Limited	Most	Limited	Limited
Change in size	More difficult	More difficult	Less difficult	Difficult	Difficult
Change in promotion timing	Least	Most	Some	Some	Some
Meeting requirements with existing grade table	No	No	No	No	No
Other considerations					
Cost per capita	No significant difference	No significant difference	No significant difference	No significant difference	No significant difference
Providing uniformity among services	Uniform	Less uniform	Least uniform	Most uniform	More uniform
Maintaining public confidence	Lessens	Lessens	Maintains	Lessens	Increases
Numbers of officers:					
Accessions	12,800	11,900	10,100	9,200	11,400
Promotions	11,000	9,200	10,200	10,300	9,900
Retirements	4,400	4,300	4,800	4,300	3,700
Reserve forces pool	6,700	6,300	3,700	2,400	5,500

Satisfying Future Requirements for Military Officers

Our analysis shows that any of the combinations of career flow structures and personnel functions can meet the requirements for officers in the requisite grades and skills. But manipulating the flow structures and personnel functions to meet grade and skill requirements may have other important effects. The career management alternatives do not necessarily respond uniformly. For example, some structures could meet grade and skill requirements but not meet experience requirements. It is therefore important to look beyond the immediate issue of meeting requirements to determine what other consequences might attend choice of a given career management system. With respect to grade requirements, nothing in our analysis suggests that the grade structure must be a pyramid, as it is now.

Using Greater Numbers of Warrant Officers. Warrant officers typically hold positions that require technical skills. The four U.S. military services view the use of warrant officers quite differently, and these cultural differences must be taken into account. However, we found that it is possible to increase the use of warrant officers across the services and employ them in a more uniform manner than is currently the case. The most promising candidates are positions that (1) require the exercise of technical skills, (2) do not follow future officer career patterns, but (3) need the recognition and incentives offered in ranks higher than enlisted. DoD should decide the importance of uniform and expanded use of warrant officers among the services and determine the standard for grading position requirements accordingly. Cost will be an important consideration in deciding the extent to which warrant officers are used in lieu of either officer or enlisted positions.

Having a Less-Inclusive Line. We investigated the feasibility of separate career management systems for distinct skill groups by developing four categories of skills: line, specialist, support, and professional. Our analysis shows that different skill groups can be created and managed differently. Indeed, the present system already manages two groups—line and professional—in fundamentally different ways, and there is conceptually no reason that this practice cannot be extended. The amount of desired military experience varies by skill group.

Alternative Career Management Systems

Regulating Flows Into, Within, and Out of the Officer Corps. We examined four different career flow structures; each has benefits and weaknesses. Key to

selecting among them are the objectives of the organization and the extent to which a given structure accomplishes them. Nevertheless, each structure has certain signal attributes. For example, an in-and-out structure offers great flexibility and appears to complement a total force structure well, but it seems to have less utility as the basis for an overall structure because of drawbacks related to military experience, career satisfaction, and the professional aspects of officership. Up-or-out structures can produce a vigorous officer corps and foster promotions; but they limit career opportunity, and promotion opportunity is created by forcing officers out. Up-and-stay produces officers with greater experience and allows longer careers. However, this structure does not require enough accessions to support accession institutions such as the Reserve Officers' Training Corps (ROTC) or the service academies in their present form, and it does not produce sufficient separations in grades useful to the reserve component.

Longer Careers as the Rule. Longer careers do not appear to cost significantly more or less than shorter careers. There are trade-offs between increased pay and retirement costs and decreased accession and training costs. Moreover, there is no maximum retirement age that must apply to all officers, although it seems reasonable that officers of the grades we studied should retire between ages 55 and 57, as is the custom in similar occupations. Finally, career flow structures dramatically affect career length; therefore, if longer careers become an objective, the up-or-out aspect of the current system will require modification. It should also be noted that forcing out groups of officers appears to run counter both to national policy related to age and to congressional direction to apply individual standards to determine fitness for specific skills.

Patterns That Encourage Longer Careers. Combining long promotion-zone intervals with fast-track promotions allows for stable advancement, longer careers, and rapid advancement of officers who develop more quickly. Making the zones longer does not increase the number of promotions, but more people stay eligible for a longer time, which creates a motivational incentive.

Achieving Less Turnover and Greater Stability. Our analysis suggests that turnover should be tailored. It is possible to provide turnover and stability where needed. High turnover early in a career system could serve multiple purposes such as preserving accession institutions and providing a flow of people to the reserves. Thus, high turnover early in a career system is probably desirable. Once career status is achieved, stability could be enhanced by applying a modified up-and-stay flow structure.

Adequacy of Grade Tables. Grade tables are one way to control officer systems, but others exist. For example, more closely controlling officer grade requirements rather than constraining grade inventory may allow more management flexibility while constraining "grade creep." We suggest four alternatives to the sliding-scale grade table: (1) let requirements and the requirements process dominate, (2) let careers dominate, (3) let both operate, or (4) modify the existing system to take effect over a longer period of time.

Expected Career Length. As suggested above, career flow structures have more import than stipulated maximum career lengths. We found that extending maximum career lengths by five years but retaining the up-or-out structure extends careers only one additional year. Shifting to an up-and-stay structure extends careers by more than five years.

Timing and Opportunities for Promotion. A career system should promote officers in ways that respond to mission-based requirements. Selecting the best-qualified officers and continuing them without the prospect of forced attrition reduces the number of promotions that occur. However, as noted above, longer promotion zones extend the time period during which advancement may occur. Thus, promotions are made to meet needs, not to ensure retention.

Additional Observations

Reviewing the history of the current career management system and analyzing a range of career flow structures led us to conclude that the benefits of uniformity should be balanced by a capacity for flexibility. Broad personnel policies for the services ought to be uniform, but where specific implementation issues are concerned, it is unclear that standardization is possible or that it is even desirable.

Requirements do not change in the same way and at the same rate across the services. Imposing a rigid system means that not all grade and skill requirements will be met. The best features of all career flow structures can be combined and applied at different points in a career management system. This approach offers the broadest range of tools for accomplishing organizational objectives and responding to change.

Finally, we offer the following observations about the four primary personnel functions.

Accessing. Officers can be drawn from several sources, including the enlisted force. Acculturation such as that provided through ROTC or the service academies is important, but it can be achieved through enlisted service as well.

Developing. Career management systems for military officers should reflect the requirements of the national security strategy. In the future, qualifications may be more closely related to the need for specific skills than to the ability to be promoted. Furthermore, explicit recognition should be given to the fact that not all officers develop at the same rate. Taken together, these factors suggest the need for separate career paths for skilled individuals not on a traditional command track. Lateral moves to varied duties and responsibilities could keep work interesting and motivating for those who have reached advancement plateaus.

Promoting. Varying the length of promotion zones appears to be useful in lessening the numerical emphasis on promotions while providing advancement opportunities to those who develop rapidly. A useful design aspect of promotion would incorporate a role for service grade requirements and individual pace of development. Such a design lessens the relationship between age, grade, and length of service.

Transitioning. Officers who commit to military careers should not have to find a new career at midlife. However, annuities need not be paid immediately to those who choose to leave. Vesting and annuity payment points could be tailored to accomplish organizational objectives. In addition, outplacement services and transition incentives enhance force management because they promote flexibility within the system.

Next Steps

The conclusions reached in this study were based on a broad method of analysis that was designed to provide analytical information about changes that could be made in the officer career management system. This research is the foundation for a process that should include the following steps:

- For both DoD and the military services, develop explicit objectives for officer career management and rank the objectives according to their importance.
- Select career flow structures and personnel functions that will best achieve the stated objectives.
- Combine these structures and functions into a career management system.
- Design an implementation plan that includes a transition phase from the old to the new system.

Senior officials in the Department of Defense and the military services should guide and participate in this follow-on effort, particularly to ensure that the

objectives of the new management system are clearly and precisely defined. Those objectives will determine the nature of future careers for U.S. military officers.

Acknowledgments

The authors wish to thank the staff of the Deputy Assistant Secretary of Defense (Military Personnel Policy) for their support, particularly Mr. Nicolai Timenes, Colonel Kenneth Deutsch, Colonel Thomas Page, and Lieutenant Colonel Toreaser Steele. Additionally, many officers and civilians in all of the U.S. military departments and in foreign militaries helped us to understand how officer careers are now managed and how the future is being approached. Others aided us in our research, and, at risk of overlooking some, we particularly want to thank Colonel Richard Strand; Colonel Pat Toffler; Colonel Joseph Greenlee; Dr. Andrew Richter; Wing Commander R. G. Cumming, RAF; and RAND colleague James Dewar. As part of our research, we hosted a seminar of senior people from diverse backgrounds but with experience in military affairs and military career management. We are indebted to this group for their insights.

We are aware that the views expressed in this report will not be supported by all service personnel managers. These are our views and do not represent the policy of the Department of Defense or the individual military departments.

1. Introduction

Background of the Study

A report accompanying the Senate authorization bill for FY 1993 provided Congress' interest in reviewing officer career management:

The committee believes that this review is necessary because the officer corps will be the smallest in size since 1950. The committee believes that this smaller officer corps should be managed under rules that provide for less turnover and greater stability. Longer careers should be the rule rather than the exception and up-or-out features of DOPMA should be adjusted accordingly. Therefore, the review should include an evaluation of the regulation of flows into, within, and out of the officer corps. In this regard, the committee believes that this effort should be guided by the basic objective of satisfying the validated grade/skill requirements of each military service, including greater use of warrant officers. At the same time, the committee recognizes the need for stable career advancement patterns in each military service that encourage longer careers. The committee directs that this effort be completed in time for the committee to take appropriate action on it before the end of the defense transition period.¹

Antecedents of Current Officer Career Management

For the first 120 years of the nation's history, the professional officer corps was very small. The majority of forces for each major conflict, including officers, were raised as needed from the citizen militia. After World War I, this began to change. For the first time, large numbers of officers were maintained in peacetime. The military stayed large after World War II and, after Korea, stabilized at nearly its peak strength of that war with an upward surge for Vietnam. The 1980s saw both boom and bust as the military first expanded to counter a perceived Soviet threat and then "downsized" to fit the post-Cold War realities.²

¹Senate Report 102-352, pp. 199-200.

²Between 1979 and 1986, about 37,000 officers were added. Approximately 70,000 officers will be cut between 1986 and 1995.

Over a 200-year period, Congress has been intimately involved with the management of the officer corps by creating officer career management legislation.³ Until 1947, officer management legislation was separate for the Army and Navy and often inconsistent. The Army and Navy operated independently and had different officer career management philosophies. The Navy implemented in 1916 what amounted to an up-or-out promotion system, while the Army used a seniority system as a principle of officer management.⁴ After World War II, the newly created Department of Defense (DoD) assumed some of the prerogatives of officer career management from the War and Navy Departments. Other principles emerged as a basis of officer career management—uniformity and consistency—as the experiences of World War II and the ensuing threat of global conflict began to shape officer career management. The first militarywide personnel legislation was the Officer Personnel Act of 1947 (OPA), which began a process that eventually culminated with the Defense Officer Personnel Management Act of 1980 (DOPMA).

The OPA sought to correct problems in officer management that surfaced in the difficult transition from a small peacetime force in the 1930s to the huge wartime establishment of the 1940s. After World War II, Congress recognized that future conflicts—the world was then entering the uncertain nuclear age and the Cold War—would not allow the luxury of a slow, deliberate buildup of military forces. Accordingly, an officer management system had to be developed that would ensure a full complement of trained officers available on relatively short notice.⁵

Emphasis shifted to a more vigorous officer corps by including the Navy's up-or-out system. The new policy established standards for normal careers with voluntary retirement after 20 years of service⁶ and mandatory retirement below flag rank at 30 years. At the same time, a somewhat inconsistent policy⁷ emphasized retention of a large number of middle managers (predominantly

³Most of the officer corps affected by such legislation is divided into two groups, generally referred to as company and field grade. The former refers to officers in the grades O-1 (lieutenants and ensigns) to O-3 (captains and Navy lieutenants). The latter refers to the grades O-4 (major and lieutenant commanders) to O-6 (colonels and Navy captains). Separate legislation affects the management of other officers such as flag/general officers and warrant officers.

⁴In an up-or-out promotion system, nonselection is used as a basis for separation. In a seniority system, everyone judged qualified is advanced in strict order based on longevity of service.

⁵Several other postwar adjustments to the defense establishment, such as the National Security Act of 1947 that established a separate Air Force, the creation of the DoD in 1949, and formalization of the Joint Chiefs of Staff, were initiated to create a better organization and management structure for national security.

⁶Limits on voluntary early retirements were mandated in late 1953. However, the Officer Grade Limitation Act of 1954 removed the limits after the Congress was assured that the provision would be little used.

⁷Youth and vigor were being emphasized, but the experienced and mature were continued as a perceived necessity.

field grade officers) to support expansion and mobilization. Subsequent legislation focused on controlling the number of senior officers (above the grade of major/lieutenant commander) and on more standardization among the services.

In the ensuing years, officer requirements and the practice of officer management were influenced by two other developments of the early 1970s. First, the Total Force Policy, which began in 1970, stipulates that reserve forces are the primary augmentation for the active forces and mandates integrated use of all available personnel—active, reserve, civilian—in planning force structures. This policy meant that the standing military did not have to provide forces (and officers) for an immediate expansion because partial or full mobilization or augmentation for operational missions would be done with reserves. Additionally, civilians could be substituted for military officers in many positions, which reduces officer requirements. Second, the All-Volunteer Force, which began in 1973, made true volunteers the source of manpower, including officers,⁸ and had broad implications with respect to career commitment and societal representation. Recognition in the 1960s and 1970s that the officer personnel system needed major improvement to correct problems dealing with allowed numbers of active-duty officers in higher grades and with promotions led to several studies and proposals. However, no major changes in personnel legislation occurred until the DOPMA.

After years of debate, the Congress enacted the DOPMA on December 12, 1980.⁹ The new code further consolidated rules and regulations governing the careers of military officers and also updated constraints on the number of officers in the grades of O-4 to O-6 that each service might have as a percentage of its officer corps. Congress expected that DOPMA would “maintain a high-quality, numerically sufficient officer corps, provide career opportunity that would attract and retain the numbers of high-caliber officers needed, [and] provide reasonably consistent career opportunity among the services.”¹⁰

DOPMA also provided a single promotion system to replace a complex system that allowed promotion via two different systems, and an all-regular career force through augmentation of reserve officers into regular status. However, DOPMA was basically an evolutionary document, extending the existing paradigm of personnel management that included up-or-out and uniformity across the

⁸Officers have always been predominantly volunteers, but during periods of conscription, some may have been draft-induced volunteers.

⁹For a detailed discussion, see Bernard Rostker, Harry Thie, et al., *The Defense Officer Personnel Management Act of 1980: A Retrospective Assessment*, Santa Monica, CA: RAND, R-4246-FMP, 1993.

¹⁰House Report No. 96-1462, p. 6345, 1980.

services established after World War II. DOPMA was premised on stability and designed to balance retention rates with numbers of new accessions, promotions, and the size of the officer corps in order to produce a consistent force profile of military experience and grades.

In retrospect, DOPMA was a better static description of the desired officer structure than a career management tool for officer management in periods of rapid change. In the early part of the 1980s, officer requirements grew and the officer corps in all of the services expanded in response. In 1986, Congress directed a reduction in officers, and after the fall of the Berlin Wall, significant cuts in officer requirements were made. DOPMA did not handily control the growth in the officer corps in the early part of the 1980s nor flexibly manage the reduction in force in the later part of the decade. To accomplish the needed post-Cold War force reductions, Congress provided flexibility in officer management, but, in so doing, major tenets of DOPMA dealing with career tenures and promotion expectations were voided.

The Department of Defense requested a number of policy changes to manage the drawdown in February 1990.¹¹ The Congress obliged beginning with the FY 1991 National Defense Authorization Act by providing time-limited authorities to suspend certain changes in officer personnel management functions and programs. In succeeding years, Congress made additional changes and extended the initial temporary authorities.¹² Collectively these temporary officer management changes amounted to transition policies designed to move officer management from a global conflict era to a smaller, post-Cold War posture.

The Current Study

As the Cold War ended and the Soviet empire collapsed, Congress recognized that once again the United States was entering an era of very different national security challenges. As it had in the late 1940s, it addressed itself to the officer corps. Substantial force reductions had already drawn the officer corps to its lowest level in decades and the current management system had not shown itself to be very flexible in making the transition. Thus, Congress was concerned about whether the current officer management systems would provide the type of

¹¹See Office of the Assistant Secretary of Defense (Force Management and Personnel), *Officer Management Legislation: Why Needed?* Report to the Committees on Armed Services of the United States Senate and House of Representatives, February 1990.

¹²Temporary authorities include removal of tenure protections for career officers, greater use of early retirement procedures, and voluntary financial incentives for separation to include a 15-year retirement.

officer corps needed to address the very different national security challenges of the post-Cold War period. To that end, it directed the Secretary of Defense to choose a federally funded research and development center (FFRDC) to review the officer management of the services. Revisiting many of the themes of traditional concern, Congress expressed interest in ensuring that the broad personnel policies attracted, trained, and retained officers with skills needed for the new security environment and that such officers were not lost before being able to make full professional contributions. Congress specifically asked for an evaluation of the regulation of flows into, within, and out of the officer corps.¹³ Enabling legislation requested review of (1) the timing and opportunities for officer promotions, (2) the expected lengths of officer careers, and (3) other features of the officer personnel management system under DOPMA,¹⁴ Congress granted the Secretary and the FFRDC considerable flexibility to investigate other aspects of officer management.

Purpose of the Study

The Secretary of Defense selected the National Defense Research Institute (NDRI) to conduct the study. Preliminary research revealed a rich array of officer management issues that warranted attention within the framework specified by Congress, far more than the study group could consider, or consider in depth, in the time available. Thus, the group restricted its focus to active-duty commissioned officers of the four services between the ranks of O-1 and O-6. Nor would the study directly address the important issues of compensation and retirement. Compensation and retirement are vital to the overall development of any career management system. The DoD is sponsoring separate research on these issues,¹⁵ and integration must occur in the final design of a career management system.

The study has a number of specific purposes. Most broadly, the study reviews the officer personnel management systems of the four services with an eye to determining their capability to deal with the national security issues of the post-Cold War world. As part of this review, it identifies how a number of factors including the post-Cold War drawdown and changing technology have affected future requirements for officers. Based on a comprehensive general personnel

¹³Senate Report 102-352, pp. 199-200.

¹⁴Section 502 of the National Defense Authorization Act for Fiscal Year 1993 (P.L. 102-484), approved October 23, 1992.

¹⁵For example, see Beth J. Asch and John T. Warner, "Should the Military Retirement System Be Maintained in Its Present Form?" paper presented at the Military of Volunteers Conference, Annapolis, MD, September 15-17, 1993.

model, the study specifies and evaluates a number of alternative system designs, whose features include

- specific methods to regulate flows into, within, and out of the officer corps
- rules that provide for less turnover and greater stability
- stable career advancement patterns that encourage longer careers
- longer careers as the rule rather than the exception; up-or-out features of DOPMA adjusted accordingly
- greater use of lateral entry.

The study assesses the adequacy of those alternatives to meet the requirements for officers in the late 1990s and beyond. In that assessment, it addresses the specific concerns raised by Congress as to the effect of change on expected length of officer careers and on timing and opportunities for promotion. In this study, we do not recommend a single best approach to officer management, but we do provide an analysis of and conclusions about the many issues raised by Congress and the DoD. The overall research goal is to provide information that will assist policymakers in choosing from among alternative career management systems for officers.

Research Approach

Our approach to accomplishing this study involves a number of sequential steps. First, we define the overarching purpose of any officer career management system and the specific objectives that have to be accomplished to meet that purpose. We also identify a number of other important considerations that affect officer management. Because meeting the requirements for officers stands central to any career management system (a concept echoed in the congressional direction), we then develop a range of possible future officer requirements. We make no attempt to identify a precise requirement, but we identify a broad enough range to ensure the robustness of our analysis.

We then construct a general model of a career management system and analyze the effect of its various components on officer management. This model serves as the basis for the subsequent development of alternative career management systems. To develop the general model, we review the officer personnel management of the four military departments, several foreign militaries, comparable civilian organizations, and the career management practices of the private sector. This review ensures the practical applicability of the model, identifies missing components, and suggests criteria for evaluation.

We design alternative career management systems by varying the key personnel functions of accession, development, promotion, and transition. Finally, we evaluate these career management alternatives according to criteria derived during our review and identify those aspects of officer career management that require special consideration in developing or modifying career management systems.

Purpose and Objectives of Officer Career Management

Central to our analysis and subsequent evaluation is determining the purpose of any officer management system. In the broadest sense, the primary purpose of officer management should be to provide officers able to discharge the national military strategy. That strategy has changed from a 45-year focus on "containment of the Soviet Union and its communist ideology" to "future threats to US interests . . . inherent in uncertainty and instability of a rapidly changing world."¹⁶ Future officers will need the skills, knowledge, attitudes, and experiences to meet this challenge.

But purpose has other important dimensions. An officer management system must meet the needs of those who use officers (its "customers" in a sense). For the U.S. military, users represent a broad spectrum, including the unified commanders (CINCs), the military services, the joint and defense staff, and the various other defense and nondefense organizations that rely on career military officers for some of their staffing. The needs of these diverse organizations—described by grade, skill, and experience—can vary widely. Military officers are often used in organizations and settings beyond the traditional operational—or war-fighting—force. As a result, officers with abilities different from those needed in operational forces will also be needed.¹⁷ The customers of the career management system are no longer solely single service operational forces such as battalions, ships, and squadrons. Increasingly, the customers are in complex organizations far removed from the traditional tactical units or planning headquarters. These organizations mirror the complexity and diversity of the evolving national security environment. Military officers must be provided to meet these diverse needs.

¹⁶General Colin Powell, Chairman, Joint Chiefs of Staff, *National Military Strategy*, 1992.

¹⁷Irving Casey makes the point that militaries and accession institutions traditionally inculcate heroic values that serve well in operational units at lower positions but not as well in large, complex organizational bureaucracies in which managerial values are more needed. Irving Casey, *Social Origins and Career Patterns of US Air Force Generals and Colonels*, The American University, 1967, pp. 8-14.

Objectives define what a career management system must do to achieve its purpose. The following objectives for a future officer career management system seemed especially key in meeting the overall purpose:

- Meet requirements for officers.
- Attract and develop officers.
- Foster careers.
- Provide flexibility.

These objectives blend traditional views about officer career management¹⁸ with current thinking about managing human resources. The first objective is very traditional: Meet officer requirements. The second objective is to have the best officer corps in terms of ability and experience from the perspective of its users. The third objective is to provide officers career satisfaction and opportunity in exchange for career commitment. The fourth objective recognizes that the management systems should have the ability to adapt to changes in the size and composition of officer requirements.

The four objectives support an officer management system's ability to meet its purpose. The objectives also allow an impartial evaluation of alternative officer management systems. Each of these four objectives should be satisfied for an officer career management system to achieve its purpose. But other indicators deserve consideration when designing career management alternatives. An officer management system that accomplished its objectives at enormous cost or through discriminatory entry practices would not be desirable. These considerations are important additional dimensions of the overall evaluation because they allow us to differentiate among alternatives that achieve the overall purpose and objectives. Thus, potential consequences of each alternative from yet another perspective are identified, and decisionmakers can form their own assessment of whether these outcomes are desirable or not. Those we have identified as most important for this analysis are

¹⁸In 1976, Senator Nunn offered the following as criteria for judging DOPMA. "An acceptable officer management system should attract qualified, dedicated officers to military careers. It should also, through its promotion policies, provide enough, and only enough, officers to meet mission-based requirements in each of the officer grades. On the other hand, if unnecessarily high rates of active duty and retirement compensation, an over-high grade structure, and too many fringe benefits are offered to attract qualified officers, military manpower costs are driven upward without commensurate increases in defense capability." *Congressional Record*, August 10, 1976, p. 26643.

- relative cost
- uniformity among military services and skill groups
- public confidence in the military as an institution
- number of officers entering, in, and leaving careers.

The first consideration, cost, is obvious. Although we do not estimate overall cost, we do identify relative expected differences in cost among the alternatives in response to different future requirements options. The second consideration—uniformity—reflects a long-term congressional interest in ensuring that the best management principles are applied across all of the services and skill groups. The third addresses the relationship between the nation and its military, especially its officers. It addresses the degree to which an alternative system affects reputation for competence, provides diversity in composition, and is compatible with normal societal expectations about careers. The amount of movement in, through, and out of the career management system is important because of its effect on accession institutions and organizations, on the reserve components, on opportunities to succeed in a career, and on turbulence and turnover. As a result, we measure the numbers of officers entering, moving through, and leaving a career system. A subsequent section provides additional detail about how we use the purpose, objectives, and other considerations in the evaluation process.

How This Document Is Organized

Sections 2 and 3 determine a range of future officer requirements, outlining in that process the key effects of the post-Cold War drawdown. Section 4 constructs a model of officer career management, and Section 5 reviews the personnel management of the four military departments, those of several foreign militaries and comparable civilian organizations, and some of the career practices of the private sector. Section 6 designs several alternative career management systems, and Section 7 describes how we apply the purpose, criteria, and other considerations of an officer career management system in the evaluation process. Section 8 evaluates those alternatives. The last section highlights the key issues of officer career management that require consideration in any revision or redesign of a system.

2. Officer Requirements

This section evaluates the effects of the post–Cold War officer strength reduction and other environmental changes on future officer requirements. It also highlights the major results of our research into the military services' manpower requirements generation processes and analysis of their current and projected officer requirements. It forms the basis for our determining potential future officer requirement options, which are in Section 3, and subsequent assessments of alternative officer career management systems.

Introduction

Congress has repeatedly expressed concern about the validity of the officer requirements contained in the DoD's budget requests. This concern has been manifested in a variety of forms including report language, mandated studies, and statutory provisions governing the field grade content of the officer force at various end strengths. In view of this long-standing concern, this section begins by identifying the broad policies governing the officer requirements determination process and the five key factors that affect the size of the officer corps and the skills, levels of responsibility, and experience of the officers needed in the force. Three of these factors that could have the greatest potential effect on future officer requirements are then discussed. Having identified the overarching policy framework and major factors affecting the officer requirements determination process, we highlight the methodologies in use for determining which manpower positions require officers. Next, we describe the current military officer requirements for FY 1994 using common DoD skill categories and grades. The section concludes with a brief discussion of the officer career management system considerations that require added officer manpower that, when added to the officer requirements, determines total officer end strengths.

The Basis for Determining Military Officer Requirements

Military officer requirements—a subset of overall defense manpower requirements—are developed using broad policy guidance issued by DoD.¹

¹The term "requirement" or "requirement for officers" as used in this study refers to the number of commissioned officers (grades O-1 through O-6) validated by the services in units and

Current policy directs that military manpower requirements shall be constrained to the minimum number necessary to meet vital national defense objectives, and that they shall be programmed to meet only essential requirements within the strengths established by the Secretary of Defense. In support of this objective, the guidance provides that a position requirement shall be designated as a military position only under the following conditions:

- The position requires a military incumbent for reasons of law, training, security, discipline, rotation, or combat readiness.
- The position is not appropriate for a civilian incumbent because it requires a general military background for successful task completion or it involves unusual duty hours that are not compatible with civilian employment.

Defense policy also directs the use of civilians in most other cases. There is also guidance on the use of contract personnel to perform the duties and functions of selected civilian manpower positions.²

Each of the military departments and services has developed a manpower requirements system to implement the DoD policy guidelines. These requirements systems provide quantitative (numbers of civilian, officer, warrant officer, and enlisted manpower positions) and qualitative (organization, skill, and grade for each military manpower position) definition of the total military manpower requirements of each department and service, including those for the reserve components.³ For this study we shall deal directly with only the officer active requirements (grades O-1 to O-6) that are generated by these systems. Subsequent discussion highlights the major features of these systems.

It is important to note here that the congressionally imposed grade limits in the Officer Grade Limitation Act (OGLA) and DOPMA, which are directed at the level-of-service total officer inventory, indirectly affect the grade aspect of officer requirements.⁴ These limitations have caused the services to periodically review the grade structures of officer requirements to ensure that there is a reasonable

organizations of the force structure that are planned to be filled with officer personnel. This number is fiscally constrained and reflected in the annual DoD *Manpower Requirements Report and Future Years Defense Plan* as "programmed manning." Our use of the term officer requirement differs from the larger "programmed manpower structure," which reflects the unconstrained number of billets describing the total officer manpower needs of the military services. We shall discuss later in this section the need for additional officers who are not planned to fill billets in the programmed manpower structure—individuals. Adapted from Department of Defense, *Manpower Requirements Report*, FY 1994, June 1993, pp. B-1 to B-3.

²Department of Defense, DoD Directive 1100.4, *Guidance for Manpower Programs*.

³Department of Defense, *Military Manpower Requirements Study for Congress*, 1986.

⁴RAND discussions with personnel and operations staff officers of the military services, May–September 1993.

opportunity to fill the required positions with officers of the proper grade. The result is that service officer requirements now reflect a grade structure that is largely consistent with the grade structure authorized by DOPMA for the respective service officer inventory.

Key Determinants of Military and Officer Requirements

The end of the Cold War had a major effect on the five primary determinants of officer requirements. Probably the most important change occurred in the national military strategy, because changes there directly affect most of the other determinants. Following the collapse of communism, the national military strategy shifted from containing Soviet aggression and maintaining a capability to fight a global war to one of deterring regional aggression and retaining the capability to fight two nearly simultaneous major regional contingencies (MRCs). This shift has led to sizable reductions in the overall forces, most particularly strategic nuclear units. But other active and reserve component units have been reduced as well, and the decline in active units makes the military more dependent on the reserves for a wide variety of capabilities. The increased dependence can have important implications for officer career management. A different strategic focus will require different missions, which may require different equipment and correspondingly different officer skills. Reduced funds and a desire to enhance capabilities through technology will force important choices about organizations and doctrine. These changes will in turn have a major effect on the numbers of officers required and the types of skills they will need. The sections that follow address the effects of these changes in greater detail.

The size of the officer corps and the skills, levels of responsibility, and experience of officers desired in the force are a function of many specific determinants. Our research, however, indicates that the following five major determinants are particularly significant because they broadly shape the outlines and content of defense manpower requirements in general and the numbers of officers—by service, grade, and skill—that are required in the force.

- National military strategy
- Organizational design and structures
- Doctrine and operational concepts
- Force size and active-reserve component force mix
- Technology.

These determinants, discussed in subsequent paragraphs, are clearly interdependent in their effect on officer requirements. For the most part, they can be viewed as external forces that the military departments and services attempt to influence but cannot unilaterally control. Coupled with current military department and service thinking about such considerations as officer responsibilities and career patterns, these determinants have a decided effect on the numbers, skills, and grades of officer requirements in the armed forces.

National Military Strategy

The national military strategy provides the overarching rationale for the military capabilities and forces contained in the DoD's budget requests and establishes the broad strategic direction for the nation's armed forces. Based on the president's national security strategy, the projected international security environment, and domestic fiscal constraints, it is a singularly important document that identifies the fiscally constrained major capabilities and forces required to accomplish the national objectives with an acceptable level of risk in both the near term (budget year) and longer term (the next five years beyond the budget year).

The required capabilities and forces can loosely be categorized as direct and derived demands—the numbers and types of officers by service, grade, and skill required in the force are influenced by both types of demand. The direct demands include the types and numbers of major combat forces required for peacetime forward presence operations and the execution of contingency or wartime plans. They include Army divisions and corps; Navy carriers, surface combatants, nuclear submarines, and air wings; Air Force squadrons and wings; and Marine Expeditionary Brigades (MEBs) and Marine Expeditionary Forces (MEFs). Thus, the direct demands in effect are typically manifested in requirements for officers with war-fighting or combat-oriented skills and experience. The derived demands, which primarily are a function of the type and number of major combat force elements, include requirements for supporting forces, infrastructure, and overhead in the military departments and defense agencies. They typically are manifested in requirements for officers in what can be broadly classified as supporting skills (e.g., logistics, health services-related, and administration).

The thrust and focus of the national military strategy has had a decided effect on the numbers and types of units in the U.S. force structure and hence the officer requirements identified by each of the services. For example, U.S. national security planning and military strategy during the Cold War focused on containing Soviet aggression and defeating numerically superior forces in

Europe, the Far East, and Southwest Asia.⁵ This focus, coupled with Soviet capabilities and the threat of a short-notice attack, resulted in a nuclear triad; the maintenance of a large active and reserve component conventional force structure, particularly in the Army; a program to build a 600 ship navy; and the forward basing and deployment of significant numbers of U.S. military personnel in Europe and Korea. Each of the foregoing carried with it a demand for particular numbers of officers by service, grade, and skill. With the fall of the Berlin Wall, the dissolution of the Warsaw Pact and Soviet Union, and the resultant end of the Cold War, the threat that had provided the primary focus and foundation for defense planning for over 40 years abruptly dissipated.

In stark contrast to the Cold War strategy, the primary focus of the current strategy is on deterring potential regional threats and challenges to U.S. interests and maintaining the capability to fight and win two nearly simultaneous MRCs (e.g., a Korean conflict and a Southwest Asian conflict). The current strategy also envisions that U.S. forces will play an increasingly important role in international peacekeeping, peace enforcement, and humanitarian relief operations.

The new strategy requires somewhat different forces than were needed for global conflict. It requires well-trained, technologically superior forces that can be tailored into joint task forces and rapidly deployed on short notice to restore stability or decisively defeat threats to U.S. interests. In support of this, the new strategy calls for enhancements to supporting capabilities such as airlift; sealift; advanced munitions; battlefield surveillance; and command, control, and communications to halt a short-warning regional attack.⁶ It also places increased importance on the capabilities and potential contributions that can be made by the reserve components in all types of military operations.⁷

The change in focus from a global to a regionally oriented national military strategy has led to reductions in major combat forces and their supporting forces and infrastructure. These reductions, which have already begun, will change the numbers of officers by service, grade, and skill required in the force.

Organizational Design and Structures

The DoD consists of a myriad of hierarchically structured, pyramidal-shaped organizations. Each organization is designed to accomplish a particular mission

⁵Secretary of Defense Les Aspin, *The Bottom-Up Review: Forces for a New Era*, September 1, 1993, p. 5.

⁶*Ibid.*, pp. 9-10.

⁷*Ibid.*, p. 12.

or missions and requires specific numbers of people of certain grades and skills. The numbers, grades, and skills of the officers in each organizational structure are influenced by a variety of factors. Two, however, are particularly important and relevant to the focus of this study. These are the span of control and the guidelines governing the relationship between officer grade and level of responsibility. The former—typically stated as a range rather than a point estimate—establishes the number of subordinate units or people a person can effectively lead or manage. This range varies considerably and depends upon such factors as the mission(s) to be accomplished, the operational environment, the number of different functions included, the level of leadership or management oversight responsibility required, and the state of technology. Grade structure levels of responsibility guidelines, on the other hand, basically relate unit and position responsibilities to specific officer grades. For instance, battalion command in the Army and Marine Corps, squadron command in the Air Force, and command of certain Navy ships are typically designated as O-5 (lieutenant colonel or commander) positions.

Other influences affect organizational designs and structures and hence the demand for officers. The capabilities and tactics of potential opponents can shape organizational design. During the early 1980s, for example, DoD assessments of Soviet and U.S. capabilities indicated a significant wartime shortfall in U.S. medical capabilities. Accordingly, officer requirements for nurses, doctors, and other medical personnel were increased in the Army, Navy, and Air Force.⁸ Also, the Army made several changes to its division organizational designs and structures during the mid-1980s. These changes, reflected in the "Division 86" organizational designs, primarily were attributable to perceived shortcomings against the projected Soviet threat.

Equipment can have an influence as well. In addition to a response to the Soviet threat, the Division 86 structure reflected the Army's desire to exploit the improved capabilities of the new equipment that was being fielded in its divisions. Changes inspired by the new equipment included upgrading attack helicopter companies to attack helicopter battalions (more senior officer leadership and organizational planning capabilities) to enhance anti-armor capability of the equipment; increasing the staffing of several key supporting skills (notably intelligence and logistics) to offset known deficiencies; reorganizing divisional support commands to meet the increased logistical

⁸Department of Defense, *Defense Officer Requirements Study*, March 1988, p. 34. Referring to the officer requirements growth that occurred from FY 1980 to FY 1986, the study found that 11 percent of Army officer growth, 22 percent of the Navy's and 18 percent of the Air Force's were in medical-related skills.

demands associated with prosecuting the Army's new AirLand Battle doctrine; and increasing the number of commissioned officers in battalion-level infantry, armor, and artillery units.⁹ Moreover, the Navy's efforts to incorporate technologically improved, labor-saving propulsion and combat systems in new ships resulted in smaller ship complements and different enlisted-to-officer ratios. For instance, the Perry Class (FFG-7) frigate, in comparison to the older Knox Class (FF-1052) frigate, required a smaller total complement with a lower enlisted-to-officer ratio. This decline was largely attributable to enlisted requirements declining by a third more than officer requirements (the ratio on the Perry Class was 13 enlisted to 1 officer, down from about 18 to 1 on the Knox Class).¹⁰

New missions can also influence organizations. Increased U.S. military involvement in space resulted in a demand for officers with highly specialized skills, particularly in the Air Force. For example, the military use of space missions required highly specialized officer education and experience to perform the primary planning and development functions associated with space doctrine and systems development.¹¹

As the Cold War drew to a close and the focus of the national security strategy shifted from the Soviet Union to a regional orientation, each of the services began to reevaluate its potential role in the emerging new national military strategy. Some of these efforts produced new organizational designs and structures like the Air Force composite wing and the Air Combat Command. The former is a new type of organization that includes several different types of aircraft (e.g., F-15s, F-16s, C-130s, bombers, and tankers) in contrast to the traditional single-aircraft squadron and wing structure—it therefore has created a different set of demands for officers by grade and skill at the wing level within the Air Force. For example, the wing commander is now a brigadier general, one grade higher than in the previous wing organization. The latter is a relatively new major command within the Air Force that combined elements of the Tactical Air Command, Strategic Air Command, and Military Airlift Command; in addition to streamlining and strengthening command and control lines within the Air Force, the new command has created a different set of demands (grades and skills) for officers.

The US Army ought to be looking at what kind of division will be dominating a conflict 15 years from now. The Army could consider

⁹Ibid., p. 27.

¹⁰Ibid., p. 34.

¹¹Ibid., p. 35.

a very different sort of division to take advantage of the US capability to engage enemy forces at extended ranges. Such divisions could be based on a combination of attack helicopters, extended range artillery, special operations forces and unmanned aerial vehicles. If we can create that kind of capability, the armor component, which has been the main element of many Army divisions, can act in a more traditional cavalry screening role, as opposed to the main decisive role.¹²

Force Size and Active-Reserve Component Force Mix

The requirement or demand for officers is closely linked to the size and mix of the active and reserve component forces. The Total Force Policy, coupled with fiscal constraints and the national military strategy, has a major influence on the ultimate size and mix of forces among the active and reserve components. First articulated in conceptual terms in 1970, this policy seeks to maintain as small an active peacetime force as national security policy, military strategy, and overseas commitments permit. Thus, it requires the use of reserve component units and civilian employees and contractors whenever possible. In determining the most appropriate force mix, focus falls on the need for forces for (1) peacetime forward presence, (2) rapid crisis-response capabilities, (3) a hedge against the need to reconstitute forces, and (4) strategic deterrence.¹³ The mix of forces by component has a direct effect on the requirements for officers.

The shift from a focus on the global threat posed by the Soviet Union to a focus on potential regional threats and challenges is resulting in major reductions in both active and reserve component forces and end strengths.¹⁴ Strategic nuclear forces and capabilities are being scaled back as a result of arms control initiatives and the diminished likelihood of a global nuclear war. And conventional force levels are being reduced and sized to meet the projected demands of two nearly simultaneous MRCs and smaller forward presence requirements. Further, in support of the strategy and Total Force Policy, current plans seek to maximize the potential contribution of reserve component forces in the future. These plans,

¹²"One on One with Andrew Krepinevich," Director, Defense Budget Project, *Defense News*, October 25-31, 1993, p. 30.

¹³Department of Defense, *Manpower Requirements Report FY 1994*, op. cit., p. I-3.

¹⁴For additional information on the development of the base force concept and force levels and the supporting rationale for the base force, see National Defense Research Institute, *Assessing the Structure and Mix of Future Active and Reserve Forces: Final Report to the Secretary of Defense*, 1992, Santa Monica, CA: RAND, MR-140-1-OSD, pp. 63-82, and the Department of Defense, *National Military Strategy of the United States*, January 1992, pp. 17-27.

which could create additional demands for active-duty officers to serve with, or in support of, reserve units,¹⁵ include

- Providing the Naval Reserve with more modern ships including an aircraft carrier, modern frigates, and new mine-countermeasure ships.¹⁶
- Expanding the roles of the Air Guard and reserve component to include more aerial refueling and airlift, a larger role in the air defense of the continental United States, and flying B-52 and B-1 bombers.¹⁷
- Improving the readiness and flexibility of Army National Guard combat units and other reserve component forces so that they can be more readily available for MRCs and other tasks, including peacekeeping, peace enforcement, and humanitarian relief operations.¹⁸ Specific supporting programs include
 - Maintaining 37 brigades in the Army National Guard, 15 of which will be "enhanced readiness brigades" that will be expected to be ready for deployment in 90 days (considerably sooner than the current objectives for Army National Guard divisions)
 - Providing these brigades with more training with active-duty forces.¹⁹

Current force structure plans—highlighted in Table 2.1—provide for a significantly different force in terms of both force size and mix compared with the FY 1990 force levels, which approximate the ending of the Cold War. The changes in major force elements highlighted have resulted in significant reductions in supporting units, infrastructure, and overhead that are not reflected in the table but directly affect the numbers, grades, and skills of officers required.

The FY 1999 planned force structure with end strength of approximately 1.4 million men and women will require significantly fewer officers than the Cold War force. That force peaked at 2.2 million in FY 1984, with officer requirements of about 310,000. Today's structure has about 1.6 million personnel and officer requirements of about 203,000. Moreover, as this reduction progresses, the relative importance of some mission areas and capabilities, and hence the demands for officers with certain skills and grade levels, could shift significantly.

¹⁵Ibid. The findings of the RAND study suggest that achieving the objective of 90 days will, among other things, require additional active-duty officer advisors.

¹⁶Secretary of Defense Les Aspin, Memorandum to National Guard and Reserve Supporters, "The National Guard and Reserve in the Post-Cold War World," October 18, 1993.

¹⁷Ibid.

¹⁸Aspin, *Bottom-Up Review*, op. cit., p. 12.

¹⁹"Aspin Has Good News on Force Size for Army Guard," *Army Times*, October 25, 1993, p. 20.

Table 2.1
Major U.S. Force Elements, FY 1990, FY 1993, and FY 1999

		FY 1990	FY 1993	FY 1999
Army				
Divisions ^a	AC/RC	18/10	14/8	10/5+
End strength (000s)	AC	750.6	588.3	(b)
	RC	736.1	702.3	(b)
Navy				
Carriers		15+1	13+1	11+1
Battle force ships		531 ^c	434 ^c	(b)
Air wings:	AC/RC	13/2	11/2	10/1
End strength (000s)	AC	582.9	526.4	(b)
	RC	149.4	133.7	(b)
Air Force				
Fighter wings	AC/RC	24/12	16/12	13/7
End strength (000s)	AC	539.3	449.9	(b)
	RC	197.6	201.6	(b)
Marine Corps				
Divisions	AC/RC	3/1	3/1	3/1
End strength (000s)	AC	196.7	181.9	174.0
	RC	44.5	42.3	42.0
Total				
End strength (000s)	AC	2,069.5	1,746.5	1,400.0
	RC	1,127.6 ^d	1,079.9	905.7

SOURCE: Aspin, *Bottom Up Review*, pp. 28-31 and Department of Defense, *Annual Report to the President and the Congress*, January 1993.

^aFY 1990 and 1993 active component (AC) divisions include reserve component (RC) roundout units.

^bNumbers are not available at this time.

^cDoes not include carriers, which are shown separately.

^dDoes not include 25,600 members of the Selected Reserve who were activated for Operation Desert Shield, displayed in the FY 1990 active strength total and paid for by the Active Military Personnel Appropriation.

Plans for both major force elements and end strength could be revised upward or downward because of unforeseen changes in the still evolving and dynamic post-Cold War global security environment.

Doctrine and Operational Concepts

U.S. doctrine and operational concepts are influenced by the national military strategy, employment considerations, and the opportunities provided by technological advances. During the Cold War, U.S. doctrine and operational concepts emphasized large-scale combined U.S. and allied operations. NATO-oriented operational planning, for example, involved significant numbers of U.S. and allied force "building blocks" organized along traditional land, sea, and air warfare lines (e.g., CENTAG, NAVSOUTH, CENTAF, etc.). This organization

resulted in a demand for skilled land, sea, and air warfare officers as opposed to skilled "joint" or multiservice-oriented officers. Simply put, because of the nature of the decisionmaking and operational structure, an Air Force wing or Army division commander (one and two star ranks, respectively) needed to know more about the organizational structure and operational concepts of their respective allied counterparts than they did about each other's unique service structures and concepts. Thus, the manner in which the United States planned to conduct operations directly affected the types of forces needed and indirectly affected the numbers, skills, and grades of officers required.

In sharp contrast to the Cold War experience, today's regionally oriented planning and thinking primarily focus on developing tailored multiservice or joint force packages. Specifically designed to meet projected mission needs, these joint force packages can range in size from several hundreds or thousands of personnel (Operations Just Cause, Provide Hope and Provide Comfort) to several hundreds of thousands of personnel (Operation Desert Shield /Desert Storm). Thus, when contrasted to the Cold War experience, the current military strategy and operational planning actually require that flag and field grade officers have a much firmer understanding of the organizational concepts, structures, and capabilities of not only their own service, but also the other services.

Thus, considerable emphasis has been placed on the development of joint doctrine and operational concepts. The thrust of these efforts has been to establish fundamental principles to guide the structuring and employment of joint forces. These efforts have resulted in the writing of more than 75 new joint publications, including *Joint Pub 1*, *Joint Warfare of the U.S. Armed Forces* and the publication of a new professional journal, *The Joint Force Quarterly*.²⁰ They have also spawned new joint employment concepts such as the Naval Expeditionary Force and Joint Adaptive Force Package concepts. The former provides for establishing tailored expeditionary force packages that maximize the flexibility and lethality of the Navy-Marine Corps team in both peacetime presence and littoral warfare operations. The latter concept envisions establishing joint task forces that are deployed to an operational area during a given time frame and supported by designated backup forces in the United States. This initiative, among other things, includes tailoring the mix of aircraft on carriers engaged in overseas presence operations to meet the needs of a particular deployment (e.g., reducing the numbers of fighter-attack aircraft on a carrier to make room for

²⁰Institute for National Strategic Studies, National Defense University, *Joint Forces Quarterly*, Summer 1993.

embarked Marines and additional helicopters) and does not require major adjustments to the major force elements of the services.²¹

The new strategy's emphasis on both joint and combined operations has created a requirement for officers who have a blend of both educational and actual experience in such matters. This requirement—which is above and beyond that typically associated with an officer's career development pattern prior to 1986—is likely to become increasingly more important and difficult to satisfy as the size of the armed forces is reduced and countervailing pressures for increased specialization within the force continue or grow. This increased importance can be attributed in part to the changes that have occurred and are occurring in the area of organizational designs and structures and in part to the fact that defense leaders have stated that the forces for peacekeeping and peace enforcement will need specialized training, doctrine, and equipment.²²

Technology

The Cold War arms race resulted in the development and fielding of a broad array of technologically advanced systems and capabilities as each side sought to gain a deciding qualitative edge over the other. Moreover, U.S. efforts to proliferate these advances throughout the force as rapidly as possible resulted in the fielding of large numbers of similarly equipped or standardized "general purpose" forces that were designed to accomplish a variety of missions. Thus, although requirements for greater specialization gradually emerged in the U.S. armed forces (e.g., the creation of an acquisition corps in each service), the overwhelming demand was for a highly professional body of officer "generalists" who possessed a broad range of skills and experience and could move from command to staff positions with relative ease. Hence, the state of technology is directly related to the requirements for officer skills.

As the Cold War began to wind down, defense leaders began to grapple with two problems. On the one hand, they had to decide how to fully exploit and adapt the broad spectrum of potential technological opportunities to military use. On the other hand, fiscal constraints dictated that fewer systems could be bought and placed increased emphasis on developing joint or multiservice weapons systems and platforms (as opposed to service-unique ones) that can perform multiple missions and on fielding superior command, control, communications,

²¹Paul David Miller, "A New Mission for Atlantic Command," *Joint Forces Quarterly*, Summer 1993, pp. 82-84.

²²Aspin, *Bottom-Up Review*, op. cit.

computers, and intelligence (C⁴I) systems. The ultimate outcome of these countervailing forces cannot be predicted but could play out in a way suggested by the Vice Chairman of the Joint Chiefs of Staff.

Our new regional-crisis strategy frees us from the need to keep large, homogeneously equipped forces. Instead, we can now tolerate more unique units as a way to quickly integrate new technology and keep a warm industrial base, while holding down overall acquisition costs. Instead of insisting on a uniform force structure made up, say, of a single type of air superiority aircraft, we may sequence new acquisitions through the force. While overall this may produce a heterogeneous force, we could draw from it the right mixture of sophistication and mass appropriate to any particular crisis. The result may be more programs like the F-117 rather than the F-16, with our most highly advanced systems deployed in only a few selected units.²³

The Vice Chairman also suggests that technology in the form a vastly more capable C⁴I system may fundamentally change the way forces are commanded and controlled.

Our traditional methods have emphasized the flow of information along vertical paths: information up, orders and instructions down. But increasingly we have architectures in which information flows laterally as well. As a result, knowledge is more pervasive and control functions more decentralized. We have not yet come to grips with what this means organizationally, but we need to soon.²⁴

As the foregoing suggests, the state of fielded technology change could have markedly different effects and could result in two different types of forces and requirements for officers. The first is a high-technology specialist force. The second can be categorized as a high-technology generalist force. The high-technology specialist force would consist of relatively small numbers of *many* different types of advanced special-purpose platforms and weapons systems. This type of force would require numerous relatively small groups of highly specialized officers in all services, some more so than others. The high-technology generalist force would be characterized by advanced capabilities that simplified command and control and enhanced decisionmaking support and relatively large numbers of a *few* different types of advanced multipurpose platforms and weapons systems.

²³David E. Jeremiah, "What's Ahead for the Armed Forces," *Joint Force Quarterly*, Summer 1993, pp. 32-33.

²⁴*Ibid.*, pp. 34-35.

These two different types of force structures could place markedly different demands on the officer management system and cause decisionmakers to reconsider the appropriateness and viability of the generalist model. For example, the costs of developing and fielding technologically advanced platforms and capabilities, coupled with their annual operating and support costs, can be expected to increase demand for officer specialization in both the operational and support areas. From a purely return-on-investment standpoint, as the costs associated with officer specialization increase because of additional educational and training requirements, pressures could build for career patterns that get the maximum return from these specialists (e.g., through the use of repetitive assignments). Further, for cost-effectiveness reasons, increased costs and high technological rates of change could at some point cause senior decisionmakers to reassess the desirability of opening certain fields to civilians or contracting certain functions. Finally, breakthroughs in C⁴I could result in much flatter organizational designs, facilitate lower leader-to-led ratios, and change current field grade-company grade demand patterns.

In brief, although the specifics will change over time, it is clear that the focus is on providing the force of the future with an impressive array of technologically advanced platforms and capabilities. As these platforms and capabilities are fielded, they will tend to create a demand for increased specialization in particular areas and functions. This shift in demand, coupled with cost and return on investment considerations, could require senior decisionmakers to evaluate the relative merits of career patterns markedly different from today's and the civilianizing or contracting of some areas and functions.

The Combined Effect of the Determinants on Officer End Strength and Grade Levels

The combined effect of these major determinants has significantly shifted officer requirements since the so-called Reagan "buildup." As shown in Figure 2.1, officer requirements grew from their FY 1980 level of slightly more than 277,000 and peaked at almost 311,000 in FY 1986. They decreased thereafter and are expected to reach a level of slightly more than 203,000 in FY 1994. From FY 1990 to FY 1994, officer requirements will decrease by approximately 18 percent.

The trend in officer requirements roughly parallels the central thrust of the national military strategy and the changing world situation. It also reflects specific force size and mix decisions that changed the relative mix of officer

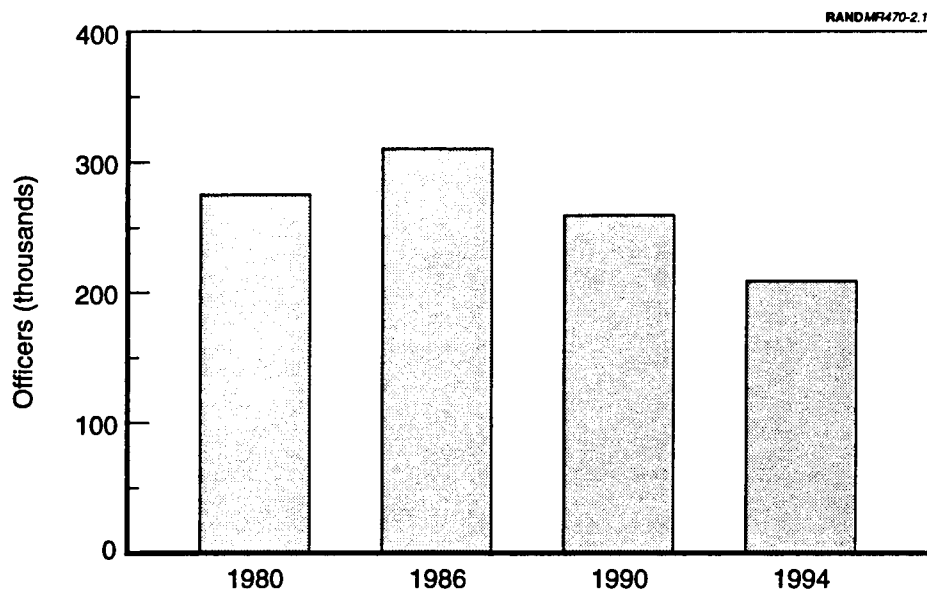


Figure 2.1—U.S. Officer Requirements, FY 1980 to FY 1994

requirements within the overall force. An appreciation of the magnitude of these shifts can be gained by aggregating officer requirements into the 12 Defense Planning and Programming Categories (DPPCs), which are defined in Figure 2.2, and by comparing the changes that have occurred. DPPCs group officers (both warrant and commissioned) performing similar functions into mutually exclusive categories and are particularly useful in identifying trends and shifts in relative demand over time.

Recent trends and shifts in officer requirements by DPPC associated with the FY 1990 to FY 1994 reduction are highlighted in Figure 2.3. The officer requirements in all DPPCs except one—joint activities—decreased from FY 1990 to FY 1994. The largest decreases occurred in the tactical/mobility and strategic categories (the former decreased by about 22,000 requirements; the latter by almost 6,700). Officer requirements in the joint activities category increased by about 6,700. This is primarily attributable to the transfer and consolidation of certain functions previously performed by the military services (e.g., the consolidation of accounting and finance operations in the new Defense Finance and Accounting Service and contract management functions in the Defense Logistics Agency) and the inclusion of U.S. Special Operations Command officer requirements in this DPPC (these requirements formerly were reflected in the accounts of each military department).²⁵

²⁵DoD Manpower Requirements Reports for FY 1991, February 1990, pp. VII-1 to VII-13; FY 1993, February 1992, pp. VII-1 to VII-13; and FY 1994, June 1993, pp. VII-1 to VII-16.

RANDMR470-2.2

Strategic	Nuclear offensive, defensive, and control and surveillance forces
Tactical/mobility	Land forces, tactical air forces, naval forces, and mobility forces (special forces are imbedded in this DPPC)
Communications and intelligence	Centrally managed communications and intelligence-gathering activities
Combat installations	Operation and maintenance of installations of the strategic, tactical, airlift, and sealift commands
Force support training	Force-related training activities, including advanced flight training conducted by combat commands
Medical support	Medical care support in DoD regional medical facilities, including medical centers and labs, and care to qualified people in non-DoD facilities
Joint activities	Billets outside of service control, including the requirements of such organizations as the Joint Staff, Unified Commands, and defense agencies
Central logistics	Centrally managed supply, procurement, maintenance, and logistical support activities
Service management HQ	Service combat and support commands
Research and development	Major centralized R&D and geophysical activities conducted under centralized DoD control
Training and personnel	Formal military training and education conducted under centralized control of each service and personnel support services
Support activities	Base operating support functions for support installations and centralized activities

Figure 2.2—Defense Planning and Programming Categories and Definitions

RANDMR470-2.3

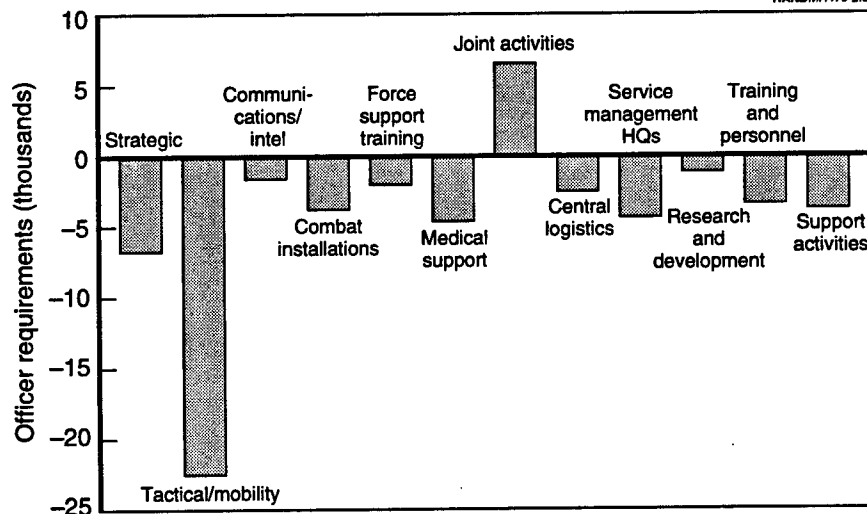


Figure 2.3—Changes in Officer Requirements by Defense Planning and Programming Category, FY 1990–FY 1994

The absolute numbers, though important, tend to mask the significant reductions made in each category. These reductions, highlighted in Figure 2.4, range from a low of -12 percent in the research and development category, to a high of -45 percent in the strategic category. The changes in each category generally reflect the new national military strategy and the deliberate downsizing of U.S. forces to a post-Cold War configuration. They also reflect efforts to streamline operations by closing bases and installations and consolidating functions.

The shift in requirements by DPPC suggests that a fundamental change in the relative demand and overall importance of certain types of officer requirements is under way. These initial changes, which are occurring within the relatively short span of about three to four years, have not yet stabilized. For instance, additional reductions in infrastructure and support activities are a clear objective of current defense leaders and will no doubt be identified as time progresses.²⁶

Finally, although the full effect of the changes already set in motion probably are not yet fully reflected in the grade structure data, preliminary indications are that the distribution of officers by grade within the force has shifted upward from FY 1990 to FY 1994. Specifically, field-grade officer requirements are projected to account for about 44 percent of officer requirements in FY 1994; in FY 1990 they

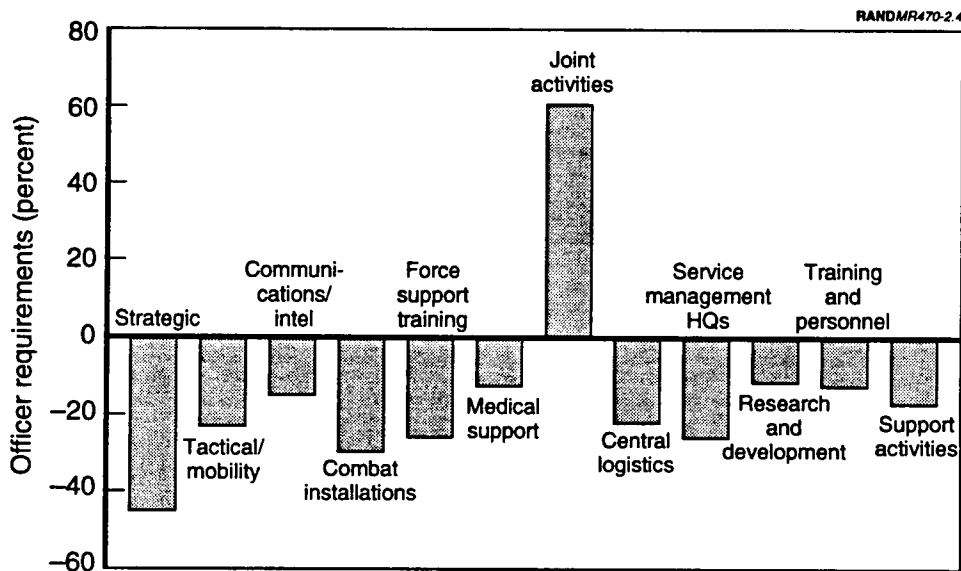


Figure 2.4—Percentage Changes in Officer Requirements by DPPC, FY 1990–FY 1994

²⁶ Aspin, *Bottom-Up Review*, op. cit., pp. 97–98.

accounted for about 41 percent of the requirements. This increase in the relative grade structure of officer requirements can in part be attributed to the DOPMA grade tables, which are designed to provide a higher content of field grade officers at lower total officer strengths, and to recent congressionally approved exceptions that authorize a higher field-grade content than the DOPMA tables. These exceptions, if sustained, could produce a comparatively more expensive force.

How Major Determinants Might Change

Although all five determinants will continue to influence the demand for officers in the future, some will have potentially greater effects than others. The following discussion highlights the projected potential effects of each determinant.

National Military Strategy. The current strategy is designed to deal with the challenges and uncertainties of the still evolving post-Cold War era. In this regard, with the possible exception of North Korea and a resurgent Iraq, the strategy rests on the assessment that few plausible major threats jeopardize U.S. vital interests, either today or in the near future. As a hedge, however, the strategy does call for the capability to respond to dramatically changed world conditions. Thus, although there may be some refinements and changes in emphasis, the basic thrusts of the strategy are unlikely to change dramatically during the remainder of this decade.

Organizational Design and Structures. Regional instabilities and the dynamic nature of the post-Cold War geopolitical environment will no doubt create demands for U.S. military participation in a variety of nontraditional missions and operations (e.g., peacekeeping and peace enforcement). New designs and structures will probably be required for these missions, and the lessons learned from such operations will no doubt result in further refinements. Moreover, it also is quite possible that current organizational designs and structures will be changed to reflect the projected demands of regionally oriented warfare and the effect of technological advances (e.g., reduced crew levels and leader-to-led ratios, and perhaps changes in traditional span-of-control limits as a result of advances in information and data management).

Doctrine and Operational Concepts. Recent changes in U.S. doctrine and operational concepts have tended to be more of a reaction to, rather than a cause of, major change in the other determinants. The "joint adaptive force package" concept, for example, seeks to capitalize on the inherent capabilities of existing service equipment and organizations rather than requiring major changes to them. Thus, although doctrine and operational concepts will no doubt evolve as a result of technological advances and innovations in organizational designs

(e.g., a high-technology, specialist force will require different operational concepts than a high-technology generalist force), these changes will probably continue to be a result of new opportunities rather than the initiator of major change.

Force Size and Active-Reserve Component Force Mix. Domestic fiscal constraints will continue to exist and exert a downward pressure on defense spending levels. In this regard, congressional pressure to eliminate or reduce perceived redundancies among the services (the roles, missions, and functions debate) can be expected to continue or intensify, particularly if the global strategic environment continues to improve. This pressure will also force defense decisionmakers to aggressively pursue organizational streamlining initiatives such as delayering, the consolidation or contracting out of functions, and the elimination of supporting infrastructure and overhead. On the other hand, it is logical to expect that U.S. force levels will be adjusted upward should the global strategic environment worsen significantly.

Technology. Finally, military leaders will undoubtedly seek to exploit the full potential of the new advanced systems and capabilities that will be fielded in the mid- and late 1990s. The spectrum of opportunities for technology-induced change is considerable. It includes a greater specialization of some major force elements and their supporting forces and infrastructure; evolutionary changes to current organizational designs and structures; and potentially some revolutionary changes, as new information and data management technologies and systems become available.

Summary. In conclusion, although all five determinants will continue to affect the demand for officers, the national military strategy and related doctrine and operational concepts are determinants that affect the demand for officers more at the macro-level, often with resultant changes in the other three determinants. Therefore, we shall consider only the other three determinants in detail for developing requirements options because they are more likely to directly affect the demand for officers in *specific skills and grades*. These three determinants are organizational design and structure, force size and active-reserve component force mix, and the state of technology.

Determination of Officer Positions Within Total Military Requirements

The five major determinants tend to establish the broad outlines of the military force and capabilities required to achieve U.S. national security objectives at an

acceptable level of risk. When coupled with governing criteria regarding responsibilities and grades, they establish requirements for specific numbers of officers in certain grades and skills. Our purpose here is not to critique but to report on the service process for determining officer requirements.

Historically, requirements for military officers have been based upon the need for leadership, especially command, in unique military tasks ranging from war-fighting to territorial exploration and development. In modern times, the basis for officer requirements has been expanded to include performance of tasks that are not unique to the military but are recognized as supporting functions necessary to accomplish the overall mission of military organizations. These supporting functions often require some general military knowledge and experience, some measure of leadership, or a relatively high level of responsibility and accountability.

Each of the services has developed and is using a unique process for determining its military manpower requirements. These processes and their supporting methodologies are based upon the five key determinants of military requirements just discussed and the broad policy guidance issued by the DoD. Each requirements generation process includes algorithms that are used to determine, first, essential military positions and, second, those positions that require officer leadership, skills, and experience. These processes also introduce and consider additional factors that affect whether a position must be filled by an officer. The first set of additional factors or criteria seeks to ensure compliance with statutory requirements. For instance, if the position requires command of military personnel, current statutes require that the position must be military and filled by a commissioned officer. The same holds true if the duties include the exercise of military discipline responsibilities required under the Uniform Code of Military Justice (UCMJ, Title 10, USC). The second set of criteria, based on both U.S. statute and DoD policy, has to do with the implementation or establishment of bilateral or multilateral agreements and international treaties such as provisions of the North Atlantic Treaty Organization (NATO). These criteria often require certain positions to be filled by military officers. Lastly, the level of managerial responsibility within the military organization itself may dictate that a military officer is required to ensure successful task completion.

The military services use their respective military manpower requirements generation processes at least biannually to develop the programmed manpower requirements contained in the DoD's "president's budget" submission. They also review their respective criteria for determining which positions require officers and reassess existing officer positions periodically. The Air Force's ongoing officer requirements review is an example.

The methodology being used in the Air Staff review employs three principal evaluation criteria to determine whether an existing officer position should continue to be filled by an officer. The criteria, based upon an Air Staff and Command College Officer Requirements Study, designate an officer to fill a position if it requires

1. Command (positions with "A" prefix), including the exercise of UCMJ.
2. Developing war-fighting policy at the executive level in a noncommand position.
3. An accountable decisionmaker, including those military positions necessary to provide essential military leadership, oversight, and decisionmaking, and to sustain the career development pipeline of experienced officers to perform command and war-fighting policy requirements.²⁷

The basic methodology and algorithm being employed in the Air Force review is schematically depicted in Figure 2.5.

All three criteria play an important role in the methodology. For instance, many junior officer positions clearly do not fit the first two criteria (command and war-fighting executive policy). The third criterion, which includes the need to ensure viable career patterns for sustaining the flow of experienced officers to more senior positions, enables some number of initial entry positions to be retained as valid officer requirements.

Though not shown in the schematic, the methodology being used also employs additional or secondary criteria. These are the *risk* inherent in performing the duties and responsibilities of a position, which is used to define military essentiality, and the *level of accountability* associated with the decisionmaking authority inherent in a position. Both criteria involve making subjective judgments to determine, first, if the position requires a civilian or military incumbent, and second, if the position could be filled by either an officer or an enlisted person. As initially envisioned, positions with high or medium risk and high or medium levels of accountability would be officer positions; low risk positions would be primarily civilian; and low levels of accountability positions would be primarily enlisted. Early results of the review also suggest that the two secondary criteria—risk and accountability—are particularly important in assessing positions requiring a broad range of supporting skills that are not unique to the Air Force or to the military in general. Finally, while somewhat

²⁷USAF, Air Command and Staff College Briefing, "Officer Requirements Study," July 1993.

RANDMR470-2.5

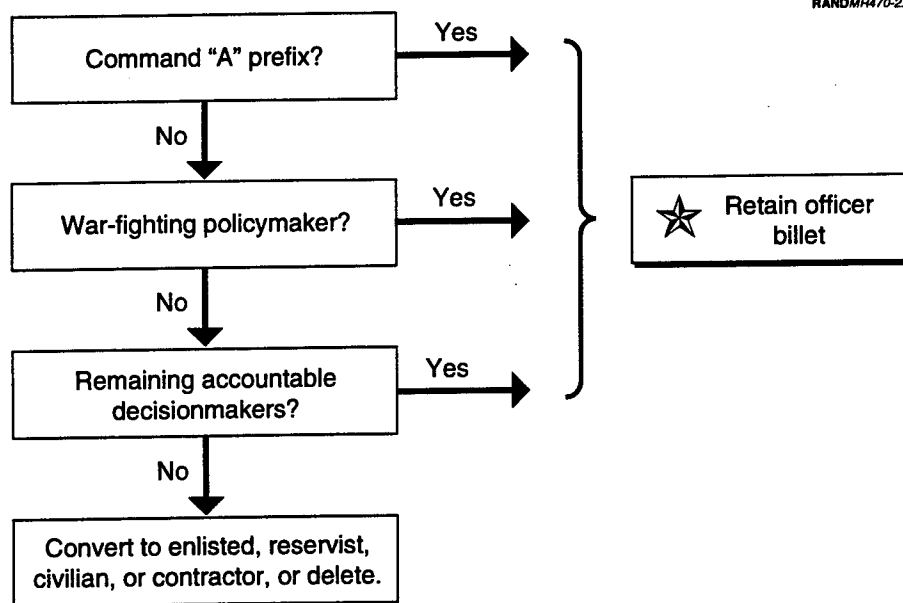


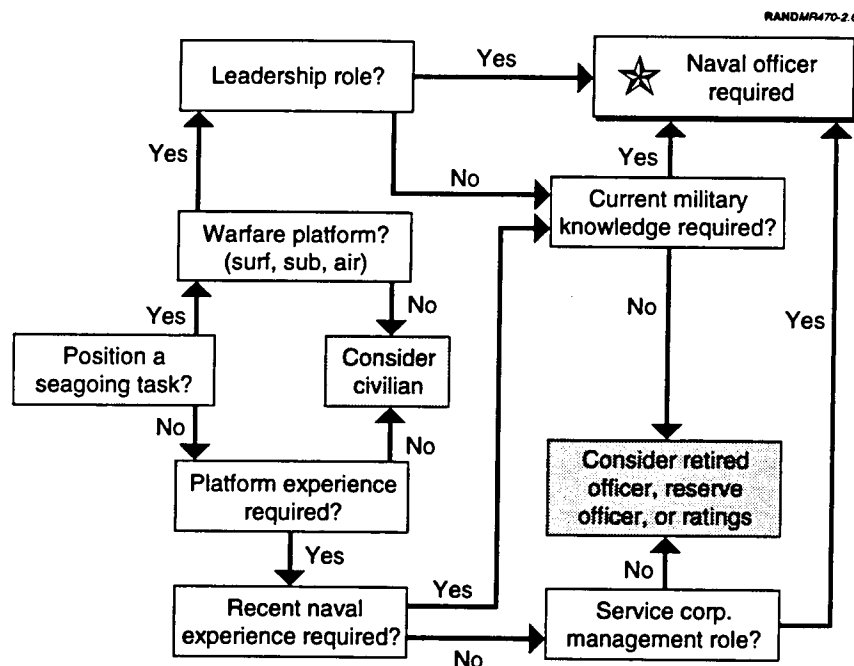
Figure 2.5—Air Force Officer Requirements Algorithm

premature to determine final quantitative results, the Air Staff expects that the review will result in the conversion of several officer positions to enlisted or civilian positions.²⁸

An example of a similar algorithm for determining officer positions drawn from research on foreign military officer management systems illustrates a somewhat different approach. Figure 2.6, for example, depicts the algorithm being used by the British Royal Navy to determine which positions should be naval officers.

The British Royal Navy algorithm has two major sets of decision rules. The first set determines whether the position should be military or civilian. The key issue here is whether a position specifically requires performance of military tasks or needs military experience. That being established, the second set establishes the type and level of responsibility required (e.g., command at sea). Also, note that the current military knowledge required by the position is considered in deciding how to fulfill the military requirement (retired or reserve officers and ratings—enlisted—being possible alternatives). This approach provides a systematic way of determining the type (e.g., officer versus enlisted) and mix (e.g., civilian versus military) of manpower requirements.

²⁸RAND discussions with officers of the USAF Air Staff, AF/DPXO, April–July 1993.



SOURCE: Royal Navy, United Kingdom, *Officer Study Group*, Annex D, p. D-1, August 1993.

NOTE: One item in this chart was modified to reflect U.S. terminology.

Figure 2.6—British Royal Navy Algorithm for Determining Officer Requirements

In brief then, the methodologies in use today within each service rest on a common core of standard service principles, basic criteria from statute, and the broad policy guidelines issued by the DoD. These processes, which were detailed in the congressionally mandated 1988 Officer Requirements Study, have varied little in principle during the intervening years.²⁹ Further, although there are some clear differences in the specific factors and techniques used by the individual services, they appear to comply with DoD guidance and do not seem to warrant more detailed analysis in this officer career management study.

Description of Current Military Officer Requirements

In this subsection we describe the construction of current military officer requirements. We discuss the two major characteristics that are used to define officer billets: skill and grade. Then we provide a discussion of common DoD terms for dealing with the various service skills and illustrate the current officer force in this common skill categorization. Next, we introduce a set of skill

²⁹Department of Defense, *Defense Officer Requirements Study*, op. cit., pp. 15–23.

grouping definitions to simplify the numerous sets of service officer skills and illustrate how the current officer force fits these groupings. Lastly, we discuss how our officer requirements are transformed into total officer manpower requirements by adding the officer manpower needed to support officer career management functions such as training, education, assignment and reassignment moves, and other needs not reflected in documented structure positions.

For this study, we were provided the documented officer requirements of each of the four military services for three points in time: FY 1990, which roughly equates to the end of the Cold War; FY 1994, the congressionally approved position; and FY 1999, the end of the current future years defense program (FYDP) period.³⁰ These sets of officer requirements reflect the officer needs of each service over a period of time that encompasses significant change. We consider them to be reasonably valid representations of the officer requirements of each service and have used them to model potential alternative future requirements for officers. The information describing the military officer positions and requirements provided by each service contains the major data elements shown below.³¹

Skill:

- Military Occupational Specialty (MOS)—Army and U.S. Marine Corps (USMC)
- Air Force Specialty Code (AFSC)—U.S. Air Force (USAF)
- Officer Billet Designator Codes (OBDC) and Naval Officer Billet Classification (NOBC)—Navy

Grade:

- Standard U.S. military grades O-1 through O-6 and flag officers O-7 through O-10. (For this study we will omit flag officer positions.)

Each of the military services uses different skill designators, and reasonable comparisons using these designators are virtually impossible. DoD has, however, developed standard DoD Occupational Codes (DoDOCs) to aid in

³⁰See Appendix A for a discussion of how these military officer requirements for the given periods from each of the respective military services was used to model the future officer requirements options.

³¹Department of the Army, Army Regulation 611-1, *Military Occupational Classification and Structure Development and Implementation*, May 1992; Department of the Navy, *Manual of Navy Officer Manpower and Personnel Classification*, NAVPERS 15839H, May 1992; Department of the Navy, Headquarters United States Marine Corps, Marine Corps Order P1200.7L, *Military Occupational Specialties Manual (MOS Manual)*, April 1992; and Department of the Air Force, Headquarters Air Force Military Personnel Center, *Officer and Enlisted Restructured Classification Systems*, August 1993.

comparing the officer skill requirements throughout the defense establishment. The DoDOC categorization classifies officer positions into the nine major occupational areas shown in Table 2.2.³² Each of these categories can be further broken down into subcategories that can be cross-referenced to the specific skill identifiers in use in each service.

Table 2.2
DoD Occupational Codes

Code	Occupational Area Title
1	General officers and executives
2	Tactical operations officers
3	Intelligence officers
4	Engineering and maintenance officers
5	Scientists and professionals
6	Health care officers
7	Administrators
8	Supply, procurement and allied officers
9	Nonoccupational (also includes patients, students, trainees)

Composite Skill Content by DoDOC for FY 1994 Programmed Officer Manpower Requirements

Using the respective military service conversion guidance, we aggregated the individual officer skills and grades of each service's officer positions into the standard DoDOCs. This process facilitated defense-level comparisons and analysis and enabled us to estimate alternative future officer requirements. The resulting aggregation of officer requirements by DoDOC are summarized in Table 2.3.³³

An analysis of the DoDOCs and grades reveals that about 36 percent of all officer requirements are in the tactical operations and intelligence categories (DoDOCs 2 and 3, respectively). These two occupational areas are generally seen as requiring unique skills related to war-fighting. They include requirements for officer pilots and air crews for fighter and bomber aircraft, naval warship complements, ground combat tasks, and a variety of intelligence gathering and analysis tasks. These skills, along with some other skills in occupational areas 4, 5, 7, and 8, largely depend upon the career management processes of the individual services. They are typically referred to as the "line" portion of the

³²Ibid., pp. xv-xvii.

³³Department of Defense, Office of the Assistant Secretary of Defense, Force Management and Personnel, DoD 1312.1-M, *Occupational Conversion Manual*, 1991.

Table 2.3
Baseline Force (Grade and DoDOC) Department of Defense Military Officer
Requirements, FY 1994^a

DODOC Area	Grade						Totals
	O-1 ^b	O-2	O-3	O-4	O-5	O-6	
1	0	45	305	600	960	1,560	3,470
2	695	14,130	26,135	12,655	8,570	2,380	64,565
3	180	870	3,855	2,285	1,280	485	8,955
4	1,530	5,010	13,285	6,530	3,290	880	30,525
5	145	730	6,985	4,645	3,230	1,345	17,080
6	450	4,380	15,180	9,395	4,660	2,855	36,920
7	370	2,020	7,570	5,160	3,495	1,480	20,100
8	260	1,760	6,190	4,135	3,185	1,175	16,705
9	0	440	1,825	1,335	1,045	410	5,055
Totals	3,630	29,385	81,335	46,740	29,715	12,570	203,375

SOURCE: Extracts from "U.S. Military Manpower Requirements Projection Data 1990-1999," provided to the Logistics Management Institute (LMI) from the four military services under the auspices of the Assistant Secretary of Defense for Personnel and Readiness, September-October 1993.

^aUsing Naval Officer Billet Classification-Duty DoDOC (includes technical officer requirements).

^bOnly the Navy reports separately O-1 and O-2 officer requirements.

military services. Using current definitions, line positions would account for 70 percent of the total military officer requirements projected for the end of FY 1994.

Also noteworthy is the fact that the so-called "professions," which focus on medical, dental, legal, and chaplain skills within the military, account for a significant percentage of the total military officer requirements. These skills make up a large portion of officer positions in occupational area 5 and all of the positions in occupational area 6, amounting to about 22 percent of the total officer requirements. The USMC is somewhat unique in that, with the exception of legal officers, it relies on the U.S. Navy to provide officer positions for skills in the professions. As a result, the USMC has only slightly more than 2 percent of its officers within the professions while the other services range from a low of about 20 percent for the USAF to a high of almost 27 percent in the U.S. Army. In recent years' defense authorizations, Congress has excluded medical officer skills from sharing in force structure reductions. This exclusion has contributed to the corresponding increases in the percentage of officer requirements within occupational area 6 (health care officers) and those in the larger inclusive category of the professions.³⁴

³⁴U.S. Congress, House of Representatives, *National Defense Authorization for Fiscal Year 1991*, Conference Report, Report 101-923, Section 711, pp. 102-103.

The remaining officer requirements, although less than 8 percent of the total, provide some interesting insights for developing alternative future officer requirements because they illustrate the concept of managing officers by separate skill group. These other officer positions, not within the line or professional categories, are primarily found in the U.S. Navy and receive separate management due to special skill requirements or restrictions on the assignment patterns for officer incumbents. The Navy and the USMC (for one officer type), use the following terms to describe these other management groupings: Staff corps (which includes all of the professions), limited duty officers (LDO, both staff and line), and restricted line officers (engineering and special duty officers). Officer position or billet requirements include these management categories, but it is the officers within these categories who are affected by special management policies, usually by being restricted to assignments in only selected fields or skills. The rationale for this management is generally based on one of three criteria: (1) the naval branch assigned at commissioning (e.g., supply); (2) the length and cost of training, experience and education (e.g., aeronautical engineering); and (3) the limitations on experience developed prior to commissioning as enlisted or warrant officer (e.g., LDO). These category distinctions, coupled with the similar characteristics of various skills, will be the basis for estimating alternative future officer requirements.

Another category of officer requires consideration. In recent legislation, Congress directed the DoD to form a professional Acquisition Corps of qualified military and civilian officials within the military services to improve the competency of personnel involved in defense materiel development and procurement activities. Subsequently, each military department has established personnel management criteria for its respective acquisition officers. The specific demands of the law to ensure requisite experience and educational development of acquisition officers are expected to lead to the specialization of officers in acquisition program management and allied research and development skills.

Current Military Officer Skills

To better assist the understanding of current officer requirements at various levels of aggregation and to support estimating future officer requirement alternatives, we have designed six major skill groupings that capture most aspects of the current service officer management systems. These skill groupings are not recognized in any uniform official policy, but they generally describe broad aggregations of officer requirements. These skill groupings—*line*,

specialist, support, professional, acquisition, and technical—are defined in Figure 2.7.³⁵

As discussed previously, most of the officer skills in the Army, Air Force, and Marine Corps are managed as elements of the line or professional categories. The Acquisition Corps applies to all military services and is still a rather new officer management activity. Although it may not yet have received separate management status in all the services, acquisition positions can be identified within each service's officer requirements.

RANDMR470-2.7

Line	Unique military skills, particularly those directly involved in combat operations and related military functions
Specialist	Any military skills also requiring recurring assignments and utilization due to advanced education, high cost, long-duration training, or experience (e.g., engineering)
Support	Skills generally analogous to civilian white-collar occupations needed to support the functioning of military organizations where general military experience is desired or will assist task performance
Professional	Civilian professional skills not usually requiring any significant military experience (e.g., medical, dental, legal, and chaplain)
Acquisition	Military skills specializing in acquisition project management and allied procurement and research and development
Technical	Military skills with career or assignment limitations, e.g., restricted to a narrow field progressing from enlisted or warrant skills and limited in level of responsibility (e.g., naval services LDOs)

Figure 2.7—Design Definition of Officer Skill Groupings

³⁵The titles used to name and describe the skill groupings in our construct, in some cases, have already well established meanings with lengthy history or cultural acceptance within the military. The primary purpose of our use of these terms is to define distinct sets of officer requirements in large aggregate groupings with skill characteristics common to all services that suggest the need for separate career management activities. For example, we intend that the term line be used to classify one set of unique military skills generally acquired through established military education, training, and experience. We recognize that this use of the term line has a different meaning from its historical antecedent. We do not include the more common notion of line as the only group of officers that can exercise command. The latter usage has lengthy history in the military service, especially in the sea services, but is not intended here to be restrictive. Positions that include the exercise of command may be in any skill grouping, and our line would certainly include any officer requirements of that nature not elsewhere considered. For instance, the position of commander for a specialized organization that required the lengthy education and training of a "specialist" would be in the specialist skill grouping. Adherence to our explicit definitions and usage is essential to prevent possible confusion.

Table 2.4 shows the current requirements for military officers aggregated in our six skill groups by grade and service. This distribution uses a composite of the existing personnel management policies of the military services and applies the potential future effect of the law governing service acquisition personnel. Again, it is recognized that the military services do not yet have a mature management system for acquisition positions. The numbers shown in each cell of the matrix are derived from the FY 1994 documented officer manpower requirements of each military service and are distributed by category according to our understanding of the policies of the individual service as previously discussed.

The U.S. Navy would use different definitions than those chosen here for our purposes, and these differences are reflected in Table 2.4. The numbers appearing in the specialist and support categories are included in the line category for the other services. The requirements reflected in the technical category represent LDO requirements, which have no comparable requirement in the other services. We include the Navy skill groupings here because they illustrate many of the Navy's existing management groups. In our design construct, for example, the technical skill grouping is analogous to the group of LDO billets; the support skill grouping is analogous to much of the Staff Corps, less billets placed in professionals for uniformity; and the Specialist Corps would closely equate to most of the restricted line billets in engineering, aeronautical engineering, and special duty.³⁶ While each of the other military services has officer skill requirements that would meet the definitions of these latter skill groupings that are attributed primarily to the Navy, they manage them within either line or professional categories (e.g., Army, Air Force, and Marines have

Table 2.4
Distribution of Officer Requirements by Service and Skill Groupings for Separate Management

Major Skill Grouping	Army	USAF	Navy	USMC	Total
Line	42,030	56,970	31,100	12,660	142,760
Specialist	0	0	2,340	0	2,340
Support	0	0	4,500	0	4,500
Professional	16,280	15,090	12,080	320	43,770
Acquisition	2,420	3,540	1,040	300	7,300
Technical	0	0	2,680	0	2,680
Total	60,730	75,600	53,740	13,280	203,350

SOURCE: Extracted from U.S. Military Manpower Requirements Projection Data 1990-1999.

NOTE: Numbers reflect current service uses of separate skill groups.

³⁶NAVPERS 15839H, May 1992, p. I-A-1.

support skills as defined by that grouping, but treat officers in these skills as part of the line).

Composite Grade Content for FY 1994 Programmed Officer Manpower Requirements

Grade structure is the second major characteristic of military officer requirements. These grade distributions result from controls Congress mandated in DOPMA through the use of individual service grade structure tables limiting the proportion of total active regular officers allowed in the field grade ranks.³⁷ For the end of FY 1994, the composite requirement for field grade officer positions is about 44 percent, with 23 percent of the total officer requirements at O-4 (major and lieutenant commander); 15 percent at the grade of O-5 (lieutenant colonel and commander); and 6 percent at the grade of O-6 (colonel and captain, Navy). The junior grades of O-1 through O-3 are projected to account for some 56 percent of officer requirements in FY 1994. These junior officer grade positions are filled by officers with experience levels ranging from entry to a maximum of 11 years of service in the military unless specifically selected for further service in those grades. The requirements for officers within the field-grade officer ranks cover an officer experience range of 10 to 30 years.³⁸ Trends in the changes to field-grade content within officer requirements are an important consideration in projecting officer needs for future force alternatives. Service senior officials have generally stated a common desire for an increased field-grade content in the smaller programmed force, even higher than that allowed in DOPMA, to ensure the ability to support a potential expansion or reconstitution of their force structure over a short period such as 5 to 10 years.³⁹

Total Programmed Officer Manpower Requirements and the Individual Accounts

Total defense officer manpower, or programmed officer end strength, is the sum of the programmed manpower structure positions by skill and grade—officer requirements—and the additional officer manpower needed to support career

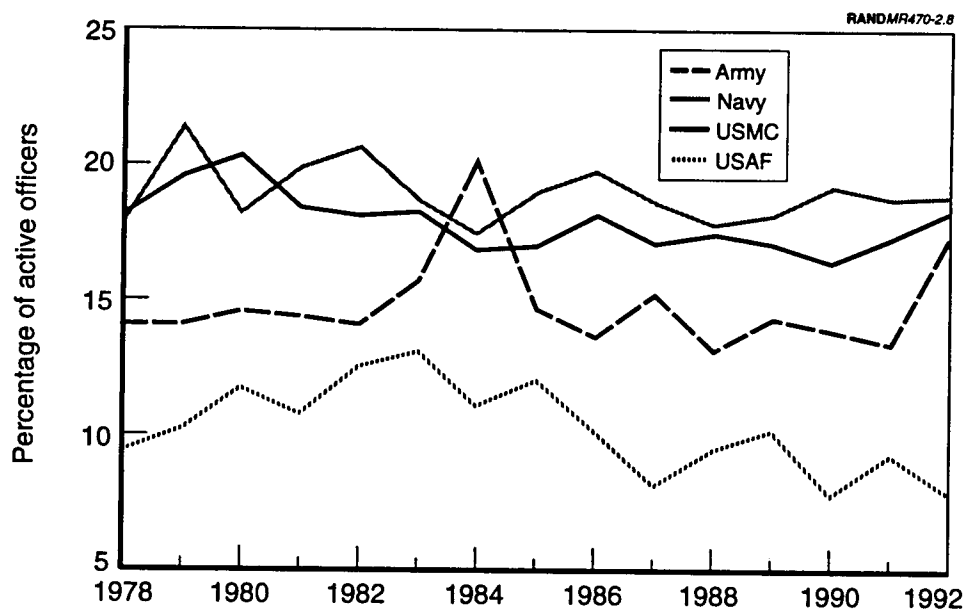
³⁷U.S. Congress, Public Law 96-513, *The Defense Officer Personnel Management Act* (Changes to Title 10 U.S.C.), 96th Congress, December 1980.

³⁸Based on DOPMA promotion timing, promotion opportunity, and tenure points for mandatory retirement.

³⁹Discussions with senior personnel management officials from all four military services, May–September 1993.

management functions such as training, education, assignment and reassignment moves, and other needs not reflected in documented structure positions. The latter set of officer manpower requirements are the sum of transients, trainees, holdees, prisoners, patients, and students (TTHS) accounts often referred to as the "individuals" or "individual accounts." For example, the FY 1994 total military officer end strength is about 245,000 compared with officer requirements of about 203,000; and the difference, about 42,000 officers, reflects the individuals. DoD defines "officer individuals" as those officers not filling programmed manpower structure spaces. They are often characterized as the slack in the inventory needed to overcome the friction in the manpower system.⁴⁰

Figure 2.8 below displays the individual accounts for the military services as a percentage of their respective total active officer end strengths during the 14-year period from FY 1978 to 1992. The data, extracted for comparison from DoD manpower reports, provide service trends that appear relatively stable in spite of the changes in size caused by the Reagan buildup and the start of the post-Cold War drawdown. Linear regression analysis of these data yields individual service officer manpower requirement proportions needed to estimate



SOURCE: LMI analysis, data extracted from Defense Manpower Data Center reports, and data provided by the four U.S. military services.

Figure 2.8—Distribution of Officers by Military Service for FY 1978–1992 Reported in the Individual Accounts

⁴⁰Department of Defense, *Manpower Requirements Report FY 1994*, op. cit., pp. B-1 to B-3.

future officer force alternatives at appropriate sizes above the officer requirements options that are developed in Section 3.⁴¹

We also examined the projected estimates of the individual accounts for the services programmed through the end of the FYDP in FY 1999. These estimates were of interest since they manifest projected policy changes that could significantly alter the historical rates. Next, we combined both the historical and projected data on individual accounts to smooth the potential effects of policies designed primarily for the transition period. Lastly, we performed regression analysis on both sets of data for comparison with the historical rates.

The regression analysis provides the values shown in Table 2.5. Examination of these values suggests that they are likely to be invariant, or vary little, with other changes in the future. However, major changes in strategy and policy can directly affect the component elements of the individual accounts. Specifically, major changes in policy on officer education (numbers of required courses, frequency, and duration); changes in policies affecting the lengths and numbers of overseas tours, rotation, or movement of officers; and the direct and indirect effects of the general resource posture and the national military strategy will no doubt be able to change these percentages. Many of these factors are realized in the changes in size and skill content of the officer structure. Additionally, the regression analysis was performed over a period that contained significant change and is designed to dampen out the effects of change in any one year or average the changes in a period of several years.

Senior military personnel officials suggest that the transient and student requirements are likely to be the most affected components of the individual accounts and the changes tend to offset each other.⁴² The transient account is expected to decrease because of major reductions in overseas presence, i.e., less demand for rotational moves and the potential effect of budget tightening, which is expected to lead to longer tour lengths and increased stabilization. The officer student requirements, on the other hand, are expected to increase as a result of pressures to ensure officer development through longer career involvement in both military and higher civilian education, especially if increased stability begins to limit the development of broad military experience normally obtained

⁴¹For this linear regression, the independent variable is the service officer end strength and the dependent variable is that portion of the officer strength within the individual accounts. Since a null officer strength would constrain the individual accounts to the null set, the regression line intercepts the origin and has the linear equation form of $y = mx$. Table 2.5 displays the service individual accounts as percentages of the total officer strengths as determined by the regression analysis for both the historical data period and the combined period that includes the service projected data.

⁴²RAND discussions with Army and Air Force senior staff personnel officials, May–August 1993.

Table 2.5
Results of Regression Analysis of Military Service Officer
Individual Accounts
(in percentage)

	1978-1992 (Historical)	1993-1999 (Projected)	1978-1999 (Combined)
Army	14.7	15.7	14.9
Navy	18.9	15.5	18.2
Air Force	10.4	10.0	10.3
Marine Corps	17.9	14.5	17.0

NOTE: Service individual accounts as a percentage of total end strength.

through a wide variety of job assignments. Additionally, the need in the future for new officer skills to support new missions such as peacekeeping or requirements for increased specialization as a result of technology advances may further increase the number of officer requirements in the student account. These two trends, one likely to increase requirements and the other likely to decrease them, have the potential to nullify any major shift in the historical behavior of service individual accounts. Without the benefit of knowledge of future decisions on these policies, it appears reasonable to use the individual account rates derived from past experience and recognize the potential effect of such changes.

Accordingly, we applied the service-unique combined TTHS percentages derived from the regression analysis over the entire period of FY 1978-1999 as the best estimate of the future individual accounts. We used these rates, in conjunction with estimated future officer requirements, to develop total officer requirements for use in subsequent evaluations. The alternative career management systems we designed in later sections are evaluated on their capacity to manage the larger set of total defense officer manpower requirements.

3. Future Officer Requirements Options

Overview

Officer requirements have followed a cyclical "boom-or-bust" pattern since the beginning of World War II—rapid buildups in officer strength to meet unexpected requirements for U.S. forces have been typically followed by significant reductions in force.¹ With the ending of the Cold War and the development of a new regionally oriented defense strategy, the DoD developed a plan for deliberately downsizing U.S. forces to a lower post-Cold War level. These reductions, which began in FY 1990, are scheduled to be completed by FY 1999. In FY 1994, they will result in the smallest active-duty officer corps since 1950.

In Section 2 we discussed the bases for officer requirements and the service processes for generating total officer manpower. This section begins by identifying the major features and characteristics of the FY 1994 officer force recently approved by Congress. We call this starting point the *Baseline Force*. We then project the officer positions required to support the currently planned FY 1999 active force. We also compress the number of officer skill groupings from six to four to simplify our analysis. We call this the *Notional Force (Option 0)*—it is an estimate of the officer requirements that could be associated with an FY 1999 active-duty end strength of about 1.4 million men and women. Building upon our assessment of the major determinants most likely to change contained in Section 2, we then estimate other plausible, but markedly different, officer requirement options. We first highlight and describe conceptually, in qualitative terms, the major distinguishing features of each potential officer requirement option we have estimated. Following that, we describe the quantitative implications of each option in terms of its effect on the numbers, grades, and skill mixes of the officers by service required in the force. Our purpose is not to predict the future or to advocate a specific officer requirement option. On the contrary, in recognizing the boom-or-bust cycle of the past, we want to develop a robust set of potential future officer requirement options that can be used to facilitate assessments of several different alternative officer management systems.

¹See Appendix D for a discussion of these cycles and their effect on officer requirements.

The Baseline Force

Our Baseline Force—the congressionally approved FY 1994 active force, which totals about 1.6 million active-duty personnel—contains six officer skill groupings as defined in Section 2. The major characteristics of this force, highlighted in Table 3.1, provide a meaningful basis for developing both qualitative and quantitative comparisons of potential future officer requirement options. They also establish the basis for developing assessments of the ability of the current system to transition to each future alternative officer career management system.

Table 3.1
Officer Requirements, Baseline Force

Time frame	End FY 1994
Total active-force size	1.6 million
Officer requirements	203,400 ^a
Management groupings	6 skill groupings <ul style="list-style-type: none"> • Line • Specialist • Support • Professional • Acquisition • Technical

^aBased on data provided by the military services.

Development of Officer Requirements Options

The current drawdown plans provide for an active-duty end strength of approximately 1.4 million by the end of FY 1999.² The FY 1999 officer requirements provided by the services for the purposes of this study did not reflect the results of the Bottom-Up Review. Accordingly, to obtain a better representation of these potential requirements, we used the results of the Bottom-Up Review and the data provided by the services to estimate officer requirements—by service, grade, and skill—associated with the currently planned active duty end strength of 1.4 million. We called these projected requirements the Notional Force (Option 0)—they represent our best judgment of the officer requirements that could materialize if we assume that the current drawdown plans are carried out without major modification.

²Aspin, *Bottom-Up Review*, op. cit.

It is important to note that we reduced the number of officer skill groupings in our Notional Force from six to four.³ This was done to simplify our constructs and because (1) we could find no fundamental difference in character between the acquisition and specialist skill groupings (the former being only a subset of the latter broader category) and (2) we conclude from our research that technical positions are more closely related to warrant officer requirements than commissioned officer requirements.⁴ The result is that our projected Notional Force includes acquisition requirements in the specialist skill grouping, and the positions defined as technical have been removed from further consideration within our officer requirements options.

The subjects of warrant officer requirements and management systems are not addressed in depth in this study since they are quite different from those of our focus—commissioned officers. However, we do recognize the potential for increased use of warrant officer requirements as an alternative to commissioned officer requirement structures discussed here. It is significant to note that warrant officer requirements continue to coexist in almost all officer skills for the military services that use warrant officers except for the professions where law requires commissioned officers. The Air Force decided to eliminate the use of warrant officer requirements when it established its senior enlisted ranks, which makes it the only military service without warrant officers. Our decision to classify technical officer requirements as warrant officers provides one insight into how the use of warrant officers might be expanded. We also provide an illustrative example in Appendix H of how the use of warrant officers might be expanded across the services based upon the notion of uniformity. A uniform set of standards for classifying requirements in the warrant officer grades is needed from DoD, and the services should use these standards in future reviews of military requirements in all skills and grades.

The major defining characteristics of the officer requirements associated with our Notional Force (Option 0) construct are highlighted in Table 3.2 below.

³Our original design of six skill groupings was necessary to display data in categories that represent current service management and to highlight congressional interest in potentially separate management for officers in service acquisition corps.

⁴LDO commissions are restricted by Title 10, USC, to naval service personnel with a minimum of 10 years of prior military experience in either the enlisted or warrant officer ranks. It is recognized that the traditional use of LDOs provides for an influx of highly experienced personnel with technical skills. However, we suggest that expanded use of warrant officers would satisfy all but a few of the higher-graded naval officer requirements. In those latter cases where a commissioned officer is clearly more appropriate, the positions should be placed in either the line or specialist skill group. See Appendix H for a fuller discussion of greater use of warrant officers.

Table 3.2
Officer Requirements, Notional Force (Option 0)

Time frame	End FY 1994
Total active-force size	1.4 million (DoD projection)
Officer requirements	177,300 (estimated) ^a
Management groupings	4 skill groupings ^b <ul style="list-style-type: none"> • Line • Specialist • Support • Professional

^aAnalytically derived from service-provided projections. (See Appendix A for details).

^bAcquisition positions merged into specialist. Technical positions removed from consideration.

The Notional Force assumes there will be no substantive changes in the major determinants affecting military requirements we identified and discussed in Section 2. However, as previously noted, we conclude that three of the five key determinants of military requirements, and officer requirements as well, are vulnerable to change in the future. Vulnerable in this context means that the effect of a determinant can be significantly different than currently projected and result in a markedly different outcome than expected. Based on our research, the three determinants most vulnerable to change are force size and active-reserve component force mix, organizational design and structure, and technology. For simplicity, we shall refer to them hereafter as *size*, *organization*, and *technology*.

Consideration of Size in Developing Options

The first dimension used to develop options is the overall *size* of the active-duty force. Our primary objective in developing force size alternatives is to ensure that the modeled constructs encompass the broad range of possibilities that could occur between the year 2000 and 2010, beyond the current transition period.

The recent DoD Bottom-Up Review matched the new national military strategy with expectations of future defense resources and threat and concluded that an active force of about 1.4 million personnel in FY 1999 would meet the nation's national security needs. Between 1992 to 1999, current plans provide for the deliberate phased reduction of active-force end strength from about 1.8 to 1.4 million military personnel or an overall reduction of about 0.4 million people. Given the boom-or-bust cycle of the past, however, it appears reasonable to

address the officer requirement options associated with both a larger and a smaller force size.

Rather than basing our force size options upon a projected global strategic environment, we elected to estimate them parametrically by increasing and decreasing the Notional Force of 1.4 million active-duty personnel by ± 0.4 million. This variation in size is fairly representative of the actual experience of the recent past and enables one to address the effects of a variation in active-force size and officer end strength—the specific focus of this study—without specifying the major force elements and composition of either the larger or smaller force.⁵ This process resulted in a Reduced Force (Option 1) of 1.0 million active personnel and an Enlarged Force (Option 2) of 1.8 million active personnel. The major distinguishing characteristics of the two size options are shown in Tables 3.3 and 3.4.

The total number of officers required in each size force is markedly different and results in a difference of slightly more than 92,000 officers in the aggregate. Thus, the two active-force size-related options encompass a wide range of potential changes in future officer requirements in terms of the numbers, skills, and grades of officers that could be required from both an individual service and a DoD perspective.

Table 3.3
Officer Requirements, Reduced Force (Option 1)

Time frame	End FY 2010
Total active-force size	1 million (assumed)
Officer requirements	128,300 (estimated) ^a
Management groupings	4 skill groupings ^b <ul style="list-style-type: none"> • Line • Specialist • Support • Professional

^aAnalytically derived from service-provided projections. (See Appendix A for details).

^bAcquisition positions merged into specialist and technical positions removed from consideration.

⁵The development of alternative future force designs (e.g., the number of divisions, wings, carriers, and other major force elements) is a major study in itself and is not essential to the purposes of this effort. The approach selected, which is based upon the five major determinants that shape the size and mix of U.S. forces and parametric modeling, enables one to develop a range of options for study and analysis that represents fundamentally different outcomes or end states of current and emerging trends.

Table 3.4
Officer Requirements, Enlarged Force (Option 2)

Time frame	End FY 2010
Total active-force size	1.8 million (assumed)
Officer requirements	220,800 (estimated) ^a
Management groupings	4 skill groupings ^b <ul style="list-style-type: none"> • Line • Specialist • Support • Professional

^aDerived from FY 1990 actual officers for a 1.8 million active force. (See Appendix A for details).

^bAcquisition positions merged into specialist and technical positions removed from consideration.

Consideration of Organization in Developing Options

Organizational change can generally be categorized as either streamlining, which includes downsizing and civilianization,⁶ or reengineering, which includes redesign, integration, and consolidation efforts that may be based upon new organizational concepts or management theory. Change can occur in a revolutionary manner (that is, quickly) or evolve over a long period. In the main, military *organizations* seem to have been well insulated from revolutionary change and have maintained their general pyramidal and hierarchical character in spite of significant changes in technology, threat, operational concepts, and even new theories of management and organizational restructuring. However, external elements have created major evolutionary changes in the officer requirements of specific functional organizations in the military. For example, Congress has mandated reductions in management headquarters activities (MHA) as a way of reducing the number of field grade position requirements in these service functions. Most recently, Congress directed a 20 percent reduction over a five-year period in MHA DoD-wide.⁷

The potential spectrum of organizational change is significant and could logically stem from a variety of factors that relate to our determinants. For instance, new advances in technology such as real-time ubiquitous information systems could facilitate the flattening of certain types of organizations—especially support,

⁶The term "civilianization" refers to the process of converting military positions to civilian positions. In general, it is widely believed that the total costs of a manning a position with a military incumbent are greater than those of a civilian incumbent.

⁷U.S. Congress, *National Defense Authorization for Fiscal Year 1992*, Section 906, pp. 143–144.

infrastructure, and staff-level organizations—and reduce the requirements for officers in these organizations. Further, national economic pressures to reduce the cost of national defense spending further could, by themselves, force organizational streamlining by changing the current criteria for determining military essentiality (that is, which positions require a military versus a civilian incumbent), thereby resulting in the civilianization of significant numbers of currently approved officer positions and requirements.

Moreover, other cost-containment considerations to achieve a more cost-effective force could also lead to changes in the current procedures being used to define military positions as officer versus enlisted or the downgrading of currently established officer positions from the more expensive field-grade level to the cheaper company-grade level. In this regard, some functional organizations by design are structured to have a much higher proportion of field-grade officers than the overall average of the total force. A brief examination of officer requirements in selected DPPCs, specifically MHA and central logistics organizations, indicate that field-grade requirements predominate. In fact, while the field-grade portion of the officer requirements in our Baseline Force averaged about 44 percent from a DoD-level perspective, the field-grade portion of officer requirements in these two DPPCs ranged from 70 to 82 percent across the military services. Consequently, we developed an organizational option for future officer requirements that involves both streamlining and reengineering.

In estimating the combined potential effects of these changes, we sought to encompass a significant set of organizational changes that departed from the evolutionary trends of the past. Thus, we focused on estimating those skill groupings that could be amenable to further civilianization or other streamlining and those functions that appeared appropriate for reengineering. This approach led us to concentrate on those skill groupings that primarily involve nonmilitary skills found in support and professional groupings, and those field-grade positions in MHA and central logistics functional organizations. The resultant Streamlined and Reengineered Force (Option 3) is highlighted in Table 3.5.

The Streamlined and Reengineered Force has a total active-force size of about 1.4 million, similar to that associated with the Notional Force (Option 0) (less about 21,000 officers who were civilianized), but a much lower number of officer requirements, about 156,000 in Option 3 versus about 177,000 in Option 0. The Streamlined and Reengineered Force has a markedly different skill and grade mix than the Notional Force. Specifically, it also has proportionately fewer civilian-related skills and a reduced field-grade content.

Table 3.5
Officer Requirements, Streamlined and Reengineered Force (Option 3)

Time frame	FY 2010
Total active-force size	1.4 million (assumed)
Officer requirements	155,900 (estimated) ^a
Management groupings	4 skill groupings ^b <ul style="list-style-type: none"> • Line • Specialist • Support • Professional
Other design changes	Civilianization of selected officer requirements Reduction in field-grade officer structure by DPPCs

^aAnalytically derived from service-provided projections. (See Appendix A for details).

^bAcquisition positions merged into specialist, and technical positions removed from consideration.

Consideration of Technology in Developing Options

Military applications of advanced technologies, such as stealth, precision guidance, location and navigation, and intelligence collection and fusion, are well known from their performance in the Persian Gulf War.⁸ However, there is much uncertainty and a great deal of controversy as to how technology will affect future officer requirements. As one officer has observed,

None of us knows what the size of the officer corps will be in five years, but, unless there are some significant changes in the world, it will be much smaller. Fewer officers will have to do more, and they will have to be more broadly gauged than they are now. The unrestricted line may well take on a generalist interpretation that it has not held in many years. One can easily see more aviation and submarine officers—both for military and career reasons—competing for and serving in more billets now almost exclusively reserved for the surface and general unrestricted line communities. Ashore, fewer billets will require specific warfare or specialist (restricted line) officers, but almost all will continue to require operational and seagoing officers with broad technical and professional expertise. To meet these demands, more officers will require graduate education that goes beyond a mere discipline orientation.⁹

⁸Department of Defense, *Conduct of the Persian Gulf War: Final Report to Congress*, April 1992.

⁹Captain John A. Byrne, Jr., U.S. Navy (Retired), "Rethinking Graduate Education," *Proceedings*, November 1993, p. 69.

Given the uncertainties of the future, we conclude that future officer requirements will in general be highly vulnerable to the effects of technology change and that advances in technology are likely to occur at increasing rates. Computer and information technologies are well-known examples, with significant generation changes occurring in cycles that are increasing in frequency. Further, we were charged to investigate officer requirements with a less inclusive line component. This option will ensure an example of that nature.

The Notional Force (Option 0) attempts to capture any known manifestations of anticipated technological change by the end of this decade. It reflects the officer requirements we were provided by the military services modeled to reflect the projected impact of decisions made as a result of the Bottom-Up Review. We used this force as a technological center of gravity and developed two different options that encompass a range of potential technological change with conflicting impacts on officer requirements. Both concepts seek to highlight significant shifts in officer skills from those in the Notional Force.

As noted in Section 2, advanced technology can lead to increased specialization. The introduction of high-technology aircraft, such as the SR-71 "Black Bird" high-altitude supersonic reconnaissance platform, the B-1B bomber, and the F-117 "stealth fighter," led to specialization in the Air Force, albeit in only a relatively small portion of the overall pilot force. Further, the advent of nuclear propulsion submarines has led to intense specialization of naval submarine officers. But, in some minds, specialization went far beyond these examples, particularly in the Navy.

Specialist officers increased in many categories during the late 1950s and early 1960s, largely as a result of the increasing technical complexity of the Navy and the need to manage many scientific and engineering programs. They also provided the essential continuity of position—unlike unrestricted line officers, who almost always need to return to sea duty. . . . Without the subspecialization program and graduate education, there would have been increased pressure for more specialist officers, because the unrestricted line would have been seen as lacking the necessary knowledge to work with or manage specialist officers or the technical programs associated with them.¹⁰

Increased specialization generally carries with it increased training and educational costs. Accordingly, we developed the Specialized Force (Option 4) to examine the effect of potentially higher training and education costs and an increased demand for assured return on investment through recurring utilization

¹⁰Ibid, pp. 69-70.

of officers with highly specialized skills. Given that our focus was on ensuring a significant change that facilitated the assessment of alternative management systems and not on predicting the future, this force was modeled by placing selected positions in the same specialist skill grouping as engineers. Specifically, we assumed for estimating purposes that all future fighter and bomber aircraft would technologically evolve to fit the special purpose platform criteria and that the officers operating such platforms would therefore require specialized crew training. We also assumed for management purposes that all officer position requirements for submariners, fighter and bomber pilots, and flying crews (navigator, electronic warfare, and weapons systems officer positions) that could involve high-cost training and special management to ensure proper utilization would be moved from the line to the specialist skill category. The results of the foregoing are highlighted in Table 3.6.

The approach we used to develop the Specialized Force effectively allowed us to estimate the officer requirement skill mix associated with a much more highly specialized force while retaining the overall active force size at 1.4 million. Since only the mix among skill groupings was changed, the same projected requirement of about 177,000 officers that was in the Notional Force is retained.

The second technology-based option, which also has an active force size of 1.4 million, is the antithesis of the first. In this option, the manifestations of advanced technology do not result in the increased specialization of either the operators or the maintainers. In fact, just the opposite is assumed—that technology enables a reduction in overall specialization needs and results in a requirement for officers who have a broad range of both operationally oriented and management skills.

Table 3.6
Officer Requirements, Specialized Force (Option 4)

Time frame	FY 2010
Total active-force size	1.4 million (DoD projection)
Officer requirements	177,300 (estimated) ^a
Management groupings	4 Skill groupings ^b <ul style="list-style-type: none"> • Line • Specialist • Support • Professional
Other design changes	Decreased proportion of line officer positions Increased proportion of specialist officer positions

^aAnalytically derived from service-provided projections. (See Appendix A for details).

^bAcquisition positions merged into specialist, and technical positions removed from consideration.

This particular option results from an extension of today's so called "user friendly" computers whose software systems have eliminated lengthy high-cost training programs for operators. For instance, in many military technology applications, the use of "black-box" technology insertion significantly enhances system capabilities without major additional operator training. Some of these technology adaptations also enable one to reconfigure multipurpose platforms, which proliferated throughout the force, into platforms with very special capabilities. For example, it is commonplace to change the external stores or pods of an aircraft to change its primary capability from that of a fighter interceptor to an attack bomber or armed reconnaissance platform. While it is true that a pilot of a multirole aircraft may require training in a variety of mission profiles and tactics, this training is seldom a significant cost over initial qualification training because the aircraft's basic performance envelope is not significantly affected by the changes in external stores. Adding laser range finders linked to gun computers in ground-force armored vehicles is another example of this phenomenon—this allows for improved target hit probabilities with little additional training for tank gunners or other crew members.

The burden of these black-box technologies often affects those responsible for system maintenance and repair, but it does not necessarily require more complex and specialized maintenance. In those systems that are pervasive or ubiquitous in a force, such as an M1 Abrams tank or an F-16 aircraft, the quantitative aspects may require qualified uniformed personnel in significant numbers to be trained in specialized system maintenance. Newer technologies, however, are being developed to increase the mean time between system failure of both black-box components and the total system or platform and thus to reduce the numbers of specialists required and overall support costs. Moreover, the availability of various types of improved diagnostic and test equipment has already supported adoption of new maintenance concepts and system designs that allow easy component replacement. Here, components could be as small as printed circuit boards or as large as jet propulsion engines. Finally, and equally important, as the Persian Gulf War demonstrated, contract support of fielded military technologies and systems has already proven its ability to move from the factory and depot in the United States and provide effective support at the forward airfields and field maintenance areas of a wartime operational theater.¹¹ This experience suggests that it is logical to expect that today's reliance on military specialized maintenance will continue to shift in some measurable degree to

¹¹Department of Defense, *Conduct of the Persian Gulf War*, op. cit., pp. 437-442.

contractor personnel. Future technology advances, coupled with other pressures to support the defense industrial base, may accelerate this trend.

Looking to the future then, technology could significantly reduce the demand for officers in specialized skills, with some increased reliance on contracted specialists, and could support the further expansion of a multiskilled officer population. The key skill grouping affected by this would be the Specialist category. Accordingly, in developing this technology-induced alternative, which we have called the Generalist Force (Option 5), we converted a portion of the engineering-type positions existing in the Notional Force to line positions. The major features of this force are highlighted in Table 3.7.

The Generalist Force places a higher population in the line skill grouping while thinning the specialist population. It provides yet another, but significantly different, plausible end state for evaluating potential future officer management systems.

Table 3.7
Officer Requirements, Generalist Force (Option 5)

Time frame	FY 2010
Total active-force size	1.4 million (DoD projection)
Officer requirements	177,300 (estimated) ^a
Management groupings	4 skill groupings ^b <ul style="list-style-type: none"> • Line • Specialist • Support • Professional
Other design changes	Increased proportion of line officer positions Decreased proportion of specialist officer positions

^aAnalytically derived from service-provided projections. (See Appendix A for details).

^bAcquisition positions merged into specialist, and technical positions removed from consideration.

Summary of Officer Requirements Options

The six officer requirement options we estimated have markedly different characteristics in terms of the numbers, grades, and skills of the officers required in each service and the DoD as a whole. Conceptually illustrated in Figure 3.1, the options are based upon changes in one or more of the three major determinants likely to affect the future content of officer requirements and encompass several multidimensional relationships. The Streamlined and Reengineered Force (Option 3), for instance, includes changes in both size and organizational design.

RANDMR470-3.1

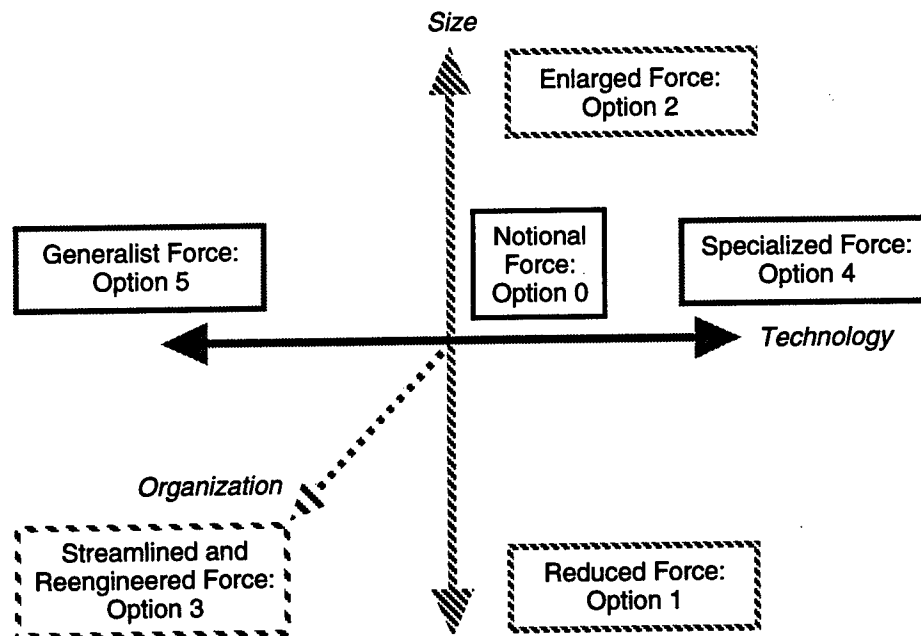


Figure 3.1—Summary of Officer Requirements Alternatives

By providing an array of markedly different but plausible future officer requirements, the six options establish a meaningful and consistent basis for evaluating the relative merits of alternative officer management systems and their inherent design principles. It is also important to note that, although not an exhaustive treatment, the options collectively encompass a broad universe of possible future officer requirements. Many other logical and potentially likely options can be created by extensions of this approach, but this was not essential for our purposes. The approach we have used ensures consideration of an adequate scope of plausible but different officer requirements and can be subsequently extended should other specific sets of officer requirements be singled out for further consideration and assessment.

Having established the conceptual underpinnings of the options we derived, we now turn our attention to the quantitative aspects of each option.

Detailed Description and Definition of Future Officer Requirements Options

Each service provided us with considerable detailed data regarding its current and projected FY 1999 officer requirements. Using this input as a starting point, we focused our efforts on developing meaningful quantitative descriptors that

captured the significant features of each option and facilitated comparative evaluations of the options from both a defensewide and an individual service perspective. Subsequent discussion highlights the results of our modeling efforts in quantitative terms. A more detailed explanation of the specific techniques employed to generate each option and the types of information available in the database developed for this project are provided in Appendix A.

Underlying Methodology and Quantitative Highlights of the Notional Force (Option 0)

Our projected officer requirements for the FY 1999 Notional Force (Option 0) were derived from the data provided by each service. These files, which were in the process of being updated, represented each service's best judgment of the projected FY 1999 active force *prior to* the completion of the Bottom-Up Review.¹² Consequently, in the interests of using the most informed approximations of the future, we estimated our Notional Force based on the officer requirements provided and then stratified the results into one of the four DoDOC-based officer skill management groupings we constructed earlier—line, specialist, support, or professional.

We used the following methodology to estimate each service's projected officer requirements. First, we identified the changes in major force elements and the characteristics of the projected FY 1999 active force inherent in the data we were provided by each service (e.g., the number of divisions, wings, surface combatants, and active end strength associated with the officer requirements data). We compared these data with the Bottom-Up Review force structure decisions and identified major differences. We then estimated the officer requirements to ameliorate these differences and reviewed the results to ensure that our projected officer requirements for each service were generally consistent with the end FY 1999 objectives established in the Bottom-Up Review. This methodology resulted in a projection of slightly more than 177,300 total officer requirements for the Notional Force in FY 1999.

Using the occupational groups established by the DoDOC framework, we next compiled the resulting officer requirements into one of the four major skill-management groupings we developed. This framework—based upon the DoD categorization methodology—identifies each specific service occupational

¹²For instance, the Army data provided for a 12-division active force and had not been updated to reflect the recent decision to reduce the active Army to 10 divisions. Similarly, the Navy, Air Force, and Marine Corps data all reflected officer requirements for FY 1999 active-force levels that were considerably higher than those announced in Aspin's Bottom-Up Review.

identifier with one of 66 different two-digit occupational groups. Although the services differ somewhat in how they align their skills with the DoD framework and even cursory inspection suggests that specific service occupational identifiers could perhaps be assigned to other DoDOC groups or divided into more than one group, we accepted the standardized nature of the current DoDOC framework for several reasons. First, it facilitated our gaining some broad insights into the characteristics and features of officer requirements. Second, it enabled us to develop and apply a uniform set of decision rules regarding the apportionment of service officer requirements and thus facilitates the replication of results. Finally, this approach establishes and retains an auditable set of officer requirements by individual service occupational identifiers for each option.¹³

The decision rules we developed assign all officer requirements in each standard two-digit DoDOC occupational group to one of our four major officer skill management groupings.¹⁴ Table 3.8 depicts the results of applying these rules by major skill grouping and service.

Not surprisingly, the line skill grouping as we have defined it accounts for the largest percentage of total requirements—slightly less than 44 percent of the DoD total. The professional grouping contains about 22 percent, and the specialist and support groupings, with slightly more than 17 percent each, make up the remainder of the requirements.

Table 3.8
Description of Notional Force (Option 0)^a Service Officer Requirements by Skill Groupings

Major Skill Grouping	Army	USAF	Navy	USMC	Total
Line	24,030	27,010	17,520	8,990	77,550
Specialist	5,200	16,280	7,640	1,340	30,460
Support	10,730	8,650	8,640	2,640	30,660
Professional	12,530	13,940	11,860	310	38,640
Total	52,490	65,880	45,660 ^b	13,280	177,310

^aEstimated officer requirements using DoDOC.

^b2,654 technical requirements removed as warrant officers.

¹³In addition to ensuring replicable and auditable results, this approach provides a consistent methodology that can be used to assist in subsequent construction of other alternative officer requirements options for comparative evaluation.

¹⁴The decision rules we developed and used for assigning DoDOC occupational groups into our four skill groupings and the manner of compiling the resulting officer requirements into each of our options (0 through 5) are described in Appendix A.

The DoD percentages, though important, mask significant differences among the services. The Marine Corps, for instance, is notably different from the other three services—the line grouping accounts for almost 68 percent of the corps' projected total officer requirements, while the professional grouping, containing only Marine lawyers, is less than 3 percent of the total. Another example of the important service differences that exist is found within the specialist skill grouping, where the Air Force has the highest percentage content of specialists (about 25 percent of total officer requirements) and the Army the lowest (about 10 percent). These types of differences are potentially important from an officer management perspective and will be highlighted in each of the officer requirements options we have developed.

The summary-level data contained in Table 3.8, though useful, do not provide sufficient insights into potentially important changes in total officer requirements by DoDOC and grade. This information, highlighted in Table 3.9, shows that the three field-grade ranks amount to some 83,000 positions or about 47 percent of the total officer requirements once the technical positions have been removed. It also indicates that DoD occupational area 2—tactical operations officers—is by far the largest with some 54,000 positions or about 30 percent of the total. The number of officer requirements in these cells by DoDOC and grade for the Notional Force will be compared with the resulting data in alternative options as another key measure of change. Note that our definitions of skill groupings do not change the DoDOC coding of officer requirements but merely the assignment to a skill grouping. Hence, comparisons of alternative options using DoDOC data are useful only when changes other than skill grouping assignments are included.

Table 3.9

DoD Estimated Officer Requirements,^a Notional Force (Option 0) (Grade and DoDOC)

DoDOC Area	Grade						Totals
	O-1	O-2	O-3	O-4	O-5	O-6	
1	0	30	290	580	1,040	1,620	3,560
2	380	11,030	21,670	11,220	7,820	2,050	54,170
3	130	660	3,500	2,360	1,340	520	8,520
4	970	3,170	10,420	5,580	3,010	780	23,930
5	100	520	6,350	4,620	3,180	1,270	16,040
6	400	3,820	13,400	8,460	3,990	2,540	32,610
7	200	1,680	6,560	5,060	3,450	1,360	18,310
8	200	1,450	5,490	4,020	3,210	1,090	15,460
9	0	390	1,790	1,170	970	380	4,700
Totals	2,380	22,750	69,470	43,070	28,010	11,620	177,300

^aUsing Naval Officer Billet Classification-Duty DoDOC.

Detailed Description of the Reduced Force (Option 1)

Our first option—the Reduced Force—required us to estimate the future officer requirements for a total active force of about 1.0 million personnel, some 400,000 less than the Notional Force. In estimating these requirements, we considered the downward trends of the FY 1990–FY 1999 transition period. In developing this and subsequent options, we did not specifically seek to alter the skill grouping mix, field-grade content, or military service share of total defense manpower or officer requirements. However, by following the trends established earlier in the downsizing period, some service shares did change slightly as a result of continuing reductions in similar DPPCs.

As shown in Table 3.10, our projection resulted in an officer requirement of slightly more than 128,300 or about 49,000 less than the Notional Force requirement of some 177,000. Thus, in aggregate terms the Reduced Force equates to an almost 28 percent reduction in officer requirements compared with the Notional Force.

Since Option 1 illustrates the effects of a further reduction, only minor shifts are seen in skill grouping mix, field-grade content, or service shares. In fact, as shown in Figure 3.2, the officer requirements in each skill grouping declined by about the same overall percentage as total officer requirements, or about 28 percent. Further, although each military service experienced a significant reduction in requirements, they all retained about the same proportional shares of officer requirements that they had in Option 0.

The distribution of officer requirements by DoDOC and grade for Option 1 are shown in Table 3.11. The magnitude of change in individual DoD occupational areas is significant when compared with their respective sizes in Option 0. The reductions in each category, however, are generally proportional to the change in total officer requirements. No occupational area varies by even 1 percent from its

Table 3.10
Description of Reduced Force (Option 1)^a Service Officer Requirements by Skill Groupings

Major Skill Grouping	Army	USAF	Navy	USMC	Total
Line	19,170	20,060	12,140	5,410	56,780
Specialist	4,020	11,690	5,660	800	22,170
Support	8,260	6,540	5,880	1,590	22,270
Professional	9,790	9,550	7,590	180	27,110
Total	41,240	47,840	31,270 ^b	7,980	128,330

^aEstimated officer requirements using DoDOC.

^b2,654 technical requirements removed as warrant officers.

RANDMR470-3.2

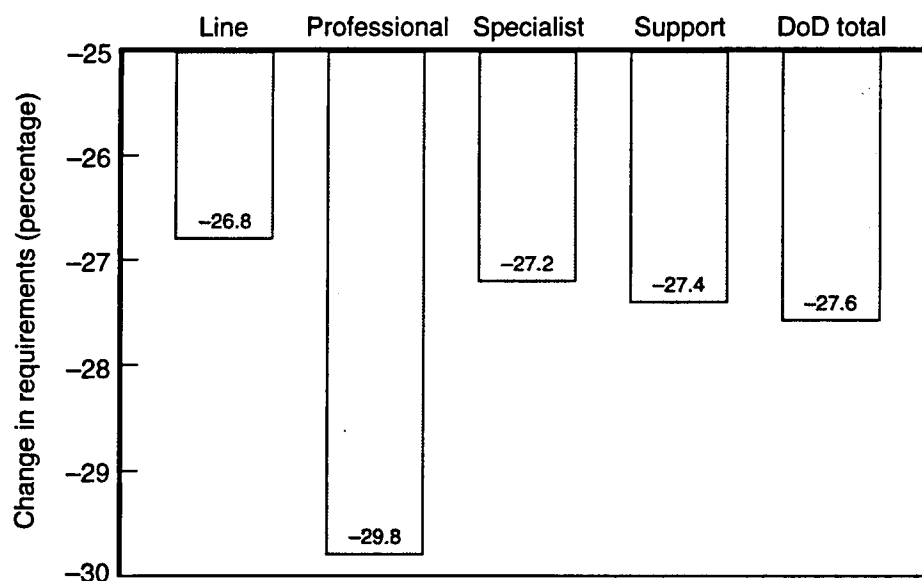


Figure 3.2—Reduced Force (Option 1): Percentage of Changes in Officer Requirements from Notional Force

Table 3.11

DoD Estimated Officer Requirements,^a Reduced Force (Option 1)

DoDOC Area	Grade						Totals
	O-1	O-2	O-3	O-4	O-5	O-6	
1	0	20	190	370	600	960	2,140
2	410	8,950	16,340	8,030	5,510	1,520	40,760
3	110	560	2,610	1,640	910	360	6,190
4	840	2,650	7,720	3,950	2,130	600	17,890
5	90	430	4,480	3,150	2,190	910	11,250
6	280	2,700	9,520	5,830	2,760	1,790	22,880
7	230	1,280	4,830	3,370	2,310	960	12,980
8	140	1,140	4,010	2,780	2,170	780	11,020
9	0	270	1,240	800	640	270	3,220
Totals	2,100	18,000	50,940	29,920	19,220	8,150	128,330

^aUsing Naval Officer Billet Classification-Duty DoDOC.

initial share of the total in Option 0. The field-grade content in this option drops noticeably to 44 percent of total officer requirements, but this result was incidental (not a designed change of the option).

Detailed Description of the Enlarged Force (Option 2)

The objective of this alternative was to determine the size and defining features of the future officer requirements needed to support an active-force size of about

1.8 million or some 400,000 more than the Notional Force, Option 0. Our modeling produced a set of officer requirements that totaled slightly more than 220,800—approximately 43,000 more than Option 0 or an increase of more than 24 percent in officer requirements. This set of officer requirements closely resembles in size and content the historical FY 1992 officer and total active-force actual experience of the early transition period. Table 3.12 displays this option by service content and skill grouping shares.

As with the previous option that also addressed a change in size, the proportions of the total officer requirements by skill grouping vary only slightly; in this case by less than two percent from their shares in Option 0. More significant changes, however, are apparent within skill groups as shown in Figure 3.3.

The specialist and support skill groupings conform to the mean of the total change, at about 25 percent. The line and professional groupings—at some 28 percent and 16 percent, respectively—differ considerably from the mean. This effect is predictable since the change from the FY 1992 force to our Notional Force of 1999 included restrictions on the reduction in professionals, largely the result of congressional direction discussed earlier, and the line skill grouping suffered a proportionately larger share of reductions during the same early portion of the drawdown. The latter reflects cuts that were largely focused in the DPPCs of strategic and tactical/mobility forces during that period. Therefore, the option appropriately restores most of these reductions.

The projected officer requirements of Option 2 by DoDOC and grade are depicted in Table 3.13. Once again the DoD occupational area content changed little; there is less than a 1 percent change in magnitude in any area from the original makeup of Option 0. The field-grade content, however, is reduced to 43 percent of the total officer requirements. This change, while not a design objective, generally reflects the FY 1992 officer force requirements and illustrates

Table 3.12
Description of Enlarged Force (Option 2)^a Service Officer Requirements by Skill Groupings

Major Skill Grouping	Army	USAF	Navy	USMC	Total
Line	34,070	35,980	19,320	10,310	99,680
Specialist	7,410	20,160	9,200	1,270	38,040
Support	13,370	12,530	9,340	3,040	38,280
Professional	16,920	15,480	12,080	330	44,810
Total	71,770	84,150	49,940 ^b	14,950	220,810

^aEstimated officer requirements using DoDOC.

^b2,655 technical requirements removed as warrant officers.

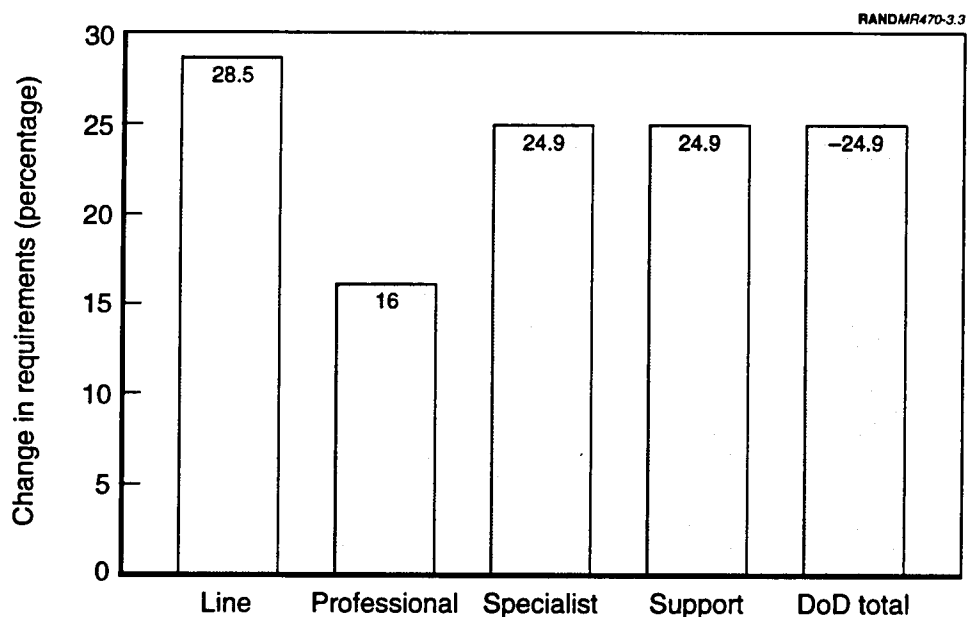


Figure 3.3—Enlarged Force (Option 2): Percentage of Changes in Officer Requirements from Notional Force

Table 3.13

DoD Estimated Officer Requirements,^a Enlarged Force (Option 2)

DoDOC Area	Grade						Totals
	O-1	O-2	O-3	O-4	O-5	O-6	
1	0	40	290	590	940	1,570	3,430
2	650	17,860	29,040	13,420	8,890	2,570	72,430
3	180	1,160	4,590	2,700	1,450	570	10,650
4	1,360	5,120	13,650	6,450	3,500	1,090	31,170
5	130	850	7,450	4,860	3,440	1,450	18,180
6	450	4,600	16,070	9,400	4,460	2,890	37,870
7	360	2,400	8,390	5,730	3,810	1,630	22,320
8	230	2,230	7,090	4,540	3,430	1,290	18,810
9	0	580	2,260	1,560	1,090	460	5,950
Totals	3,360	34,840	88,830	49,250	31,010	13,520	220,810

^aUsing Naval Officer Billet Classification-Duty DoDOC.

the effect of the DOPMA grade tables, which decrease the field-grade content of the officer force as the size of the officer force increases. Thus, the defining characteristics and features of our estimated officer requirements for the Enlarged Force option closely parallel those of its historical antecedent.

Detailed Description of the Streamlined and Reengineered Force (Option 3)

Option 3, our next alternative, had two primary objectives. These were to explore the potential effect of (1) streamlining the officer structure by converting selected nonmilitary unique skills within future officer requirements to civilian positions and (2) reducing the field-grade content of projected future requirements by downgrading some of the remaining field-grade officer position requirements to less costly company-grade positions. Both of these "organizational reengineering" efforts are assumed to be driven by domestic economic pressures and resultant reductions in the resources allocated to national security.

Using Option 0 as our initial point, we selected certain officer skills for civilianization. The skills selected—primarily civilian related and nonmilitary unique skills—were in the support and the professional skill groupings plus the major DoD occupational groups containing officer acquisition skill requirements within the specialist skill grouping. Having identified a considerable number of potential civilianization targets, we then converted some of our estimated officer requirements in these groupings using the following decision rules and civilianization percentages:¹⁵

- From support: 50 percent of 4A, 7C, 7D, 7E, 7F, and 7G
 all of 8F and 8G
- From specialist: 50 percent of 5L and 8D (R&D and procurement)
- From professional: 50 percent of 5F and 5G (legal and chaplain)
 25 percent of area 6 (health care).

To reduce the field-grade officer content in a plausible manner, we also analyzed the field-grade content of each DPPC, as previously discussed in this section and identified those with an average field-grade content that was higher than that of our origin, Option 0. We then focused our grade reduction effort on the centralized logistics and management headquarters activities' DPPCs. These force elements contained some 16,000 officer requirements from all services, generally concentrated in five DoDOC areas. We downgraded approximately 4,000 or about 25 percent of these field-grade requirements to the grade of captain within their respective DoDOC areas. In general, this action reduced existing field-grade contents in these force elements from a high of some 82

¹⁵See Appendix A for the DoD occupations represented by these codes.

percent to about 62 percent. The fact that these higher headquarters require more experienced officers is understood, but lacking a specific set of service organizational reengineering guidelines and desiring to be uniform in our methodology, we chose this approach and believe it to be reasonable based upon earlier historical precedents.

This methodology produced a total of about 156,000 officer requirements for the Streamlined and Reengineered Force. These requirements, which are markedly different from those of the other options, are shown by skill grouping and service in Table 3.14.

The projected overall officer requirements associated with Option 3 are about 12 percent less than those of the Notional Force. The skill mix of the estimated officer requirements also has a distinctly higher proportion of military-unique skill requirements and a lower field-grade content. Further, changes occur in all skill groupings, including an almost 6 percent increase for the line from Option 0 and a reduction in total field-grade content of the force to about 42 percent. The even more dramatic relative reductions in each skill grouping that could occur are highlighted in Figure 3.4. Note that the line skill grouping shows no change since it by definition includes only military-unique skills that were not affected by civilianization. The other skill grouping with military-unique skills is the specialist grouping, which was reduced by the selection of officer acquisition skill positions for civilianization in our design. Moreover, the results also suggest that we accomplished our objective of appreciably reducing officer requirements by targeted civilianization of the selected DoDOC groups.

A fuller appreciation of the effect of Option 3 can be gained by comparing the DoDOC information in Table 3.15 with similar data shown earlier for Option 0, which is contained in Table 3.9. For example, the size of occupational area 2—tactical operations officers—remains unchanged at some 54,000, but its

Table 3.14
Description of Streamlined and Reengineered Force (Option 3)^a Service Officer Requirements by Skill Groupings

Major Skill Grouping	Army	USAF	Navy	USMC	Total
Line	24,030	27,010	17,520	8,990	77,550
Specialist	4,330	13,980	7,370	1,330	27,010
Support	9,020	6,290	6,330	2,280	23,920
Professional	8,820	10,040	8,440	160	27,460
Total	46,200	57,320	39,660 ^b	12,760	155,940

^aEstimated officer requirements using DoDOC.

^b2,654 technical requirements removed as warrant officers.

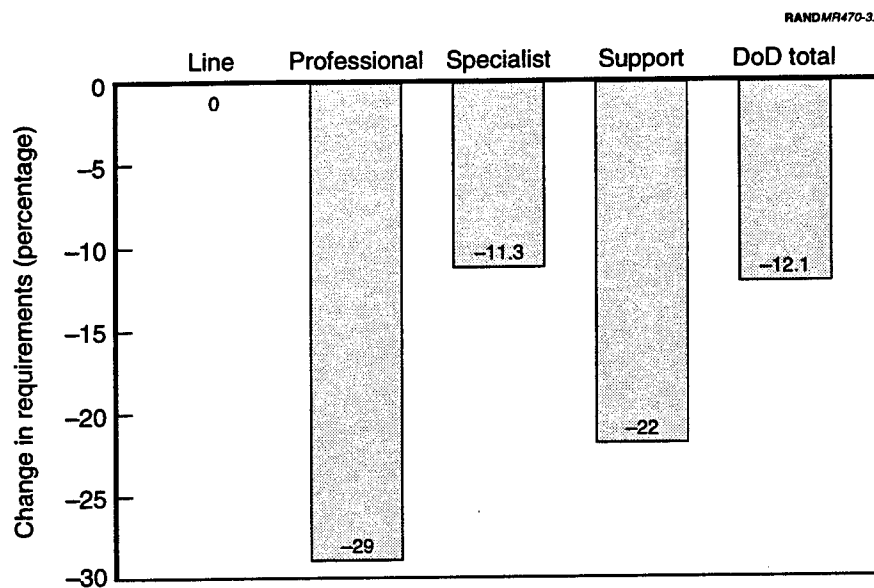


Figure 3.4—Streamlined and Reengineered Force (Option 3): Percentage of Changes in Officer Requirements from Notional Force

Table 3.15

DoD Estimated Officer Requirements,^a Streamlined and Reengineered Force (Option 3)

DoDOC Area	Grade						Totals
	O-1	O-2	O-3	O-4	O-5	O-6	
1	0	30	620	520	930	1,450	3,550
2	380	11,030	23,780	10,090	7,030	1,850	54,160
3	140	670	3,510	2,360	1,340	510	8,530
4	910	2,970	10,600	4,650	2,450	610	22,190
5	90	420	4,710	3,280	2,240	890	11,630
6	300	2,860	10,040	6,340	2,990	1,900	24,430
7	110	1,470	5,640	3,320	2,040	790	13,370
8	190	1,390	5,470	3,080	2,400	840	13,370
9	0	390	1,800	1,170	970	380	4,710
Totals	2,120	21,230	66,170	34,810	22,390	9,220	155,940

^aUsing Naval Officer Billet Classification-Duty DoDOC.

percentage of the smaller Option 3 total is over 34 percent versus about 30 percent of the total officer requirements noted earlier in Option 0. In occupational area 6, health care officers, the content in Option 3 drops to a little over 15 percent of the total compared with 18 percent in Option 0. In summary, the officer requirements reduced through our selected civilianization effort are reflected in varied reductions in occupational areas 4, 5, 6, 7, and 8. The changes in the totals of these DoDOC areas can be attributed only to the civilian conversion since that was the only activity affecting size in Option 3. Secondly, the downgrading of field-grade positions is also evident by inspection of the

same tabular data. A field-grade structure content reduction of some five percentage points—from 47 percent in Option 0 to 42 percent—occurs in this option. While masked in some DoDOC areas by our civilianization, a direct example of our downgrading of positions is evident in DoDOC area 2, tactical operations officers, where the total officer requirements is unchanged. Here the percentage of field-grade positions is 35 percent for Option 3, down from about 39 percent for Option 0. In total, we observed noticeable decreases in field-grade content in DoDOC areas 2, 4, 7, and 8. The combined effects of this option appear to be plausible and particularly significant in terms of their potential ramifications for future officer career management systems.

Detailed Description of the Specialist Force (Option 4)

The Specialist Force, Option 4, was designed to illustrate the technological effect of increased demand for more specialists on the skill grouping mix. Thus, we estimated our officer requirements projections for this option using the same total officer requirements size, field-grade content, and DoDOC makeup as the Notional Force. As described earlier in concept, we selected the following DoDOC groups for transfer from line to specialist skill groupings in this option:

- 2A, fixed-wing fighter and bomber pilots
- 2D, aircraft crews
- 2E(-), ground and naval arms (submariner positions only).

The resulting skill grouping mix is shown by service in Table 3.16.

Officer requirements in some skill groupings vary by almost 4 percentage points from Option 0. The comparative reductions in skill groupings are significant and shown in Figure 3.5. Note the decrease of some 10 percentage points in the line

Table 3.16
Description of Specialized Force (Option 4)^a Service Officer Requirements by Skill Groupings

Major Skill Grouping	Army	USAF	Navy	USMC	Total
Line	24,030	21,250	15,830	8,180	69,290
Specialist	5,200	22,030	9,440	2,150	38,830
Support	10,730	8,650	8,540	2,640	30,560
Professional	12,530	13,940	11,860	310	38,640
Total	52,490	65,880	45,670 ^b	13,280	177,320

^aEstimated officer requirements using DoDOC.

^b2,654 technical requirements removed as warrant officers.

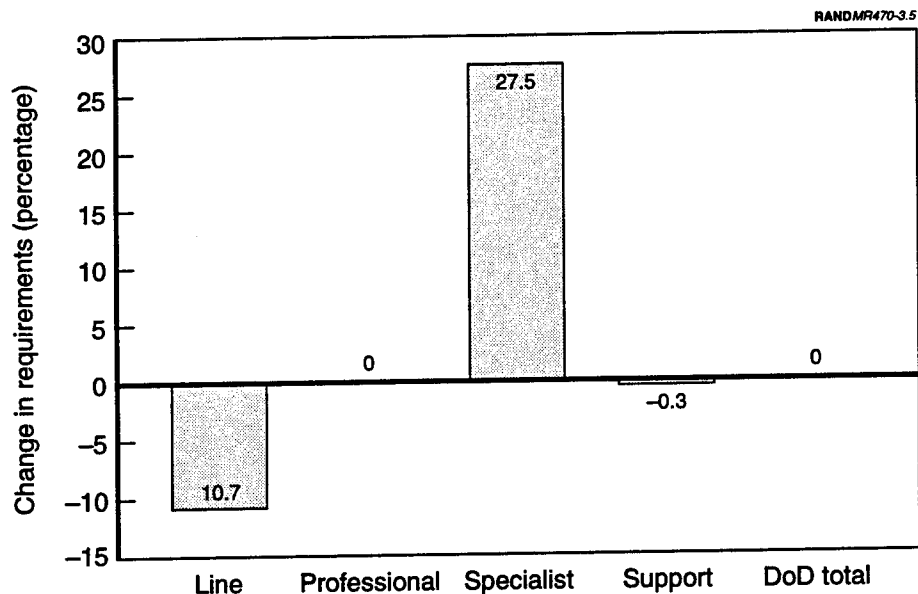


Figure 3.5—Specialized Force (Option 4): Percentage of Changes in Officer Requirements from Notional Force

skill grouping from Option 0 and an over 27 percent increase in the requirements for specialist skills in the same size force.

As expected, the DoDOC area and grade distribution for Option 4 remains unchanged from Option 0. This confirms our intention to retain the same force size and organizational construction as the Notional Force and to vary only the skill mix within the major skill groupings. Since we did not change the DoDOC coding of the officer positions but only the defining criteria for the skill groupings, no changes in the DoDOC area sizes are evident.

Detailed Description of the Generalist Force (Option 5)

The last option—the Generalist Force, Option 5—was designed to illustrate the technological effect of reduced demand for specialists and a commensurate increase in line requirements on the skill grouping mix. It also was estimated using the same total officer requirements size, field-grade content, and DoDOC makeup as the Notional Force. As described earlier in concept, for this option we selected fully one-half of the positions in the following DoDOC groups within DoDOC area 4, engineering, for transfer from specialist to line:

- 4B, electrical/electronic
- 4C, communications and radar

- 4G, ship construction and maintenance
- 4H, ship machinery.

The resulting officer requirements by skill grouping and service are shown in Table 3.17.

Officer requirements in some skill groupings also vary by almost 4 percentage points from Option 0. The comparative changes in skill groupings are also significant and are shown in Figure 3.6. Note the increase of some 8 percentage points in the line skill grouping from Option 0 and an over 21 percent decrease in the requirements for specialist skills in the same size force. This option thus

Table 3.17

Description of Generalist Force (Option 5)^a Service Officer Requirements by Skill Groupings

Major Skill Grouping	Army	USAF	Navy	USMC	Total
Line	25,290	30,130	19,310	9,380	84,120
Specialist	3,940	13,160	5,850	950	23,900
Support	10,730	8,650	8,640	2,640	30,660
Professional	12,530	13,940	11,860	310	38,640
Total	54,490	65,880	45,660 ^b	13,280	177,310

^aEstimated officer requirements using DoDOC.

^b2,654 technical requirements removed as warrant officers.

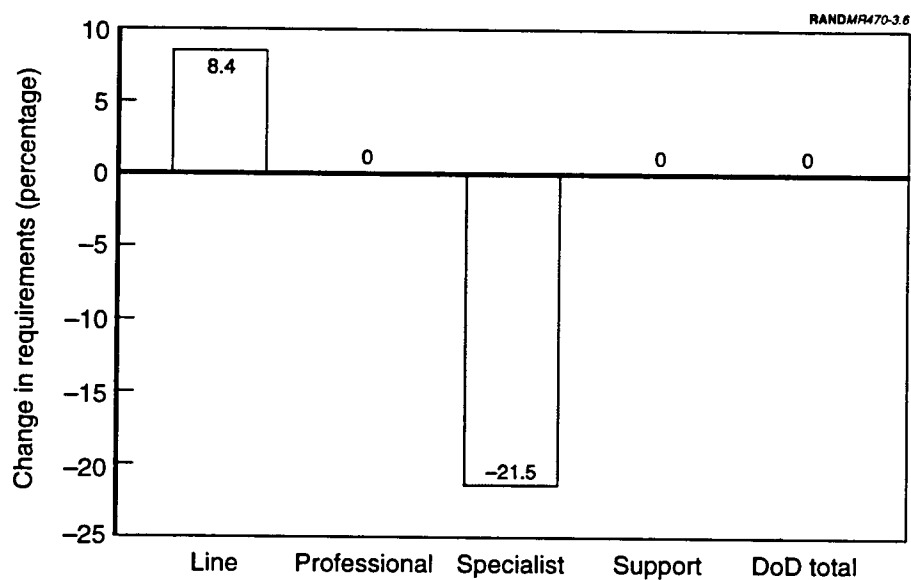


Figure 3.6—Generalist Force (Option 5): Percentage of Changes in Officer Requirements from Notional Force

moves the skill mix in the opposite direction of Option 4 from the origin of Option 0.

Once again, since only the assignment of officer requirements to a skill grouping was valid, the DoDOC and grade distribution for Option 5, by design, remain unchanged from Option 0, the Notional Force.

Comparative Dimensions of the Officer Requirement Options

Each of the six options provides a different perspective on a potential future officer requirement end state based upon a projected change in one or more of the three major determinants of size, organization, and technology. Collectively, they also provide valuable insights into the potential magnitude of shifts in requirements that could occur relative to Option 0—the Notional Force. Table 3.18 and subsequent discussion focus on the comparative aspects of the six options and the universe of potential outcomes they encompass.

Table 3.18
Summary Comparison of Officer Requirements Options (DoD-wide)

Option	Size (in thousands)	% Change from Option 0	% Field-Grade Content	% Change in Skill Group Mix	Service ^a Impacted
0	177	N/A	47	N/A	N/A
1	128	-28	44	<1 All	All
2	221	+25	42	<2 All	All
3	156	-12	42	=6 spt & prof	All
4	177	0	47	<5 L & spec	AF, N, M
5	177	0	47	<4 L & spec	All

^aAF=Air Force, N=Navy, M=USMC, L=line, spt=support, prof=professional, spec=specialist, N/A=not applicable.

Size

The maximum potential change in total officer requirements defined by the options is approximately 93,000 requirements (128,000 in Option 1 to 221,000 in Option 2). Compared with Option 0, Option 1 reduces total officer requirements by almost 28 percent, while Option 2 increases them by almost 25 percent. The range of these changes appears adequate to encompass the most likely set of future officer requirements and to determine if changes in the size dimension of officer requirements will create different demands on the alternative future officer career management systems. It should also be noted that while not a

designed size change, Option 3 resulted in a set of officer requirements of 156,000, which is between Options 0 and 1. This provides a further point in our universe of officer requirement options that is identified with changes in both size and organization.

Field-Grade Content

The field-grade content of the various projected officer requirements is important from an organizational as well as a cost standpoint. The change from the 47 percent field-grade content in the Notional Force to 42 percent in the Streamlined and Reengineered Force, though seemingly small, actually equates to about 10 percent in total field-grade requirements. A differential of this magnitude could have important cost ramifications, given that a higher field-grade content of the same number of total requirements will typically be more costly to sustain (e.g., higher military pay and allowance costs).

Skill Group Mix and Changes

One of the primary purposes of the technology and organization options (Options 3, 4, and 5) was to change, in various ways, the skill group mix of officer requirements. Inspection of the results of these modeled options reveals changes ranging from 1 to 6 percent in individual skill groupings compared with those in Option 0. The largest variations in officer requirements by skill group in all six options provides a range of slightly more than 58 percent (a -29.8 percent reduction in the professional skill grouping in Option 1 and a +28.5 percent increase in the line skill grouping in Option 2). The range of change in any one specific skill group is 49 percent for the specialist grouping (a +27.5 percent increase in Option 4 and a -21.5 percent reduction in Option 5 relative to Option 0—the Notional Force). This is closely followed by the line skill grouping, with a range of change slightly more than 55 percent (a -26.8 reduction in Option 1 and a +28.5 percent increase in Option 2). While other changes in the skill mix are less dramatic in measure, they vary sufficiently to accomplish the objectives of these options in placing new types of demands on our alternative future officer career management systems.

Service-Specific Effects

In most options (specifically Options 1, 2, 3, and 5), each service is, in general, affected in proportion to its respective share of the total officer requirements and the scope of change to these requirements. Option 4, the Specialist Force,

however, is exceptional in that it does not affect the Army. This option was built by moving the officer requirements for submariners, fighter and bomber pilots, and air crews to the specialist skill grouping. These officer requirements are in all military services but the Army, which has few commissioned officers in potentially high-skilled pilot positions. In fact, the analogous requirements in the Army are attack helicopter pilots, the majority of which are warrant officer rather than commissioned officer requirements. Since the other military services require commissioned officers as pilots, Option 4 changes only the skill grouping mix of pilots in the Air Force, Navy, and Marines. Since Option 4 was only an example of technology-induced specialization, it is not important that all military services be affected in the same way. The Army could design its own specialization option if the potential consequences of such change appear interesting and likely. However, our measures of potential technology effect seem more than sufficient to challenge our alternative future officer career management systems.

Summary of Officer Requirements Options

This section set out to develop a group of plausible, but markedly different, potential future officer requirements options for use in assessing the relative merits of alternative officer career management systems. To accomplish this, we varied the three major determinants of size, organization, and technology and focused our modeling efforts on developing and providing meaningful quantitative measures that captured the major defining characteristics and features of each alternative officer requirement option and facilitated relative comparisons of the options and alternative management systems.

The six potential future officer requirements options presented in this section achieve these purposes. Each option defines a potential future officer requirement based upon the effects of a projected change in one or more of the three determinants most vulnerable to change. Additionally, to gain insights into other important issues, we have included externally induced civilianization and grade-structure changes in one of the modeled options. Finally, the individual features of each option collectively circumscribe a significant universe of officer requirements and thus provide a robust and meaningful spectrum of potential outcomes for assessing the relative merits of alternative future officer management systems and their inherent design principles. Subsequent sections identify alternative officer career management systems and evaluate their effectiveness against this set of officer requirements options.

4. Career Management Principles and Application to Officer Careers

Having determined a range of officer requirements, we turn to the structures used to manage officers. In this section of the report, we present a general model of a career management system and discuss the basic personnel functions associated with it. We describe how we extend the general model to our discussion of officer career management. We also describe how two fundamental policy choices about entry and attrition influence the flow of people into and out of organizations. Next we describe how varying personnel functions can influence the shape of the officer corps. Finally, we provide an illustrative example of how varying career structures and one of the personnel functions—promotion—can change the shape of the officer corps. The purpose of this section and, to a lesser degree, the next is to provide a basis from which to develop a number of career management alternatives that will allow us to highlight the policy implications of choosing one alternative over another.

General Personnel Management Model

The management of a workforce requires the personnel system to acquire people, move them through the organization over time, and, eventually, transition them out of the organization. These basic personnel functions are implemented through policy decisions. Figure 4.1 provides a snapshot of a notional workforce. The curve represents the number of people in the workforce at each year of service for a 30-year career.

Basic Personnel Functions

The management process is accomplished through the following six basic functions.

Enter People into the System. This function involves both attracting people to the organization and entering them into it. Individual “firm-specific” systems can be characterized either as “closed” with people entering at the bottom or as “open” with people given credit for other experience or education and entering at different points in the career path.

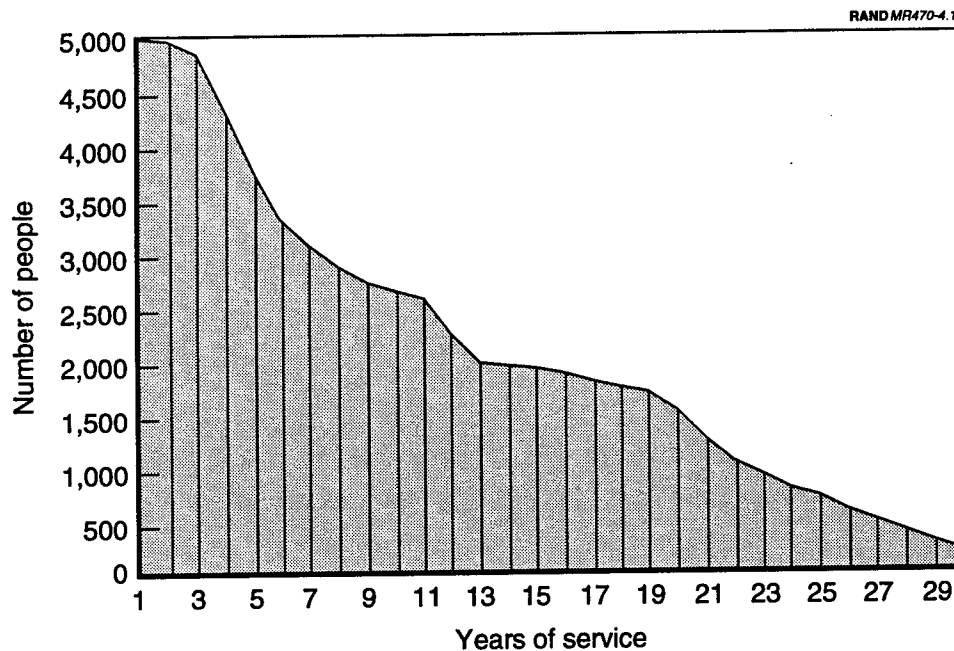


Figure 4.1—Notional Workforce

Develop Organizational Knowledge and Skills. This function pertains to developing the knowledge, skills, ability, and attitudes that are desired by the organization. This function can begin before people join the organization, and demonstrated knowledge or attitudes can serve as a screening mechanism to determine who enters. Examples of preentry development include management trainee programs, the Reserve Officers' Training Corps (ROTC), and the service academies.

Assign. This function distributes people across the organization. It closely links with the development function because assignments can in themselves be part of the career development of an organization's members.

Promote. Exercise of this function advances individuals within the grade structure of the organization. Typically, it involves increased responsibility and compensation. It relates closely with the assignment function, because many assignments require individuals of a certain grade.

Exit. This function moves people out of the organization.

Exercise Quality Control. This function spans the others, beginning with entry, when some are deemed unsuitable to join the organization. Other functions, such as development, assignment, and promotion, serve as the mechanisms by which quality control is exercised. Because of its cross-functional nature, we do

not deal with it as a separate function as we develop the general model to depict officer career management.

Policies Determine How Functions Are Discharged

Personnel functions alone do not constitute a career management system but are dependent upon policy decisions for implementation. Policy decisions are crucial because they define the career management system and determine the shape of the organization's workforce. Organizational objectives drive policies. For example, an organizational objective to have youthful management will result in policy decisions about the entry, promotion, exit, and, perhaps, the quality control functions.

Designing Alternative Career Management Systems

Our analysis of various personnel systems—both military and civilian—leads us to conclude that two policy choices are most important in determining career patterns because they fundamentally influence the nature of the career management system. The choices are binary and affect where in the organization people can enter and on what basis they leave. As Figure 4.1 illustrates, people either enter the organization at the beginning of the career path (closed) or they join it at any point along the career path (open). People either leave at their choice (natural attrition) or that of the organization (forced attrition).

Most military systems are closed systems; people can only enter the organization at the beginning of the career path. The closed nature of the system supports a strong organizational culture.¹ Knowledge about the organization and its culture is highly valued. Besides the military, the professions (health, law, etc.) are typically used as examples of closed communities requiring commitment, adherence to a code of law and ethics, and knowledge and skill expertise acquired only by long education and experience.

By contrast, in open systems, people enter at any level at which an organization has need for them. Often people rise through an occupational career by changing firms and entering a given firm at an advanced level. Their immediate skills are

¹As defined by the General Accounting Office, organizational culture is the underlying assumptions, beliefs, values, attitudes, and expectations shared by an organization's members. An organization's beliefs and values affect the behavior of its members. General Accounting Office, *Organizational Culture: Techniques Companies Use to Perpetuate or Change Beliefs and Values* (NSIAD 92-105), February 1992, p. 1.

valued more than their knowledge about or commitment to the organization.² Current examples of open system organizations include sports teams and the entertainment industry. In the case of the military, there is only one employer and advancement in the occupation is synonymous with advancement in a company.

With natural attrition, the choice belongs to the person. People may stay in the organization as long as they want. The organization may choose to provide incentives at various points to entice continuation or induce separation, but the choice to depart for a minimally competent person still belongs to the individual. With forced attrition, the organization makes the choice. Given that people want to stay, the organization determines who will, based on whatever organizational objectives it wants to accomplish and by whatever means seem best. In the military, forced attrition has been primarily implemented through the promotion system and secondarily through the retirement system. However, forced attrition does not have to be implemented via these mechanisms. Other mechanisms that might be used are age, vigor, health, and fitness; skill and experience; or contract completion.

Philosophies Relating to Career Flow Structures

Our observations of the many career management systems suggest that the combination of the various permutations of these two basic functions lead to one of four career flow structures, each of which supports a different philosophy of organizational management.

An organization that wants to control upward movement would choose a flow structure in which people enter at the bottom and the choice about attrition is left to the organization. Continually eliminating groups of people at different levels in the organization—presumably to meet specific organizational objectives—makes room for those identified as better able to meet the objective. If, for example, the objective is a youthful workforce, this type of structure could accommodate that goal by eliminating older workers. The prospect of planned movement and greater opportunity for some tends to motivate people. It also tends to reduce career longevity and retirement expenses. The flow upward provides experience and prepares those who remain in the system for higher

²Some terms will be used frequently. *Ability* is characteristics in the individual leading to adequate job performance. These characteristics include *skills* (what a person can do), *knowledge* (what a person knows), *attitudes* (beliefs and convictions an individual is expected to hold), and *experience* (previously applied use of skill and knowledge). Ability and motivation usually lead to successful outcomes.

positions. Since those who remain have moved through the organization, this structure builds both a strong organizational experience base and culture.

A desire for strong organizational culture and a stable workforce would favor a career flow structure that brings people in at the bottom, induces them to remain for long careers, but leaves the decision about when to leave to them. This type of structure inculcates its members with the organizational culture and allows careful development of experienced people for the higher positions. It tends to minimize both accession and termination costs and maximizes the return on development costs. It allows the organization to benefit from all of its members who reach the height of their usefulness, and it tends to preserve skills. The strong culture, stable careers, and prospect of longevity inspire loyalty. Promotion decisions are separated from termination decisions. This sort of structure is also more consistent with a profession.

An organization seeking the greatest ability to change would choose a career flow structure that provides it maximum flexibility about when people enter and exit the organization. Thus, it would choose one that allows people to enter at will, but the organization would retain discretion for exit decisions. Such a structure allows rapid changes in almost any aspect, for example, in size, composition, or culture. Further, it allows the organization to meet its needs quickly and minimizes accession and development costs. It also allows an organization to meet its needs precisely. It can acquire the exact skills and number of people needed. Allowing organizational choice of attrition provides the capability to eliminate groups of people to meet organizational objectives.

It is also possible to mix characteristics. An organization seeking maximum flexibility in all dimensions of entry and exit would choose a mixed career flow structure, which allows selection from any of the other approaches. Which aspects are selected depends upon the characteristics most needed by the organization to accomplish its goals. It is possible to apply different strategies at different points in the career path. For example, an organization might want to control movement tightly in the early stages of a career path, so it would enter people at the bottom and retain only those who best meet organizational needs. The organization might leave the exit decision to the more senior members of its workforce, in essence granting tenure to all who reach a certain point in the career path.

Career Flow Structures

The choices about means of entry and attrition determine the nature of the career flow structure in an organization. Career flow structures are important choices because they have more effect on the nature of careers than other significant variables of career management. For example, different career flow structures affect commitment by creating quite different expectations between the person and the organization.³ Career flow structures affect competence of the work force, the strength of an organization's culture, and networks of relationships that develop that make it easier to coordinate interdependent parts of the organization. Additionally, for the military, relationships with society are affected by career patterns in that structures with higher entry and exit flows would be expected to create more numerical bonds to society than those without them. Choice of a flow structure should be weighed carefully against purpose and objectives for career management.⁴ The choice of a career flow structure imposes constraints on the policies established for each personnel function.

Four career flow structures are common: "up-or-out," which is now employed by the U.S. military; "up-and-stay," which is used by many foreign militaries and many private and public sector organizations; "in-and-out" or lateral entry, which is also used in many private and public sector organizations; and "mixed," which uses the other three in various combinations for segments of a career. These career flow structures are generally independent of manpower requirements in that each can meet any specified numerical workforce level. However, each structure meets it in a different fashion and thus may be better suited for certain organizational objectives or more cost-effective in meeting specific manpower requirements than others. The remainder of this section discusses the nature and advantages and disadvantages of each of the four career flow structures. We stress at this point that we are not advocating any of these structures as best for a future career management system. We are interested in what objectives the structures serve and what effects they have if used.

³Many companies have scrutinized and rewritten policies to ensure the removal of implied promises about job security or lifetime employment. Employment relationships result from psychological contracts. These understandings, explicit and implicit, exist between employee and employer, shape people's beliefs and expectations, and are powerful motivators and demotivators. Flow structures underlying career management are part of these understandings. For example, more than half of middle managers in a 1986 Harris survey of 600 large corporations believed that when they started working for their current employer they could stay as long as they liked, assuming they were doing a good job. Robert M. Tomasko, *Reshaping the Corporation for the Future*, American Management Association, New York, 1990, pp. 50-51.

⁴Adapted from Michael Beer et al., *Human Resource Management*, The Free Press, New York, 1985, pp. 241-250.

Up-or-Out

Nature. An up-or-out structure is characterized by entry into the military at the start of a career and forced or induced separation on some basis (e.g., failure to progress in grade) at a later point. It is important to ensure that the choice of forcing mechanisms accomplishes the underlying organizational objective. For example, if the objective is a young and vigorous officer corps, policymakers must choose a forcing mechanism related to that objective, e.g., separation age. If the objective is increased flow of younger officers to the reserve component, policymakers must choose a mechanism related to that objective.

Advantages and Disadvantages. Up-or-out provides incentives for continued good performance and allows services to retain the best performers. However, depending on the amount of forced attrition, there can be high turnover, which generally increases movement and training costs and disrupts organizations. But turnover also makes people available for other purposes. For example, the military may want sufficient early turnover of officers to support the reserve component. The closed nature of the system supports a strong organizational culture, but the forced-attrition mechanism diminishes long-term commitment. In the military and other organizations, youth and vigor are associated with this type of structure, but that has more to do with the selection of the intermediate exit points than the structure itself.⁵ The forced separation decision for the military has been tied to promotion (the origin of the up-or-out label), but other mechanisms could be used. For example, the military has also used the retirement system to force separation.⁶

Moreover, the military has a near-unique characteristic of being the only institution in which the profession of being an officer can be practiced. An officer must be employed by the military to be in the military profession.⁷ A doctor can

⁵But as van Crevelde points out, no matter how the "out" is implemented, in an up-or-out system "the culture becomes increasingly obsessed with youth" even as the life expectancy—and health and vigor—of the population rises. Martin van Crevelde, *Command in War*, Cambridge, MA: Harvard University Press, 1985, p. 72.

⁶"In World War II, senior officers had to be removed because of their age, health, and inefficiency. The majority of these officers were simply unable to meet the physical requirements of command or withstand the rigors of battlefield conditions; . . . Congress enacted a 20-year retirement system and a selective 'up or out' promotion system to keep promotion opportunity at an acceptable level and to maintain a youthful force." Paul Arcari, "Why Military Personnel Can't Serve Until Age 62," *The Retired Officer Magazine*, October 1993, p. 35.

⁷Distinguishing characteristics of a profession include: knowledge and skill expertise gained by formal education and long-term experience often validated by formal examinations and credentials; career commitment and a closed community with strong feelings of loyalty; accession, assignment, and promotion based on competence; and a formal code of law and ethics developed, maintained, and applied by the profession. Appendix B elaborates on the profession of "officership" and its meaning for career management of officers. Additionally, this appendix reviews how changes in threat, military strategy, technology, societal demographics and culture, the economy, and the demands of officers themselves are likely to change the defining characteristics of officership. If

leave one hospital and practice medicine at another, but to be a practicing officer requires staying in the military. Forced attrition terminates participation in the profession. Commitment to the officer profession also entails entry into an organization with a strong organizational culture based on values. Sociologist Erving Goffman referred to this as a "total institution," characterized by (1) all activities being carried out under a single authority, (2) the influence of the immediate company of others who hold the ideals of the institution, (3) a disciplined life fixed by a set of formal rules and procedures, and (4) all activities aimed toward fulfilling the official aims of the institution.⁸ A former general officer describes this situation more bluntly: "There is only one military in our nation. You are either in or out. There are no lateral transfers to another military. In other words, the 'company' is also the entire profession!"⁹ Other professions are not normally as identified with a single institution. So the forced attrition inherent in this career flow structure means that not only must an officer leave the institution (Army or Navy), he or she must also leave the profession.

Up-and-Stay

Nature. An up-and-stay structure is characterized by entry into the military at the start of a career and continuation at will of the individual for a full career even if not advanced.¹⁰ The military has used this structure for selected skills where shortages of officers exist. For example, Congress has encouraged selective continuation of officers when their skills are needed.¹¹

Advantages and Disadvantages. A structure of this type provides career stability. Also, this structure is consistent with the professions, of which, as indicated, the military is one. Additionally, promotion decisions are independent of separation decisions. Less turnover occurs than with up-or-out, and thus the organization requires fewer new entrants to sustain its numbers. This structure best supports organizations with a strong culture because those who accept and adapt to the culture are allowed to stay.

change makes officership not a profession (i.e., it does not match the defining characteristics), then there are consequences for officer career management. In particular, career structures that are not closed, such as in-and-out are tenable.

⁸Erving Goffman, *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*, New York: Anchor Books, 1961, and "The Characteristics of Total Institutions," in Amitai Etzioni (ed.), *Complex Organizations*, New York: Holt, Rinehart & Winston, 1969.

⁹Walter F. Ulmer, Jr., "Inside View," *Issues and Observations*, Center for Creative Leadership, Vol. 13, No. 2, 1993, p. 7.

¹⁰Throughout this study, we will assume that those without satisfactory performance are separated from the career system in appropriate ways.

¹¹For these officers, however, a career will tend to end sooner—usually at the first retirement point—than for officers who continue via selection for promotion to the next grade.

The usual criticism of a structure of this nature is that too much "deadwood" can accumulate. Also, in up-and-stay structures, people reach a plateau at a certain grade or rank;¹² increased future compensation results from longevity at that rank and not from promotion. Motivation (and additional compensation if desired) must come from sources other than promotion. In some respects, the compensation system that the military uses better supports retention in an up-and-stay structure than performance in the up-or-out structure it is supposed to support because it rewards longevity more than promotion.¹³

In-and-Out

Nature. An in-and-out structure—also called a lateral entry structure—has entry and exit at multiple points in careers. Entry for individuals need not be at the beginning of a career; experienced people who leave can be replaced with experienced, but new, people of needed skills, knowledge, and abilities. In the military setting, officers entering laterally might be from civilian life, from reserve status, from another military service, or from some other source. Attrition can be either forced or natural. Forcing mechanisms can parallel those of an up-or-out system or those of the private sector, e.g., a term contract renewable at the discretion of the organization.

Advantages and Disadvantages. In-and-out is widely used in private and public sector organizations especially where occupational and professional identity is not the same as employment by a specific firm. It allows organizations to get needed skills at any point in an experience profile. It is becoming more widely used in organizations that previously had a strong culture to allow needed change in the culture or to more quickly change the composition of the management ranks. In the private sector, organizations with previously strong internal cultures that had used up-and-stay structures are moving to open themselves to more outside hiring including for the most senior levels.

In militaries, the dominant need for military knowledge and experience has limited use of this structure to certain skill groups. The military has employed an in-and-out structure in limited ways to attract professionals such as doctors and lawyers whose professional skill substitutes for military knowledge. In-and-out gives the organization the greatest capacity to change its composition and culture

¹²The issue of plateaued employees is one that many organizations will have to face as a result of reengineering and delayering. With fewer levels in an organization, promotion is less frequent. See the later subsection on Developing for a discussion of plateaued employees.

¹³Office of the Assistant Secretary of Defense (Force Management and Personnel), *The Report of the Seventh Quadrennial Review of Military Compensation*, Washington, D.C., August 21, 1992, p. 5.

as skill experience outweighs organization experience and immersion in the organizational culture.

Key to using an in-and-out structure is how much organization-specific knowledge is needed. This specific experience—acculturation in the organization—need not be at an early point in a person's *skill* career but only before or immediately after entry into the organization. For example, if a military service needs an airlift pilot with 10 years of experience, does that need equate to 10 years of flying experience and six weeks of military experience or to 10 years of military experience and 3 years of flying experience beyond initial pilot training?

Most militaries dislike this type of structure because it connotes entry to higher positions from civilian life, which diminishes the military profession. It receives grudging acceptance for others regarded as professionals (e.g., doctors) but little beyond that. The basis for outright rejection of this structure appears to be the desire to preserve the strong organization culture and the profession. However, some uses of the in-and-out structure appear to enjoy somewhat greater acceptance. For example, these in-and-out flows might be acceptable: early in careers, across military services, from reserve component to active component,¹⁴ from a status of recent military service, from enlisted status to officer status, and from a status of no prior military service in certain skills. Additionally, this structure has been used in times of national emergency requiring a rapid and massive buildup such as in World War II. In all cases, such acceptance in today's militaries would be grudging at best; for the future, such structures might have greater utility.

Mixed

Nature. Mixed structures can incorporate characteristics of any of the other three and thus can be designed in any number of ways. Attrition can either be natural or forced and may apply across an organization or to selected parts. Similarly, entry can be open or closed and applied differently to different parts of the organization. Additionally, the characteristics of entry and attrition could be applied differently in different segments (early or late) of a career.

¹⁴Many variations of use of reserve component officers on active duty are possible. Included are use in job-sharing arrangements where reservists might serve 120 days a year on active duty and the rest with a private employer and use of officers leaving active duty in more frequent active roles for several years after transition to the reserves.

Advantages and Disadvantages. A strategy of allowing mixed structures enables an organization to be very flexible in meeting the organizational needs for management of different skill groups at different career periods. Depending on use in various segments of a career, the mixed structure might emphasize one set of characteristics but embody others as well. For example, a mixed structure could have entry predominantly at the beginning of a career, but a limited number of later losses might be replaced from outside the organization. Up-or-out might be used early in a career with up-and-stay as a structure thereafter. Additionally, while one usually thinks of in-and-out as a lateral entry system, it also could be a lateral exit system if appropriate inducements to leave are included.

Mixed structures can be designed to accomplish specific objectives. For example, if the objective is to meet societal expectations about opportunity for military service or career compatibility, then early high turnover might have merit and an up-or-out structure can be used early in careers. This approach would allow more individuals an opportunity to serve and might support the institutions of accession as they exist today. Additionally, forced or encouraged separation between 3 and 10 years (but not thereafter except in special cases) dovetails neatly with reserve component needs for junior officers.¹⁵

Personnel Functions Provide Variation Within Career Flow Structures

Personnel Functions

Functional personnel activities integrate the individual's capabilities with the requirements of the position and affect outcomes. Manipulating personnel functions can provide variation within a career flow structure depending on the choices made about its various aspects. For example, maximum career length, a design concept for the transitioning function, applies to each of the career flow structures but has different outcomes in each. Selecting different maximum career lengths provides variation within the structure. The design of the personnel functions distinguishes career management systems from each other. The following subsections describe the design features of the four personnel functions—accessing, developing, promoting, and transitioning—and the variations available to policymakers.

¹⁵"The challenge is on the officer side. What we're faced with is 44.6 per cent of our officers are lieutenants [and] the active Army releases very few lieutenants." Colonel Douglas Hollenbeck, Chief of the National Guard Bureau Research and Staff Support Office, as quoted in Katherine McIntire, "Meeting Force Mandate Not an Easy Task," *Army Times*, August 23, 1993, p. 20.

Accessing

The goal of accessing is to "inculcate values, leadership techniques, and professional skills that will make an effective [officer] at the operational level."¹⁶ Accessing has an important effect on the future composition of the career officer corps, the ultimate fit of officers with the service's needs and culture, and on turnover. The function seeks to provide a military service with officers who have the needed ability—skills, knowledge, attitude, and motivation. The accessing function has a number of design features that the policymaker can vary. They include acculturation, entry ability, and initial tenures and career paths.

Acculturation. Fit—the match between individual ability and motivation and the needs of the military—must be realistic.¹⁷ The acculturation process increases the likelihood of fit between expectations, skills, and core values of individual officers and the military culture because it exposes the individual to the values, mores, and practices of the military culture. In so doing, it serves three functions. First, it provides the entrant with a preview of the culture being joined, and it allows the culture to judge how well the entrant will fit in. Second, the process imbues the entrant with cultural values, tightening the bond between the individual and the organization. Third, it is the entry mechanism to the profession whose characteristics include specialized knowledge and a closed community.

However, such acculturation and previewing to determine or condition taste for the military limit the process of future institutional change because those who fit best at the accession point tend to resemble those who have previously succeeded in the institution. Organizations that have chosen cultures and use a lengthy period of acculturation—education related to attitudes and norms—prior to entry have also decided, in many respects, that the ability to stay the same over time is more important than the ability to change.

¹⁶Casey, *Social Origins*, op cit., p. 1.

¹⁷The characteristics on which fit is measured can change over time and between organizations. For example, "Perhaps often, and certainly occasionally, men cannot be promoted or selected or even must be relieved, because they cannot function, because they 'do not fit,' where there is no question of competence. This question of 'fitness' involves such matters as education, experience, age, sex, personal distinction, prestige, race, nationality, faith, politics, sectional antecedents, and such very personal traits as manners, speech, personal appearance, etc." Chester I. Barnard, *Organization and Management*, Cambridge, MA: Harvard University Press, 1949, p. 210. Many of the public policy debates about military service since 1949 and continuing to the present are over this issue of being fit along some previously accepted but currently objectionable attribute or characteristic. In this study, we are interested in a fit of attitude, knowledge, experience, and skills of officers with legitimate military needs at various points in careers. Thus, education and experience will be part of our study but not the other factors in Barnard's formulation. We will assume that the officer career system is based on merit and not on unrelated characteristics; other studies and reviews continue to measure the validity of this assumption.

The variation available to policymakers is to choose between long periods and short but intensive periods of acculturation and whether it occurs before or after entry. A long acculturation process such as that experienced by prospective officers at service academies or in ROTC programs allows for both acculturation and assessment of prospective fit by both the officer and the institution. Entry through short but intensive acculturation processes such as officer candidate or training schools means that the likelihood of a fit is less assured. Entry with little or no acculturation, such as could be expected with lateral entry at higher grades, also means that cultural fit is less assured. Accessing as currently done for most officers strengthens the culture of the organization as prospective officers receive signals about what the military expects.¹⁸

Entry Ability. This design feature pertains to the knowledge and skill needed immediately upon entry. Policymakers can opt for a general knowledge level or for skill-specific knowledge. In many organizations, recently including the U.S. military, a college degree serves as a credential for a minimum amount of general knowledge expected at entry. This credential does not relate to specific knowledge or skill to do the immediate job of ensign or lieutenant—which can be taught in far less time than four years—as much as it does to the potential to succeed in a career beyond the entry job.

However, many organizations and other militaries take a different approach to what ability is needed at entry. They seek individuals with knowledge, skill, and aptitude for the immediate job and then provide further education as needed for those who continue on to full careers. For example, many militaries use enlisted service and a short but intense officer training regimen to select those who can best be junior officers.¹⁹ College education, if deemed necessary, is provided afterward in preparation for future assignments. Obviously, not all are expected to have the potential for executive service; nor, in this concept, is it desirable that all do.

Initial Tenures and Career Paths. Another variation available in the accessing function is the amount of tenure granted upon entry. In some organizations, tenure is only for the entry position without expectation of a career. Careers, if they exist at all, are a series of linked positions over time. The length of the initial tenure (length of initial commission in military terms) is typically set either to recoup a training or experience investment or to judge whether an entrant has

¹⁸Adapted from Beer et al., *Human Resources Management*, op. cit., pp. 216–218.

¹⁹This is also akin to the process that the U.S. military uses to gain larger numbers of junior officers quickly. Officer candidate programs are expanded to produce officers capable of being lieutenants or ensigns. Entry to these programs may be from the enlisted force or from civilian life.

the potential for continued service. In other organizations, the initial tenure is for the entry position, but entry carries with it an expectation of continuing into a career track (augmenting)²⁰ given successful performance in the entry position. In still others, the tenure at entry is for a career. There is not a separate decision made about continuing. In some organizations, individuals enter immediately onto fast tracks, which amount to separate, quicker-advancement career paths in the organization. In other organizations, all enter onto common career paths, and subsequent decisions govern fast tracks along those paths.

Developing

The goal of developing is to continue to provide values, leadership techniques, and skills for use in the organization. Career development is a series of assignments by which individuals learn new skills, knowledge, and attitudes that are then used to accomplish organizational needs, while gaining useful experience as a base for further development. Periodically, training or educational tours also develop new skills, knowledge, or attitudes that would not be gained through assignments. Variations in this function include the duration and frequency of assignments, the type of career path, and the development objectives.

Developing must balance duration and frequency of assignments to meet service needs for skills and experience and officers' needs and desires for careers. These decisions determine the minimum military experience that will be needed in each grade and over a career. Moreover, decisions must be made about whether to provide common organizational experiences to all early in a career, whether a skill or cross-skill path will lead to the highest positions in the organization, and how to deal with officers who reach development plateaus.

Plateaus. Because of rapid promotion in organizations, homogeneity in the candidate pool, and shrinking layers of middle and upper management, the issue of plateauing is becoming increasingly important. A plateau is reached when the likelihood of further promotion is very low. In organizations with cultures that have previously emphasized promotion as the measure of success, plateauing is a problem because it can create the appearance of "retiring" on the job. Also, absent frequent promotion as a motivator, the organization must find other ways to provide motivation if it does not derive from job satisfaction directly. It can be

²⁰*Augmentation*—the process of becoming a career officer—is previewing after initial entry into military service and ends with judgments about officer potential to serve for a full career or at least until separated.

equally problematic simply to separate motivated and productive, but plateaued, managers because the result is loss to the organization of valuable human capital.

Organizations can deal with plateauing in several ways: offering more lateral (not necessarily geographic) moves with varied duties and responsibilities to keep work interesting and challenging, encouraging employees to leave voluntarily after shorter periods of service (useful where there is a high proportion of entry jobs relative to career positions), providing alternative career paths in other skills where promotion might occur; slowing the pace of promotion so that employee expectations about it are lowered, or developing of new skills with compensation and recognition tied to experience and the new skill and not to promotion. Additionally, recognition and status can be tied to career aspects other than promotion—e.g., performance, expertise, and teamwork—thus diminishing employee perceptions of plateauing.²¹

Duration and Frequency. Developing as a personnel function specifies the velocity of personnel movement through the chosen career structure.²² Velocity is affected by both duration and frequency of assignments along a career path, which may or may not be of fixed length. Assignments might be within or across skill groups. Policymakers have to balance the length of assignments with the number needed for individual development. And there are other trade-offs to consider. Frequent moves drive costs upward. Officers in positions for short times are less effective; costs of training and transfers are high; and risks of failure and costly mistakes increase with inexperience.

Furthermore, decisions about duration and frequency of assignment have to be made within the framework of career length. A set career length will affect the number and duration of assignments. Conversely, should a number of assignments of a given length be the dominant consideration, career lengths might have to expand to accommodate them.

Career Paths. Development can be used to link a series of career segments in various skill areas. There are three general ways to vary career paths. Paths can emphasize assignments common to the entire organization, specialized assignments, or cross-skill assignments. In many organizations, an entrant is expected to begin a career by serving in one or more positions common to all aspects of the organization. For example, in a retail organization, these would be assistant buyer or merchandise manager positions. In militaries, these would be

²¹See Judith M. Bardwick, *The Plateauing Trap*, New York: American Management Association, 1986, and James W. Walker, *Human Resource Strategy*, McGraw Hill, Inc., New York, 1992, pp. 205–207.

²²Adapted from Beer et al., *Human Resources Management*, op. cit., pp. 219–232.

operational assignments—service with soldiers, sailors, airmen, and marines in squadrons, in the fleet, or with tactical units. After this initial period of common experiences, an officer might then specialize in line, specialist, or support positions within the organization.

However, another common developmental pattern is to specialize early in a skill area and not share common organizational experiences. In this paradigm, an officer could begin a career as an engineering or transportation specialist or as a pilot and stay on that skill track.

A third developmental pattern is cross-skill. In this pattern, an individual moves across skills in line and staff²³ positions throughout a career to gain generalist experience. This type of pattern is specifically used to develop broad leadership and management skills apart from technical or even technical leadership/management skills.

These development patterns are all seen in the careers associated with the different categories of officers: line, specialist, support, and professional. Line officers devote most of their early careers to purely military skills with a later choice to be made about cross-skill experience. Typically, in the first 20 years, at least 60 percent of the time is spent in military skills. Skill²⁴ and cross-skill²⁵ experience is provided through both operational and staff tours. Educational experiences, both postgraduate and/or service school, enhance the military skills. A progression of command opportunities increases scope as the officer advances. Command at the O-5 level tends to be a de facto prerequisite for selection to O-6 in line skills. While most officers at the O-5 and O-6 level exit the service three years after reaching their highest grade, the career path extends to the maximum years of service. During the last decade of service, the emphasis is on use of the officer's expertise.

Specialist officers either receive extensive training at entry (e.g. nuclear power training) or become specialists after serving a period as line officers and receiving

²³In modern militaries, boundaries between line and staff are blurring, which makes it virtually impossible to separate an organization into line and staff in functional terms. More frequently, what was perceived as staff now directly affects or links into line. Intelligence is a good example. In modern warfare, a seamless web of relationships exists between certain (not all) kinds of support and line organizations.

²⁴Repetitive same or closely related skill experience is often referred to as "single track." For example, a Navy surface warfare officer (who is groomed to command ships) may single track by emphasizing ship's engineering and weapons systems. Air Force officers may single track, for example, as pilots. Army officers may choose single tracks as well. As will be discussed in the next subsection, these single tracks may be limiting for career advancement.

²⁵Cross-functional experience is the "dual track" alternative. Using the previous example, a Navy surface warfare officer may gain cross-functional experience (referred to as a "subspecialty" in the Navy) in personnel administration (in addition to his/her primary military experience in ship's weapons systems). The Army has also adopted a formal "dual tracking" mechanism.

specialized (usually postgraduate) education. Some specialists enter military service with the prerequisite education; they are usually given 3–6 years of military experience the same as a line officer. The specialist has essentially a line officer career path *plus* the additional time required for the specialized training (and any follow-on training, if needed).

The support officer practices and is developed in a civilian-related skill (readily found in the private sector) that has application or use in military service. Approximately two-thirds of the career path is dedicated to that skill from an occupational, as opposed to a military, perspective.²⁶

Officers who enter the service with a profession (doctors, lawyers, chaplains, nurses, etc.) have career paths dominated by providing professional services. Initial military training is minimal.²⁷ Early tours are primarily within the profession. In the second decade, emphasis increases on developing management skills for use within the profession as an alternative. Thus, a professional officer is frequently afforded a career path whereby he or she may continue to practice the profession, or pursue a management path within the profession.

Career paths typically specify either skill specialization or cross-skill experience as the success path—the career path that leads to the highest positions—and mandate management and leadership, which the military calls command,²⁸ within either. An emphasis on cross-skill mobility as the success path lessens barriers between skills, develops officers who understand the views of specialists, and cultivates officers committed to the solution of operational problems. However, this approach sacrifices depth-of-skill expertise and creates a two-class system that can be damaging to the morale and expectations of individuals in skill paths. For the military, the cross-skill track appears to be regarded more highly than a specialist skill path. Additionally, management—

²⁶A line officer might receive cross-skill experience in accounting and subsequently use that expertise to better understand a command budget. A support officer receiving similar accounting experience would subsequently use that experience to ensure that the accounting function was performed professionally in the military.

²⁷The Marine Corps tends to be an exception. There are limited numbers of officers in the professions because support in these area is provided mainly by the Navy. Lawyers receive traditional Marine early experiences.

²⁸In some services, the trend has been to designate many management positions, even those in staff areas, as commands. Van Creveld uses the word "command" in "much the same way as people commonly use the term 'management' to describe the manifold activities that go into the running of a business organization." Van Creveld, *Command in War*, op. cit., p. 1. JCS Pub 1-02, December 1, 1989, defines command as "The authority vested in an individual of the armed forces for the direction, coordination, and control of military forces."

command—has been prized.²⁹ Whether either of these remains as the success path in the future is one of the choices to make in designing the development function.

Development Objectives. Career development can be driven by a timetable dictated by military and service needs or by individual needs. Career paths and timetables driven by service needs—the requirement for military and skill experience—are the basis for determining the minimum experience needed for an officer to be considered qualified.³⁰ Career paths and timetables that accommodate an individual officer's needs are related to career commitment and satisfaction.

*Promoting*³¹

Promotion closely relates to development. Promotion is movement to a higher level in an organization with more responsibility and more compensation.³² Promotion is part of the formal reward system of the organization. The promotion function governs (1) how much vertical movement exists in the officer career management system, (2) at what points in a career it occurs, and (3) on what basis. The chosen career flow structure and promotion concepts can be used to create grade structures of any conceivable shape—not just a pyramid—to support requirements for grades. Choices need to be made about attaching rank to people or positions, timing and opportunity, promotion zones, the number of steps in the system, the mechanics, the basis for promotion, and the objective of promotion.

Rank-in-Job vs. Rank-in-Person. Variation in this design aspect attaches rank either to the position or to the individual. Most organizational career systems are based on a concept of rank-in-job. That is, the content of the job itself

²⁹ According to recent reports, the Army is debating whether to attach the same importance to some noncommand jobs that it attaches to command tours. Sean D. Naylor, "Job Debate Stalls New Career Maps," *Army Times*, November 29, 1993, p. 3. Most military officers do not command combat units but contribute to performance in today's complex organizations in diverse ways.

³⁰ Appendix I discusses career paths and the need for military experience in greater detail.

³¹ Adapted from Walker, *Human Resource Strategy*, op. cit., pp. 201–221; Dale S. Beach, *Personnel*, New York: Macmillan Publishing Company, Inc., 1975, pp. 344–355; and David Bartholomew and Andrew F. Forbes, *Statistical Techniques for Manpower Planning*, New York: John Wiley and Sons, 1979.

³² In some organizations the compensation system is divorced from the management track so that pay inversions—technical expertise rewarded more than management ability—occur. In the military, payments for specialized skill or expertise have been both in the form of retention bonuses or incentives and in the form of frequent promotions through a skill track independent from management.

determines an individual's status in the organization. Promotion tends to be based on performance and not seniority.

The military and some other organizations (e.g., universities) typically use a rank-in-person system. This system is also widely used among the professions. Status in the career hierarchy is based on validation of levels of competency and not on the content of any particular job being done. Rank-in-person uses a series of grades that are structured organization-wide to accord status. Rank-in-person fosters loyalty and commitment to a particular organization because status does not change even if the content of the job changes. With rank-in-person, promotions tend to be based upon some combination of seniority and merit.

In a rank-in-job system, the requirements structure determines the amount of promotion and the point at which it occurs.³³ Rather than specifying a numerical promotion stream over the life of a career in advance, the stream is measured after the fact as people move upward only as others move out of fixed positions. The career promotion streams can only be identified and measured retrospectively. The analysis of these systems in which promotion takes place only as vacancies occur³⁴ is limited to predicting promotions given fixed numbers of positions and people. The organizational structure of positions controls the amount of promotions.³⁵

In a rank-in-person system, promotions occur *independent* of requirements. After promotion, individuals of incorrect rank for the position are assigned to different positions. Frequently, the organizational requirements structure adjusts to the amount of allowed promotion over a longer period of time.³⁶ Promotion streams can be predicted. The analysis of these systems is akin to determining the number of positions needed at each grade to support consistent, average

³³In these systems, the effect of delayering and reengineering is immediately seen in the organization as managers without positions have to leave. In a rank-in-person system, the immediacy of the effect is muted as officers keep ranks and status. Central decisions govern eventual separation.

³⁴Hiring someone of needed ability from outside is also possible with the in-and-out career structure.

³⁵Grade inflation (grade creep) is possible with rank-in-job systems but tends to be driven more by the decisions of many individual managers than by overall decisions about promotions. Rank-in-job systems tend to be controlled by overall manpower budgets and not specific controls on numbers or positions at each grade. The exception to this is at the executive level where the number of positions may be rigidly controlled by the organization. Promotion in rank-in-job systems is usually based on an open-ended upper promotion zone.

³⁶This is not a new insight. The present officer career system and its predecessors are premised on providing career opportunities and are built with careful, steady-state balance. "The present process of manpower authorization within the Services is really driven by the numbers of officers available who have been promoted to various grades by the promotion system. In other words, the system is upside-down; i.e., rather than requirements driving authorizations, promotions are driving authorizations." Raymond L. Pittman, working paper for the Defense Manpower Commission, April 1975.

promotion rates. Control of the rank-in-person system has to be placed either on fixed promotion rates and times applied to variably sized cohorts or on maximum numbers of people in certain grades—a grade table—with promotion rates or times as the variable.

Promotion Steps. This design feature pertains to the number of grades in a system. The concept of having six grades between entry and general/flag rank is rooted in tradition, common in most foreign militaries, and organizationally useful. Of course, not every grade is needed in every organization where officers serve in the military, and the concept of skipping grades (which results from delayering or reengineering) in certain organizations has merit if not all grades are needed. Additionally, all skill groups may not need these same six grades. For example, the professional skill group tends to have only four grades between entry and general/flag rank. There is no reason why other skill groups could not have fewer grades, and even skip grades, even though the overall system has six. We accept that the officer career management system should have six grades but assume that not all grades are needed in all organizations.

Promotion Opportunity and Timing. In the military organization, promotion opportunity and timing relate to whether a promotion will occur and when. The first is the probability of promotion occurring measured either from the previous grade or from the entry grade. The second is a measure of how long—either expected time in the organization or average time spent in a grade—between promotions. These two measures, promotion opportunity and timing, can be represented together as promotion outcomes. These outcomes are a result of the promotion decisions and the chosen career flow structure. Policymakers can vary either to achieve different effects. An example later in the section shows how the composition of the officer corps can change depending upon what promotion decisions are made.

Promises of consistent future promotion opportunity and timing can be made only under an assumption of the steady state. One assumes that opportunity and timing are optimal for current cohorts—groups of people usually defined as having entered the organization at about the same time—and also for the future experience of a new entering cohort.³⁷ If this assumption does not hold—e.g., if an abnormally large or small cohort enters the system or an existing cohort

³⁷It is interesting to speculate how much the current design of the officer career management system has been driven by the capability to analyze large, steady-state flows through fixed career structures. Markovian-based models and computers have made the math about careers precise, given the right assumptions, and also make it appear that officer careers have been numerically fit to the analytical assumptions underlying the mathematical models.

continues in the system at an unexpected rate—then promotion experience should be either greater or lesser than that designed.

In practice there are likely to be pressures to maintain both the eventual proportions promoted and the [timing] at promotion. However, if the relative grade sizes are to remain fixed these cannot both be maintained simultaneously unless the [entry] distribution remains stable. Thus some compromise between these two situations must be adopted. Empirical studies indicate that [timing] at promotion is often more sensitive than the proportion promoted.³⁸

Promotion Zones. The length of promotion zones provides another variation within the promotion function. Generally, with promotion zones, length of time in a grade is divided into three intervals. In the simplest case, the first interval is the group that meets the minimum service requirement for promotion; normally only a few selections are made from this group. (Those selected are then on what is called a fast track because they are advancing more rapidly than their peer group.) The middle interval represents the promotion zone, and the designated promotion opportunity and timing apply to people in this zone. Most individuals are promoted when in this zone. The top interval is the group of those not previously selected for promotion from the middle interval, and few are typically promoted from this group. This is, in general, how the zones work for most officers to most grades in the U.S. military.

However, more-complex modifications can be designed into this basic promotion zone concept. For example, greater numbers may be promoted from the first interval, which gives the system a fast-tracking emphasis. The amount of first interval selections could also be varied by grade, which creates fast-tracking early or fast-tracking late situations. Alternatively, the end point of the second interval can be made very long (at the retirement point in the extreme), which means that people flow constantly into the central promotion zone based on time in the organization or in grade but leave the zone only by promotion or separation from the system; there is no binding arbitrary upper interval precluding further promotion consideration. (This approach also tends to eliminate promotion as the mechanism for forcing attrition in an up-or-out system.) The length of these upper intervals can also be varied by grade. The length governs at what grade and how quickly officers accumulate in the overall system.³⁹

³⁸Bartholomew and Forbes, *Statistical Techniques*, op. cit., p. 173.

³⁹Increasing promotion opportunity to a grade with a fixed upper interval or reducing the upper interval with a fixed opportunity to the higher grade has the effect of moving officers from the

Combining the two concepts about variability in length of zone intervals and amount of allowed promotions from the first interval allows for more promotion variance within a seniority-based promotion system. Promotions from the first interval continue to be made, so a fast track exists. However, a more lengthy second interval is used. All with minimum seniority qualifications remain eligible for promotion based on merit for a longer period. The best from this large group are selected at designated promotion opportunities, which might or might not be specified by year. Those not selected remain eligible for future promotion consideration until they reach the upper interval limit. This type of promotion design reduces the numerical emphasis on promotion because opportunity is spread over several cohorts; dampens, but does not end, individual expectations about promotion because the individual remains in promotion consideration; and provides lengthier opportunity for promotion, which motivates people. The point is that a promotion zone system does not have to be consistent in its intervals at every grade but can be used to create differential and more variable outcomes by grade. Additionally, with a larger group to choose from for promotion, one can select for promotion those with desired skills or characteristics if the needs of the organization change.

Promotion Mechanics. The mechanics of promotion selection can be varied, which also affects outcomes. In some organizations, individuals are selected for advancement through a central process based on merit and/or seniority. However, many organizations have used a decentralized "post-and-bid" system either for all advancements or for certain positions that have a history of high turnover or that are generally less desirable. In a post-and-bid system, vacancies are announced and individuals choose to compete for them. Merit and/or seniority criteria are applied only to those who have expressed an interest for a particular position.

Promotion Basis. The basis for promotion offers policymakers a considerable range of variation. Organizations can promote based on strict seniority, merit independent of seniority, or some combination of merit and seniority. Additionally, cohort promotions can be made by advancing all who meet qualifications rather than just those individuals who best meet them. Seniority could either be seniority in the organization or in the present grade. Strict seniority has many benefits in that it is impartial, helps maintain group solidarity, fits in with cultural norms that accord status to the more experienced, and rewards loyalty to the organization. The arguments against using seniority are that it may allow people who are not the best qualified or who are

grade more quickly. Decreasing opportunity or lengthening the interval for another grade means slower flow from that grade and greater accumulation of officers.

unqualified because of age to occupy important positions, it may discourage ambition, and it may undermine morale. Long years of service with superior performance on the current job does not guarantee ability to perform higher-level jobs. Pure merit systems reverse the pros and cons of strict seniority. They reward those who perform best and are judged to have the greatest future potential without regard to their length of service in the organization. Most military organizations tend to use a combination of merit and seniority as the basis for promotion.

A rank-in-person system that uses merit as one basis of promotion requires choice between advancing all who are qualified (cohort merit) or only those with the highest qualifications (individual merit). The U.S. military uses combinations of "fully qualified" and "best qualified" promotions at different grades and in different skills. For example, lower-grade promotions for most skills are on a fully qualified basis (cohort promotion) and later promotion (to grades O-4 and above) are on a best qualified basis.⁴⁰ However, in other professional skills such as medical, promotion is on a fully qualified basis to all grades below flag/general. Fully qualified promotion after minimum periods of seniority reinforces the perception of the use of promotion to reward seniority and is also consistent with advancement in a profession. Best qualified promotion with minimum seniority does the same but to a lesser degree.

Promotion Objective. How much emphasis should be placed on promotion in a career system? Can it be under- or overemphasized to the detriment of the organization and those who are not promoted? Emphasis has certainly changed over time in the military. In the 1941 *Army Officers' Guide*,⁴¹ promotion was part of a chapter that included leaves of absence and retirement and was covered in a half page. (Leaves of absence took one and one-half pages.) The only numerical constraint was minimum years of service at each grade required for promotion to the next higher grade. By 1989,⁴² promotion was a separate 10-page chapter (authorized absences had grown to only 6 pages) that was imbued with numerical constraints of grade tables, selection rates, time in service, promotion opportunity, and minimum time in grade. In 1941, the words "passed over" did not appear; by 1989, the section on career expectation was built on the notion of "twice failed for selection." The question is not whether the promotion system of 1941 was better than that of 1989, but whether there are

⁴⁰During the current drawdown, greater selectivity is being shown at lower grades to increase separations.

⁴¹*The Officers' Guide*, 4th ed., Harrisburg, PA: The Military Service Publishing Company, 1941.

⁴²Lawrence P. Crocker, *The Army Officer's Guide*, 44th ed., Harrisburg, PA: Stackpole Books, 1989.

benefits to be captured by using the more modern promotion concepts (more merit and less strict seniority) in a less numerically driven, nonfailure-related career like that of 1941.⁴³

One can arrive at about the same point in careers via different routes. For example, allowing 50 percent of O-5s to be selected to O-6 in a one-year promotion zone interval equates to allowing a 10 percent opportunity from a five-year promotion zone interval in which large numbers have accumulated. It also allows more flexibility in that if skill or knowledge needs change over time, a larger pool exists from which to select the needed people. Said another way, a reasonably open-ended upper interval for promotion (much like that used in selection from O-6 to general/flag rank) deemphasizes the instant failure of the many and celebrates the periodic advancement of the few. However, this implies that the promotion system is used for selecting those who are being advanced and not for selecting those who are being separated.

Transitioning

Transitioning is movement from the organization and can be at an intermediate point or at the end of sufficient service for retirement. The transition function should include decisions about whether to grant tenure to officers, retirement policy, maximum career lengths, and integration with other career management systems such as general/flag officers and reserve component officers.

Tenure. Tenure is a contract between the organization and the individual that protects individual rights by limiting involuntary separation as a management practice. The variations are whether to grant it, when, and for how long. If tenure for continued service is granted to officers, the military must take extraordinary care in selection, development, promotion, and internal movement because the officers are protected from separation. Guarantees of long tenure provide the most stability for the individual but the least flexibility for the organization. Lack of tenure guarantees reverses this. Individuals are more likely to commit to organizations if their service in the organization is not likely to be ended abruptly. However, the lack of tenure for individuals in organizations can be overcome by the organization providing outplacement

⁴³For example, a recent article explaining promotion in the Marine Corps is a complex assessment of the mathematical intricacies of modern promotion. The article explores actions "the Marine Corps is taking, or is planning to take, to reduce the flow points to the field grades." The article highlights the Marine Corps' "Flow Point Reduction Plan" but never addresses the meaning of promotion other than in its use in forcing greater attrition to allow for more promotion. "By using reduced promotion opportunity, VSI/SSB, and the current early retirement options, excessive promotion timing should decrease substantially after FY97." Major Michael L. Gregory, "Why Is It Taking Longer to Get Promoted?" *Marine Corps Gazette*, April 1993, p. 36.

services and transition payments to individuals who voluntarily or involuntarily separate to accommodate organizational needs prior to retirement eligibility.⁴⁴ Flexibility for the organization is obtained in this manner while still affording the individual some financial stability if not career protection. Thus, for the organization, the choice becomes whether to provide some amount of tenure to engender commitment to the organization or to buy maximum flexibility by promising outplacement services and transition payments when separation occurs.

Retirement. An organization can vary the point at which transition—early separation or later retirement—takes effect by skill, grade, and experience or hold it uniform across some or all skills, grades, and experience levels. We are not examining retirement policy in this study. Recent research addressed this issue,⁴⁵ and we generally accept the assessments of that research, which suggests two policy issues that are relevant to the issue of variation. The first addresses the period of service required before qualifying for some form of annuity, and the second deals with the point at which individuals should be encouraged to separate. The researchers observe that vesting with an annuity early is unlikely to change retention or work effort and thus represents a giveaway. Thus, early vesting does not provide any additional flexibility in force management. The research does suggest that about a 10-year vesting is correct because it clearly distinguishes separation payments from old age benefits.⁴⁶

Maximum Career Length. This design feature can vary by length across all skills or within skill or grade groups. Making the decisions is difficult because quantitative analysis provides little insight. Reasoned debate about the meaning of and future need for youth and vigor throughout a career, about societal practice, comparisons with comparable public safety jobs, and review of military tradition and practices of other militaries may be of more assistance. In all of

⁴⁴Modern outplacement practices have begun to be perceived as serving two purposes: assuaging managerial guilt (at having to terminate committed employers) and managing survivors (continuing to engender commitment in those who remain).

⁴⁵Asch and Warner, "Should the Military Retirement System Be Maintained?" *op. cit.*

⁴⁶Vesting is the right to share in a pension fund after certain periods of employment and can be implemented in several ways. The Employee Retirement Income Security Act, which regulates such plans, does not apply to plans established or maintained by the U. S. government. We will consider early vesting without an immediate annuity in our study at points around 5 to 10 years of service because we desire in some alternatives to separate officers at these points. We believe the demands for equity and the availability of such vesting in the private sector after limited periods of service make this a commonsense approach even though it represents a "giveaway" in the Asch-Warner formulation. We make no economic assertions that our point of vesting is theoretically correct; we assert only that it is equitable with the private sector practice given separation after a sufficiently long period of limited service.

these, the evidence appears to be on the side of longer allowed careers for the future.⁴⁷

As with use of age or age-based experience as the forced attrition mechanism in an up-or-out system, the argument about maximum career lengths pivots on whether the requirement for youth and vigor necessitates retirement or separation by a certain age. This argument can be simplified by reasonable approaches. First, those who are no longer qualified as determined by medical and physical performance standards should be precluded from further military service and taken care of through disability retirement and separation procedures.⁴⁸ (There are exceptions to these standards.) Second, general physical fitness standards, regular physical fitness testing, and height/weight standards should provide screens for determining remedial action for those who are temporarily not qualified.⁴⁹ Third, job-specific fitness and health standards should be developed and used if needed. (For most officers, general fitness levels should be sufficient for continued service.)

Our research has uncovered a wealth of information about career length and retirement age. None of it allows a quantitative determination of retirement age for officers, but it does provide policymakers who must address these issues with important information. Major conclusions from this aspect of our research include the following:

1. "Age is a poor predictor of the decline of stamina, strength, reasoning, and comprehension."⁵⁰
2. Military officers are healthy and vigorous at all ages at which they now serve. A recent study of physical fitness in the Army showed that "senior age groups performed well overall" and were generally more fit than their younger counterparts.⁵¹ Military officers have a significantly higher level of

⁴⁷We have separated two related issues: length of an allowed career and the forced attrition mechanism in an up-or-out structure. They appear related because age is the measures for both. However, one could have long, or short, military careers in any of the career structures. In an up-or-out structure, not all are allowed to reach the maximum career point. In other career structures, far more are. The choices are independent of one another. Research about age in nonmilitary organizations is reported in the next section.

⁴⁸See for example, "Air Force Gets Tough on Disabilities," *Air Force Times*, November 22, 1993, p. 12.

⁴⁹For example, the purpose of the Army physical fitness test is to ensure the maintenance of a base level of physical conditioning essential for every soldier in the Army regardless of skill. The event standards are criteria-based and designed to establish the minimum acceptable level of physical performance.

⁵⁰General Accounting Office, *Employment Policy Challenges Created by an Aging Workforce*, GGD-93-138, September 1993, p. 4.

⁵¹John O'Connor, Michael Bahrke, and Robert G. Tetu, "1988 Active Army Physical Fitness Survey," *Military Medicine*, December 1990, pp. 579-585.

physical fitness than their civilian counterparts because of precommission screening and emphasis on fitness in military culture.⁵²

3. Job-specific fitness standards for individuals should govern youth and vigor needs.⁵³ There may not be measurable differences of need for youth and vigor between contiguous grades (e.g., recently in the Air Force, brigadier generals who can serve for 35 years have replaced as wing commanders colonels who can serve for 30 years; in the Navy, O-6s who can serve to 30 years have replaced O-5s as air wing commanders on carriers).
4. Current mandatory retirement for U.S. military officers is age 62 unless retired or separated earlier. Most are separated or retired earlier because of intermediate tenure points by grade. Senior officers are allowed to serve for longer periods of service than officers of lower grades. For example, retirement-eligible officers in the grade of O-4 who have failed selection for promotion to the grade of O-5 for the second time must retire, which usually occurs with about 20 years of service; officers in the grade of O-5 not selected for O-6 generally must retire after 28 years of service, and O-6 generally must retire after 30 years.
5. Social trends in the United States are toward an older labor force but earlier retirement. "Age at retirement has fallen by between four and five years for both men and women since mid-century; continued declines are projected for the 1990's, accelerating for the period 2000-05."⁵⁴ At the same time, the number (and percentage) of people over 60 is the fastest growing group in America, and they are reentering the workplace in increasing numbers.
6. National policy is to not tie mandatory retirement to age. Exceptions exist until January 1994 for some, including state and local public safety occupations.⁵⁵ However, federal law enforcement officers are required to retire at age 57.⁵⁶

⁵²Discussion with Colonel (Doctor) Paul Horig, Director, Army Physical Fitness Research Institute, U.S. Army War College.

⁵³See Section 5 for a discussion of congressional direction in this area.

⁵⁴Murray Gendell and Jacob S. Siegel, "Trends in Retirement Age by Sex, 1950-2005," *Monthly Labor Review*, July 1992, p. 22.

⁵⁵In the private sector the Age Discrimination in Employment Act (ADEA) was amended in 1986 to prohibit mandatory retirement based on age. ADEA removed the upper age cap of 70 and thus eliminated mandatory retirement based on chronological age for all but select occupations. (*Alternatives to Chronological Age in Determining Standards of Suitability for Public Safety Jobs*, Volume I: Technical Report, January 31, 1992, p. 15.) Included in the exemption were public safety officers—firefighters, police officers, and correction officers. The exception was to expire in 1993; it was expected that during the intervening period studies would "provide evidence regarding the reasonableness of using chronological age for making retirement decisions, as well as anticipating the economic, public policy and human resource effects of either maintaining the exception or eliminating mandatory retirement decisions in the excepted occupations." The results of these studies are reported later.

⁵⁶Title 1 USC and Appendix E.

7. Fifty-five to sixty years of age is the typical age at retirement in foreign militaries and in public safety occupations.⁵⁷

There is no analytical evidence for maximum career lengths as they exist now or for any particular career length applied as a group standard to officers in all skills. Comparable public sector organizations and foreign militaries establish retirement age norms, for the grades we are studying, at 55 to 57 years of age.⁵⁸ For an officer who enters through existing accession programs, these age limits mean the maximum career length would be approximately 35 years. In militaries, career length or retirement age generally does not vary by skill group; in the public sector, certain occupations have maximum career lengths in law or have allowed for them to be set by state or local jurisdictions.

Integration with Other Career Management Systems. A consideration for the transition function is the amount of integration that should exist with other career management systems. In particular, the officer career management system feeds the general/flag officer system and must be capable of providing officers developed to meet those requirements. Also, the active military has become the major provider of officers to the reserve component, particularly for the Air Force and Marines. Moreover, Congress has specified that the Army must increase the proportion of Army National Guard officers with prior active-component service. From a larger organization view, it may be desirable to have officer transitions occur at particular points to satisfy reserve component needs even if that may appear more costly for one of the components. For example, the active component has been cited as the component that can most effectively develop an officer while the reserve component is often cited as most efficient in husbanding that capability at lowest cost.⁵⁹

An Illustration of the Effect of Personnel Functions Within Career Flow Structures

The discussion thus far has described four career flow structures, the critical personnel functions, and the different variations available within these functions. The personnel functions interact with the career flow structure to produce very different officer populations. This subsection illustrates the effect of the interaction between the promoting function and three career flow structures.

⁵⁷ Appendices D and E.

⁵⁸ This is also similar to the retirement age of 58 for a colonel suggested by General Eisenhower in his often cited testimony in support of an up-or-out system for the Army in 1947. *Hearings Before the Committee on Armed Services United States Senate on H. R. 3380*, July 16, 1947.

⁵⁹ NDRI, *Assessing the Structure and Mix of Future Active and Reserve Forces*, op. cit.

The next three figures show a grade distribution—the proportion of all people in the organization at each grade and the points in years at which service in a grade begins and ends. These figures highlight the relationship between grade and years of service (which typically correlates with age and military experience) that results from different career flow structures.

As shown in Figure 4.2, in an up-or-out structure using promotion as the mechanism for forcing attrition, one cannot attain a career of maximum length (shown in this figure as 30 years) *except* through promotion to the highest grade. The upper bound of the next lower grade (O-5) terminates before the 30-year point. For example, only O-6s are in the career system after year of service 29. The timing of the expected promotion to a higher grade relative to the career length is extremely important. An officer is separated from the career at the intermediate grade and experience points designated by the promotion system. No one continues to the end point of the career in lower grades; failure to get promoted means the officer must leave. The area allocated to each grade depends on promotion opportunity and time between promotions.

In Figure 4.2, there is a close relationship between grade and years of service. For example, a vertical look at year of service 15 shows all officers to be at grade O-4.

In the mixed career structure shown in Figure 4.3, the first four grades are governed by up-or-out as above but the two highest grades use an up-and-stay

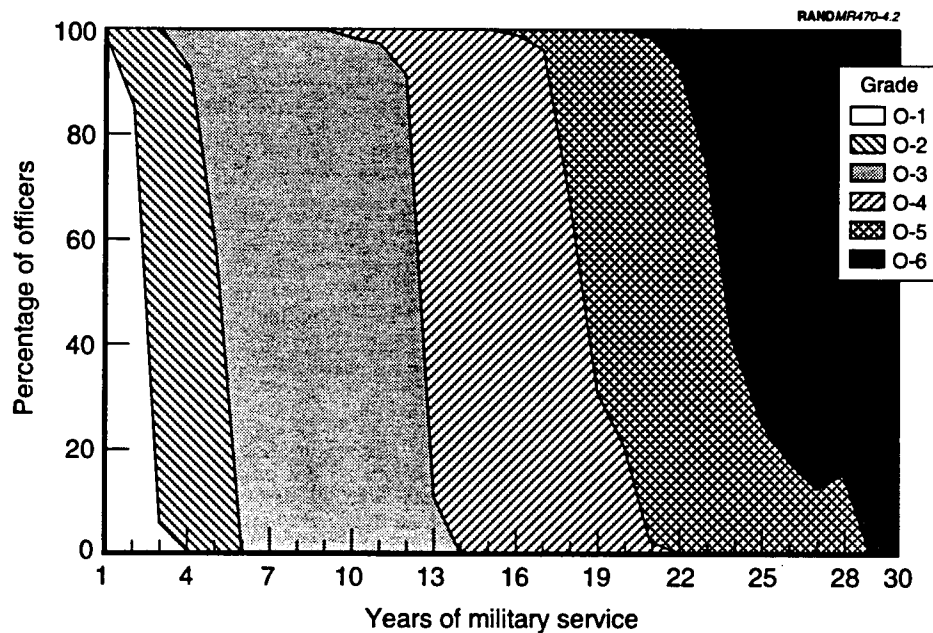


Figure 4.2—Career and Promotion Outcomes in an Up-or-Out System

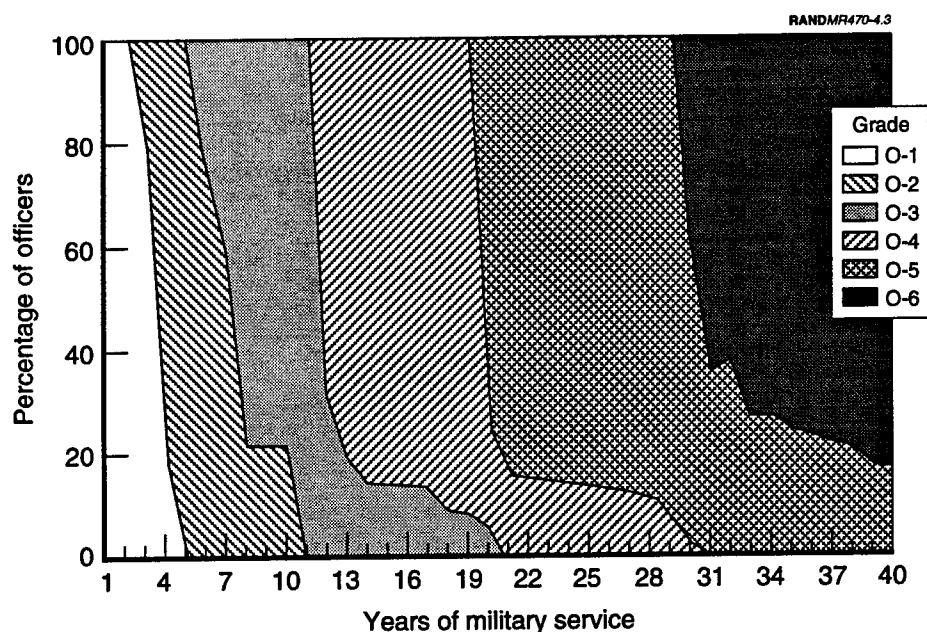


Figure 4.3—Career and Promotion Outcomes in a Structure Combining Up-or-Out with Up-and-Stay

structure and are allowed to reach the end of a longer career of 40 years. Promotion timing defines career length for the two lowest grades, which are separated prior to 11 years of service, and for the two intermediate grades, which are allowed to stay for careers of intermediate length—about 20 and 30 years, respectively. In Figure 4.3, there is less of a grade and year-of-service relationship in that officers exist in grades O-3 and O-4 at year of service 15. Moreover, the grade of O-5 now covers a range of about 20 years of service (year of service 20 to year of service 40) as opposed to a range of about 10 years as seen in Figure 4.2.

Figure 4.4 represents career and promotion outcomes for another mixed structure that combines up-or-out for the two lowest grades with in-and-out for all grades. Career advancement measured by promotion opportunity is less stable. Individuals are promoted at points shown but also are hired at the various grades as substitutes for internal promotions depending on the organization's needs for skills and technical experience. Military experience at each grade can be short or long—grade becomes more a function of skill, education, and experience than of military service. Additionally, in this example, age and military experience do not have the usual relationship, in that older individuals could be serving in lower grades for short periods of military service before leaving and younger persons could be senior in grade but not military

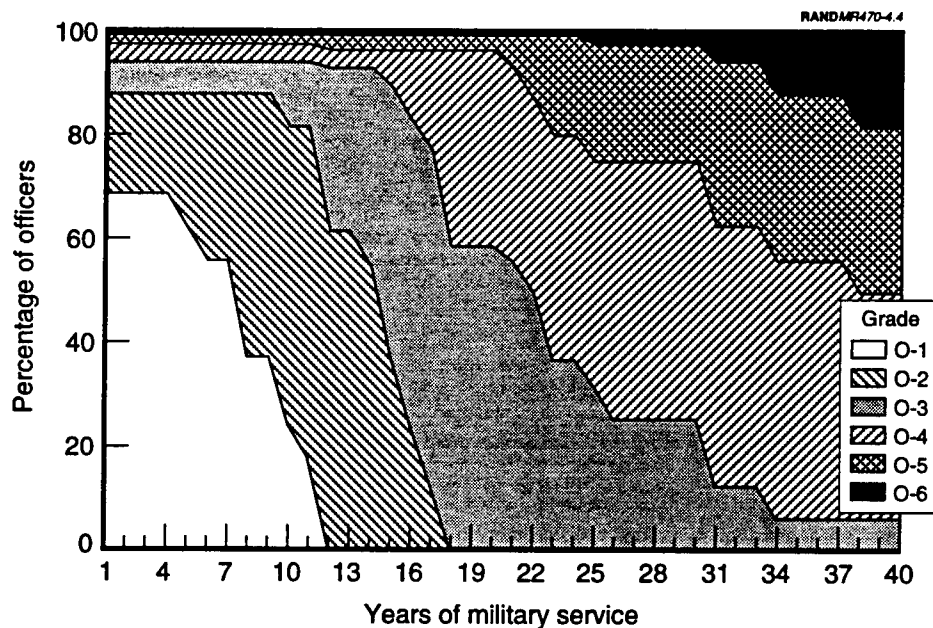


Figure 4.4—Career and Promotion Outcomes in a Structure Combining Up-or-Out with In-and-Out

experience.⁶⁰ For example, all six grades are now represented at year of service 15, and the O-5 grade now ranges over all 40 years of service.

Summary

This section has described the general personnel functions and discussed how the interaction between those functions and policy decisions determines a career management system. It has also described how policy decisions about entry and exit determine the fundamental shape of the career flow structures. Policy variations in other personnel functions can tailor the career management system in a variety of ways to accomplish different organizational objectives. The next section investigates the operation of a number of different career management systems.

⁶⁰This is another reason why militaries tend to dislike in-and-out structures. The assumption of a consistent age/military-experience profile is the usual one.

5. Career Management in Practice

Introduction

The last section described officer personnel practices in terms of a general model. Using that model, we now review career management systems in operation. Such a review allows us to identify concepts to be considered when designing alternative career management systems and suggests criteria to be used in our evaluation of the various options. We gathered information from four sources:

- the military departments
- foreign militaries
- comparable public sector organizations (e.g., FBI, police, and Secret Service)
- the private sector.

The military departments were chosen because management of their officers is our subject matter and because Congress directed us to review their practices as part of the study mandate. Foreign militaries are in the same "industry" as the U.S. military and show us how other countries have addressed similar issues. Given that foreign militaries are just that—foreign—we also looked at how other U.S. institutions addressed career management. We chose public safety and paramilitary organizations because they share some characteristics with military organizations. We also researched private sector practices to better understand evolving national policy and business approaches to career management. Generally, we found that similar career management principles and concepts underlie practices used in the U.S. military, foreign military, public sector military-like organizations, and the private sector. However, we observed somewhat different applications of those concepts.

We first summarize our observations about the military services. Second, we discuss what we observed about military officer career management practices in foreign nations. Third, we highlight insights from reviewing practices of military-comparable organizations in the public sector. For these first three subsections, we organize our observations using the construct of career flow structures and personnel functions that was used in Section 3. Fourth, we summarize the results of our discussions with human resources management

experts and our literature review of private sector practice. We focus on present and future objectives for human resources management in this part.

This section summarizes the research that is reported in detail in Appendices D, E, and F.

Military Department Career Management

This subsection identifies the major distinguishing features and differences among officer management systems of the four military services in terms of career flow structures and personnel functions (accessing, developing, promoting, and transitioning). A more detailed account is found in Appendix D.

General Observations

Our review of career management in the four services indicates that our evaluation scheme should address two different—and possibly conflicting—characteristics: flexibility and uniformity. The services have experienced substantial fluctuation in the demand for officers, and, in spite of congressional attempts at uniform management, considerable variation exists among the services. The period from 1940 to 1993 can be characterized as a series of continuing boom-or-bust officer management cycles, that is, several dramatic and rapid shifts in officer requirements and only occasional brief periods of relative stability.

It was also a period of congressional concern regarding officer requirements and management that witnessed the passage of the Officer Personnel Act (OPA) of 1947 and DOPMA in 1980, which sought to bring about greater uniformity of the officer management policies of the military services. Since World War II, all of the military services have used primarily an up-or-out structure, but some, particularly the Army, have used it more religiously than others. Further, some officer career systems have also been designed and operated to respond to different challenges. For example, the Navy management system attempts to be responsive to the demands of sea duty and its inherent rotational problems and to maintain a balance among the different elements of the line community (air, surface, and submarine) and the support communities. The Air Force career management system design, on the other hand, has primarily focused on managing pilots and coping with the problems associated with flight status.

The issues of flexibility and uniformity also appear in the execution of the various personnel functions.

Accessing

The services have adopted both long and short programs to meet their officer accession requirements. The former, typified by the ROTC and academy programs, traditionally take four years to complete, provide deep acculturation in "officership" and the service's culture, and are structured to provide the majority of the projected officer needs of each service. These programs provide officers holding a credential—a college degree—that presupposes their potential for a full career. The shorter-response programs such as Officer Candidate or Training School provide the remainder of each service's requirements, and they also serve as a hedge against future uncertainty in demand for officers. These latter programs, which provide officers at least able to meet junior officer needs, have traditionally assumed greater importance during the boom portions of the cycles because they produce officers more quickly.

Developing

Two aspects of developing relate to the issue of uniformity: an increasing need for specialization and the difficulty of sustaining traditional career patterns. The military departments, in efforts to design and implement effective officer management systems that comply with statutory requirements, have faced a need for increased officer specialization. This trend toward greater specialization was prompted in part by the fielding of technologically advanced systems and the computer explosion, which opened up entirely new mission areas and fields of expertise. This has resulted in the establishment of special officer management groupings or fields within each service—more in some services than others—and the limited use of lateral entry to satisfy the requirements in certain areas, particularly in the professions (e.g., doctors, lawyers, and chaplains). Yet, except for the professions, most officers within a service are managed in the same manner. In light of the desire to exploit technological opportunities and the congressionally mandated direction regarding joint duty assignments and the acquisition corps, the current management groupings could become increasingly more difficult to sustain as the size of each service is reduced.

The officer career patterns of each service tend to reflect traditional expectations. Officers have come to accept these patterns, which generally include command opportunities and schooling at certain grades and times in one's career. The services are finding it increasingly difficult to maintain these patterns as the size of the force is reduced, command opportunities dwindle, and pressures for longer tour lengths mount as a means to incorporate added assignments, to improve development, or to reduce or contain costs.

Promoting

Although both OPA and DOPMA supposedly imposed up-or-out constraints using military promotions, service promotion practices differ considerably. The Air Force used a fully qualified promotion system for selection to permanent ranks of major and lieutenant colonel until 1959 and in reality only separated officers who were regarded as truly not fully qualified for promotion. Most officers failing promotion on a best qualified basis were continued until at least the first retirement point. The Army, in contrast, embraced the up-or-out policy provisions and aggressively used them. The Navy and the Marine Corps, which historically had higher natural attrition among company-grade officers, made less use of the "out" provisions because promotion opportunity to field grade was typically greater.

The objectives that have been advanced for up-or-out in the U.S. military are to have a youthful and vigorous force¹ and to maintain promotion flow.² However, no formal definition of youth and vigor has existed for the military. Historically, the meaning of youth and vigor has been addressed in subjective terms.³

Service differences in proportions of officers by year of service result from pre- and post-DOPMA era retention rates.⁴ The data, highlighted in Figure 5.1, show that the Air Force has the highest proportion of officers continuing to serve from year to year in the preretirement field-grade years (years of service 12 through 20), while the Navy has the lowest. The Army's aggressive approach to up-or-out is also evident in the large drop in proportion of officers continuing to serve from years of service 11 to 12.

¹Because there were "ineffectual ways of eliminating a man," General Eisenhower supported the OPA to keep the officer corps "vital and youthful." *Hearings Before the Committee on Armed Services United States Senate on H. R. 3830*, July 16, 1947.

²Admiral John G. Finneran, *Hearings Before the Subcommittee on Manpower and Personnel of the Committee on Armed Services United States Senate on S. 2424*, November 6, 1975.

³R. A. Holmes, T. C. Hillsman, E. M. Small, and R. B. Borthwick, *Military Retirement: The Role of Youth and Vigor, Volume 1*, Presearch Incorporated Technical Report No. 370, 1978, p. 29. See also *Fifth Quadrennial Review of Military Compensation*. General Eisenhower also recognized the relativity of youth over time by citing his own experience of being called a "boy general" when he went to Europe. He reflected that "when you talk about 'youth' you are talking about ages that 60 years ago or 80 years ago had been called old men." *Hearings on H.R. 3380*.

⁴These retention rates represent average behavior for line officers over the period from 1987 through 1989. Data are from the QFAX database maintained by the Defense Manpower Data Center. This period was selected because it provides the most recent data that were not corrupted by stop-loss programs implemented to support Operation Desert Shield/Storm or by voluntary separation programs supporting the current drawdown in forces.

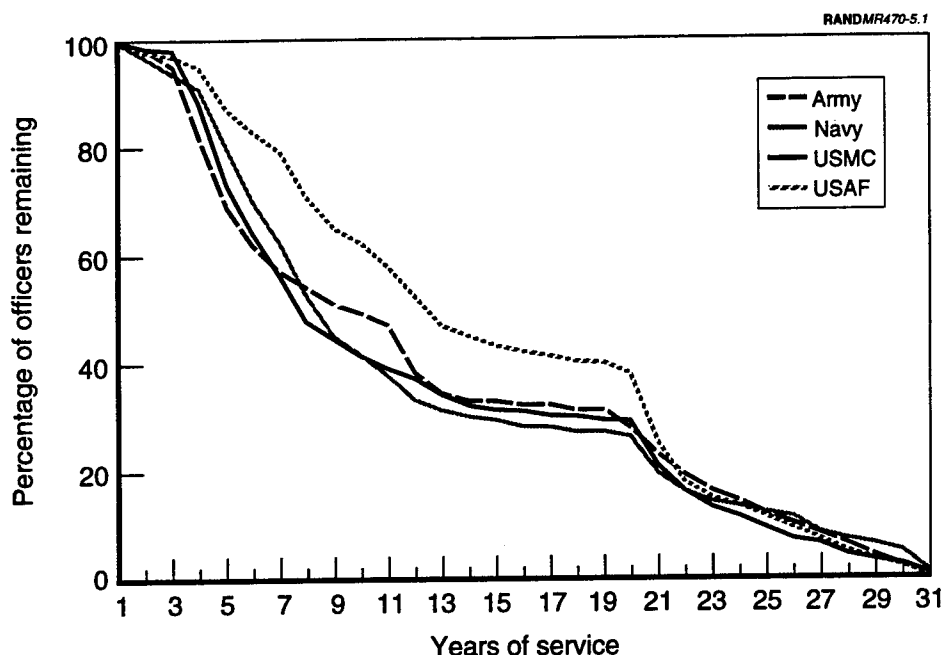


Figure 5.1—Proportion of Entering Officers Remaining at Each Year of Service

Figures 5.2 to 5.4 examine this same data by career segment.⁵ In these figures, a career is divided into three segments of 10 years each. The figures now show the proportion of a group that remains at the end of each year and restarts the new career segment at 100 percent. Figure 5.2 shows the Air Force with the highest retention through 10 years of service as before. The Army, which has the steepest drop in retention after 3 years of service, keeps most officers who get to 7 years of service. The Marine Corps and the Navy have the least retention through 10 years of service.

However, as seen in Figure 5.3, Marine Corps and Navy retention in years of service 12 through 20 is as good as any service. The reason for the lower apparent continuation of Marine Corps and Navy officers in these years in Figure 5.1 is due to losses before 10 years of service. As shown in Figure 5.3, officers in the Marine Corps and Navy who reach 10 years of service stay beyond that at a greater rate than either Air Force or Army officers, both of whom stayed in higher proportions until 10 years. (The separation of Army officers between 11 and 12 years is again observable.)

⁵To counter the scale compression occurring in the later years of service, it is useful to examine the same data rescaled to unity at years of service 1, 11, and 21.

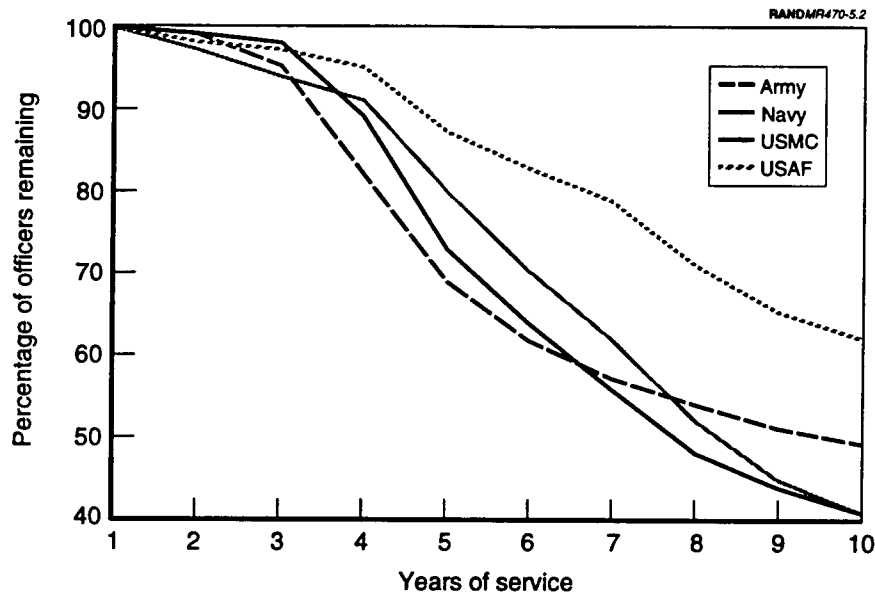


Figure 5.2—Proportion of Entering Officers Remaining at the End of Each Year of Service in Career Segment 1

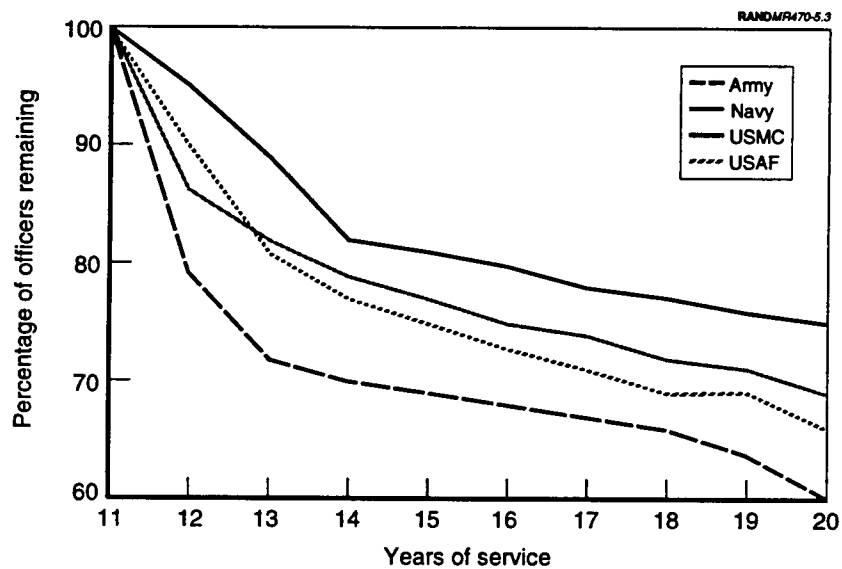


Figure 5.3—Proportion of Officers Completing Career Segment 1 Who Are Remaining at the End of Each Year of Service in Career Segment 2

In the third segment of a career, as shown in Figure 5.4, Army and especially Navy officers tend to stay to 30 years more than Air Force or Marine Corps officers.

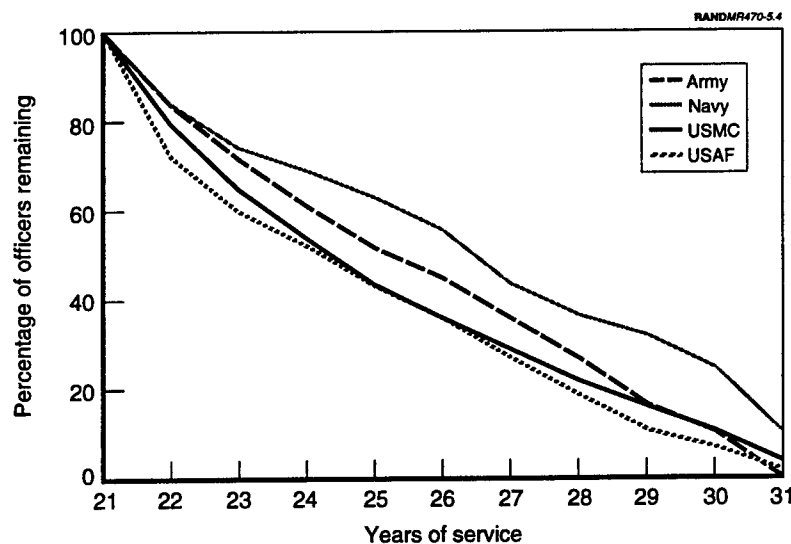


Figure 5.4—Proportion of Officers Completing Career Segment 2 Who Are Remaining at the End of Each Year of Service in Career Segment 3

Despite the uniform, steady-state prescriptions intended by DOPMA, the individual service-grade tables have provided markedly different proportions of field-grade officers. These differences, highlighted in Figure 5.5, reflect the DOPMA and the grade authorization changes approved for the Marine Corps by the Congress during the annual authorization and appropriation review process for FY 1986 and FY 1994.⁶

DOPMA provided the highest content of field-grade officers for a specific number of officers to the Air Force. Yet DOPMA gives the greater rate of change in field-grade content to the Marine Corps as shown in the greater slope of the authorization lines. And more recent grade authorizations have progressively increased the field-grade content for the Marine Corps throughout the range of expected officer force size. Additionally, the grade table serves only as a binding constraint during periods when larger-than-normal cohorts approach promotion windows and overall officer size is stable or declining. In other times it allows “windfall” promotions—more promotions than would be expected.

Transitioning

The U.S. officer career management system does not provide a life-long career. Retirement is possible after 20 years and mandatory after 30 if not before. The

⁶Congress approved temporary changes to the USMC grade table in the National Defense Authorization Act for FY 1994. We have incorporated in Figure 5.3 the effect of the USMC plan to which the Congress refers.

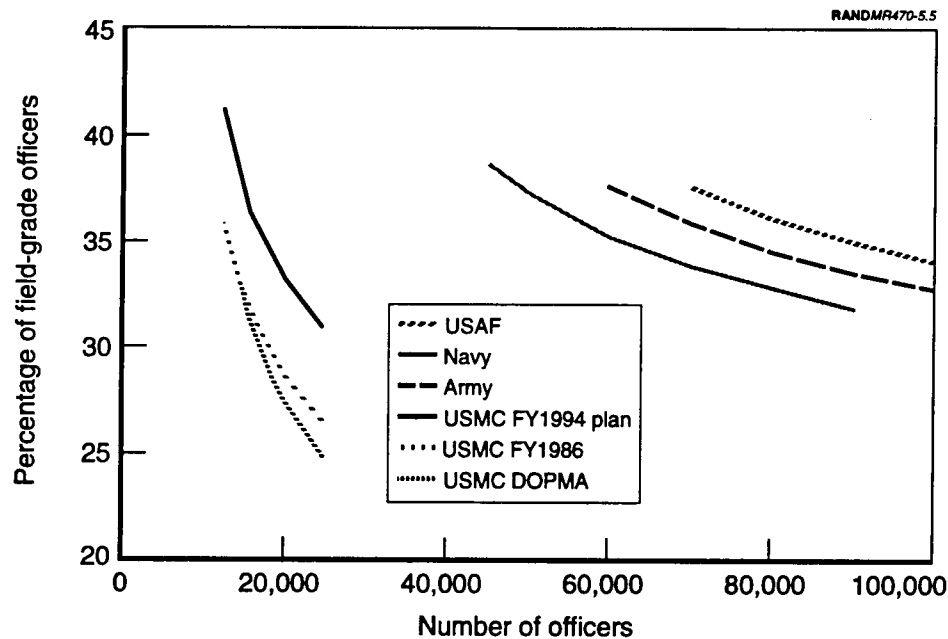


Figure 5.5—Pictorial Representation of the Sliding Scale Grade Table

up-or-out structure has intermediate grade-based separation and retirement points. This aspect does ensure an upward flow, but it also means that being an officer is, for most, only the first career. As we shall see later in this section, the U.S. military is unique in that regard. This characteristic suggests that longer maximum career lengths should be one of the alternatives explored.

Additionally, the underlying premise of youth and vigor and ability to perform satisfactorily being synonymous has been challenged because of gender issues. This premise has guided separation and retirement policy that has been applied as a group standard based on age or age-related service. Ability to perform physically must now be determined by individual rather than group measurement. The Presidential Commission on the Assignment of Women in the Armed Forces made this recommendation:

- The services should retain gender-specific physical fitness tests and standards to promote the highest level of general fitness and wellness in the Armed Forces of the United States, provided they do not compromise training or qualification programs for physically demanding combat or combat support [skills].

- The services should adopt specific requirements for those specialties for which muscular strength/endurance and cardiovascular capacity are relevant.⁷

Moreover, Congress recently adopted this provision for the military:

For any military occupational specialty for which the Secretary of Defense determines that specific physical requirements for muscular strength and endurance and cardiovascular capacity are essential to the performance of duties, the Secretary shall prescribe specific physical requirements for members in that specialty and shall ensure (in the case of an occupational specialty that is open to both male and female members of the Armed Forces) that those requirements are applied on a gender-neutral basis.⁸

This suggests that the traditional relationships between age, grade, and length of service as a standard for determining transition points for groups should be reviewed.

Potential Future Evaluation Criteria and Design Features Derived from Military Department Career Management

The cyclical boom-or-bust officer requirements patterns experienced by all of the services created tremendous instability and uncertainty in each planning system. This experience supports the argument that officer management policies must be flexible and capable of dealing with a wide spectrum of possibilities and rapid shifts in direction. Further, the extent and rapidity of the variations in requirements experienced throughout the period lead to questions about the viability of steady-state prescriptions like those found in DOPMA, especially when the variables of the system are tightly constrained. The question here is whether such prescriptions are the most appropriate tools for coping with volatile swings in requirements.⁹

Each service has retained some individuality under DOPMA, despite the explicit goal of uniformity. Thus, any effort to design and evaluate the relative merits of alternative officer management systems must consider the need for and degree of uniformity that is desired in each system and the fact that each service must transition to a new system from a different starting point in terms of the years of service and grade structure of its officer corps.

⁷Presidential Commission on the Assignment of Women in the Armed Forces, *Report to the President*, November 15, 1992, pp. 5-8, Appendix C.

⁸Section 543 of the FY 1994 National Defense Authorization Act (Report 103-357).

⁹See Rostker et al., *The Defense Officer Personnel Management Act of 1980*, op. cit., p. 29.

The fact that most career officers depart between 20 and 26 years of service to pursue second careers suggests that the alternative systems we construct to evaluate should include one with a longer maximum career length.

Additionally, congressional direction to make individual rather than group fitness determinations, if such standards are required in certain skills, suggests that we consider other objectives for organizational control of attrition for groups.

Foreign Military Career Management Systems

We researched the military officer career management systems for six NATO countries to identify differences between and similarities with the existing U.S. military system that could inform our development of alternative future officer management systems. The countries were the Netherlands, Denmark, Canada, Norway, the Federal Republic of Germany, and the United Kingdom. Most of the information was obtained through interviews with serving members of the armed forces of the respective countries. The research effort for the United Kingdom was more intensive and included discussions with staff, personnel managers, and policymakers for each of the three military services and each of the three corresponding service military or officer study groups that were preparing recommendations for future changes in their respective services. The full scope of the research encompassed the militaries of some 20 foreign countries.¹⁰ Further information covering our research on foreign military officer career systems can be found in Appendix E.

Accessing

In general, the countries reviewed use either conscription or volunteer-based militaries, but the accessions for the officer systems in most of the countries examined are based upon selection of qualified applicants¹¹ at youthful ages, often ages 18 to 26, to support up-and-stay officer career flow structures. These applicants usually include both in-service and direct voluntary applications for

¹⁰We also examined the completed research of the study groups in the United Kingdom, which expanded our research base. The British Army "Grove Study Group" researched some 20 foreign armies including those of the United States, the Federal Republic of Germany, France, Australia, Canada, Italy, Ireland, Norway, the Netherlands, Belgium, Denmark, Greece, India, Israel, New Zealand, Japan, Spain, Turkey, Pakistan, and Portugal. While there are variations in aspects of the characteristics of each of these militaries, many items were found to be common among the vast majority.

¹¹These applicants might be evaluated as best qualified to serve in entry positions only (career potential judged later) or best qualified for overall careers. The latter practice is that of the U.S. military in peacetime.

commission. The officer applicants with university degrees are in the minority in most of these countries, and many countries—Germany is an exception—commission their officers without regard to university credentials.¹² For example, in the United Kingdom, the proportion of university graduates in the officer corps of the three armed services is less than half of the total.¹³ Several countries employ broad-based officer recruiting programs that include efforts to attract university graduates, but most place a higher value on military leadership potential over general education level for their junior officers.

Several of the continental European countries have a two-track officer system that targets one group of officers for senior leadership and another group for lower-ranking positions, often imposing grade ceilings on members of this second group. The commissioning process formally segregates officers with university degrees from those without, and they develop the former group to become the senior leadership of their respective armed forces. Some foreign militaries offer limited or specialist-type commission opportunities to members of their noncommissioned officer (NCO) ranks. Those selected for commissions are usually senior sergeants or warrant officers (which are NCO ranks in most foreign militaries) with 10 to 20 years of military experience. Most foreign countries limit the level of advancement to either captain or major for these late in-service commissions (Germany is an example of the former and the United Kingdom an example of the latter).¹⁴ Foreign military officer systems widely prohibit any form of lateral entry into the officer career from either the civilian sector or from their respective reserve military (which in most cases is different from the reserve model of the United States), with the exception of medical, legal, and religious officer requirements.

Developing

Foreign militaries use a range of approaches to formal development. Some use formal military academies to initiate the acculturation and development of their new officer candidates with courses of various lengths from a few months to two years. Others, such as Germany, use a combination of civilian university and military education lasting up to four years to obtain initial officer commissions.

¹²In Germany all officer candidates must have a period of enlisted service before selection to attend one of the two armed forces universities for three and a half to four years of education and military study that culminates in a university degree incidental to the commissioning process.

¹³Interviews with the military personnel staffs and study groups of the three armed services in the United Kingdom, August 1993.

¹⁴*Ibid.*

Almost all of the foreign militaries reviewed employ a blend of extended and repetitive service in lower-echelon tactical units and progressive attendance at various military development courses to prepare junior officers for leadership and staff positions at the longer-serving grades of captain and major. In many of the nations reviewed, experience and maturity are the objectives of the development process because they are perceived to affect ability to perform satisfactorily. Often at the career timing of senior captain or junior major, the selection to attend key field-grade officer development courses is determined. This important selection serves to divide career officers into one group with potential for advancement to the highest ranks and another group of officers that have little or no further promotion potential. In many cases, this course is used as a requirement for promotion to field-grade rank or, in a few, a prerequisite for promotion beyond O-4 or major. In some countries—Germany is a prime example—a subsequent selection for a general staff officers course serves to further divide the remaining career officers into fast-track and normal course careers.¹⁵ Most countries also employ various higher-level military courses similar to the U.S. senior service college level as the final stage of career development for their senior field-grade or flag officers. The objectives of the foreign military officer development courses appear similar to those in the U.S. military service, but the career timing of development schools and courses was usually one or more years later in foreign militaries.

Promoting

Almost all of the foreign military officer systems reviewed have a rank structure similar to the U.S. military; this structure provides for six substantive grades below general/flag rank. The titles of grade may differ by country, but the levels of responsibility at comparable grades appear similar. For the most part, the foreign military officer systems promote their officers through the junior ranks almost automatically, with only those not recommended being slowed in promotion timing or removed from the service. This is similar to the U.S. system of promoting all fully qualified officers through the company grades, O-1 through O-3. In the several cases where foreign militaries use multiple types of commission, promotion timing may vary between types of commission with the regular or career officers often receiving somewhat faster promotions.

Generally, the first merit promotion occurs at the transition to field grade at O-4 (major, lieutenant commander, or squadron leader), although there are a few

¹⁵Richard N. Strand, *Military Career Paths in Transition: A Comparative Study of Management Systems*, Dissertation, School of Public Administration, University of Southern California, May 1993.

examples of this being delayed until O-5 (e.g., in the Royal Navy).¹⁶ Here the U.S. comparison to competitive promotion would be the selection of the best-qualified officer, which begins at O-4. Promotion timing varies widely by country, but promotion to field grade is usually later in an officer's career than for a U.S. officer. In general, there is less emphasis on numerical promotion goals. In many foreign military officer systems, field-grade officer ranks are populated only by officers with career commissions, and these officers are expected or required to remain in service for a full career culminating in retirement.

Promotion to ranks above O-4 in the vast majority of foreign military officer systems follows an up-and-stay structure that retains majors and higher ranks to their respective retirement points. As a result, grade structures can take on various shapes. In the British Army with a current retirement age of 55, the most populated officer grade is major, which seems to strike a balance with the grade structure of their officer requirements. Promotion potential in the higher field-grade ranks and to flag rank often depends upon achievement of established qualifications that include selection for and successful completion of career-enhancing military schooling and more importantly, successful experience in command and higher-level staff at multiple echelons.

Transitioning

All of the foreign military officer systems reviewed provide a long career expectation for officers receiving regular or career commissions. In general, the long career is to age 55 or longer for officers in grade of captain (O-3) or higher. This latter grade aspect seems to transcend the type of commission in many countries. For example, in Germany, specialist officers, those promoted from the ranks later in their careers, cannot advance beyond the grade of captain but are given tenure to age 55.¹⁷ Most countries reviewed allow for voluntary separation of officers upon completion of initial obligations, often six or more years, and later in service up to career selection points. In the Royal Air Force (RAF), officer pilots and air crew can apply and be selected for career continuation in the Special Air Service at 16 years of service or about age 38, even at the grade of captain, but all other officers not selected for career status (promotion to major assures this transition) are separated.¹⁸

¹⁶U.K. Royal Navy, *Officer Study Group*, op. cit., pp. 240-310.

¹⁷Strand, *Military Career Paths in Transition*, op. cit.

¹⁸Discussions with RAF staff personnel officers, August 1993.

Generally, foreign military career officers, especially those in the field-grade ranks, are expected to remain in service until established retirement points. The earliest career mandatory retirement point noted was at age 55, and this was often for officers in the grades of major and below. In many cases, there were provisions for extended service up to age 60 for career officers in ranks higher than major. Completion of commissioned service to the mandatory points usually resulted in retirement with immediate pensions ranging from 70 to 80 percent of highest salary depending on the country. Voluntary early separation by career officers usually provided some form of outplacement and relocation allowance and retirement at a reduced portion of salary dependent upon years of service; sometimes the availability of the retirement pension was delayed or transferred and accumulated into civilian retirement plans. However, retirement at midcareer, such as with the U.S. military's 15- and 20-year service retirement options, was seldom encouraged by the foreign military officer career systems.

Summary

Key common characteristics exhibited in these foreign officer systems include

- Generally closed systems: no reserve entry or lateral entry except for the professions. (The concept of reserves is not the same as in the United States; it is usually a form of territorial army with restricted local service or individual emergency standby reserve for each military service.)
- Generally, long, one-career systems: Retirement age at 55 (or later) with sufficient annuity so that a second career is not needed unless an officer chooses to do so.
- Some form of multiple commissions or tenures: short service for some, career for others.
- Career status often related to promotion to major or lieutenant commander (O-4).
- College degree not usually required for commission or promotion.
- Fast-track careers related to military/civilian education (e.g., general staff officer course completion) and command experience.
- Generally, six officer grades below flag rank (O-1 through O-6 equivalent structure).
- Experience and maturity valued because of potential mission requirements (e.g., peace operations or other independent small-unit-type actions).

- Officer career management systems not necessarily uniform across all services.
- Military "officership" as a career fits with the corresponding national views about careers.

Potential Future Design Characteristics Derived from Foreign Military Officer Systems

The foreign military officer career systems provide some interesting characteristics for consideration in development of alternative future officer career management systems. Several characteristics found in a majority of these foreign military officer systems parallel those of the existing U.S. officer career system. The general use of closed officer systems, except for the professions, follows the U.S. pattern. Use of promotion to field-grade rank to define career status for officers and establish tenure to retirement seems prevalent in many foreign systems and is similar to the U.S. practice. Lastly, there are differences and similarities in the retirement pension plans offered career officers, with pensions of up to 80 percent of officer salaries but different timing of retiring.

However, other characteristics in foreign militaries differ significantly from the U.S. system, and they may provide a basis for constructing a broader range of future alternative officer career systems. The use of an officer system that follows an up-and-stay structure, particularly for the field-grade ranks, offers one such major variation from the U.S. up-or-out structure. Another major difference would be to develop an officer system that does not require university degrees for officers. However, for such a system to be viable, it would have to reconcile the related difference in U.S. societal values that place major emphasis on civilian education level as a credential of future potential, especially within a system that sees itself as a profession. Designing an officer career system that parallels the foreign militaries' longer careers to age 55 and considers later retirement points that provide for immediate pensions only after reaching 30 or more years of service is another possible major system variant. Next, an alternative officer career system that provides multiple commissions with appropriate differences in tenure should be considered. These commissions could provide for officers to serve a short or temporary tenure, with potential for later transition into a career or regular commission at appropriate transition points; specialist commissions for enlisted midservice and civilian lateral entry officer accessions; and career or regular commissions providing long tenure to retirement at accession or some later career transition point. However, the experience in the United Kingdom of using multiple types of officer commissions has resulted in service study group

recommendations to simplify, standardize and reduce the number of types of officer commissions in the future.¹⁹ These findings notwithstanding, a system using multiple commissions (contracts) may offer a substitute for the U.S. up-or-out structure for limiting tenure in a future career officer management system. Lastly, one might follow some of the foreign examples and consider a departure from the historically recent U.S. practice of using a uniform officer system for all military services. Such an alternative officer system would allow for the unique differences in operation and function that continue to define the four U.S. military services or the multiple skills within them.

Public Sector Organizations

Four federal organizations (Federal Bureau of Investigation; Bureau of Alcohol, Tobacco, and Firearms; Secret Service; and Bureau of Prisons) and one nonfederal organization (Fairfax County Police Department) that have similarities²⁰ to the military were studied to determine prevailing personnel policies. The findings are summarized below; detailed reports are in Appendix F.

Accessing

All five organizations operate up-and-stay structures that have thorough screening programs before candidates are accepted and personnel policies that encourage retention. Recruiting and accession procedures vary—some require college degrees and others want some previous job experience that could be prior service at another level in the organization; some are nationwide and others localized. All, however, allow only very limited lateral entry at lower levels and none at middle and upper management. Recruiters seek individuals who share organizational norms and values.

Developing

Each organization conducts its own entry-level training program (8 to 17 weeks) that begins the acculturation process that all regard as important. While subsequent training is technical and job related, the bonding continues throughout the development process. (It should be noted that each organization

¹⁹Interviews with U.K. military officer personnel officials, August 1993.

²⁰Similarities include organizational structures (bureaucratic hierarchies with a defined chain of command), objectives (public safety), orientation and environment (team effort, intense training, and hazardous activity), and strong shared values associated with putting one's life at risk.

views its law enforcement officers as members of a profession, although it does not meet all the traditional defining characteristics of a profession.)

Following an initial assignment, individual law enforcement officers in each of the organizations studied select either a management (command) or a journeyman officer track. While those choosing the latter track have fewer promotion opportunities, they are allowed to increase their skill expertise and in some cases remain in the same position and location throughout their career. One organization (Fairfax County Police Department) has a program in which officers who increase their skill competencies to a high level are given additional status and compensation.

Among those officers choosing the management track, emphasis is on developing a broad base of experience in different skill areas—i.e., developing generalists. This is achieved through frequent career-broadening reassignments that alternate between the headquarters and the field and by short management-related courses. Most law enforcement agents must sign mobility agreements; thus, reassignment and relocation is often as frequent as for military officers. None of the organizations emphasized additional civilian education for development or advancement.

Each organization also has an executive development program that identifies potential senior leaders early and provides special leadership training, frequently through a private training group. While reassignment is managed by the headquarters, career development is perceived as an individual responsibility.

Promoting

In the management track, promotion is often directly tied to selection for a specific position. The candidate pool is defined through a post-and-bid process. Rank is in the job for the most part. The processes vary, however, from boards that include peer representatives, to an assessment center evaluation by outside experts, to centralized promotion boards similar to the military departments. All are centrally managed with emphasis on the general ability rather than on the specialized expertise. In the Bureau of Prisons, for example, wardens are selected from among qualified managers who have been developed in their various skills and include chaplains, psychiatrists, and doctors as well as correctional officers.

Although in many cases the individual officers are general schedule employees, none of the promotion systems allows the supervisor the selection autonomy prevalent in other organizations. Senior managers play an active role in both the assignment and promotion processes in all five organizations.

Transitioning

All of the systems studied tend to keep people until they retire. All federal law enforcement officers now entering government service become eligible for early retirement at age 50 and have mandatory retirement at age 57. However, age is no longer a basis for mandatory retirement in state and local public safety occupations, which brings these systems into line with national policy on age in the private sector. Amendments in 1986 to the ADEA²¹ had contained temporary exceptions (until December 1993) at the state and local level for, among others, public safety occupations such as police and firefighters.²² Congressionally directed research has been sponsored on the issue of age as a mechanism in public safety occupations.²³ The Center for Applied Behavioral Sciences at Pennsylvania State University recently conducted a large, comprehensive study on age-based policies for public safety officers.²⁴ This study concluded that

- Age associated declines in many of the principal physical abilities involved in successfully completing routine and critical . . . tasks are highly modifiable depending upon one's lifestyle.
- There is evidence for substantial variability in the physiological status of older adults.
- Depending on their structure, health promotion and physical fitness programs . . . can sufficiently modify age associated declines in many of the relevant physical abilities such that a significant percentage of older employees would be likely to pass physical abilities testing.
- Physiological requirements of critical . . . tasks can be documented and physical abilities tests are available to assess the probability of successfully meeting such physical challenges.

²¹The ADEA of 1967 made it unlawful to discriminate based on age "except where age is a bona fide occupational qualification reasonably necessary to the normal operation of the particular business or where the differentiation is based on reasonable factors other than age." (Age Discrimination in Employment Act (ADEA) of 1967, 29 U.S.C. Section 621.)

²²Federal employees in these occupations and military personnel were not subject to ADEA or its amendments. Such laws are made to apply to the military either through Executive Order or further legislation by the Congress. In some cases, implementation lags the private sector; in other cases, it leads. Sometimes, it is never made to apply. Increasingly, we would expect laws and national policy affecting society at large to apply as well to the military absent a demonstrable, valid basis for the contrary.

²³Previous research in this area by the National Academy of Sciences had shown that age 60 was an age of no particular medical significance for piloting and that adequate tests existed to determine an older individual's fitness to fly. Institute of Medicine, *Airline Pilot Age, Health, and Performance: Scientific and Medical Considerations* (IOM 81-03), 1981.

²⁴"Alternatives to Chronological Age," p. 15. The study was a massive undertaking that involved more than 400 police, fire, and correctional departments and 25,000 entries.

- Comprehensive physical abilities testing is likely to be at least as effective as chronological age in assessing physical performance capability.²⁵

In reviewing this study, the House Committee on Education and Labor framed the choice as between maintaining a fit, effective workforce in public safety agencies by using age-based policies for groups that might be unfair to particular individuals or by developing physical performance standards for individuals and testing their use.²⁶ As of this writing, the ADEA exceptions for state and local public safety occupations were not extended by the Congress.

While the organizations studied had some separations for poor performance or disciplinary problems, all had aggressive programs to retrain and retain officers. None had forced fully qualified officers to retire involuntarily. Separation data were inconclusive about departure patterns; some officers retire at the earliest opportunity and others stay as long as possible. (Retirement from the Bureau of Prisons is bipolar—about half retire at age 50 and the rest at age 57.) These retention patterns are not considered a major problem; most organizations determine accessions based on projected retirements. More retirements mean more accessions and more promotion opportunities, and vice versa. Rapid growth in two organizations has created a cohort imbalance that could cause future problems. Nearly all retirees went on to second careers, regardless of retirement age.

While the physical fitness of officers was important to all organizations, there was no consistency regarding either fitness or programs of testing. Some provided regular fitness training and tested often; others did neither. None reported any degradation in performance because of age.

Potential Future Design Characteristics Derived from Comparable Organizations

The career systems of public sector organizations with military-like functions we investigated revealed a high degree of similarity among the organizations and with current military processes. Three aspects of the personnel systems of these organizations suggest design considerations for our alternative models. First, up-and-stay structures provide motivated individuals who can operate in a

²⁵Cited in Ron Edwards, "Mandatory Retirement: Police, Fire Fighters, and Tenured Faculty," *Public Administration Review*, July/August 1993, pp. 404-408.

²⁶House Report 103-314, November 1, 1993, p. 10. The report also reviewed issues of testing that might be problematic.

physically stressful environment. These systems barred lateral entry in middle- or upper-level positions. Second, two-track systems (management and agent/officer), where one offered greater opportunity for promotion and compensation and the other offered continued service, functioned smoothly. Finally, mandatory retirement at age 57 for federal law enforcement officers, with earlier retirement allowed, did not adversely affect performance or promotion opportunity. Public safety occupations at the state and local level must now conform to national policy that proscribes age as a standard for retirement.

Private Sector Practices

We examined the career management practices of the private sector to determine what important design or evaluation criteria we could adapt to our evaluation. We were fortunate to have access to a human resource study conducted by Towers Perrin. Not only did this study provide important insights about human resources management, but it also suggested how these practices might change in the future.²⁷ The comprehensive worldwide survey included the perspective of human resource managers, line managers, consultants, and academic experts. The survey found that the top current challenge—providing high productivity, quality, and customer satisfaction—would also be most important in the 21st century. Linking human resources to the corporate strategy was also high in importance in both time periods—1991 and 2000—and becoming more important by the latter year.

The Towers Perrin study director offered detailed insights about four important human resource objectives dealing with business strategy, organizational culture, management development, and workforce flexibility,²⁸ which are congruent with other views (cited below) about private sector human resource management.

Business Strategy

Human resource management must be linked to the business strategy and must focus on business goals and on user satisfaction, with less emphasis on traditional human resources objectives such as attraction, retention, and

²⁷Towers Perrin is a human resources (HR) consulting firm. They undertook a study that obtained information from CEOs and other line executives, HR executives, university HR faculty, and consultants in 12 countries. Andrew S. Richter, Ph.D, was the project manager for the study. He graciously gave us access to the study and its results and explained their meaning. This section draws on the study itself and our discussions with Dr. Richter. Towers Perrin, *Priorities for Competitive Advantage: A 21st Century Vision Worldwide Human Resource Study*, 1993.

²⁸Other objectives from this research—relating to reputation, attraction, satisfaction—will be used in developing the purpose and objectives of officer career management.

promotion. The emphasis should be on "build and sell cars" as the primary purpose and not "attract, retain, promote."

Emphasis on the business strategy and not the human resource strategy is becoming widely shared as a needed organizational purpose. Current thinking is that "the most persistent causes of management layering and excess headquarters staff are the human resource policies employed by many American corporations. Their consequences are unintended, but unmistakable. The three most problematical areas of human resource policy are compensation, career development, and corporate culture."²⁹

These shifts are important to officer career management because military practices are in many ways similar to corporate practice:

- Promotion is a form of compensation, and the two are closely related in that a person must be a manager to achieve higher compensation through promotion.
- Career paths premised on steady advancement up the hierarchy build disappointment into their organizational structures because fewer and fewer can be promoted in the hierarchy absent removal of the experienced.
- Cultures are built on bureaucratic behaviors that lead to promotion.³⁰

These insights about the connection between career management systems and the business strategy suggest that a primary consideration for evaluating the effectiveness of a management system is the extent to which it accomplishes the organization's purpose.

Organizational Culture

Corporate or organizational culture—the norms, beliefs, and values of the organization that define the roles and activities of the people in the organization—is becoming a variable. Organizations with a strong culture want people throughout the organization to have a consistent set of values and standards; high turnover and lateral entry are perceived to damage this focus and consistency of purpose. Organizations without a strong culture generally welcome entrants with different or diverse values and standards through lateral entry, turnover, or both because such change best meets the needs of their

²⁹Robert M. Tomasko, *Downsizing: Reshaping the Corporation for the Future*, op. cit., p. 16.

³⁰*Ibid.*, pp. 17–22.

business strategy.³¹ (There is some evidence that such nonconformers are best at identifying major shifts in the environment that might affect the success of the business strategy.)

The new paradigm suggests that organizations are choosing the type of organizational culture that they believe best accomplishes their business strategy in a future environment, rather than unconditionally accepting the culture that has historically existed. For example, in a General Accounting Office review of nine major U.S. corporations, only three were attempting to perpetuate their cultures while six were trying to change their cultures.³² In the United States, some organizations with previously strong cultures are "smashing eggs." IBM, General Motors, and Kodak are good examples of organizations that are moving to open themselves to more outside hiring, including for the most senior levels.

The Towers Perrin study results indicate that globally, however, strong cultures remain important. As organizations move toward the future, the importance of a strong, but flexible, organizational culture will approach the level seen in the United States. While strong organizational cultures remain an important objective for human resource management, organizations must now anticipate requirements and choose that culture that is best for them in the future environment. They are no longer bound by tradition or history of the organization.

This insight about organizational culture has relevance to officer career management. Certainly the military has a strong culture whose effect is similar to that in the private sector. As seen by one observer:

Living within the military culture bonds people together. Such things as sharing hardships over the years in strange and often inhospitable places, being on call twenty-four hours a day, and all too frequently flying away in the dead of night for an undetermined stay creates enduring ties. Strong teams and strong feelings develop. This cohesion—essential, a source of satisfaction and comfort, and a wonderful catalyst for teamwork—is also recognized as a potential hindrance to requisite individual and organizational growth, change, and adaptation.³³

If strong cultures tend to inhibit change and if they seem more likely to become a variable, our evaluation process should consider the extent to which a particular alternative promotes strong organizational cultures.

³¹Ibid., p. 192.

³²General Accounting Office, *Organizational Culture*, op. cit., p. 1.

³³Walter F. Ulmer, Jr., "Inside View," op. cit., p. 8.

Management Development

Technology is forcing important choices about how to develop people for careers. The ability of an organization to change—if that is necessary and desirable—is the issue of interest for career management. The choices include (1) hire more frequently from outside the organization (an approach that works well in organizations without a strong culture) or (2) redevelop or retrain existing members of the organization (a more suitable approach in a strong culture). This is an important issue in officer career development because "A normal officer's career . . . spans some three decades; a fact that, in an age of rapid change, . . . makes some kind of refresher training not only possible but desirable."³⁴

Workforce Flexibility

Most companies facing "downsizing" recognize that smaller size requires greater workforce flexibility. Internal business units want more control over their own destinies in terms of hiring, promoting, and developing. The Towers Perrin study director concluded that long-term strategies for human resource management should focus on developing flexible workforces rather than hiring and firing based on short-term requirements. Similar views have been expressed for the military about retraining and refocusing every few years to develop a more flexible future force.³⁵ Additionally, employee commitment increasingly will be based on career satisfaction rather than just on rewards, and business units want the flexibility to provide satisfactory careers. Overall control of careers is shifting to lower organizational levels; corporate control is at the executive/nonexecutive interface.³⁶ As a result, subordinate business units have more control over precise policies on hiring, advancing, developing, and position control. This insight affects officer career satisfaction, flexibility, and control of the career management system.

A recent study by the U.S. Merit Systems Protection Board (MSPB) ("Federal Personnel Offices: Time for Change?") provides an interesting government perspective on many of the issues addressed in the Towers Perrin report for the private sector. The MSPB report sought to evaluate how federal managers

³⁴Martin van Creveld, *The Training of Officers*, New York: The Free Press, 1990, p. 4. Ulmer also asserts that "Army officers spend at least twice as much time in classrooms over their careers as do their civilian equivalents" (p. 7).

³⁵Experts quoted in Neff Hudson, "Will the Air Force Always 'Get the Best Recruits'?" *Air Force Times*, October 25, 1993, p. 16.

³⁶In the public sector, the National Performance Review recommended that the Federal Personnel Manual be eliminated with agencies allowed to determine their own rules.

perceive the causes of current personnel problems.³⁷ The MSPB study concluded that "Federal personnel offices, and the services they deliver, are often held in low esteem by the managers who depend on them for help with human resources management." A primary reason was because "much of their work was thought to contribute little to accomplishment of the agency mission."³⁸ This is understandable since "personnel offices have traditionally been evaluated by their success in compliance with law, rule, and regulation."³⁹ Government managers perceived a focus on internal personnel processes rather than serving client organizations. A future conceptual role included such things as "concentrate on the big picture" and "be oriented toward the mission and toward service."⁴⁰

Our analysis of the U.S. career management systems suggested that flexibility would be an important evaluation criteria. The Towers Perrin data reinforce that suggestion. Other potential evaluation criteria and system design characteristics that were highlighted in this subsection on private sector practice are the extent to which a human resource system accomplishes the organization's purpose and promotes strong organizational cultures, the ability of an organization to change by hiring from outside or retraining inside, emphasis on career satisfaction and not just on rewards to motivate people, and providing more control to subordinate business units. Moreover, in designing alternatives one should consider bringing in first-rate applicants at any point in a career and consider reduced emphasis on promotion.

Summary of Career Management

The previous section reviewed career management principles. This section reviewed the practice of career management in military organizations, in military-like organizations, and in private and public sector organizations. The objective of this section and the previous section was to identify concepts for career management to use in designing alternative future career management systems and in developing objectives, criteria, and measures. The alternatives are presented in the next section and the objectives and criteria in the following section.

³⁷"Federal Personnel Offices: Time for Change?" U.S. Merit Systems Protection Board, Washington, D.C., August 1993, p. i.

³⁸*Ibid.*, p. vii.

³⁹*Ibid.*, p. 11.

⁴⁰*Ibid.*, p. 8-9.

6. Alternative Officer Career Management Systems

Introduction

This section describes the design of the alternative officer career management systems that we will evaluate as we address the key research issues suggested by the Congress and the DoD. The alternatives are different in the way people flow through a career and are accessed, developed, promoted, and separated.

Design of Alternative Career Systems

We specified five alternative officer career management systems. They are designed to have markedly different characteristics such as longer maximum career lengths, greater reliance on lateral entry, and different promotion patterns. One alternative career system was constructed to replicate the DOPMA career management system. The other four are constructed to capture issues of specific interest to the Congress and the DoD as they contemplate future officer systems. These issues include different regulation of flows into, within, and out of the officer corps; rules that provide for less turnover and greater stability; stable career advancement patterns that encourage longer careers; greater use of lateral entry; and longer careers as the rule rather than the exception with up-or-out features of DOPMA adjusted accordingly. These four alternatives cover the relevant range of issues of interest. Our designs were informed in detail by our research on career management principles and by observations regarding actual career systems in the current U.S. military, foreign militaries, government agencies, paramilitary organizations, and the private sector.

We begin with a summary comparison of these five alternative career systems in Table 6.1. Each of the five alternatives has been given a name that captures its central feature. Important characteristics of interest that we do not vary among the alternatives are listed as assumptions following Table 6.1. We follow with a detailed description of each alternative using its salient features.

Table 6.1
Key Characteristics of Career Management Alternatives

Characteristics	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Career flow structure ^a	Up-or-out	Up-or-out	Up-or-out in-and-out	Up-and-stay	Up-or-out first 10 yrs, then up-and-stay
Forced attrition means	Not promoted	Not promoted	Not promoted	None	Not selected
Accessing Entry point Initial tenure	Year 0 Career	Year 0 Career	Years 0, 5, 10 Career	Year 0 Career	Year 0 Entry positions
Developing Early experience Skill group migration	Skill As needed	Skill As needed	Skill As needed	Most in line Line to skills	Skill As needed
Promoting Promotion timing	O-4=10 years O-5=16 years O-6=22 years	Adjusted to meet grade requirements	Adjusted to meet grade requirements	Adjusted to meet grade requirements	Adjusted to meet grade requirements
Promotion opportunity	O-4=80% O-5=70% O-6=50%	Same	Same	Similar % over a longer promotion zone	Similar % over a longer promotion zone
Promotion zone interval	1 year	1 year	1 year	5 years	5 years
Transitioning Maximum career length	30 years	35 years	30 years	35 years	35 years
Intermediate tenure	Yes	Yes	Yes	N/A	No
Outplacement services	No	No	No	Yes	Yes
Transition payments	Limited	Limited	Limited	Yes	Yes
Vesting	None	None	None	10 years	10 years
Retirement with annuity	20 years	20 years	20 years	30 years	30 years
Mandatory retirement ^b	30 years	35 years	30 years	35 years	35 years

^aLateral entry for professional skill group in all alternatives.

^bIf not promoted to general/flag.

Assumptions

In designing alternatives for evaluation, we wanted to be explicit about important assumptions we were making for this analysis. Most of these represent aspects of personnel functions that we do not vary. Others are particular considerations that we believe should be emphasized because they are inherent in the officer management system and changing them would more fundamentally change career management (e.g., moving to a rank-in-job system or decentralizing officer management).

- Primary peacetime accession sources are based on long previewing and acculturation (service academies and ROTC).
- Potential for full career is an entry consideration; a college degree is the credential for this.
- Initial development capacity is adequate, i.e., there are sufficient entry-level positions to give needed experience to entering officers.
- Officers who reach development and promotion plateaus can be effectively managed.
- Six officer grades or levels of responsibility are appropriate. For analysis, O-1 to O-3 are grouped.
- Career system for these grades will remain rank-in-person.
- Decisions within the career system are centralized. Decision systems can support central determinations.
- Promotions are based in some part on seniority and not just on merit. Cohort promotions exist for grades below O-4. Cohort promotions exist for professional skill group.
- Some fast-track promotions are desirable to the military service and to the individual.
- Unqualified officers (substandard performance, permanent medical or fitness limitations) are separated or retired.
- For initial evaluation purposes, an officer career system must meet grade and skill requirements. An officer career system is not controlled by an external constraint such as a grade table. (This analytical assumption is needed to assess the effects of the concepts used in the alternatives. The adequacy of the grade table is evaluated separately.)

Alternative A: DOPMA Short

This alternative career management system was based on the DOPMA officer management system, which is what career management practice would revert to at the end of the drawdown if nothing changes.

The alternative reflects the current up-or-out structure and the personnel policies of DOPMA; i.e., officers who twice fail promotion are separated. The system considers four skill groups (line, support, specialist, and professional) with lateral entry only for professionals.

Officers enter with initial expectations for a career or with high expectations for augmenting into career status given successful performance. Early development is within skill group; officers migrate between skills as needed. Promotion opportunity and initial promotion points are those of DOPMA. Promotion timing (10 years to O-4, 16 years to O-5, and 22 years to O-6) is altered as needed to meet various requirement options. Tenure is provided under DOPMA rules; outplacement services and transition payments are limited. The maximum career is 30 years and separation and retirement are in accordance with current rules; hence retirement is mandatory after 30 years of service for O-6 and earlier for other grades. There is no vesting; reduced immediate annuities begin at 20 years of service with voluntary retirement at that point.

The inventory of officers resulting from an alternative of this nature for a notional service and requirement option (Army and Option 0) is graphically depicted in Figure 6.1 below. The histogram represents the inventory that meets the specified requirement option. The horizontal axis is time in years of commissioned service. The vertical axis represents the number of officers in any given year of service.

The number of officers (3,900) in the first year of service represents the accessions necessary to satisfy the requirement option with the current (DOPMA Short) management system. The sharp drop between third and fifth years corresponds to the voluntary departure of officers completing mandatory commissioning obligations and some forced separations. About 1,800 officers remain after 10 years of service. The nearly flat part of the curve between years 12 and 19 suggests a high and stable continuation pattern during that time period. The drop-off at the 20-year point represents the first opportunity for voluntary and involuntary retirement. About 1,000 officers enter the 21st year of service.

In the discussion that follows we use similar figures to highlight key differences among the alternatives.

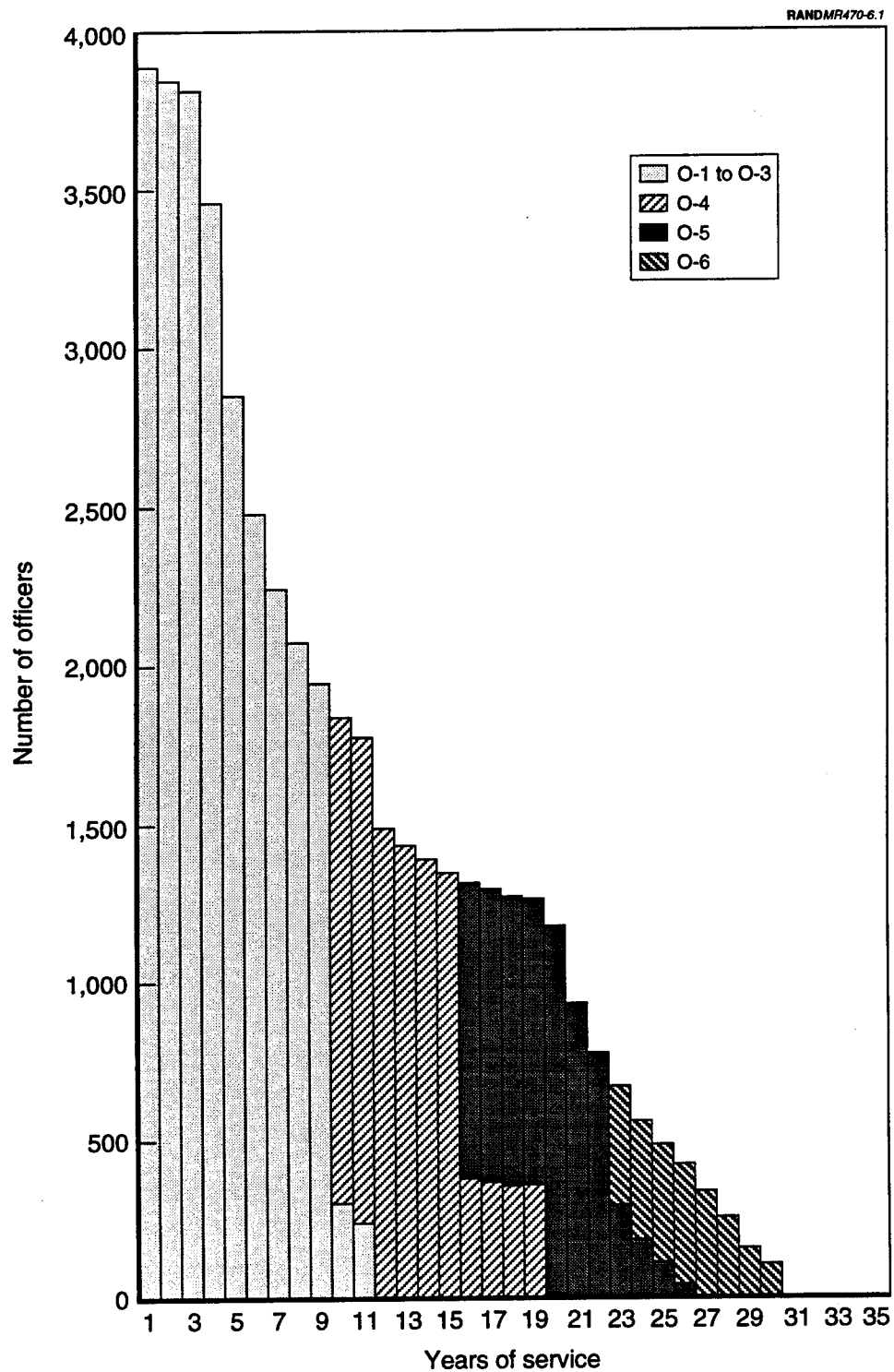


Figure 6.1—Typical Grade and Service Profile for Alternative A: DOPMA Short

Alternative B: DOPMA Long

The DOPMA Long alternative career management system was developed to evaluate the effect of the single change of extending maximum service careers within the DOPMA up-or-out structure. This responds to the Senate Armed Services Committee (SASC) Report that said: "Longer careers should be the rule rather than the exception."¹

This alternative differs from DOPMA Short in two ways: It allows continuation to 35 years of service for officers in grade of O-6, and promotion points are delayed to accommodate different requirement options and longer career paths. (Appendix G provides the rationale for continuation rates and patterns used in all of the alternatives.)

Figure 6.2 is a typical officer profile for the DOPMA Long career alternative. The inset compares it with the DOPMA Short profile. Fewer accessions are required than for DOPMA Short, and a small percentage of officers is retained through 35 years of service.

Alternative C: Lateral Entry

This alternative career management system was developed to evaluate the single change of lateral entry from civilian life. The alternative allows qualified individuals in all skill groups² to enter at designated times. The major differences from other alternatives are greater lateral entry and more emphasis on skill experience. A maximum career length of 30 years is used. Eighty percent of accessions are initial entry with the remainder joining as lateral entrants in the grade of O-3 or O-4 at the 5th year (15 percent) and 10th year (5 percent) respectively. These arbitrary points were chosen to demonstrate the cumulative effect of lateral entries—both in timing and quantity. Lateral entrants are assumed to have the same skill experience as the cohort they join but may lack military experience. They do not become eligible for retirement until completing 20 years of commissioned military service, so that those who enter after the 5th year of service may stay until the 35th year (30 years of military service). Promotion timing is adjusted to accommodate different requirement options.

¹Senate Report 102-352, pp. 199-200.

²As noted in Table 7.1, some lateral entry for professionals is allowed in all alternatives.

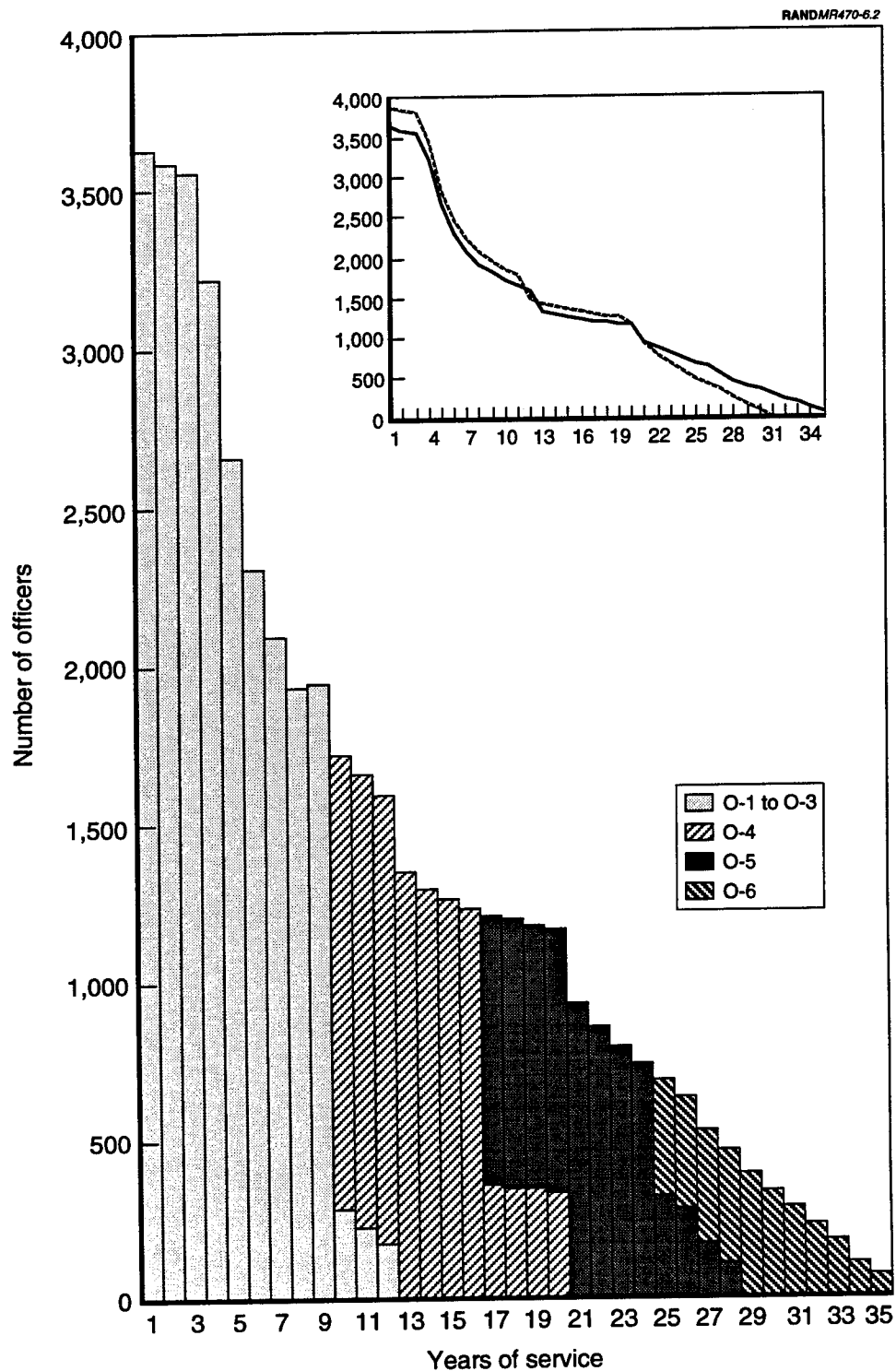


Figure 6.2—Typical Grade and Service Profile for Alternative B: DOPMA Long
(inset is comparison to DOPMA Short service profile)

Figure 6.3 represents the Lateral Entry alternative. The humps in the curve at the 5th and 10th years represent the accessions of individuals entering laterally with 5 and 10 years of skill experience, respectively. The inventory of officers shown beyond 30 years of service is lateral entrants completing more than 20 years of military service.

Alternative D: Long, Stable

This alternative career management system was designed to demonstrate the up-and-stay career flow structure that encourages long careers since it does not force attrition before mandatory retirement. All officers who perform satisfactorily may choose to stay for long careers independent of selection for promotion. The alternative responds to the SASC Report, which said that the "officer corps should be managed under rules that provide for less turnover and greater stability."³

In this alternative, most officers enter in the line skill group to provide common experience as the basis for long careers. At the promotion point to O-4, line officers migrate into other skill groups and further success is based on development of those skills. Officers who initially enter in support skills will have limited opportunity for promotion beyond grade O-3.

Outplacement services and transition payments are used to support voluntary attrition prior to 10 years of service and for other force management needs. Officers not selected for promotion are allowed to continue service. DOPMA promotion zones are adjusted to meet requirements and to accommodate the long career. Long interval promotion zones are used. Fast-track promotions are also included. The alternative provides vesting after 10 years of service, but immediate full annuity retirement payments do not start until 35 years after entry. Retirement at 30 years of service with a reduced immediate annuity is allowed as an option that accounts for the drop in inventory at 30 years of service. Mandatory retirement is after 35 years of service.

Figure 6.4 represents the Long, Stable career management alternative. Fewer accessions are required to satisfy requirements.

³*Senate Report 102-352*, pp. 199-200.

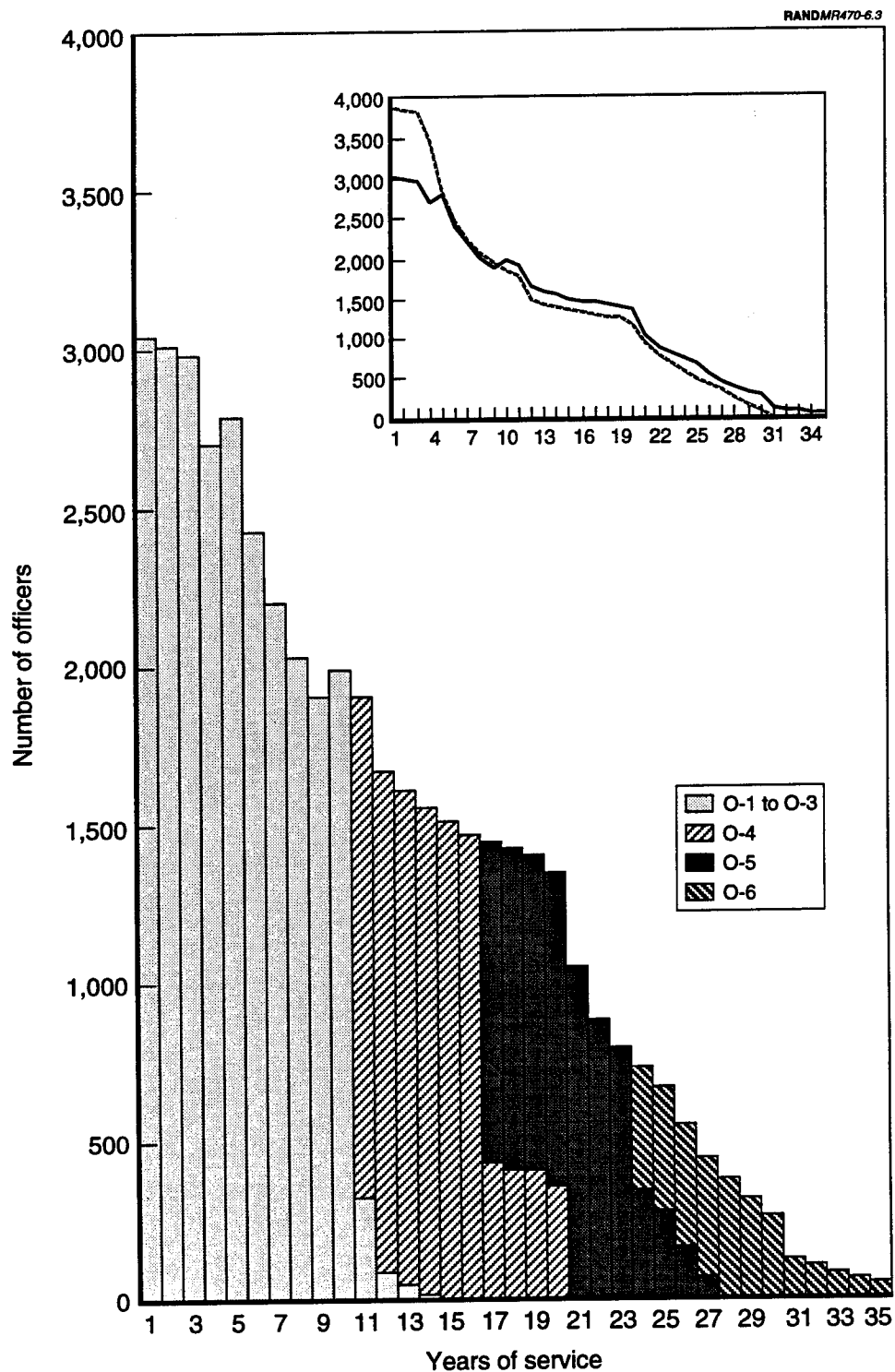


Figure 6.3—Typical Grade and Service Profile for Alternative C: DOPMA Lateral Entry
(inset is comparison to DOPMA Short service profile)

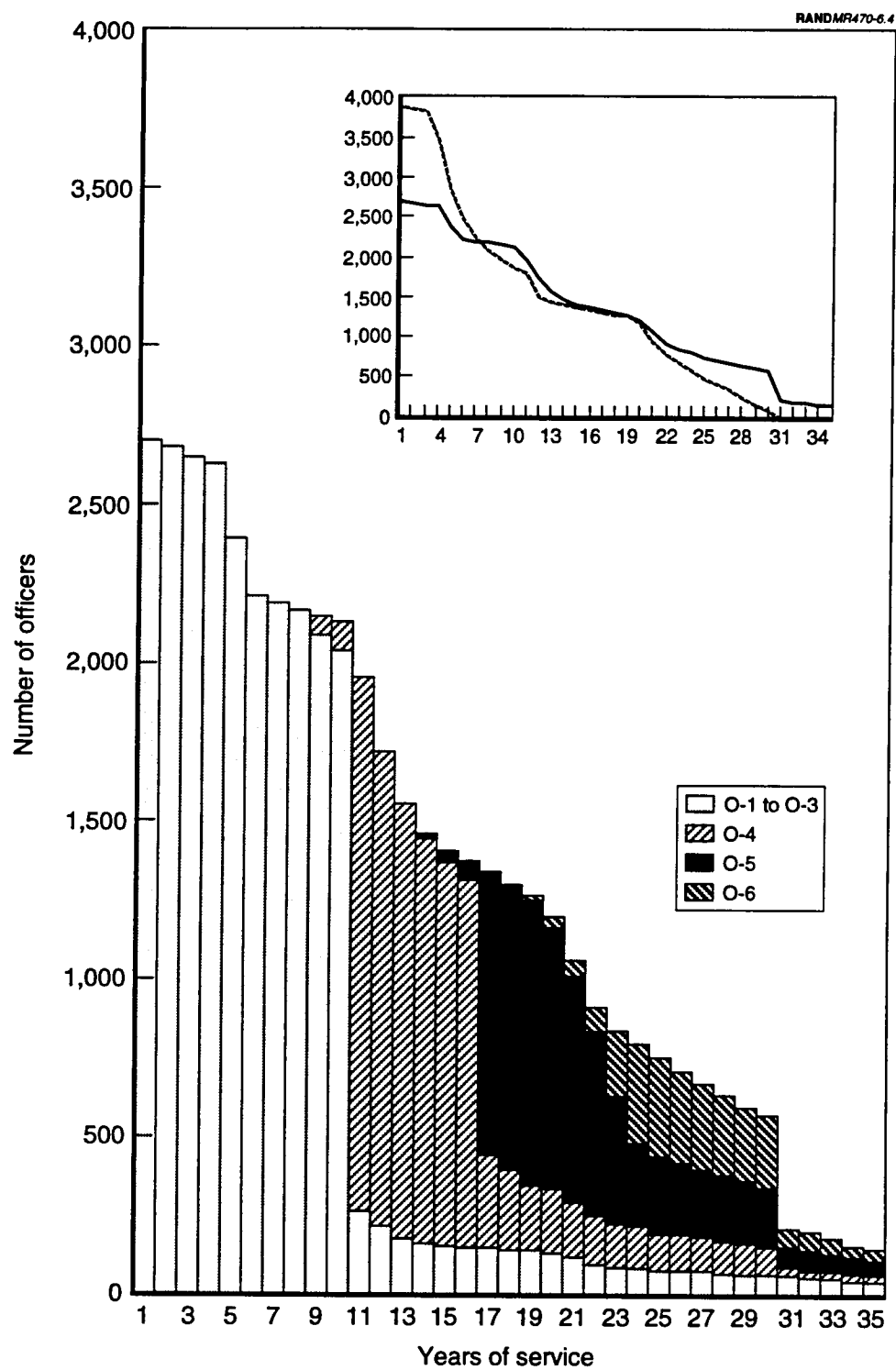


Figure 6.4—Typical Grade and Service Profile for Alternative D: Long, Stable
(inset is comparison to DOPMA Short service profile)

Alternative E: Career Selection

This alternative career management system was developed to evaluate several related management concepts: linking different career flow structures to enable career selection at various points in careers; a long zone promotion option that would support fast-track advancement of selected officers to one or more of the field-grade ranks based on time in grade while dampening overall emphasis on promotion opportunity; longer maximum careers; and vesting. This alternative has three distinct segments based on career selection points. An up-or-out flow structure based on development and selection for a career, not promotion, is used for the first 10 years. During the first 5 years (segment one) the acculturation of officers continues as they gain military experience and develop skills. In a sense, officers serve at the will of their military service based on recouping investment for pre- and postcommission education and training.

Those selected for continuation based on skill and experience needs (their prior development) are promoted to O-3 and enter the second 5-year segment. Selection is based on both potential in skill areas and performance. Selection rates are designed to be lower than current DOPMA promotion rates to O-3, so attrition is forced to accomplish this. Officers might choose to enter the second phase because they have developed affinity for a military career or because they will become vested after 10 years of service,⁴ which is included in this alternative. The second segment focuses on further development in skill areas; career selection takes place after 10 years and is again based on skill and experience needs. The best-developed officers for national security needs are selected—coincidental with promotion to O-4. The officers (best developed and best qualified) then enter career status in an up-and-stay structure. Selection into the career has been based on competency to meet expected skill and experience requirements. The system allows flows from line to both support and specialist skill grouping as needed.

The third segment encourages long careers because it does not include any subsequent forced attrition before retirement. For those with career status (retention beyond 10 years of service), retirement at 30 years of service with a reduced annuity is allowed as an option. Mandatory retirement occurs at 35 years of service.

In this alternative, promotions are made only to meet specific needs for management and command positions. Promotion decisions to higher grades use

⁴While vesting begins after 10 years of service, immediate annuity payments do not start until 30 years after entry.

wider promotion zone intervals, which make large pools of officers available. A fast track for the best qualified is provided. Field-grade officers not selected for further advancement may continue serving. DOPMA promotion points are adjusted to meet requirements.

Figure 6.5 represents the Career Selection alternative. Note the sharp declines that represent the forced attrition at 5 and 10 years of service. The outflows here, which are greater than the previous alternative, could support the officer needs of the reserve components. Also the high and stable continuation rates beyond the 10th year reflect a system with high retention and increased experience.

Summary

This section identified assumptions and defined the five career management alternatives to be evaluated. We specified alternative officer career management systems that are designed around and illustrate important management concepts taken from suggestions by the Congress, by the Office of the Secretary of Defense, and by the military services; from career management principles; and from observations about the practice of career management in the U.S. military, in foreign militaries, and in military-comparable organizations. These alternatives were designed to elicit analytical information about career management concepts and were not designed to be best for any particular skill group or service nor to be best against any particular requirements option.

Specific features in our alternative officer career management systems suggested by the Congress and the DoD are

- different principles for regulation of flows into, within, and out of the officer corps
- rules that provide for less turnover and greater stability
- stable career advancement patterns that encourage longer careers
- longer careers as the rule rather than the exception
- greater use of lateral entry.

These alternatives allow us to evaluate the principles and concepts suggested. We do not specify one best alternative for the future. Many of the important

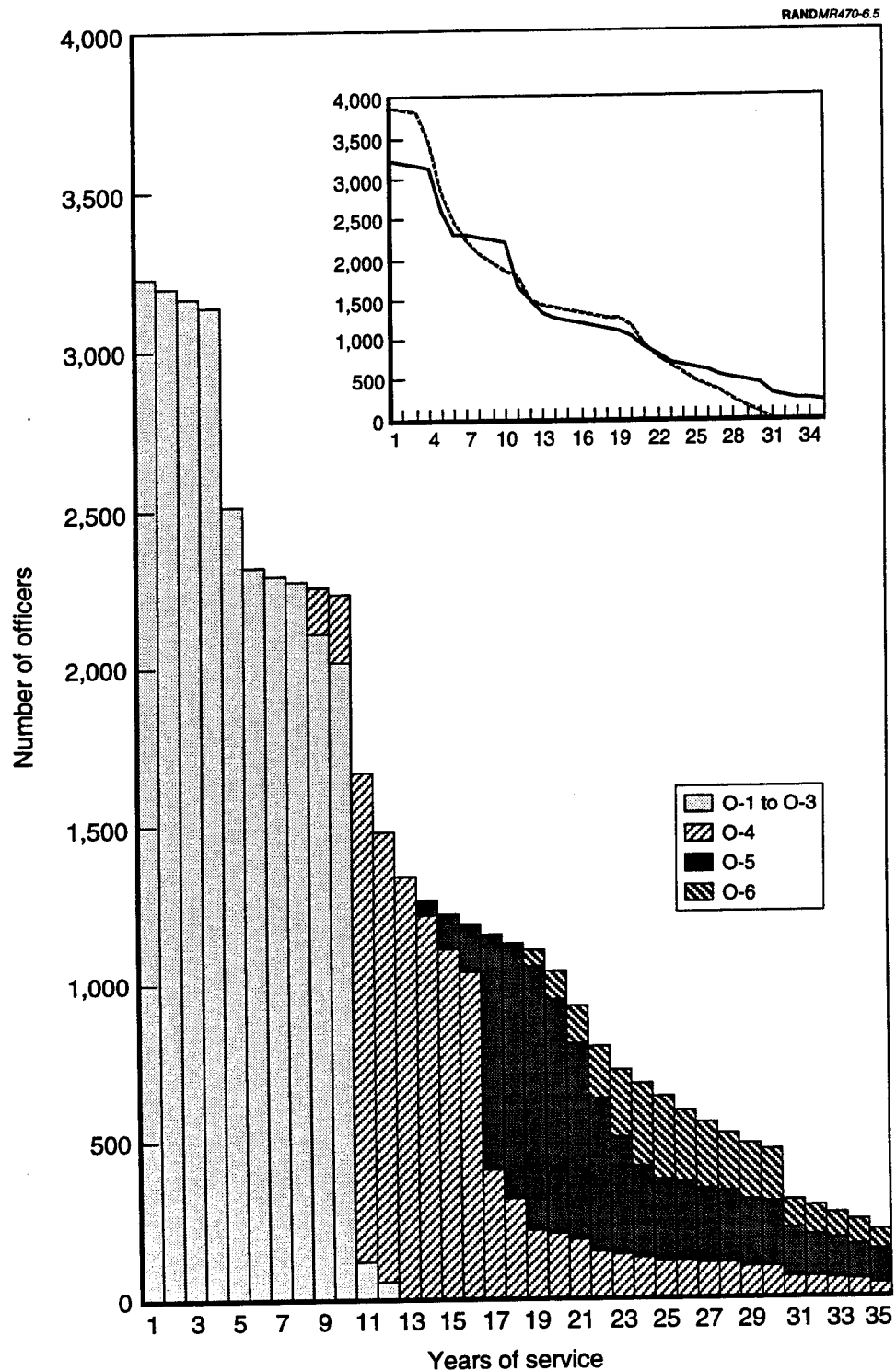


Figure 6.5—Typical Grade and Service Profile for Alternative E: Career Selection
(inset is comparison to DOPMA Short service profile)

principles and concepts may require further assessment independent of our use of them in particular alternatives.

The next section provides our methodology for evaluating these alternative officer career management systems.

7. Evaluation Methodology

Introduction

Having determined a range of requirements and designed a number of career management alternatives, the next step is to evaluate the alternatives. This section describes the evaluation methodology. The intent of the evaluation is not to identify a "best" alternative. It is, rather, to provide the policymaker with information about how the alternatives operate. The evaluation combines quantitative and qualitative assessments of various aspects of the alternative management systems. The purpose and objectives of officer career management and other important indicators discussed in Section 1 provide the framework of our evaluation methodology.

As stated in Section 1, in the broadest sense, the primary purpose of officer management should be to provide officers able to discharge the national military strategy. An officer management system must focus on the goals of and meet the needs of those who use officers (its "customers" in a sense). For the U.S. military, users represent a broad spectrum, including the unified commanders (CINCs), the military services, the joint and defense staffs, and the various other defense and nondefense organizations that rely on career military officers for some of their staffing.

Objectives define what the career management system must do to achieve its purpose of providing officers able to discharge the national military strategy. The objectives of the career management system are

- meet requirements
- attract and develop officers
- foster careers
- provide flexibility.

In the evaluation, we also consider

- cost
- uniformity
- public confidence in the military
- number of officers entering, in, and leaving careers.

For each objective or consideration, we identify specific aspects that allow us to compare the various career management alternatives. In many cases, these are quantitative aspects derived from a computer simulation model that calculates an officer force based on the various requirements.¹ In some instances, quantitative comparisons are not possible, and we resort to a qualitative evaluation. The evaluation framework above includes two considerations requested by Congress:

- expected length of officer careers
- timing and opportunities for promotion.

Objectives as Evaluation Criteria

Meet Officer Requirements

The officer career management system must provide officer inventory—by service, grade, and skill—that matches requirements. We chose this as the dominant criterion because it is central to fulfilling the purpose of a career management system. The Congress recognized its centrality when it directed that the study “should be guided by the basic objective of satisfying the validated grade/skill requirements of the military services.”² Thus, we first determine if the various alternative officer career management systems can meet the different officer requirement options by changing appropriate personnel functions, primarily promotion timing. All five alternative officer career systems were made to satisfy each of the six requirements options at service, grade, and skill level of detail.

But meeting the requirement might affect several other criteria and measures as well. For example, changing promotion timing for each respective grade as needed to balance the inventory with each requirements option could also affect uniformity. The nature of these concomitant changes are important, because they provide decisionmakers insight into the operation of a given career management system.

Attract and Develop Officers

Grade and skill are not the only considerations with respect to officer qualifications. The officer career management system must provide officers with

¹Appendix G describes this model and its use.

²*Senate Report 102-352*, pp. 199–200.

requisite military experience. We evaluate this aspect in two dimensions. First, we compare military experience profiles, defined as overall average field-grade experience in years in each skill group, generated by the alternative career systems with a baseline of military experience we developed based on service career paths and the requirements options. Second, we measure the variance in years of service at each of the field grades.

We established a military experience requirement baseline by first reviewing officer career paths³ for kind of experience provided and for when, in the career, that experience was provided. (Appendix I provides a complete description of our methodology.) We then established the minimum desired military-unique experience for the four skill groups by differentiating military experience and training from other skill and professional skill experience and training, which is experience that need not be provided (uniquely) by the military. Service career planners provide a balance of experience throughout⁴ a typical career. Military experience varies by skill group over the career length. Support and professional careers have less emphasis on uniquely military experience and more emphasis on skill use and experience.

This information on experience is used in two ways in our study. First, it is the basis for making judgments about lateral entry. Under our assumption that lateral entry is from civilian life, one can observe that there is little ability for making a substitution in line and specialist skill groups because those skill groups have predominantly military experience for which there is no comparable civilian skill. (However, it does suggest that lateral entry from reserve status or with prior active service is more workable because these groups have some military experience already.) On the other hand, the support and profession skill groups are better candidates for lateral entry because of the lower proportion of military-unique experience over a career.

The second way we use experience is to estimate the amount of future experience needed or desired to be successfully developed as an officer in each skill group. When additional experience is required, additional time must be provided on the career path or the new requirement must displace an assignment already on the career path or some combinations of the two must occur.

³*Commissioned Officer Professional Development and Utilization* (Department of the Army Pamphlet 600-3, August, 1989); *The Naval Officer's Career Planning Guidebook* (NAVPERS 15605, FY 1990); *The Marine Officer's Guide*, Kenneth W. Estes, Naval Institute Press, 1985, pp. 278-279; the Air Force allowed us to review a draft of their forthcoming new career manual.

⁴Line officers, for example, have 7, 6, and 7 years respectively of military experience in each decade of a 30 year career. Specialist career paths tend to emphasize military experience in the first decade and then have a pattern similar to line officers; a reflection of either military-unique initial specialist training (e.g. Navy nuclear power) or establishing military experience before "specializing."

Although we used existing career patterns as a start point for a baseline experience profile, we wanted to ensure that the standard we used reflected future needs as well as past experience. Section 2 indicated that in the future there would be increased emphasis on joint operations, reserve matters, humanitarian missions, peacekeeping and peacemaking, and advances in technology. Moreover, our research indicated that some services believed that less frequent movement would lead to longer assignments on average, which would mean assignments needed now could not be accommodated in a fixed-length career; other services believed that additional future assignments represented broadening of an officer and could not be substituted for tours of duty already on a service's critical path for officer development. Additionally, the Congress appears to have recognized such changes by allowing temporary variation in Marine Corps O-4 and O-5 grades "to accommodate a plan prepared to . . . satisfy joint and external assignment demands, and joint professional military education requirements."⁵ These changes would seem to indicate the need for additional military experience for officers in the future, particularly line officers.

The additional experience needed was judged to be uniquely military. We estimated that the above changes were equivalent to one additional experience tour of 4 years (1 year of training/education⁶ and a 3 year tour of duty) to be *added* to the career path of line and specialist skill groups. In support and profession skill groups, we estimated that this military experience could be *substituted* for existing skill assignments. We included both the assignment for a typical length of three years and training/education of one year to prepare for the assignment. Career paths for line and specialist were modified by adding four years in total.⁷

If changed experience requirements can be satisfied by substituting for other experience (that is no longer needed), no further evaluation is required. We felt that additional or changed military experience requirements for support and professional skill groups could be accommodated through substitution of the new required military experience for other military or skill experience. However, we did not substitute military experience for skill experience for line and

⁵Conference Report to Accompany H.R. 2401, *National Defense Authorization Act for Fiscal Year 1994*, p. 667.

⁶Adding an educational/training tour manifests itself also in the individual's account, which has a ripple effect in diverse areas of officer career management. For this evaluation, we were interested only in the effect of an additional tour on average years of service.

⁷In reality, this additional time in a career might be spent in one year increments added to existing assignments rather than in one entire additional assignment. The net effect would be the same.

specialist skill groups because there was less other/skill experience for which to substitute. Thus, for a line officer with a 20 years of uniquely military experience in a 30-year career path, an additional 4 years would result in a new career path having 24 years of military experience out of 34.⁸ This suggests that longer career paths are needed for line and specialist officers simply to accommodate the increased developmental needs.

However, not all officers stay for a complete career over the 30 or 34 year career path. We are more interested in determining how much additional experience is desired for a field-grade officer over an expected career profile. Actual experience of the overall officer corps or of field-grade officers is frequently and commonly expressed in terms of average years of service. At a given moment in time a field-grade officer in the line skill group has about 17 years of service.⁹ We selected average years of service of field-grade officers as the measure of *desired* future experience and of future experience *provided* by career management alternatives for our evaluation.¹⁰

Desired average years of service for a field-grade officer in each skill group was calculated by comparing two ratios. For a line officer, it is the ratio of 20 years of desired military experience in a 30 year career path compared with the new desired 24 years of military experience in a 34 year career path. This is about a 6 percent increase in desired experience or about one additional year in average years of service. Thus, desired average field-grade years of service for line officers was estimated to be 18 years, which is an increase of about 1 year from current experience levels.

In addition to using comparisons of military experience, we also examined variance in years of service at each grade O-4 through O-6. In some alternatives, officers are promoted to a grade over a longer period and, depending on the career flow structure and transition personnel function, spread over a wider year-of-service band. Greater variance around a promotion point offers both a

⁸ For a specialist having 24 years of military experience in a 30 year career; an additional 4 year tour results in 28 years of military experience over a 34 year career or a 3 percent increase of about 6 months. For a support officer, there is no change because the additional needed military experience has been substituted for assignment and experience already on the career path and not added to the career path.

⁹ A field-grade officer in the support skill group has about 17.1 years of service, and a field-grade officer in the specialist skill group has about 16.5 years of service. These differences reflect underlying patterns of continuation. Support officers tend to stay longer than line officers, while specialists tend to leave earlier than line officers.

¹⁰ Overall average years of service for the officer corps includes large numbers of officers who attrite (or are attrited) after initial obligated service. Field-grade officers compose all of the career force in all but the Long, Stable alternative in which a proportionately much smaller number of company-grade officers attain career status.

broader pool of experienced people to draw from and the ability to promote officers when qualified. More time at each grade allows for additional development and attainment of increased experience by the individual officer. Thus, alternatives with wider variance would tend to provide a more experienced force.

Foster Careers

The previous criteria evaluate alternatives from the organizational perspective. This objective takes into account the individual officer's viewpoint. A career management system should engender commitment and should afford opportunity for a military career. Career flow structures such as up-or-out, up-and-stay, or in-and-out and variation in these structures from choices made about accessing, developing, promoting, and transitioning affect commitment to the organization and career satisfaction for the individual officer. Differences between career systems premised on what has been called "vaulting ambition" and those premised in "grounded stability"¹¹ should be measurable by assessing career satisfaction for officers.¹² Career satisfaction is largely a matter of an individual officer comparing civilian career (and life) expectations with those being offered by a military career.¹³

We use three approaches to evaluate this objective. First, we identify the key factors that influence career satisfaction and subjectively determine the extent to which each alternative contributes to the key factors. Second, we use the continuation rates to determine career lengths as a measure of comparison among alternatives. Finally, we measure the number of retirements that occur by alternative and compare them. Longer careers and more retirements indicate systems that provide greater satisfaction and opportunity and thus tend to foster careers.

Our research and review of the literature identified four key factors that influence future career satisfaction and commitment decisions: professional

¹¹Michael S. Kimmel, "What Do Men Want?" *Harvard Business Review*, November–December 1993, pp. 50–63.

¹²Compensation also affects outcomes such as satisfaction, commitment, turnover, and stability. We do not study compensation policy. However, we use knowledge about compensation practice and may specify points in a system where compensation might affect behavior. We examine behaviors of alternative systems under the initial assumption of comparable compensation and then highlight if needed, where some compensation practice might need to change to induce a desired behavior. Various presidential or defense commissions have studied compensation and retirement. We assume that the compensation system will continue to motivate the same sorts of behavior that it does now.

¹³Appendix B on the profession of officership and Appendix C on career satisfaction provide a detailed assessment of career satisfaction and commitment factors.

satisfaction, job expectations, family considerations, and compensation. The relative importance of the four career satisfaction factors can shift over time.

As members of a profession, officers seek an organizational culture that is congruent with their profession. (See Appendix B for a discussion of officership as a profession.) In particular, they seek a culture that values loyalty and integrity and recognizes the long-term importance of their experience and dedication in matters relating to national security. Promotion should be fair and equitable and based on competence; those who have the appropriate commitment, skills, and knowledge should be able to serve for a lengthy period. Career systems that afford longer periods of professional satisfaction for officers with commitment should be more valued.

With respect to job expectations, officers seek challenge, autonomy, competent coworkers, responsibility, and accomplishment.¹⁴ They seek positions that provide educational opportunities, a variety of assignments, and professional associations. They also desire a work environment that meets their personal expectations, satisfies career values, and is sensitive to increasing family responsibilities.¹⁵

Officers want a career that accommodates families, including a working spouse, dual-career couples (dual-military couples), or single parents. These considerations may mean more flexibility in work schedules and fewer relocations or deployments, especially later in careers. Careers need to recognize future life-styles of shared family responsibilities and greater emphasis on family-related activities.

Research suggests that compensation should remain a job satisfaction discriminator.¹⁶ However, total family compensation, including the military portion, will be the future criterion, and in many cases the nonmilitary portion of

¹⁴"The most consistent relationship emerging from both the civilian and military literatures is that the probability of turnover decreases as job challenge and autonomy increase." Gerry L. Wilcove, Regina L. Burch, Aileen M. Conroy, and Reginald A. Bruce, *Officer Career Development: A Review of the Civilian and Military Research Literature on Turnover and Retention*, NPRDC-TN-91-23, Navy Personnel Research and Development Center, September 1991.

¹⁵See for example, M. Audrey Burnam, Lisa S. Meredith, Cathy Donald Sherbourne, R. Burciaga Valdez, and Georges Vernez, *Army Families and Soldier Readiness*, Santa Monica, CA: RAND, R-3884-A, 1992, and David R. Segal, *Organizational Designs for the Future Army Special Report 20*, U. S. Army Research Institute for the Behavioral and Social Sciences, 1993.

¹⁶There is a rich literature about the effect of compensation, promotion, and retirement on retention and career satisfaction. In general, military researchers in this area agree that compensation matters and attempt to discern how much it matters. See for example, Glenn A. Gotz and John J. McCall, *A Dynamic Retention Model for Air Force Officers: Theory and Estimates*, Santa Monica, CA: RAND, R-3028-AF, December 1984; James R. Hosek, Christine E. Peterson, Jeannette Van Winkle, and Hui Wang, *A Civilian Wage Index for Defense Manpower*, Santa Monica, CA: RAND, R-4190-FMP, 1992; and R. M. Stolzenberg and John. D. Winkler, *Voluntary Terminations from Military Service*, Santa Monica, CA: RAND, R-3211-MIL, May 1983.

family income may be larger. (See Appendix C for a more detailed discussion of these factors.)

In addition to these key influences on career satisfaction, our evaluation determined whether a particular alternative allowed committed officers to continue a military career. The net effect of commitment and opportunity is measured by continuation rates that reflect the proportion of the inventory in any selected year of service that is retained in the succeeding year of service. Each alternative officer career system used unique continuation rates in its design. Hence, we quantitatively compare alternative systems by using expected career lengths—one of the specific measures asked for by Congress—that result for each alternative.

Another indication of career satisfaction and opportunity is the percentage of officers that retire. One could expect that a career management system that allowed a high percentage of entering officers to reach retirement would be more appealing to the career-minded officer. We compare alternatives on the proportion of initial accessions that reach 20 years of service as a measure of retirement eligibility, even though some alternatives will require longer service to retire with an immediate annuity.

Provide Flexibility to Adapt to Change

The officer career management system should be responsive to rapidly changing requirements for officers, both increases and decreases. Experience since World War II strongly supports the need for a flexible officer career management system. We considered three measures that assess the ability of an alternative to move from one set of requirements to another in a five-year period by measuring

- the amount of change in annual continuation rates needed to meet the new requirements
- the amount of change in promotion timing or opportunity across different requirements options
- the ability of a system to meet the new requirements and remain within external grade table limitations.

In addition to these quantitative measures, we also assessed the various alternatives qualitatively.

We analyzed the recent officer force drawdown and concluded that in the absence of tenure and the presence of transition incentives, decreases in

continuation over a 5-year period of up to 20 percent could be achieved. We assumed increases of the same magnitude could be accommodated as well. Without tenure provisions, one can cut (but not grow) officers across the year-of-service profile. With incentives one can separate officers more equitably. Larger variations in a short time period would likely require changes in the career system or in separation policy.¹⁷ Thus, we regard annual changes in average continuation rates of 4 percent or less for a period of five years as acceptable. Officer career systems that needed lower changes in average annual continuation rates to meet new requirements would be considered the more flexible career systems.

To ensure that all officer career management systems met the set of officer grade requirements options, we varied promotion timing in order to balance the officer inventory in each service with its respective officer requirements by grade. Thus, need for change in promotion timing or opportunity is a second measure regarding which alternative officer career systems can adapt to the various requirements options more flexibly.

Each alternative needs different numbers of promotions to meet grade requirements. For example, alternatives with higher O-4 to O-6 continuation rates tend to have fewer promotions to those grades. As requirements options change, there are either fewer or more field-grade officers. Thus, a requirement option reduces or increases promotions in the transition period of five years that we have chosen. We can measure the year-to-year change in promotions for these requirements options against the base of promotions provided in each alternative. These year-to-year changes need to be accommodated either by changes in promotion timing or opportunity or by a shortage or excess of officers in a grade. Thus, alternatives that have the widest swings in promotions in adjusting to a new requirement option will be judged to be the least flexible because they will require the greatest change in existing promotion practice.

Our third measure is the likely effect of the existing grade tables. Senator Nunn expressed the policy considerations about oversight in discussing the implementation of DOPMA:

Congress has the constitutional responsibility to enact rules and regulations governing the Armed Forces. Congress must control

¹⁷The current drawdown period contains officer requirement and inventory reductions larger than 30 percent and exceeds five years. Further, the current officer career management system has required several significant changes, e.g., changes in grade tables, new retirement authority, and a variety of separation authorities to accommodate this large change in the officer inventories of the services. Changes in average annual continuation rates greater than our standard of 4 percent per year would suggest the need for major changes in the alternative officer career systems evaluated here.

officer grade distribution, appointments, pay, promotions, retirement, and strength. At the same time, the President, as Commander-in-Chief, needs as much management flexibility as Congress can safely and constitutionally grant, without eroding civilian control and congressional control over the military establishment.¹⁸

When DOPMA became law in 1980, it continued control of the entire system of officer management through control of the field grades. "The principal statutory regulation for officer personnel management will continue to be exercised through the grade distribution authorized by the grade tables."¹⁹

Each alternative career system adapted, without external constraints, as needs for numbers of officers changed in each requirements option. We evaluated the effect of the existing grade tables by applying them to the grade requirements in each requirements option. All alternatives were able to meet the grade requirements without the external constraint. This evaluation shows whether a given option can meet the grade requirements within the framework of the current grade limitation table.²⁰ Because some requirements options are smaller in size than officer strengths used in the existing sliding-scale grade table, we extended those grade tables using the methodology of the existing grade table—as officer strengths decrease, proportion of officers in the field grades increases. The Congress also directed in the FY 1994 Authorization Act that the effect of the proposed USMC grade table be examined. We compare its effect to that of the existing USMC grade table for each requirements option.

Our qualitative evaluation included an analysis of the fundamental operation of the various alternatives. The three numerical measures notwithstanding, some alternatives clearly offer more inherent flexibility than others because of their underlying career flow structures. Moreover, the design of certain personnel functions in an alternative (e.g., whether they incorporate vesting or transition incentives) creates expectations within the officer corps that can facilitate reductions or expansions. We wanted to ensure that the evaluation captured that flexibility, so we evaluated the options on their qualitative flexibility as well.

¹⁸*Congressional Record*, August 10, 1976, p. 26644.

¹⁹Vice Admiral John G. Finneran, Deputy Assistant Secretary for Military Personnel Policy, U.S. Congress, House of Representatives, *DOPMA (Defense Officer Personnel Management Act) (H.R. 5503)*, Hearings, Military Compensation Subcommittee, Committee on Armed Services, June 27, 1977, p. 112.

²⁰Section 523, Title 10 U.S.C.

Considerations as Evaluation Criteria

While the four objectives above describe the necessary conditions to achieve the purpose of the officer management system, there are additional indicators that the decisionmaker should consider in choosing among alternative career systems.

Cost

In evaluating cost we considered the relative magnitude and direction of differences in per capita²¹ cost for the alternative officer career management systems and different requirements options. We compared the average cost per officer by service for each alternative while holding requirements options constant. Included in the cost were basic pay, social security contribution, retirement accrual (assuming REDUX, the retirement system introduced in 1986), differential allowances, and accession and initial training costs. We are interested in how average per capita costs change as the number of accessions and transitions and seniority and grade mix change in the different alternatives while holding the different requirements options constant. We recognize that our costs are imprecise, but, for a given requirements option, the per capita costs show direction and magnitude of change for the different alternative career systems.

Evaluation was made relative to the current system by considering whether overall per capita costs increased or decreased and whether the change was large or small. We also discuss why some categories of cost vary by alternatives even if overall costs are similar. Variances in cost are particularly illustrative when different alternative management systems are evaluated using the same requirements options.²²

²¹We recognize that this is a limited measure, but it does provide a sufficient basis for comparing alternatives. A recent RAND study says that per capita manpower cost estimates are useful when the presumption is that force strength is a given (Adele Palmer, *Cost Factors in the Army, Volume 2—Factors, Methods, and Models*, Santa Monica, CA: RAND, R-4078/2-PA&E, 1992). As stated above, we are costing across alternatives given a constantly sized requirement option. We recognize the report's statement that: "Average per-capita costs can change if the inventory grows or shrinks because the seniority and grade mix change." Other studies have pointed out that there may be measurable benefits of using a more senior force that would presumably be more productive and also might require less indirect manpower to support it. See for example, Gary R. Nelson, Robert M. Gay, and Charles Robert Roll, Jr., *Manpower Cost Reduction in Electronics Maintenance: Framework and Recommendations*, Santa Monica, CA: RAND, R-1483-ARPA, July 1974. As this study points out, substituting senior personnel for junior personnel would raise the average cost per person, but their greater effectiveness could result in a requirement for fewer direct personnel and fewer indirect support personnel and could thereby reduce total costs. Such an analysis is beyond the scope of our study.

²²In one requirements option, civilian-for-officer substitution occurs. We do not cost this substitution. We are more interested in the effect from changing alternatives for career management

Uniformity

The view of uniformity varies depending on the group involved. Congress wants uniform and consistent application across service but has expressed willingness to consider differences by skill. The services desire more leeway to address service-specific differences. Officers want fair and equitable application across skills within a service.²³ A future concern is how much uniformity should exist among skill groups—line, professional, support, and specialist. It may become increasingly more difficult to treat these skill groups uniformly as requirements change.

We address the issue of uniformity across services—the traditional sense—and use two measures to evaluate it: promotion timing in each field grade and expected career length. While our evaluation does not include a detailed analysis of variations among skill groups, we note where several of the systems introduce practices that might suggest different personnel policies for different skill groups. (If these differences become significant, they could also adversely affect career satisfaction.)

The two measures we choose address those items frequently compared to determine equity among officer groups. As mentioned earlier, promotion timing for the field grades was varied to meet requirements. Changes of one year in promotion timing were considered acceptable, while larger changes in either direction were considered as not being uniform. We made quantitative comparisons of field-grade promotion timing for each service and expected career lengths for each service. We then qualitatively judged whether the alternative officer career systems were uniform across services. Large deviations in any of these direct measures resulted in a judgment that the alternative did not facilitate uniformity.

Career length is a straightforward comparison of the average career length compared across services. We calculate an overall average length of career for each service and compare the length for each service with other services in the same option. If the variation between the low and high service average exceeds three years, we regard the alternative as one that does not contribute to uniformity.

than in the relative costs of the several requirements options. For a full explanation of treatment of personnel-related costs, see Palmer and Larson, *Cost Factors in the Army*, op. cit.

²³The actuality and perception of fairness in accession, promotion, and separation are a critical part of the officer management equation within the system. There are legal standards that must be met that are most typically premised in racial, ethnic, and gender comparisons. However, beyond the legal standards are societal values that convey understandings of fairness and equity.

Public Confidence in the Military as an Institution

The nation currently has a great deal of confidence in the people running the military, judging by polls. In 1993, 42 percent of Americans had a great deal of confidence in the people running the military, highest among institutions covered.²⁴ Such confidence is an important component in the military's ability to support a national security strategy. Based on our review of pertinent literature and discussions with senior military officers, we posit that an officer career management system contributes to maintaining public confidence by providing competent officers, by attracting and retaining officers representative of national demography, and by being reasonably compatible with societal norms in the United States for careers. To evaluate this consideration, we qualitatively examine an alternative's ability to provide officers perceived as competent, its ability to change in composition, and the compatibility of its management with civilian practices and to make subjective judgments about the extent to which they foster public confidence.

Presently, the military is perceived to be quite competent. For example, when he was Secretary of Defense, Dick Cheney stated, "I would argue that the most important contributor to our victory in the Gulf was the quality of the force itself." Moreover, this emphasis on competence to include "continued mastery of critical areas of warfare" has been stated as one of the enduring requirements of the regional defense strategy.²⁵ The reputation for competence is also high judging by suggestions for involvement of the military in societal problems. "If there's one institution that seems to me to hold out hope for the rest of America and our capacity to transform ourselves, if there's one institution we should be learning from, it has been the US military."²⁶ We subjectively assess an alternative's capability to produce military officers perceived as competent.

Composition—what the officer corps looks like—includes representativeness and is affected by opportunity for service of people in diverse demographic and

²⁴This has not always been the case. Data gathered by the National Opinion Research Center (NORC), which for the last 20 years has been polling the nation in regard to its confidence in the people who are running American institutions, reveal that 60 percent of Americans had a great deal of confidence in the people running the military in 1991 reflecting public confidence due to the success of Desert Storm. These figures differ from public opinion toward the people running the military in the late 1970s and early 1980s during which time between 28 and 31 percent of the nation had a great deal of confidence. "Confidence in Institutions," *The Public Perspective: A Roper Center Review of Public Opinion and Polling*, 1993, Vol. 5, No. 1, pp. 84-96.

²⁵Secretary of Defense, *Defense Strategy for the 1990s: The Regional Defense Strategy*, January 1993, p. 10.

²⁶David Gergen, cited in "Working for America: Business, The Military and the New Workforce," a forum sponsored by the Committee for Economic Development in October 1991.

socioeconomic groups.²⁷ Several measures and characteristics of alternatives are used to qualitatively evaluate how an alternative allows change in composition. These are level of accessions, entry policy, continuation policy, and attrition policy. With high levels of accession, one would expect more heterogeneity (e.g., there would be opportunity for substantial entry from ROTC, enlisted, or reserve). Lateral entry could be used to provide more rapid change in composition by attracting individuals from underrepresented groups who show potential for military service. Lateral entry from the enlisted force, for example, could contribute to providing the officer corps with greater numbers of qualified minorities.

Compatibility addresses the degree to which officer career management practices are consistent with commonly accepted management practices found in public and private sector organizations. For example, the degree to which a system allows for lateral entry or the opportunity to stay or how it grants future annuities based on years of experience in the organization may vary across alternative officer management systems.

Numbers of Officers Entering, In, and Leaving Careers

Career structures and the personnel functions of accessing, developing, promoting, and transitioning officers within career structures govern the numbers of officers who enter, stay in, and leave careers. We use three separable but related measures that show the numerical effect of different regulations of flows into, within, and out of the officer corps: (1) accessions, (2) promotions, and (3) transitions (including voluntary and involuntary separations and retirements).²⁸ This assessment is more descriptive than evaluative. The intention is to describe how the various functions operate within a given system so policymakers have a basis for choosing which systems (or aspects of systems) might best meet policy goals.

Accessions. The level of accessions that is required to sustain each officer career system is one measure of personnel turnover. (Transitions or departures from the system are another.) The relative amount (high or low) of accessions is the

²⁷The DoD annually provides a report comparing characteristics of military personnel with the U. S. population on demographic, socioeconomic, and other attributes. See, for example, Office of the Assistant Secretary of Defense (Personnel and Readiness), *Population Representation in the Military Services Fiscal Year 1992*, October 1993.

²⁸The Senate directed that our report should "include an evaluation of flows into, within, and out of the officer corps." *Senate Report 102-352*, pp. 199-200.

basis for assessment of the various alternative career systems on two dimensions. The first is the likelihood that the number of accessions supports the institutions of accession as they now exist. The second is whether sufficient accessions exist to eventually support likely reserve component needs for trained officers with active experience.²⁹

Promotions. We measure the number of promotions to the three field grades. Promotions result from two factors: (1) promotion opportunity, the rates of selection for officers considered for promotion; and (2) promotion timing, the career point at which promotion generally occurs. Promotion timing was previously evaluated as a measure of flexibility and compared across services as a measure of uniformity. Here, we provide, by grade, promotion points for each service and alternative. Promotion opportunity percentages were difficult to compare among alternatives because some alternatives used long interval promotion zones, and as a result, opportunities are not exactly comparable because there is greater variance around the promotion point. For this reason, we provide the number of promotions that would occur at each grade, by service, and by alternative.

Transitions. The quantity of transitions—separations and retirements—out of the inventory and the point at which these transitions occur are measured. We provide data about expected retirements for each alternative and service. We also provide data about separations expected to occur between 3 and 10 years of service for each alternative and military service, and we characterize this data set as the potential reserve forces pool.

Summary

This section outlined the evaluation methodology. Each alternative is evaluated against different requirements options using the criteria and measures set forth here. Some criteria, such as meeting requirements, come directly from the objectives of officer career management. Other measures, such as cost, represent practical, but crucial, considerations.

The next section applies the criteria and measures to each alternative and arranges the results in a matrix scorecard. The scorecard can assist the decision process by providing the analytic information useful in choosing among

²⁹The Air Force and Marines currently have a high flow of officers with active experience to the reserves. The Army is required by recent legislation to achieve a 65 percent content of prior active service officers. Hence, high accessions in the active officer force are more supportive of these demands for active service in the reserves since it ensures a sufficient population to support flow out of the active force to reserves.

alternatives but does not require any weights to be given to the criteria in advance. Decisionmakers can make their own judgments about how to weight criteria.

8. Evaluation of Alternative Officer Career Systems

Introduction

Section 7 described the evaluation methodology. This section presents the evaluation of the five alternative career management systems described in Section 6. The section includes an evaluation for each criterion and concludes with a summary of the evaluation of alternative career management systems.

We considered differences between alternatives and among the requirements options. To facilitate understanding and to provide consistency in the presentation of information, we chose to use our representation of the DOPMA Short alternative (Alternative A) as the future base case career management system because, if nothing changes, this is the career management system that would exist when current temporary transition legislation for officer career management expires. We chose the Notional Force requirements option (Option 0) as a base case for requirements. The Notional Force was developed by adjusting officer requirements provided by the services with projected effects of the Bottom-Up Review and anticipated technological changes. As such, these requirements represent our estimate of the effect of the post-Cold War officer strength reductions and other likely changes discussed in Section 2.

We evaluate all career management alternatives against all requirements options. In many situations, when evaluating the different alternative management systems, we find similar results for all requirements options. When significant differences exist, we note them relative to the appropriate requirements option and/or management alternative. Otherwise we present the evaluation only in comparison with the base case. Where we use a specific quantitative measure to support the evaluation, it is identified and data are presented. In most cases, we used a combination of subjective and objective assessments.

The evaluation results—relative to the four objectives and other considerations—are recorded in the scorecard (Table 8.1). This scorecard provides the reader (and the potential decisionmaker) with a concise summary of expected results regarding future officer career management. The detailed evaluation provides supporting data and explanation for the entries in the scorecard. Again, note that no overall recommendation for a career management alternative is provided.

Table 8.1
Effects of Career Management Alternatives

Criteria and Measures	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Objectives					
Requirements (grade/skill)	Met	Met	Met	Met	Met
Experience	Inadequate	Adequate	Inadequate	Adequate	Adequate
Average years of service (O-4 to O-6)	16.9	18.8	17.6	19.2	19.5
Grade variation	Narrow	Narrow	Broad	Broad	Broad
Foster careers	Adequate	Adequate	Inadequate	Advances	Advances
Career satisfaction	Less	Less	Least	Most	More
Career opportunity	Average	Average	Average	Most	More
Expected career length (years)	12.7	13.7	12.7	17.4	14.2
Retirement percentage	35%	36%	38%	47%	33%
Overall flexibility	Limited	Limited	Most	Limited	Limited
Change in size	More difficult	More difficult	Less difficult	Difficult	Difficult
Change in promotion timing	Least	Most	Some	Some	Some
Meet requirements with existing grade table	No	No	No	No	No
Considerations					
Per capita cost	No significant difference	No significant difference	No significant difference	No significant difference	No significant difference
Uniformity among services	Uniform	Less uniform	Least uniform	Most uniform	More uniform
Future public confidence	Lessens	Lessens	Maintains	Lessens	Increases
Numbers of officers:					
—Accessions	12,800	11,900	10,100	9,200	11,400
—Promotions	11,000	9,200	10,200	10,300	9,900
—Retirements	4,400	4,300	4,800	4,300	3,700
—Reserve forces pool	6,700	6,300	3,700	2,400	5,500

NOTE: Data are for the Notional Force (requirements Option 0).

Rather, the purpose of this study is to identify different approaches to officer management and evaluate those approaches from a number of aspects so that policymakers have a basis for choosing among them. Measures and criteria presented in the scorecard are the following.

Requirements. This measure is a wide range of requirements options defined by service, grade, and skill; the criterion is the ability to meet the requirement.

Experience. Experience provides an indication of an officer's ability to deal with challenging and diverse responsibilities. We use as a measure the average years of service for all officers in the grades of O-4 to O-6. The criterion is 18 years, which is based on the analysis we presented earlier, and discussed in more detail in Appendix I, and we assess which alternatives meet this criterion.

Expected Career Length. Career length indicates whether career expectations are satisfied. We measure the average expected career length for each accession and compare the lengths across alternatives.

Flexibility. History tells us that the size of the force will change—frequently. We used three measures and a qualitative assessment to determine how easily the management system could adjust to changes in requirements in a short period of time: capability to change numbers of officers, change in promotion timing, and ability to meet requirements given grade table limitations.

Cost. Because we considered different force sizes, we used average annual cost per officer and examined significant differences (greater than ± 5 percent). Components of cost were also examined.

Uniformity. Use of similar policies by the services might have different outcomes. We made several comparisons among services.

Public Confidence. In order to have public confidence, the management system must provide competent officers reasonably representative of societal composition, and must be compatible with national norms for careers. We considered several such factors.

Number of Officers. Alternative career management systems produce different outcomes as measured by annual accessions, promotions, retirements, and pool of officers available to the reserve component.

Discussion of the Evaluation

Requirements

Our basic objective in all alternatives was to satisfy the grade and skill requirements of the military services. Within an alternative, by changing numbers of accessions; allowing migration among line, specialist, and support skill groups (but not between military services); and adjusting promotion timing points, while preserving selection rates as much as possible, requirements at the grade and skill level were met. Thus, all career management alternatives were able to satisfy each of the six requirements options by grade and skill. Some alternatives met requirements more easily than others. Our criteria and measures show the different effects of alternatives meeting grade and skill requirements.

Attract and Develop Officers

Overview. Career flow structure, development, promotion, and transition together produce experience at each grade. As discussed in the evaluation methodology, we compared expected years of service (for O-4 to O-6) provided by each alternative with desired levels estimated to accommodate future military requirements, which we estimated at 18 years. In addition to this comparison, we also examined variance in years of service at each grade. This review of field-grade profiles was used to further determine whether increased experience provided by the alternatives was spread across each grade (and across all grades); we compared the field-grade profiles to DOPMA Short—a baseline. More time at each grade allows for additional development for those who need it and attainment of increased experience. Moreover, a wider spread of experience by grade means that an alternative is less restricted by an age/grade/length of service relationship.

All alternatives provided the desired military experience for the support skill group; three of the alternatives provided experience of the amount desired for line and specialist skill groups. Figure 8.1 compares desired field-grade service of 18 years based on the Notional Force expected in the future (requirements Option 0) as shown in our analysis of experience in Appendix I with that provided by the different alternatives for field-grade line officers; results for the other requirements options were similar.

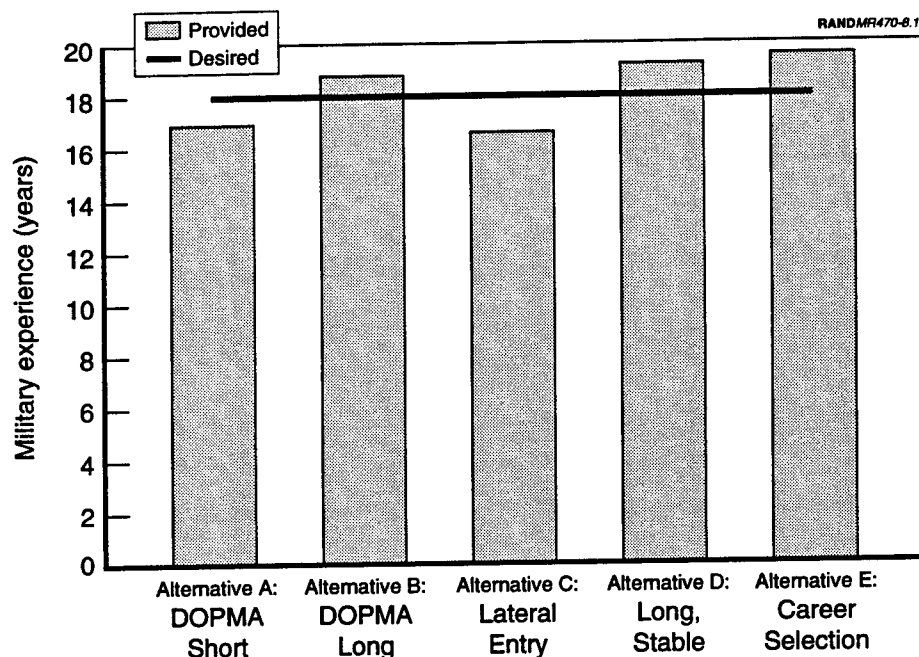


Figure 8.1—Average Years of Military Experience for O-4 to O-6 Line Officers

Lateral entry allows individuals to enter military service with skill experience but not military experience.¹ In evaluating this alternative, we recognized the skill experience of lateral entrants in support skills but took into account their lack of military service in computing years of military experience. The lateral entry concept appears better suited for the support skill group where less military experience is desired. The line and specialist skill groups have development patterns that build upon unique military experiences that are not comparable to civilian skills. As a result, lateral entry, without any prior military experience, for line and specialists would not meet desired military experience as shown in Figure 8.1. Years of expected service for field-grade officers are shown in Table 8.2.

The alternatives providing longer maximum careers have the greatest capacity to increase the experience of the officer corps. The two alternatives with expanded promotion zones (Long, Stable and Career Selection), additionally allowed promotion to be linked to actual officer development in career paths rather than to completed years of service. This means officers are eligible for promotion when they gain needed experience and not solely when they reach a year of service point. Since these two alternatives also use fast-track promotions as well

¹Lateral entry of reserve officers or officers with prior active service could provide officers with military experience.

Table 8.2
Expected Field-Grade Years of Service

	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Army	17.1	18.4	17.7	19.0	19.4
Navy	16.8	19.0	17.7	19.3	19.7
Marine Corps	16.8	18.5	18.7	19.5	19.3
Air Force	16.8	18.9	17.3	19.1	19.4
Total	16.9	18.7	17.6	19.1	19.5

as longer promotion zones, variance in years of service is greater for the grades of O-5 and O-6.

Alternative A: DOPMA Short. Figure 8.2 portrays the profiles representing years of service for field-grade officers (line and specialists) that are typical of the DOPMA Short alternative. Promotion points are the vertical at the left of each grade profile, and five to six years are spent at O-4 and O-5 for those officers promoted to the next higher grade. Because of the up-or-out structure, O-4 and O-5 grades transition either to a higher grade or from military service prior to reaching the maximum-allowed career of 30 years.

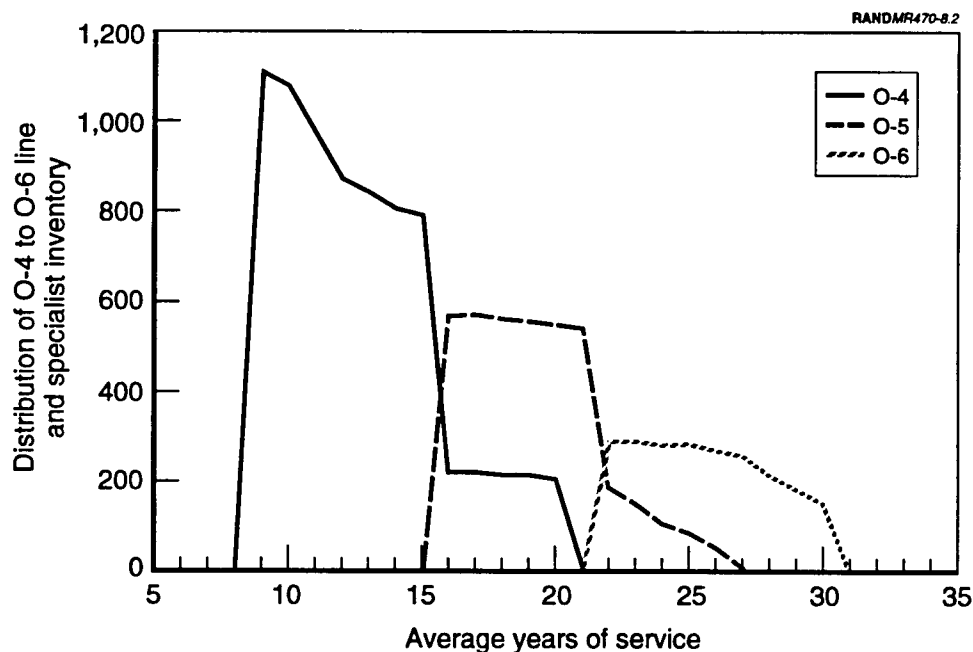


Figure 8.2—Typical DOPMA Short Year of Service Variation in the Grades of O-4 to O-6

Alternative B: DOPMA Long. Figure 8.3 overlays DOPMA Long profiles (typical for all of the services for line and specialists) over baseline profiles represented by DOPMA Short (Figure 8.2). Differences in field-grade profiles from those of DOPMA Short are obvious. In DOPMA Long, entry to a grade starts later, and the grades stretch over longer periods of service. Officers being promoted to O-4 would have one additional year as an O-3 before promotion compared with DOPMA Short (see Figure 8.3). Moreover, the typical O-4 would serve longer as an O-4 before promotion to O-5. Under DOPMA Long, O-5s would also serve an additional year before promotion to O-6, and O-6s would have about three more years of experience when promoted, as compared with DOPMA Short. While officers in the grades of O-4 and O-5 still terminate prior to the maximum-allowed career, longer periods of service—and thus experience—exist at each grade because of the longer-allowed career and adjusted promotion points.

Alternative C: Lateral Entry. Figure 8.4 shows lateral entry grade profiles overlaid on the DOPMA Short baseline. Although the maximum career length remains at 30 years, lateral entrants who are promoted to the grade of O-6 serve for up to 30 years, which brings them to an equivalent 35 years if they entered service at the 5-year point. While we count lateral entrants in these profiles, we

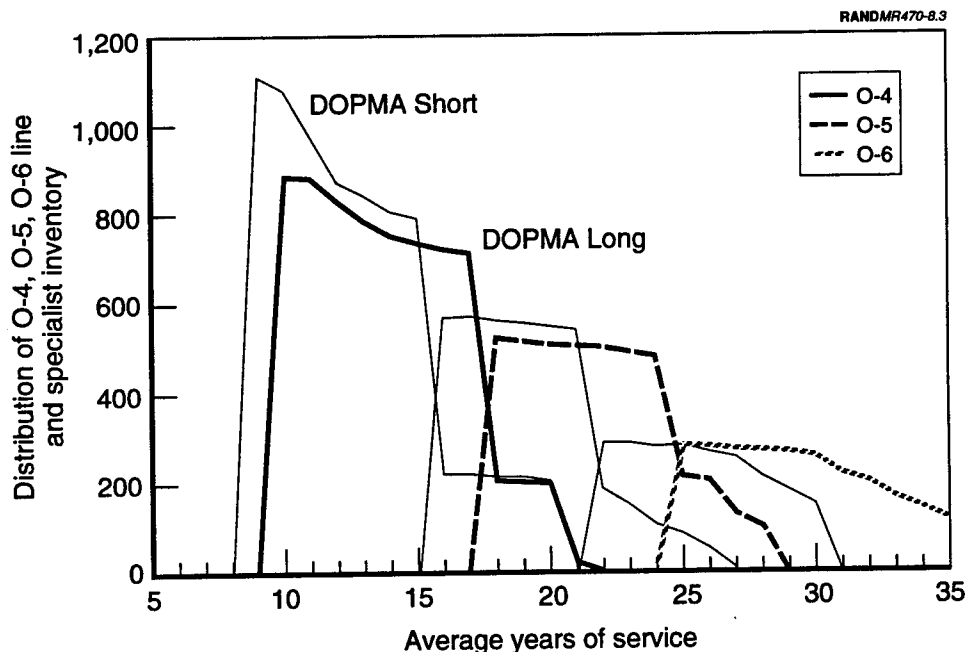


Figure 8.3—Typical DOPMA Long Year of Service Variation in the Grades of O-4, O-5, O-6 Compared with DOPMA Short

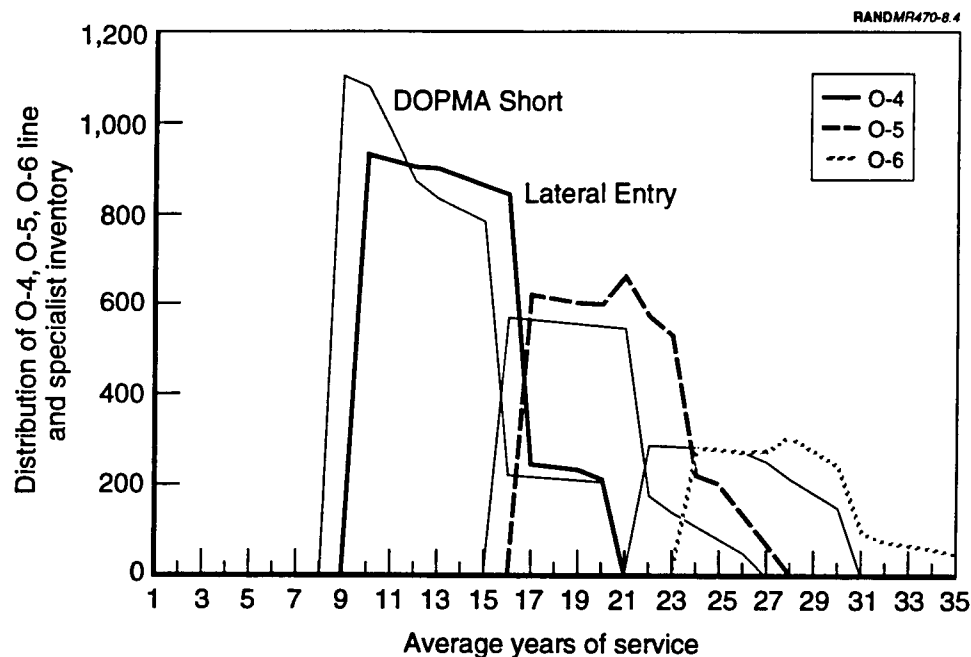


Figure 8.4—Typical DOPMA Lateral Entry Year of Service Variation in the Grades of O-4, O-5, O-6 Compared with DOPMA Short

reiterate that they have less military experience than their peers who entered the system at the bottom.

Alternative D: Long, Stable. This alternative presents a significantly different experience profile than those alternative career management systems that were based on DOPMA. Analysis of years of service variance for the field grades shows the typical military service pattern of this alternative. With a maximum career length of 35 years, an additional year of experience is provided before promotion to O-4 in comparison to DOPMA Short. (See Figure 8.5.) This is typical for all alternatives using longer maximum careers.

This alternative also introduced the concepts of longer promotion zones and fast-track promotion. Some officers are promoted earlier than in the DOPMA Short alternative, reflecting their earlier readiness for higher levels of responsibility. Moreover, the longer maximum career extended time available for development, and the 5-year promotion zone allowed for promotion when fully developed, which increased experience at each grade even though some are promoted earlier. There is greater variance in distribution of each grade over years of service. In particular, officers in the grade O-6 are spread over 18 to 35 years of service, reflecting continuation, fast-track promotion, later promotions from the longer zone, and longer maximum careers.

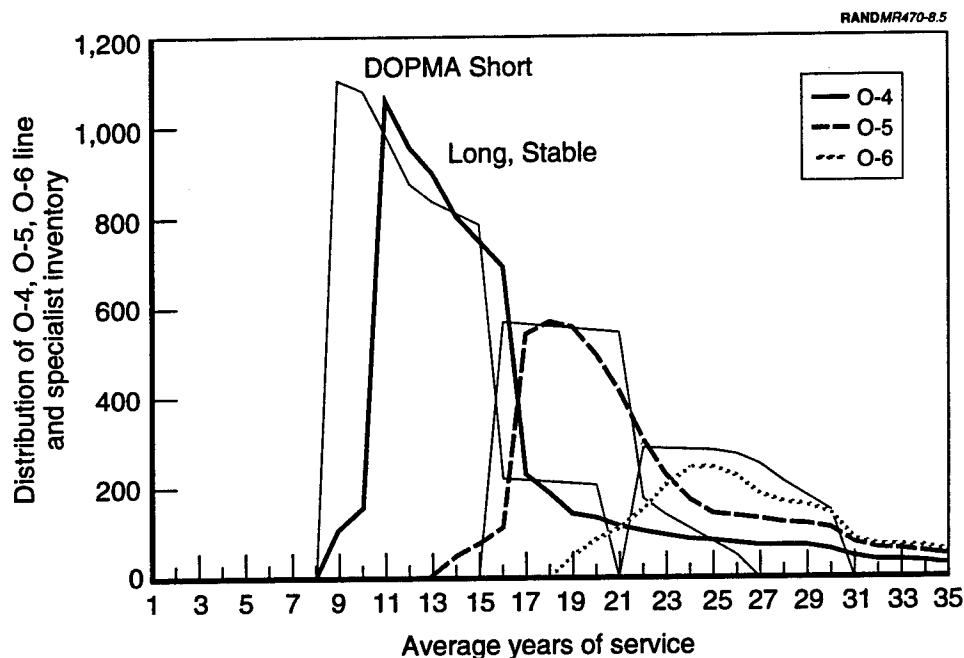


Figure 8.5—Typical Long, Stable Year of Service Variation in the Grades of O-4, O-5, O-6 Compared with DOPMA Short

Alternative E: Career Selection. As with all of the alternatives with longer maximum careers, promotion to the grade of O-4 is extended by about one year. Additionally, the longer promotion zone and fast-track promotions create more variance in the grades of O-5 and O-6, allowing officers to be advanced against needs as well as their individual development pattern. (See Figure 8.6.)

As in the previous alternative, some officers are promoted earlier to the grade of O-6 than in the DOPMA Short alternative, reflecting earlier readiness for higher levels of responsibility. Additionally, the five year promotion zone allowed for later promotion when fully developed, which increased the experience at each grade even though some were promoted earlier.

Foster Careers

Overview. This criterion has two aspects: whether there is career satisfaction that engenders commitment and whether the management system affords the opportunity to stay for those who are committed. We assessed each subjectively by determining the extent to which a given alternative contributed to the four key factors that foster careers: professional satisfaction, job expectations, family consideration, and compensation. In addition, the quantitative measures of

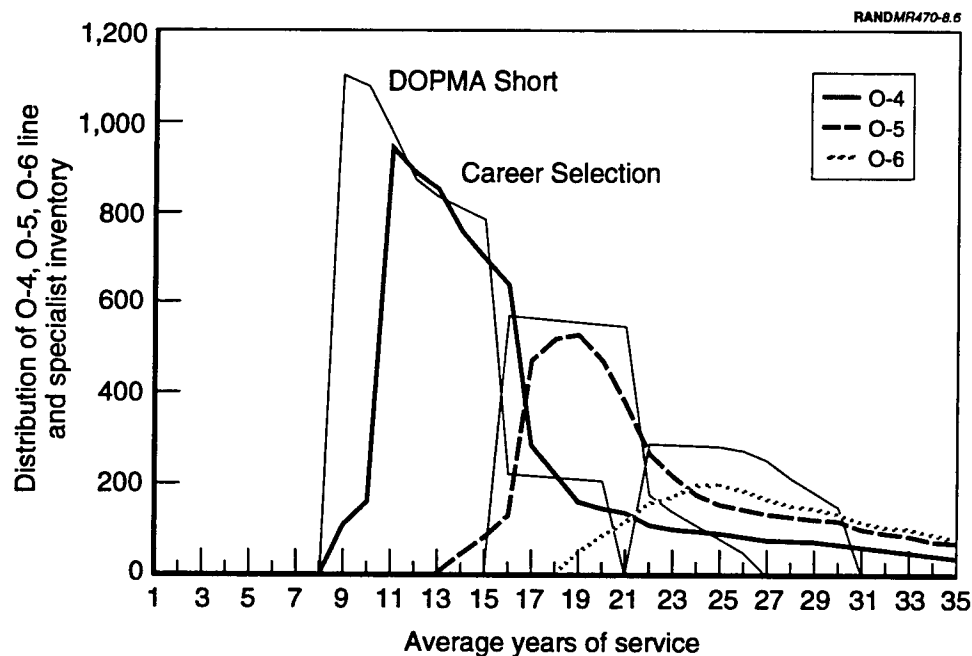


Figure 8.6—Typical Career Selection Year of Service Variation in the Grades of O-4, O-5, O-6 Compared with DOPMA Short

expected career length and proportion of retirements from initial accessions measure the combined effect.

While our evaluation did not include a detailed analysis of variations among skill groups, we note that several of the alternative management systems introduce practices that might suggest different personnel policies for different skill groups or services. If these differences become significant, they could adversely affect career satisfaction for different skill groups because the factors affecting career satisfaction would vary by skill group.

Career Satisfaction and Opportunity. Our research suggests that all alternatives support some aspects of the four key factors. In terms of job expectations, officers who serve have had—and will continue to have—a high level of job satisfaction, which reflects the challenge and responsibility of the work needed to accomplish the national military strategy. Military personnel policies have gradually adapted to the increasing importance of family issues.² Such changes may have to accelerate in the future. Compensation—particularly family compensation—is also an important consideration in career satisfaction. Since our research indicated officers are currently satisfied with compensation and

²See for example, Office of Assistant Secretary of Defense (Personnel and Readiness), *Family Status and Initial Term of Service*, 4 Vols., December 1993.

since none of our alternatives vary compensation, it was considered neutral throughout this evaluation.

The DOPMA-based alternatives terminate careers earlier and cause new career searches at times when most families are seeking stability. Moreover, the longer-career-length systems could allow greater duration and less frequent assignments. However, O-3s and O-4s who voluntarily continue for long careers in the Long, Stable alternative would be expected to serve sea duty and make deployments appropriate to those grades. A major discriminator in evaluating officer career satisfaction was that some alternative management systems did not match characteristics of a profession; they forced attrition of fully qualified officers or allowed entry other than at the beginning. Continued job satisfaction and career commitment cannot be achieved unless the management system affords fully qualified officers the opportunity to continue service.

Expected Career Length. As shown in Table 8.1, expected career length averaged 12.7 years for DOPMA Short (the base case). DOPMA Long increased career length one year. Expected career length with Lateral Entry was approximately the same as for DOPMA Short.³ The Long, Stable option produced the longest expected career length (17.4 years). Under Career Selection, with some early forced attrition, expected career length was 14.2 years, about 12 percent longer than DOPMA Short.

Retirements. Another measure of careers is the number (or percentage) of officers that retire. One could expect that if a career management system allowed a high percentage of accessions to reach retirement, it would be more appealing to the career-minded officer. For the DOPMA Short system, 35 percent of the 12,800 accessions retired. That increased to 36 percent for DOPMA Long, to 38 percent for Lateral Entry, and to 47 percent for the Long, Stable career alternative. The Career Selection alternative had only 33 percent retirement because of the forced attrition of junior officers. However, in the Long, Stable and Career Selection alternatives, officers who left the service after 10 or more years were vested.

³Measured career lengths do increase by approximately three years in each service, but this is a quirk in the computation of expected career length. Lateral entrants contribute man years to the numerator of the calculation but do not change the denominator—initial entrants at year of service 0. Removing lateral entrants from the calculation completely brings expected career length for initial accessions to the underlying DOPMA Short career lengths.

Alternative A: DOPMA Short. While we would expect job satisfaction and commitment to remain satisfactory under the DOPMA Short system, the inherent DOPMA rules of forced attrition do not match as well with all characteristics of a profession.

DOPMA Short is what we classify as a “two-career system” because it requires most officers to plan for two careers. With forced separation based either on failed promotion or mandatory retirement after 30 years of service (less if not promoted to O-6), nearly all officers must plan a second career. Thus, while officers may desire to continue a military career, the DOPMA Short alternative denies them that option. This aspect requires officers and their families to develop a career transition strategy and a potential geographic move when their nonmilitary peers are enjoying career and family stability. Moreover, forced attrition of qualified officers is inconsistent with a profession that has as a defining characteristic knowledge and expertise developed through a long-term commitment. Typically, qualified members of a profession remain in their careers until retirement.

Alternative B: DOPMA Long. Longer careers can lead to longer duration assignments, fewer relocations, and greater career stability—important family considerations—and should encourage individuals to continue service. Conversely, longer careers may slow promotion and delay opportunities to get the most challenging positions. Again we note that this DOPMA-based alternative, even with longer careers, includes forced attrition. As a result, it does not afford as much career opportunity and, to the extent it does not, remains inconsistent with expectations of a profession.

Alternative C: Lateral Entry. A system that allows lateral entry and exit is inherently more flexible and creates the freedom for officers to seek challenging and satisfying positions by moving in and out of the system. This flexibility also supports important family considerations of dual-career couples and single parents. Outside experience may also enhance skill competency and could improve promotion opportunity for officers in certain skills. Some officers would find a high level of job satisfaction with lateral entry.

However, lateral entry is likely to weaken culture in that it significantly alters the nature of the officer profession. By bringing individuals in from civilian status at other than the beginning of a career, the sense of a closed community developing the knowledge and skills of officers through long service changes dramatically. Additionally, lateral entrants may be viewed as outsiders and create resentment if their arrival is perceived by those already in the organization as limiting promotion opportunity or denying them access to coveted positions.

Furthermore, if lateral entrants are not eligible to retire until completion of 20 years of military service (as this alternative assumes), they will not be able to retire at the same time as equally experienced coworkers; this could affect midcareer entrants or accessions. Accordingly, we conclude that a lateral entry system will not provide an overall level of satisfaction to foster careers.

Alternative D: Long, Stable. Long careers enhance the image of officership as a profession and are more satisfying because they allow an officer to pursue one career until retirement. Thus, officers do not have to make the important decision when to begin their second career and do not necessarily leave the service at the time of peak efficiency and satisfaction; longer careers would increase family stability.

A system with long, stable careers—and no forced attrition—is consistent with characteristics of a profession and would increase loyalty to the organization. It would probably provide longer duration assignments and fewer moves, positive factors for family security. Career lengths are longest in this alternative, averaging 17.5 years, with less variation among the services than any other alternative. As with DOPMA Long, the longer tenure would delay promotions and the opportunity for challenging positions for most officers; however, the importance of such factors to retention behavior should diminish since they would no longer be key to continuation. However, because this alternative migrates officers from line skills to support skills after about 10 years of service to take advantage of their military experience as the base for a long career, officers in the support skill group would have reduced satisfaction because they have lesser promotion opportunity than line officers.

This alternative probably best supports the officer profession because the management system allows qualified individuals, especially line officers, to continue their careers even if not promoted. Furthermore, this career management system promotes a strong sense of community and a strong organizational culture. Thus, one would expect a high proportion of officers who are attracted to the military as a profession to continue. The alternative affords the opportunity to do so.

Alternative E: Career Selection. This alternative combines many of the desirable career satisfaction characteristics of previous alternatives. Officers should be committed to stay, and the alternative affords them the opportunity. Vesting should contribute to continuation between the 5th and 10th years of service. Those officers who are selected for careers at the 10th year of service can expect challenging jobs with characteristics of a profession. The longer opportunity for promotion and mobility between skill groups should increase satisfaction.

As a system that allows a single career (after 10 years) but with opportunity to leave with vesting, family considerations should be favorable, particularly at the time in midcareer when family issues are more important. Career lengths average 14.2 years, midway between the longest careers (Long, Stable alternative) and the shortest (DOPMA Short alternative). This alternative separates fully qualified officers early in potential careers but not later.

Summary. The results of the overall evaluation on fostering careers are summarized in Table 8.3. While the DOPMA-based systems are adequate in fostering careers, the Long, Stable and Career Selection alternatives advance the career opportunities of officers. They match the characteristics of a profession by allowing fully qualified officers to continue and are more supportive of family considerations. The Lateral Entry concept, as we used it, with lateral entry from civilian status, is inconsistent with characteristics of a profession.

Table 8.3
Evaluation of Fostering Careers

Key Factors	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Job satisfaction	Very good	Very good	Very good	Very good	Very good
Family considerations	Fair	Fair	Fair	Good	Good
Compensation	Neutral	Neutral	Neutral	Neutral	Neutral
Meets characteristics of a profession	Less	Less	Least	Most	More
Expected career length	Average	Slightly longer	Average	Longest	Longer
Career opportunity	Average	Average	Average	Best	Better
Overall	Adequate	Adequate	Inadequate	Advances	Advances

Flexibility

Overview. Historically, the size and composition of the force have changed almost continuously. Hence the flexibility of alternative career management systems to accommodate changes in requirements is an important objective. We considered three measures and a qualitative assessment. The measures are

- the amount of change in annual continuation rates needed to meet the new requirements
- the amount of change in promotion timing or opportunity across different requirements options

- the ability of a system to meet the new requirements and remain within external grade table limitations.

Capability to Change in Number of Officers by Grade and Skill. The quantitative measure for this evaluation was the ability to achieve change in continuation rates—the rate at which inventory in one year-of-service cell moves to the next year-of-service cell. We used historical measures of ability to transition inventories of officers (maximum observed change in year-to-year continuation rates) to assess whether the needed future transitions (continuation rates) were feasible for each military service. We also subjectively evaluated this capability based on overall characteristics of the alternative.

We considered only the four options that included a change in size: Options 0 (Notional Force), 1 (Reduced Force), 2 (Enlarged Force), and 3 (Streamlined and Reengineered Force). To determine the flexibility of a given option, we paired it with each of the other options that would require a change in size and measured the amount of the change. Thus, Option 0 was compared with 1, 2, and 3; Option 2 with 0, 1, and 3, and so forth for a total of 12 pairings. However, we found that the ability to change was not premised on direction of change so this reduced the pairings to six.

As previously discussed, we established a standard of ± 4 percent change in continuation rates. That is, if an alternative could shift between options by increasing or decreasing continuation rates by 4 percent or less, it was judged as flexible. Table 8.4 shows the results of this assessment. We discovered that no service can transition quickly between some option pairs (Notional and Reduced; Reduced and Enlarged); all services can transition quickly between one option pair (Notional and Streamlined); and some services can transition between some option pairs. Thus, the Navy and Marine Corps can transition between two pairs (Notional and Enlarged; Enlarged and Streamlined) while the Army and Air Force can transition between one (Reduced and Streamlined). The reasons for the differences are that requirements change differently for each service and because expected continuation rates in the career management alternatives are different for each service.

The number of alternatives that did not meet the standard suggests that, in general, change in career management systems will almost always be needed to meet size changes, over a short period of time, of the type we analyzed. Additionally, our analysis allowed for change in continuation rates in all years of service. This type of rapid change might not be possible if the tenure provisions of DOPMA were imposed.

Table 8.4
Ability of Alternatives to Meet Changes in Service Requirements
 (X=within standard; O=outside standard)

Option Pairs	Army	Navy	Air Force	Marine Corps
Notional and Reduced	O	O	O	O
Reduced and Enlarged	O	O	O	O
Notional and Streamlined	X	X	X	X
Notional and Enlarged	O	X	O	X
Enlarged and Streamlined	O	X	O	X
Reduced and Streamlined	X	O	X	O

NOTE: Opt 0=Notional; Opt 1=Reduced; Opt 2=Enlarged; Opt 3=Streamlined.

We also considered the qualitative aspects of the inherent flexibility of the alternative system designs. Characteristics of the three DOPMA-based systems, such as forced attrition and high accessions, provide some flexibility for both increases and decreases in force size. However, recent experience has shown that existing rules and tenure provisions make it difficult to change the force in a balanced way; legislative relief was needed to accommodate the ongoing force reduction.

Of the five alternatives, only Lateral Entry provides for entry to the inventory at other than the initial year of service. The use of lateral entry, in our alternative at the 5 and 10 year-of-service points, ensures the potential to respond more rapidly to upward changes in officer requirements. Officers can be obtained at the experience point where they are needed. When lateral entry is considered at additional entry points where skill experience can be used—and when there exists an adequate pool of reserve officers with military experience that may be needed—this becomes a very flexible system.

We include outplacement services and transition incentives in the Long, Stable and Career Selection alternatives, which provide the ability to cut officers across year of service profiles. Vesting contributes to the ability to cut as well. Using these provisions provides more flexibility than the DOPMA-based systems (without them) during the middle and later stages of careers where changes in accession take longer to make an effect. If the force increases, the Long, Stable alternative is the most senior force and could provide experienced field-grade officers more quickly. The Career Selection alternative has some flexibility resulting from forced attrition at the 5 and 10 year point and a larger accession base than the Long, Stable alternative.

Change in Promotion Timing Across Requirements Options. After the model satisfied numerical and skill needs, it ensured that all officer career management

systems met the set of officer grade requirements options by varying promotion timing in order to balance the officer inventory in each service with its respective officer requirements by grade. Thus, the size of the change needed in promotion timing or opportunity is a second measure regarding which alternative officer career systems can adapt to the various requirements options without significant alteration in expectations. Small changes imply a more adaptable officer career system that easily met requirements; larger expected changes in promotions suggest an officer career system that had more difficulty meeting requirements.

Grade requirements changed from Option 0 in only three options: Option 1 (Reduced); Option 2 (Enlarged); and Option 3 (Streamlined). We measured how easily an alternative could adapt over a 5-year period to expected reductions or increases in field-grade positions as requirements changed. The amount of adaptation changed by service because grade requirements differed by service, but an overall pattern emerged. Those alternatives with inherently the fewest promotions because of their design have the largest proportional swings in numbers of promotions (up or down) to accommodate requirements changes and are thus least flexible. In a reduction, the least flexible alternative on this measure is DOPMA Long because it has the fewest promotions, and DOPMA Short is most flexible because it has the largest number of promotions with which to absorb change. If the size of the force increases, a similar pattern exists.

These swings in numbers of promotions could be met by changes in promotion timing, or by changes in promotion opportunity, or by a shortage or an excess of officers in a grade if requirements are not met. However, some alternatives could ameliorate their wider swings and lack of flexibility better than others because they have greater variance in timing and opportunity in their design. For example, Long, Stable and Career Selection fit this pattern while Lateral Entry could use more lateral entry if the force increases in size.

Likely Effect of Existing Grade Tables. We assessed how well the grades in each requirements option conformed to the existing limits on O-4 to O-6 (the grade table).⁴ Because some requirements options have lower officer strengths than those used in the existing sliding-scale grade table, we constructed extensions of those grade tables that followed the methodology of the existing table—as officer strengths decrease, proportion of officers in the field grades increases. The results for the Army are shown in Figure 8.7. Because requirements Options 0, 4, and 5 have the same officer strength, their field-grade allowance under the grade table is the same.

⁴Section 523, Title 10 United States Code.

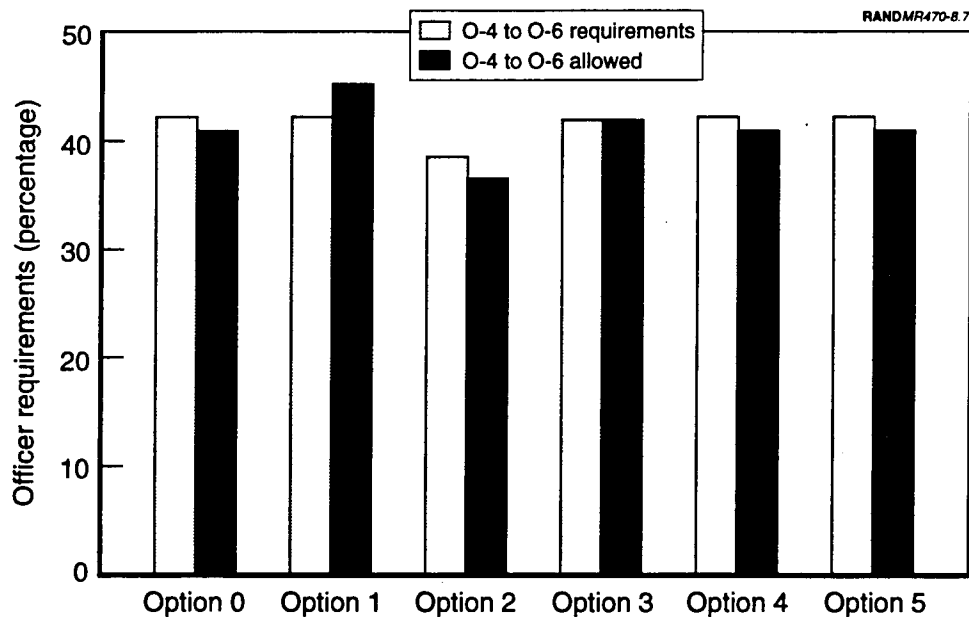


Figure 8.7—Effect of Grade Table on Requirements Options (Army Example)

Each requirement option has a slightly different grade mix. In four of the options, O-4 to O-6 grades are within one percentage point of the extended existing grade table allowances. Option 1, the smallest force, requires about three percentage points fewer field-grade officers than the extended grade table would allow. Option 2, the largest force, requires about two percentage points more field-grade officers than the extended existing grade table would allow.

As shown in Table 8.5, this pattern generally holds for all services in all options. However, the differences in some services between O-4 to O-6 requirements and O-4 to O-6 allowed are much greater than in the Army example. In particular, the Navy and Air Force are more constrained in O-4 to O-6 grades than the Army in all requirements options except Option 1 (Reduced) where it would be allowed many more O-4 to O-6 officers than required for that option. The Marine Corps O-4 to O-6 requirements in all options differ the most from O-4 to O-6 officers allowed by the existing grade table.

In our analysis, we were able to adjust personnel functions such as promotion within each alternative to meet the need for grades in the requirements options. However, when the existing grade table is imposed, alternatives are unable to satisfy all O-4 to O-6 grade needs in the requirements options (except for Option 1) because the alternative is constrained by the more restrictive O-4 to O-6 grade allowance of the existing grade table. Thus, in all requirements options except for the smallest, alternatives are inflexible in meeting grade requirements because

Table 8.5
Percentage in Grades O-4 to O-6 in Each Requirements Option Compared with
Percentage Allowed for That Option by the Grade Table

	Army		Navy		Air Force		Marine Corps		FY 94 Plan Allowed
	Req	Allowed	Req	Allowed	Req	Allowed	Req	Allowed	
Option 0 (Notional)	42	41	44	40	44	40	38	32	37
Option 1 (Reduced)	42	45	40	46	39	45	38	44	50
Option 2 (Enlarged)	39	37	40	38	35	37	38	31	35
Option 3 (Streamlined)	42	42	44	41	43	42	38	32	36
Option 4 (Specialist)	42	41	44	40	44	40	38	33	38
Option 5 (Generalist)	42	41	45	40	43	40	38	32	37

NOTE: Grade table is that contained in Section 523 of Title 10 USC or an extrapolation of that grade table to fit smaller officer strengths. Planned grade table is that proposed by the USMC.

they are constrained by the grade table. As discussed earlier, the existing grade table has served as a performance standard by which service grade requirements have been made to more closely mirror the grade table. Whether the grade table should serve this purpose, or should be allowed to adjust as requirements or careers change, will be discussed further in the next section.

Adequacy of Existing Grade Table. After this study began, we were asked to address in our report the adequacy of the existing grade tables, particularly for the Marine Corps.⁵ Figure 8.8 compares the grade requirements of each option to the extended, existing grade table for the Marine Corps and the grade table recently proposed by the Marine Corps. Changes in allowed field grades as proposed by the Marines Corps would closely approximate the field grades in the requirements options we examined. In the case of the Reduced Force option (Option 1), either grade table would exceed the need for field grades in that option, reflecting the mechanics of the current sliding scale in the grade table at much lower officer strengths. The Department of the Navy believes that the current grade tables are inadequate.⁶ As stated in the previous subsection, the

⁵Conference Report to Accompany H.R. 2401 National Defense Authorization Act for Fiscal Year 1994, November 10, 1993, p. 667.

⁶Assistant Secretary of the Navy (Manpower and Reserve Affairs), Memorandum for Deputy Assistant Secretary (Military Personnel Policy), March 31, 1994.

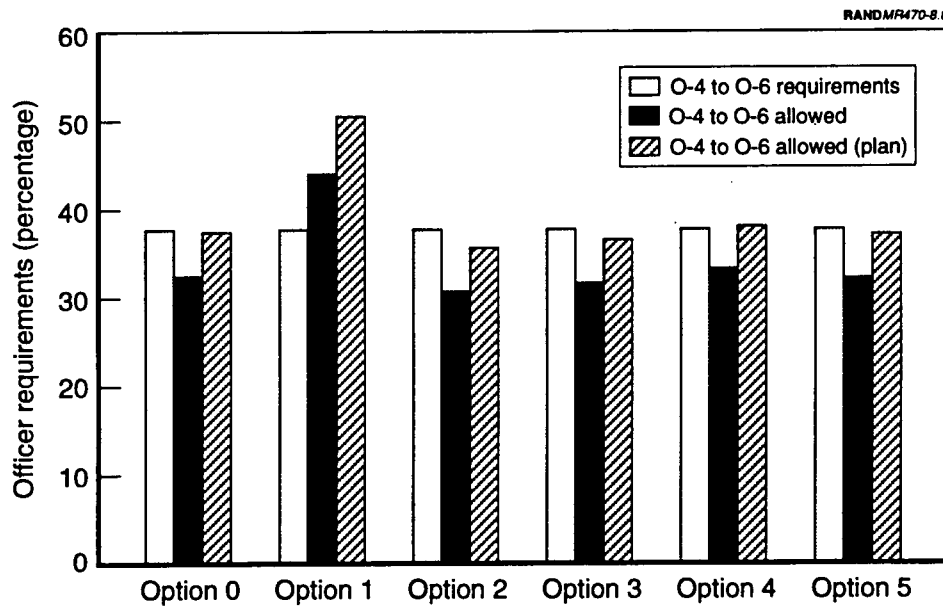


Figure 8.8—Effect of Existing and Planned Grade Table on USMC Requirements Options

current grade table does not allow sufficient O-4 to O-6 in any requirements options *that we examined* but the smallest. However, our study does not attempt to validate the requirements of any particular service nor do we significantly reengineer or flatten organizations to the extent seen in the private sector. We further address the adequacy of the grade table, and alternatives to it, in our conclusions.

Flexibility Summary. None of these systems are truly flexible over short time periods. However, Lateral Entry is the most flexible of the five alternative officer career systems, particularly during increases to force size. The DOPMA-based systems with tenure protections, as history has shown, have some difficulty adjusting to rapid changes in officer requirements. Forced attrition without tenure allows for more cuts to be made in these systems; transition incentives make the cuts more palatable. The system without forced attrition appears to be the least flexible, particularly for reductions in force size. None of the alternatives achieve O-4 to O-6 grades in the requirements options if the existing grade table is a constraint. The only exception is the smallest numerical requirements option. In this case, the mechanism of the existing sliding scale allows many more O-4 to O-6 officers for all career management alternatives.

Measurement of Other Considerations

While the objectives are necessary conditions for achieving the purpose of the career management system, there are other important discriminators the decisionmaker must consider when evaluating alternative career systems that meet all or some objectives. They are discussed below.

Relative Cost

Introduction. We compared the average cost per officer by service for each alternative while holding requirements options constant.⁷ We found that cost differences resulting from changes in the alternatives (and the personnel functions) were generally explainable and predictable. While there were large increases to some cost elements, they were often offset by decreases in other elements. For example, longer careers increase basic pay and retirement accrual but decrease the need for accessions, which reduces training costs; such differences are pointed out below in the evaluation. Overall, the differences in average costs among the five alternative systems and options were less than 5 percent and were judged to be insignificant because of the precision of our measurement.

Cost Differences by Service. Differences between the services exist, as one would expect, but these differences follow the same patterns in variation among the different alternatives. There are inherent differences in officer costs between services.⁸ The Army and Marine Corps have lower average officer costs in each alternative career management system and under each requirements option. They average 7 to 10 percent less than the average costs for the Navy and Air Force. In the Army's case, this has been because it requires more junior officers, involuntarily separates more officers before retirement, and has lower training costs because of fewer officer specialists who require expensive training. Although the Marine Corps has a more junior force than the Army, it has slightly higher training costs because of its aviators.

⁷In one requirements option, civilian-for-officer substitution occurs. We do not cost this substitution. We are more interested in the effect from changing alternatives for career management than in the relative costs of the several requirements options. For a full explanation of treatment of personnel-related costs see Palmer and Larson, *Cost Factors in the Army*, op. cit.

⁸The officer corps required to meet current (Option 0) requirements under DOPMA rules averages 9.6 years of service; the service variation is Army, 9.7 years of service; Marine Corps, 9.0 years; Air Force, 9.9 years; and Navy, 9.8 years.

The Navy has a high percentage of specialists (aviators and nuclear submariners), a more senior force, and a higher retention rate among field-grade officers. The Air Force has high training costs (reflecting the percentage of aviators) and higher retention between the 10th and 20th years of service.

Cost Evaluation by Alternative. The DOPMA Short career management system together with the current force, or Notional Force (requirements Option 0), provides a suitable baseline for comparing per capita costs and understanding how career management alternatives and requirements options affect costs.

Alternative A: DOPMA Short. Forced attrition makes this the youngest force we considered (in both average years of service and expected career length) and hence the basic pay and retirement accruals were low. Conversely the more frequent turnover increased accessions, which created a large training cost. Specialty pay varied for the different requirements options as the percentage of specialists changed. The allowances did not vary significantly among the different requirements options. Overall the average cost per officer was lower—but not significantly—than that of all alternatives except Lateral Entry. This was true for all requirements options.

Alternative B: DOPMA Long. The opportunity for longer careers makes this a slightly longer serving force, which increases basic pay about 5 percent and retirement accrual about 10 percent when compared with the base case—the DOPMA Short alternative. Longer careers mean fewer accessions and an overall reduction in training costs of about 5 percent. However, the reduction in training cost is not sufficient to offset the higher basic pay and retirement accruals so this alternative costs slightly more (about 3 percent per officer) than DOPMA Short.

Alternative C: Lateral Entry. Introduction of lateral entrants at the 5th and 10th year and the restriction that they must have 20 years of military service before retiring creates a somewhat more senior force than both DOPMA Short and DOPMA Long. As a result, base pay is about 6 percent more than the base case while retirement accrual is up only slightly. Lateral entrants do not require accession training because they are assumed to have the same skill level as the cohort they are joining. As a result, training costs for this alternative are about 22 percent less than for DOPMA Short. The result is overall costs that are slightly less than DOPMA Short for all requirements options.

Alternative D: Long, Stable. The absence of any forced attrition creates an even more senior force resulting in the highest basic pay and retirement accrual—basic pay is about 10 percent higher than the base case, and retirement accrual is up nearly 20 percent. The longer-serving, more stable force reduces the need for accessions, and training cost declines dramatically—from 18 to 37 percent for

different services and requirements options. Overall costs are about the same as DOPMA Long—3 percent higher than DOPMA Short; however, this option includes more basic pay cost and less training cost than DOPMA Long.

Alternative E: Career Selection. Basic pay and retirement accruals are 7 to 10 percent higher. This is a more senior force than the base case, so accession and training costs are down somewhat for all services. Overall costs are about 2 percent higher than the base case, and 1 percent less than the DOPMA Long and the Long, Stable alternatives.

Training Cost Sensitivity. Since training costs had the greatest variance (both in magnitude and percentage) and represented the major difference among the alternatives, a sensitivity analysis was conducted to determine the effect of significant changes. We found that changes in training costs resulted largely from changes in accessions and were not particularly sensitive to either a change in the percentage of specialists or the cost of specialist training.

Cost Summary. Table 8.6 summarizes the important relationships between costs and associated considerations. Note that as expected career length (and base pay and retirement accrual) increases, there is a corresponding reduction in both accessions and training cost. In terms of overall cost, these changes tend to offset each other, and as a result average cost per officer did not vary significantly (i.e., less than 5 percent) between alternatives.

There are, however, differences in average officer costs between services and skill groups; they result from different requirements (force structure) and different continuation rates. There are also relationships between costs. Higher attrition leads to more accessions and higher training costs. Longer careers do not cost less; while longer careers do reduce training costs, it is not enough to offset the additional base pay and retirement accrual.

Uniformity

Overview. This objective considered whether the alternative career management systems treated the military services in a similar fashion. We considered equity in promotion and career length among the services. For expected career length, we compared the average career length between the services for the different alternatives and the range of career length. For promotion, our key measure is the promotion timing across the services for each set of requirements options by alternative career management system. Our quantitative standard of equity is to have all four services within one year of the average promotion timing for all services.

Table 8.6
Effects of Career Management Alternatives on Costs

Criteria and Measures	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Factors					
Average years of service	9.6	10.8	11.0	12.2	11.1
Percentage change from DOPMA Short		+12%	+15%	+27%	+16%
Initial accessions	12,800	11,900	10,100 ^a	9,200	11,400
Percentage change from DOPMA Short		-7%	-21%	-28%	-11%
Costs					
Basic pay & retirement (per officer)	\$56.0K ^b	\$60.0K	\$59.4K	\$63.3K	\$59.6K
Percentage change from DOPMA Short		+7%	+6%	+13%	+6%
Training costs (annualized)	\$21.2K	\$20.2K	\$17.2K	\$15.9K	\$19.4K
Percentage change from DOPMA Short		-5%	-19%	-25%	-8%
Average cost per officer	\$92.9K	\$95.1K	\$92.2K	\$95.2K	\$94.7K
Overall evaluation	Base	No significant difference	No significant difference	No significant difference	No significant difference

^aInitial accessions do not include lateral entrants at the 5 and 10 year point; they are assumed to meet skill levels.

^bK=thousands.

Measurement and Comparison of Expected Career Length. Expected career length averaged 12.7 years for DOPMA Short and Lateral Entry with a range of 2.7 years. DOPMA Long increased career length one year, and the range grew to 3.1 years. The Long, Stable option produced the longest expected career length (17.4 years) and the least variation, -0.3 years. Under Career Selection, with some early forced attrition, expected career length was 14.2 years, about 12 percent longer than DOPMA Short; the range was 2.3 years. As shown below in

Figure 8.9 and Table 8.7, the Marine Corps generally had the shortest expected career length and the Air Force generally had the longest. Career Selection and Long, Stable provided the greatest uniformity among services.

Measurement and Comparison of Promotion Timing. The alternative career management systems varied significantly in promotion timing, but the equity aspect showed a further characteristic of these career systems. Two alternatives (Long, Stable and Career Selection) were uniform throughout all sets of requirements, grades, and services. Career Selection demonstrated a slightly tighter set of service promotion points for each grade and requirements option. Apparently the use of a promotion system with a fast-track and long promotion zone—these two alternatives used a 5 year promotion zone—greatly assists in achieving equitable promotion timing across services.

As shown in Table 8.7, the first three alternative career systems had a wider variance in promotion timing and exceeded the standard we set (± 1 year from the uniform promotion point) for variation at one or more grades. DOPMA Short was nearly uniform with only one exception to the standard at the grade of O-4 in the Air Force (1.4 vs. 1.0 years). DOPMA Long had four exceptions with the maximum variance noted being 1.2 years for the Navy in the grade of O-4. Lateral Entry was the least uniform of all five career systems with eight

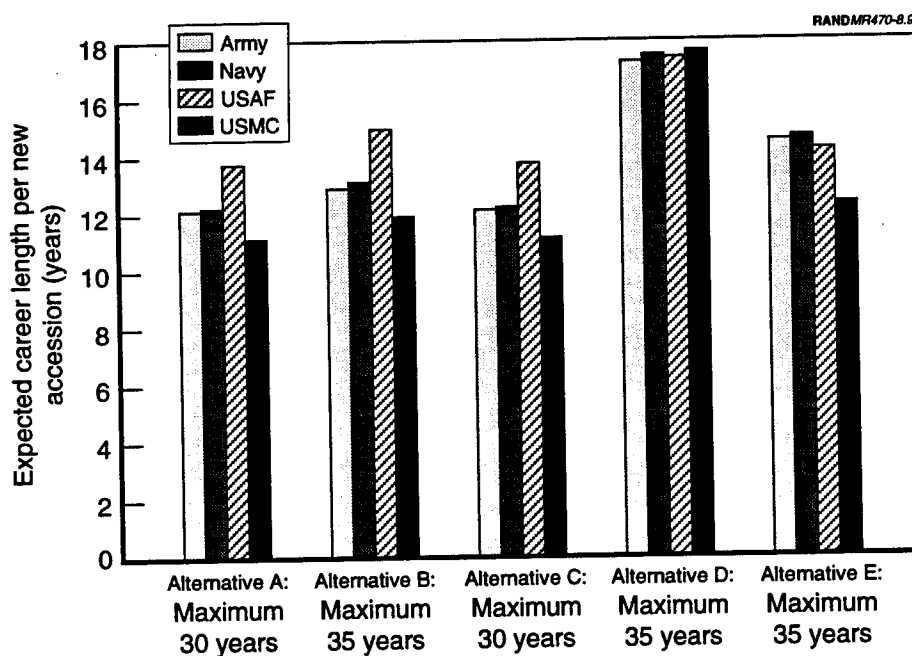


Figure 8.9—Expected Career Length

Table 8.7
Comparison of Measures of Uniformity Across Services

Measures	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Promotion timing					
Exceptions (± 1 yr) in all services	1	4	8	0	0
Maximum variance					
O-4	1.4 yrs	1.2 yrs	1.2 yrs	Met ± 1 yr	Met ± 1 yr
O-5	Met ± 1 yr	1.1 yrs	1.8 yrs	Met ± 1 yr	Met ± 1 yr
O-6	Met ± 1 yr	Met ± 1 yr	1.9 yrs	Met ± 1 yr	Met ± 1 yr
Expected career length (years)					
Mean	12.7	13.7	12.7	17.4	14.2
Army	12.1	12.9	12.1	17.3	14.5
Navy	12.2	13.1	12.2	17.5	14.6
Marine Corps	11.1	11.9	11.1	17.6	12.3
Air Force	13.8	15.0	13.8	17.4	14.2
Overall	Uniform	Less uniform	Least uniform	Most uniform	More uniform

exceptions and maximum variances as high as 1.9 to the grade of O-6 and 1.8 to the grade of O-5, both occurring in the Marine Corps.

Uniformity Summary. The small variations in promotion timing for the DOPMA-based alternatives may seem minor when compared with today's promotion experience across the four services. However, it should be noted that both Long, Stable and Career Selection alternatives were well within the variance allowed for every requirements option and grade. The same two systems provide the greatest uniformity in expected career length. The major variances in promotion timing for Lateral Entry illustrate a system that could not ensure equity across all services.

Maintain Public Confidence in the Military as an Institution

Overview. Although several factors are likely to affect public confidence in the military, understanding how alternative management systems may change the public's perception is critical, especially since present public opinion is positive. The aspects of the management system that we focus on as likely, in our opinion,

to influence future public confidence include the competence and composition of the officer corps and compatibility of the officer management system with national norms for career management. We assess each alternative management system according to these aspects and provide an overall assessment; the results are summarized in Table 8.8.

Competence. The public's view of the competence of the people running the military is currently positive. Despite the optimism that the highly competent force can be used to assist in addressing other missions and societal problems (e.g., peacekeeping, humanitarian aid, and drug enforcement),⁹ we are unable to assess the military's competence in these other types of missions. Therefore, we started with an assessment that each management alternative was neutral in regard to these aspects. However, two alternatives are deemed likely to diminish perception of competence. Lateral Entry provides skilled individuals, but not officers with military experience. Long, Stable careers provide a great deal of experience, which can be perceived as an inability to change and be adaptable.

Composition and Compatibility. The DOPMA Short and Long alternatives may not promote public confidence if increasing diversity and compatibility with commonly accepted management practices in public and private sector organizations are used as criteria. As a closed system, a DOPMA career management system changes composition slowly. For example, despite the slight increases in the proportion of minority officers in the last 10 years, the officer corps has remained relatively homogeneous in that most officers are white

Table 8.8
Evaluation of Public Confidence

Criterion	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Competence	Maintains	Maintains	Diminishes	Diminishes	Maintains
Composition	Slow change	Slow change	Rapid change	Slow change	Neutral
Compatibility	No	No	Yes	Yes	Yes
Overall	Lessens confidence	Lessens confidence	Maintains confidence	Lessens confidence	Increases confidence

⁹Gergen, "Working for America," op. cit.

males, especially field-grade officers.¹⁰ This is not to say that the DOPMA system is discriminatory. Part of the problem may be the forced separation of officers who are not promoted. Whatever the reason, the system has not resulted in the greater racial and ethnic diversity that is representative of society. Moreover, the forced attrition (i.e., the up-or-out mechanism) in DOPMA does not correspond to management practices in organizations that do not force qualified workers out of careers unless there are clear reasons for doing so, such as reductions in organization size. In fact, national policy prohibits many practices used by the military if a bonafide occupational reason cannot be demonstrated.

A career management system that allows for Lateral Entry is likely to maintain public confidence because of its potential for increasing diversity and incorporating management practices that conform to other organizations in society. Of all of the alternatives, a system that manages officer careers with Lateral Entry has the most potential for changing the composition of the officer corps. Through Lateral Entry, underrepresented groups may be attracted to enter from the public or private sector, the reserves, or the enlisted force, resulting in greater diversity.

The practice of Lateral Entry is common in many private and public sector organizations that are more interested in skill experience than firm-specific knowledge or immersion in a particular organizational culture. By allowing for individuals to enter with relevant skill experiences, a Lateral Entry type of system is likely to generate public confidence because of the increased contact between military and civilian personnel, especially if entry from the civilian sector is permitted and encouraged.

Whether Long, Stable careers affect perceptions about public confidence depends on whether the priority is increasing diversity or conforming to other public and private sector organizations. While it would continue minority and other officers who were not promoted, the reduced level of accessions does not support rapid compositional changes in the officer corps. Because the system is characterized by fewer individuals accessed, less turnover, and no forced attrition, it is unlikely to generate rapid changes in composition. However, an up-and-stay structure is a common career management system in nonmilitary organizations, many of which hire and afford opportunity for individuals to stay as long as they perform.

¹⁰Office of the Assistant Secretary of Defense (Force Management and Personnel), *Population Representation in the Military Services, Fiscal Year 1991, October 1992.*

A Career Selection type of system that has forced attrition early in a career and thereafter affords opportunity to stay is likely to maintain public confidence because this alternative conforms to personnel management practices in civilian organizations. Whether this alternative would support rapid changes in composition is an open question. Although the large number of accessions may generate greater diversity, the continuation of the select few later in the career may not unless relevant levels of diversity are selected into the career segment. That is, high early turnover allows changes in composition in lower grades, but may not foster compositional changes in the upper grades, and thus our assessment on the composition criterion is neutral. Because this career management alternative is consistent with management practices in the public and private sector, our overall assessment is that the Career Selection alternative is likely to maintain public confidence.

Summary of Public Confidence. We found that the likelihood of an alternative to maintain public confidence in the military as an institution varied due mainly to potential changes in composition and compatibility. DOPMA-type career flow structures and personnel functions are unlikely to support compositional changes in the officer corps, and this is the primary reason that they may lessen public confidence. A Lateral Entry career management system that might diminish perceptions of competence may support rapid changes in the composition of the officer corps and be consistent with civilian management practices and is thus likely to maintain public confidence. A Long, Stable career is consistent with career management practices in many public and private sector organizations, but this alternative changes composition most slowly and diminishes perception of competence. The Career Selection alternative may increase public confidence because it conforms to commonly accepted career flow structures and personnel management practices in the civilian sector, maintains perceptions of competence, and could be used to promote diversity.

Number of Officers

Accession. We determined the appropriate number of accessions (by service and skill) for each career management alternative and requirements option in a steady state. The accessions for the Notional Force requirements option (Option 0) are summarized below in Table 8.9 and Figure 8.10.

On average, DOPMA Short and DOPMA Long had the greatest levels of accessions; Long, Stable had the least. If the viability of the current institutions of

Table 8.9
Line, Specialist, and Support Initial Accessions

Measured Against Option 0	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Army	3,887	3,629	3,042	2,709	3,237
Navy	3,380	3,158	2,694	2,361	2,868
USAF	4,184	3,870	3,362	3,325	4,090
USMC	1,347	1,256	1,045	850	1,212

NOTE: Does not include lateral entrants for Alternative C.

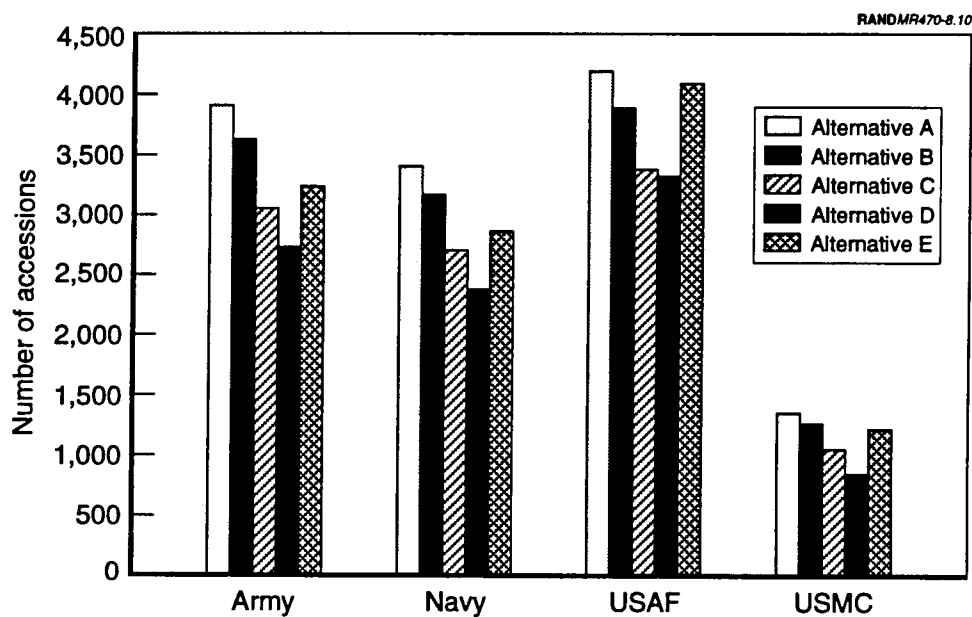


Figure 8.10—Line, Specialist, and Support Initial Accessions

accessions—the academies and ROTC programs—is a concern, all of the alternatives have fewer accessions than currently because of the smaller numerical size of the officer corps in the requirements options. Moreover, Long, Stable has the fewest accessions because of its design characteristics.

Promotion. As was noted earlier, requirements were met by changing accessions, allowing migration between line, specialist, and support skill groups (but not services), and adjusting promotion timing points. Listed below are the number of promotions to the field grades by service (Table 8.10) and the promotion point measured in years of service (Table 8.11); both are using requirements Option 0.

Table 8.10
Number of Promotions

Measured Against Option 0	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Army Total	3,120	2,766	3,042	3,088	2,954
To O-4	1,554	1,451	1,594	1,741	1,671
To O-5	1,776	924	1,048	975	942
To O-6	389	390	400	372	341
Navy Total	2,922	2,310	2,531	2,758	2,615
To O-4	1,524	1,222	1,278	1,528	1,475
To O-5	990	688	869	853	812
To O-6	408	400	384	377	328
USAF Total	4,106	3,328	3,782	3,665	3,531
To O-4	2,010	1,718	1,980	2,089	2,039
To O-5	1,689	1,154	1,339	1,180	1,143
To O-6	406	456	464	396	349
USMC Total	829	783	820	810	817
To O-4	457	426	428	486	493
To O-5	269	246	282	237	238
To O-6	102	111	110	87	86

Table 8.11
Promotion Point (Years of Service)

Measured Against Option 0	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Army					
To O-4	10.0	10.0	11.0	10.9	10.8
To O-5	16.9	17.4	17.2	16.9	16.7
To O-6	23.0	25.3	24.0	22.7	21.5
Navy					
To O-4	9.0	10.0	10.0	10.8	10.7
To O-5	17.0	18.1	17.4	16.7	16.7
To O-6	22.5	26.0	24.5	22.0	21.5
USAF					
To O-4	10.1	11.1	11.1	10.8	10.8
To O-5	17.1	18.0	17.1	16.9	16.9
To O-6	23.0	26.0	24.0	22.1	21.8
USMC					
To O-4	10.0	10.0	12.1	10.7	10.8
To O-5	17.0	19.0	20.0	16.7	16.8
To O-6	23.0	26.0	26.0	21.1	22.0

Promotion Patterns. Each of the alternative officer career systems had a promotion pattern that was consistent across all of the requirements options. (See Table 8.12.) DOPMA Short required the smallest average change in promotion timing to the grade of O-4 for all six requirements options. DOPMA Long required the highest average change in promotion timing for the grade of O-6 in all options and the highest average change in O-5 for two of the six requirements options. Lateral Entry had the highest average change in the promotion timing to the grade of O-4 for all requirements options and the highest average change in O-5 for four options. The Long, Stable and Career Selection alternatives shared the smallest average change in promotion timing to the grades of O-5 and O-6. Table 8.12 also provides data relative to the established promotion times. Included is information on the timing between promotions to determine if a change in average promotion timing to one of the grades causes change in others. The established promotion times provided the standard for this measure.¹¹

Three of the alternatives (DOPMA Short, DOPMA Long, and Lateral Entry) variably lengthen the total time between promotions from O-4 to O-6, and the other two alternatives (Long, Stable and Career Selection) shorten the total time by one year. Three alternatives (DOPMA Short, DOPMA Long, and Lateral Entry) lengthen the time between promotion from O-4 to O-5 by one to two years. Long, Stable and Career Selection met the established time between O-4 and O-5 of six years.

Table 8.12
Comparison of Average Promotion Timing Changes Across Alternative Officer Career Systems

Grades	Standard (Years of Service)	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
O-4	10	10	10.8	11.8	10.8	10.8
O-5	16	17	18.5	18.5	16.8	16.8
O-6	22	23	26.1	25.1	22.2	21.6
O-4 to O-5	6	7	7.7	6.7	6.0	6.0
O-5 to O-6	6	6	7.6	6.7	5.4	4.8
O-4 to O-6	12	13.0	15.3	13.4	11.4	10.8

¹¹The time between the grades of O-4 to O-5 is 6 years, between the grades of O-5 to O-6 is 6 years, and the total time interval between promotions from O-4 to O-6 is 12 years.

Retirement. The model determined the number of retirements by skill group and service; they are summarized below (Table 8.13 and Figure 8.11) by service for the five career management alternatives using requirements Option 0. For this evaluation, officers who completed 20 years of military service are considered as retirees even though additional service to become an immediate annuitant is needed in the Long, Stable and Career Selection alternatives.

Reserve Forces Pool. An important consideration is the number of officers who depart before retirement and are available to join the reserve force pool; listed in Table 8.14 and Figure 8.12 are the total of officers (line, specialist, and support)

Table 8.13
Number of Line, Specialist, and Support Retirements

Measured Against Option 0	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Army	1,266	1,182	1,410	1,268	1,100
Navy	1,027	962	1,126	1,116	977
USAF	1,764	1,632	1,870	1,565	1,338
USMC	374	349	403	400	326

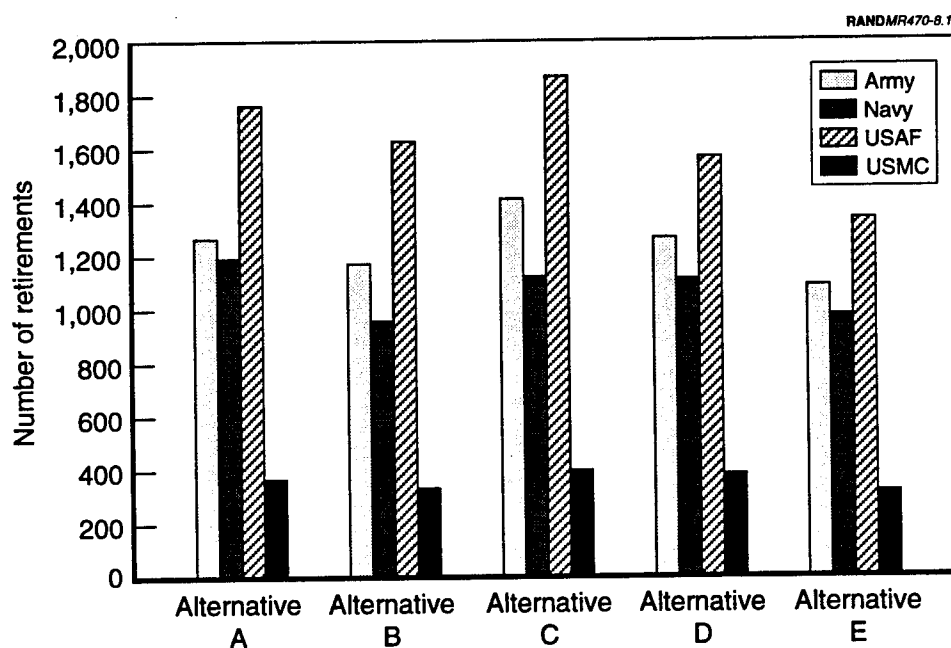


Figure 8.11—Number of Line, Specialist, and Support Retirements

Table 8.14
Line, Specialist, and Support Reserve Forces Pool

Measured Against Option 0	Alternative A: DOPMA Short	Alternative B: DOPMA Long	Alternative C: Lateral Entry	Alternative D: Long, Stable	Alternative E: Career Selection
Army	2,035	1,900	1,071	700	1,499
Navy	1,964	1,835	1,166	609	1,328
USAF	1,918	1,774	977	859	1,962
USMC	826	771	488	223	687

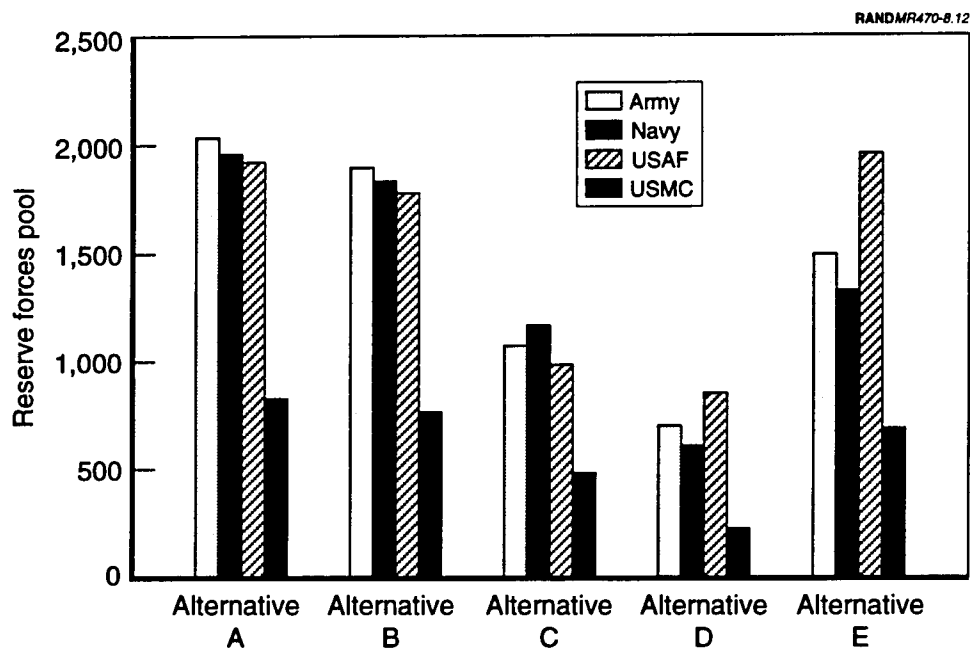


Figure 8.12—Line, Specialist, and Support Reserve Forces Pool

available annually to the reserve forces. This is the number of separations with between 4 and 10 years of service. In general, Lateral Entry and Long, Stable provide the fewest separations in this category.

Summary Evaluation by Alternative

The next subsection summarizes our evaluation results relative to each alternative career management system. We note again that the evaluation

represents the characteristics of the alternative in the future—beyond the drawdown period that extends to 1999—relative to officer requirements at that future time.

Alternative A: DOPMA Short

DOPMA Short was the base case for our evaluation. Like all of the alternatives, it was able to meet all requirements options by grade and skill. However, it had the least experience in the grades of O-4 to O-6 and the shortest expected careers of any alternative. Flexibility to accommodate rapid change is limited.

DOPMA Short was generally uniform among the services and had average costs that did not differ significantly from other alternatives. As a closed, forced-attrition system, a DOPMA-based alternative changes composition slowly and is not compatible with private sector management career practices. It does provide the largest accession base, the greatest number of promotions, and the largest reserve forces pool.

Alternative B: DOPMA Long

DOPMA Long differed from DOPMA Short in allowing maximum careers of 35 instead of 30 years. As a result, expected career lengths and military experience in the grades of O-4 to O-6 were slightly longer. Longer careers did not significantly change average cost per officer. Accessions and the reserve forces pool remain reasonably high. However, promotions are significantly delayed, and there is less uniformity in outcomes among the services.

Alternative C: Lateral Entry

Lateral Entry met all requirements options and provided the greatest flexibility for change in officer requirements. Lateral entrants from the civilian sector lack military experience; this deficiency could be partially offset by use of reserve component officers or officers with prior active service. Lateral Entry allows more rapid change in diversity and is compatible with private sector management practices. However, the Lateral Entry concept is inconsistent with the characteristics of the military profession and does not foster careers. Expected careers for initial accessions are the same as for DOPMA Short; the considerable variation between services in both expected career length and promotion timing makes this the least uniform alternative.

Alternative D: Long, Stable

This alternative extended maximum careers and uniquely did not use any forced attrition. As a result, this option provided the longest expected career length and the most uniformity among services in both career length and promotion timing. Military experience was high. The alternative matched characteristics of a profession and provided high levels of career satisfaction and career opportunity. This was the least flexible alternative in adapting to changing requirements and has significantly lower levels of accessions and of reserve component eligible. The substantial reduction in average training costs per officer was nearly offset by increases in basic pay and retirement accrual to support the more senior force.

Alternative E: Career Selection

This alternative resulted in advantages of longer careers: more military experience, greater career satisfaction and expected career length, and more uniformity. Use of forced attrition for those not selected for careers raises levels of accessions and the size of the reserve forces pool but not as high as alternatives that use forced attrition throughout careers. Public confidence is increased because of compatibility with personnel management practices in the civilian sector. There is, however, limited flexibility in shaping the career force during expansion or contraction.

Section Summary

This section evaluated alternative systems for career management with different career flow structures and different policies for personnel functions relative to specified objectives and other considerations. Section 9 offers conclusions based on how these alternatives used concepts of interest to the Congress and the DoD.

9. Conclusions

This section presents conclusions from our research and analysis of alternative officer career management systems. The Congress and the DoD identified a number of issues to consider in this study. We begin the section with our conclusions about these issues. Next, we present overarching observations and conclusions by the study team, based on our analysis, which, in some cases, transcend those issues identified for study. Efforts to design the ideal future officer career management system should take the full range of conclusions and observations into account.

Congressional and DoD Issues

The issues raised by Congress and the DoD generally group into two categories: officer requirements and career management systems.

Officer Requirements

We examined the effect of the post-Cold War officer strength reductions and other military-related changes on future requirements for officers. Congress indicated that a basic objective of officer career management was to satisfy validated officer grade and skill requirements of the military services, including greater use of warrant officers. We also examined distinct skill groups that could be managed differently from each other and would result in a less inclusive "line" officer grouping than now exists. We identified several requirements options by analyzing the effect of alternative futures on grade, skill, and experience needs for officers in each service. These requirements options represent a reasonable range of possible future environments. Our concluding observations about future officer requirements are as follows:

Satisfying Validated Grade/Skill Requirements. Since valid requirements by grade and skill for the future do not exist, we determined six different future officer requirements options and four skill groups as a basis for examining alternative officer career systems. Within the six officer requirements options, we varied skill group mix, streamlined and reengineered grade structures, and changed the size and experience needs of each service. In our evaluation, we

forced all alternative career management systems to achieve the grade and skill requirements of each option.

Our analysis shows that, in the aggregate, any of the combinations of career flow structures and personnel functions, such as promotion, can satisfy requirements for grades and skills. Within relatively broad parameters, a career management system can be changed as needed to match requirements. This conclusion is not particularly surprising because the services have often changed their career management systems, sometimes dramatically, to meet needs. For example, in the most recent drawdown, officers of all grades and years of service were separated.

Of more interest analytically are the subsidiary changes that distinguish alternatives and suggest that the alternatives do not perform uniformly when considering aspects other than meeting requirements. For example, requirements do not change uniformly by service. Changes in requirements create different needs for military experience by skill group. One evaluation criterion measured the ability of a career system to provide the needed experience, and some of the alternative career systems evaluated, especially Lateral Entry, were unable to satisfy military experience requirements in all skills. An in-and-out career structure provides less military experience on average. However, this type of structure has proved itself in war when many officers were needed to support rapid expansion. An up-or-out structure with longer maximum careers will provide more experience than in-and-out on average but not as much as an up-and-stay structure.

Turning to the issue of grade requirements, we see no reason why the desired grade structure has to be a pyramid as it is now. The career structure and personnel functions can meet any structure of needed grades. For example, the British Army grade structure looks like an aircraft carrier, not a pyramid. The junior grades are below decks; the O-4 grade is bulge of the carrier deck; and the higher grades are the narrower superstructure. Some have suggested that the shape of grade requirements in the future should resemble an hourglass,¹ and such a structure could be satisfied. However, promotion timing and opportunity would be less certain than they are now, and their importance might also diminish. Research on commitment and satisfaction indicates that both are possible without high levels of promotions.

¹David S. C. Chu in a presentation at "A Military of Volunteers Conference," Annapolis, MD, September 15-17, 1993.

Greater Use of Warrant Officers. Another difference is the varied service use of warrant officers. In Appendix H, we offer an illustration of how the use of warrant officers could be expanded in skills where commissioned officers and warrant officer requirements currently coexist. While uniformity among the services seems to be a meritorious objective, a full appreciation of the differences in service cultures must accompany any review of the use of warrant officers. In the case of the Air Force, the earlier decision to place warrant officer requirements into the senior noncommissioned officer ranks may remain a sound practice in future requirements environments. However, those positions primarily requiring the exercise of technical skills that do not follow future officer career patterns but need the recognition and incentives offered in ranks higher than enlisted appear well suited for warrant officer requirements. DoD should decide the importance of uniform and expanded use of warrant officers among the services and determine the standard for grading position requirements accordingly. Service requirements reviews based upon these position grading standards would determine the number of warrant officer positions. Lastly, cost will be an important consideration in deciding the extent to which warrant officer requirements are used in lieu of either officer or enlisted positions.

Less Inclusive Line. To address this issue, we developed four categories of skills—line, specialist, support, and professional, a technique that allowed us to investigate the issue of separate career management systems for distinct skill groups. A less inclusive line implies that non-line officers can be managed differently. If they are, rather than uniformity in careers for all services, one might expect to have uniformity in careers within skill groups with overall service careers different to the extent that service skill composition is different.

Historically, skill groups have fought to be included in the line because that represented the most prestigious category and was typically viewed as the most direct route to the top. Most skills in the Army, Air Force, and Marines (fewer in the Navy) are now included in the line category for competitive management even though some skill groups have traditionally achieved greater promotions and higher positions. However, if specialist and support officers were as apt as line officers to achieve the highest positions and were considered central to the profession, then a less inclusive line might not matter.

Our analysis shows that skill groups can be created, that they can be managed differently from other skill groups, and that grade and skill needs can be met. Certainly the present system manages two skill groups—line and professionals—in fundamentally different ways, and there is conceptually no reason that this

cannot be extended to more than two skill groups. Analysis cannot say whether being a Naval officer or an Air Force officer is more important than being a pilot, engineer, or logistician. However, if the military is a profession, then officers should want to be in it regardless of their skill.

The amount of desired military experience differs by skill group. The line requires predominantly military experience; specialist skills as we defined them need both military experience and technological expertise; the support skill group needs experience in those skills tempered by adequate military experience; and the professions require only limited military experience to complement professional knowledge.

Alternative Officer Career Management Systems

We used concepts that emerged from our research as the basis for designing alternative officer career management systems that addressed the congressional and DoD concerns. We were charged to consider some specific features in our alternative career management systems and consider some specific issues. These were

- different regulation of flows into, within, and out of the officer corps
- greater use of lateral entry
- rules that provide for less turnover and greater stability
- stable career advancement patterns that encourage longer careers
- longer careers as the rule rather than the exception; up-or-out features of DOPMA adjusted accordingly
- the adequacy of the existing grade tables²
- expected length of officer careers
- timing and opportunities for promotion.

Different Regulation of Flows Into, Within, and Out of the Officer Corps; Greater Use of Lateral Entry. We examined four different career flow structures, and each has different strengths and weaknesses. An in-and-out structure offers

²Congress included this as a study issue after we began. Section 402 of the FY 94 National Defense Authorization Act (Report 103-357) provides temporary variation in end-strength limitations for Marine Corps majors and lieutenant colonels for two years. The conferees (p. 667, Report 103-357) state their expectation "that the Department of Defense will address the adequacy of the existing grade tables as part of the report on officer personnel management systems required by section 502 of the National Defense Authorization Act for Fiscal Year 1993. The conferees intend to consider permanent adjustments to the grade tables after the report has been received."

tremendous flexibility if the force has to grow quickly and appears a natural structure for a total force concept. However, except for limited peacetime use for certain skill groups and perhaps in wartime, an in-and-out structure appears to have less utility as the basis for the overall design of a future career system. Its drawbacks relate to military experience of the resulting officer corps, to career satisfaction, and to the professional aspects of officership. Perhaps it could be used more in certain skills than others or to gain greater use of reservists but not as an overall career structure.

Up-or-out and up-and-stay structures also have benefits and deficiencies. The benefits of up-or-out have been stated as providing a young and vigorous officer corps and providing promotions. However, up-or-out affords less career opportunity and does not mesh well with current views of careers, because it tends to eliminate groups of people, in part at least, on the basis of age. Although up-or-out creates turnover, which increases numbers of accessions and promotions, the promotions are directly the result of forced separation of other officers. Up-and-stay produces more experienced officers and allows longer careers. However, it does not require enough accessions to support the accession institutions as currently structured or the reserve need for junior officers.

Longer Careers as the Rule. Our research shows that there is no maximum retirement age that must apply to all officers. Individual officers could be measured against their own abilities for continued service. That said, it appears reasonable to expect the officers in the grades of O-4 to O-6 to retire between ages 55 and 57. Foreign militaries, federal law enforcement officers, and state and local public safety occupations tend to retire people at about these ages. So does the U.S. military for general/flag officers, where a 35 year career length brings a 20 or 22 year old entrant to retirement by age 55-57. The current mandatory retirement age for officers is 62.

Career flow structures affect career length. The effect of longer maximum careers depends heavily on the career flow structure that the career system uses. For example, a maximum career length of 35 years (or to about age 55) has a different outcome in each career flow structure. Most entrants who elect to stay in an up-and-stay structure can serve for 35 years; only a minority of initial entrants in an up-or-out structure can have a full career; those in an in-and-out structure may or may not have full careers; and most entrants who survive an initial career decision point and then elect to stay in a mixed structure of the type we designed for the career selection alternative can remain until the 35th year. The point we would make is that increasing maximum career length without adjusting up-or-out only provides longer careers to those who have not already been forced from the career system. If one wants longer careers on average for all who enter, then

the career flow structure for the field grades has to be something different from up-or-out.

Longer careers do not appear to cost significantly more or less than shorter careers. There are trade-offs between increased pay and retirement costs and decreased accession and training costs. These trade-offs suggest that it is possible to design a future officer career system on effectiveness considerations because cost of different concepts are roughly comparable. Cost, however, is expected to be an important determinant of future choices especially as it relates to choice among requirements options.

Up-or-Out Features of DOPMA Adjusted Accordingly. In our view, the organizational objectives are key to adjusting the up-or-out features of DOPMA. Up-or-out was instituted in 1947 to obtain a youthful and vigorous officer corps. Up-or-out in DOPMA had an additional objective of increasing promotions. Adjustments to the up-or-out features should be based on objectives for forcing attrition.

For the future, forced attrition of *groups* of officers to achieve a youthful and vigorous officer corps, if that is still desired, appears to run counter to national policy related to age and congressional direction to the DoD to use *individual* standards to determine fitness in specific skills. Moreover, forcing attrition of some officers to increase promotions for others may not be the best management philosophy.

One possible objective for forced attrition could be to increase turnover of active officers reasonably early in careers to make pools of officers with prior active experience available to the reserves. Another objective could be to allow only limited numbers of well qualified officers with desired skills, knowledge, and abilities to enter into long service careers. Other objectives are possible. Our point is that forced attrition implies an organizational objective. Once the objective is stated, the mechanism can be determined.

Recognize Need for Stable Career Advancement Patterns That Encourage Longer Careers. A way that DoD could provide more stability in advancement while also providing more variance in time in service in each grade is to combine long promotion zone intervals with fast-track promotions. With one-year promotion zone intervals, chance of advancement ends precipitously. If the chance of future promotion provides motivation, then the one-year zone system ends it abruptly since officers are unlikely to be selected in their last one-year look if they were not selected in the earlier one. Longer zones (we used five years) mean lowered opportunity from the larger resulting group in the zone, but the same number of promotions do result each year. Of those promoted, the

variance by time in grade is greater and exists over the length of the zone. More people stay eligible for longer periods, which provides a continuing incentive. Additionally, those selecting for promotion have a larger pool from which to choose if needs for officers with particular qualifications change over time.

Fast-track promotions are also useful in that some officers should advance more quickly because they develop more quickly. We did not evaluate a pure merit promotion system, which is one in which seniority does not play a role. We used merit and seniority in combination. As a result, there is an age/grade/years of service relationship, but it is different from the one that now exists. We do not know if this relationship is actually needed; we observe that it is traditional in most militaries. Allowing some to be advanced more quickly than others and allowing for promotion selection from a pool that is nonhomogeneous by age and experience results in less of an age/grade/length of service relationship. Said another way, the career flow structure and promoting function could allow for a broader span of ages in a particular grade. The determination would be on how long it takes to be developed to have the ability to discharge the responsibilities of that grade.

Combining changed promotions with a career flow structure that is based on selecting well-qualified officers for careers has additional ramifications for advancement. If the basis for the career is skill and experience qualification, then promotions need only go to those who are needed for higher levels of management responsibility. Promotions are no longer needed as the basis for keeping people.

Manage Under Rules That Provide for Less Turnover and Greater Stability.

Our analysis suggests that turnover should be tailored to accomplish institutional goals and that seeking uniform turnover rates across all grades may not be wise. It is possible to provide turnover at the point it is needed and stability in the ranges where it is needed. High turnover early in a career system could accomplish multiple objectives such as preserving accession institutions, meeting grade-experience requirements, and providing flow to the reserves. Thus, relatively high turnover early in the career path should be part of the system. Turnover between 3 and 7 years of service is useful in line skills because it recoups the investment in initial training and provides officers most useful to the reserve component; turnover at about 10 years of service is useful in the specialized skills where greater training investment has been made. An expanded in-and-out system could work well for support and professional skills in which less military experience and acculturation is needed. However, in all of these skills, once career status is gained, there could be much greater stability than is now the case. Use of an up-and-stay structure once an officer achieves

career status would allow greater turnover early and more stability later and may serve the requirements of the military services and the needs of officers.

Adequacy of the Existing Grade Tables. A grade table as an external, policy monitoring device³ is but one way to control officer systems. A sliding-scale grade table has been used to control officer inventory directly because manpower requirements are not generally believed, and thus the officer inventory must be evaluated and constrained by an external performance standard. If officer requirements were accepted, an external mechanism like a grade table would not be needed to control the entire officer career management system. Flexibility would be less of an issue in that, without external constraints, the career management system could adapt more readily as needs for numbers of officers, in their several grades and diverse skills, changed. There would be only enough officers to fill positions at the correct grades.

More closely controlling grade requirements for officers rather than constraining officer grade inventory may allow more management flexibility while controlling grade creep. For example, the National Performance Review suggests standards for the ratio of senior to subordinate, and requirements could be made to meet such performance standards.⁴ Many organizations are reengineering to accomplish this. Additionally, one should not focus on control at only one point in time. A dynamic context is needed to have flexibility to accommodate changing officer strengths over time. In practice, this means that if one believes the steady state is the least likely set of conditions to occur, then compromise—flexibility—between relative grade sizes at a point in time (the grade table) and consistency of promotion opportunity and timing should be designed into the officer career management system and not left to chance or later argument.

We suggest four alternative approaches to the existing sliding scale grade table:

1. Requirements and the Requirements Process Dominate. To the extent that requirements are valid, promotions are vacancy based and number of officers are as needed to man forces and organizations. Opportunity and timing cannot be promised in advance but only measured after the fact. The system operates more

³Policy monitoring allows policy superordinates to achieve control even though agents have greater knowledge about the exact nature of the policy process and the nature of the policy outputs. It prevents agents from "misleading their principals." Richard W. Waterman and B. Dan Wood, "Policy Monitoring and Policy Analysis," *Journal of Policy Analysis and Management*, Vol. 12, 1993, pp. 685-699. If one believes that any system can be gamed to the benefit of those who operate it, an arbitrary, inflexible control has great utility. Moreover, a constraining grade table forces more uniform outcomes because it standardizes grade levels by service and by skill if all skills are controlled.

⁴National Performance Review (U.S.), *Creating a Government That Works Better and Costs Less: From Red Tape to Results*, Chap. 3, Washington, D.C.: Government Printing Office, 1993.

like a rank-in-job system even though it remains one of rank-in-person. Theoretically, this is how the system operates now, but because the requirements constraint is not binding, an external constraint of a grade table is used. Grade requirements could be the result of a bottom-up process that determines or validates grade needs or could be the result of a top-down process by which a performance standard for senior to subordinate is set in advance. Variations could allow rigid requirements control at certain grades, e.g., O-6, and not at all field grades as now. The practice seen in the private sector of rigid control at the executive/nonexecutive boundary is useful. In the military, this boundary appears to be at the grade of O-6. Requirements for this grade might be precisely determined by the services and controlled by the Congress.

2. Careers Dominate. Promotion opportunity and timing are set in advance in recognition that the system is one of rank-in-person. Variations could control the overage and shortage problem in that opportunity and timing could be allowed to vary by service and skill or even by size of entry cohort (dynamic controls). Opportunity and timing can be promised in advance to all or to each cohort at entry. (Inconsistency and nonuniformity in promotion opportunity and timing by skill, service, and cohort could result but this would be known in advance.) If one accepts the design of the personnel function dealing with promotion, then one should be willing to accept the outcomes. The outcomes represent the end result of the policy process dealing with careers in general and promotions in particular. Currently, the DoD reports expected future five-year promotion opportunity and timing to the Congress,⁵ and this could be used more directly in control.

3. Let Both Operate. Let a fixed, external grade distribution control dollars available for pay at any particular force size, but let requirements or career considerations control actual grades that a service might use at a point in time. This creates a trade-off between the number of officers a service might have (which has been set annually in the authorization process) and the grades of those officers (which are now limited by Title 10). For example, within the fixed budget, one service might choose more officers of lower grades than would have been allowed; another service might choose fewer officers than would have been allowed but of higher grades. If the concept of user demands, resulting in costs borne by the user, eventually works its way into manpower requirements, then the ultimate users of forces could also more directly affect the grades of the officers they are receiving.⁶

⁵Department of Defense, *Defense Manpower Requirements Report*.

⁶For example, Section 333 of the FY 1994 National Defense Authorization Act (Report 103-357) discusses recovering the full costs of the use of military personnel in provision of certain goods and services.

4. Modify the Existing Method. The existing sliding-scale grade table, which must not be exceeded at the end of each year, could be modified to take effect over a longer period of time. For example, lagging the grade table (basing its effect on a prior year's officer strength rather than the current year's) provides more flexibility in drawdown and more of a constraint in growth. In periods of stability there is no change from the existing effect of the grade table.⁷

What Congress Should Directly Control. These options also raise subsidiary questions relative to the nature and amount of congressional involvement. For example, Congress might determine the overall design of the career structure and personnel functions and set them in law but then not control the outcomes that result in any particular year from the design. Congress might determine the overall design and also control outcomes through annual authority to achieve projected five-year grade or promotion objectives. These could also differ by service and skill. Congress might determine the overall design and also specify a rigid control in statute as well.

Expected Length of Officer Careers. The overall average lengths of careers are determined by the career flow structure and by elements of career satisfaction including the vesting-annuity workings of the retirement system. Career length is partly determined by engendering commitment to careers through professional satisfaction, job challenges, compensation, and by addressing family considerations. Officers must want to stay for career length comparisons to be meaningful. Committed officers whom the military needs by dint of their grade, skill, and experience must also be afforded the opportunity to stay by the officer career management system. Career lengths depend more heavily on the workings of the career flow structure than on any fixing of a maximum career length. For example, extending the maximum career by five years but keeping up-or-out for the field grades extends the expected career length by only one year. Changing from up-or-out to up-and-stay and increasing maximum careers by five years extends expected career length by more than five years. Longer average career lengths appear beneficial because they increase the experience levels of the officer corps in the grades of O-4 to O-6.

Timing and Opportunities for Promotion. In two alternatives, we used a promotion function that incorporated some fast-tracking through the structure: longer promotion zones in which the numerical emphasis of promotion objectives would be reduced and in which requirements for grades could play a

⁷Our 1993 report (*The Defense Officer Personnel Management Act of 1980*) addressed the need for flexibility in the existing grade table during the drawdown years. We proposed a method (pp. 64-68) to gain flexibility that would also offer greater control in a period of expansion, and we believe that this proposal continues to have merit if the grade tables are continued in their present form.

greater role. A promotion function such as this produced somewhat different results from the other alternatives.

A rank-in-person career system tied to numerical promotion objectives for timing and opportunity in a steady-state system with defined promotion zones will produce desired promotion outcomes independent of requirements for grades. Either the requirements system adjusts to the level of grades produced, promotion timing and/or opportunity have to change to reflect grade requirements, or external constraints in numbers are placed on the workings of the career system (a grade table) to limit inventory of officers in certain grades.

None of these is preferable. What is preferable is to provide "enough and only enough officers to meet mission-based requirements in each of the officer grades."⁸ A career system that selects officers after initial service for careers who are the best qualified by their skills and experiences and then continues them without forced attrition reduces the amount of promotion. However, a longer promotion zone can be used to continue opportunity for promotion over longer periods. Promotions would occur for valid needs for managers and leaders and not because promotion must occur for officers to stay in the profession.

Study Team Observations and Conclusions

Most recently, concern has been on transitioning from a large force for the global conflict to a smaller one for the new international security environment. In general, the dominant effect of the post-Cold War officer strength reduction and other changes in the security environment is that officer career management is shifting from mass production of a limited number of kinds of officers to more numerous but smaller batches of customized kinds of officers. Designing a future officer career management system using concepts such as those suggested below will best achieve the purpose and objectives of officer career management as this shift occurs in the near term and will be able to more easily accommodate other, more future changes as they occur.

Our analysis of the different career management systems suggests that the benefits of uniformity need to be balanced by a capacity for flexibility. We raise this as a central issue because of the long congressional interest in having uniform management across the services. Certainly broad personnel policy for the services ought to be uniform. But in the more specific issues of policy implementation, it is unclear that uniformity is possible or that it is desirable

⁸Senator Sam Nunn, *Congressional Record*, August 10, 1976, pp. 26643-26664.

even if possible. For example, because requirements do not change uniformly by service, future uniformity in career management is problematical. Making the career system uniform across services and requirements means that not all grade and skill requirements can be met. Uniformity of policy, though desirable, does not necessarily guarantee uniformity of outcome.

A career system with inherent flexibility seems more suited for the still uncertain future that all services face. An insight we gained during the course of our evaluation was that the best features of all career flow structures can be used at different points in a career system. For example, forced attrition appears useful both to provide sufficient junior officers to the reserves and to limit the numbers of officers who serve in long careers. If these are the correct objectives, then using career selection at about the 5 and 10 year points (as used in the Career Selection alternative) has merit. One might keep those with existing skills that are needed in the future and choose others with organizational experience and who are ingrained in the organizational culture and redevelop them. Those not selected for careers would transition from active service. However, the career stability provided by natural attrition after selection for a career thereafter also has merit. Officership is a profession, and thus entry at the beginning of a career is best. However, there remains room for some lateral entry, especially from reserves, or from those with prior military service, or early in line careers or even later in support and professional skill groups.

Combined career structures (as used in the Career Selection alternative) can create any level of desired military experience. In general, the past professed need of the services for military experience has been for large numbers of officers with limited experience and fewer with lots of experience. This should change in the future as officers are expected to need more military experience to be properly developed at each grade. Additionally, the national military strategy may require more experienced officers.

We offer the following observations about the four personnel functions based either on our research or on our evaluation.

Accessing. Officers might come from many sources including from enlisted service. Acculturation prior to entry is needed and useful. Some foreign militaries provide more and some less than the United States; we have no basis for suggesting what is the proper amount, but it can vary by skill group as it does now. Acculturation through enlisted service is as useful as academy or ROTC experience. Accessing those with the potential for higher positions has been the central feature for this personnel function for many years, and we have no basis for suggesting other designs. Some requirements options and some career

management concepts will lead to different organization of the means of entry because the limited accessions needed may make the institutions of accession as currently structured not viable.

Developing. The military should have the best qualified officers. Officer careers should be based on meeting the requirements of the national military strategy as seen by the users of officers in the multiple commands, agencies, and departments. In the future, qualifications might be more related to needed, diverse skills and experiences than to ability to be promoted. Additionally, there needs to be greater recognition that all officers do not develop at the same rate nor can they be given the same development opportunities. Separate career paths for skilled individuals not on command tracks might be needed. Lateral moves to varied duties and responsibilities could keep work interesting and motivating for those who have reached advancement plateaus. Flexibility against future skill and not just grade needs should be the objective. Developing will be heavily emphasized in the future in the military as in the private sector. Experienced, but flexible, workforces will be the objective because user needs for certain officers will change more frequently.

Promoting. Fast tracks are useful in career management. Less numerical emphasis on promotion also appears useful in the future. Both can be accommodated by varying promotion zones. A design for a promotion function should incorporate a role for service grade requirements and individual pace of development, some fast-tracking through the system, and longer promotion zones in which the numerical emphasis of promotion objectives would be reduced. A design such as this lessens the relationship between age, grade, and length of service because it allows for merit to play a greater role in promoting and seniority a lesser role.

Transitioning. Longer careers appear to have merit for both the institution and the individual officer and should be part of a future system. Officers who commit to careers ought not to have to seek another career at midlife solely because of the career system. On the other hand, there is no reason that immediate annuities have to be paid to those who choose to leave. Transitioning should use many mechanisms to guide behaviors of officers. Vesting seems to be useful in allowing for needed behaviors to occur. Additionally, outplacement services and transition incentives to be used as needed for force management purposes should be continued because they promote flexibility by facilitating reductions throughout years-of-service profiles. Vesting could also induce voluntarily separation after limited service careers after causing junior officers to remain for a period beyond entry commitments. Greater stability in longer

careers with annuities payable at the 30 to 35 year-of-service point could accomplish the desired continuations of committed officers into careers.

Next Steps

The conclusions reached in this study were based on a broad method of analysis designed to provide analytical information about changes that could be made in the officer career management system. We set forth alternative future systems whose designs form a "tool box" from which needed policies can be selected to address DoD and service objectives for officer careers. The "tools" range from different types of basic career structures through designs for personnel functions such as accession and promotion. We also suggested criteria for measuring how well the systems meet the purpose and objectives of officer career management described in this report. We did not attempt to design or model *the* future officer career management system.

This research is the foundation for a process that should include the following steps:

- For both DoD and the military services, develop explicit objectives for officer career management and rank those objectives according to their importance.
- Select career flow structures and personnel functions that best achieve the stated objectives.
- Combine these structures and functions into a career management system.
- Design an implementation plan that includes a transition phase from the old to the new system.

Senior officials in the DoD and the military services should guide and participate in this follow-on effort, particularly to ensure that the objectives of the new management system are clearly and precisely defined. Those objectives will determine the nature of future careers for U. S. military officers.

Appendix

A. Methodology for Sizing the Officer Requirements Options

This appendix provides a short discussion of the initial data and the methodology used to model our various officer requirements options. It explains the relationship of the option to existing historical or projected officer requirements of the military services and states the modeling processes performed. The specific data on each officer requirements options have been archived and retained at the Logistics Management Institute.

The officer grade and skill data provided by the military services were the bases for the modeling of the Baseline Force presented in Chapter 2, and the Options 0 through 5 were officer forces introduced in Chapter 3. In particular, projected end Fiscal Year (FY) 1994 service data were the foundation of the Baseline Force. An historical end FY 1990 data set was the starting point for Option 2. Projected end FY 1999 data served as the initial underpinnings for the Option 0. The remaining Options 1, 3, 4 and 5 were then alternatively modeled using the data set established in Option 0.

Option 2 is the largest officer requirements option of those examined. The end FY 1990 data set contained nearly 240,000 officer requirements corresponding to an active force end strength of approximately two million. Also, the FY 1994 data consisted of active officer requirements corresponding to a 1.6 million total military end strength. Accordingly, Option 2 was modeled as a force midway between the FY 1990 and FY 1994 forces. To accomplish this, the FY 1990 data were decremented by approximately half the drawdown indicated between the FY 1990 and FY 1994 forces.

The active end strength associated with FY 1999 is 1.4 million as specified in the Bottom-Up Review.¹ The data set provided by the military services projected to this year did not contain all of the reductions necessary to achieve the directed end strength. Only the Marine Corps requirements were consistent with that service's DoD projected end strength. Consequently, the projected FY 1999 data (about 197,000 officer requirements) were downsized for the Army, Navy, and

¹Les Aspin, *Report on the Bottom-Up Review*, October 1993.

Air Force to 177,000, a level consistent with a 1.4 million end strength. These reductions of about 10 percent were taken in grades and skills commensurate with the drawdown pattern projected for each particular service. This sizing of 177,000 became the officer requirements for the Notional Force in Option 0. Lastly, the officer positions were grouped by selected DoDOCs into the four skill groupings defined in Chapter 2 and used in Chapter 3.

The decision rules we developed for Option 0 assigned all officer requirements in each standard two-digit DoDOC occupational group to one of our four major skill groupings. The assignments were decided based upon reviews of current service practices. In most cases, the assignment of each occupational group to one of the four skill groupings is representative of the service(s) that most closely parallels separate or special management of that group. For instance, the Navy is the primary model for the specialist and support groupings, since that department currently practices separate management for those type skills. In some cases where no current pattern could be established, such as behavioral scientists, the judgment on assignment to a particular occupational group was arbitrary. For instance, where the primary service management experience was in the line, those skills were retained in the line skill grouping. This is particularly the case where the occupational group involved a small population. In these latter cases, the arbitrary assignment made no significant shift in the overall makeup of requirements. Our primary objective was to demonstrate, at an aggregate level, officer requirements that are largely homogeneous in nature for separate management policies. There is no intention to imply a high degree of precision to this regime. These assignments are described in specific detail below for *line*, *specialist*, *support* and *professional* skill groupings.

The *line* skill grouping consists of the following two-character DoDOC groups:

- 1B Executives, (not elsewhere covered)
- 2 All tactical operations officers
- 3 All intelligence officers
- 4J Safety
- 5D Social scientists
- 5E Behavioral scientists
- 7B Training administrators
- 7H Police
- 7L Inspection
- 9 Nonoccupational

The *specialist* skill grouping contains the following DoDOCs:

- 4B Electrical/electronic
- 4C Communications and radar
- 4D Aviation maintenance and allied
- 4G Ship construction and maintenance
- 4H Ship machinery
- 4N Other engineering
- 5A Physical scientists
- 5B Meteorologists
- 5C Biological scientists
- 5J Mathematicians and statisticians
- 5K Educators and instructors
- 5L Research and development coordinators
- 5N Scientists and professionals N.E.C.
- 8D Procurement and production

The *support* skill grouping consists of the following DoDOCs:

- 4A Construction and utilities
- 4E Ordnance
- 4F Missile maintenance
- 4K Chemical
- 4L Automotive and allied
- 4M Surveying and mapping
- 5M Community activities officers
- 7A Administrators, general
- 7C Manpower and personnel
- 7D Comptroller and fiscal
- 7E Data processing
- 7F Pictorial
- 7G Information
- 7N Morale and welfare
- 8A General logistics
- 8B Supply
- 8C Transportation

- 8E Food service
- 8F Exchange and commissary

The *professional* skill grouping is defined to consist of the following DoDOCs:

- 5F Legal
- 5G Chaplains
- 6 All health care officers

The same modeled data, Option 0, including skill groupings, became the starting point for Options 4 and 5 directly. It was also the precivilianizing size for Option 3 and the starting point for the further downsize for Option 1.

For Option 1, it was necessary to generate officer requirements consistent with an active end strength of 1.0 million. Observations of officer content at active strengths of 2.0, 1.8, 1.6 and 1.4 million led to an estimate of 128,000 for the officer requirements of a 1.0 million force. As above, the FY 1999 data were reduced in a fashion reflecting an additional drawdown comparable in grade and skill content to that indicated by the pattern established by the FY 1990 and FY 1999 data sets. This was an additional 28 percent reduction beyond FY 1999 modeled levels. At variance from earlier options, the Marine Corps shared a proportion of the officer reductions for Option 1.

For the Streamlined and Reengineered Force in Option 3, the Option 0 data set was first subjected to civilianization—removal of selected officer requirements—using a prescribed set of percentages and common DoDOC areas.

- From support: . 50 percent of 4A, 7C, 7D, 7E, 7F, and 7G; all of 8F and 8G
- From specialist: 50 percent of 5L and 8D (R&D and procurement)
- From professional: 50 percent of 5F and 5G (Legal and chaplain); 25 percent of Area 6 (health care)

The remaining officer requirements were then modeled to downgrade some 4,000 field-grade officer position requirements—about 25 percent of the total field-grade officer requirements—in service management headquarters activities and centralized logistics DPPCs to O-3 position requirements. The resulting officer requirements in Option 3 were both smaller and with reduced field-grade content than Option 0.

Options 4 and 5 were modeled directly from Option 0. They retain the same size and service shares of the officer requirements. Simply put, selected officer requirements by specific DoDOC were moved from either the line skill grouping

in Option 4 to the specialist skill grouping or in just the opposite manner for Option 5. In Option 4, the Specialized Force option, fighter and bomber aircrew officers and submarine officers requirements in Option 0 were moved from the line to the specialist skill grouping using the following DoDOCs:

- 2A Fixed-wing fighter and bomber pilots
- 2D Aircraft crews
- 2E(-) Ground and naval arms (submariner positions only)

In Option 5, the Generalist Force option, selected engineering officer positions within the officer requirements of Option 0 were moved from the specialist to the line skill grouping using the following DoDOCs:

- 4B Electrical/electronic
- 4C Communications and radar
- 4G Ship construction and maintenance
- 4H Ship machinery

Grade and specific skills associated with archived service officer billets files were unaffected by the skill group changes in both Options 4 and 5.

B. Officership

Officers as Professionals

What is an officer? The officer corps of the United States military is "professional" when using that term as an adjective to mean competent or nonamateurish. For this research, we are more interested in the use of the term as a noun to convey a calling of an occupational group that requires specialized knowledge and long and intensive preparation.¹ Officers seek careers in the profession of "officership." We use the term "officership" to describe a construct that deals with the standard, defining criteria of a profession as applied to military officers.

Is "Officership" a Profession?

The professionalization of the officer corps, which began in the 19th century in Europe, increased dramatically in the United States after World War II. This development paralleled that of other professions (e.g., law and medicine), which have evolved from the 19th century to the present, with rapid development during the 1960s and 1970s. A variety of social, political, and economic changes have combined to alter the environment that facilitated the emergence and dominance of certain professions, military officers included.² As the military faces further uncertainty and change, it is useful to discuss the present status of the officer profession to help evaluate how change may affect the profession in the future.

What do we mean by *profession* and how do *officers* fit the defining characteristics of a profession? The term *professional* refers to occupational groups that have the capacity to control the production and distribution of certain kinds of goods and services. This control includes the ability to negotiate freedom from external intervention and to influence the conditions and content of the work. In the case of the officer profession, this general definition implies that officers, as an occupational group, have the capacity to control the production and distribution

¹This useful distinction between uses of the term "professional" is made by Terry Willett, "The Canadian Military: A Design for Tomorrow," *Canadian Defense Quarterly*, Spring 1993, p. 45.

²Robert A. Rothman, *Working: Sociological Perspectives*, Englewood Cliffs, NJ: Prentice-Hall, 1987; and Andrew Abbott, *The System of the Professions*, Chicago, IL: The University of Chicago Press, 1989.

of U.S. national security. Of course, the capacity of the profession is limited; it is not a monopoly, but the officer profession can significantly shape the development and implementation of national security activities.

The general definition implies several criteria for determining whether officership is a profession (see Figure B.1). Does it require or possess

- knowledge and skill expertise gained by formal education and long-term experience in the workplace, validated by formal examinations and credentials?
- career commitment and a closed community with strong feelings of loyalty?
- accession, assignment, and promotion based on competence?
- a formal code of law and ethics developed, maintained, and applied by the profession?³

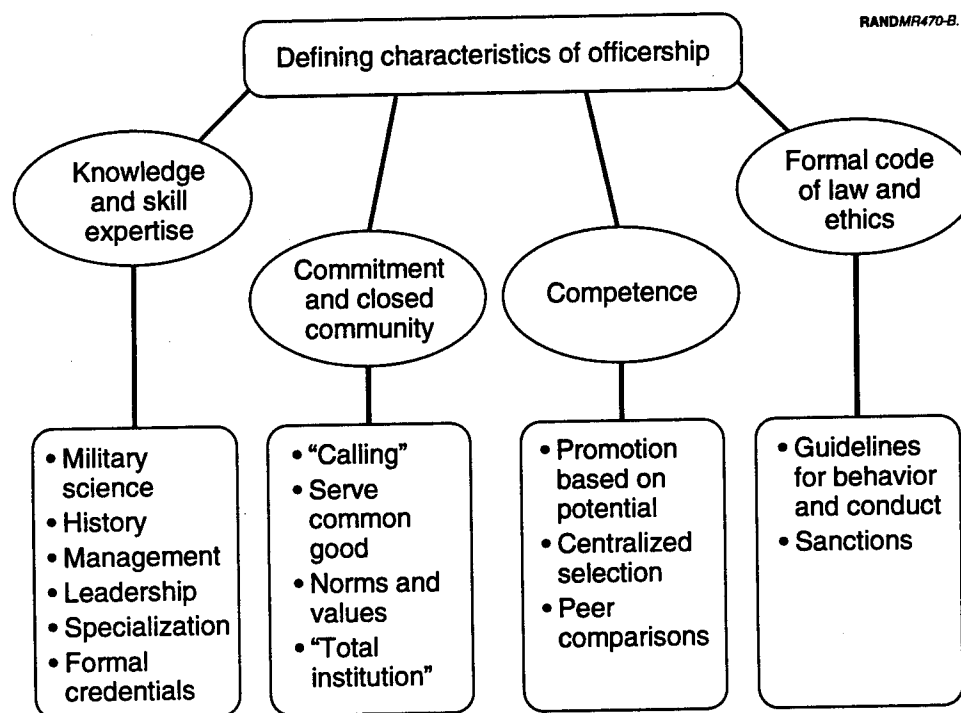


Figure B.1—"Officership"

³J.A.A. Van Doorn, "The Military Profession in Transition," in N.A.B. Wilson (ed.), *Manpower Research in a Defense Context*, New York: American Elsevier Publishing Company, Inc., 1969, pp. 451-459.

Knowledge and Skill

First, a prerequisite of even the most general definition of a profession includes specific occupational groups applying abstract knowledge to particular problems. In the development of other professions such as law and medicine, the increasing body of knowledge and the uneven quality of informal apprenticeship programs provided the impetus for establishing formal education programs. Similarly, in the military, as size, technology, and requisite skills changed, a need arose for establishing the military academies to train officers initially in military science, a body of knowledge and skill that is gained through formal education and experience. The military curriculum across services emphasizes both theory and practice. Some of the core components of the officer curriculum include military history, military science, operational art, military engineering, weapons design, personnel management, and leadership training, which facilitate teamwork, decisionmaking, and control of ambiguous environments during military maneuvers that promote national security.⁴

Although formal educational experiences are crucial in developing officers, additional professional development comes through experience—long-term experience. As former Army Chief of Staff General John Wickham stated,

Out of a twenty-year career, most officers spend three years in military schools, but the bulk of their careers is spent with troops or in staff positions. The cumulative experience gained in repetitive assignments in branch, joint, and functional positions—at progressively higher levels of responsibility—continues the professionalization of the officer corps.⁵

Commitment

Second, career commitment, loyalty, and identification with a specific occupational group are also professional criteria. Ideally, commitment to an occupational community stems from a sense of a "calling" and responsibility to serve the common good. Officers' responsibility to serve the common good explicitly reflects their commissioning oath to serve nation and constitution. Interviews with officers have revealed comparisons between officership and the ministry, both of which involve long-term commitment to a set of values that

⁴Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations*, Cambridge, MA: Harvard University Press, 1957; Morris Janowitz, *The Professional Soldier*, New York: The Free Press, 1971.

⁵General John A. Wickham, Jr. (retired), "Address at the Army Command Academy, Nanjing, China: The American Army and Professionalism," *Collected Works of the Thirtieth Chief of Staff, United States Army*, Department of the Army, 1987, p. 200.

transcend individual self-interest.⁶ Furthermore, there is evidence that those who anticipate a career as an officer espouse pro-military values and that these values are held before exposure to the socializing effects of actual military service or training.⁷

The values that are the bedrock of the officer profession are loyalty, duty, selfless service, integrity, and subordination of the military to the authority of the civilian government.⁸ Loyalty involves faithfulness and fidelity to the unit; the institution; and those above, below, and alongside in the hierarchy. Duty encompasses the moral and legal obligations that soldiers have to defend the United States. Doing what is best for nation, branch of service, and unit—in opposition to one's own interests—encapsulates the value of selfless service. It is the higher good that comes before selfish ambitions and individual desires. An additional value constituting the bedrock of the officer profession is integrity. Officers are to be honest with their superiors, officers of similar rank, and their subordinates. Finally, in a democracy, the military is subject to the authority of the civilian government, and this value is embedded in officers as they are socialized into the profession.

Commitment to a career as an officer entails entree into a closed community with strong feelings of loyalty. Sociologist Erving Goffman referred to this community as a "total institution," characterized by (1) all activities being carried out under a single authority, (2) the influence of the immediate company of others who hold the ideals of the institution, (3) a disciplined life fixed by a set of formal rules and procedures, and (4) all activities aimed toward fulfilling the official aims of the institution.⁹ A former general officer describes this more bluntly: "There is only one military in our nation. You are either in or out.

⁶Janowitz, *The Professional Soldier*, op. cit.; on the sociological concept of calling see Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, New York: Charles Scribner's Sons, 1958, pp. 54, 62, 79-92.

⁷Jerald G. Bachman, Lee Sigelman, and Greg Diamond, "Self-Selection, Socialization, and Distinctive Military Values: Attitudes of High School Seniors," *Armed Forces & Society*, Vol. 13, No. 2, Winter 1987, pp. 169-187; David R. Segal, John D. Blair, Joseph J. Lengermann, and Richard C. Thompson, "Institutional and Occupational Values in the U.S. Military," in Franklin D. Margiotta, James Brown, and Michael J. Collins (eds.), *Changing U.S. Military Manpower Realities*, Boulder, CO: Westview Press, 1983, pp. 107-127.

⁸Robert L. Maginnis, "A Chasm of Values," *Military Review*, February 1993, pp. 2-11; General John A. Wickham, Jr. (retired), "The Professional Army Ethic," *Collected Works of the Thirtieth Chief of Staff, United States Army*, Department of the Army, 1987, pp. 182-183; General Howard Graves, Superintendent of West Point, "Developing Leaders for the 21st Century," 1993; on the importance of the officer's sense of purpose, see Morris Janowitz, "From Institutional to Occupational: The Need for Conceptual Clarity," *Armed Forces & Society*, 1977, Vol. 4, No. 1, pp. 51-54.

⁹Goffman, *Asylums*, op. cit.; and "The Characteristics of Total Institutions," in Amitai Etzioni (ed.), *Complex Organizations*, New York: Holt, Rinehart & Winston, 1969.

There are no lateral transfers to another military. In other words, the 'company' is also the entire profession!"¹⁰

Describing the development of a community within the military academy, the Superintendent of West Point stated in a recent speech,

West Point succeeds in teaching . . . important values because its cadets are immersed for four years in a value-rich, professional military culture. They live twenty-four hours-a-day within a military organization, subject to an honor Code and military regulations, as well as the Uniform Code of Military Justice. Throughout the four years, they are educated by predominantly-military faculty role models who exemplify the essential values of the profession.¹¹

In a more general way, the following comments by an officer emphasizes the unique experiences that foster commitment to the military community,

The Army is a total institution that replaces individual values with the institution's values. It does this by providing its members with experiences that are significantly different from those encountered in their past civilian lives. These experiences are attributed to powerful [psychological] processes, which create intense comradeship and egalitarianism.¹²

Commitment to the values of the officer corps profession and the periodic intense socialization events lead to a unity of experience and orientation, out of which develops a community loyal to a common purpose and action (i.e., professional culture).¹³

Competence

A third element of officership is competence. Not only must a professional apply abstract knowledge to specific problems, he or she must apply it proficiently. Samuel Huntington (1957) described the skills required by officers as being neither craft nor art, but "an extraordinarily complex intellectual skill requiring comprehensive study and training." Despite the varied array of departments and experts (engineers, doctors, pilots, intelligence, communications), a "distinct sphere of military competence" is common to officers. The duties of the officer include the organization, equipping, and training of the force; planning its

¹⁰Ulmer, *Inside View*, op. cit., p. 7.

¹¹Graves, op. cit., p. 5.

¹²Maginnis, *A Chasm of Values*, op. cit., pp. 2-3.

¹³Sanford M. Dornbusch, "The Military Academy as an Assimilating Institution," *Social Forces*, 1955, Vol. 33, pp. 316-321.

activities; and the direction of its operation in and out of combat.¹⁴ This unique competence is typically described as effective military experience.

Competence is emphasized throughout the career of a military officer. Centralized promotion boards that in principle make promotion decisions based on experience and competence in different roles promote those who have the greatest leadership potential to meet the challenges of increased responsibilities. In the current workings of the system, the best-qualified advance in the profession; those who are fully qualified may be allowed to continue in the profession, but most are separated "out." This separation of the fully qualified is atypical; in a profession, all who are qualified normally continue. Although debate continues about whether certain characteristics (e.g., gender, ethnicity, and race) remain significant determinants of officer career paths, ability and achievement have become critical as the officer profession has developed since the 19th century.¹⁵

Formal Code

A fourth element of the officer profession is that there is a formal code of law and ethics, which is developed, maintained, and applied by the profession. Each branch of the military has guidelines for behavior and conduct that are strictly enforced. Failure to comply leads to sanctions such as punishment or discharge. Formulation of the ethical standards, investigation of violations, and application of sanctions are also conducted by military officers. Self-regulation of ethical principles of conduct relating to the professional group's conduct of practice, behavior toward clients, interaction with colleagues, and relationships with allied professions is a professional criterion that applies to military officers as it does to other professions.¹⁶

In summary, given the criteria typically used for determining whether an occupational group is a profession, characteristics of military officers' roles, values, culture, and activities suggest that "officership" is a profession. Despite the debate in the sociology of the military literature about whether the military in general constitutes a profession, the consensus holds that the term profession is applicable to military officers.¹⁷

¹⁴Huntington, *The Soldier and the State*, op. cit., pp. 11, 13.

¹⁵Janowitz, *The Professional Soldier*, op. cit.; David R. Segal, *Recruiting for Uncle Sam*, Lawrence, KA: University Press of Kansas, 1989; Bruce A. Brant, "Vanguard of Social Change?" *Military Review*, February 1993, pp. 12-19.

¹⁶Rothman, *Working*, op. cit., pp. 71-76.

¹⁷Janowitz, *From Institutional to Occupational*, op. cit.; Cathy J. Downes, "To Be or Not to Be a Profession: The Military Case," *Defense Analysis*, 1985, 1, pp. 147-171.

Change and the Defining Characteristics of Officership

The nature and meaning of officership have as much importance as concepts for career flow structures and personnel functions in the design of an officer career management system, because the career management system must support the future construct of officership. Change affects requirements for officers, the objectives and structures of the career management system, and the defining characteristics by which one understands officership. One can assess the amount and direction of future change in officership by reviewing the defining characteristics and how they have changed and may change.

At present, the military is facing many changes that are interrelated in complex ways. The purpose here is simply to highlight some likely changes as they relate to the defining characteristics of officership that will have implications for future officer management. As previously stated, the national military strategy has changed from emphasis on the containment of the former Soviet Union and communism. The perceived threat will most likely no longer be primarily a single entity as it was in the past. Other changes in technology, the economy, demography and culture, and the demands of officers will affect the defining characteristics of the officer profession, particularly the knowledge, skills, and nature of the closed community. Amidst this complex web of change, it is unlikely that emphasis on a core of military values will change as much as some of the other defining characteristics of officership.

The movement away from large-scale wars to other types of conflict management is likely to change the requisite knowledge and skills of officer as they relate to military science and management. As van Creveld points out, the ability to fight and win a war—classic military effectiveness—has given way to much broader notions about military effectiveness including a redefinition of war as deterrence or as the “creation and maintenance of armed forces.”¹⁸ As this happened, the military profession started to alter in ways that have yet to completely play out.

During the fifties *defense* and *security* gradually supplanted *war*, thus gaining a double advantage. First unlike war, defense and security were continuous and could be presented as of overriding importance even in peacetime. Second they included not only strategy (how to deploy one's forces), operations (how to maneuver them in the theater of war), and tactics (how to make them fight when in contact with the enemy) but almost every conceivable aspect of human existence.¹⁹

¹⁸Van Creveld, *Command in War*, op. cit., p. 102.

¹⁹*Ibid.*, p. 71.

This broader notion of national security means that knowledge about it is not just in the purview of the military officer. Many academic institutions in the United States offer courses (apart from ROTC) that deal with national security. The national security community has come to include a vast array of politicians, academics, businessmen, and serving military officers.

Also, conflict is no longer left to the full-time uniformed military in the United States. It is no longer a case of being "in or out" of a total institution but a case of fuzzy boundaries about in and out. Beginning in 1970, the Total Force Policy stipulated that all sources of manpower—full time, reserve, civilian—should be considered in building forces. "Amateurs" and those without any prior military experience can count in a theater of operations. Indeed, a civilian, Robert Oakley, was described by the former Chairman of the Joint Chiefs of Staff as the CINC in Somalia; a DoD civilian was the first casualty in that operation. For the future, there is not "in and out" but maybe only some groups who are more "in" than others.

An additional strand in this change is technology, more specifically the merging of civilian and military technologies in the service of national security in the broadest sense. At the same time that the defense laboratories are attempting to adapt military technologies for civilian use in order to stay relevant to society, the military is moving toward greater use of commercially available technologies for military use. Communications is another example. Not only can the battlefield be monitored in real time from the White House or the Pentagon, but it can also be watched from the living rooms of the nation via CNN and other news sources. Everyone is more connected to military forces.

Economic constraints on the military (e.g., budget) are another change confronting the military. With a downward shift in resources allocated to the military and the changing nature of its mission, there will no doubt be changes in military priorities. How much will the military be able to spend on advanced technologies? Will cost constraints result in common, generalist platforms or specialized platforms? How many officers will the military be able to attract and retain? The answers to these questions will have significant implications for defining the nature of officers' knowledge, skills, and specialties and the managing of the military and officers' careers.

The relationship between the military and society is also likely to change, with significant effects on the closed nature of the military community. Over time, the military has become less isolated from society, making it more difficult to maintain a closed community. This relative autonomy of the military vis-à-vis society is likely to decrease even more if current trends continue. For example,

military bases are less like islands in the sea of society and are becoming more integrated with local government and economic infrastructures for housing, schooling, medical care, banking, retail, restaurants, and many other goods and services. Some have argued that this integration of the military into local communities is helpful for generating the public's confidence, decreasing costs, increasing satisfaction, and decreasing dependence of officers and their families on the military alone.²⁰ Furthermore, as American society continues to become more diverse—demographically and culturally—the pressures on the military to accommodate these changes will increase. The recent debate over gays in the military is but one example. Public debate about what our nation's national security policy should be in the post-Cold War era is yet another example.

Finally the demands of officers themselves have shifted and altered the defining characteristics of the officer profession, and they will continue to do so. For example, the requirements for joint duty assignments may result in a culture of jointness that supplants the separate cultures of the Army, Navy, Air Force, and Marines.²¹ In addition, if civilian spouses of military personnel increasingly seek employment on their own and if the number of dual military and single parent households within the military continues to rise, issues of rotations and deployment will be problematic. Also, if the vast majority of the U.S. military force becomes stationed on this continent as anticipated, those officers who are interested in mobility and adventure are likely to be disappointed. Furthermore, the nature of overseas missions may change from officers being the managers of warriors to soldier diplomats and soldier statesmen, especially if there is more involvement in peacekeeping missions.²² All of these changing demands from within the military are likely to change both the knowledge and skills as well as the closed nature of the military community.

In short, changes in threat, military strategy, technology, societal demographics and culture, the economy, and the demands of officers themselves are likely to change the defining characteristics of officership. *Most likely to change are the needed knowledge, skills, and experience and the nature of the closed community.* But in the face of these changes, a defining characteristic of officership that is likely to be maintained is the core values of the military. The military is likely to continue promoting specific values: loyalty, duty, selfless service, integrity, and respect for the Constitution and what it means in civil-military relations. Management

²⁰David R. Segal, *Organizational Designs for the Future Army*, U.S. Army Research Institute for the Behavioral and Social Sciences, Special Report 20, 1993.

²¹For a description of the different cultures of the military services, see Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis*, Baltimore, MD: The Johns Hopkins University Press, 1989.

²²Segal, *Organizational Designs*, op cit., p. 39.

theory claims that values constitute the foundation of organizational cultures; the military has a long tradition of cultural acculturation of its members; officers will probably continue down this path. However, given the present national security issues, what this culture is oriented toward will change. No longer can the educational institutions and the officer profession assume a singular orientation characteristic of the Cold War era. Rather, the increasing complexity of national security priorities will have an effect on how the bedrock values of the military are carried out in flexible and adaptable ways.

C. Career Satisfaction

Introduction

Career satisfaction is largely a matter of an individual officer comparing his/her career (and life) expectations with those being offered by a military career. In theory, this comparison is made on a regular basis—and at certain key career junctures such as reassignment, promotion, selection for an assignment with a service obligation—and leads to a decision regarding career satisfaction and commitment. Assuming a somewhat rational model, the individual decision process can be understood and analyzed by identifying and evaluating the factors that influence this decision.

In identifying career satisfaction factors we looked at the current individual values and career expectations of officers, investigated what influences these values and expectations, and anticipated how these influences will shape future career expectations. We found that commitment—whether the officer desires to remain in the service at a given career juncture—is a measure of career satisfaction, given that the individual is a rational decisionmaker. We found career satisfaction to be influenced by professional considerations, economic factors, and occupational and family considerations. All are evaluated by the officer relative to the prevailing culture and environmental factors.

Framework for Evaluation

This discussion divides the factors that influence career expectation and career satisfaction into two groups: *economic considerations* (e.g., compensation and retirement benefits) that one would expect to be decided using an economic choice model and *occupational and family considerations* (professional satisfaction,¹ job satisfaction, advancement opportunities, relocation, etc.) that would be evaluated using a more subjective decision process. While these groups are clearly interrelated, this categorization will help focus the analysis.

¹Officership and professional considerations as they relate to career satisfaction are discussed in Appendix B.

Evaluation

Past analytic efforts regarding retention have been primarily related to economic considerations. While there have been many surveys and studies regarding job satisfaction, organizational culture, and family issues, there have been limited efforts to integrate these factors. A study on officer retention identified problems that have made "estimation of retention behavior difficult and prediction hazardous."² They found that any economic retention model must recognize that "as an individual's opportunity set is modified, so is his behavior."³

This report also notes that retention models must allow examination of changes to compensation policy (pay, bonuses, and retirement structure) and personnel policies involving promotion opportunities and timing as well as separation policies.⁴ Our analysis investigates how different career flow structures and the key elements of personnel policies directly—or indirectly—affect the factors that are guiding the individual's decision on retention.

Evaluation of Economic Considerations. The economic considerations are not as simple as they once were. As was noted earlier most are affected by environmental factors such as economic conditions (inflation, job growth, etc.), civilian job opportunities, and alternative civilian compensation. The dynamic changes in culture also make analysis of the future more difficult.

Pay and perceived promotion opportunities are important determinants of career satisfaction. "Not surprisingly, there is almost universal agreement among researchers that compensation is a major, if not the major, factor in [retention] decisions. The question is not whether pecuniary incentives affect retention, but how much they affect it."⁵ Studies regarding the relative importance of nonpecuniary factors produced mixed results. The overall conclusion regarding nonpecuniary factors was that not enough studies included both economic and noneconomic variables in the same design to draw a firm conclusion.⁶ The civilian studies also found a significant relationship between retention and the "perceived probability of promotion."⁷

²Glenn A. Gotz and John J. McCall, *Estimating Military Personnel Retention Rates: Theory and Statistical Method*, Santa Monica, CA: RAND, R-2541-AF, June 1980, p. 3.

³Ibid.

⁴Ibid. p. 7.

⁵Gerry L. Wilcove, Regina L. Burch, Aileen M. Conroy, Reginald A. Bruce, *Officer Career Development: A Review of the Civilian and Military Research Literature on Turnover and Retention*, Navy Personnel Research and Development Center, September 1991, p. A-22.

⁶Ibid., p. A-23.

⁷Ibid., p. A-21.

For officers in the military, pay is related to promotion. A recent survey found Army officers skeptical that the current evaluation *system* is effective for promotions and downsizing decisions.⁸ Overall, however, 62 percent are satisfied with their promotion and advancement opportunities in the Army. In the 1985 DoD⁹ survey, 59 percent of all officers regarded promotion opportunities as favorable.¹⁰ Satisfaction with promotion opportunities decreases with years of service for officers, which could reflect perceived inequities of the promotion system.¹¹ In the current promotion system, promotion opportunities decline as years of service increase.

Officers were also concerned that their pay would not keep pace with the rate of inflation in the economy (1985), and a majority of Army officers in 1985 and 1992 agreed with the statement that financially their families would be better off if they took a civilian job.¹² Officers also felt that retirement benefits would be worse in the future (83 percent).¹³ The percentage of Army officers believing that

⁸Only 31 percent believe that they will be promoted to the highest rank their ability will allow (arguably some officers may rate their ability with a substantial amount of bias), and 29 percent believe that the current system will be fair in choosing those military personnel for reductions in force.

⁹The DoD conducts surveys, covering all of the services, on a periodic basis. In 1978/1979 and 1985 the DoD conducted the Survey of Officers and Enlisted Personnel; the 1985 survey included a survey of military spouses. The same survey was conducted covering 1991/1992; however, the data have not yet become available. These surveys are conducted in an attempt to monitor the response of military members to past, current, and future policy changes. The most current data available are from the 1985 DoD Survey of Officers and Enlisted Personnel. Data are collected on members' personal and military background, economic status, family composition, rotation experience, preparedness, and plans for continuing in the military given alternative policies. The DoD surveys, and accompanying reports, provide data to evaluate personnel policies on the basis of satisfaction, performance, and cost.

The Army Research Institute conducted the Army Career Satisfaction Survey (ACSS) in 1990, and the Survey of Total Army Military Personnel (STAMP) in 1992. The purpose of STAMP was to collect data on "climate and morale, organizational commitment, leadership, training needs, stress and reenlistment/career plans; personal, family, and economic difficulties in deployment; adequacy of preparation for mobilization/deployment; and reactions to specific personnel management policies" (e.g., voluntary separation incentives, combat exclusion policies, etc.). Information collected is designed to help policymakers.

¹⁰In 1985, the requirements for future officers were more likely to come from retaining current members than from future recruiting from the declining numbers of college graduates. Given retention as an outcome, the survey measured several indicators related to satisfaction and career intentions. Among the indicators were morale, frequency of moves, the necessity for living and working overseas, military pay and benefits, promotion policies, and opportunities for civilian employment.

¹¹Mary Ellen McCalla, S. Rakoff, Z. Doering, and B. Mahoney, *Description of Officers and Enlisted Personnel in the U.S. Armed Forces*, Arlington, VA: Defense Manpower Data Center, 1985, p. 233.

¹²Lisa M. LaVange, M. McCalla, T. Gabel, S. Rakoff, Z. Doering, and B. Mahoney, *Description of Officers and Enlisted Personnel in the U.S. Armed Forces: 1985: Supplementary Tabulations from the 1985 DoD Survey of Officers and Enlisted Personnel*, Vol. 3, pp. 10-57; U.S. Army Research Institute, 1991/1992 *Surveys of Total Army Military Personnel (STAMP): Active Duty Officers Responses*, June 1992.

¹³McCalla et al., *Description of Officers*, op. cit.

the Army would protect their benefits has declined from 1990 (61 percent) to 1992 (56 percent).¹⁴

However, a report concluded that "retirement pay is an overwhelming inducement for officers beyond the tenth year of service to remain in the force."¹⁵ The report went on to suggest that, from an economic perspective, the optimal retirement policy for lieutenant colonels is 23 years of service and for colonels is completion of 26 years of service.¹⁶ While few officers are still majors after 20 years service, those who are should retire then. The system, thus, seems to create a financial incentive for most officers to retire before 30 years of service—and seek a second career.

Civilian job alternatives were an important consideration in retention decisions. Not surprisingly, this factor was particularly sensitive to unemployment rates and the availability of attractive job opportunities; also the differential between military and civilian compensation was important. Survey data revealed that officers increasingly perceive civilian employment possibilities as scarce. In 1990, 32 percent of Army officers believed that it would be difficult to find a good civilian job—rising to 40 percent by 1992.¹⁷ This increase reflects the current state of the economy, especially high civilian unemployment rates.

Evaluation of Family and Occupational Considerations. A recent literature survey regarding factors that influence career retention identifies and discusses the key factors affecting retention in several categories: personality characteristics, interest inventory scores, job challenge, supervisory style, spousal support, organizational characteristics and practices, pay and promotional opportunities, availability of civilian jobs, measures of job satisfaction, organizational commitment, and met expectations.¹⁸ This effort considered several hundred research efforts regarding both military and civilian retention. The results indicate several key variables that are important considerations when evaluating career satisfaction and determining whether to remain on active duty.

Job satisfaction was the most consistent relationship regarding retention in both the civilian and military literature. "The greater the challenge, the less turnover in an organization."¹⁹ Especially important was the contribution of challenge

¹⁴U.S. Army Research Institute, *STAMP*, op. cit.; Army Career Satisfaction Survey (ACSS), 1990 (briefing charts).

¹⁵Gotz and McCall, *Estimating Military Personnel Retention Rates*, op. cit., p. 17.

¹⁶*Ibid.*

¹⁷U.S. Army Research Institute, *STAMP*, op. cit.; Army Career Satisfaction Survey (ACSS), 1990 (briefing charts).

¹⁸Wilcove et al., *Officer Career Development*, op. cit., p. viii.

¹⁹*Ibid.*, p. 3.

and autonomy.²⁰ Other elements of job satisfaction were associated with the supervisor's style and satisfaction with coworkers.²¹ Recent DoD studies indicate high levels of job satisfaction. In 1985 over 60 percent of all officers responded that they were either satisfied or very satisfied with the military as a way of life.²² Over half of all Army respondents (1992) were also satisfied with the control they had over job assignments.

Organizational culture or characteristics were other important considerations; military studies and surveys addressed such specific issues as organizational emphasis on human resources, fairness of the assignment process, and policies regarding living conditions and family issues.²³ An overwhelming majority (87 percent) of officers were satisfied with the competency levels of their coworkers and their supervisors; 85 percent found their jobs challenging.²⁴

Like corporate downsizing, reductions in force (RIFs) can affect the morale of survivors. If these separations are handled well, those who remain will not be adversely affected (e.g., in terms of morale, productivity, or readiness). "If survivors' productivity and morale are hampered, the organization stands to lose a significant proportion of the savings it hoped to achieve through a workforce reduction."²⁵ Left unattended to, survivors are apt to feel some degree of job insecurity; this is especially true in organizations that had been considered stable places of employment such as the military, or in the private sector in companies that have no history of layoffs (e.g., IBM). Experts find that the commitment of employees drops after downsizing; for the military that may mean a loss in force readiness.²⁶ Officers reflect this with their anxiety regarding RIFs: 61 percent of Army officers expressed an interest in receiving more information on future RIFs, and 66 percent listed RIFs as their primary source of career uncertainty.²⁷

Family life, including spousal support, personal flexibility, and separation from family, were important social considerations. Numerous military studies indicate "spousal support as a key variable in the service member's decision to remain in the military."²⁸ In 1992, only 37 percent of officers reported that their

²⁰Ibid.

²¹Ibid.

²²McCalla et al., *Description of Officers*, op. cit.

²³Wilcove et al., *Officer Career Development*, op. cit., p. 4.

²⁴U.S. Army Research Institute, *STAMP*, op. cit..

²⁵Brian S. Moskal, "Managing Survivors," *Industry Week*, August 3, 1992, pp. 15-22.

²⁶Ibid., p. 18.

²⁷Army Research Institute, *STAMP*, op. cit.

²⁸Wilcove et al., *Officer Career Development*, op. cit., p. viii.

spouses were satisfied with the level of concern the service held for families.²⁹ At the same time, more Army officers were dissatisfied with the opportunities their spouses had for careers or work than were satisfied. No information was provided on what influences the spouse regarding his/her perceptions or support. Interestingly, the studies were inconclusive (almost bipolar) regarding the importance of family separation as a retention issue.³⁰

Job expectations, as related to prior knowledge of both the positive and negative aspects of the organization, also influenced propensity to remain in a job. In 1985, over 70 percent of all officers agreed with the statement, "military life is as I expected,"³¹ implying that the acculturation process described earlier is successful. At the same time, the "literature indicates a strong relation between intention to quit and actual turnover behavior."³²

Evaluation of Environmental and Cultural Considerations. In addition to economic, occupational, and family considerations (Figure B.1), career satisfaction and retention are influenced by changes to the cultural and environmental factors. Today's military society is defined by several emerging characteristics representing different values and social norms: More officers are married; there is a larger number of cases where both family members have careers away from the home (often both in the military); and there is more division of household responsibilities, greater importance of leisure activities, and larger expectation of organizational support for the family (child care, time-off for family responsibilities, etc.).

The results of recent studies on demographics, workforce composition, and diversity suggest several factors that will affect future career satisfaction, retention, and career management. Several studies have been conducted on labor force trends to the year 2000;³³ key findings from most sources include (1) labor force growth rate is low; (2) the average age of workers is rising; (3) more women are entering the workforce; and (4) minorities constitute a rising share of new labor force participants.³⁴

²⁹Army Research Institute, *STAMP*, op. cit.

³⁰Wilcove et al., *Officer Career Development*, op. cit., p. A-14.

³¹McCalla et al., *Description of Officers*, op. cit.

³²Wilcove et al., *Officer Career Development*, op. cit., p. A-29.

³³The Bureau of Labor Statistics periodically projects labor force trends over a 10 year horizon. The Hudson Institute conducted a study under contract with the Department of Labor, William B. Johnston, *Workforce 2000: Work and Workers for the 21st Century*, June 1987.

³⁴*Ibid.*; Interstate Conference of Employment Security Agencies (ICESA), *Workforce Trends: An Assessment of the Future by Employment Security Agencies*, 1990; National Alliance of Business, *Employment Policies: Looking to the Year 2000*, 1986.

The number of women entering the workforce continues to rise. Participation rates for women increased from 46 percent in 1975 to 58 percent in 1990. And while increases over the 1990–2005 period will be slower, overall participation will increase by 6 percentage points—reaching a rate of 63 percent by the year 2005.³⁵ This trend stresses the need for organizations to have comprehensive policies and management processes in place that provide for equal treatment among the sexes as well as minorities.

The officer ranks are still primarily male; in 1985 the officer ranks were 90 percent male; and the variation from 1978–1979 was small, ranging from two to three percentage points.³⁶ However, the trend toward fuller integration of women into the military makes the matter of sexual discrimination very important. As women continue to enter the military in larger numbers, the culture will have to change to facilitate the expanding role of women in all grades and skill groups. Change is necessary to “prevent sexism rooted in tradition from interfering with organizational functioning.”³⁷ Evidence from the military supports the claim that discrimination based on gender greatly affects the satisfaction of female soldiers.

With more and more women entering the workforce, the traditional role of women in society has also changed. This changing role for women has a strong effect on the traditional family. A recent *Harvard Business Review* article suggests that to be successful in the future both men—and the organization—must redefine their roles. In contrast to the breadwinner of the 1960s and the fast-tracker of the 1980s, “today’s organization man faces a contracting economy in which corporations are restructuring, and laying off thousands of employees,” and he faces increasing family responsibilities because of a working wife.³⁸ The article goes on to say that “Just as many senior managers now recognize they’ll lose their most ambitious women if they don’t develop strategies to accommodate family needs, . . . corporations [must recognize they] will also lose their best and brightest men if they don’t address the needs of the 1990s man.”³⁹

Studies on family issues, and their effects on officer satisfaction, suggest that as traditional families change, the services must respond. Segal states that, “there have not been major institutional changes in the demands that the Army makes

³⁵Howard N. Fullerton, Jr., “Labor Force Projections: The Baby Boom Moves On,” *Monthly Labor Review*, November 1991, pp. 31–44.

³⁶McCalla et al., *Description of Officers*, op. cit., pp. 41–42.

³⁷Segal, *Organizational Designs for the Future Army*, op. cit., p. 44.

³⁸Kimmel, “What Do Men Want?” op. cit., p. 50.

³⁹*Ibid.*, p. 51.

on service members and their families."⁴⁰ There are two emerging family structures that all employers will have to address to maintain employee satisfaction: dual-career couples and single-headed households. The services have a third family structure to which it must respond—dual-military-career couples.

Women now represent one-half of all college entrants, implying that women are entering into professions in larger numbers than before.⁴¹ Although measures have been taken to help spouses find jobs when relocation occurs, it may be that civilian-employed military spouses will be less flexible than before. Career continuity may begin to pose special problems for military spouses. Research on relocation policies for two-earner families in the private sector highlights several emerging issues that the military will have to address, "To the extent that education and level of earnings define a 'career' versus a 'job,' . . . the number of two-career couples is growing," and "a career spouse who relocates needs more than salary replacement—career continuity and growth are also important. The more specialized or highly paid the spouse, the more difficult the job search."⁴² Still some recommendations remain the same, "the Services should consider longer tours in one location, job banks, education and job training services, expanded child-care facilities, and coordination with civilian employers."⁴³

The Air Force has already recognized the problems associated with working spouses and has created a comprehensive program to assist military spouses find employment. The plan includes "promoting the hiring of spouses in the civilian community, establishing links to local business and professional organizations, developing information on volunteer and self-employment opportunities, creating an employment resource center, and compiling information on the local job market."⁴⁴ The other services have developed similar programs.

Moskowitz and Brown, the authors of *The 100 Best Companies to Work for in America*, found that private sector companies are aware that dual-career couples is a major trend and have tried to deal with the issue by providing both flextime and child care. Flextime allows a worker a greater degree of control over his or her work environment. The problems that arise due to dual-career couples with families are more easily resolved if parents are able to rearrange a schedule if

⁴⁰D. R. Segal, *Organizational Designs*, op. cit., p. 45.

⁴¹Ibid.

⁴²Arlene B. Johnson, *Relocating Two-Earner Couples: What Companies Are Doing*, The Conference Board, Research Bulletin No. 247, 1987, p. 4.

⁴³Mady Wechsler Segal, "The Military and the Family as Greedy Institutions," *Armed Forces & Society*, Vol. 13, No. 1, Fall 1986, p. 33.

⁴⁴Johnson, *Relocating Two-Earner Couples*, op. cit., pp. 17.

necessary. Providing child care eliminates the uncertainty of finding adequate care and the economic burden of such care, when both parents work.

Female military members are more apt to be married to other military members, or men who have served in the past.⁴⁵ In 1978–1979 approximately 10 percent of married officers were married to another member of the Armed Forces.⁴⁶ The number of dual-military-career couples is expected to rise as the number of women entering the military increases. This increase is expected given the proximity of mate selection.⁴⁷ Dual-military-career couples present problems in terms of coordinated assignments and are complicated by short-term deployments. However, this type of working couple may be easier in terms of some policies, since dual-military-career couples do not require coordination of employment with civilian employers. Also, problems arising from spouse support of a military member are fewer in a dual-military-career family.⁴⁸

The percentage of single-headed households among the officer ranks has never exceeded 4 percent. As the number of women in the military increase, this may become an issue, because currently single-headed households are predominantly female-headed households.

Future Occupational Considerations

Studies show job satisfaction to be the most important occupational consideration and suggest that challenge and autonomy are the keys to retention. Whether future officers perceive autonomy and challenge in specific positions will be determined by the organizational culture and the officer development and assignment process. Important factors are the frequency of reassignment, opportunities for increasing responsibilities, and education experiences, as well as the richness of each assignment. With the decreasing force structure and the reduction in command positions, it will be important to ensure a slate of challenging positions through careful organizational design. Diversification into other peacetime (humanitarian) missions will help this effort. It should be noted, however, that in the past during periods of diminished threat and limited resources, military training and education programs have been reduced. Resource priorities must consider job satisfaction effects or retention will suffer.

⁴⁵M. W. Segal, *The Military and the Family*, op. cit.

⁴⁶*Ibid.*, p. 27. Data from the 1978/79 DoD Survey of Officers and Enlisted Personnel.

⁴⁷D. R. Segal, *Organizational Designs*, op. cit., p. 45.

⁴⁸M. W. Segal, *The Military and the Family*, op. cit. p. 29.

By the beginning of the 21st century, the military culture will be quite different from that of today. Most senior military leaders will have working spouses, most will be computer literate, fewer will have served in Vietnam, and they will be more sympathetic to the family demands of the military officer. Future policies regarding career development, assignment, professional development, and promotion must consider that larger portions of the military will be women or minorities or dual-career couples or dual-military-career couples or single parents.

Organizationally there will be fewer (and probably larger) bases, there will be fewer overseas assignments but more short-term, unaccompanied deployments. Assignments will probably be of longer duration. Future military activities are likely to include more missions other than war, and humanitarian undertakings. This shift will probably make the military culture more appealing to young officers.

A key issue relates to the long-standing military policy of periodic reassignment for all officers. Some of this regular relocation could now be eliminated because the reduction in overseas deployments precludes the need for reassignment to preserve fairness and equity. Nonetheless, there are clearly more parameters to consider when determining whether to reassign an officer and where. Several of the paramilitary organizations have developed options allowing "homesteading" of professionals—although with the understanding that it may limit opportunities for advancement. This type of career groupings should be investigated.

Reassignment orders for the military member creates the need for an immediate job search by the spouse and triggers an assessment of whether to remain in the service. (Conversely an opportunity for relocation or promotion by the nonmilitary spouse may cause a similar reevaluation.) Location then becomes an interrelated issue because some military bases are remote and do not provide an appropriate professional job market for spouses.

With increasing family responsibilities and changing values, it must be recognized that everyone does not want to be a manager or in a leadership position. Some officers will be highly competent technicians or functional experts who want to grow in their field rather than diversify. The career development system should provide an acceptable blend of generalists (destined to be senior leaders) and allow specialists who lead only in their functional area. This necessitates an accession program that is compatible with the requirements for different skills.

Job expectation is related to organizational culture in that if the acculturation program that begins before accession (ROTC, service academy, etc.) is successful, then individuals will be comfortable in their first assignment and build on that acclimation.

In the past, the security of a job that was not vulnerable to economic or market conditions was an important consideration to officers. The perception was that if an individual worked hard and met professional standards he or she would have job security. In the past few years, however, reductions in force and involuntary retirements of high-quality officers has raised doubts about the true "job security" of a military job. To the extent that the opportunity for a midcareer (20 year) retirement exists, it will provide an anchor for job security. However, Towers Perrin suggests that in the future organizations will expect greater mobility.

While the fairness and equity of the promotion system are important, the overall importance of promotion is likely to diminish unless it remains a criterion for retention.

Future Family Considerations

This may be the dominant retention issue of the future. Family issues and responsibilities are becoming more important to officers. While the military response to date has been timely—child development centers on bases, employment preferences for some transferred spouses, assignment consideration to dual-military-career families, etc.—there are many challenges ahead. Within this area, spouse satisfaction has become a key consideration. This is complicated because spouses may vary from the traditional home mother (or father) to senior executives in multinational organizations—and thus have quite different expectations. The military culture—and the career management system—must be flexible enough to adapt to the different and changing family needs.

Officers are also more concerned with their long-term career opportunities: Percentages expressing concern rose from 23 percent in 1990 to 44 percent in 1992.⁴⁹ Still, over one-half of all Army officers are satisfied with their level of job security, and only 36 percent are currently seeking information about civilian employment.

⁴⁹U.S. Army Research Institute, *STAMP*, op. cit; briefing containing a comparison of responses between the ACSS in 1990 and the 1991/92 *STAMP* on issues pertaining to career satisfaction; Tom Philpott, "Pessimism Already Growing," *Army Times*, June 14, 1993.

Future Economic Considerations

Without trying to predict actual future economic conditions, it is clear that private sector economic conditions will have a considerable effect on decisions regarding job satisfaction and retention.

While pay and compensation are likely to remain important considerations, they will become more individual and situational issues. Many officers have working spouses, so family income is the important consideration, and in many cases, the nonmilitary income is greater. Nonetheless military compensation (as it contributes to the family income) will remain a major issue for career satisfaction and must remain at competitive levels or retention will be affected. It cannot, however, be evaluated independent of other job satisfaction considerations.

Most officers reach current retirement eligibility (20 years of service) between ages 40 and 45, a time when their financial responsibilities are greatest—college education of children, mortgage payments, retirement investment, financial support to parents, etc. Thus, cash flow may be a problem, and they cannot afford to be unemployed for an extended period of time. Timing becomes important. Under the current two-career system, the prudent officer begins looking for second career options when nearing retirement eligibility and may feel forced to take the first viable opportunity.

At one time, health care was a key retention issue for military personnel. However, with more military personnel using CHAMPUS and with most private sector health care plans equivalent (or better), there is little distinction between military and civilian health care in terms of cost, convenience, or quality. Hence health care is a less important issue. The value of other indirect compensation (commissaries, exchanges, recreational facilities, etc.) is also diminished and likely to be less important in the future.

The opportunity for retirement after 20 years of service will remain an important retention factor. However, because officers must retire by 30 years and then begin a second career, the current system forces many officers to retire at their peak period of productivity and when their experience is of most value to the military. As long as the system forces retirement at a sufficiently early age to necessitate a second career, individuals will decide when to retire (20 years, 30 years, or somewhere between) based on maximizing their satisfaction relative to economic and occupational considerations. This decision and its timing are generally made independent of the needs of the military organization.

Projections

In the past, two considerations have suggested that the longer an officer stays in the military, the more likely he or she is to remain. First is the norming (or alignment) of values—the longer an individual remains in the military the more likely his or her values coincide with those prevalent in the military. Second is that the officer becomes closer to the vesting of retirement benefits. These inferences are consistent with the RAND report that says: "Retention rates should increase with years of service even if financial incentives don't change."⁵⁰

However, this commitment may change with a more dynamic culture, a more mobile workforce, and different family considerations, including family income. The Towers Perrin report and other information suggest a more dynamic and mobile workforce in the 21st century. Organizations such as IBM and Kodak that once promised lifetime employment are releasing workers before retirement. Even Japan, which had a similar reputation, has found that changing economic conditions cause changes in employment practices and is releasing employees at an early age. Since most officers have a broad range of skills that are marketable in the private sector, they are increasingly mobile. There also appears to be a continuing demand for military officers, who have a reputation for being highly motivated and action oriented.

Summary

An officer career management system must provide career opportunities and career satisfaction consistent with officer expectations. The research presented above, together with that in Appendix B, suggests four key factors will influence future career satisfaction assessments and commitment decisions: professional satisfaction, job satisfaction, family considerations, and compensation. All four factors must be viewed under the umbrella of a future organizational culture and national security environment. As both the cultural and environmental forces continue to change, the relative importance of the four career satisfaction factors will shift.

As members of a profession, officers seek an organizational culture that will contribute to their professional status. In particular they seek a culture that values loyalty and integrity and recognizes the long-term importance of their experience and dedication in matters relating to national security. Promotion must be fair and equitable and based on competence; access to long service in the

⁵⁰Gotz and McCall, *A Dynamic Retention Model*, op. cit., p. 3.

profession must be limited to those who have the appropriate commitment and skills. Career systems that allow for longer periods of professional satisfaction for officers are more valued.

In job satisfaction, officers will continue to seek challenge, autonomy, competent coworkers, responsibility, and accomplishment from their assignments. They will seek to continue service in positions that provide educational opportunities, a variety of assignments, and professional associations. The nature of the military job is more affected by the requirements options than by the career management alternatives.

In the family area, officers will want a career that is accommodating to future family considerations, including working spouses, dual-career couples (dual-military-career couples), and single parents. They also desire a work environment that meets their personal expectations, satisfies career values, and is sensitive to increasing family responsibilities. This may necessitate more flexibility in work schedules and fewer relocations or deployments. Personnel processes must recognize that future lifestyles will include shared family responsibilities and greater emphasis on leisure activities.

Military compensation is a discriminator, but its relative importance may be diminishing. It is important to note that family compensation will be the future criterion, and in many cases the nonmilitary portion of family income may be larger. In general, military compensation is not likely to be a major factor for our study unless it varies significantly from civilian equivalency.

D. Description of Officer Career Management Systems of the Military Departments

General Observations

Both the OPA in 1947 and DOPMA in 1980 sought to increase standardization regarding personnel policies of the military services. While there may be more standardization now, many differences remain in the way the military services operate their personnel systems. Each seems driven by its own need for officers with differing skills and experience. This section addresses the officer career management system of the Army, Navy, Air Force, and Marine Corps. The Air Force system is provided in the most detail to illustrate the many interrelated issues that underlay officer career management. For the other services, we provide shorter descriptions of their flow systems and the procedures used for the various personnel management functions.

Since World War II, all of the military services have used an "up-or-out" flow system, but some have used it more religiously than others. Each system also has been responsive to different challenges. The Army system has responded to dramatic shifts in size and composition of its officer corps and to the effect of a changing environment. The Navy system has responded to the concerns of sea duty and its inherent rotational problems and of keeping balance among the different line communities (air, surface, and submarine) and the other support communities. The Air Force system has focused on pilots, the problems associated with flight status, and perceived inequity of those not on flight status.

The officer management systems currently in use by the military services have been shaped and molded by dynamic interactions among changes in external requirements and controls, internal service needs and concerns, and a continued, overriding requirement to "get the job done" in varied circumstances. Certain factors and events created the current systems. The factor with perhaps the greatest effect has turned out to be the absence of a stable planning horizon and of a stable force for which to implement personnel policy. The decision after World War II to maintain a standing military was based principally upon the realization that mobilizations of the magnitude required for that war would not be feasible in the future. Reservations about a larger standing military became muted when hostilities erupted in Korea. From 1950 to the present, officer

management has been required to respond to dramatic and rapid changes in internal planning factors and external events that determined national security objectives.

The Effect of Instability. The Air Force¹ projected a total active end strength of 400,000 with an officer corps of 60,000 when it gained autonomy in 1947. During 1950 because of budgetary constraints it was required to involuntarily separate (RIF) some 5,000 officers before the North Korean attack on June 25. Within a year, it had doubled its officer corps to over 110,000. Though most planning changes have not been this dramatic, the cyclic nature of officer strength is apparent in Figure D.1.

Annual Air Force pilot production over the same period (Figure D.2) exhibits cycles with even greater change. These changes measure the underlying turmoil associated with ramping up or cutting down the required infrastructure for essential training programs in response to changes in national security needs and goals. Peaks and valleys in training production are often different from peaks and valleys in strength because of the long lead time required for pilot training.

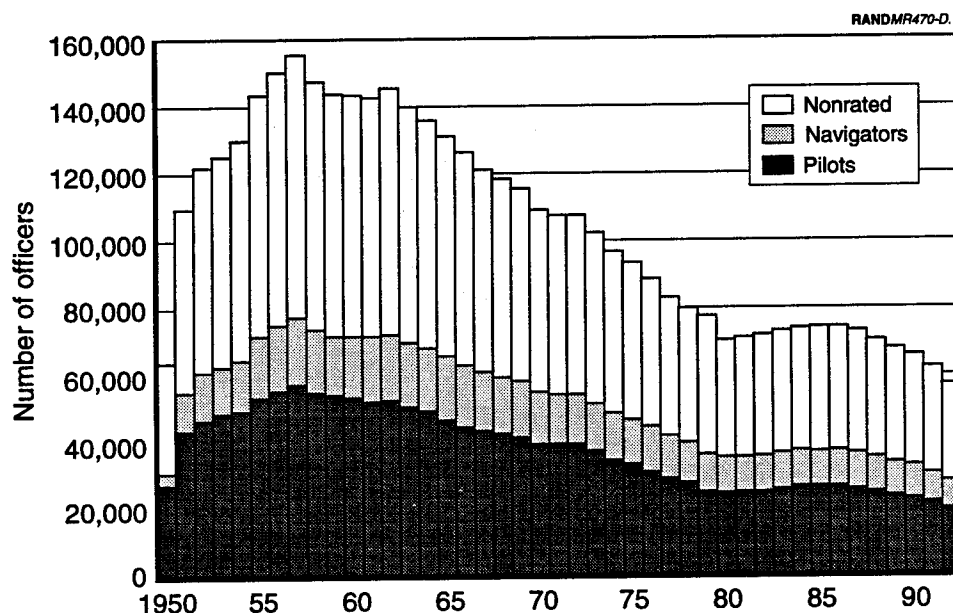


Figure D.1—Air Force Officer Strength 1950–1992

¹To provide consistency in this development, we will concentrate on data from a single service, comparing and contrasting the other services as necessary. The availability of primary sources such as *The USAF Personnel Plan, Volume II, Officer Structure (TOPLINE)*, June 6, 1975, and Vance O. Mitchell, *The First Generation: A Policy History of the Air Force Officer Corps, 1944–1973*, Office of Air Force History, 1991, make it convenient to deal primarily with the Air Force.

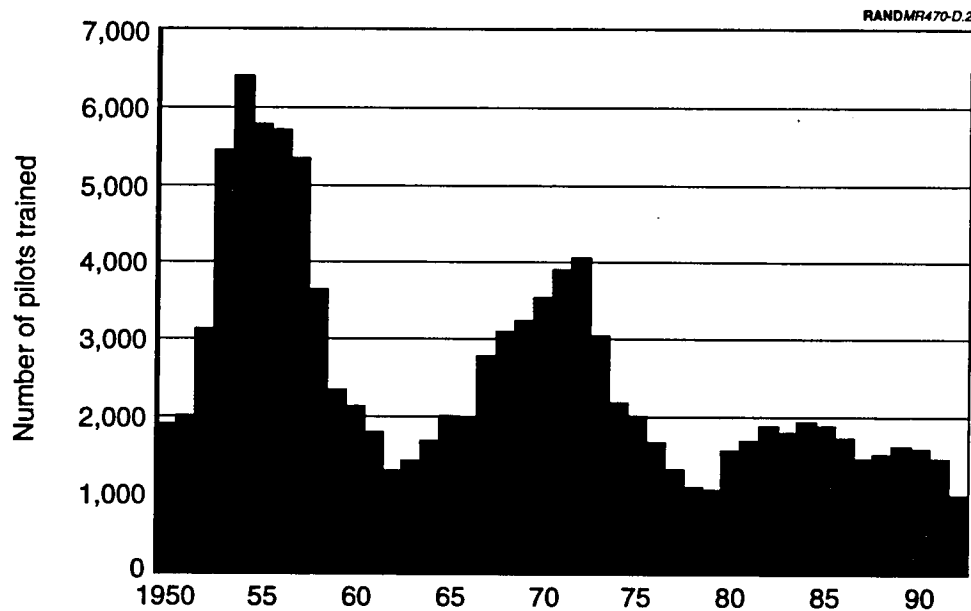


Figure D.2—Air Force Undergraduate Pilot Training 1950–1992

These cycles led the Air Force to develop a short-lead-time commissioning program, called Officer Training School (OTS), in the late 1950s to augment the traditional service academy² and ROTC commissioning programs. Its purpose was to provide flexibility so that planners could deal with dramatic changes in officer requirements. The OTS program was patterned on a successful Navy program. The Army also preceded the Air Force in developing similar short-term programs.

The capability to cope with the absence of a stable planning horizon is extremely important in evaluating any officer management system for two reasons. First of all, it is confirmed by historical experience. Secondly, it is precisely on this issue that DOPMA has been faulted. It was judged a failure due to its lack of flexibility to successfully manage either the officer growth of the early 1980s or the strength reductions later in that decade.³

At no time since well before World War II has there been a period of stable military size. Although the Cold War may have provided the fundamental framework for national policy for some 40 years (1948–1988), collateral or ancillary events have ensured that changes occur often enough in response to

²Although the Air Force Academy did not graduate its first class until 1959, up to 25 percent of each West Point and Annapolis class could opt for Air Force commissions throughout the 1950s.

³Rostker et al., *The Defense Officer Personnel Management Act of 1980*, op. cit., p. 29.

Cold War events to preclude stable planning periods of even 10 years duration. Referring again to Figure D.1, one can readily trace these factors by the timing of the officer end-strength fluctuations. The absolute decision to maintain forces in being following the Korean War is mitigated by the Eisenhower policy of massive retaliation in 1957, which led to force reductions (accomplished through sizable RIFs) from 1958 through 1961. The underlying turmoil during this period shows up in Figure D.2, where pilot production peaks in 1954 (a year after cessation of hostilities), drops slightly to projected steady-state levels for the next three years, then drops precipitously (almost 60 percent in two years) in 1958–1959 and continues to drop another 45 percent over the next three years (1960–1962). Starting in 1961, the Berlin Wall and the Cuban Missile Crisis yield slight temporary force increases followed by immediate reductions until the Southeast Asia buildup begins in 1966 and reaches its peak in 1968. Underlying this, Figure D.2 reveals a 10 year period (1963–1972) of steady increase in pilot production, resulting in a total increase of 267 percent.

The post-Vietnam drawdown, initiated under President Johnson in 1968 and continued throughout the Nixon period and into the Carter administration until 1978, provides the longest period without a trend reversal seen during the timeline depicted in Figure D.1. Again, Figure D.2 shows the turmoil associated with this period; pilot production was cut by almost 50 percent in just two years (1973–1974) to adjust to the force reductions. This represented the second sharpest drop in Air Force history, trailing only the Eisenhower cuts in the late 1950s, and was followed by a dark period of seriously low morale known as the “captain’s revolt” of 1977 through 1979, which represented the period of lowest voluntary retention ever for Air Force officers. Force reductions seem to be the most difficult trends to manage, especially when they become protracted or the cuts go very deep. Planners would universally prefer to deal with stable end strengths, allowing for slight growth if changes are necessary.

The Reagan buildup actually began for the Air Force under President Carter in 1978 in response to a host of external factors.⁴ Figure D.1 shows that growth during this period was the greatest since the Korean War, but the turmoil reflected by changing pilot production rates (Figure D.2) was far less than that of the buildup for Southeast Asia. Similarly, it is clear that the post-Cold War drawdown is not yet as large as the drawdown following Vietnam. Thus one can see that the force level changes in the 1980s, which confirmed DOPMA’s failure, were certainly no worse for the Air Force than corresponding changes that

⁴These included problems in North Korea, Czechoslovakia, Afghanistan, Iran and elsewhere in the Middle East, South and Central America, China and Taiwan, the Philippines, Japan, and elsewhere.

occurred in each of the decades defined by the 1950s, 1960s, and 1970s. DOPMA's steady-state prescriptions and its resultant lack of flexibility could have easily caused its failure in any decade since World War II.

The Effect of the Up-or-Out Policy Prescription. While both OPA and DOPMA supposedly imposed up-or-out constraints on military promotions, neither of these milestones in officer management ever had much effect on Air Force officer separations. When OPA (which constrained only the permanent promotions for regular officers) went into effect in 1947, 95 percent of Air Force line officers and 85 percent of its regular officers had less than five years commissioned service, so it did not provide a true constraint initially. The Air Force used a "fully qualified" promotion system for selection to permanent major and permanent lieutenant colonel until 1959, when constraints implemented under the Officer Grade Limitation Act (OGLA) of 1954 started to take effect. Even after these permanent promotions transitioned to a "best-qualified" system, generous promotion opportunities (85–95 percent) were used to preclude mandatory separations.

To understand the effect of OGLA on the Air Force, it is instructive to look at the 1954 Air Force officer experience distribution by years of service (Figure D.3). The "humps" created by the World War II and Korean War cohorts completely dominate the distribution. As a result Congress set the field-grade constraints for the Air Force at levels that could cope only with temporary promotions for the World War II hump but not with the hump from Korea. Though Congress promised to provide relief from these constraints when it was needed, such relief was piecemeal and inadequate to support both temporary promotions and the lenient permanent promotion system.

In 1961 when up-or-out provisions were extended to nonregular officers twice deferred for temporary major or lieutenant colonel, a significant crisis resulted, which was only resolved by implementing the continued captains' program. This allowed captains who were regarded as fully qualified for promotion, but who had not been selected because of OGLA constraints, to continue on active duty. Though the continuations were for four year periods, the intent always was to allow the continued officers to reach retirement eligibility. This program eventually was formally codified under DOPMA, and the Air Force used it regularly until post-Cold War drawdown RIFs were required.

The resulting effect of this policy was that the Air Force separated only officers who were regarded as truly not fully qualified for promotion. Those regarded as fully qualified, but deferred because of OGLA constraints, were given the opportunity to continue on active duty until retirement eligibility.

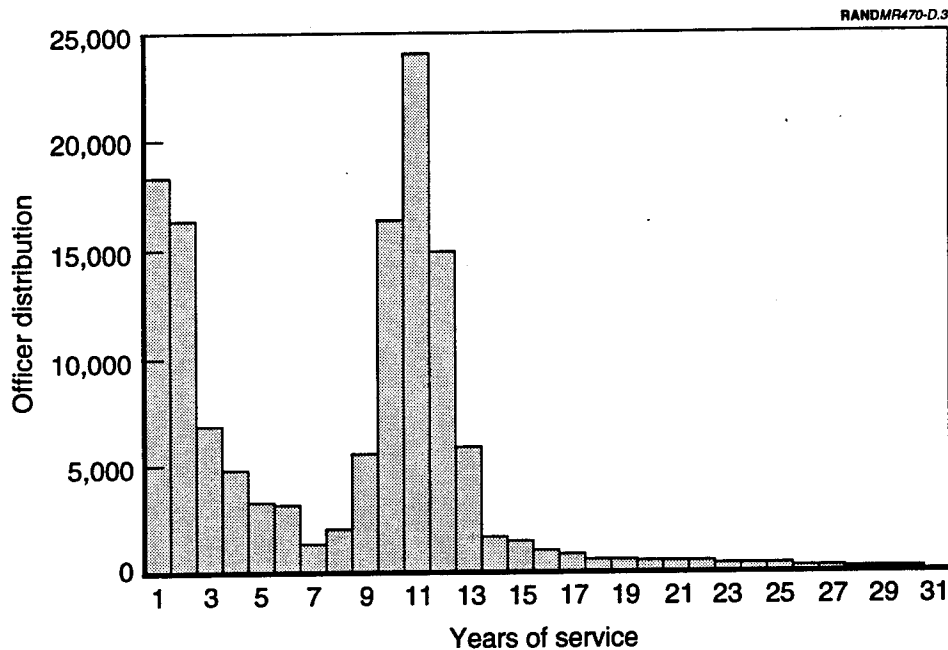


Figure D.3—Air Force Officer Distribution by Year of Service 1954

Unfortunately, disagreements over OGLA completely dominated Air Force personnel policy issues through two full decades in the 1960s and 1970s, and they drained significant levels of staff effort and generated continuing distrust within the Air Force of both Congress and Office of the Secretary of Defense.

The Army, in contrast, embraced the up-or-out policy provisions and aggressively used them to provide quality control within its officer corps. The Air Force separated only those clearly unqualified for promotion, however, and relied on mandatory retirement at the 20 year point for quality control of those who were deferred to major⁵ or failed augmentation to regular. The Navy (together with the Marine Corps) has historically had higher natural attrition among its company-grade officers and has taken a position between its sister services in pushing the "out" aspects of up-or-out policies.

The Effect of the Uniformity Policy Prescription. The implementation of DOPMA appears to have curtailed Air Force officer career tenure, especially among senior officers. The pre-DOPMA Air Force, for example, typically denied voluntary retirement requests from regular officers short of their OPA mandatory retirement points (except in unusual circumstances), though this

⁵Though tenure was shortened for those deferred to lieutenant colonel, no service ever separated these officers prior to retirement eligibility.

policy was relaxed somewhat in the 1960s and early 1970s to speed the exit of the World War II and Korean War humps, respectively. Perhaps even more significant, though, was the policy for selected general officers to serve multiple tours (sometimes three or four) as Major Air Commanders in positions generally seen as four star billets. The other services also had senior leaders (e.g., Douglas MacArthur) remain on active duty for far longer periods than are feasible under the 35 year tenure constraint imposed by DOPMA.

An interesting feature is the distinction apparent in the individual services' implementation of DOPMA legislation expressly designed to ensure uniformity. Service differences in proportions of officers by year of service result from pre- and post-DOPMA era retention rates.⁶ The data, highlighted in Figure D.4, show that the Air Force has the highest proportion of officers continuing to serve from year to year in the preretirement field-grade years (years of service 12 through 20), while the Navy has the lowest. The Army's aggressive approach to up-or-out is also evident in the large drop in proportion of officers continuing to serve from years of service 11 to 12.

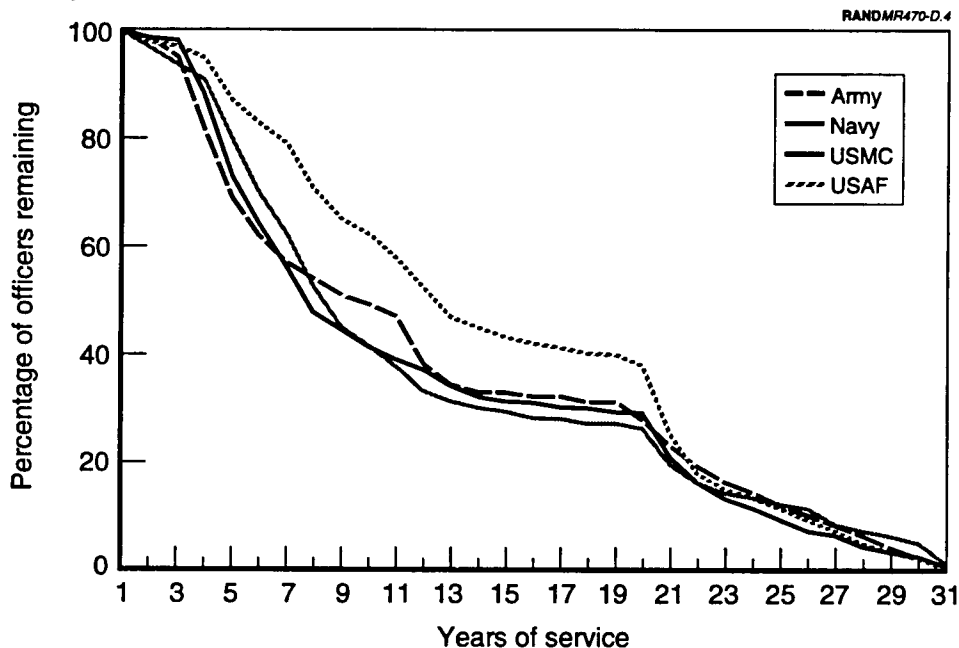


Figure D.4 —Proportion of Entering Officers Remaining at Each Year of Service

⁶These retention rates represent average behavior for line officers over the period from 1987 through 1989. Data are from the QFAX database maintained by the Defense Manpower Data Center. This period was selected because it provided the most recent data that were not corrupted by stop-loss programs implemented to support Operation Desert Shield/Storm or by voluntary separation programs supporting the current drawdown in forces.

Figures D.5 to D.7 examine this same data by career segment.⁷ In these figures, a career is divided into three segments of 10 years each. The figures now show the proportion of a group that remains at the end of each year and restarts the new career segment at 100 percent. This approach shows that Navy and Marine Corps retention in years of service 12 through 20 is as good as any service. The reason for the lower continuation of officers in these years in Figure D.4 is due to losses before 10 years of service.

As shown in Figures D.6 and D.7, officers in the Navy who reach 10 years of service stay at a greater rate beyond that than either Air Force or Army officers, both of whom stayed in higher proportions until 10 years. (The separation of Army officers between 11 and 12 years is again observable.) In the third segment of a career (Figure D.7), Navy and Army officers stay to 30 years more than Air Force or Marine Corps officers.

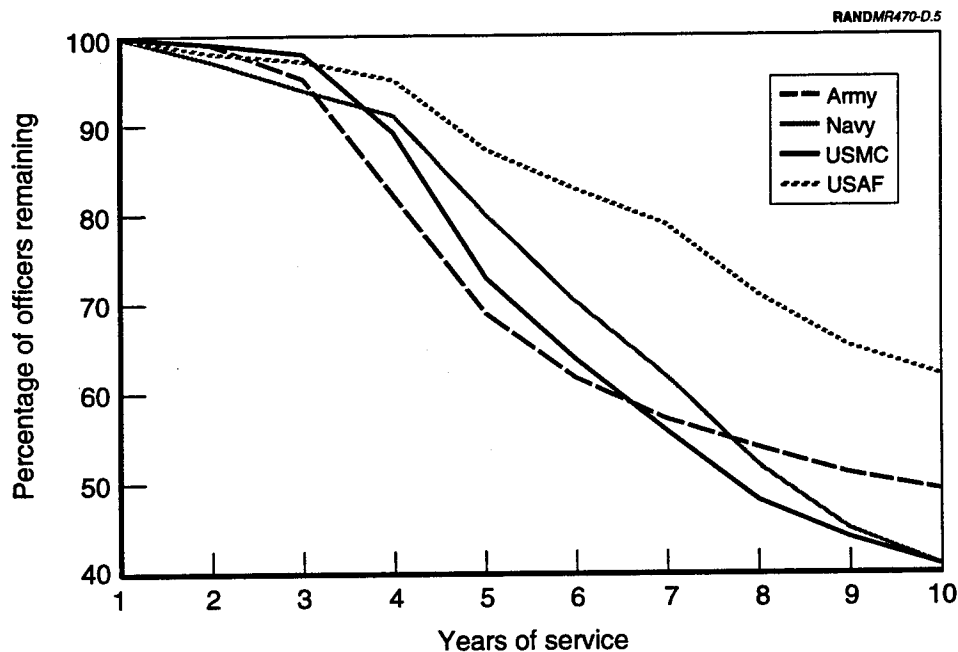


Figure D.5—Proportion of Entering Officers Remaining at the End of Each Year of Service in Career Segment 1

⁷To counter the scale compression occurring in the later years of service, it is useful to examine the same data rescaled to unity at years of service 1, 11, and 21.

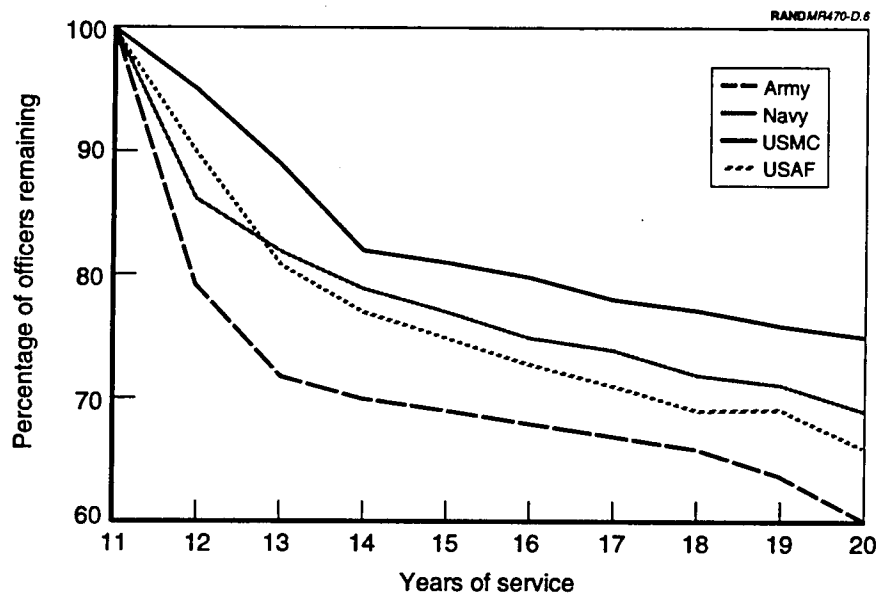


Figure D.6—Proportion of Officers Entering Career Segment 2 Remaining at the End of Each Year of Service

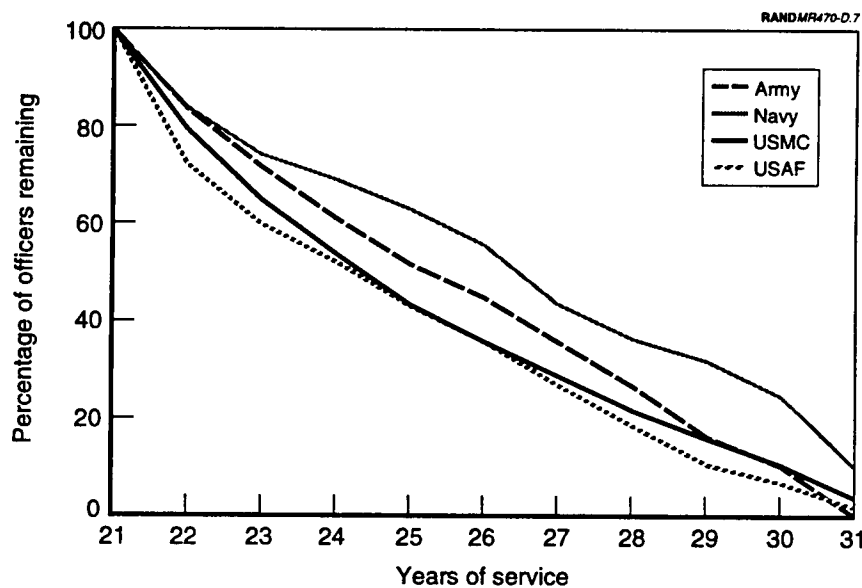


Figure D.7—Proportion of Officers Entering Career Segment 3 Remaining at the End of Each Year of Service

There are other useful comparisons that can be made from these and similar data, but the key point is that each service has retained its individuality under DOPMA, despite the explicit goal of uniformity. There are sensible reasons for this, and replacement management systems should provide at least this much flexibility.

Department of the Air Force

Introduction. The current Air Force officer management system incorporates factors derived from sometimes intense experiences, and its evolution has been shaped by several enduring issues. They include

- the precise role and appropriate proportions of flying and nonflying officers
- the absence of a stable, consistent planning horizon, causing a continual surge-RIF-surge-RIF wave pattern for manpower planners from World War II until the present
- reactive officer force structure levels, distributed (in terms of grade and experience) far from any equilibrium condition and creating unstable accession, promotion, and retention patterns
- an early concern over the professionalism and image of the officer corps
- prolonged uncertainty regarding the role of the Air Reserve Component (including the vast number of reserve officers serving on active duty)
- a growing distrust occasioned by recurrent perceived adversarial relationships with Congress or the DoD.

Career Flow Structure. Although the Air Force officer management system in its current form can best be classified as a nominal up-or-out system, its historical evolution has more closely resembled fill-then-cut. While the absence of a suitable planning horizon had a continuing effect on this, other factors such as flying/nonflying issues and use of Reserve officers also contributed significantly to the turbulent planning process, especially in the formative years. The resulting tendency has been for the Air Force to attempt to keep its officers (especially fliers) during any period in which cuts were not being forced upon it. This provided a hedge against further fluctuations that seemed to always occur. Full acceptance of the up-or-out concept is a relatively recent practice.

In the early years, entry into the Air Service or Air Corps literally meant becoming a pilot. When the Army officially recognized aviation as a military specialty in 1926, this notion was codified into laws that required that all general officers and flying unit commanders in the Air Corps had to be rated pilots. These laws also required that pilots compose at least 90 percent of all remaining Air Corps officers.⁸ Since external support (such as munitions and

⁸The Army Reorganization Act (1920) and the National Defense Act (1926).

supply) from other Army branches was essential for effective combat operations, the necessary functions were consolidated into the Army Air Forces (AAF) in 1941, and the laws were suspended in 1942 as part of the transition into World War II.⁹

The surge during World War II brought a capability to train 100,000 pilots per year (all of whom became officers after successful completion of this training). The same surge effort created an additional 159,000 nonrated line officers by 1945, accounting for over 40 percent of AAF officers at the height of the war effort.¹⁰ This surge was the result of a crash procurement effort, which can be regarded as the first (and largest) fill cycle in the evolution of Air Force officer management. Postwar planning problems would begin as early as 1944.

General Henry H. Arnold, Commanding General of the AAF, working with Theodore Von Karman, Director of its Scientific Advisory Group, on future weapons and requirements, developed a plan, submitted in 1944 to General George C. Marshall, the Army Chief of Staff, for a postwar standing Air Force of 1,000,000 men (with at least 150,000 officers, based on wartime ratios). General Marshall, acutely aware of public aversion to a standing Army at the end of World War I, rejected the concept and directed a target force of 120,000 total for AAF planning. Though the AAF had scaled its requirement to 650,000 in May and to 550,000 in August, this impasse still existed when the war ended abruptly in August of 1945 (even optimistic planners had assumed two to three additional years would be required to mount a successful invasion of Japan), and demobilization began in earnest.¹¹

This introduced the initial effort to keep officers on board. Only 3,000 regular officers and 10,000 reserve and National Guard officers held commissions that retained peacetime significance (the remaining 360,000 officers in the AAF at war's end held temporary commissions, which expired six months after the end of hostilities). Largely through significant personal effort on the part of General Arnold and General Dwight D. Eisenhower, General Marshall's successor as Army Chief of Staff, the AAF retained over 40,000 officers when it passed through its minimum officer strength level in May 1947.¹² Poised on the brink of

⁹Mitchell, *The First Generation*, op. cit.

¹⁰The United States Air Force Statistical Digest indicates that there were 153,200 pilots and 69,000 other-rated personnel in addition to the 159,000 nonrated personnel on board in 1945. The other-rated category refers to nonpilot officers who performed such flight crew duties as observer, navigator, or bombardier. These duties were later consolidated in the navigator rating.

¹¹Mitchell, *The First Generation*, op. cit., pp. 12-20.

¹²*Ibid.*, pp. 55-66.

autonomy, AAF planners looked confidently toward a nominal active strength of 400,000 with some 60,000 officers.

OPA and Autonomy. The OPA of 1947 became law on August 10, 1947. One of its major provisions was to "change from a seniority to a competitive up-or-out promotion system."¹³ Indeed it provided for regular officers twice deferred for promotion to major to be separated (at the 15th year of service) while those twice deferred to lieutenant colonel to be retired (at the 22d year). It further provided for mandatory retirement for majors (at 22 years), lieutenant colonels (at 28 years), and colonels (at 30 years).

The Air Force became an autonomous service on September 18, 1947, and a major rejoinder to the Army's Corps system was to lump all officers (except medical personnel, lawyers, and chaplains) together as line officers for promotion purposes. At that time, 95 percent of its line officers and 85 percent of its regular officers had fewer than five years of actual commissioned service.¹⁴ OPA never really served as a constraint on the fledgling Air Force.

After a token effort at a best-qualified, permanent promotion system, the Air Force reverted to a fully qualified system for promotions to major and lieutenant colonel in 1951. From 1951 to 1958 over 13,000 officers were considered for permanent promotions to these grades under the provisions of OPA, and 396 (about 3 percent) were once deferred while 150 (about 1 percent) were twice deferred and actually separated or retired.¹⁵

As a further example of the historical tendency for the Air Force to keep its officers, requests for voluntary retirement from regular officers who were short of mandatory OPA retirement were normally denied except in unusual circumstances, such as the congressional exclusion for those who had served in both world wars.¹⁶ This policy continued until the World War II hump¹⁷ reached retirement eligibility in the 1960s. Even then some voluntary retirement

¹³Rostker et al., *The Defense Officer Personnel Management Act of 1980*, op. cit., p. 3.

¹⁴Some received credit for additional years as part of the "adjustments" associated with the regular officer selection processes of 1946.

¹⁵Mitchell, *The First Generation*, op. cit., p. 288.

¹⁶*Ibid.*, pp. 409-418.

¹⁷*Ibid.*, pp. 282-283, 453. The World War II hump continued to dominate the Air Force officer distribution throughout this period. This is illustrated by several facts: (1) In 1954, 50 percent of the officer force (regular and reserve) was officially clumped in the World War II cohorts from 1942 to 1945 (and this despite the fact that at war's end many officers received additional official credit for years of service based on age or other experience); (2) by 1959, the hump contained over 54,000 officers, now with 14 to 17 years of service; (3) in 1963, over half of the pilots on active duty had received their wings during World War II.

requests (especially for regular pilots) were denied because of the war in Southeast Asia.

There were significant positive aspects in the OPA/autonomy era. The rules were clear and stability seemed to be just around the corner. The success of the Berlin Air Lift in 1948 bolstered morale and helped motivate 10,000 badly needed reserve officers to return voluntarily to active duty.

The Continuing Surge-RIF Saga. The first involuntary postwar RIF to hit the officer corps was the result of budgetary constraints. It occurred in 1949, just as the Soviet Union was exploding its first nuclear bomb four years ahead of existing intelligence estimates.¹⁸ Despite National Security Council recommendations to the contrary, the force reductions continued until North Koreans crossed the 38th parallel on June 25, 1950. The resulting Korean War surge doubled the size of the officer force in two years, but it was followed by another RIF in 1953–1954.

Plagued by retention problems and unable to train new pilots to meet required sustainment levels in the mid-1950s, the Air Force pushed for a series of retention initiatives to correct problems with inadequate operational facilities,¹⁹ family housing options,²⁰ and military compensation.²¹ The modest success of these initiatives was followed by more RIFs, resulting from major force reductions stretching over the period from 1957 to 1960. This experience suggested that retention initiatives could be meaningful only in a stable planning environment where those who are retained voluntarily do not have to fear being separated involuntarily for reasons that appear arbitrary and artificial to them. Although these RIFs affected reserve officers only, it is important to recognize that the regular officer quotas had been filled immediately after World War II. Thus, with the exception of a trickle of West Point graduates plus an additional augmentation in 1949, all postwar entries retained reserve commissions. The

¹⁸*Ibid.*, p. 160.

¹⁹Most existing Air Force bases had been hurriedly constructed in response to World War II in locations where land and airspace were readily available. A quick check of the 1992 *USAF Almanac* reveals that of 64 installations in the Continental United States with operational flying missions in 1954, some 46 (73 percent) were activated between 1940 and 1945 in places like Del Rio, TX; Mountain Home, ID; Victorville, CA; and Dover, DE. Fourteen (22 percent) had been built by the Army Air Corps prior to World War II, while only three (3 percent) had been activated after Air Force autonomy in 1947 (and these were at Grand Forks, ND; Limestone, ME; and Wichita, KS).

²⁰Adequate housing was a problem everywhere after World War II, and initial efforts to provide government housing on or near Air Force installations had been only partially funded and had to be completed as self help projects. Even so, military family housing was available to less than 20 percent of those married officers requiring it, and the Wherry Housing authorization of 1949 never kept pace with the influx of officers for the Korean War. Mitchell, *The First Generation*, op. cit., pp. 383–385.

²¹*Ibid.*, p. 386. Between 1939 and 1955 the Consumer Price Index doubled and industrial wages more than tripled, but military officers' pay increased by only 59 percent.

issue of the lack of legal status of reserve officers had significant consequences in such functions as promotions, retention, and development as well.

The 1960s initially brought small buildups when the Berlin Wall went up in 1961 and the Cuban Missile Crisis occurred in 1962. This was followed in 1964 by another reduction, but no involuntary RIF, before the forces were required to surge again in response to events in Southeast Asia.²² The Southeast Asia surge continued throughout the 1960s, but a protracted reduction began in 1970 and continued until the Reagan buildup in the 1980s. That buildup ended in 1986, and the present drawdown, which began with the end of the Cold War in 1988, led to the resumption of an involuntary RIF for Air Force Officers for the first time since 1960.

Initiating Up-or-Out Policies. The up-or-out provisions of OPA had very little effect on the Air Force in the early years, since they provided no constraints initially and the Air Force relied on a "fully qualified" permanent promotion system to major and lieutenant colonel throughout the 1950s. Temporary promotions were unaffected by OPA, but they were constrained by the OGLA of 1954. It was not until the OGLA constraints started having a significant effect that the Air Force looked to promotion deferment as a means of forcing officers out of the service. By this point poor management of officer promotion and quality control issues on the part of the Air Force had combined with the unstable planning environment to generate an untenable situation.

As members of the World War II hump began to reach the 14 year point in 1956, they continued to be promoted to permanent major on a fully qualified basis. By 1958 it became clear that the OGLA restrictions were in direct conflict with this policy. Continuing it through 1959 would fill the OGLA limits completely with permanent grades and end temporary promotions in the field-grade ranks entirely. Since temporary promotions were the only ones available to reserve officers on active duty and provided the functional promotion system for regular officers as well, the crisis was legitimate.

Provisions for quality control in the officer force were developed during the war, formally codified after autonomy, and revised and streamlined during several periods of emphasis during the 1950s. Air Force commanders, however, never fully embraced these measures, and separations under them remained negligible despite the impending crisis. With promotion boards annually screening some

²²Ibid., p. 364.

15,000 officers, however, up-or-out policies eventually evolved as methods to achieve the necessary quality control.²³

The up-or-out provisions nominally began in 1959 when permanent promotions returned to a best-qualified system for major and lieutenant colonel.²⁴ They were not severely tested, however, until 1961 when the temporary promotion system was revised to embody separation provisions for officers twice deferred to temporary major or lieutenant colonel. Since regular officers were protected by OPA, however, these provisions applied only to active-duty reserve officers. This system, though, was flawed from the beginning because it relied on piecemeal congressional relief from OGLA in order to provide any promotions at all. The first of these, granted in 1959, was to expire in 1961. The 1961 boards, gambling that additional relief could be obtained from Congress, selected three times as many temporary majors as there were available billets and over four times as many temporary lieutenant colonels. By 1963 temporary boards were selecting numbers that were 10 times the available billets, and the experiment with up-or-out was abandoned. Reserve majors twice deferred for temporary lieutenant colonel were allowed to retire after 20 years as before, and the continued captains program was implemented, enabling a selected number of twice deferred reserve captains to continue on active duty with a 4 year contract. The only "out" provision remaining applied to twice deferred captains not selected for continuation, and this group was restricted to those individuals who clearly fell short of desired performance standards. The end result was that, wherever practical, those regarded as "fully qualified," but not selected, for promotion were offered the opportunity to continue.²⁵

This procedure was also applied to regular captains twice deferred for permanent promotion, and it was in fact formally codified in DOPMA. Though the proportion selected to continue fluctuated with demand, the continued captains program remained viable in the Air Force until the current post-Cold War drawdown was well under way. It becomes apparent that the Air Force has historically restricted the "out" provision of up-or-out conditions to apply subsequent to attaining retirement eligibility for anyone who appeared to be

²³Ibid., pp. 266-271. The year 1957 may have been typical. After two years of emphasis by General Nathan F. Twining, the Air Force Chief of Staff and then Chairman of the Joint Chiefs of Staff, 199 (of more than 120,000) officers were identified as substandard. Most remained on active duty with no additional action taken; 33 were demoted, and 14 were actually separated.

²⁴The 1959 permanent major's board promoted 97 percent of those eligible, and the permanent lieutenant colonel's board promoted 83 percent. These rates projected, based on two deferrals, to a 2 percent separation rate for majors and a 9 percent retirement rate for lieutenant colonels. They would clearly have little effect on the basic problem. A more realistic purpose probably was to appease Congress in order to obtain temporary relief from the OGLA ceilings. Mitchell, op. cit., p. 291.

²⁵Ibid., pp. 370-375.

fully qualified (at least for promotion to major). Moreover the system functioned so that those forced to retire at 20 years of service were either reserve officers or remained in the grade of major or below. Air Force concerns about officership and the professional nature of its officer corps dictated that these officers had failed a selection process for either promotion or augmentation (or both).²⁶

Officership Issues. The Air Force historically has had difficulty dealing with officership on two levels. At the fundamental level is a continuing debate regarding the relative roles for rated versus nonrated officers. At a level below this has been a recurring concern over a perceived need to improve the overall quality and professionalism of its officer corps. While the latter difficulty shares its source with the problem of establishing quantitative as well as qualitative measures of officer quality, the former difficulty arises as an essential element in the concept of air combat. Policy decisions during the transition to Air Force autonomy left the two issues inextricably intertwined for several decades.

The Debate over Nonrated Officers. General Arnold had clearly articulated the contribution of and requirement for nonrated officers during World War II. The Air Force deliberately rejected the Army's corps concept in favor of what it called the team concept when it excluded from line officer designation only those (e.g., doctors, lawyers, chaplains) felt not to belong. Yet there still persisted the notion that the combat arm of any Air Force consisted entirely of aviators who held aeronautical ratings. This created dual-track decision processes; the official policy decision process adamantly insisted that nonrated and rated were all team members, and no one would receive preferential treatment, while the underlying reality always seemed to yield policy decisions that stressed the importance of pilots in particular and rated officers in general over nonaviators. All officers were not created equal, and actual, if not policy, management of them would be different. There is significant evidence to support this perception, even beyond the fact that it had been codified into law by Congress in the National Defense Act of 1926. West Point graduates, for example, could enter neither the Air Service nor the Air Corps without first successfully completing pilot training. Those who were eliminated were reassigned to other branches of the Army, where they presumably could make a greater contribution than remaining nonrated in the Air Corps. General Arnold twice attempted to change this rule to enable Military Academy graduates to enter the AAF as nonrated regular

²⁶The period of continuation has remained unspecified under all of the continued captains programs, but the intent has always been to ensure retirement eligibility. The only DOPMA constraint was that captains could not be continued beyond 20 years of total active federal *commissioned* service (TAFCS). It is also worth noting that regular commissions were constrained in a manner similar to grade limitations. Thus, failure for selection for a regular commission usually meant failure for promotion to major or lieutenant colonel as well.

officers. The first request was never acted upon during wartime, and the second, made after the war's end, was expressly denied by General Eisenhower.²⁷

Although fully 40 percent of line officers in the AAF at the height of the war effort were not rated and postwar studies indicated that only 38 percent of essential line officer billets actually required rated expertise, a 70 percent proportion was arbitrarily chosen at war's end as the rated requirement for the officer corps of the new Air Force. This 70-30 *ratio*, as it was called, would continue to affect the Air Force for a significant number of years, even though it could never be justified and was soon discredited. At least the process that confirmed the 70-30 ratio canonized for the first time a positive requirement for nonrated officers in the AAF and, also for the first time, established their qualification to command certain types of units or installations.²⁸

The 70-30 ratio was eventually discredited in the budgetary process. In response to congressional concern, the AAF acknowledged in 1947 that the only acceptable approach to determining rated officer needs was to validate rated requirements billet by billet. The 70-30 effect, however, would be apparent in the distribution of rated officers among Air Force leadership for a significant number of years. This effect was amplified by intentional inequality for nonrated officers in certain operational commands and poor personnel management policies for nonrated officers in critical technical skills.²⁹ Thus, when it became time to implement OPA in 1948, the newly autonomous Air Force found itself with less than 20,000 regular officers, over 80 percent of whom were rated.

To fill the permanent field-grade billets specified in OPA required 8,000 officers with between 15 and 30 years of service. The Air Force, at the end of 1947, had only 1,200 regular officers on active duty with that much service. The solution was the "one shot" promotion program of 1948.³⁰ This program provided a one-time opportunity for regular officers to be promoted to permanent grades well in advance of the corresponding years of service specified in OPA. The officers selected for one-shot promotions dominated Air Force senior leadership for over a quarter of a century. And the regular officer mix and selection rules ensured that almost all of them were rated.

²⁷Ibid., pp. 14, 26-27.

²⁸Ibid., pp. 30, 55-64.

²⁹Ibid., pp. 131-142. The Strategic Air Command deliberately drove out almost a third of its nonrated officers in a single fiscal year, 1947, and the acknowledged mismanagement of scientifically qualified officers in the postwar period led to the creation of the Air Research and Development Command in 1950.

³⁰Ibid., pp. 82-93.

The end result has been that the Air Force, like the Air Corps and AAF before it, has always relied on rated officers to provide its senior leadership as well as the professional core of its officer corps.

Quality and Professionalism in the Air Force Officer Corps. The Air Force has always been concerned about officership and professionalism in its officer corps. Though it is difficult to distinguish between concern generated by the an actual lack of quality and concern generated by the cosmetics of coping with potential external perceptions of an inadequate professional image, it is clear that the concern was real, and at least for a period of time, policy decisions indicate that the Air Force was genuinely worried that its officer corps did not measure up to required standards. A major source for this concern apparently developed from the disparity the Air Force perceived between desired and actual educational achievements of its officers. This problem originated with officer accession programs developed to meet wartime needs for pilots, and it forced the Air Force eventually to face distinctions between officership and aviator skills.

The proportion of regular officers with college degrees, for example, dropped from 78 percent in 1946 to 35 percent in 1948. This was the direct result of postwar policy decisions that ensured that pilots received the vast majority of regular commissions coupled with the fact that all nonregular pilots trained during the war were accessed via an Aviation Cadet program with no formal education prerequisites. The corresponding proportions for the Army and Navy were 63 percent and 75 percent, respectively, and their proportion with no college whatsoever was only 10 percent compared with 23 percent for the Air Force. Another factor that clouded the image for the Air Force was that the proportion among lieutenants was much worse, and these represented over one-half of the regular officers before the one-shot promotions were awarded.³¹

Several policy decisions exhibit the concern felt by the Air Force regarding its perceived education shortfalls. In August of 1948, for example, an annual production rate of 12,500 new officers was established as a goal for the newly reinstituted Air Force ROTC (AFROTC) program.³² It was felt that AFROTC was the only available source that could produce college graduates in appreciable

³¹Ibid., pp. 92-97. Though there was a nominal requirement for aviation cadets to have a high school diploma, those who successfully completed the written examinations could easily have the requirement waived, since passing the exams provided de facto evidence that they possessed adequate achievement and aptitude levels. A random sample of lieutenants competing for regular commissions in the 1948 augmentation showed that 5 percent were college graduates and 41 percent had no college at all.

³²Ibid., pp. 105-106. The Air Corps had terminated its ROTC program in 1933 because it felt it had no use for an accession program that produced nonrated officers; it was not reinstituted until 1946.

numbers, and this figure represented 85 percent of all active and reserve component requirements. The lack of success in getting this program implemented would only fuel the lack-of-quality issue over the next few years, however. Their share of the West Point class of 1947 was increased to 200 of approximately 500 total graduates (51 of whom went to nonrated billets for the first time in history), and the Army agreed to continue to provide 40 percent of future West Point classes to the Air Force.³³

A related issue was the youth of the officer corps during this period. Many were commissioned as teenagers, and the one-shot promotions increased their rank well beyond the levels normally corresponding to their actual years of experience. Thus, the Air Force had to deal with prevailing perceptions that they were inexperienced, immature, and irresponsible as well as young. This perception was much more pronounced as applied to rated officers, since most nonrated officers were now being commissioned through Officer Candidate School (OCS), which took in highly qualified enlisted personnel and trained them to become officers. These individuals possessed the experience and maturity that others might lack; indeed half of them were college graduates. Their number (about 500 annually), like those of the West Pointers, was too small to have a rapid effect, so two additional policy decisions were implemented in 1948 to assist in the transition to a fundamental reliance on AFROTC. The first of these was to open OCS to qualified civilians with college degrees, and the second was to increase the proportion of college graduates entering the Aviation Cadet Program. Thus, recruiting teams were sent to college campuses throughout the country to implement these policy decisions. The first effort was an unqualified success, inasmuch as over two-thirds of officer candidates were accessed as civilians by 1950 and most had college degrees. The second was a complete failure, inasmuch as only two percent of those commissioned via aviation cadets in 1948 and 1949 had college degrees.³⁴

³³Ibid., pp. 98–114. Their effort to negotiate a similar arrangement for Annapolis graduates (which numbered about 1,000 per year) met with considerable resistance. First the Navy reneged on an agreement to allow 7 percent of the class of 1948 to volunteer to go Air Force, and then it refused to negotiate further until a compromise was directed by the Service Academy Board, an inter-service panel empowered by Secretary of Defense James Forrestal. The compromise provided that up to 25 percent of each West Point and Annapolis class could opt to transfer to the Air Force. In an interesting bracket of the 70-30 ratio, the Air Force wanted 83 percent of these officers to be qualified for flying training, while the Army insisted that this proportion not exceed 63 percent. The Navy, which had its own flight training programs to fill, held out for 50 percent. From 1950, when the agreement went into effect, until 1959, when the first class graduated from the Air Force Academy, some 3200 service academy graduates received Air Force commissions.

³⁴The policy of accepting civilians into OTS was discontinued in early 1951, however, when large numbers of college graduates were enlisting in the Air Force to escape the draft, thus ensuring adequate numbers of qualified military candidates to meet OCS quotas.

The propensity for qualified college graduates to opt for OCS and nonrated duties while the principal commissioning program for rated officers continued to attract only lower academic achievers would remain a major concern for the Air Force. This same propensity was a major factor in the failure of the effort to make ROTC the primary commissioning source for all officers. The AFROTC program had been terminated by the Air Corps in 1933, and it was not reinstated until 1946. The termination of wartime emergency conditions meant that ROTC graduates, like all reserve officers, could be called to active duty only voluntarily. The result was a meager response from the first two AFROTC classes; 125 of 2,200 AFROTC graduates selected active duty in 1948, and 650 of 3,300 made that choice in 1949. Moreover, an Air Force study of these classes indicated that no more than 10 percent of the graduates were interested in entering flying training programs.³⁵ The return to wartime emergency status for the Korean War would resolve the former problem, but difficulties in using AFROTC as an accession source for rated officers would prove remarkably persistent. In the Korean War years of 1951 through 1953 only 15.5 percent of 24,500 AFROTC graduates volunteered for flying training compared with an explicit Air Force goal of 60 percent.³⁶ This problem generated serious doubts regarding the officership and professional dedication of the individuals who refused to enter flying training and led, in turn, to wartime policy decisions that would further exacerbate officer quality and professionalism issues.

In order to meet the Korean War needs for fliers, the Air Force was forced to increase its supply of Aviation Cadet Program candidates. Recent age and educational requirements (which had been imposed specifically to counter the problems of perceived immaturity and inexperience) were rescinded, and minimum test score requirements were reduced significantly. It also recalled (some voluntarily, but many involuntarily) to active duty a large number of aviators who had been trained during World War II.³⁷

While the Air Force acknowledged that there was a distinction between aviator skills and officer skills, it recognized that both were required to enable its officers to make accurate decisions regarding the dramatic technological developments and employment tactics that defined modern airpower. Aviator skills were absolutely necessary in this effort, but it was rapidly becoming apparent that they were not sufficient to provide the knowledge and experience required for

³⁵Mitchell, *The First Generation*, op. cit., pp. 95-104, 107-109.

³⁶*Ibid.*, pp. 228-230. The breakout was 2,400 of 16,400 (14.6 percent) in 1951 and 1952, while 1,400 of 8,100 (17.3 percent) volunteered in 1953.

³⁷*The USAF Personnel Plan*, op. cit., Annex A, p. A-3. The total number of officers recalled exceeded 63,000. While most, indeed possibly all, of these may be assumed to have been rated, the exact proportion was not preserved. Mitchell, *The First Generation*, op. cit., pp. 168-172, 204-206.

future leadership positions. Air Force leaders knew that they required a reliable source to provide sufficient numbers of individuals with the background necessary to develop requisite officer skills and technical knowledge in addition to a thorough understanding of air combat. They had service academy graduates and had implemented baccalaureate programs through the Air Force Institute of Technology to educate selected aviators, but the number of qualified people they produced could not nearly match the projected requirements for staff and supervisory positions now required in far greater proportions than ever before.

The Air Force implemented several policy options to deal directly with its perceived deficiencies in quality and professionalism. These included the efforts to increase the numbers of baccalaureate degree holders among its officers (e. g., obtaining a larger share of service academy graduates, attempts to increase reliance on the AFROTC program as an officer source, and various active-duty education programs) as well as several quality screening programs to review overall officer quality and to ground subpar aviators in the proficiency flying programs.³⁸ Most of these efforts were numerically negligible, however, in a officer corps that averaged over 130,000 (with just over 50 percent rated) over the period in question.³⁹

A qualitative policy to maintain consistency and stability in its very senior leadership may have been more beneficial in the long run. Many senior Air Force generals held multiple major air command (MAJCOM) command positions during that period. General Curtis E. Lemay, for example, commanded the U.S. Air Forces in Europe in 1947–1948 before taking over Strategic Air Command (SAC). After commanding SAC for nearly nine years, he served as Vice Chief of Staff for four years and finally Chief of Staff for three and a half, before retiring in 1965. He accumulated over 17 years in very senior leadership positions in the process, a circumstance that would be rare indeed under current policies where MAJCOM commanders typically retire after a single tour at the four-star level unless immediately selected to become the Chief of Staff. General Lemay established remarkable standards for professionalism in SAC and then challenged other officers to meet the same standards. Other four-star generals who served multiple tours as MAJCOM commanders during the 1950s, without

³⁸Mitchell, *The First Generation*, op. cit., pp. 266–271, 337–342.

³⁹From the Korean buildup in 1951 until the World War II “hump” was completely gone in 1966, officer strength averaged 131,500, with a high of 142,073 in 1956 and a low of 107,099 in 1951. The average proportion of rated officers was 52.3 percent, with a high of 55.9 percent in 1958 and a low of 47.2 percent in 1952. The proportion of pilots averaged 38.5 percent, with a high of 41.4 percent in 1960 and a low of 34.2 percent in 1966. *The USAF Personnel Plan*, op. cit., pp. A-10, A-11.

becoming Chief of Staff, include Earle E. Partridge, Laurence S. Kuter, Otto P. Weyland, and John K. Cannon.⁴⁰

As a result of its prolonged anxiety over officer quality and professionalism, the Air Force eventually took action to ensure that only college graduates could become commissioned officers. Though several factors helped to speed the transition to a college educated force, a major element was the implementation of up-or-out policies for temporary promotions of reserve officers to field-grade ranks. As documented earlier, the OGLA-grade constraints combined with Air Force mismanagement of permanent promotions created dramatic problems in temporary promotion opportunities to major from 1961 through 1963. Though many of the nonselects were kept (under the "continued captains" program), large numbers of reserve officers were trimmed in this process.

Natural attrition also played a fundamental role, and several policy decisions were incorporated to enhance its effect. Retention was a problem area, so natural attrition was high, and the protracted RIF in 1958-1960 had provided a limited opportunity for quality control. The regular officer force size was doubled with the massive augmentation of 1958, and the selection process was patterned on temporary promotion procedures, which credited formal education as a distinct advantage.⁴¹ All reserve officers competing for temporary major in 1961-1963 formed a narrow grouping; they had survived the RIF but failed to compete successfully in the selection process for regular. Thus, the Air Force could now achieve essential quality control without experiencing the trauma of actually exercising the system. The "continued captain" option even enabled them to play the role of benefactor while still identifying a large group whose tenure was limited to 20 years. Moreover the 20-10 program, which had allowed certain reserve officers with 20 years of service, at least 10 of which were commissioned, to extend on active duty for 3 years, was rescinded. Now all reserve officers faced mandatory retirement at 20 years of service, so the large numbers commissioned officers during World War II who had not been augmented into the regular force also attrited naturally (as retirees) in the early 1960s. Provisions were also implemented to permit involuntary early retirement of selected regular officers from the World War II cohorts during the early 1960s.⁴²

⁴⁰Tour lengths for MAJCOM commanders have recently run from one to five years. Every Chief of Staff since 1973 headed a MAJCOM immediately before assuming the Chief's duties. *USAF Almanac, Air Force Magazine*, May 1993, pp. 49-51.

⁴¹The limit on regular officers was increased from 27,500 to 54,000. This provided the first opportunity for reserve officers to obtain regular commissions since 1948. The process also provided a reasonable opportunity to nonrated officers, which was quite different from the previous augmentation. Mitchell, *The First Generation*, op. cit., pp. 247-256.

⁴²*Ibid.*, pp. 409-417. The 20-10 program had been implemented because of the meager numbers of officers with over 20 years of service (2,500 in 1956, for example).

By some unspecified point in time in the 1960s, the Air Force apparently had terminated official concern that its officer corps quality was below par, and policy decisions moved more toward supporting social actions that would contribute to the performance of a well-trained team rather than stressing individual skills required to develop the "whole man." Continuing concern over maintaining standards and enduring external perceptions, however, has ensured that overall standards for personal behavior among officers have continually improved.

Accession Sources. The decision to transition to a college-educated officer corps required major revisions to Air Force commissioning programs. The decision to force the AFROTC class of 1954 to fly to be commissioned ended the numerical dominance of the aviation cadet programs as officer accession sources and marked the beginning of the transition process. A separate Air Force Academy was authorized by Congress in 1954 and admitted its first class in 1955. Also by 1955, reliance on OCS and the aviation cadet programs (the only two officer sources not requiring degrees) as commissioning sources was dwindling.⁴³ OCS had its origin during the Air Corps days, and the cadet programs were created to meet World War II requirements for aviators. Actual termination of these programs, however, was delayed when the intended plan to use AFROTC as the primary commissioning source in terms of numbers encountered several problems.

Air Force ROTC. The Air Force did not consider its ROTC program as a truly viable source for active-duty officers until the Korean War. This was the first time that it could bring AFROTC graduates involuntarily to active duty. The wartime emergency authority was codified permanently in 1952 when Secretary of Defense Robert A. Lovett, responding to public criticism concerning draft deferments, implemented a policy that all ROTC graduates, regardless of service, would incur an active-duty service obligation of at least two years (unless they had already served on active duty).⁴⁴ The Air Force, with its treatment of the class of 1954, clearly demonstrated it that regarded this as a one-sided obligation, and it felt no obligation to commission everyone who completed the program.

To improve the efficiency of AFROTC as a commissioning program, the Air Force recommended in 1953 that the least productive detachments be closed. This recommendation was referred for review to a panel of distinguished civilian educators in 1954, which supported the Air Force position that required a unit to

⁴³Ibid., p. 402.

⁴⁴Ibid., pp. 226-241. Recall that the Air Corps shut down its ROTC program in 1933 and did not reinstate it until 1946.

be able to produce 25 graduates each year (physically qualified for flight training) to remain open. Some 28 detachments were identified in 1955 for termination. Many of the affected institutions protested that their lack of graduates was the fault of the Air Force, and they should share no blame. They argued that the Air Force had not only betrayed their students by denying commissions to qualified graduates, but it also conducted a closed program whose curriculum was not subject to university review and whose instructors did not meet university standards. The Air Force relented in 1956 and agreed to close only detachments where the host institution actually wanted them closed. Only nine institutions concurred, and the Air Force eventually implemented policy changes that addressed all three of these complaints.⁴⁵

The Ascendancy of the Officer Training School Program. The dramatic changes in officer requirements that characterized the 1950s convinced the Air Force that responsiveness in the form of a short lead time was an absolutely essential property in its principal source for officer accessions. The solution, announced in 1958 and called Officer Training School (OTS), which the Air Force developed to meet its short-term officer accession requirements, provided OCS-like training to college graduates only. Precedence was handy in two successful Navy programs⁴⁶ plus the experience gained in its OCS program. To enhance flexibility, the Air Force adopted a single program, only three months long, to train rated and nonrated officers alike. Flying training would follow the commissioning program, and the decision regarding numbers to train as pilots or navigators in each class could be delayed until outputs from the long lead AFROTC and service academy programs was already known. Thus, by scaling AFROTC output to lower levels than those projected to meet requirements, OTS would provide a buffer to cope with the dynamics of changing requirements.

The beginning of OTS signaled the decline of the Air Force commissioning programs that did not require college degrees. By 1963 OTS would surpass all other accession sources combined in terms of numbers of officers commissioned per year (though AFROTC would again challenge for numerical supremacy as its enrollment increased during the war in Southeast Asia). The Aviation Cadet Program produced its last pilot in 1961, though it continued to provide a trickle

⁴⁵Ibid., pp. 327-333. The ROTC contract wording was changed in 1957 to guarantee *commissioning*, but it omitted any assurance of bringing graduates on *active duty*. The Air Force has retained control of the curriculum, but it has consistently worked to improve it and make it more relevant. Academic credentials for ROTC instructors have also received continuing attention, and advanced degrees became mandatory for these assignments in the 1960s.

⁴⁶Ibid., p. 334. The Navy had established the Officer Candidate Program in 1951 and the Aviation Officer Candidate Program in 1955.

of navigators (most with college degrees) until 1965. The OCS granted its last commission in 1962.⁴⁷

Since the OCS program (despite its brief excursion into recruiting civilians just prior to the Korean War) had historically provided the only commissioning source for active-duty enlisted personnel, it was the only program whose termination generated any real concern among Air Force leadership. Its intended replacement, the Airman Education and Commissioning Program (AECP), would generate a distinct type of officer, however, from those traditionally produced by OCS. OCS had provided the opportunity for individuals with exceptional military skills in an identified occupational area (e.g., personnel, administration, supply, aircraft maintenance, etc.) to receive a commission quickly and return as an officer to apply those skills in the same occupational area.

This opportunity to "come up through the ranks" had been inherited from the Army via the Air Service and Air Corps and indeed had supplied the only source of nonrated officers prior to World War II. AECP, on the other hand, stressed academic skills and provided provisions for entry into flying training programs upon completion. Its underlying precept was to take academically qualified airmen, send them to school full time (at normal pay and at Air Force expense) to complete their degree, and then send them through the newly formed OTS program, where they could compete for available flying slots. The original intent was to accept individuals who could finish their degrees in two years maximum, but difficulties filling early quotas reduced the specific prior college requirement to two years. This, coupled with the requirement that those not attending flying training receive directed duty assignments in billets that specified a need for their particular academic degree, markedly extended the time required to complete the degree. The reason for this was that the vast majority of billets specifying baccalaureate degrees were for engineers, physicists, or operations analysts, so that typical AECP candidates had to be able to enter (or reenter) in midstream an undergraduate program with very specific mathematical and technical requirements in the first two years, which may also have been designed originally as a five year course of study. This not only extended the modal degree completion point to three years, it also put potential candidates at risk to never obtain a degree. Thus, the selection process became even more stringent, and most successful candidates needed to take review or remedial academic coursework on active duty prior to submitting AECP applications. The

⁴⁷Ibid., p. 463. Over one-half of the cohort entering navigator aviation cadet training in 1962 had college degrees. The proportion increased to over 95 percent by the final year of the program.

combination of requirements for prior college, an exceptional military record, and remedial coursework on active duty, coupled with the three-year modal degree completion period also prevented most AECP candidates from meeting age requirements for flying training. Thus, AECP graduates filled a very specialized technical requirement in the officer corps, whereas the OCS graduates had filled centrist requirements more closely related to the officer corps mainstream.⁴⁸

By the early 1960s, the Air Force had fixed its accession sources essentially as they remain today. Several of these accession sources would encounter problems during the intervening years. The ROTC program would face massive demonstrations, turmoil, and overtly hostile activity as antidraft and antiwar fervor developed on many campuses. Many programs experienced faculty as well as student opposition, and a number of them had to be canceled or reduced. Despite the turmoil, however, ROTC began to meet its commissioning quotas in 1966 through 1969, something it had been unable to accomplish since the mid-1950s.⁴⁹ The Air Force Academy was forced, as a cost cutting measure, to almost double the size of incoming classes during the late 1960s and early 1970s. Subsequent studies revealed that the additional appointments in each case significantly lowered class entry performance indicator distributions.⁵⁰ The academy also endured a major cheating scandal in which a number of cadets criminally abused privileges generated by their own honor system. Subsequent investigations by the White Committee (chaired by former Chief of Staff Thomas D. White) led to essential changes and continuing review.⁵¹ The OTS program had to cope with the growing pains associated with a tenfold increase in officer production in less than two years. And quality issues were raised in the 1960s when pilot training attrition rates for OTS graduates rose to nearly 50 percent, twice the overall pilot training attrition for all sources.⁵² Despite these problems, however, officer accession programs were on the verge of achieving a degree of stability unprecedented in previous Air Force experience.

Striving for Stability. At the height of its effort in Southeast Asia, the second major buildup in less than 20 years, the Air Force recognized the need to develop

⁴⁸Ibid., p. 491. Flying training entrants cannot have completed their 27th birthday.

⁴⁹Ibid., pp. 547-558. The one bright spot in this was that mandatory ROTC programs were terminated at most of the nearly 100 schools that had imposed them.

⁵⁰Entry performance indicators represent a composite of high school grade point average and class standing compared with class size, SAT and other written examination scores, plus extra-curricular and leadership experience. The study was initiated by personnel from the Department of Mathematics in 1970 under the leadership of Major Paul Ruud. West Point underwent essentially the same experience. Annapolis already was at the larger size.

⁵¹Mitchell, *The First Generation*, op. cit., pp. 463-475.

⁵²Ibid., pp. 483-490.

methods that would provide essential stability in officer accessions while still meeting rapidly changing annual requirements. Satisfied conceptually with its existing accession programs, where the short lead time OTS program buffered fluctuations in the long lead time ROTC and academy programs and both fliers and nonfliers came from all three sources, the Air Force turned its attention to defining total objectives for its personnel categories. The result for line officers was called TOPLINE, an acronym for Total Objective Plan for LINE officers. It was part of the USAF Personnel Plan, first published in 1969, and its stated purpose was to stabilize accessions, as well as to provide year group management, fixed promotion opportunity, and stable promotion phase points. It also codified a baccalaureate degree as an essential characteristic of an officer.⁵³

TOPLINE's major contribution to accession policy planning was its effort to smooth annual rated production over a five year period. The TOPLINE projection model confirmed Air Force officer accession policies that had evolved earlier. Annual accessions from the Air Force Academy and ROTC were fixed as an input to the model. OTS accessions were then allowed to float to meet end strength constraints.⁵⁴ Flying training production was similarly managed, except that rated requirements determined the numbers of OTS graduates entering flying training.

A major feature of TOPLINE was that its "introduction . . . in 1969 provided managers a template against which the impact of policy decisions could be measured, both in the near term and long range."⁵⁵ Its effect on grade limitations and promotions will be addressed in a later subsection. It also helped to mitigate the bitter rated management battles that transpired throughout the 1960s between the Air Force and OSD.

Rated Management Issues. Though these issues were broad based, the fundamental problem that drove the questions surrounding proficiency flying and flight pay eligibility was an acknowledged inability on the part of the Air Force to accurately validate its requirements for rated officers. Pressure from Congress and OSD led to efforts in 1953 and 1957 to develop accurate validation procedures. A major problem was that requirements were validated solely by

⁵³Officer management was augmented by the TOPCHAP and TOPMED programs for chaplains and medical officers, respectively. Initially judge advocate general (JAG) officers were managed together with the line officers, but TOPJAG was introduced later. Supporting programs included TOPCAP for enlisted personnel, TOPREP for Air National Guard (ANG) and AF reserve forces, and TOPIC for civilians. The 1975 version was the first to incorporate the Rated Distribution and Training Management (RDTM) and DOPMA studies as well as the ACIP program. *The USAF Personnel Plan*, op. cit., Volume I and II, pp. 1-2, 3-1, and 3-13.

⁵⁴OTS classes were constrained to a *minimum* input (2,000 per year in 1974), however, to provide stability in that training program as well. *The USAF Personnel Plan*, op. cit., p. C-1.

⁵⁵*Ibid.*, p. 2-9.

commanders, who were often influenced more by incumbent qualifications than by objective criteria; and force reductions during the period increased the proportion of rated officers to all-time highs (55–56 percent in 1957–1961), thus increasing the likelihood that the incumbent was rated. The Air Force admitted that “the rated officer requirements validation system had failed”⁵⁶ by 1961.

Promotions. We have already examined promotion policies with respect to the historical reluctance of the Air Force to separate officers who were deemed “fully qualified” in a certain context before they reached retirement eligibility. While this attitude continued to influence up-or-out policy implementation until the post-Cold War drawdown, it is also clear that the Air Force used promotions, together with related policies, to achieve quality control within its officer force. The consequences of failing to exercise restraint in officer promotions during a force buildup under DOPMA are documented elsewhere.⁵⁷ An additional perspective on officer promotions that has had a significant effect on current officer management was generated by a protracted battle over officer-grade limits.

The Officer Grade Limitation Act (OGLA) of 1954. It can easily be argued that no single issue has created more grief for the Air Force throughout its history than OGLA. It was enacted by Congress to constrain at the field-grade level the proliferation of temporary promotions, which resumed during the Korean War (as provided for by OPA) under the management of the service secretaries. Since the Air Force and its officer corps were quite youthful relative to the Army and Navy, its field-grade limits were set notably lower. The congressional committees responsible for the legislation used World War II proportions as a guide for grade distributions for large force sizes and acknowledged that periodic adjustments would be required to provide Air Force promotion opportunities comparable to those of the other services.⁵⁸

Ironically, many of the temporary promotions awarded by the Air Force during Korea were to rectify injustices created in the recall of reserve forces. Reservists returning voluntarily to active duty could not return in a higher rank than they held on active duty, while those recalled involuntarily were given their current reserve rank, which could include reserve promotions plus any “terminal leave” or other cosmetic promotions received as part of the World War II demobilization process. Thus, returning reservists were screened for promotion

⁵⁶Ibid., p. A-3.

⁵⁷Rostker et. al., *The Defense Officer Personnel Management Act of 1980*, op. cit.

⁵⁸*The USAF Personnel Plan*, op. cit., p. 2-5. Mitchell, *The First Generation*, op. cit., pp. 271–295.

after only six months on active duty. From 1952 until the augmentation effort in 1958 approximately 80 percent of the officer corps held reserve commissions.⁵⁹

To understand the full effect of OGLA, it is instructive to examine the experience distribution of the Air Force officer corps in 1954. Of almost 130,000 officers on active duty, 40,000 had 3 years of service or less (and defined the Korean War hump), while some 60,000 had between 8 and 12 years of service (and formed the World War II hump). (See Figure D.3.) OGLA grade limits were developed for conventionally shaped force distributions in steady-state, or equilibrium, conditions, not for such an acutely bi-modal distribution. The Air Force estimated that meeting OGLA limits, even after they were modified for an aging force, would require at least 1,700 annual involuntary separations from the World War II hump cohorts.⁶⁰ The Air Force, concerned with retention in any case, was unwilling to take this action.

Although temporary promotion authority would remain in effect indefinitely after Korea (it provided the only promotion system for reserve officers on active duty), OGLA generated several improvements in the way the Air Force administered the system. Unit vacancy promotions were eliminated, and promotion procedures were centralized under the Air Staff and (except for SAC's "spot" promotions) removed from Major Air Command control. The "best-qualified" method had always applied to temporary promotions, but the centralization served to standardize expectations across command boundaries. These factors, however, could never mitigate the exasperation that was imminent.⁶¹

The Air Force initiated its first request for OGLA relief in 1958. Its original proposal requested a sufficient increase "to provide . . . officers with field grade promotion opportunities equal to those of the other . . . services."⁶² OSD, however, embroiled in budget problems and a major force reduction and under pressure from Congress to reduce officer/enlisted ratios in all of the services implored the Air Force to withdraw its request to prevent generating additional problems with Congress. The Air Force resisted, insisting that it could live with lower ratios much more readily than it could without grade relief. A compromise was reached in which the Air Force requested 5,000 additional

⁵⁹Ibid., pp. 174-179. Thus, a volunteer could be two ranks below a recalled contemporary. Accepting the "terminal leave" promotions had been part of the recruiting program implemented by the reserves after World War II. Almost a third of the 300,000 AAF officers returning to civilian life received such promotions.

⁶⁰Ibid., pp. 271-296.

⁶¹Ibid., pp. 278-295.

⁶²Ibid., p. 295.

majors, enough only to delay an immediate crisis rather than provide a solution. When Congress received the request in 1959, it reduced the 5,000 additional majors to 3,000 and made the legislation temporary for two years.⁶³

When the temporary grade relief expired in 1961, the Air Force put forth a request for an increased authorization of 6,585 lieutenant colonels. The center of the World War II hump was at the 17 year point, so the lieutenant colonel authorizations now required attention. Majors were no longer a problem because the required slots would be created by promoting majors. The request again ran into problems at OSD, and again it was budgetary pressure that caused them. OSD would agree to only 3,000 additional authorizations. This time Congress increased the request and authorized 4,000 additional lieutenant colonels. Since everyone was hopeful that the Bolte Committee efforts would soon provide permanent resolution, the increase again was good for only two years. With the Bolte Committee legislation still pending in 1963, OSD pressured the Air Force to agree to extending the 4,000 lieutenant colonel authorizations for two more years. The Air Force reluctantly agreed to avoid jeopardizing Bolte, but it felt that it was falling significantly behind the other services in field-grade promotion opportunity by this point. The Air Force had attempted to supply some stability for its officers by holding promotion boards each year and hoping that OGLA relief would occur in time for the actual "pin ons." The piecemeal support and inadequate temporary relief, however, caused certain numbers of selectees to be "carried over" each year until the next authorizations became valid. By the time the most recent temporary authority expired in 1965, there were over 5,000 officers in "carry-over" status, and some would remain so for over two years.⁶⁴

Another area of concern for the Air Force was the newly implemented up-or-out provisions for temporary promotions for reserve officers, which took effect in 1961. Though the "continued captains" program started in 1963, the ability to continue to retirement in a special category without further promotion was significantly different from being given an adequate opportunity for promotion in the first place. Thus, in March of 1965, the Air Force proposed to OSD that the relief package include 1,500 additional colonel authorizations (the center of the World War II hump reached 21 years) and 6,000 lieutenant colonels and be extended for three years. OSD reduced the request to 1,100 colonels and 5,500 lieutenant colonels for one year in hopes that Bolte might still survive. Congress accepted the OSD reduction. The Air Force then withdrew support for Bolte the

⁶³Ibid., pp. 292-295. *The USAF Personnel Plan*, op. cit., p. 2-5.

⁶⁴*The USAF Personnel Plan*, op. cit., pp. 2-5 and 2-6. Mitchell, *The First Generation*, op. cit., pp. 365-370.

following year and proposed unilateral legislation to finally resolve the problem of inadequate grade authorizations. The result in 1966 was PL 89-606, which provided for the first time in almost a decade the authorizations required for Air Force officers to compete equitably for field-grade promotions. By this time the "due-course" point for their promotion to major was over three years behind their contemporaries in the other services. The bill retained the 1,100 colonel and 5,500 lieutenant colonel authorizations, but even more importantly, it accommodated the Korean War hump by providing temporary authority to exceed OGLA limits while the hump passed through the entire range of field-grade ranks. The bill's provisions were limited to six years by the Senate.⁶⁵

The Senate then amended the 1972 extension of PL 89-606 to direct the Secretary of Defense to initiate the study that eventually became DOPMA. The major problems that OGLA generated for the Air Force had little to do with the promotion delays and inequities that it created. The problems did not really involve the vast number of man-years of effort that had to be devoted to coping with these promotion difficulties. The problems came instead from the tremendous anguish that the effort generated in the Air Staff and the resulting distress and deterioration of relationships of the Air Force leadership with OSD and with Congress. The required renewals always presented an ongoing forum for antimilitary sentiment, which would question the need for temporary promotions or, indeed, for any promotions within the Air force. The bitter battles also clouded the issue of what is meant by officer management and left many thinking that it has nothing to do with accomplishing national security objectives and everything to do with promotions and grade constraints.

The Effort for Stability in Promotions. Air Force promotion systems have changed almost as radically as its force levels throughout its history. As we have seen, the permanent promotion system specified in OPA was essentially a nonfactor to a fledgling Air Force with 95 percent of its officer force with less than five years of service. The "one shot" promotions in 1948 were of far greater import to the regular officers, and the 30,000+ reserve officers who remained on or returned to active duty in the 1940s apparently had no promotion alternatives at all without making regular.⁶⁶ When temporary promotions were reinstituted as a wartime contingency in December of 1950, promotion authority to all grades below colonel was delegated to the Major Air Commands where promotions were used primarily to fill unit vacancies, to redress inequities, or to entice people to take jobs that they might not have taken otherwise. Individuals could

⁶⁵*The USAF Personnel Plan*, op. cit., pp. 2-5, 2-6. Mitchell, *The First Generation*, op. cit., pp. 367-369.

⁶⁶This option ended in 1948 and did not recur until 1958.

be "screened" for promotion whenever necessary in combat and periodically based on the MAJCOM's "fair share" of temporary billets during peacetime.

Starting in 1949, General Curtis E. Lemay used "spot" promotions to attempt to motivate people and rekindle pride in an extremely dispirited Strategic Air Command. The effort is generally regarded as a successful one, though few would claim that its success was largely due to "spot" promotions that were awarded only to members of select bomber crews for exhibiting exceptional combat capability in peacetime. Many would agree, though, that the "spot" system generated a great deal of controversy over how to evaluate this capability.

A positive contribution from OGLA was the centralization and standardization of promotion procedures to all officer grades. The selection process for promotion boards became standardized quickly and seems to have worked effectively, even for selecting those to receive regular commissions in the massive augmentation in 1958. This was a vast improvement over the attempts to make similar selections for regular 10 years before. Unfortunately, OGLA also prevented any opportunity to stabilize promotion phase points or to fix consistent promotion opportunities. The experience distribution of the early Air Force officer corps was so far from equilibrium that there would have been promotion problems even without OGLA and without Korea. A study completed the day after hostilities began in Korea revealed that the regular officer World War II hump would require three times the published OPA limit for lieutenant colonels as it reached 21 years of service.⁶⁷

The problems generated by OGLA also motivated the Air Force to look strongly at stable phase points and fixed promotion opportunity as part of its TOPLINE study in the late 1960s. The Air Force proposals, with minor modifications, were adopted in DOPMA. The most significant changes that were required of the Air Force to incorporate the DOPMA philosophy into its objective force models were to reduce retention and accelerate promotions in its static model in order to correspond to experience in the other services. A slight adjustment in tenure was also required.⁶⁸

Department of the Army

Introduction. When military historians discuss activities of Army officers in the 1930s, they frequently mention the dull life, the poor equipment with little

⁶⁷Mitchell, *The First Generation*, op. cit., pp. 273-275.

⁶⁸The tenure change was for lieutenant colonels from 28 to 26 years. *The USAF Personnel Plan*, op. cit., p. 3-3.

opportunity for training, and the absence of promotion. Some also note in retrospect how important the development, military schooling, and leadership training during this period were in preparing company- and field-grade officers (such as Eisenhower, Patton, and Bradley) for later, rapid promotion and the broad responsibilities they faced in meeting the major challenges of World War II.⁶⁹

That small, but experienced, officer corps (excluding the Army Air Corps) expanded rapidly during World War II from 17,563 officers in 1940 to 835,400 at the peak in 1945.⁷⁰ There was not much officer management during this time: It was essentially identify and commission officers, provide them minimum essential training, and then send them off to war. Creating new units and keeping the two overseas theaters filled with officers provided little time for development. By 1948, demobilization had reduced the Army officer corps to 64,000.⁷¹ At the same time, the Army was preparing to meet the challenges of the nuclear age and the communist threat in a postwar environment.

To support the Korean War, officer strength nearly doubled to a peak of 133,900 in 1952. However, postwar demobilization quickly reduced the officer corps to near prewar levels when a large number of officers left the Army through a RIF or by reverting to enlisted status. During this period, development for the officer corps was again limited to that which directly supported the war effort.

Flexibility in meeting officer increases to support the Vietnam War was affected by the one year tour in Vietnam and the decision not to mobilize the reserve component. OCS was a major source of junior officers, and while the ROTC contribution of active-duty officers was initially expanded, the antiwar movements on many campuses caused several ROTC programs to be reduced in scope or terminated.⁷² Concurrently, transition to the All-Volunteer Force and the elimination of the draft reduced interest in ROTC.⁷³

In some ways, however, the Vietnam conflict had little effect on officer career activities, such as civilian schooling and development, which were often just delayed (or interrupted) by a one year tour in Vietnam. The gradual reduction

⁶⁹Until 1942 there was little centralized management of officers; rather, the branch chiefs (infantry, cavalry, coast artillery, and field artillery) handled all aspects of career management for combat officers as well as developing doctrine and equipping their forces. George R. Iverson, "Officer Personnel Management: A Historical Perspective." Defense Technical Information Center, May 1978, p. iii.

⁷⁰Ibid., p. 10.

⁷¹Ibid., p. 12.

⁷²Headquarters, Department of the Army, "Army Historical Summary, 1 July 1972 to 30 June 1973," p. 33.

⁷³Ibid.

of the war effort together with the departure of some Korean War veterans eased somewhat the trauma of the postwar drawdown of officers from a peak of 172,600 in 1969 to about 97,700 in 1977. (These strengths include warrant officers.) Nonetheless, a RIF was required in 1974, and mostly company-grades officers left the Army involuntarily.

Army end strength (and officer levels) remained stable throughout the late 1970s. While the Reagan buildup (of the early 1980s) increased the overall size of the other services, the Army active-duty end strength remained at 781,000 during this period. Nonetheless the size of the officer corps grew from 98,340 in 1980 to 110,005 in 1986, an increase in officers as large as that of any other service.

There was general recognition (by Congress, DoD, and the military services) during the Vietnam era that major changes to officer personnel management were required. Ultimately that led to DOPMA. The Army, however, took interim action; it recognized the need to improve internal officer management and conducted the first of two major studies—the Officer Personnel Management System (OPMS) of 1971. The purpose of the study was to develop a “new concept of officer personnel management”⁷⁴ that would “establish the professional and personal standards and goals required for the Officers Corps of the Modern Volunteer Army.”⁷⁵ The guiding philosophy of OPMS was to

- improve the professional climate of the officer corps
- identify early and develop carefully officers most qualified for command
- allow for specialization in some technical areas without undue restriction on promotion and schooling opportunities
- provide a satisfying career for that large segment of the officer corps who are neither commanders nor specialists.⁷⁶

The changes resulting from this study (and follow-on studies in 1976 and 1983) have shaped Army officer management as it exists today.

Career Flow Structure. Like the other services, the Army’s career flow structure is generally up or out. The Army force structure requires a larger percentage of junior-grade officers; these accessions are based on both vacancies and end-strength limitations. Normal attrition has generally not been adequate to balance officer requirements with the decreasing need for higher grades, so a “best-

⁷⁴Department of the Army, “Officer Personnel Management System,” 1971, p. 1.

⁷⁵Ibid., p. A-1.

⁷⁶Iverson, “Officer Personnel Management,” op. cit., p. 43.

qualified" promotion system is used beyond captain. Those not selected for promotion (they normally have more than one opportunity) are involuntarily separated.

Personnel Functions. According to Army regulations, its personnel management system mission has four elements:

- Procure and designate officers in the right skills to satisfy Army requirements
- Develop the professional capacities of officers through planned schooling and progressive assignments
- Assign officers to meet Army requirements
- Separate officers to meet individual and Army needs.⁷⁷

Accessions. Since World War II, the Army has used three primary sources for accessions (other than doctors and lawyers): the United States Military Academy, Reserve Officer Training Corps, and Officer Candidate Schools. The relative proportion from each source has shifted over time.

Before the size of all of the service academies was increased to 4,400 cadets in 1964,⁷⁸ average accessions from West Point were 564 officers annually (between 1961–1967), all of which went into one of five combat arms branches. During the 1970s and 1980s, not only did the size of each graduating class increase to 981 graduates (in the 1980s), but cadets were allowed to go to other than combat arms, women were admitted (the first women graduated in 1980), and for a period of time cadets were allowed to go directly to graduate or medical school. In 1992, Congress directed a reduction in the size of the academies (to 4,000 cadets by 1996) that will reduce average accessions to about 850 beginning in 1996.

The ROTC program has provided officers to both the active Army and the reserve component through several full and partial scholarship programs. ROTC accessions into the active Army since 1980 have averaged 3,715 (1,875 of whom had scholarships) with a range of 2,864 to 5,065. The OCS program, averaging 620) has contributed the remainder of the officer accessions (with a range of 268 to 830). Although OCS provides only a relatively small number of officers, it has the important ability to surge quickly. Doctors, lawyers, chaplains, and other

⁷⁷Department of the Army, "Commissioned Officer Professional Development and Utilization," Pam 600-3, 17 September 1990.

⁷⁸Headquarters, Department of the Army, "Army Historical Summary," op. cit., p. 37.

professionals enter the Army through special accession programs based on requirements in each specialty. Many enter at higher grades based on professional experience and skill.

Future accessions (beginning in 1996) are projected to remain stable at 3,600 with 850 from West Point, 2,450 from ROTC (another 1,250 ROTC cadets will go to the reserve component), and 300 from OCS. The projection for a stable force structure, and thus stable accessions into the 21st century, may be suspect since history suggests there will be considerable turbulence in the size of the Army's officer corps. While the surge strategy is to increase OCS and divert ROTC graduates from reserve to active component, the recent shortage of qualified OCS candidates is troublesome.

Under the DOPMA and its congressionally mandated officer ceilings, accessions and separations are closely interrelated. In the mid-1980s, the Army was forced to reduce accessions to satisfy end-strength limits.⁷⁹ By the early 1990s, the combination of a reduced force structure and smaller-than-expected voluntary retirements led to extraordinary measures: RIFs, selected early retirement boards (SERBs), and voluntary separation programs with bonuses.

Targeting accessions is also an important issue. The Army has goals for different academic disciplines that are based on the skills required by the branches and specialties: 30 percent business, 20 percent engineering, 20 percent physical science, 20 percent social science, and 10 percent other.⁸⁰ Historically, the Army has had difficulty accessing from the engineering and physical science disciplines. While ROTC scholarships have targeted those areas, shortages remain, and social science majors are substituted. The Army also targets minorities and women in its accession programs at West Point, ROTC, and OCS.

In addition, there have always been "inverted authorization pyramids," in which some branches or specialties need a large number of junior officers and a relatively small number of senior officers while others need fewer junior officers and more senior officers. This problem (and the solution) is discussed in the development subsection. The uncertainty about the size of the Army together with a shifting accession pattern and separation profile have also created cohort sizes (year groups) of dramatically different sizes. This has created problems in maintaining fair, equitable promotion and appropriate assignment patterns.

⁷⁹Department of the Army, "OPMS Study Group Report," 1983, p. ix.

⁸⁰Ibid., p. III-1-A.

Development. While many officers consider development an individual responsibility, decisions regarding reassignment, schooling, and other professional activities are centrally managed by the Army headquarters in Washington, D.C.⁸¹ The management process and structure for development and officer career management have changed in response to the shifting requirements and environment.

The 1960s and 1970s spawned a whole host of officer specialties, such as operations research/systems analysis (ORSA), acquisition, automation, and foreign area specialist; each required special training, unique assignment patterns, and special career development. There was also criticism at the time regarding promotion and command selection. These types of problems, along with other concerns, led to the Officer Personnel Management System study in 1971. The study was to evaluate the situation and develop a new career management system that would "provide, consistent with the needs of the [Army], for the optimum development and utilization of individual aptitudes, skills, interests and desires and to provide a competitive environment which gives equitable recognition to individual development and accomplishment."⁸²

The assignment process is guided by requirements documents that describe qualifications for different officer positions by branch, specialty, grade, and other qualifications, such as whether graduation from a command and staff college or a degree in nuclear engineering is required. Frequently, the document also specifies types and amounts of experience. These requirements data also guide promotion boards and separation actions. Since requirements for officers exceed availability, the Army assignment process is frequently in the business of "allocating shortages." To give some priority, both in terms of numbers and officer quality, units are categorized relative to the fill percentage (e.g., 95 percent of requirements) and the percentage of officers of the highest quality.

The first OPMS (1971) was also "challenged to design an officer management system to accommodate an Army structure in which some branches and career fields had inverted authorization pyramids," which resulted in the Army accessing 57 percent into combat arms when less than 25 percent of the colonel billets required combat arms officers. The solution was for all officers to have two specialties—a primary combat arms specialty into which they were accessed

⁸¹According to Department of the Army Pamphlet 600-3, officer development is the combined responsibility of the individual, the commander, the career field proponent, and the personnel command.

⁸²Department of the Army, "Officer Personnel Management System," 1971, p. C-1-1.

and in which they served their early assignments and a secondary specialty that was selected after several years of service.⁸³

Most officers select their secondary specialty by the 7th year of service and then receive an assignment in that area. The goal is that by the 11th or 12th year of service each officer is "branch qualified" in both specialties; officers then "dual track" and alternate assignments between specialties based on the Army's needs. While the Army still wants "generalists" with broad experience under the dual track system, they at the same time are requiring each officer to achieve a higher level of competency in two specialties. With longer assignments and more overseas tours, it is difficult for officers to remain qualified in both specialties, attend appropriate military schools, obtain an advanced degree, and meet other requirements. The Army, recognizing this situation, introduced primacy, which allows officers to emphasize career development in one area. Typically, officers change primacy from an entry branch to a functional area in midcareer when a branch-related assignment becomes less likely. In some cases, officers have a single specialty; few of these single-track officers are in the combat arms because most do not have a sufficiently broad pyramid.

The new system implemented following the OPMS study also increased the competencies and branch composition of the organizational staffs. For example, whereas previously all members of a field artillery battalion staff were field artillery officers, the new system provided a signal officer to be battalion communications officer and an ordnance officer to be battalion motor officer.⁸⁴

In reality, dual tracking causes problems. Officers, feeling pressure to remain qualified in both specialties, seek a specific type of assignment in order to strengthen competencies in their weakest specialty, only to be assigned somewhere else based on the Army's requirements. In a practical sense there are other problems since the individual officer has three advisors at the headquarters personnel office: one from each specialty and one for career development.⁸⁵ Occasionally an officer receives conflicting advice or becomes a pawn in a struggle between assignment officers representing the two specialties (requirements).

The resulting officer turbulence has operational effects as well. An Army study on the lack of stability said: "The 'hard charging' segment of the officers . . . come to the staffs to touch base with a development requirement and depart for

⁸³Department of the Army, "OPMS Study Group Report," op. cit. p. vi.

⁸⁴Department of the Army, "Officer Personnel Management System," op. cit. p. C-3-1.

⁸⁵Department of the Army, "OPMS Study Group Report," op. cit.

command, school or nominative assignments. This constant change . . . causes inefficiencies because officers are constantly in a learning mode with few teachers."⁸⁶

The Army has always placed considerable emphasis on command at every level from platoon through brigade. In fact, officers are not normally considered qualified in their basic branch until they command at the company level (i.e., a company, battery, or troop). Until the mid-1970s, assignment of command positions through battalion (and in some theaters through brigade) was decentralized to the division commander.⁸⁷ The concern over "ticket punching" and the tales of marginally qualified officers receiving a Vietnam command as reward for loyal staff work, while not fully accurate, caused the Army concern. As a result, beginning in 1974, all battalion and brigade command positions⁸⁸ were centrally selected and assigned.⁸⁹ Surveys of both senior commanders and officers indicate the process is working well. There is some concern that command tours (typically 24 months) should be longer. Since then, other "command-equivalent" positions for colonels and lieutenant colonels (such as engineer districts, depot commanders, program managers, and, recently, installation commanders) have also become centrally selected and assigned.

While command is a critical part of officer development,⁹⁰ it must be recognized that command opportunities are limited, particularly for field-grade officers. Overall, only about 25 percent of the Army's lieutenant colonels and 20 percent of the colonels will command, and those percentages vary considerably by branch.⁹¹ Table D.1 shows command selection rates (percentage) since 1987; most officers are considered for command position for two to three years.

Over the years, the Army has made several efforts to define certain positions as "equivalent to command."⁹² For example, the OPMS-71 study proposed designating officers as commanders or staff officers when majors and giving them appropriate follow-on assignment patterns. Other efforts to give recognition to certain types of assignments (advisors in Vietnam, advisors to reserve component, recruiting duty) have not succeeded despite specific guidance to promotion boards of equivalence.

⁸⁶Department of the Army, "OPMS Study Group Report," op. cit., p. V-3-B.

⁸⁷Department of the Army, "Annual Historical Summary," op. cit.

⁸⁸The Army has very few commands for majors. Company-grade command positions remain decentralized.

⁸⁹Department of the Army, "Army Historical Summary," op. cit., pp. 48-49.

⁹⁰Department of the Army, "OPMS Study Group Report," op. cit., p. ix.

⁹¹Ibid., p. ix.

⁹²Ibid., p. C-5-1.

Table D.1
Army Command Selection Opportunity

Year	Percentage Selected	
	To O-5	To O-6
1987	5.3	8.7
1988	7.6	8.5
1989	N/A	9.7
1990	N/A	8.5
1991	10.6	8.4
1992	9.8	7.1
1993	12.9	8.3
1994	11.9	9.0

To meet the career management approach that included dual tracks and centrally selected command positions, the Military Personnel Center was initially organized in 1973 to manage field-grade officers by "grade and specialty" rather than by branch.⁹³ A subsequent reorganization of the Army's Officer Personnel Management Directorate in 1978 created three vertically structured career management divisions—combat arms, combat support arms, and combat service support arms) to perform officer management through the grade of lieutenant colonel. Thus, each officer would be managed by the same organization from commissioning through selection for colonel.

Career management, already complicated by the need to provide officers with assignments that increase their experience in two specialties and attend required schooling, was further complicated recently when Congress established specific guidelines for joint service officers and those in the acquisition corps. In some cases it is simply not possible to meet all of the requirements for development in a particular specialty and grade within the time normally allowed or expected.

Education. The Army has always considered military education and civilian schooling important elements of development. All officers attend a basic branch course (16 to 22 weeks) soon after commissioning. After four or five years of service (one or two assignments) they attend a one-year branch advanced course. After the next assignment, frequently a command position, they attend the nine-week resident phase of the Combined Arms and Services Staff College (CAS3). All officers promoted to captain attend both the advanced course and CAS3.⁹⁴

⁹³Ibid., p. vii.

⁹⁴ DA Pamphlet 600-3, September 17, 1990, p. 103.

Field-grade officers also receive military education. Of those selected for promotion to major, 40–50 percent will attend the one-year Command and Staff College (CSC), and another 30–40 percent receive the nonresidence course. Of those selected for promotion to lieutenant colonel, about 30 percent will attend senior service college (SSC).

Each year about 500 officers are selected to attend graduate school for one or two years and receive a masters degree; a small number work toward a doctorate. Most officers receive a utilization tour after civilian schooling. Many officers not attending a full-time graduate program obtain an advanced degree by attending night school, often in conjunction with attendance at CSC or SSC. Currently over 99 percent of all officers have a baccalaureate degree, and 66 percent of field-grade officers have a masters degree or higher.

Officers also may attend a variety of other training/education programs based on their specialties and assignments: precommand courses, Professional Military Comptroller Course (comptroller specialty), Program Management Course (acquisition corps), and an advanced management program at a private institution (Harvard, Stanford).

As a result, an officer who attends the above-mentioned schooling (officer basic course (OBC) (1/2 year), advanced officer course (AOC) (1 year), CAS3 (1/2 year), CSC (1 year), SSC (1 year), civilian school (1 year)) would spend at least 5 years in school during the first 20 years of service. With so many competing requirements for developmental assignments and education, it is becoming increasingly difficult for an officer to find time in his or her career for the 3 to 5 years for a fully funded graduate program and utilization tour.

Promotion. The Army's up-or-out promotion system is essentially "fully qualified" promotion to captain and "best-qualified" thereafter. Promotion opportunities in the Army (as outlined in DA Pam 600-3) follow DOPMA guidelines. Promotion to first lieutenant and captain is on a fully qualified basis (95 percent selection rate to captain). Beyond captain, promotion is on a best-qualified basis with goals of 80 percent to major, 70 percent to lieutenant colonel, and 50 percent to colonel.

In 1973, the Army moved to a single promotion system that eliminated the concept of permanent and temporary grade structure and led to an all-regular force after 11 years of service.⁹⁵ At the same time mandatory retirement points were established of "20, 26, and 30 years for major, lieutenant colonel, and

⁹⁵Department of the Army, "Army Historical Summary," op. cit., p. 42.

colonel," respectively, and selective continuation for officers failing promotion twice above major.⁹⁶

Selection for promotion is made by boards operating with detailed guidance on both process and outcomes. With the proliferation of specialties and the Army's commitment to increase diversity and promote equal opportunity, each board has floors and ceilings for promotions in many different categories. When these "requirements" are compared with the available supply, which is itself skewed by different sized cohorts and promotion pyramids, the result is considerable inconsistency in both opportunity and outcome for promotion by both specialty and rank. Changing force structure resulting from new structure (aviation brigade) and new weapons systems (Patriot) causes a shifting requirement for officers in different grades and specialties.

Each promotion board considers three specific groups of officers: those previously considered but not selected (above the zone), those being considered for the first time (primary zone), and those eligible for early promotion (below the zone). The board selects a relatively small number (1 to 2 percent) from above the zone; selection from below the zone has varied more widely (up to 15 percent) depending on the Army's needs and the relative emphasis on increasing upward mobility.

At one time, the headquarters personnel offices did a preliminary screen and established a priority list of officers by branch or specialty and provided that information to the promotion board. That process was discontinued in the mid-1970s.⁹⁷

The Army centrally selects and promotes all officers, captain and above. Overall selection rates during the past 20 years have varied; within the different specialties there has also been considerable variation. The selection rates for captain, major, lieutenant colonel, and colonel are shown in Table D.2.

Officers are normally considered for promotion to each rank at least two times. If they are not selected, their disposition depends upon their length of service and eligibility to retire. "Under DOPMA the involuntary separation of career officers before retirement eligibility at 20 years of service is very difficult."⁹⁸ Thus, while majors not selected for promotion twice may be separated, most are retained on active duty until 20 years of service is completed. Normal mandatory retirement

⁹⁶Ibid., p. 43.

⁹⁷Ibid., p. 47.

⁹⁸Rostker et al., *The Defense Officer Personnel Management Act of 1980*, op. cit., p. 19.

Table D.2
Army Promotion Rate

Year	Captain	Major	Lt. Colonel	Colonel
Goal	95.0	80.0	70.0	50.0
1987		72.4 ^a	69.5 ^a	45.0 ^a
1988	84.6 ^a	64.8 ^a	65.0 ^a	39.6 ^a
1989	82.9 ^a	68.7 ^a	61.4 ^a	40.5 ^a
1990	87.0 ^a	73.3	70.0	44.0
1991	95.2	71.3	69.9	46.6
1992	96.7	80.1	70.2	50.4
1993	79.3	N/A	69.4	N/A

^aSelection rate for first time considered.

for officers is 20 years for majors, 28 years for lieutenant colonels, and 30 years for colonels.

Because of the importance of command, and its effect on promotion, there has been considerable competition among branches for command billets. Changes to the force structure, such as the addition of an aviation brigade to each division (a colonel-level command for aviation branch) or Patriot battalions (a lieutenant colonel command for air defense artillery), added command positions.

Commanders and branch proponents have worked behind the scenes to increase the command opportunities within their branches; for example, there are now finance commands for colonels, and engineer districts and supply depots are also considered commands. Within the acquisition corps (a single-track specialty), project and program managers are now centrally selected using procedures similar to the command selection process. The overall result has been disproportionate command opportunities in different branches and specialties.

Since the outcomes of the promotion process influence so many things in an officer's career, the results are carefully studied in an effort to identify trends and prepare for the future. Before choosing a secondary specialty, officers look at promotion results in that specialty. Career patterns of promoted officers are studied to identify the type of assignments that are prevalent. If certain types of assignment (duty with the reserves, recruiting assignments, ROTC duty, teaching at service schools, etc.) are common among selected officers, the type of assignment is considered "career enhancing." The converse is also true. This behavior enhances the perception of ticket punching and of careerists whose behavior is focused on self-aggrandizement rather than service to the Army.

Until the early 1970s the Army also had temporary and permanent promotions that caused unnecessary animosity between active-duty officers with regular

Army commissions and those with reserve commissions. At that time, Title 10 USC fixed the number of regular officers at 49,500 while the structure required 95,000 officers.⁹⁹ It was perceived that regular officers were promoted more quickly and in greater numbers, and the data seem to support that conclusion.¹⁰⁰ While most of these distinctions have been eliminated, the problems resulting from having different groupings need to be remembered when considering a system with these characteristics (for example, separate career management for line and staff).

Separation. To maintain flow in the system, there must be regular voluntary departures in addition to separations based on completion of service or failure for promotion. These departures are difficult to predict. With congressional ceilings on officer strengths, lack of departures can limit ability to access young officers. This is particularly important for the Army because the force structure requires a higher percentage of junior officers.

Until recent legislation (1992 Defense Authorization Act, October 1991) allowing more frequent SERBs and providing incentives for early departure, separations were influenced by promotion policies and rates. On occasion, RIFs have been required to reduce specific career groups or cohorts that were out of balance. Until 1991, officers could be subjected to a SERB only once within a five year period. With the new authority and the pressure to reduce the size of the officer corps, particularly at the higher ranks, the Army conducted SERBs in 1992 and 1993. In 1992, the Army retired 315 colonels, 1,146 lieutenant colonels, 180 majors, and 8 captains under the SERB; in 1993, the SERB resulted in 179 colonels, 143 lieutenant colonels, and 60 majors being involuntarily retired.

The 1992 Defense Authorization Act also provided for increased voluntary separations by using financial incentives. There were two options, a Voluntary Separation Incentive (VSI), which provided an annuity, and Special Separation Bonus (SSB), which offered a lump sum. During the first year (1992), 5,215 officers took advantage of these programs; in 1993, 1,810 officers took a VSI or SSB. The Army was generally pleased with these programs, although lack of voluntary retirements in one year group did necessitate a RIF in 1993.

⁹⁹Department of the Army, "OPMS Study Group Report," op. cit., pp. B-4-1, 2.

¹⁰⁰Ibid., p. B-4-1 to B-4-10.

Department of the Navy

The Navy groups its officers and officer billets into general categories: unrestricted line, restricted line, staff corps, limited duty (line and staff) and chief warrant (line and staff).¹⁰¹ These categories are generally identified by a "designator" reflective of the specialty qualifications of the individual (or qualifications needed for the billet). Each designator has a flag officer advisor who is a principal official, chief of a bureau, or systems command commander.¹⁰² The Navy's equivalent to company-grade and field-grade officers are "junior" and "senior" officers; unlike the other services, the Navy considers O-4 and below to be junior officers, O-5/O-6 to be senior. While there are a few "sea" commands for junior officers, initial command in the Navy usually occurs at the O-5 (commander) level.

The Navy and Marine Corps are unique for having limited duty officers (LDOs). LDOs are technical managers of the line and staff corps and serve afloat and ashore in billets from division officer through commanding officer. They perform duties in specific occupational fields that require authority equivalent to other officers, but greater than a chief warrant officer; that require strong managerial skills; and that require extensive technical training or extensive on-the-job training.¹⁰³ LDOs and chief warrant officers have diverse designators encompassing most of the URL, RL, and staff corps designators reflective of their previous technical experience and expertise. Bandmaster (6430) and legal paralegal (6550) are the only two LDO designators for which there is no comparable warrant, URL/RL, or staff corps equivalent.

Accessions. The primary accession sources are the Naval Academy and Navy ROTC (NROTC). In FY 1994, Annapolis will graduate approximately 800 ensigns, a reduction of roughly 12 percent since FY 1990. NROTC will provide approximately 1,100 graduates, a reduction of approximately 22 percent since FY

¹⁰¹The unrestricted line (URL) includes surface warfare officers, submariners, naval aviators, special warfare officers (SEAL/UDT), special operations officers (EOD, diving & salvage, etc.) and general unrestricted line officers. The restricted line (RL) are "restricted" by having been designated for engineering duty, aeronautical engineering duty, or special duty. Cryptology, intelligence, oceanography, and public affairs are special duties. The eight staff corps are medical, dental, nurse, medical service, judge advocate general's, chaplain, supply, and civil engineer (SEABEE). Limited duty and chief warrant officers are assigned to the broad occupational category indicated by their previous experience. Of historical interest, in 1785, the Continental Congress established warrant officer grades for surgeons, chaplains, boatswains, carpenters, and other specialists to serve in tasks vital to establishing and maintaining a fleet.

¹⁰²Office of the Chief of Naval Operations, "Manual of Navy Total Force Manpower Policies and Procedures," OPNAVINST 1000.16 series, p. D-7.

¹⁰³"The Naval Officer's Career Planning Handbook," NAVPERS 15605, 1990 edition, pp. 104-105.

1990. NROTC also has been reduced both in the number of scholarships¹⁰⁴ and in the number of host universities. Officer Candidate School¹⁰⁵ (OCS) will provide approximately 400 officers. The Navy has five different enlisted commissioning programs whereby personnel complete degree requirements and receive officer training through an NROTC unit or OCS, as appropriate to the program. The enlisted commissioning programs provide approximately 1000 officers,¹⁰⁶ nominally constant since FY 1990. The health professions will provide approximately 400¹⁰⁷ new healthcare officers.

Many of the restricted line and staff corps access, at least in part, through lateral transfer. Thus, engineering duty officers (who basically work in shipyards and the Naval Sea Systems Command) access surface warfare officers with an engineering background who have or are capable of completing a masters program in engineering.

The Navy and Marine Corps have a unique officer accession program tailored to assist economically or educationally disadvantaged enlisted people obtain a commission—Broadened Opportunity for Officer Selection and Training (BOOST). Candidates are selected by an administrative board that considers educational/economic background, motivation, and potential for success as an officer. Selected candidates receive one (academic) year of college-prep instruction prior to attending a university under a full (four year) NROTC scholarship. During the college-prep period, they are on active duty, retaining their enlisted rate. Upon activation of their scholarship, they are separated from active-duty status (though still obligated for a period of time) and sworn in as midshipmen. Upon commissioning, their obligated service is the same as their cohorts. If they fail to obtain a commission, they revert to active-duty (enlisted) status to serve the remainder of their obligated service; or (if their obligated service is expired), they are handled the same as any other scholarship attrite.

Education. Most newly commissioned officers, general unrestricted line officers being the exception, receive initial skill training. While this training averages 103

¹⁰⁴The Navy is currently authorized 5,226 scholarships but is only able to fund 5,174. This may reflect the high cost of private colleges in the NROTC program, which has been addressed by the Headquarters Area Command as a matter of concern.

¹⁰⁵Aviation Officer Candidate School (AOCS) and OCS will be consolidated in Pensacola, FL. The first 13-week class began in April 1994. Both aviation and nonaviation officer candidates will now attend OCS in Pensacola, saving about \$1.9 million annually. Currently, the location of AOCS is Pensacola. OCS will be relocating from Newport, RI. Both schools utilized about 25 percent capacity at each location. The school will operate with 39 staff members consisting of four Marine drill instructors, eight senior Navy enlisted personnel, and 27 Navy officers as instructors and staff personnel. Navy News Service, October 20, 1993, NAVNEWS.

¹⁰⁶Department of Defense, "Military Manpower Training Report," FY 1994, p. 31.

¹⁰⁷Ibid., p. 32.

days,¹⁰⁸ certain exceptions are worth highlighting. Submariners attend nuclear power school, nuclear prototype training, and submarine school, which represents 18 months. Pilots take upward of 30 months to complete flight training and the fleet aircraft training required prior to reporting to their first squadron. Even LDOs and chief warrant officers receive approximately six weeks of officer indoctrination training.¹⁰⁹ The Navy's functional training differs significantly from the other services and can be characterized as the type of training that can be conducted while the ship is in port. Over 1,500 courses averaging three days' duration are offered.

Skill progression training is for officers with several years of experience. This type of training is typically provided officers en route to a sea-duty billet following a shore tour. For example, surface warfare officers attend a five month department head school before returning to sea after their first shore tour. Submariners (nuclear power) receive a 22-week submarine officer advanced course. The Navy has 149 courses of this type averaging 49 days in length.¹¹⁰

The Navy's intermediate service school is the College of Naval Command and Staff in Newport, Rhode Island. Historically, Navy officer attendance at service schools has been proportionally the lowest of all the services by a significant margin. The Navy selects officers to attend service schools by a reconstituted selection board that reconvenes after the O-4 board for intermediate school, and after the O-5 board for senior service school. Selection for service school is historically high, and officers go into a pool of eligible attendees. This results in the assignment process in essence acting as a selection board when and if the officer is ordered to a school. A special panel on military education chaired by Representative Ike Skelton of the House Armed Services Committee was critical, of, among other things, the low attendance by Navy officers and of the de facto policy of attending at most one service school in a career.¹¹¹ Attendance at service colleges has been increased dramatically recently, primarily because of the need perceived by officers to have a joint tour.¹¹²

¹⁰⁸Ibid., p. 42.

¹⁰⁹Frequently referred to as "knife-and-fork" school.

¹¹⁰Department of Defense, "Military Manpower Training Report," op. cit., p. 43.

¹¹¹In academic year 1987-1988, 215 Navy officers attended intermediate service school (97 at the College of Naval Command and Staff); representing 1.6 percent of eligible officers. The Marine Corps, Army, and Air Force sent 6.5 percent, 6.0 percent, and 3.0 percent, respectively. The panel was also critical of the "one-level" nature of professional military education caused by the Naval War College providing essentially the same course at both levels. Only about 8 percent of Navy officers attend both an intermediate and a senior-level school. House of Representatives, "Report of the Panel on Military Education of the One Hundredth Congress of the Committee on Armed Services," First Session, April 21, 1989, p. 144 and 184.

¹¹²The Navy is currently sending 500 officers annually to service schools. Discussion with Joint Officer Policy Head at the Bureau of Naval Personnel.

The Navy identifies and tracks graduate education and follow-on experience through "subspecialty" codes. In the Navy's scheme of assignments, shore tours afford an opportunity to develop officer professional skills in areas other than the "at sea" specialty. Approximately 1,400 officers are enrolled in funded postgraduate education programs; primarily at the Naval Postgraduate School.¹¹³ An additional 400 are enrolled in advanced programs in the health care professions. Postgraduate education is frequently part of the "career track" for many restricted line and staff corps communities. Promotion rates are generally higher for officers with a masters or above.

Educational levels of all officers, including LDOs and warrant officers, are depicted in Table D.3.

Assignment. "Sea duty" drives the assignment and career management processes for most Navy officers. Time at sea, underway, is essential to developing shipboard as well as Naval experience in future commanding officers of ships (and embarked aircraft squadrons). Prior to initial command at sea, officers are provided with three sea tours representing at least nine years of sea duty. Two or three shore tours of 2-3 years¹¹⁴ duration are used to increase professional knowledge, provide the opportunity to instruct, and/or pursue an advanced degree. Assignments after initial command, reflect whether the officer is on an "operators" track, with continued assignments, primarily at sea, in command positions and operational staffs or on a subspecialty track with similar assignments ashore. Key milestones for this typical aviator, submariner, and

Table D.3
Educational Level of Navy Officers (as of September 30, 1992)

	Officer	Warrant	Total
Non HS Grad	0	0	0
HS Grad	1,025	477	1,502
Some college	964	278	1,242
Bachelors	38,004	191	38,195
Masters	19,182	35	19,217
Ph.D.	419	0	419
Total	59,594	981	60,575

NOTE: 1993 *Uniformed Services Almanac*, p. 227.

¹¹³Department of Defense, "Military Manpower Training Report," op. cit., p. 42.

¹¹⁴Nuclear-power-qualified (junior) officers rarely spend more than two years ashore; the need to remain current in the operation of a nuclear reactor is frequently cited as the reason for short shore tours.

surface warrior path is qualifying in the warfare specialty (e.g., "earning your dolphins," etc.), being screened by a board for department head, and being screened by a board for command.

Each officer designator has a designator advisor,¹¹⁵ an officer community manager for formulating and recommending policy affecting that specific designator, and a "detailer."¹¹⁶ Professional development paths are formulated and published for each community. They depict a typical career path, with the types of assignments one could expect at any point in a career. Career paths both develop the officer and provide ample opportunity for the officer to apply the knowledge or experience gained. Thus, the amount of sea-duty time varies as a function of the need for the specific skills at sea. JAG Corps officers (lawyers) have relatively little sea duty, reflective of where their services are both needed and refined.

Detailers assign officers to specific billets in specific units. Most billets have a training track associated, and newly reporting officers receive training en route to their next assignment. Commanding officers have the option to assign officers wherever needed, but specialized training requirements sometimes minimize job shifts inside the unit.

Promotion. The Navy was generally the fastest promoting service for officers in 1992.¹¹⁷ Promotion opportunity has been reduced 10 percent for O-4 and 5 percent for O-5 in FY 1994 to maintain flow point. See Tables D-4 and D-5.

Separation. The drawdown strategy adopted by the Navy was to attempt to retain high-quality people and to not involuntarily separate individuals prior to retirement eligibility. Reduced career opportunity for reserve officers and selective early retirement of retirement-eligible O-5s and O-6s were the primary elements used initially. Subsequently, the size and timing of the reductions have forced the Navy to use a variety of programs to remain within controls while shaping and maintaining the viability of the officer corps during the drawdown.

Selective early retirement (SER) initially targeted senior O-5s and O-6s; 442 were retired in 1991. Voluntary retirements in 1992, in part a response to the concern about being forced out, reduced the SER from 400 to approximately 225—again at the O-5 and O-6 levels. In 1993, the eligibility zone was expanded, including retirement-eligible LDOs and warrant officers, as well as by reducing the time in

¹¹⁵A flag officer who is an OPNAV principal official, chief of a bureau, or systems command commander.

¹¹⁶Assignment officer.

¹¹⁷"Navy Promotions on Fastest Track," *Navy Times*, April 19, 1993, p. 3.

Table D.4

Actual and Planned Promotion Opportunity, FY 1989–1994 (in percentage)—Navy

Year	O-6 DOPMA=50%	O-5 DOPMA=70%	O-4 DOPMA=80%
1989	55	70	80
1990	55	70	80
1991	55	70	80
1992	55	70	80
1993	55	70	80
1994 ^a	55	65	70

^aPlanned percentages.

Table D.5

Promotion Timing, FY 1989–1992 (in years and months)—Navy

Year	O-6 DOPMA=22	O-5 DOPMA=16	O-4 DOPMA=10
1989	22-5	15-11	9-10
1990	22-3	16-6	10-5
1991	22-1	16-4	10-8
1992	21-11	16-0	10-8
Goal	20-0	15-0	10-0

grade for O-5s and O-6s. Of the 400 officers selected for early retirement, 36 were LDOs and 37 were chief warrant officers. Initially planning for a 400 SER, a 3 billion dollar budget decrement in February 1993 expanded the need to retire officers. Current estimates for the 1994 board are between 550 to 600—400 O-5s and O-6s, and 150–200 LDO lieutenant commanders and chief warrant officers.¹¹⁸

VSI/SSB was initially offered to officers in FY 1993, with 700 officers electing to separate. The incentives were offered again with a goal of 763¹¹⁹ officers to separate in FY 1994; 690 applications were approved, and the Navy may make another limited offer for FY 1994. The Navy used that Temporary Early Retirement Authority (TERA) to ask twice failed, select lieutenant commanders (and several other small groups of officers) to retire in FY 1994. Additionally, the Navy offered early retirement to other groups of officers on a voluntary basis with some early success.¹²⁰ For the first time ever, O-2 officers who failed

¹¹⁸CNO Naval Administrative message of August 13, 1993, FY-94 Selective Early Retirement (SER).

¹¹⁹CNO Naval Administrative message of May 10, 1993, Manpower and Personnel Update.

¹²⁰290 officer applications had been approved by November 1, 1993. CNO Naval Administrative message of November 1, 1993, Manpower and Personnel Update.

selection to lieutenant in this year's board will be released from active duty by March 1994.¹²¹

Marine Corps

The Marines are frequently portrayed as "lean and mean"; the relative smallness (and closeness) of their officer corps characterizes the corps' approach to officer management. The Marine Corps uses only two officer categories—unrestricted and restricted. Unrestricted officers are eligible to command and are sometimes further identified as "ground" or "air." Restricted officers are LDOs (and warrant officers—WOs). Military Occupation Specialty (MOS)¹²² codes are used to identify skills of both billets and personnel. Unrestricted officers include traditional military skill groupings—infantry, field artillery, pilot, logistics, etc. Navy health care officers and Navy chaplains serve with and service the Marine Corps. However, lawyers are unrestricted Marine officers, serve in nontraditional positions, and are eligible to command. LDOs provide management expertise in technical areas. Most LDO MOSs are shared with the warrant officer community with the exception of ordnance officer, electronics maintenance officer (ground and aviation), and the director, U.S. Marine Band.

A comprehensive, two year review of Marine officer billets was completed by an Officer Force Management Review Panel (OFMRP) in December 1989, the first such study since 1976. The OFMRP reviewed, among other things, all officer requirements with an eye toward reducing overall growth and grade creep, especially in the field grades. LDO billets were reduced by 925 (a 62 percent reduction); unrestricted officer billets grew by 36 (after 109 LDO billet conversions); overall, 780 officer billets were eliminated. Most (732) of the officer billets that were eliminated were converted to warrant officer positions; a total of 134 LDO/WO positions were eliminated. Fifty-nine LDO and 116 unrestricted officer field-grade positions were eliminated or reduced to company grade.¹²³

¹²¹Don Ward, "Promotion Rate Holds Steady for Lieutenants," *Navy Times*, September 27, 1993, p. 4.

¹²²There are 36 basic MOSs: personnel and administration; intelligence; infantry; logistics; field artillery; utilities (WO only); engineer, construction and equipment; printing and reproduction (WO only); tank and assault amphibian; ordnance (LDO/WO only); ammunition and explosive ordnance disposal (LDO/WO only); operational communications; signals intelligence/ground electronic warfare; data/communications maintenance (LDO/WO only); supply administration and operations; traffic management (LDO/WO only); food service (LDO/WO only); auditing, finance, and accounting; motor transport; data systems; Marine Corps exchange (LDO/WO only); public affairs; legal services; training and visual information support (LDO/WO only); music (LDO/WO only); nuclear, biological, and chemical (WO only); military police and corrections; electronics maintenance (LDO/WO only); aircraft maintenance; avionics (LDO/WO only); aviation ordnance (LDO/WO only); weather service (LDO/WO only); airfield services (WO only); air control/air support/antiair warfare; air traffic control; and pilots/naval flight officers.

¹²³Department of Defense, "Military Manpower Training Report," op. cit., 1991, p. V-35.

However, additional field-grade authorizations were sought for FY 1994 from the Congress over those provided initially in DOPMA and later in 1986.

In 1991 the Commandant of the Marine Corps convened a force structure planning group to develop a force structure plan for the future. This plan, "USMC 2001 Force Structure Implementation Plan" (or "USMC 2001"), has been used as the road map for the drawdown.

Accessions. Unrestricted Marine officers are accessed through the Naval Academy and NROTC program, through the only "off campus commissioning program" used by any of the services (platoon leaders class (PLC)), and through OCS. Approximately 50 percent of accessions come from the Naval Academy and NROTC and 50 percent from PLC/OCS.¹²⁴ No more than one-sixth of Naval Academy and NROTC graduates may be commissioned in the Marine Corps. The marine enlisted commissioning education program (MECEP) provides opportunity for enlisted personnel to gain a commission; the program is administered at NROTC units. Additionally, the Marine Corps accesses through the BOOST¹²⁵ program for educationally and economically deprived enlisted people.

The Naval Academy, NROTC, MECEP, and PLC paths are long-lead-time programs; leaving only OCS as a short-lead-time program responsive to fluctuations in officer accession requirements in the near term. However, the "length" of the lead time is less for the Marine Corps than for other services because selection for the marine option usually occurs after at least one year of academic instruction. (There are a few Marine Corps NROTC scholarship winners who enter at the freshman level). The marines use a "try before buy" approach in all of their officer accession programs. Prospective academy and NROTC candidates must successfully complete "bulldog," a physically demanding and mentally challenging six-week course in the summer before their senior year. This contrasts markedly with their "Navy option" classmates who go on a summer "cruise" designed to gain experience but rarely used to screen out future officers. PLC candidates participate in either two 6-week or one 10-week program (depending on when in their undergraduate careers they were recruited as a PLC). OCS is 10 weeks long. Both PLC and OCS training incorporate most of the elements of bulldog.

¹²⁴Ibid., August 1993, pp. 28-29.

¹²⁵See explanation under Navy Accessions subsection.

Accessions have been constrained¹²⁶ by 350 (± 50) during the drawdown. A steady-state accession of approximately 1,380 is required to support an officer corps of the size anticipated after the drawdown.¹²⁷ Shortages of junior officers (O-2)¹²⁸ are being observed in the operating forces, and current planning, in light of the Bottom-Up Review, is to access to the steady-state level.

Education. All newly commissioned Marine officers, regardless of commissioning source, attend the six-month basic school. Upon completion, the officer proceeds to initial skill training; 53 initial skill training courses (averaging 84 days in length) are provided by the corps;¹²⁹ other services training¹³⁰ is also used; and all flight training is conducted (jointly) with the Navy.

Skill progression training is provided through 264 courses (averaging 25 days in length) offered by the corps, as well as courses offered by the other services.¹³¹ Like the Air Force's squadron officer school, the Marine Corps conducts career officer professional courses of a broad nature at its amphibious warfare school (AWS). AWS prepares captains for duties in battalion or squadron command or on regimental staffs. The course length is 39 weeks,¹³² and approximately 30 percent of eligible officers attend.

The Marine Corps' intermediate service school is the Command and Staff College (C&SC) at Quantico, Virginia.¹³³ Marine Corps policy is that all officers will participate in professional military education (PME), either through resident or self-study programs;¹³⁴ approximately 20 percent, 250 annually, of eligible officers attend resident courses. Selection for attendance is made by assignment officers.¹³⁵ A special panel on military education chaired by Representative Ike Skelton of the House Armed Services Committee was critical of, among other things, the apparent substitution of AWS for intermediate service college (only 14

¹²⁶Department of Defense, "Military Manpower Training Report," op. cit., June 1993, p. V-18.

¹²⁷An officer end strength of approximately 18,125 was used to establish the accession steady-state figure.

¹²⁸Rostker et al., *The Defense Officer Personnel Management Act of 1980*, op. cit., p. 104, Figure C-2. The figure graphically portrays a "valley" in fiscal year 1993 for marine officers with less than three years of service.

¹²⁹Department of Defense, "Military Manpower Training Report," op. cit., p. 42.

¹³⁰For example, artillery officer school at the Army's Fort Sill.

¹³¹Department of Defense, "Military Manpower Training Report," op. cit., p. 44.

¹³²*Ibid.*, p. 62.

¹³³While the Marine Corps C&SC has been in existence for some time, only recently has the Marine Corps University been established, of which the C&SC is a component.

¹³⁴MCO P1553.4

¹³⁵Referred to as "monitors" in the Marine Corps. The selections made by the monitors are approved by a general officer.

percent of applicable field-grade officers had attended both AWS and an intermediate service school).¹³⁶

Senior service college selection is by board action with approximately 60 per year attending. Until the recent establishment of the Marine University and the Marine War College, the Marine Corps did not have its own senior service college. The University is subordinate to the Marine Corps Combat Development Command (MCCDC), which speaks well of the importance placed by the corps on the schools composing the university.

In response to the drawdown and the increasing importance of PME to joint officer and acquisition professional career management, the Marine Corps established annual attendance levels for each PME school consistent with Military Education Policy Document¹³⁷ standards where applicable.

Approximately 150 officers are enrolled in funded postgraduate education programs; primarily at the Naval Postgraduate School.¹³⁸ Educational levels of all officers, including LDOs and warrant officers, are depicted in Table D.6.

Assignment. Career progression is a blend of tours in operational units, staffs, training, and professional education. From an operational standpoint, the Marine Corps maintains embarked forces in amphibious readiness groups and forces overseas in Okinawa and Japan. Tours are generically of three years' duration. The Marine Corps is completing two personnel assignment programs¹³⁹ that reduce personnel turbulence and improve unit cohesion and

Table D.6
Educational Level of Marine Officers (as of September 30, 1992)

	Officer	Warrant	Total
Non HS Grad	0	2	2
HS Grad	567	1,248	1,815
Some college	116	197	313
Bachelors	13,415	204	13,619
Masters	2,682	32	2,714
Ph.D.	58	0	58
Total	16,838	1,683	18,521

SOURCE: 1993 *Uniformed Services Almanac*, p. 227.

¹³⁶Report of the Panel on Military Education of the 100th Congress of the Committee on Armed Services," op. cit., p. 154.

¹³⁷The CJCS Military Education Policy Document, CM-1618-93.

¹³⁸Department of Defense, "Military Manpower Training Report," op. cit., p. 42.

¹³⁹*Ibid.*, pp. V-19 and V-20.

readiness. The "accompanied tours WestPac program" converted one-year unaccompanied tours into three-year accompanied tours. The unit deployment program provides virtually all of the combat and combat support forces to WestPac on a six-month rotation from units home ported either in the Continental United States or Hawaii. Assignment to operational units results in deployment or embarkation nominally 6 months out of every 24. The Marine Corps is predicting longer deployments resulting from reductions in end strength without corresponding decreases in operational commitments.¹⁴⁰

Only recently has the Marine Corps adopted a command selection board process for lieutenant colonel and colonel commanding officer billets. Previously, the relative smallness of the corps and an officer's professional reputation were sufficient to identify officers on the "fast track." Officers are frequently assigned to the major headquarters in a location and then reassigned by that headquarters to a specific unit and billet. A philosophy of officer management whereby all billets of a certain grade are equally in need of being filled by the very best, and all officers in a certain grade will do their very best manifests itself as a "quality spread"; monitors ensure that a cross section (based on performance) of officers is assigned to a specific MOS or type of unit.

Promotion. The Marine Corps has sought legislative relief from the DOPMA grade tables to increase O-4 and O-5 authorizations¹⁴¹ and bring promotion timing and promotion opportunity at the O-4 and O-5 levels in line with DOPMA guidelines. The problem arose primarily because of large year groups in the mid-1980s. In addition to increased accession, augmentation, and retention, requirements for field-grade officers have increased. The drawdown has exacerbated the problem and the corps has over 700 field-grade billets that are either unfilled or being filled with company-grade officers.¹⁴²

The USMC states that its various billet and structure studies shows a higher requirement for field grades than the number of field grades authorized. In many respects, the history of the increase in the USMC field-grade tables during the DOPMA era mirrors the Air Force experience in the OGLA era. Additional authorizations are sought to maintain promotion opportunity and timing as

¹⁴⁰Ibid., p. V-10.

¹⁴¹The original DOPMA grade table for the Marine Corps (10 USC 523 (a)(1)), for an officer strength of 17,500, included 2,936 majors, 1,579 ltcols, and 633 cols. The current table (amended in the FY 86 DoD Authorization) for 17,500 is 3,085 majors (+149, +5 percent), 1,579 ltcols (0), and 633 cols (0). The most recent proposal for 17,500 end strength would be for 3,656 majors (+571, +18.5 percent), 1,815 ltcols (+236, +15 percent), and 633 cols (0). The increases would be offset by decreases in company-grade authorizations. If approved, the increases would be phased in over a four year period.

¹⁴²Gregory, "Why Is it Taking Longer to Get Promoted?" op. cit., pp. 36-38.

cohorts "age" over time. As shown in Figure D.8, O-4 authorizations were increased by the Congress in 1986 (current) over those initially contained in DOPMA (original). For FY 1994, the Congress ratified temporary USMC-proposed increases in authorizations for O-4 and O-5.

The net effect of this can be seen in Figure D.9. The USMC, with its proposed increases to the grade table, will have the "richest" grade table—proportionally more field-grade officers—of any service. The "lean and mean" service with much support provided by other services will have proportionally more authorization for the most senior officers.

The Marine Corps has not been able to remain within DOPMA promotion timing or opportunity guidelines.

Separation. The drawdown strategy employed by the Marine Corps was to reduce accessions, encourage voluntary retirements, restrict augmentation of reserve officers, and selectively early retire career O-5s and O-6s who have at least twice been considered for promotion.

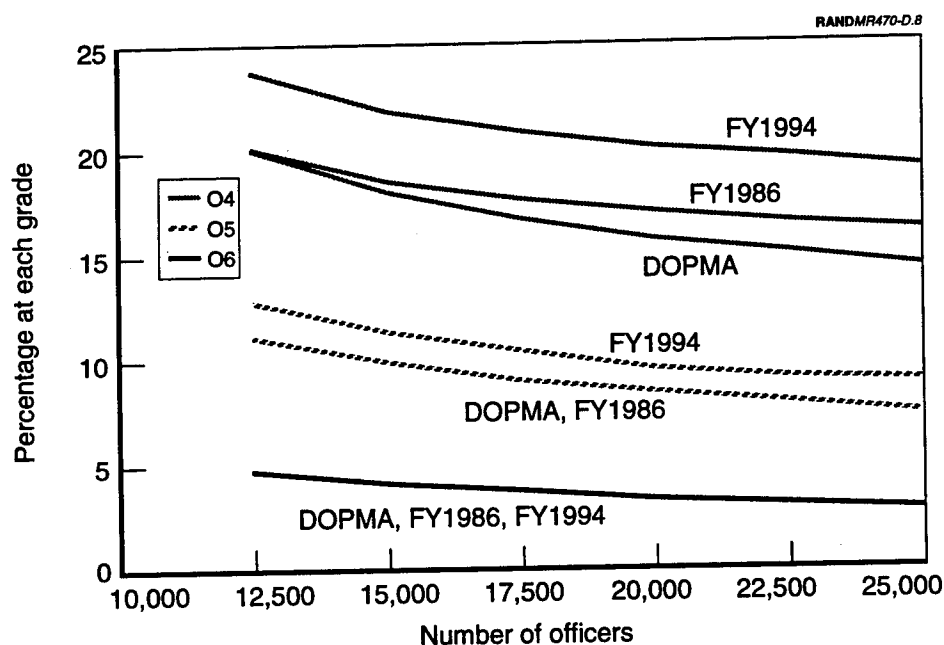


Figure D.8—Change in USMC Field-Grade Table Since DOPMA

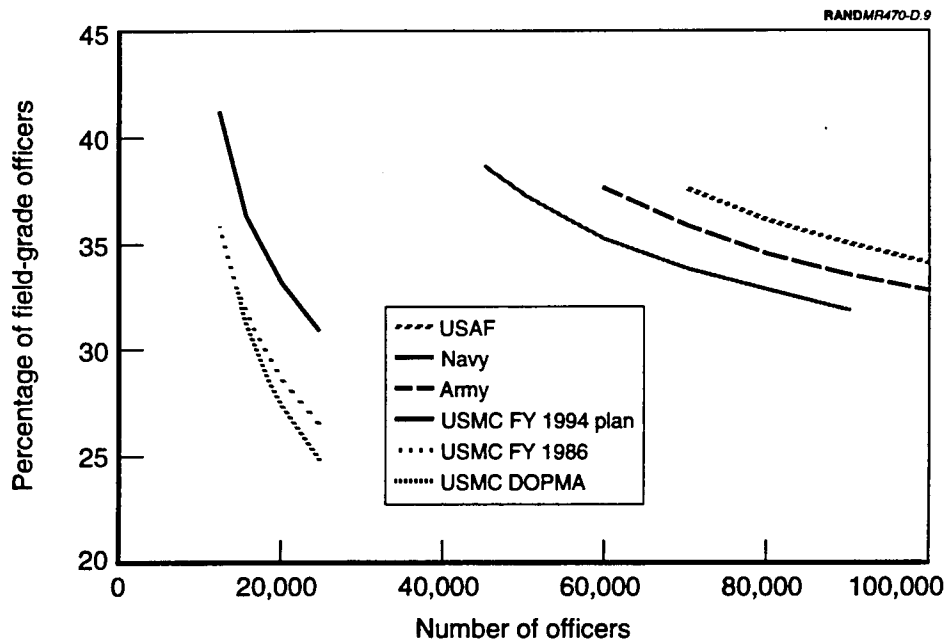


Figure D.9—Pictorial Representation of the Sliding-Scale Grade Table

Table D.7

Actual and Planned Promotion Opportunity, FY 1989–1994 (in percentage)—Marine Corps

Year	O-6 DOPMA=50%	O-5 DOPMA=70%	O-4 DOPMA=80%
1989	50	65	75
1990	50	65	70
1991	50	65	70
1992	50	65	70
1993	50	60	70
1994	45	60	70

NOTE: Captain opportunity is at 90 percent (5 percent below DOPMA guidelines).

SOURCE: Gregory, "Why Is it Taking Longer to Get Promoted?" op. cit., pp. 37–38.

An unintended drawdown strategy has been the reductions in promotion opportunity discussed previously (see Tables D-7 and D-8). In FY 1993, as many as 54 O-2s and 73 O-3s were separated because the Marine Corps was unable to promote to DOPMA guidelines.¹⁴³ In FY 1992, 50 O-6s and 75 O-5s and in

¹⁴³Department of Defense, "Military Manpower Training Report," op. cit., FY 1994, *Officer Flow Annex*, June 1993, p. 41.

FY 1993, 16 O-6s and 62 O-5s were selected for early retirement. Augmentation of reserve officers was constrained by approximately 100 annually. The Bottom-Up Review supported a Marine Corps end strength of 174,00, which is an increase over the previous administration. If approved, Marine Corps manpower officials will not need to selectively early retire any O-6s. Other reductions will be less severe than currently planned.

Table D.8
Actual and Planned Promotion Timing, FY 1989-1997 (in years and months)—Marine Corps

Year	O-6 DOPMA=22	O-5 DOPMA=16	O-4 DOPMA=10
1989	21-10	16-10	12-3
1990	21-9	16-10	12-1
1991	21-11	17-3	12-3
1992	22-0	17-3	12-2
1993 ^a	22-2	18-3	12-6
1994	22-4	18-8	12-8
1995	22-7	19-2	13-0
1996	23-0	19-3	13-1
1997	23-3	19-6	13-2
Goal	20-0	15-0	10-0

NOTE: Marine Corps proposal for change to grade table.

^aThese are Marine Corps estimates for promotion timing based on current field-grade authorizations. If the additional field grades are approved, promotion timing improves (dramatically in the case of O-4s); in FY 1997, promotion timing with the additional authorizations would be 11-4, 17-0, and 22-9 for O-4/O-5/O-6, respectively.

E. Description of Foreign Officer Career Management Systems

Introduction

Research Objective

We researched the military officer career management systems of six NATO countries to obtain differences and similarities from the existing U.S. military system that could inform our development of alternative future officer management systems. The countries included were the Netherlands, Denmark, Canada, Norway, the Federal Republic of Germany, and the United Kingdom.

Scope

Most of the information was obtained through interviews with serving members of the armed forces of the respective countries. The research effort for the United Kingdom was more intensive and included discussions with staff personnel managers and policymakers for each of the three military services and each of the three corresponding service military or officer study groups that were preparing recommendations for future changes in their respective services. The full scope of the research encompassed the militaries of some 20 foreign countries.¹ We provide here a synopsis of each nation's officer management system as seen through the eyes of officers in that system,² as derived from official documents, or from other sources about that foreign military officer career system.

¹We also examined the completed research of the study groups in the United Kingdom, which expanded our research base. The British Army "Grove Study Group" researched some 20 different foreign armies, including the United States, the Federal Republic of Germany, France, Australia, Canada, Italy, Ireland, Norway, the Netherlands, Belgium, Denmark, Greece, India, Israel, New Zealand, Japan, Spain, Turkey, Pakistan, and Portugal. While there are variances in aspects of the characteristics of each of these militaries, many items were found to be common among the vast majority.

²It was also interesting to get the perception of the U.S. system from foreign officers with mutual service in combined organizations: (1) The U.S. system has two periods of experience hemorrhage. The first occurs at about 10 years of service with promotion to major and entrance into the regular officer corps. Their experience said many very experienced captains were denied promotion and forced out who, in their armed forces, would have completed full-term careers to at least 20 years of service. The second hemorrhage is at the 20-years-of-service retirement point when experience is lost both through voluntary and involuntary retirements. In the second case these are majors or more senior officers with considerable experience who would be retained to age 55 in their system. Maintaining this experience should be a goal of longer careers. (2) U.S. officers begin looking and considering their opportunities and qualifications for second careers before reaching the 20-years-of-service retirement point and after. This activity is based upon system-induced anxiety and

Four NATO Nations³

Netherlands

The officer corps is essentially composed of two groups: military academy graduates with college degrees (and a very few nonacademy in-service transfers with college degrees) who make up the full-career officers, and officer school graduates without college-level education who compose the limited-career officers. In principle, all officers can expect to remain in military service to age 55 and retire with a relatively high pension of about 80 percent of their last pay level (at least for five years, then 75 percent; others may stay at 80 percent, depending on category of officer and grade at retirement). Limited-career officers are capped at the grade of major though not all will be promoted beyond captain. To be promoted, each officer in this category must apply and be selected for a position requiring a major. Limited-career officers get promoted later (up to several years depending on grade) than full-career officers and are likely to spend most of their careers in line-type assignments at brigade or lower-level units. Few limited-career officers transition to full-career status due to the need to obtain a college education and to acquire an experience base similar to contemporaries already in a full-career status.

Only professional specialty officers are allowed to enter laterally. Those that are conscripted come in as a first lieutenant and may enjoy a full-career status based upon their higher education, similar to academy graduates. Others may be obtained voluntarily and enter laterally at ranks commensurate with contemporaries at their age.

Military academy graduates and full-career officers are expected to reach the grade of lieutenant colonel in due course. However, officers in this category must be selected to attend the War College (about 10 percent of a year group) and complete their studies to be eligible for promotion to colonel and higher.

diminishes officer productivity, which takes away from career contributions for lieutenant colonels and colonels.

³Under the auspices of Brigadier General John Rose, Chief of the Requirements and Programs Branch, Policy and Requirements Division, Supreme Headquarters Allied Powers Europe (SHAPE), five senior officers from four NATO nations were interviewed with regard to existing and future national military officer personnel management systems. The foreign NATO officers participating and their nationalities and military services are: Colonel Michael Rudderham, Air Force, Canada; Colonel Keith Maxwell, Air Force, Canada; Colonel Herman J. Heimens, Army, Netherlands; Commander Tor Vestlie, Navy, Norway; Lieutenant Colonel Benn Bak, Army, Denmark. Each national representative provided a synopsis of his service's officer management system and outlined existing career patterns. Subsequently, a general discussion of specific issues ensued, which helped to elaborate on how the military profession in each nation had approached or solved various issues.

These officers form the General Staff Corps and receive special pay (higher pay at each grade than normal course officers of the same grades). Promotion depends upon a vacant recognized requirement (billet) at the next higher grade. The national parliament approves all organizational changes and creations, thus effectively approving the number and grade of all officer positions. Officers must manage their own careers to ensure that they obtain appropriate qualifying skills and military training as well as sufficient experience to ensure qualification for senior positions and later promotion. Assignment to corps and military department staffs is limited to career officers, which ensures that these positions are filled with the best educated and most experienced officers. Few officers leave service in midcareer. "Officership" is considered a profession with a commitment to a full-term career to age 55.

Canada

The Canadian officer system is organized as a long-career system with expectation of service to age 55 for most officers and to age 60 for officers in the medical, dental, and legal profession. The career is composed of three engagements: short engagement through 9 years of service with about 95 percent passing beyond; intermediate engagement through 20 years of service with majors passing beyond and captains requiring exceptions; and indefinite engagement through age 55. Retirement of lieutenant colonels and below requires at least 28 years of service, while colonels and above must stay at least 30 years to retire. Those officers departing voluntarily or selected for separation at the end of the short engagement receive no pension. Officers eliminated at the end of the intermediate engagement (not a large percentage) receive a pension of 40 percent of their pay, including allowances. At age 55, pensions equate to 75 percent of total pay. Most Canadian officers expect to initiate second careers after retirement at age 55.

The professional specialties enter the military directly or laterally from the civilian society at any age and usually begin at the rank of captain with service allowed up to age 60 with similar early retirement provisions by grade as other military officers. Professional specialty officers receive special pay, at higher salaries than other officers, to compensate, attract, and retain them. All dentists are by tradition in the Army; whereas, the other professional specialties have officers in each service. The professional specialty officers serve interchangeably

in all three services (e.g., it is not unusual to have Army doctors on Navy ships). There is no lateral entry for officers outside of the professional specialties.

Officer tours are usually four years with provisions for both longer and shorter. Command tours are limited to two years. Command is not a gate for promotion because of the small numbers of command opportunities, but there seems to be a positive correlation between command and subsequent promotion. Promotion depends upon (1) competitive selection and (2) a vacancy at a higher grade. Officer positions are controlled by skills through a minimum manning level (MML). However, there are a number of officer positions, called generalist positions, that are not skill specific. The total of the MML, skill-specific positions and these added generalist positions, which are independent of skill, make up a requirement called the preferred manning level (PML). Promotion at lower ranks through major is by career management field, groups of skills, or in some cases, individual skill and vacancies are limited by the MML. After major, promotions are competitive across all career management fields and skills and limited to vacancies by the PML. While the Canadian military is a total force concept establishment, reserve officers are brought on active service only for designated shortage billets and with limited tenure. Reserve officers are not converted to career status.

Norway

In principle, the Norwegian officer system is a full-career long-term profession that allows officers to complete a 40-year career or retire at age 60, whichever comes first, with two-thirds pay as a pension. There are few NCOs in Norway's armed forces, and the officer corps fulfills many of the responsibilities traditionally performed by NCOs. This practice results in a higher content of officers, particularly junior officers (e.g., lieutenants) who are performing what would be NCO duties in other nations. All officers are drawn from conscription after one year as enlisted service members. Officer candidates then attend a one year officer's school and upon successful completion, must serve an additional year of duty as sergeants. Those still wishing to be officers must apply for the military academy. Two groups are then formed: those attending only a two-year program at the academy and those who apply and are accepted for an additional two years of academy study, for a total of four years at the military academy. The short-term academy graduates will not be promoted beyond the rank of major but can stay until age 60. Those completing the four year academy curriculum will in normal course be expected to reach lieutenant colonel or higher before retirement at age 60.

There are two opportunities for officers to voluntarily leave the service or retire prior to age 60. The first opportunity comes four years after completion of the military academy, at about age 30, and in the year studied, several chose to depart to enter private sector employment without any pension. The second opportunity occurs at age 57 when officers can choose to retire. These separations are not qualitative screenings by the services but decisions of the individual officer. Most officers retiring from the military are not expected to pursue second careers because of their age. During the present period of downsizing turbulence, temporary policies are offering early retirement to officers after age 50 to assist force reduction requirements. As a result, qualitative screening reductions to eliminate officers are possible only after age 50 and prior to age 60.

All officers that stay will become captains since there is no qualitative screening to that rank. All officers must remain captains for at least four years. At the rank of captain, officers must apply for special skill training that will qualify them for positions of higher rank and promotion. For all positions in the grades of major and higher, officers must apply and be selected based upon (1) education and special skill qualification, (2) experience, and (3) competent performance in previous assignments. Once selected for a position of higher rank, an officer will be promoted. There is keen competition for most higher-rank positions, and therefore promotion is considered competitive after captain. Officers applying and being selected for these major-and-above positions are allowed to remain in them until they apply and are selected for new positions of the same grade or higher, or they reach age 60 and are required to retire. Special career jobs (such as command) have limited tenure (usually two years). Officers completing special career jobs can either apply for new positions or receive assignments from the service staffs. Officers in field grade that cannot obtain selection for new positions must remain in current positions and grade until retirement.

All captains desiring to be competitive for promotion to major must apply for, be selected for, and complete the officer's staff college of three-months duration. Majors must apply for, be selected for, and complete the general staff college of one year to be competitive for promotion to lieutenant colonel. These education gates are additional restrictive criteria for being selected for a higher-grade position that can fully qualify an officer for promotion. There are no mechanisms for lateral entry or assimilation of reserve officers into full career officer status in Norway. Personnel management policies are identical for army and air force officers, and there are only minor differences (slower promotions to similar grades) for navy officers.

Denmark

The Danish military officer system is in a state of transition. In both old and new systems, officers are required to serve until mandatory retirement points. The old system's retirement points were: generals at age 65, colonels and lieutenant colonels at age 62, and majors at age 52. Under the new system, all officers, regardless of rank, will serve until mandatory retirement at age 60. Promotion to captain is expected for all officers automatically. Officers may not receive further promotion after age 55. At age 60 officers receive a 75 percent pension. Under some early retirement provisions, officers can retire before age 60 but receive no pension until age 67.

Officers desiring to obtain promotion beyond captain must complete staff college and receive assignment to an authorized position. Officers without the equivalent of a college education will generally be limited to the rank of captain, although some of these officers are promoted to major in order to fill some less-desirable positions and encourage officer movement to other assignments. Through the rank of major, officers are promoted within their specialties (skills). After major, all officers compete for promotion across specialties. Selection of battalion commanders is within specialties. Officers seeking promotion to lieutenant colonel and higher grades and brigade command must complete general staff training. General staff college attendance requires officer application and military department selection. Selection is very competitive. Once selected for promotion, officers are promoted based upon age. Promotion to lieutenant colonel and above depends upon an authorized billet being approved in the financial legislation. Temporary ranks are used to fill required higher-graded positions not supported by financial legislation, but the higher pay is not allowed. Temporary ranks are often used for positions in NATO or U.N. force positions that are outside of financial legislation.

Lateral entry is very exceptional or nonexistent. Reserve officers brought on active service are integrated at their current rank based upon experience comparability with active contemporaries. Experience is the key credential to the officer military profession in Denmark.

United Kingdom⁴

*British Army*⁵

Current British Army Officer Management System. The British Army has a current total active strength of near 136,000 soldiers, with an officer content of just over 16,000 or just less than 12 percent of the total. The strength reduction targets for 1995 are estimated to result in a total army force of about 106,000, including some 13,000 officers or just over 12 percent officer content. The British Army officer corps is currently organized into three parts: regular army (RA), territorial army (TA), and regular army reserve officers (RARO), similar to the officer component of the Individual Ready Reserve in the United States, who receive no compulsory training but are subject to recall. There is also an element of the officer corps called the home service, which is the Northern Ireland equivalent of the British territorial army with service restricted to Northern Ireland. Little migration occurs between these elements except for RA officers assigned to the TA and for officers of the other elements on various forms of short-service assignments in the RA.

All officers in the RA are commissioned from Royal Military College Sandhurst (RMCS). Only about 50 percent of RMCS entrants are university graduates. The three elements have some 20 types of commission, which have varied tenure points with minimums generally from as little as four months to three years and maximums from eight years to age 55, usually dependent upon promotion to major. The RA officer management system is generally described as a closed long-career time-in-grade (TIG) system with both short-term and full-service

⁴Interviews and discussions were conducted August 2-5, 1993, with representatives of all three services and the Defense Staff of the United Kingdom (U.K.). One day each was spent with the British Army and Royal Air Force personnel staffs in which briefings and discussions were conducted on key management system issues. Additionally, each of the separate British military services had recently undertaken reviews of their officer career structures, and in two cases enlisted structures as well, in response to the changes in the international security environment and new national economic pressures. These separate studies were in various states, with the army and navy study groups having already reported on their recommendations and initiating some implementation planning efforts, while the air force study was still in progress with a completion date of mid-1994. Meetings were held with members of all three study groups and the study group leaders for the army and air force. Also, a meeting with Major General Pennicott, the senior personnel policy officer on the Imperial Defense Staff, included discussion of matters of service uniformity, reserve and joint personnel management policies, and the potential for significant management system changes.

⁵The British Army officer management system was explained in detail by members of the Military Secretary's Department, the Military Secretary being primarily responsible for officer schooling, assignments, and promotions. The principal point of contact was Lieutenant Colonel Finlay Maclean, Coordinator of the Military Secretary's Department. The British Army Staff also has a parallel position to the U.S. military service Deputy Chief of Staff for Personnel, but these responsibilities are separate from the Military Secretary and focus on billet requirements and personnel policy. The British Army is in the process of implementing some of the recommendations of its "Review of Army Officer and Soldier Career Structures" conducted by a study group headed by Major General D. A. Grove, and often referred to as the "Grove Study." Full implementation of the majority of approved recommendations from the Grove Study was expected in 1994.

engagements and a two-track system within career officers. The two-track career commissions are the regular commission with potential for promotion to the highest officer ranks and tenure to age 55 contingent upon selection to major and a special regular commission with promotion limited to major and tenure generally to 16 years of service with good opportunity for conversion to a regular commission and extension of service to age 55. The short-term engagement is related to various forms of the short service commission, which has a maximum tenure of eight years without approved conversion to a career commission, which is possible. Promotions are considered automatic—fully qualified by U. S. standards—to the grade of captain and competitive thereafter within a band of TIG and age, which covers about 3 years for major and 10 years for the grade of lieutenant colonel. Unlike the U.S. promotion system, which tends to focus selection on a single year in the zone with early or late opportunities usually quite reduced and limited to below and above the zone years, the British Army uses the full breadth of the promotion bands with the later years continuing to enjoy a reasonable promotion opportunity if recommended in their latest annual evaluation, called the confidential report.

The officer structure of the British Army is heavily skewed, with the grade of major (O-4) being the most numerous and sharp reductions thereafter at the grades of lieutenant colonel and colonel. Some 1 percent of all British Army officer positions are at the flag ranks, and about 48 percent of the officer corps positions are in the field-grade ranks (O-4 through O-6). Positions for majors currently compose more than 32 percent of the entire officer corps compared with 20 percent subalterns (O1-O2), 30 percent captains (O-3), 12 percent lieutenant colonels, and 4 percent colonels. Providing service tenure to age 55 for all officers promoted to major ensures that this skewed officer structure can be adequately manned. Officer requirements or billets are grouped in two categories: E-1, which is a billet requiring specific arm (branch) or service (corps) skills, and E-2, which is open to assignment without restriction. Since the British Army is still strongly founded on the regimental system, the focus of the early development and assignment of its junior officers is with their arms and services. Since subunit command, the U.S. equivalent of a company, is at the grade of major, the majority of an officer's assignments through about age 38 including the early years as a major, are in E-1 billets. After completing subunit command and appropriate professional development schooling, e.g., staff college, majors and those in higher ranks will spend increasing numbers of assignments in E-2 billets and return to their arms and services, i.e., billet (E-1), either for commands at unit, equivalent of a U. S. battalion, as lieutenant colonels and at brigade as brigadiers or for staff assignments, which require their specific arm or service. Performance in E-2 billets is generally considered more important to promotion

and appointment boards, particularly for majors and higher ranks, than E-1 billets since the former reflects the all-arms nature of these posts. Officers are prepared for staff officer assignments at three distinct levels (generally, SO-3—unit staff: captain; SO-2—mid-level staff: major; and SO-1—high-level staff (above brigade): lieutenant colonel and higher) through attendance and completion of appropriate education culminating at the staff college, which qualifies officers for SO-2 and, lastly, promotion to lieutenant colonel with SO-2 qualification and experience, which produces SO-1 qualification.

The career pattern for regular commission officers provides for promotion to captain, normally after 6 years of service at about age 25 or 26, and later to major for all fully qualified and recommended officers and, at the later rank, the added opportunity for a full career to age 55. The fact that essentially 100 percent of all regular captains passing the promotion examination and being recommended are promoted to major appears to be an implication of the British Army officer structure, which has major as the predominant rank and the long-career service tenured with promotion to that rank. Currently, there is no merit or competitive aspect to the promotion to major and nearly all regular commission officers are promoted at age 32. The promotion to lieutenant colonel is competitive, with an established rate of 70 percent and an average age of 40. For the last few years, the actual promotion rate ranged from 66 to 69 percent, and the actual average timing was from above age 40 and under age 42. The promotion rate to colonel has been set for 45 percent with an average promotion age of 44, but actual rates have been 52–55 percent with average ages of just over 45. The promotion to brigadier has been established at 55 percent and average age of 46, with the actual achievement rates of 46–50 percent and average ages between 46 and 48. Lieutenant colonels not promoted by age 50 are subject to reduced pay and assignment to positions requiring majors. Currently, brigadiers are subject to selective early retirement review at age 52, but no other officer ranks receive qualitative review for early retirement.

Key Recommended Changes in the British Army Officer Management System.

The recommendations of the army review are conservative and evolutionary changes. There has been some criticism of the review recommendations due to their apparent marginal change from the current system. Key areas of change were in simplifying accessions, terms of service (engagements), and commissions; improving promotion timing and potential for certain ranks; extending the length of service at the rank of colonel; expanding the selective retirement review to all field-grade ranks beginning at age 50; eliminating the practice of assigning special-list lieutenant colonels to majors' positions with reduced pay after age 50; adjusting the timing of the school sessions and

expanding access at various officer education levels; and maintaining the other existing policies and processes for officer management including retirement at age 55, six substantive ranks below brigadier, confidential evaluation, use of E-1/E-2 (arms and services/all arms positions) officer billeting system, levels within the officer education system, and senior officer unique activities. There was a concern expressed that a smaller British Army may force increased specialization particularly within the officer corps, which would be directly opposite to official objectives to reduce specialization and associated training costs of the smaller force. As a result, no recommendations addressed this concern, and no additional officer education or training programs supporting specialization were supported by the study.

Royal Navy and Royal Marines⁶

Current Royal Navy and Royal Marine Officer Management Systems. The combined naval services officer corps now numbers fewer than 10,000 and only about 7,500 exclusive of training positions. The study was intended to be a "clean-sheet" review with a methodology that included principles of cost-effectiveness, flexibility, currency, sustainability, rewards for character, fairness, and practicality. It was based upon a number of assumptions that included the belief that current operational roles will continue, current military capabilities will be maintained, there is clear direction to integrate the officers of the Royal Marines, and that the composition of the combined officer corps should be primarily managed based upon a "platform oriented" system. The platforms divided requirements into five groups: surface ships, submarines, fleet air arm, Royal Marines, and direct support. This scheme resulted in four separate officer structures for naval officer management: warfare (surface sailor, submariner, and aviator), Royal Marines, engineering, and supply. The study did not examine the "specialist" Royal Navy services or the professional branches, (medical, dental, chaplain, career, and family services). The study tried to develop a businesslike model for Royal Naval officer structure and management. The study began with a fresh consideration of all naval officer requirements using a decision rule model that determined the need for an officer versus

⁶Information on the Royal Navy (RN) and Royal Marine Corps (RMC) was obtained from the Officer Study Group (OSG) and the prepublication synopsis entitled "Officer Study Group 1993" of their report "A Strategy for the Future Officer Corps of the Royal Navy and the Royal Marines." The synopsis included the current status of approval by the Navy Board of the study recommendations. The OSG was headed by now Vice Admiral Sir Michael Layard, Second Sea Lord, who had already departed for his current post. Discussions were held with three members of the remaining OSG staff under the direction of Captain Ellison, RN. The study was the first in nearly 40 years to review the structure and management of the officer corps of the Royal Navy and included the Royal Marines since it was directed that full integration of marine officers into the navy was required to meet the needs of reduced armed forces.

enlisted, civilian, or contractor in a given position. The significant recommendations and their status of approval will be summarized in a later section.

The Royal Navy (RN) and Royal Marines (RM) have different terms of service, commissions, entry training, and ranks. There were some 84 ways to enter the Royal Navy and 12 for entering the Royal Marines. The naval services have both a regular and reserve officer corps. The RN and RM reserve officers are formed either from volunteers or retired regular officers with a specified number of years of liability, dependent upon age, for recall during a crisis. It appears that naval service reserve officers are much like the U.S. Individual Ready Reserve and not subject to mandatory training. Activation of naval reservists requires a Queen's Order, which is considered more difficult to obtain than legislation from Parliament. About 40 percent of naval officer entrants are college graduates, and the average officer has about 15 years of service.

Commissions in the naval services vary in length but support essentially three groups of officers: the central core or general list (GL) and two supporting arms: the supplementary list (SL) and the special duties (SD) list with the last focused on officers entering from the enlisted and warrant ranks. The general list officers obtain career commissions (CC) with duration subject to rank and age while the supplementary list officers receive either a short-career commission (SCC) ending usually at eight years of service, medium-career commission ending usually at age 38, or extended medium-career commission ending at retirement at age 50. There is migration between SL and GL at various ranks and types of commissions. The SD officers serve with a single commission that allows them service until mandatory retirement age 53, with very reduced opportunity for migration into GL. Within these lists, there exist a wide variety of skill groups and management branches (e.g., warfare, engineering, supply, and personnel). There is also a significant effort to balance the positions by branch at sea and ashore. Promotion is generally within branch and by type commission, with fully qualified GL officers being promoted up to lieutenant commander (RN) or major (RM) based upon age or time in rank without competition or quota based upon requirements. Promotion above the grade of lieutenant commander and equivalent is a competitive selection based upon requirements across commissions and branches. Officers within three years of retirement are not eligible for further promotion. Officers in both SL and SD lists are promoted by quota after lieutenant and not promoted beyond the rank of commander. Current officer mandatory retirement is based upon rank and age. Within the GL, CC retirement is at age 50 for lieutenant commander, age 53 for commander, and age 55 for captain, and extended ages beyond 55 are allowed for flag ranks.

There are no current provisions for mandatory selective early retirement, but inducements are being offered to obtain voluntary early retirement to support the reduction in the size of naval forces.

Key Recommended Changes in the Royal Navy and Royal Marine Officer Management System. The recommendations of the naval OSG have been reviewed by the Navy Board and the senior flag officers of the RN and RM and placed in four categories. These categories are

- A. Recommendation is approved for implementation
- B. Recommendation is approved in principle but requires further study before a decision to implement
- C. Recommendation was not considered to have sufficient study to be approved in principle
- D. Recommendations that were disapproved.

It is, therefore, appropriate to report and summarize only those key recommendations in categories A and B because the others are much more speculative in nature. In the main, the naval recommendations appear to be evolutionary but far more significant in their effect on the current management system than the changes in the army and tend to give more weight to uniformity aspects among all of the British military services.

The Royal Marines were integrated within the naval officer corps by aligning RM ranks with those of the RN, providing the RM with an appropriate share of the common appointments (those assignments external to the service-controlled assignments), and introduction of a common element in basic training for both services. The common RN/RM rank structure is to include a substantive rank equivalent to one-star above captain/colonel. A standard set of commissioning lists includes terms of service and common retirement at age 55 subject to successful passage of career review points (CRPs). The commissions will consist of a common initial commission with a standard term of service to be determined (maximum tenure of 8–12 years is considered) to be followed upon application or offering by either a CC leading to a full career and retirement or a specialist commission, with service limited to specialist skills, promotion usually later than CC officers, and potential no further than the one-star rank, and with career length limited to the common retirement age subject to CRPs. Officers are grouped into four "platform-based" branches for management, which are: warfare (with specialties of surface, submariner, and aviation), engineering, Royal Marines, and supply, with the current instructor branch distributed appropriately across the new branches. Business-area skills are formalized with

the introduction of the generalist skill group, those acquired within a normal career pattern (training, personnel, operations, intelligence, logistics, engineering, and project management), and specialist skill group, those skills requiring additional experience and/or training (e.g., hydrography, legal, and information technology). Officers in all branches would be allowed to pursue either a generalist skill or specialist skills within certain restrictions. For example, officers in all four branches would be able to acquire the training, personnel, logistics, and project management business skills; all officers in branches other than supply would be able to acquire intelligence business skills; only warfare and RM branch officers would be able to acquire operations business skills; only engineering branch officers would serve in engineering and specified engineering; and maintenance appointments in both logistics and project management would be restricted to engineering branch officers. CRPs will be introduced at specific seniority points set beyond the average promotion timing for each competitive rank below the one-star rank to consider officers for further service or separation with severance pay. Lastly, education and training will be enhanced over current patterns by ensuring that all officers with potential for promotion to the rank of commander will complete the Royal Navy Staff College and all officers on a CC should complete the initial staff course or equivalent.

Royal Air Force⁷

Current Royal Air Force Officer Management System. While the Royal Air Force (RAF) has a current total service strength of more than 80,000 and a strength reduction target of about 75,000 for 1995, the RAF officer corps has just under 13,000 officers, or about 16 percent of the force, with plans for reduction over the next few years, in similar proportions, in response to the changes in the international environment and the national economic pressures that have reduced the size of the service.

Most RAF officers, some 39 percent, are in the general duty (air) skill group, which is made up primarily of the flying officers: pilots, navigators, aviation electronic officers (AEOs), and the special air crew (SAC) (currently the SAC has some 1,000 flying officers or about 20 percent of all RAF pilots). SAC officers are RAF aviation officers not promoted to squadron leader (O-4) by age 38, or about 16 years of service, who are then assimilated into the full-career category but are

⁷Information on the Royal Air Force (RAF) was obtained from interviews with key officers on the staff of the RAF Personnel Management Command at Innsworth, England, and an interview with Air Vice Marshall Roberts, the head of the Royal Air Force Personnel Study Group, which was assigned the mission of recommending changes to the RAF personnel management system to accommodate the smaller size and reduced budget of that service.

eligible only for flying posts. Some SAC officers may ultimately achieve promotion to squadron leader (O-4), but all SAC receive special pay to partially compensate for their lower ranks. Other prominent RAF officer skill groupings include engineer (18 percent), administrative (15 percent), general duty (ground) (10 percent), supply (7 percent), security (6 percent), and professionals (medical, dental, legal, and chaplain) (about 5 percent). The RAF officer grade structure is steeply pyramidal, with about 63 percent in the junior grades (U.S. equivalent to O-1 through O-3) and about 36 percent in the field grades (O-4 through O-6) and the remainder in the flag ranks (1 percent). Within the field grades, the pyramidal officer structure is even more pronounced with about 23 percent of the total officers holding the rank of squadron leader (O-4), 10 percent at wing commander (O-5) and only 3 percent at group captain (O-6). The RAF officer corps is expected to maintain a similar grade structure in the future after planned reductions.

RAF College Cranwell is the source of all RAF regular career officers. Until 1970, when the service began recruiting university graduates who were sent to a 24 week precommissioning officer course, RAF officers were accessed only after successful completion of a three-year education at RAF College Cranwell. Today this composite of university and secondary school accession methods provides the RAF with about 40 percent university-degree officers, not including the accession of professional services (medical, dental, legal, and chaplain), and the in-service degree education programs for selected specialties such as engineers. All officer receive one of three types of RAF commissions: short service commission for a minimum of 3 and a maximum tenure of 8 years; graduate commission for 12 years maximum if not promoted to squadron leader (O-4); and permanent commission, with a maximum of 16 years. At the career midpoint of 16 years of service/age 38, permanent commission RAF officers may either voluntarily retire with immediate pension or continue service. This retirement option is unique to the RAF in the U.K. armed forces. Officers on other types of commission must apply for assimilation before they reach maximum commission tenure to continue service. Officers assimilated into the career regular force at the career midpoint (16/38), e.g., SAC, are allowed tenure to age 55. All officers promoted to the rank of squadron leader (O-4) receive permanent commissions and full career tenure to age 55. In addition to the career midpoint opportunity for retirement with immediate pension, career officers may retire at 22 years or service/age 48 or full career tenure of age 55 with immediate pension. While the value of these pensions is determined from rank and years of service, the RAF is the only service with immediate pension options prior to completing a full career at age 55.

Military education is designed to prepare officers for increased responsibilities at higher staff levels or provide technical expertise required within a specialty or branch. The first such military education is the individual staff studies course, which is an 18-month correspondence course for junior officers but is a requirement for promotion eligibility to squadron leader (O-4). The next level is the basic staff course, requiring one month of schooling, to prepare officers for the staff officer 1 (SO-1) level and required for promotion eligibility to wing commander (O-5). There is also an officers command course, requiring one month of schooling, which is required for squadron leader promotion eligibility. Next is the advanced staff course, requiring one year resident schooling, for officers with potential to be group captains (O-6) and above. Lastly, the Royal College of Defense Studies, also requiring one year of resident schooling and which is for officers in the grade of group captain or above, prepares them for high-level defense and RAF staff assignments.

Promotion in the RAF through the rank of flight lieutenant (O-3) is based upon time in grade for fully qualified officers. Subsequent promotion is based upon merit for best-qualified officers and minimum time-in-grade requirements. Promotion to squadron leader requires a minimum of four years in grade as flight lieutenant, promotion to wing commander a minimum of four years as squadron leader, and promotion to group captain a minimum of three and one-half years as wing commander. All officers considered for merit promotions (field grades and above) are screened from the point of minimum eligibility until within three years of retirement. In actual practice, most RAF officers are promoted to field-grade ranks in a 5 to 8 years time-in-grade window. SAC officers, who are generally assimilated as junior officers at the midcareer point, may be promoted to squadron leader up to age 45 in spite of receiving a full career tenure to age 55.

Career patterns within the RAF are generally quite rigid, with no migration between branches or specialties and development focused on the responsibilities of each rank. In the initial years and ranks, pilot officer (O-1) through flight lieutenant (O-3) officers are assigned to learn the tasks within their branches. As an example, pilot officers spend about two years to complete pilot qualifications and then, at higher ranks, receive subsequent pilot and staff tours at the squadron level of about three years each. After promotion to squadron leader, assignments to higher echelon staffs become more prevalent as alternatives to command or branch staff assignments. While tour lengths vary based upon a composite of requirements in each branch, the average tour is three years with the RAF-desired tour length being four years in all but command tours, which

are usually limited to two years. RAF officers, depending on branch, command at squadron (O-4), wing (O-5) and station (O-6) below the flag ranks.

Key Recommended Changes in the Royal Air Force Officer Management System. The RAF personnel study group under the direction of Air Vice Marshall (AVM) Roberts was only partially under way in developing recommendations for the future RAF personnel management system. The RAF study group is expected to complete its recommendations to the RAF board in the January-March 1994 time frame. The following are some insights on probable recommendations provided by AVM Roberts:

- Reduce the number of nonprofessional branches to three: operations, logistics, and administration, which will assist in reducing specialization of the officer corps.
- Make the officer and enlisted forces requirements more generalist and less technical through amalgamation during the reduction with increased focus on development of only a few highly technical officer skills, such as aircraft battle damage repair.
- Extend the retirement point to age 60, including SAC pilots, to extend the potential utilization periods for highly trained and skilled officers.
- Retain pilots in flying positions longer (including SAC) to ensure better return on training investment.
- Require a reserve obligation of six years after completion of active service to enhance potential for expansion.
- Total RAF force size may be reduced to less than 70,000.
- Provide for performance pay increments within each grade.
- Increase the percentage of officers accessed with university degrees but keep in step with changes in society so as not to lose competitive potential for high-quality accessions.
- Recognize the effect of technology on specialization and push for limiting highly technical positions while increasing multidiscipline requirements on the officer corps.
- Maintain the separate and distinguishable differences of the RAF while allowing for logical uniformity.
- Oppose any effort to promote a single joint service.
- Study the potential within RAF organizations for "delaying" to reduce overgrading of position requirements, while maintaining the existing rank structure (similar to the U.S. O-1 through O-10 officer grades).

Uniformity of the British Armed Forces

An interview was held with Major General Sir Anthony Pennicott, Deputy Chief of Defense Staff for Personnel Policy. Key concerns discussed were the potential for unification of the armed services, uniformity of personnel policy and management systems, and the effect of the changing environment and diminishing national defense resources on future British officer management.

General Pennicott stated that while the reorganization of the defense staff in 1985 was a serious effort to ensure appropriate uniformity considerations by the separate services, there were continuing bases for distinctive systemic differences in the services and fundamental mission differences that would perpetuate the historic service separation. With regard to personnel policies, much has been done to adopt uniform policies where they are logical and practical. Examples cited were the pay and compensation systems (although there are some obvious distinctions remaining), gender policies, higher-level officer education systems, and possibly the future accession and retirement systems. General Pennicott saw the recent and ongoing separate service personnel studies as examples of service efforts to consider any useful elements of uniformity and stated that his office was consulted by all three study groups on those potential recommendations that might support common or uniform personnel policies.

The reduced size of the defense establishment was seen as a direct consequence of national economic pressures, reductions in the threat, and changes in the international environment. In that regard, General Pennicott saw a future of evolutionary changes in personnel management policies matching the evolving needs of the reduction in force size. Some policies being directed by European legislation, such as laws prohibiting sex discrimination, providing maternity leave, and health and safety requirements, will foster additional uniformity in the services. As to civilianization and use of lateral entry programs, General Pennicott felt the former had already been used excessively and had negatively affected necessary flexibility within the military personnel system and that lateral entry had no sound basis to support any military-unique skill requirements (professional skills such as medical and legal were excepted). He believed that the principal skill developed in the initial decade of officer experience was leadership, which could not be equaled in any realistic way by civilian experience. Lastly, he commented on women in the military as being already accommodated by policy but stated that racial integration would take longer to become a reality in spite of policies supporting racial equality in the armed forces.

Federal Republic of Germany⁸

The Federal Republic of Germany uses a uniform system for managing the officers of its three military services. Military service in Germany is based upon national service with conscription for all eligible males. All officers begin their careers in the enlisted ranks. Those selected will usually spend no less, and usually spend more, than their normal conscript period, now 12 months, as enlisted service members. Annual screening of officer applicants results in some 1,300 candidates for all three services. The officer candidates will attend one of the two German armed forces university institutions for a period of more than three and up to four years to obtain a university-level degree and an officer's commission. The officer career system is designed to provide the potential for a 40 year career inclusive of enlisted service and university attendance.

Graduates of the German armed forces universities are commissioned in all three services with either regular or temporary commissions, depending on their graduating status. Usually the top 25–30 percent of the graduating classes receive regular commissions, which allow them to serve long careers with retirement, depending primarily upon their ultimate advancement in rank. The remainder of the officer graduates receive temporary commissions with some potential for later integration into regular career status. Each graduating officer incurs a mandatory service obligation of no less than 12 years. Additional officers are commissioned from the enlisted NCO ranks usually after some 12–15 years of service. These officers receive a specialist commission. Those officers who remain with temporary commissions and those with specialist commissions are limited in their potential for advancement to the grade of captain.⁹

German officers with regular commissions receive promotion advancements generally earlier than those with other commissions. There are six substantive grades of officers below flag rank in the German armed forces. However, there are multiple levels in grades, with three at captain and two each at lieutenant colonel and colonel, with the more senior level called "de luxe." Within the regular officers, a division is made at the grade of captain selecting the very best officers, some 10–15 percent annually, to attend the prestigious two year general staff course. Graduates of this course, general staff officers (GSOs), form the core from which all senior leaders of the German armed forces will be selected. All regular commissioned officers can expect promotion to major and most to

⁸The material for the discussion of the German officer management system was drawn largely from two sources: (1) Interviews with the German military attaché at the German Embassy in Washington, D.C.; and (2) Strand, "Military Career Paths in Transition," *op. cit.*, pp. 260–301.

⁹*Ibid.*, pp. 260–264.

lieutenant colonel, but the vast majority of officers advanced to the higher grades of colonel and the flag ranks will be GSOs. Further, all GSOs will be advanced to at least the higher-level rank in the grade of lieutenant colonel and receive special management of their assignments and continuing education. This very competitive two-track regular officer career seems to ensure both high competency and appropriate specialized military experience and training for the future senior leadership of the German armed forces.¹⁰

The German officer formal education and development system is rigidly structured and strongly focused on the middle grades of captain and major. By the time officers reach captain, they possess most of their branch skills and some 10 to 12 years of military experience. Captains attend company commander's courses to further develop their leadership skills and then the field-grade officer qualification course, a mandatory precursor to advancement to major. Next occurs selection for either the staff officers course or, for those on the more competitive track, general staff officers course. Much later in the careers of those destined for the most senior leadership positions, selection from mostly GSOs at the grade of colonel or brigadier general is made for attendance at the war college. The war college is seen as preparation for senior officers to serve at the strategic, combined (NATO commands), and operational levels of staff and command.¹¹

Retirement for officers in the German armed forces is based directly upon age and grade and indirectly tied to the type of commission, regular or other. Captains are mandatorily retired at age 53 with a pension equal to 75 percent of their salary. Majors, all being regular officers, may serve to age 55. Lieutenant colonels may serve until age 57, colonels have service allowed to age 59, and generals serve to age 60. In each of the field-grade and flag ranks, the pension is equal to the same 75 percent of salary for those reaching the age limits. Those officers retiring earlier are provided pensions based upon a factor of 1.87 percent per year, with a maximum time of 40 years or 75 percent of salary. Officers who depart service before reaching retirement age will receive full credit for their military service in their subsequent civilian pension plans.¹²

The German armed forces officer career management system offers some features quite different from other European military officer systems. A summary of these key features follows:

¹⁰*Ibid.*, pp. 262-264.

¹¹*Ibid.*, pp. 283-290.

¹²*Ibid.*, pp. 292-301.

- Long career system with tenure by grade: O-3 to age 53, O-4 to age 55, O-5 to age 57, O-6 to age 59, and flag officers to age 60.
- Two-track commission system: regular with tenure to ages by grade as listed above, and temporary with advancement limited to captain (O-3). (There is also a specialist commission for long-serving enlisted personnel that is subject to advancement limitation of captain.)
- Uniform officer education and training system leading to a common university degree with various subject majors.
- Regular career officers competitively divided at senior captain between normal course and fast-track general staff officers.
- Six officer grades below flag rank but three levels of O-3 and two levels each of O-5 and O-6.
- Uniform officer management system for all three military services.
- Retirement at career tenures providing up to 75 percent of salary as pension, early separation from service contributing to civilian retirement plan with pension delayed until ultimate retirement.

Comparison of Foreign Military Officer Systems

A comparison of these officer management systems shows several key elements to be common to all or most. Table E.1 summarizes the types of officer systems, retirement points, rank structure, and level of uniformity between services. In the case of the United Kingdom, the summary includes both the existing and recommended future characteristics.

Those characteristics common to the majority of the foreign military officer systems reviewed are summarized in the 10 items shown below.

- Generally closed systems: no reserve entry or lateral entry except for the professions. The concept of reserves is not the same as in the United States.
- Generally long, "one-career" systems: retirement age at 55 (or later) with sufficient annuity so that a "second" career is not needed unless an officer chooses to do so.
- Some form of dual tenures: short service for some, career for others.
- Career status related to promotion to major or lieutenant commander.
- College degree not required for commission or promotion.
- Fast-track careers related to military/civilian education and command and high-level staff experience.

Table E.1
Summary Comparison of Foreign Military Officer Systems

Country	Type System	Retirement Age	Ranks	Service Uniqueness
Canada	3-E, (9, 20 yrs, and age 55)	age 55 (60 prof)	O-1-O-9	Uniform
Holland	2-Trk Com Long C	age 55	O-1-O-9	Uniform
Denmark	2-Trk Com Long C	by grd (52, 62, 65)	O-1-O-9	Uniform
Norway	2-Trk Com Long C	40 yrs or age 55	O-1-O-9	Uniform
Germany	2-Trk Com Long C	by grd (55, 57, 59, and 60 for flag)	O-1-O-10 w/levels	Uniform/ Terr Army
U.K.-Army	2-E, (8 yrs, age 55)	age 55, SER O-7	O-1-O-10	Not uniform
	2-E, Same	SER at 50, age 55	O-1-O-10	More uniform
U.K.-RAF	3-E, (8, 16 yrs, age 55)	age 55	O-1-O-10	Not uniform
	3-E, Same	age 60 w/SER	O-1-O-10	More uniform
U.K.-R Navy (including RMC)	Varies by branch	by grd (50,53,55	No O-7	Not uniform
	2-E, 2-Trk (9 yrs, age 55)	age 55 w /CRPs)	O-1-O-10	More uniform

NOTE: E=engagement, Trk=track, Com=commission, C=career, grd=grade, SER=selected early retirement.

- Generally six officer grades below flag rank.
- Experience and maturity valued because of missions (e.g., peace operations).
- Officer career management systems are not necessarily uniform among the separate military services.
- Officership is a career, not a profession, and fits with national views about careers.

Various aspects of these systems should provide insights into the development of alternative future officer career management systems for the U.S. military services. One obvious difference is much longer careers, which could suggest consideration of extending U.S. officer careers beyond 30 years. Several areas of commonality or similarity also exist; for example, the number of officer grades below flag rank is six in most of the countries researched, which is as it is in the United States. Lastly, the evidence in foreign military officer systems of certain characteristics that are not found in U.S. systems can demonstrate their plausibility, but in the final analysis, our alternative officer career management systems must be able to fit the culture of this nation and its military officer corps.

F. Description of Military-Like Public Sector Organizations

Introduction

This appendix provides detailed information regarding four federal military-like organizations (Federal Bureau of Investigation; Bureau of Alcohol, Tobacco, and Firearms; Secret Service; and Bureau of Prisons) and one nonfederal organization (Fairfax County Police Department); the findings were summarized in Section 5. The organizations were studied to determine prevailing personnel policies and procedures. For each system, we describe flows and personnel functions.

Dramatic changes to organizational design and management practices are taking place throughout the private sector and starting to be seen in certain public sector activities. Characteristics of these changes include streamlining and the reduction of management layers with the resulting elimination of many middle managers. Emphasis is on quality and customer service with results achieved by empowering operators or employees who deal directly with customers to take independent action. Decisions are results-oriented and based on data that focus on process improvement, quality, and customer satisfaction. The new role of managers is to develop a vision and plan for future activities linked to the organization's business strategy. This focuses managers' attention upward in the organization rather than on the more traditional role of overseeing production or supervising subordinates.

Other public sector activities are experimenting with some of the emerging management practices and new organizational approaches from the private sector. These organizations—typically called “paramilitary” because of their close relationship to the military in both functions and purposes—have each developed their own officer career management system. These organizations are fertile ground for identifying useful concepts for consideration in the future officer career management system.

Many of these paramilitary systems have “professionals” with responsibilities, values, and challenges similar to military officers. While each has a personnel management system unique to its mission and responsibilities, there are several characteristics of each that might be considered in evaluating and developing a career management system for military officers. This section evaluates the

personnel management process and policies of four federal agencies and one local police department. Each evaluation considers each agency's flow system and the processes used to perform the primary personnel functions. Where appropriate, inferences are made regarding applicability of concepts or procedures to the military officer career management process.

The Federal Bureau of Investigation

Organization. The Federal Bureau of Investigation (hereafter referred to as the bureau or the FBI) is responsible for investigating crimes against the United States. About 9,000 of the FBI's 24,000 employees are law enforcement officers. The bureau has an outstanding reputation in law enforcement circles for its expertise and effectiveness. The FBI (part of the Department of Justice) has its headquarters in Washington, D.C., and operates 57 field divisions that cover the United States; it also has thirteen small overseas offices. To accomplish its mission, the FBI works in close coordination with law enforcement officers in other federal agencies as well as state and local groups. The director of the FBI is a political appointee selected by the attorney general, normally with agreement of the president; the director must be confirmed by the Senate. The director is assisted by 13 assistant directors; overall the FBI has up to 179 senior executive service (SES) managers, most of them in law enforcement.

Each of the 57 field divisions is managed (led) by a special agent in charge (SAIC); all are SES, and those in New York City and Washington, D.C., are also assistant directors. Each SAIC has one or more deputies called assistant special agent in charge (ASIC). First-line supervisors are called field supervisors and typically supervise 8 to 30 agents. Field supervisors and above are considered managers and are competitively selected by the headquarters in Washington, D.C.

The next subsection will discuss the personnel management practices and procedures within the FBI. It should be noted that the FBI is currently going through a major reorganization and restructuring that are having a significant effect on agent personnel management. The number of agents in the bureau is being reduced, the headquarters is being reorganized, the method of recruitment is being changed, and a new human resources development process is being developed.

Accession. The FBI accession process is primarily at the beginning of careers. Annual recruitment is affected by both vacancies (positions) and budget constraints; recent annual accessions have averaged 600 per year with a range of 500-800. Because of the aforementioned downsizing, there were no new agents

hired in 1993 and no hiring is projected in 1994 or 1995. The FBI has an extensive recruiting network that focuses on young professionals with some job experience. While candidates have a wide range of backgrounds, requirements demand many lawyers and accountants; average entry age is 28 years old. Candidate agents must have at least a baccalaureate degree.

The FBI has an ambitious recruitment program that focuses on increasing the diversity of bureau agents. Until recently it targeted different groups by having different minimum standards; that was precluded by recent changes to civil rights laws and the bureau is investigating other alternatives to increase diversity. There is very limited lateral transfer from other federal agencies and the military, and rarely does this occur at the managerial level. There are no formal internal development (upward mobility) programs, so most new agents come from outside government.

Education and Development. The FBI is different from other federal law enforcement agencies in several ways. First, it is much larger. And while most other federal law enforcement agents are general service, those in the FBI are in the excepted service. Many of the other agencies use a variety of different training activities; the FBI conducts most of its own training. (By law there can be only two federal law enforcement training activities; the FBI operates one in Quantico, VA, and all other agencies use the Federal Law Enforcement Center in Georgia as well as the FBI Academy.)

All FBI agents enter the government as GS-10s and begin their training in the entry-level residence course (17 weeks) at the FBI Academy. After initial training, agents begin a three to five year assignment in one of the field offices. (Current policy precludes this assignment from being near the agent's home of record.) During this time, agents receive on-the-job training conducted at the local level, normally by a first-line supervisor. They also gain experience in the various functions of the field offices by working in different mission areas. The field supervisor (also called squad leader) serves as mentor to agents under his or her supervision. And while each agent works to develop a functional specialty, emphasis in developing FBI agent competencies is on the "generalist" approach.

The second assignment for most agents is typically to another field office (often one of the "top 12" offices that are larger, have broader operational requirements, and are sometimes difficult to staff) or to the headquarters in Washington, D.C. By then, most agents are GS-13s (it takes two years to advance from GS-10 to GS-13). Although agent preference is considered, final decision on reassignment and relocation is made by the headquarters in Washington, D.C., based on

organizational needs, projected vacancies, and opportunities to broaden agent experience. All agents sign mobility agreements upon entry into the FBI.

Subsequent training is more technical or functional and averages about one week per agent each year; this is managed at the local level based on operational requirements and funds. When an agent is selected for a management position, other training options become available. The FBI has extensive leadership and executive development programs that are managed by the Washington headquarters and directed by the FBI Academy, which also conducts much of the training. The training is in three parts: formal organizational training activities as encompassed by the comprehensive bureau management training (CBMT) program, self-development activities of FBI managers, and subordinate development activities of FBI managers with their employees. The individual manager is expected to prepare a management development strategy (or program) tailored to his or her background, education, experiences, and expectations. The CBMT consists of a series of management courses and seminars covering such subjects as post-shooting incident trauma, ethics, public speaking, total quality management, and negotiation.

There is also an external executive development program that provides opportunities for future senior managers (selected by the FBI Executive (SES) Career Board) to attend a variety of different external programs. The Center for Creative Leadership, Stanford University, and General Electric leadership development programs are benchmarks for the FBI program. The FBI also expects its future managers to have an individual self-development program that includes everything from professional reading to off-duty graduate training. While an advanced degree is not mandatory for advancement, nearly all FBI managers at the SES level have masters degrees. Most were earned during off-duty time.

The FBI Academy is the focal point for most of the education and development of the bureau. Located in Quantico, Virginia, the academy has a small faculty; its primary mission is training of FBI agents. In addition, the academy annually trains over 20,000 other law enforcement officers from local, state, and federal agencies. The academy has a relationship with the University of Virginia, which provides some faculty, assistance in curriculum development, and consulting support.

Civilian education is not important for development or promotion. Management training is provided for those selecting/competing in the management track. For those choosing to serve their entire careers as journeyman agents, limited training is available to increase competencies.

Except for short courses in field divisions, all education and development programs are centrally managed. Individuals are selected to attend these programs by the Executive Career Board; criteria for selection include record of performance and demonstrated leadership potential. There is some concern that agents are not as actively involved in their own career development as they should be and that they are waiting for "Quantico to call" and tell them when they have their next training rather than proactively seeking opportunities for development.

Assignment. Since FBI agents sign mobility agreements when hired, reassignment is based on the needs of the FBI and whether agents choose to compete for management positions in other locations. Potential managers need one or more assignments to the headquarters in Washington, D.C., to provide the broad staff experience required for promotion and management options. For those selected to be managers, reassignment and relocation is more frequent. Even those agents choosing not to compete for management positions are assigned to Washington, D.C., often against their preference.

As noted earlier, a typical "career path" begins with assignment as an agent in a small field division and is followed by a broadening assignment to one of the "top 12" field divisions. Those selecting the management track then normally have two supervisory assignments—one in a field division and one at the headquarters in Washington, D.C. Agents then are assigned to a management position in headquarters with responsibility for a major program, e.g., heading a white-collar crime division. This is typically followed with assignment as ASIC at one of the 57 field divisions. The preceding assignments prepare an agent for senior management positions (SES level) in the headquarters or as the SAIC of a field division. Headquarters is responsible for development with overall focus throughout on the generalist.

All agents are reassigned or relocated at regular intervals. Among managers and those on a fast track, duration of assignment can be as short as two years. Normal duration of a management tour is four to five years, but it is not uncommon for an SAIC to spend his or her last six to eight years serving in that capacity. A typical SAIC is 45 to 50 years old.

Promotion. Initial promotion from entry level (GS-10) through GS-13 is routine, based on meeting minimal standards (fully qualified) and following the standard career path. Thereafter, promotion is based on competition for specific positions (best qualified). Those choosing the management track compete for specific management positions (e.g., a supervisor's position in Dallas). Selection and

assignment is centrally managed and discussed below. Those opting to remain agents continue as GS-13s until retirement.

As noted earlier, the FBI is restructuring many of its human resource processes, including the promotion process. The current system is described below. As previously mentioned, managers in law enforcement are "generalists" and supervise the field agent specialists (e.g., arson specialty). When vacancies occur for management positions, announcements describing the qualifications and experience required are prepared and widely circulated. Individuals apply for these management/supervisory positions by advising headquarters. (As noted, agents not interested in serving as a manager can continue as a field agent until retirement; they are not likely to advance beyond GS-13.) A headquarters panel screens all applicants against the prerequisites for the particular position (appropriate competencies, "superior" ratings for three years on annual appraisals, and no administrative actions).

For promotions in the field divisions, all files for qualified candidates are sent to the appropriate SAIC. Each SAIC has a career board that goes through a formal proceeding to select the best candidate. The career board is composed of managers and supervisors who are selected/appointed by the SAIC. The board makes a recommendation to the SAIC, who reviews it and forwards the recommendation to the Headquarters Career Board for final decision. Recommendations of the field are rarely overturned.

Selection for senior management positions (such as SAIC of a field division) is made by the headquarters career board, consisting of deputy assistant directors in the Washington headquarters. In making its evaluations, the career board considers information provided by the candidate on his or her application, an assessment provided by the individual's supervisor, the individual's record (including annual performance evaluations), training, and individual competencies. Using a scoring system or other basis for comparing each candidate's qualifications with the job requirements, the board makes a decision (selection) by consensus. An executive career board follows similar procedures when selecting persons for SES positions.

There are no standard criteria for promotion or management positions; specific qualifications for each position are listed in the vacancy announcement. Once an individual is accepted by the headquarters panel (or selecting official) he or she is eligible for selection for management positions without competition. The next subsequent competition comes when entering the SES pool.

FBI agents are required to qualify with their weapons twice each year. There are no requirements to pass fitness tests or physical exams. The FBI does encourage

agents to remain physically fit; it allows duty time for exercise and will reimburse membership in a fitness center.

Compensation. FBI agents are general schedule employees (excepted service) and are compensated accordingly based on rank and step; in addition, as federal law enforcement personnel in series 1811, each receives a 25 percent pay supplement for unscheduled overtime. All personnel in certain geographical areas (Los Angeles, San Francisco, New York City, and possibly Washington, D.C.) receive location pay. Other additional compensation is based on specific job responsibilities and location.

Separation. As federal law enforcement officers (series 1811) all FBI agents are eligible to retire at age 50 and must retire by age 57. There is no "tenure point," and the FBI operates under an up-and-stay policy. Overall attrition in the bureau is low; most complete initial training, but some resign (or are separated) in the first five years. Most agents either retire at the earliest opportunity or remain in the bureau until mandatory retirement.

The FBI uses the formal termination process based on OPM guidelines for both nonperformance and discipline. Like other federal agencies, the bureau is frustrated by the cumbersome and time consuming process. Agent appeal rights to adverse personnel actions follow normal Office of Personnel Management (OPM) guidelines.

In the early 1980s, the FBI developed/defined the characteristics sought in FBI agents based on competencies, skills, and values. These were used by the headquarters panel when selecting future managers. The shifting values of the bureau and society have caused them to be less valid and less useful. They are not currently used but may be updated in the near future.

Professional Considerations. The FBI has a written code of ethics. There are several professional organizations unique to FBI agents, but none has a role in establishing standards for professional conduct or behavior; none of the agents are members in a union. As mentioned previously, there is no examination or certification necessary to be in the profession nor are there written contracts of employment.

Summary. The FBI has an up-and-stay flow system with essentially no lateral entry and few voluntary (or involuntary) departures before retirement. Like other federal law enforcement agencies, the FBI has a large number of agents who spend extended periods of their service at the same grade (GS-13).

The development program in the FBI focuses on short, functional training courses and on-the-job training; there is little emphasis on postgraduate education. The FBI operates its own training facility for entry-level and management training. Most of the FBI's executive development is with outside training organizations.

All FBI agents receive annual performance evaluations. Agents qualify with their weapons quarterly; beyond that there is no periodic professional certification nor must they pass fitness or health examinations. Promotion beyond GS-13 is limited to those choosing to be managers; they also receive additional training as do SES candidates. Termination for poor performance or disciplinary reasons is in accordance with OPM guidelines.

All major personnel decisions regarding assignment, promotion, and training are made at the headquarters level. Agents are general schedule government employees (excepted service) and receive regular compensation based on grade; all receive a 25 percent bonus for overtime. As law enforcement officers (series 1811) they are eligible to retire at age 50 and must retire by age 57.

Bureau of Alcohol, Tobacco, and Firearms (ATF)

ATF is responsible for law enforcement and investigations relating to violation of federal laws regarding arson and the sale, shipment, and use of firearms, alcohol, tobacco products, and explosives. This section addresses the 2,500 law enforcement officers in ATF. Another 1,800 members of ATF focus on tax compliance.

Organization. ATF is part of the Department of Treasury with headquarters in Washington, D.C., and 24 field divisions that cover the United States; it also has several small overseas offices. To accomplish its mission, ATF works in close coordination with law enforcement officers in other federal agencies such as the FBI and Secret Service. ATF is led by the director, an SES career appointee who is selected by the Secretary of the Treasury. The director is assisted by two deputies (who also serve as associate directors—one for law enforcement) and three assistant directors; ATF also has 25 SES managers with 12 in law enforcement.

Each of the 24 field divisions is managed (led) by an SAIC (normally a GM-15, but the larger field divisions are led by an SES). Each district also has one or more deputies called ASIC. First line supervisors are called resident agents in charge/group supervisor and typically supervise 4–10 agents. Resident agents

and above are considered managers and are competitively selected by the headquarters in Washington, D.C.

The next subsection will discuss the personnel management practices and procedures within ATF.

Accession. The ATF accession process is primarily up-and-stay. Annual recruitments are affected by both vacancies (positions) and budget constraints; recent annual accessions have averaged 100 agents per year with an annual range of 50–200 agents. Most new agents come directly from colleges and universities, often from one of the many schools with a strong program in criminal justice. There are some lateral transfers from other federal agencies and the military, but rarely does this occur at the managerial level.

Although not required by law, all accessions in recent years have had baccalaureate degrees. This is possible because the large number of applicants allows ATF to be very selective; two years ago, 7,000 candidates passed the federal test required for Treasury Department law enforcement personnel; since that time additional tests have not been given. There are no formal internal development (upward mobility) programs, so most new agents come from outside government.

Education and Development. New ATF agents begin their service and development with 15 weeks of mandatory training. All federal law enforcement officers (except FBI) must attend the seven week entry level course at the Federal Law Enforcement Center in Georgia (the FBI has its own course at the FBI Academy in Virginia). ATF agents must also attend an eight week course that focuses on ATF policies and procedures. Individuals must successfully complete these two courses to remain agents. As federal employees, ATF agents begin as GS-5/GS-7 and serve in a probationary status for one year.

After initial training, agents begin a three to five year assignment in one of the 24 field divisions. During this time, agents receive on-the-job training conducted at the local level, normally by a senior agent assigned as an on-the-job instructor. They also gain experience in the various functions of the field offices by working in different ATF law enforcement mission areas.

The second assignment for most agents is typically to another district or to the headquarters in Washington and requires a relocation. By then most agents are GS-13s (with promotion at its earliest opportunity, it takes a minimum of four years to advance from GS-7 to GS-13). Although agent preference is considered, final decisions on reassignment and relocation are made by the headquarters in Washington, D.C., based on organizational needs and projected vacancies. All

agents sign mobility agreements on entry into ATF, so directed reassignment is not a problem. Criteria for reassignment include broadening the agent's experience and providing exposure to different mission areas.

After basic training, subsequent training is more technical or functional and averages about one week per agent each year; this is managed at the local level based on operational requirements and fund allocation. Funding is controlled at the headquarters.

A recent GAO report said the ATF training program "exceeded our expectations."¹ The report identified three reasons for the strong program: employee involvement, optimization of training resources, and dedication to career development rather than just training.

ATF has several leadership and executive development programs as well as an SES candidate program. When first selected for management position (the management selection/promotion process is discussed later), other training and development options become available. Those entering the management ranks receive basic supervisory training and management skills training. For senior managers (and SES candidates), the executive training focuses on managerial/leadership competencies; options include the Federal Executive Institute and the Center for Creative Leadership.

Except for short courses in the field divisions, all subsequent education and development programs are centrally managed and funded. Individuals are selected by an executive resources board in Washington; criteria for selection include record of performance and demonstrated potential.

Within ATF, civilian education is not perceived as important for development or promotion. Management training is provided only for those selecting/competing in the management track. Those choosing to serve their entire career as an agent receive limited training to increase competencies.

Assignment. Since ATF agents sign mobility agreements when hired, reassignment is based on the needs of ATF and whether agents choose to compete for management positions in other locations. Potential managers are expected to have assignments to the headquarters in Washington, D.C., where they receive the broad staff experience required for promotion and management opportunities. For those selected to be managers, reassignment and relocation is more frequent. Even those choosing not to compete for management positions

¹General Accounting Office, *A Review of Personnel Management*, Bureau of Alcohol, Tobacco, and Firearms, Department of Treasury, June 1992, p. 6.

may be assigned to Washington, D.C., often against their preference. While managers and first line supervisors provide some input in the reassignment process involving other agents—those agents assigned to their district or joining their district—final decisions are made at the headquarters.

All agents are reassigned or relocated at regular intervals. Among managers and those on a fast track, duration of assignment can be as short as two years. Normal duration of a management tour is 4–5 years, but it is not uncommon for an SAIC to spend his or her last 6–8 years serving in that capacity. A typical SAIC is 45–50 years old. Interestingly, current policy precludes individuals from serving as SAIC in a district in which he or she served as deputy. Normal tour length for field agents (not on the management track) is longer, averaging 6–8 years. There is considerable variability in tour length for all agents.

Since it is possible to get promoted in the field (outside of Washington) up to GS-14 supervisory positions, there is less incentive to come to Washington; many agents avoid a headquarters assignment; hence, the necessity for involuntary assignment to Washington. Both the reassignment and relocation processes are controlled by the Washington headquarters.

In general, headquarters is responsible for the development and assignment processes, and while there is no standard career pattern, focus is on developing generalists in the law enforcement field as opposed to specialists in arson or firearms investigations. All agents are trained in all specialties and are expected to be able to handle responsibilities in all areas.

Promotion. Initial promotion from entry level (GS -5–7) through GS-12 is routine based on meeting minimal standards (fully qualified) and follows the normal career ladder. Thereafter, promotion is based on competition for specific positions (best qualified). Those choosing the management track compete for specific management positions (e.g., ASIC of Kansas City office) announced by the headquarters. Selection and assignment to management positions is centrally managed; the process is discussed below. Those opting to remain agents continue as GS-13 until retirement. Like all federal law enforcement personnel (in series 1811), they are eligible to retire at age 50 and reach mandatory retirement at age 57.

As previously mentioned, ATF managers in law enforcement are generalists and supervise the field agent generalists and specialists (e.g., arson specialty.) When vacancies occur for management positions, announcements are prepared and widely circulated; they describe the qualifications and experience required for the vacant position. Individuals apply for these management/supervisory positions by advising headquarters. (As noted, agents not interested in serving

as a manager can continue as a field agent until retirement; they are not likely to advance beyond GS-13.) About half of the 2,500 law enforcement agents are at the GS-13 level.

A headquarters panel reviews all applicants and selects the best qualified. There are no standard criteria for promotion or management positions; specific qualifications for each position are listed in the vacancy announcement. Information considered by the selection panel includes the agent's annual appraisal, a statement prepared by the agent describing his or her qualifications and competencies, an endorsement by the agent's supervisor, and background information from the individual's file (e.g., training, experience, disciplinary action, if any).

At the conclusion of its deliberations, the panel assigns a numerical score (ranking) to each agent, identifies the best qualified, and provides a list of recommended agents to the selecting official (normally an associate or assistant director) in the headquarters. In making the selection from those best qualified, the selecting official frequently consults with an SAIC in whose district the vacancy exists as well as other key managers. Once an individual has been recommended by the headquarters panel (or selecting official) he or she is eligible for selection for other management positions without competition. The next subsequent competition is when entering the SES group.

While there are no periodic certification/qualification examinations, ATF agents are required to qualify with their weapons twice each year. There are no requirements to pass fitness tests or physical exams. ATF does encourage agents to remain physically fit; it allows duty time for exercise programs and will reimburse membership in a fitness center.

In the early 1980s, ATF developed (defined) the supervisory/managerial characteristics, competencies, skills, and values for its management positions. These were used by the headquarters panel and senior officials when selecting future managers. The shifting values of the bureau and society have eroded the extent to which they are used. However, they are still taught in supervisory training and may be reemphasized under the new director of ATF.

Compensation. ATF agents are general schedule employees and are compensated accordingly based on rank and step; in addition, as federal law enforcement personnel in series 1811, each receives a 25 percent pay supplement for administratively unscheduled overtime. Other additional compensation is based on specific job responsibilities and location. There is no hazardous duty pay for ATF agents.

The GAO report indicates that ATF did not use compensation flexibility under the Federal Employees Comparability Act because of budget constraints and acceptable alternatives.

Separation. As federal law enforcement officers (series 1811) all ATF agents are eligible to retire at age 50 and must retire by age 57. There is no "tenure point" and the ATF operates under an up-and-stay policy.

ATF does not have a special program to terminate agents. It uses the formal termination process based on OPM guidelines for both nonperformance and discipline. Like other federal agencies, it is frustrated by the cumbersome and time-consuming nature of the processes. This is particularly troublesome in dealing with marginally satisfactory agents who are unmotivated to improve and where management has little leverage. Agent appeal rights to adverse personnel actions follow normal OPM guidelines.

Professional Considerations. ATF does have a written code of ethics. There are several professional organizations unique to ATF agents, but none has a role in establishing standards for professional conduct or behavior; none of the agents are members in a union. As mentioned previously, there is no examination or certification necessary to be in the profession nor are there written contracts of employment.

Summary. ATF has an up-and-stay flow system with essentially no lateral entry and few voluntary (or involuntary) departures before retirement. Like other federal law enforcement agencies, ATF has a large number of agents who spend extended periods of their service at the same grade (GS-13). The typical agent retires after 25-30 years of service at age 53. About half go on to second careers.

The development program in the ATF focuses on short, functional training courses and on-the-job training; there is little emphasis on postgraduate education, and it is often discouraged. ATF uses the Federal Law Enforcement Center for law enforcement training; it also operates its own training facility at the center. ATF's management and executive development training (for GS-14s and GS-15s) is done by internal staff and with outside training organizations. Agents not choosing the management track continue to serve at the GS-13 level until retirement.

Those agents choosing to be SES executives compete for management positions through a board selection process controlled by the headquarters in Washington and following government-wide SES policies. Selection normally includes promotion and the opportunity for special training. All senior managers (SESs) are developed within ATF.

All ATF agents receive annual performance evaluations. Agents qualify with their weapons twice each year; beyond that there is no periodic professional certification, nor must they pass periodic fitness or health examinations. Promotion beyond GS-13 is limited to those choosing to be managers; they also receive additional management training. Termination for poor performance or disciplinary reasons is in accordance with OPM guidelines; there are few discharges.

All major personnel decisions regarding assignment, promotion, and training are made at the headquarters level. Agents are general schedule government employees and receive regular compensation based on grade; all receive a 25 percent bonus for unscheduled overtime. As law enforcement officers (series 1811), they are eligible to retire at age 50 and must retire by age 57.

Secret Service

There are about 2,000 agents in the Secret Service, which is responsible for criminal investigation, security, and protection of the president, vice president, foreign dignitaries, and other designated personnel. In performing its mission, the Secret Service works in close coordination with law enforcement officers in other federal agencies such as the FBI and ATF.

The Secret Service is part of the Department of Treasury and has its headquarters in Washington, D.C., It is led by an executive-level director (politically appointed, however, always a special agent) who is supported by 10 assistant directors, and an administrative staff of about 200. The Secret Service field operations are organized into 56 field offices; each is commanded by an SAIC at the GM-15 or SES level, depending on size. Each SAIC has one or more ASICs (normally GM-14 or GM-15). The individual field agent's first line supervisor (or squad leader) is an ASIC (GM-14) with functional responsibility (investigation, fraud, counterfeit, protection, forgery). All regular field agents (GS-13 and below) have the same position description.

The next subsection discusses the personnel management practices and procedures within the Secret Service.

Accession. Most candidate agents join the Secret Service with some prior law enforcement experience, often in a police department or the military. Others come directly from college, often schools with programs in criminal justice. While there is no legal requirement for a college education, almost all candidate agents have degrees. A few agents join the Secret Service from other federal agencies, but there are very limited opportunities for lateral entry at middle and

upper levels. During the 1980s, accessions averaged 150 per year with 100 candidates to replace losses and the remainder to support growth in force structure. Currently, accessions are more stable.

Education and Development. After joining the Secret Service (normally as a GS-5 or GS-7) candidates attend 16 weeks of entry-level training. The first seven weeks are with other new law enforcement officers at the Federal Law Enforcement Center in Georgia. The last nine weeks are conducted by the Secret Service at their Maryland training facility and focus on Secret Service policies and procedures.

After initial training, agents begin a five to eight year assignment in one of the field offices; the first year is in a probationary status, but few agents drop out. During this time, agents receive on-the-job training conducted at the local level, normally by a first-line supervisor. They also gain experience in the various functions of field offices by working in different mission areas. Additionally, these agents may receive temporary assignments to duty protecting the president, vice president, and foreign dignitaries. During presidential campaign years, staffing for protective details of presidential candidates comes primarily from field offices.

The second assignment for most agents is typically to a protection detail and requires a relocation. By then most agents are GS-13s. Although agent preference is considered, final decision on reassignment and relocation is made by the headquarters in Washington, D.C., based on organizational needs and projected vacancies. All agents sign mobility agreements on entry into the Secret Service.

While there is no required certification process for Secret Service agents, there are minimum standards for retention: monthly weapons qualification, quarterly physical fitness test, and annual physical examination. When agents fail these tests or have other problems (overweight or substance abuse), the Secret Service has an aggressive support program to assist, rehabilitate, and retain these individuals; discharge is a last resort.

Promotion. Since agents are general schedule government employees, they receive regular promotions at specified time intervals (on a "fully qualified" basis) through the grade of GS-13. An employee entering as a GS-7 would reach GS-13 after four years if selected for the next grade at the earliest opportunity (five years if starting as a GS-5). Subsequent promotion is based on position and described below.

Assignment. After serving one year as a GS-13, agents become eligible to compete for management positions that will normally include promotion if they are selected. This is not to imply an up-or-out policy, because agents are free to remain agents at the GS-13 level until retirement. Agents that opt not to pursue the management track are likely to remain resident agents at the GS-13 level throughout their career. Training and development for these agents is normally functional in nature and conducted both at the local level and at the Secret Service Training Facility in Maryland.

Because the agents were unhappy with the process used for promotion and selection of managers, the process was modified in 1989, using total quality management techniques. Under the new process, all agents in each grade are rated annually and given a composite score based on equal input from three groups/individuals: supervisor, a peer review committee, and a functional assistant director at headquarters (e.g., Assistant Director for Protection). For the higher grades (GM-14 and GM-15), a larger portion of the points is allocated to the assistant director. Each year a new order of merit list is developed by headquarters based on the composite scores, and agents are informed of their position (e.g., 131 out of 876 GS-13s). There is some concern that under the revised system, agents new to a region (and not previously known by the SAIC) may not compete favorably with other agents and suffer in the scoring process.

When management positions become available (and they are normally widely publicized), agents apply (or "bid") by advising headquarters. Often agents are encouraged to apply for a specific position by a mentor, associate, or the SAIC in the region of the vacancy. The selection process is centralized; the selection for all management positions is made by a promotion board consisting of all assistant directors and chaired by the deputy director. The board is provided a list with the top 15 applicants from the merit list; selection is restricted to those 15. However, the board is not required to make a selection and can postpone selection, call for another list, or not make a selection. Occasionally, selections are made without an announcement.

After selection to be a manager, agents are provided additional training either at the Secret Service training facility or by contract trainers. This training focuses on supervisory/management responsibilities. As noted earlier, agents in the field receive regular technical training on such subjects as investigation techniques and computer fraud; most training is of short duration (3 weeks or less) and is budgeted and managed by the Washington headquarters. There is no formal program for agents to receive additional civilian education (beyond baccalaureate), nor are they encouraged to work on such degrees during off-duty time.

Reassignment not related to promotion is also managed by the headquarters, and although there is not a notional tour, most agents are reassigned at regular intervals. While each is consulted regarding preference on type of duty and location, the needs of the organization take priority. The SAIC has little influence in assignments to his or her regional office.

The Secret Service recently initiated a Career Tracking Office to advise and counsel agents; in addition the SAIC is expected to serve as a mentor and advise agents in his or her field office on career development and advancement opportunities. Currently, the emphasis in career development is on the "generalist," but there are career tracks (e.g., protection and investigation) available as options.

Agents in the management track are also assigned to manage administrative functions such as personnel and procurement. All government employees performing administrative functions in support of the Secret Service are supervised by an agent.

Compensation. While Secret Service agents (through GM-15) are paid at normal GS rates, they all receive a 25 percent bonus for unscheduled overtime. Many also receive additional compensation for scheduled overtime or night pay; indirect compensation includes use of cars as well as relocation service and benefits. Some overseas agents in high-risk areas receive additional hazardous-duty compensation, and all personnel in certain geographical areas (Los Angeles, San Francisco, New York City, and possibly Washington, D.C.) receive location pay.

Because the 25 percent bonus and some of the other benefits are included in determining retirement compensation (high three), agents often gravitate toward certain assignments and locations when approaching retirement.

Separation. Until recently, the Secret Service had a retirement option that allowed agents to retire after only 20 years of service if they had 10 years with a protection detail. In 1984, the Secret Service became subject to the standard retirement program for federal law enforcement agencies (early retirement at age 50 with 25 years of service and mandatory retirement at age 57). There was concern about a massive retirement or transfer; that did not materialize. Those agents that joined before 1984 continue to have an option between the two retirement systems.

The flow system is up-and-stay with few agents departing before retirement eligibility because of either poor performance or personal preference. Requests for early retirement are processed through the Washington headquarters, and it

is not uncommon for them to be delayed or disapproved based on operational requirements. Each year, about 40 agents retire; most are in their 50s, and the typical grade is GM-14.

Professional Considerations. While the Secret Service does not meet all of the criteria for a profession (see Appendix B) such as special education and certification, the agents are certainly an elite group with a career commitment and strong organizational loyalty. Secret Service agents have a formal code of ethics, and there is a professional association to represent their interests (but not to lobby) and look after the families of agents who are killed in the line of duty.

Summary. The Secret Service has an up-and-stay flow structure with essentially no lateral entry and few voluntary (or involuntary) departures before retirement. A large number of agents spend extended periods of their service at the same grade (GS-13). The typical agent retires after 24 years of service at age 48.

The development program in the Secret Service focuses on short, functional training courses and on-the-job training; there is little emphasis on postgraduate education. The Secret Service operates its own training facility but makes extensive use of contractors for management courses.

In addition to annual performance evaluations, there are also regular evaluations regarding fitness, health, and weapons qualification. Promotion beyond GS-13 is limited to those choosing to be managers; they also receive additional training.

All major personnel decisions regarding assignment, promotion, and training are made at the headquarters level. Agents are general schedule government employees and receive regular compensation based on grade; all receive a 25 percent bonus for unscheduled overtime. As law enforcement officers (series 1811), they are eligible to retire at age 50 and must retire by age 57.

Federal Bureau of Prisons

The Bureau of Prisons (hereafter referred to as the bureau or the BOP) is responsible for operating 76 prisons that are operated to protect society by confining offenders in the controlled environment of prison and community-based facilities that are safe, humane, and appropriately secure, and that provide work and other self-improvement opportunities to assist offenders in becoming law-abiding citizens.

The BOP currently employs about 12,000 correctional officers (none of whom are law enforcement officers in series 1811) in an organization of over 26,000 federal employees. Other members of the bureau interact with the prisoners by

providing support or services in such areas as medical delivery, food service, religious activities (chaplains), prison industry, psychological services, and education.

Organization. The BOP is part of the Department of Justice with headquarters in Washington, D.C., and six regional offices that operate 76 prisons across the United States. The Director of the BOP is a career/political appointee selected by the attorney general, normally with agreement of the president. All recent directors have been career employees selected from within the bureau. The director is assisted by an executive staff that includes nine assistant directors and six regional directors, all at the SES level. Overall, the BOP has 45 SES in management and staff positions.

Each of the six regions is managed (led) by a regional director at the SES level. The prisons are led by a warden (GM-15 or SES for larger prisons.) Typically, the warden has two or three assistants managing functional support staffs, including correctional officers as well as functional experts: medical, food service, chaplains, prison industry, psychologists, education, facilities, financial management, personnel, and others. The senior correctional officer at each prison is called captain (GS-12 or GS-13) and is typically assisted by 15-20 lieutenants (GS-9/11) and 100-120 correctional officers (GS-6/7/8).

The next section discusses the personnel management practices and procedures within the BOP.

Accession. Since 1987, the BOP has more than doubled from about 12,000 employees to over 26,000 employees (and from 47 prisons to the current 76; another 33 are planned in the next five years). Thus, continuing to recruit and access quality correctional officers as well as other employees while providing experienced managers for newly created positions has been a major challenge.

While the BOP needs a wide variety of technical specialties, as a general practice many new employees are hired as correctional officers. Recruitment for the past several years has benefited from an annual application pool of about 25,000 candidates from which about 4,000 employees are hired each year. Candidates do not need a college degree to become a correctional officer, but they must have some supervisory experience (three and one-half years for those without a college degree and one-half year for those with a degree).

There is no entrance examination; rather, each candidate's application is evaluated by the personnel staff based on the candidate's education, experience, and training. Overall, the BOP is looking for new employees who are intelligent, have good common sense, and are effective working with people. About 45 percent of new employees join BOP at the entry level of GS-6. The others have

some experience and are lateral entries (teachers, lawyers, and psychologists, for example). The flow process is primarily up-and-stay.

The BOP has an extensive recruiting program that is currently focusing on minorities in an effort to diversify its workforce. The nationwide college recruiting program for correctional officers targets schools with a criminal justice program and military veterans. The large increase in BOP size when coupled with efforts to diversify and the hiring of veterans has slightly reduced the percentage of college graduates among entry-level personnel. This is not considered a problem since a college education is not perceived as an essential qualification to be a correctional officer or for subsequent advancement.

Education and Development. Most BOP correctional officers enter the government as GS-6s and begin their training at the entry level with a three week program at the Federal Law Enforcement Training Center (FLETC) in Georgia. The training is conducted by some of the more than 70 BOP personnel stationed at the FLETC, so in addition to general subjects, the training also addresses BOP policies and procedures. The entry-level training includes two weeks of on-the-job training at the institution of initial assignment (the employee is normally recruited for assignment to a specific institution).

During the first year, while on probationary status, the correctional officers receive additional on-the-job training conducted at the local level, normally by a first-line supervisor. By design, most employees spend the early years as a correctional officer; this allows them to be directly involved in the bureau's primary responsibilities as well as providing the opportunity for exposure to other functional services.

Correctional officers reach an important juncture in their career when, after two years' service, they compete for promotion to GS-8. At that time, each individual chooses whether to remain as a correctional officer and compete for advancement in that career field as a manager or to shift to one of the other functional areas. In addition, many choose to remain as correctional officers at the GS-8 level (journeyman level) until eligible for retirement and not to compete for advancement.

Those choosing to compete for advancement in the correctional officer field to lieutenant (GS-9/10/11) and captain (GS-12 or GS-13) apply for specific positions. While selection makes them eligible for supervisory training, they also must agree to be reassigned to a different prison location. The selection/promotion process is discussed in the promotion section. Those choosing to compete for advancement within a functional area also become eligible for promotion and additional training. In that capacity, they can work in

the functional area in the prison, manage a functional area, or work on functional staff at the regional or Washington headquarters.

Both groups—correctional officers and functional specialists—are eligible for promotion and advancement that can lead to selection as a prison warden (GM-15 or SES) or administrator of a satellite facility. Thus, while the system initially encourages the generalist approach, many individuals later specialize in one of the functional areas. However the BOP encourages all of those interested in becoming wardens (or associate wardens) to remain current in all functional areas. It recently initiated a cross-development training series that offers self-development training packages in each functional area; after completion, results are graded and recorded in individual records available to selecting officials.

The BOP operates three training facilities focusing on entry-level training, specialized training, and management training. All BOP employees are required to receive a minimum of 40 hours of training each year. While there are mandatory core subjects for all staff, additional specific subjects are determined by individual preference and need based on a needs assessment process and supervisory recommendations. Training is scheduled by local authorities based on individual availability. Each prison has a budget for training its employees; about 90 percent of training is at BOP institutions or training activities.

The BOP has a leadership and executive development program that is managed out of the Washington headquarters. Candidates are nominated by the regional directors and assistant directors and selected by headquarters; most attend a commercial development program.

Civilian education is a consideration but is not mandatory for development or promotion. Management training is provided for those selecting/competing in the management track. For those desiring to serve their entire career as correctional officers, training is focused on competencies.

Assignment. For those opting to compete for advancement—either as correctional officers or functional managers—reassignment is based on position availability and individual preference. For those choosing to remain as journeyman correctional officers, there is no reassignment or rotation program, and they can remain at the same institution for their entire career. Thus, the BOP staff consists of two groups: the homesteaders and those agreeing to move in exchange for the opportunities for promotion and management positions.

Most reassignments result from selection for a new position or promotion as described below. Since those BOP employees competing for warden (management positions) sign mobility agreements, reassignment can also be at

the direction of the headquarters. Homesteading, and the inability to relocate correctional officers, is perceived as a problem by some BOP managers. Potential senior managers must have assignments to the headquarters in Washington, D.C., in order to have the broad staff experience required to make decisions at that level. For those selected to be managers, reassignment and relocation is more frequent.

Among younger wardens and those on a fast track, duration of assignment can be as short as two years. Normal length of a management tour is two to three years, but it is not uncommon for a senior manager to spend his or her last four to five years serving in that capacity. A typical warden or captain is 45 to 50 years old.

Promotion. Initial promotion from entry level (GS-6 and GS-7) is routine, based on meeting minimal standards (fully qualified) and following the standard career path. Thereafter, promotion is based on competition for specific positions (best qualified). As mentioned previously, those choosing the management track compete for specific management positions.

As previously mentioned, wardens are generalists and supervise the correction officers and functional specialists. There are no standard criteria for selection for a higher position and promotion; specific qualifications for each position are listed in the vacancy announcement. For GS-12 and below, the selection process is decentralized. Vacancies are widely announced and selection decisions are made by wardens or regional directors. Management personnel (GS-12 and above) indicate their interest on an annual job preference sheet. They indicate the type of positions and locations in which they are interested. All of this information is available to the selecting official—the regional, assistant, or agency director—through an on-line computer system. He or she reviews the candidate qualifications against the job requirements, consults with other managers/supervisors, contacts the individual's current manager, or consults with the headquarters staff.

In addition, the executive staff (BOP director and 6 regional directors) conduct an annual review of all employees GS-13 and above. The annual assessment evaluates development needs and potential for different types of assignments. The results might suggest certain types of training, earmark an individual for assignment to Washington in a particular functional area, or identify a candidate to be a warden or associate warden. Promotion through GS-12 is managed by the individual wardens and regional directors using this process and vacancy announcements. Promotion to GS-13 through GS-15 and SES is managed by the executive staff. The very senior positions are selected by the director. With the

rapid growth of BOP, top management is considering transfer of some promotion authority to the regional offices.

Recently, the BOP initiated a program that will relate promotion to performance. When considering individuals for promotion, the selecting official will review the reports of functional area evaluations (inspections) conducted during the tenure of the individual being considered.

All BOP institution staff are required to qualify with their weapons once each year. There are no requirements to pass fitness tests or physical exams. While BOP does encourage staff to remain physically fit, the fact that most correctional officers do shift work precludes allowing any duty time for scheduled exercise.

Compensation. BOP employees are general schedule employees (lawyers are excepted service) and are compensated accordingly based on rank and step. Only a few are federal law enforcement personnel (series 1811), so most do not receive a supplement for unscheduled overtime nor are they eligible for any other special compensation.

Separation. Those BOP employees who have worked three years in an institution are subject to the same retirement/separation rules as federal law enforcement officers (series 1811)—eligible to retire at age 50 with 20 years service and must retire by age 57. This includes virtually all BOP employees. There is no "tenure point," and the BOP operates under an up-and-stay policy.

Turnover during the first year is about 13 percent; thereafter, it averages about 4 percent per year. BOP does not have a special program to terminate employees. It uses the formal termination process based on OPM guidelines for both nonperformance and discipline. Like other federal agencies, BOP is frustrated by this cumbersome and time-consuming process. This process is particularly troublesome when dealing with marginally satisfactory employees who are unmotivated to improve. Appeal rights to adverse personnel actions follow normal OPM guidelines.

About one-half of BOP employees retire at the earliest opportunity; most of the rest remain until retirement is mandatory; the average retirement age at BOP is 54 years. Many go on to second careers.

Professional Considerations. BOP does have a written code of ethics. About one-third of BOP employees belong to the American Federation of Government Employees (Council of Prison Locals). Nonmanagement employees up to GS-14 are eligible; in some locations, 80–90 percent of employees belong. The relationship between the union and top management is very good; they work

together to solve a wide range of problems. As mentioned previously, there is no examination or certification necessary to be in the profession nor are there written contracts of employment.

Summary. The BOP is different from other federal agencies addressed in this report. It is much larger, and while most other officers discussed in this section are federal law enforcement agents, those in the BOP are not.

BOP has an up-and-stay flow structure with limited lateral entry in the professional areas—medical, lawyers, and chaplains. BOP also has somewhat more attrition before retirement than other agencies studied. Like the federal law enforcement agencies, BOP has a large number of correctional officers who spend extended periods of their career service at the same grade (GS-8). The typical correctional officer retires after 21 years of service at age 54.

The development program in the BOP focuses on short, functional training courses and on-the-job training; there is little emphasis on postgraduate education. BOP operates three training facilities (including one at the Federal Law Enforcement Training Center).

All BOP employees receive annual performance evaluations. Correctional officers qualify with their weapons annually; beyond that, there is no periodic professional certification nor must they pass fitness or health examinations. Promotion beyond GS-8 is limited to those choosing to be managers or functional specialists; they also receive additional training. Termination for poor performance or disciplinary reasons is in accordance with OPM guidelines.

Most major personnel decisions regarding assignment, promotion, and training are made at the local level for employees below GS-13; actions above that level are controlled by headquarters or regions. Employees are general schedule government employees and receive regular compensation based on grade; like law enforcement officers (series 1811), they are eligible to retire at age 50 and must retire by age 57.

Fairfax County Police Department

There are about 980 sworn police officers in the Fairfax County (Virginia) Police Department (hereafter referred to as the department or the FCPD), which is responsible for law enforcement in Fairfax County, a suburban area of 399 square miles with a population of 837,000 (1992) in the Washington, D.C., metropolitan area. The department is responsible for investigating everything from traffic accidents and murders to domestic disturbances and white-collar crime. It also

plays a major role in developing crime prevention programs and interacting with community leaders.

The department is led by a police chief (rank of colonel) who is supported by 2 deputies (lieutenant colonel), a staff of 10 majors and 15 captains, and 400 other administrative personnel (clerks and communications specialists, for example). The chief is appointed by the county board of supervisors, an elected body; all other officers are selected and managed internally.

The FCPD is organized into seven stations, each commanded by a captain with responsibility for a geographical area in the county. Station commanders have about 80–120 police officers assigned to them along with an administrative and support staff. Included in the organizational structure of each station are lieutenants, second lieutenants, and sergeants, who serve as the individual police officers' first-line supervisor. While some sergeants have specific functional responsibilities such as accident investigation, arson, or forgery, they are primarily squad leaders who supervise other police officers operating as "generalists" who perform a variety of law enforcement activities. The other officers serving in the stations have cross-functional responsibilities.

The next section discusses the personnel management practices and procedures within the FCPD.

Accession. Most officer candidates are local residents, including a few with some prior law enforcement experience, often in the military. Some come directly from college, but an officer is not required to have a college education. There are very limited opportunities for lateral entry at middle and upper management levels. During the last 10 years, the FCPD has grown from about 850 officers to the current level of 980 officers. Accessions have averaged 60 per year with a range of 45–120. Currently, accessions are more stable and are based on projected retirements.

The applicant pool is satisfactory except for the lack of minority candidates, who must be actively recruited. A typical entry group of 30 comes from over 800 applicants. Preliminary screening is based on a written examination. Before final selection, however, each candidate is interviewed by several officers, takes a polygraph test, as well as psychological and medical tests, and is subjected to a thorough background check. Typical officer candidates are in their mid-20s with about half having college degrees (associate or baccalaureate.) However, lately, this average is increasing as is the percentage of degree candidates.

Education and Development. After joining the FCPD (as a recruit), candidates attend 17 weeks of entry-level training conducted by the department at its

training facility; three such classes of 25–30 candidates are conducted annually. The first five weeks are spent in skills training (e.g., firearms, emergency vehicle operations, and first aid). The last 12 weeks focus on police officer competencies as well as FCPD policies and procedures. Attrition averages about 15–20 percent.

After completion of initial training, recruits are sworn in as police officers and assigned to one of the seven stations. During their first assignment, officers receive on-the-job training conducted at the local level, normally by a field training instructor. They also gain experience in the various functions of field offices by working in different mission areas.

Upon completion of two years of service, officers can compete for promotion to police officer first class. Officers can choose one of three options: stay on patrol, compete for management/supervisory positions, or compete for a career development track that does not include supervision but provides additional compensation and status. These options are discussed in detail below. While those officers choosing the supervisory option are reassigned regularly, members of the other two groups can spend their entire careers at the same station.

All officers receive regular training; by state law each must have at least 40 hours of training every two years or lose his or her license. FCPD officers average about 40 hours every year; most in the form of one-week courses (accident investigation, criminal investigation, etc.) conducted by the same training academy that conducts entry-level training. Individuals indicate course preferences to headquarters, which schedules attendance based on availability of the individual and the course offering schedule. In addition, all officers receive informal training at the squad and station level throughout their careers.

While there is no required certification process for FCPD officers, there are minimum standards for retention: weapons qualification three times each year and periodic physical examinations; there is no fitness test at present. When officers fail these tests or have other problems (overweight or substance abuse, for example) the FCPD has an aggressive support program to assist, rehabilitate, and retain these individuals; discharge is a last resort. The department recently initiated a wellness program that allows two hours per week for group (squad) physical activities.

Promotion. Those officers who choose the supervisory track and seek promotion to sergeant must have at least two years of service and have a satisfactory performance record. A written examination (conducted every three years) is used to screen candidates. The top candidates are put through an assessment center (one day) that creates a series of scenarios and exercises that tests such things as technical skills, leadership, and performance under stress. A panel of

outside law enforcement officers observes and evaluates each candidate's performance and develops a ranking of candidates.

The result is a prioritized list of candidates that is used for promotion. Annual performance evaluations are not considered in the process. When vacancies occur, the chief selects from the list. While the chief can select any of the top 10 on the list, normally promotion is sequential.

The promotion selection process is conducted periodically (every two or three years) and each candidate must go through all phases. As a result, an officer could be next up for promotion one year and not pass the screening examination the next year. In the past, most officers compete for the supervisory track the first time they become eligible.

This assessment center process is used for promotion to sergeant, second lieutenant, and lieutenant; promotion to captain and above is controlled by the chief (there are only 15 captains, 10 majors, 2 lieutenant colonels, and 1 colonel—the chief). While there are no requirements to serve a specified period in any grade, lieutenants typically have 10 to 14 years of service and majors 15 to 20 years of service.

Several years ago, the FCPD initiated a career development program (called Master Police Officer (MPO)), which allows advancement and status for officers who have exceptional technical skills but do not want to be supervisors. Selection for this program is based on written examination, a supervisor's evaluation, and seniority. MPOs receive compensation equal to that of sergeants. MPOs are seasoned experts in their field who serve as role models for young officers.

Upon selection to be sergeant, individual officers attend a one-week basic supervisors school and then spend four weeks working directly with a mentor (supervisory training officer) who is experienced in the functional area. MPOs receive regular training in their specialty. Supervisors and MPOs often attend special training offered by other law enforcement organizations, such as the FBI Academy.

Assignment. As noted previously, nonsupervisory officers can spend their entire career assigned to the same station. The county is small, so relocation is not necessary when reassigned.

Supervisors (sergeant and second lieutenant) are reassigned upon promotion. Staff officers (lieutenant, captain, and major) are regularly reassigned to broaden their experience, normally every two to four years. Reassignment is between

staff and the stations and among different functional areas. Assignments of sergeants and lieutenants are managed by the headquarters in consultation with the station commander. The chief handles captain and field-grade assignments.

While officers receive annual written appraisals, they are used more for determining training needs and improving individual performance than for assignment or promotion consideration.

Compensation. FCPD officers are compensated using a grade and step system similar to the federal government; grade is based on rank. Within each grade (or rank) step increases are received at regular intervals (initially on an annual basis, but later less frequently); each step represents a 5 percent increase in pay. When promoted to a higher rank, the annual increase is limited to 10 percent, so individuals frequently slide back to a lower step. Until recently, all officers also received an annual cost of living allowance; budget problems in the county have eliminated that as well as within-grade steps.

Officers are provided with all uniforms, including regular replacements, and other necessary equipment (briefcases, for example). Some have limited off-duty use of their squad car; many also receive additional compensation for scheduled overtime or night pay.

Separation. For those hired prior to 1981, the FCPD has a retirement option that allows officers to retire after only 20 years of service; they could use accrued sick leave to reduce that further. In 1981, the potential retirement cost for an increasingly larger department and introduction of a cost of living adjustment (COLA) benefit led to a 25 year retirement system for new officers.

Those retiring with 20 years service receive 50 percent of pay; that increases 2.5 percent each year up to a maximum of two-thirds pay and 26 years of service. Although there is no mandatory retirement age, there is little incentive to stay beyond 26 years. Most officers retire after 20 years service (age 40 to 45) and pursue a second career.

The FCPD flow structure is up-and-stay with over 50 percent of the officers remaining until retirement eligibility. Those departing before retirement do so for a variety of reasons: lack of promotion, career change, and work environment.

Although not a big problem, the difficulty of terminating or disciplining officers, particularly marginally satisfactory officers who are unmotivated to improve, is troublesome. Procedures to involuntarily separate/eliminate officers originate with the supervisor. Most disciplinary problems are minor and can be handled

at the station level either administratively or with probation. Final separation actions are reviewed at each organizational level; the chief has authority to terminate officers for disciplinary problems.

Officers have two appeal routes. The Police Appeal Trial Board is an internal review process that again leads to final disposition by the chief. Most officers choosing appeal go to the Citizens Review Board because it has been more sympathetic to employee expectations.

Professional Considerations. While the FCPD does not meet all of the criteria for a profession (see Appendix B) such as special education and certification, the officers are an elite group with a career commitment and strong organizational bonding. FCPD officers have a formal code of ethics, and they are represented by two professional associations. The Fairfax County Police Association is a community support organization that acts as an advocate for the officers. Nearly all officers belong to it, and most participate in its community support and social activities.

The Fairfax Coalition of Police Officers represents about one-third of eligible officers (no supervisors, sergeant or above, are allowed.) It supports officers facing disciplinary action and lobbies political organizations. Relations between the union and the department are strained.

Summary. The FCPD has an up-and-stay flow structure with essentially no lateral entry; about one-half of each accession group departs before retirement. Many officers spend their entire careers as patrol officers (no supervisory responsibilities—a journeyman position.) The typical officer retires after 20 years of service at age 40 to 45.

The development program in the FCPD focuses on short, functional training courses and on-the-job training; there is little emphasis on civilian education. The FCPD operates its own training facility for entry-level (17-week) and supervisory training; some advanced training uses other law enforcement training activities. In addition to annual performance evaluations, there are regular physical evaluations and weapons qualification.

Upon completion of two years of service and promotion to police officer first class, officers choose one of three options: stay on patrol, compete for management/supervisory positions, or compete for a career development track that does not include supervision but provides additional compensation and status as well as specialization possibilities (e.g., investigations, K-9, SWAT). An assessment center is used to evaluate candidates for promotion to leadership positions with the results establishing a promotion list for officer promotion.

Major personnel decisions regarding promotion (and reassignment) and training are made at the headquarters level. Officers receive regular compensation based on grade with regular step increase based on satisfactory service and longevity, when sufficient resources are available.

G. Developing Alternatives for Future Officer Management

Background

Computer forecasting models have been useful since the late 1960s in policy analysis for military personnel management. For example, the RAND models known as "POSM," for Policy Simulation, have been used in the Office of the Secretary of Defense for policy determination and policy critique, before and during the military drawdowns, for active and reserve force components.

The needs of the future officer management project led to a choice of suitable computer hardware, computer software, and mathematical techniques: a personal computer (PC) spreadsheet incorporating features of Markov simulation, system dynamics, and nonlinear optimization. We also had to devise continuation rates that would reflect the career flow structures and personnel functions that were designed into each alternative.

Purpose

Within the future officer management project, it became clear that our model must be able to carry out three steps: to assemble the manifold policies and flows that would spell out alternative career management systems; to match these career management systems against several sets of manpower requirements; and to produce exhibits from which policy options could be effectively evaluated. Thus, the model would give form to personnel policies in conjunction with alternative sets of requirements.

Requirements options were viewed (Figure G.1) as building blocks, from left to right, with higher grade. Alternative career patterns were viewed as slices over time or years of service. Lining up the blocks of requirements by grade creates a two-dimensional structure or "force profile" for any grade-skill choice within a military service.

At what level of detail would the two independent views be merged, and what would be the go-between parameter? It was agreed that requirements options would distinguish the four military services and four major skill groups (line, specialist, support, and professional). The go-between parameter would be grade

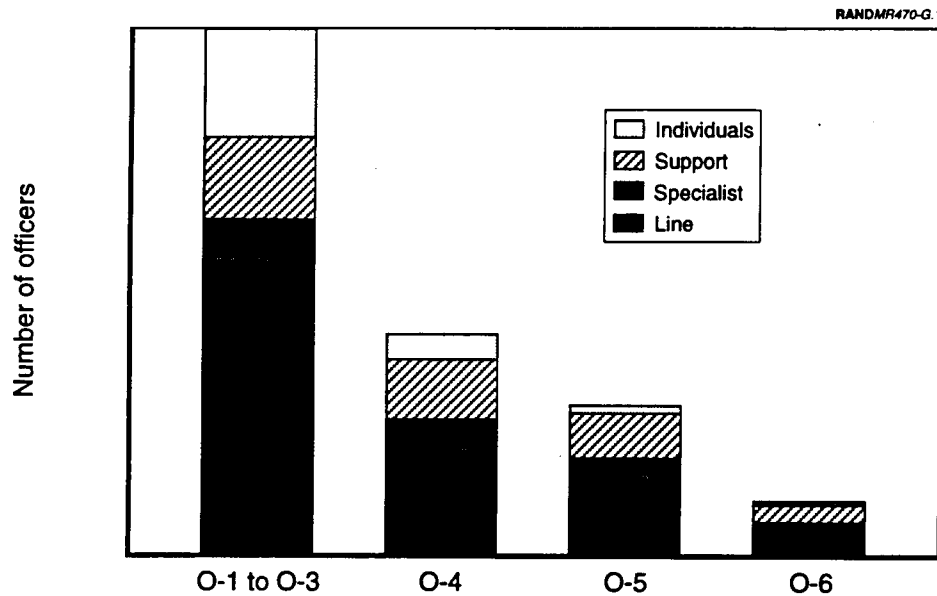


Figure G.1—Requirements Options Are Defined by Service and Grade and Skill

(O-1 to O-3, O-4, O-5, O-6). Thus, the model would quantify how alternative careers were structured by year of service for each service and skill area. Within these careers, grade would be determined so that the total by grade would match the corresponding service-skill requirement option. Furthermore, by moving from one profile to another, the flows between skills (migration), and the flow from one requirements option to another (flexibility) would be treated. From the assembled profiles, the model would develop the data and exhibits to be used for evaluations.

Continuation Rates

Each career management alternative required selection of a corresponding set of continuation rates that shape the experience profiles shown in Section 6. The year-to-year continuation rates for each cohort jointly reflect voluntary and involuntary losses in the wake of career management policy. Continuation rates used in the career management alternatives are shown in the figures below using the Army as an example. We used service-specific continuation rates. The rates for Alternative A were developed from actual rates in the period FY 1987–FY 1989. In essence, we accepted cohort continuation rates experienced in the late 1980s as the basis for future behavior under a DOPMA-like alternative. (Some minor adjustments were made in rates if we perceived that late 1980s rates were affected in some manner by officer reductions that began in 1986.) Rates for all

other alternatives were derived by making adjustments to the rates in Alternative A. See Figure G-2.

Alternatives B and C each provided a single major adjustment to DOPMA policy modeled in Alternative A. Alternative B extended maximum career length, and Alternative C allowed for lateral entry. We sought a boundary case of highest reasonable continuation rates in years of service likely to be affected by behaviors in these alternatives.

Figure G.3 shows continuation rates for Alternative B in comparison to those of Alternative A using the Army as an example. We gradually stretched the profile of Alternative A until it extended by five years. In particular, we assumed career lengthening did not have an effect in years of service (YOS) 1–11; we began to stretch the career slightly in YOS 12 through 20 by using Alternative A continuation rates for YOS 11 to 19; we left initial retirement eligibility unaltered; we used Alternative A YOS 19 rates for Alternative B YOS 21 to 25 to provide the boundary case of high retention for five years because longer maximum careers should cause officers to stay at greater rates; we used the experienced retirement pattern of Alternative A YOS 21 to 29 for Alternative B YOS 26 to 34. While variations from this assumed pattern of continuation rates for Alternative B could easily be argued, we believe that our evaluations in Section 8 are at least a benchmark for any reasonable pattern of long careers and that at worst one

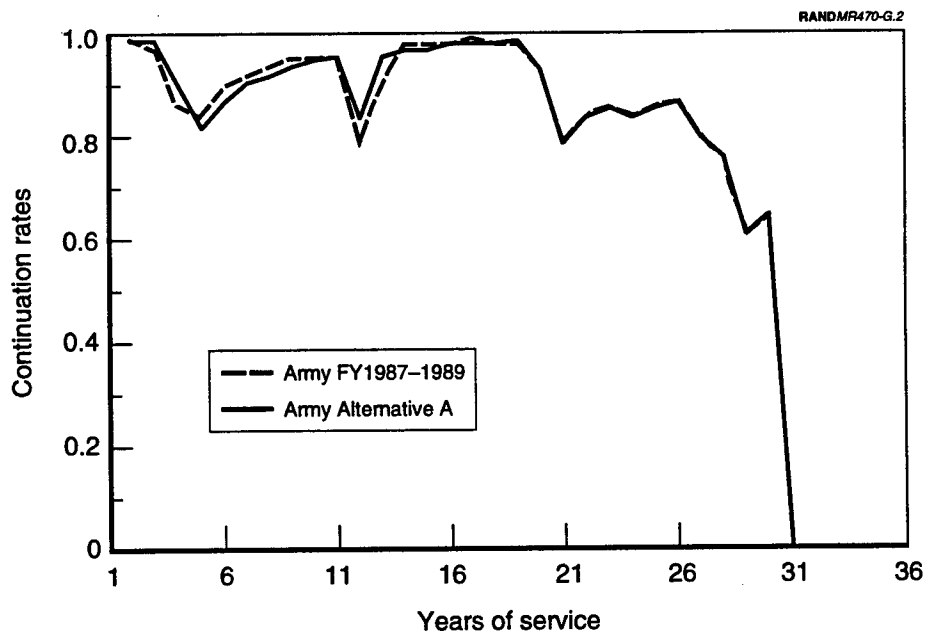


Figure G.2—Army DOPMA Continuation Rates Compared with Alternative A:
DOPMA Short

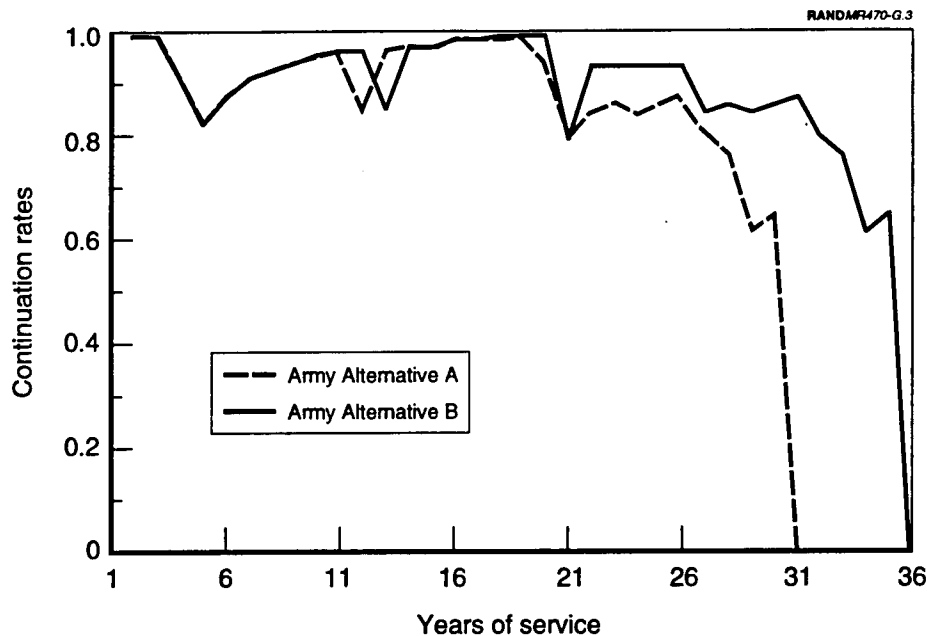


Figure G.3—Army Continuation Rates in Alternative A Compared with Alternative B: DOPMA Long

might shade toward the Alternative A results if the rates for YOS 21 to 25 are thought to be difficult to sustain voluntarily.

For Alternative C, we also sought a boundary case of continuation rates for the lateral entrants at YOS 5 and at YOS 10 (while replicating continuation rates from Alternative A for YOS 1 entrants—see Figure G-4). In particular, for lateral entrants at YOS 5, we assumed losses comparable to Alternative A for YOS 5 to 9; we used the Alternative A YOS 9 rate for YOS 10 to 11 since involuntary (forced) losses were not expected because the lateral entrants had only 5 years of actual service at this point; we assumed comparable losses in YOS 12 to 19 as in Alternative A; we used Alternative A YOS 19 rates for YOS 20 to 24 because 5-year lateral entrants could not yet retire; we used the Alternative A YOS 20 to 29 rates for YOS 25 to 34, reflecting the expected retirement loss pattern.

For lateral entrants at YOS 10, we used Alternative A YOS 9 rates for YOS 10 to 11 and Alternative A YOS 12 to 19 for YOS 12 to 19 for the same reasons outlined above. We used Alternative A YOS 19 rates for YOS 20 to 29 because 10-year entrants could not yet retire; we used the Alternative A YOS 20 to 24 rates for YOS 30 to 34, reflecting the expected retirement loss pattern.

Alternatives D and E provided for more than one major change in career management policy and therefore required a different approach from simple

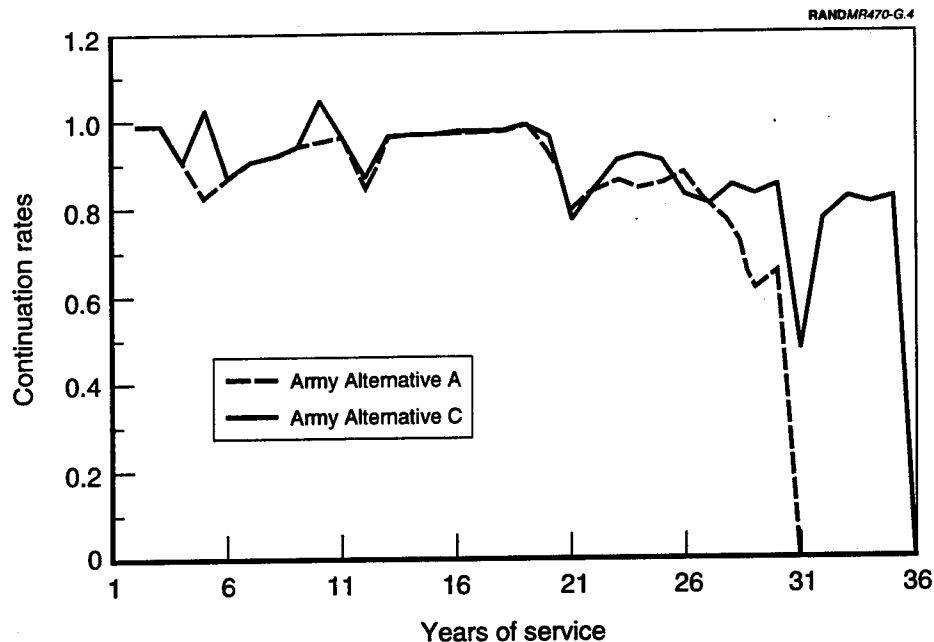


Figure G.4—Army Continuation Rates in Alternative A Compared with Alternative C: Lateral Entry

adjustment to the service-specific continuation rates experienced in the late 1980s under DOPMA. Our basic approach was to first sort out voluntary losses from involuntary ones. The voluntary continuation rates of the late 1980s were then to serve as a basis for defining 16 career patterns each of which was defined by a promotion pattern and a termination year of service. Thus, continuation rates were selected indirectly by placing constraints on the numbers of officers in each career pattern allowable for each alternative. The objective function for both alternatives was to minimize the difference between total inventory and the total requirement (including individuals). The specific constraints used to assemble the career patterns that result in the continuation rates portrayed for Alternatives D and E are described below.

The constraints for both alternatives were

- Meet aggregated O-1 to O-3 requirements across all skills and also for the line independently.
- Meet O-4 to O-6 requirements by grade and skill.
- Constrain fast-track career patterns to between 6 percent and 13 percent of total accessions; at least 3 percent of accessions were flag rank fast-track career patterns.

- To ensure that all allowed career patterns were used, each line career pattern (including those that would migrate eventually to other career fields) had to account for at least 5 percent of accessions (except fast track, which were constrained at 3 percent for both types and the O-3 exception explained below).

Since no one was involuntarily separated in Alternative D, there was no minimum requirement for the career pattern representing individuals who were not promoted beyond O-3. Constraints for Alternative E only, which were used to create involuntary losses early in careers, were

- The continuation rate into YOS 5 could not exceed 80 percent.
- The continuation rate out of YOS 10 could not exceed 75 percent.

Figure G.5 shows the resulting continuation rates for Alternative D, and Figure G.6 portrays them for Alternative E. In Alternative D, the effect of immediate retirement with a reduced annuity is observable at YOS 30; in Alternative E, this effect plus that of forced attrition at YOS 5 and 10 are observable. Additionally, in both alternatives continuation is greater between 5 and 10 YOS reflecting the opportunity to be vested at 10 YOS. Moreover, in Alternative E, forced attrition at YOS 5 would have removed earlier those who might normally have separated later. Those selected to stay would be presumed to do so at higher rates.

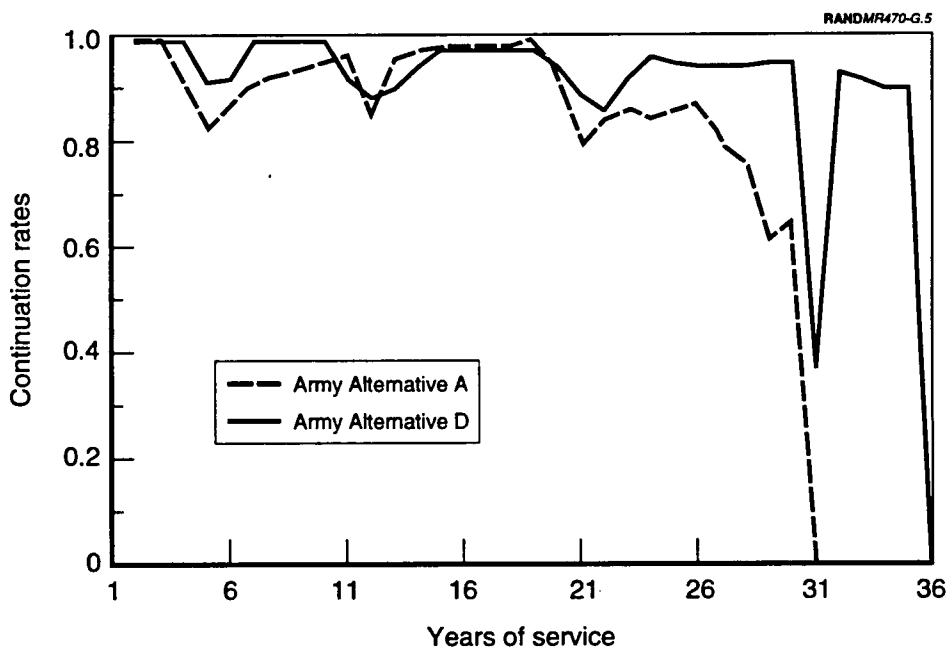
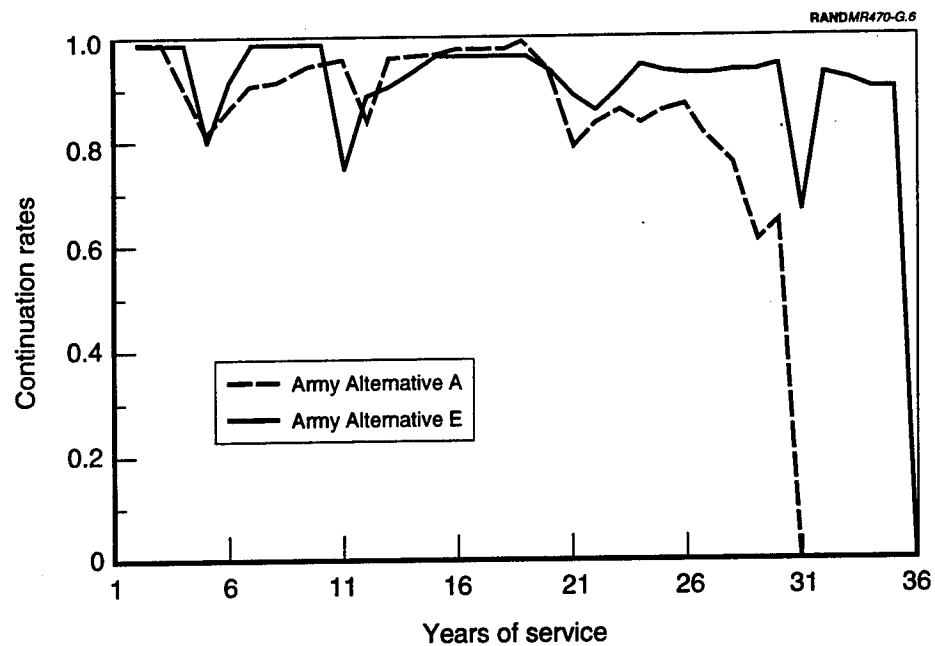


Figure G.5—Army Continuation Rates in Alternative A Compared with Alternative D: Long, Stable Careers



**Figure G.6—Army Continuation Rates in Alternative A Compared with Alternative E:
Career Selection**

H. Illustrative Example of Increasing Warrant Officer Requirements

Overview

This appendix illustrates one way to increase warrant officer requirements by conversion and downgrading of existing commissioned officer requirements and responds to specific tasking in congressional Senate committee language. It begins with a summary of the current use of warrant officer requirements in the services at the end of FY 1992. It describes a simple method for uniformly establishing warrant officer requirements across the services and provides examples that use the existing DoD occupational codes for describing similar technical skills. We conclude with some observations about the method and recommendations on how warrant officer requirements could be expanded.

Introduction

Use of Warrant Officers

All four military services have used warrant officers in different ways in their history. While the service cultures view the use of this category of officers quite differently, warrant officers commonly perform in positions that require technical skills.

Title 10 USC Section 571(a) currently provides for warrant officers in all four military services. It authorizes five grades—warrant officer, W-1, through chief warrant officer, W-5. The Army, Navy, and Marine Corps currently use this authority with just less than 18,000 warrant officer requirements reflected at the end of FY 1992. The Air Force is the only service that does not currently use warrant officers and has no warrant officer requirements. Table H.1 provides the status of warrant officer requirements as a portion of total commissioned officer requirements for the military services at the end of FY 1992. Warrant officer requirements constituted a relatively small, but significant, percentage of the Navy and a much greater percentage of the Army and Marine Corps commissioned officer requirements.

Table H.1
Commissioned Officer Requirements for the End of FY 1992

	Army	Navy	USMC	Air Force
Officers	72,100	56,500	13,800	84,100
Warrant officers	13,000	2,600	2,100	0
Total	85,100	59,100	15,900	84,100
Percent WO reqmts	15.2%	4.4%	13.1%	0%

SOURCE: DoD, Manpower Requirements Report FY 1994, June 1993, pp. III-12, IV-9, V-6, and VI-9.

NOTE: Officer requirements are to the nearest hundred (100) and percentage to the nearest tenth (0.1).

Warrant Officer Skill Distribution

Warrant officers in today's force perform in a broad range of skills. Warrant officer requirements are found in all nine officer DoDOC areas (one-digit skill groupings) and in 48 out of the 64 officer DoDOC groups (two-digit skill groupings) for at least one service and in 31 groups for two or more services. Warrant officer requirements are not exclusive to any of these skill groups, since commissioned officers requirements are also listed in all DoDOC groups that contain warrant officers. Further, it should be noted that some of the DoDOC groups lack warrant officers for reasons that are either definitional or cultural, with 1A (general and flag officers) and 2H (civilian pilots) being examples of the former; and 6A (physicians) and 6B (dentists), which are restricted to commissioned officers, as examples of the latter.

The DoDOC areas with the highest concentration of warrant officer skills are 2 (tactical operations); 3 (intelligence); 4 (engineering and maintenance); 7 (administrators); and 8 (supply, procurement, and allied officers). The skill distribution of the warrant officer requirements by DoDOC area and military service for the end of FY 1992 are shown in Table H.2.

The lack of service uniformity in warrant officer requirements is clearly evident in the skill distribution. The two ground force services, Army and Marine Corps, have the most similarity, but examples of heterogeneity are obvious, too. For example, only the Army has warrant officer requirements for helicopter pilots while only the Marine Corps has warrant officer requirements for aircraft crews (nonpilot positions). Some of the differences are related to the technical differences within the missions of the services. For example, the Army and Marine Corps have requirements for warrant officers in automotive skills, which is supportive of their land force missions, while the Navy and Army have requirements for ship machinery warrant officers in support of their respective

Table H.2
FY 1992 Warrant Officer Requirements by DoDOC Area and Service

DoDOC Area	Army	Navy	Marine	Total
1	0	40	0	40
2	6,332	400	218	6,950
3	1,006	107	139	1,252
4	3,368	1,192	828	5,388
5	61	116	34	211
6	233	142	0	375
7	895	308	550	1,753
8	1,040	286	278	1,604
9	17	0	35	52
Total	12,952	2,591	2,082	17,625

SOURCE: LMI FORMIS information based upon Defense Manpower Data Center data extracts of officer manpower and requirements for FY 1992.

fleets. However, it appears clear that similar technical skill areas, e.g., administration and manpower and personnel, do not demonstrate a uniform use of warrant officers. Further, there is wide divergence in the proportion of warrant officers within the total commissioned officer requirements in the same skills across the military services.

One Way to Increase Warrant Officer Requirements

Uniform Use of Warrant Officers is a Key Characteristic

Uniformity is one of the characteristics of interest in our study of officer career management systems since it addresses in several ways the equity concerns of officers. Tables H.1 and H.2 show that the current use of warrant officers is not uniform across the services or major skill groupings. All of the services have significant numbers of commissioned officer requirements in the same skill groups; yet, the use of warrant officers to perform the technical aspects of these officer skill requirements is heterogeneous. Uniformity of use of warrant officers across services should be a key characteristic in determining warrant officer requirements.

Illustrative Concept for Expanding Warrant Officer Requirements

Our approach is to determine those officer skill requirements that have both officers and warrant officers in use in one or more services and apply the average warrant officer requirements proportion uniformly to all officer requirements in that skill group. Our research has shown that several officer DoDOC groups have significant numbers of both officer and warrant officer requirements. From this

set, we have selected four DoDOC groups to illustrate our methodology. Secondly, we have decided to limit those officer requirements for conversion to warrant officer to the grades O-1 through O-4 (these officer grades are similar in the range of pay as the warrant officer grades W-1 through W-5 and therefore may be considered similar in level of technical responsibility). More senior officer positions generally require supervisory and management skills that exceed the capability of the more technically trained and experienced warrant officers. We averaged the existing proportions of warrant officer requirements to the total of all commissioned officers (W-1 through O-4) in those services currently listing requirements for warrant officers. We then adjusted the skill group officer requirements for all services to meet or exceed the average proportion of warrant officers. In this way, the number of warrant officer requirements will be increased, and the proportion of warrant officers in use within a selected DoDOC skill group will become more uniform across the services.

Examples of Expanded Use of Warrant Officers

We have applied our officer conversion methodology to the following selected DoDOC skill groups to illustrate an approach that achieves a more uniform use of warrant officer requirements:

- 2C. Helicopter pilots
- 3A. Intelligence, general
- 4C. Communications and radar
- 8B. Supply.

It should be noted that only the Army uses warrant officers as helicopter pilots while the three other DoDOC skill groups contain warrant officer requirements for the Army, Navy, and Marine Corps.

We used the following formula to establish the current warrant officer content of each service with both existing officer and warrant officer requirements in the four selected DoDOC skill groups.

$$Z = \frac{\text{\# Warrant officer requirements}}{\text{\# (W.O. + officer (O-1 through O-4) requirements)}}$$

In those DoDOC skill groups with more than one service having both warrant officer and officer requirements, we used the sums in the numerator and denominator of the formula to obtain the average for our uniform warrant officer proportion factor, Z. We then multiplied the total number of officer (O-1 through

O-4) and warrant officers in each service that has less than that proportion of warrant officers by the computed factor Z. This calculated a new officer and warrant officer structure for the respective service's officer DoDOC skill group. Officer positions in grades O-1 through O-4 in the calculated numbers were then aligned or converted to warrant officer requirements. The difference of the total number of officer requirements in grades W-1 through O-4 and the computed number of warrant officers was the adjusted number of officers in grades O-1 through O-4. In those services that already equal or exceed the proportion of warrant officers desired for uniformity in that selected DoDOC skill group, the existing officer/warrant officer proportions were retained (i.e., no existing warrant officer requirements were upgraded to commissioned officer requirements). Our objective is to increase the number of warrant officer requirements in those services that are below the existing average proportion, Z, of warrant officer requirements to commissioned officer requirements in the selected grades (W-1 through O-4).

Current Composition of Selected Officer DoDOC Groups

The composition of the commissioned officer requirements in the four selected DoDOC skill groups is shown by service and grade in Table H.3. We calculated our average warrant officer requirements using these data.

Computation of Adjusted Commissioned Officer Composition

First we calculated the existing warrant officer requirements proportion factor, Z, for each officer DoDOC skill group. For example, in 2C (helicopter pilots), where only the Army has both officer and warrant officer requirements, the calculation is shown below:

$$Z = \frac{\# \text{ W.O.}}{\# \text{ W.O.} + \text{O-1/4}} = \frac{5,563}{5,563 + 3,081} = \frac{5,563}{8,644} = 0.64 \text{ or } 64\% \text{ warrant officers}$$

We then calculated the warrant officer requirements of those services that are below the proportion. In the case of helicopter pilots, we multiplied the total requirements of each service in grades W-1 through O-4 by 0.64. For example, in the Navy this is

$$178 \times 0.64 = 114 \text{ warrant officer requirements.}$$

This is done in a similar manner for the other services in this DoDOC skill group.

Table H.3
Commissioned Officer Requirements for Selected DoDOC Groups

DoDOC Service Group	Warrant Officer	O-1/2	O-3	O-4	O-5	O-6+	Σ O-1 thru O-4	Total Off & W.O.
2C helo pilots								
Army	5,563	633	1,743	705	364	61	3,081	9,069
Navy	0	59	107	12	0	0	178	178
USMC	0	432	646	221	74	0	1,299	1,373
Air Force	0	92	144	37	18	0	273	291
3A intelligence								
Army	400	536	1,109	559	288	75	2,204	2,967
Navy	26	237	417	313	193	103	967	1,289
USMC	47	48	184	128	59	0	360	466
Air Force	0	201	1,426	828	518	246	2,455	3,219
4C communication & radar								
Army	787	701	1,491	707	361	121	2,899	4,168
Navy	97	622	212	181	67	22	1,015	1,201
USMC	118	118	275	170	71	1	563	753
Air Force	0	552	3,116	1,185	705	228	4,853	5,786
8B supply								
Army	815	208	686	359	142	30	1,253	2,240
Navy	58	305	783	414	211	58	1,502	1,829
USMC	126	134	251	116	60	0	501	687
Air Force	0	35	406	261	180	23	702	905

SOURCE: LMI FORMIS information based upon Defense Manpower Data Center data extracts of officer manpower and requirements for FY 1992.

We then calculated the new composition of the commissioned officers for each service. Continuing with the Navy helicopter pilot example

$$178 - 114 = 64 \text{ officer requirements in grades O-1 through O-4.}$$

Note that the total of officer requirements in grades W-1 through O-4 remains unchanged at 178 ($114 + 64 = 178$), while warrant officers now compose 64 percent of this total. Similar calculations for the other services complete the adjustment of officer requirements in this skill group.

We follow the same procedure in the remainder of the four selected officer DoDOC skill groups. In the subsequent DoDOC groups that contain warrant officer requirements in more than one service, we computed an average warrant officer requirements proportion, Z. It is important to note that in the three remaining examples, the use of computed average factors normalized the influences of the different service cultures on the use of warrant officers. For

example, in officer DoDOC 3A (intelligence, general), the individual service computed factors are $Z = 15$ percent for the Army, 3 percent for the Navy, and 12 percent in the USMC. Due to the weighting of the formula, the average factor for the proportion of warrant officer requirements in the intelligence officer skill group was $Z = 12$ percent. Table H.4 displays the computed factors, Z ; the more uniform use of warrant officer requirements in all four military services; and the results of the realignment of other commissioned officer requirements for all four DoDOC skill groups.

Observations and Conclusions

Observations on the Outcomes

A summary of the results of our illustrative effort to increase the use of warrant officer requirements uniformly across the services in similar skills is shown in Table H.5.

Some Conclusions on the Methodology

The examples achieved the intended objective of realigning the warrant officer proportions more uniformly and increasing warrant officer requirements. However, using the average level of the existing warrant officer requirements content in those services having both officer and warrant officer requirements in a selected DoDOC skill group had a leveling effect. It brought the services that have small proportions or no warrant officer requirements, the Navy and Air Force, respectively, more in line with the Army and USMC, which use warrant officer requirements more broadly. Further, this methodology has implicitly assumed that (1) existing service models that use warrant officer requirements are valid; (2) officer and warrant officer skill positions in the grades examined are interchangeable; (3) uniform usage of warrant officers across the services is possible and desirable; and (4) increased usage of warrant officer requirements in lieu of commissioned officer requirements is appropriate and consistent with the service officer career management systems and manpower resources. These assumptions require additional examination beyond the scope of this study, which is limited to an examination of officer career management systems.

However, this illustrative example demonstrates that application of methodologies to obtain expanded use of warrant officer requirements across the services in a more uniform manner is possible. In an earlier section of the main body of this study, we suggested that another such consideration is to eliminate the use of limited duty officers in the sea services (Navy and USMC) with

Table H.4
Adjusted Commissioned Officer Requirements by Service

DoDOC Service Group	Warrant Officer	Change in W.O.	Σ O-1 thru O-4	Total Officers & Warrant Officers
2C helo pilots-(Z=64% W.O.)				
Army	5,563	0	3,081	9,069
Navy	114	+114	64	178
USMC	831	+831	468	1,373
Air Force	175	+175	98	291
3A intelligence-(Z=12% W.O.)				
Army	400	0	2,204	2,967
Navy	119	+93	874	1,289
USMC	47	0	360	466
Air Force	295	+295	2,160	3,219
4C communication & radar-(Z=18% W.O.)				
Army	787	0	2,899	4,168
Navy	200	+103	912	1,201
USMC	123	+5	558	753
Air Force	874	+874	3,979	5,786
8B supply-(Z=23% W.O.)				
Army	815	0	1,253	2,240
Navy	359	+301	1,201	1,829
USMC	144	+18	483	687
Air Force	161	+161	541	905

SOURCE: LMI FORMIS information based upon Defense Manpower Data Center data extracts of officer manpower and requirements for FY 1992.

NOTE: The Army exceeded the average calculated warrant officer requirement proportion in all four skill groups, and the USMC exceeded the average in one skill group.

Table H.5
Summary of Service Warrant Officer Requirements Changes

	Warrant Officers	Warrant Officers Change	W.O. as % of Total Officers	Total Officers & Warrant Officers
Army	7,565	0	41%	18,444
Navy	792	+611	18%	4,497
USMC	1,145	+854	35%	3,279
Air Force	1,505	+1,505	15%	10,201
Total change		+2,970		

NOTE: The Army equaled or exceeded the average proportion of warrant officers in all four selected officer DoDOC groups. The percentages of warrant officers shown are not uniform across services since they are based on the total service commissioned officer requirements (all W.O. and officers) in the four selected DoDOC groups.

warrant officers being substituted for the grades O-1 through O-4 and the more senior grades considered for conversion into other officer skill management groupings. That notion would also make the services more uniform by removing a special category of officers.

Last, the development of a standard set of defense-level guidance for warrant officer requirements based upon common assumptions uniformly applied in each service seems appropriate and should be considered. This guidance would encompass the principal objective of increasing the use of warrant officers in lieu of existing commissioned officer positions and be employed in conjunction with services' detailed management reviews of their officer positions and related position skill requirements to ensure that the use of a technically oriented warrant officer is appropriate. The effect of converting some number of officer skill positions to warrant officer requirements should be assessed in regard to the objectives and functions of the respective service officer career management systems to ensure that the results are consistent. The resulting service officer requirements should also be costed to determine potential savings or increased costs as an important consideration.

I. Military Experience

Since World War II, movement through the officer career system has been driven primarily by the needs of the military services for forward presence either on land or at sea. How long one spent in an assignment (duration) and how often one moved in a career (frequency) were largely a function of the lengths of overseas tours or sea-shore rotations. For the Army and Air Force, overseas tours were mostly of three years duration. For the naval services, deployments and operating tempo caused rotations between sea and shore assignments. Individual officer needs for educational and experience development could be accommodated in most skills within the movement created by service needs for overseas assignments and deployments. However, in the future, forward presence requirements for officers are likely to be fewer. As a result, the individual's need for career development—number and duration of educational tours and assignments—may not be accommodated by service movement needs.¹

Changes in requirements such as those outlined in Sections 2 and 3 affect the nature of jobs and the need for different experiences. In turn, these changes affect career paths that link grade, skill, and experience. For example, the need in the military for more experience in joint matters has led to more requirements for joint duty assignments, and the new assignments must fit into the developmental career path. These assignments are typically perceived as broadening for an officer rather than as substitutes for other assignments. To the extent that either deeper or broader experience is needed, the pattern of duration and frequency of assignments changes. This view about new patterns for future development of officers was recognized by the Secretary of Defense. "The rush to prepare large numbers of officers for global conflict created career patterns that may be inappropriate for the armed services of the post-Cold War era."²

Job and task experiences are important to development and are hindered when movement is either too rapid or too slow. There is, thus, a trade-off between position turnover and stability: How quickly can an officer be developed to be

¹While training provides benefits to the organization, there is a cost. In the military, it is measured in the size of the budget allocated to transients, trainees, and students—personnel not filling programmed manpower structure spaces. Department of Defense, *Manpower Requirements Report*, op. cit., p. B-2.

²Dick Cheney, Letter to the United States Ambassador to Italy, November, 30, 1992.

minimally qualified at each grade? How slowly should an officer be developed in order to be best qualified? Anecdotal evidence abounds that officers are not being developed or used properly. For example,

Perhaps the most insidious result of this short career and its strict tracking requirements is that assignments that should be broadening, with significant down-the-road payoffs (e.g., Naval Postgraduate School, Naval War College, Personnel Exchange Programs) are shunned by fast trackers who don't have time to deviate from career-enhancing billets. We risk becoming two navies: fast trackers who move from command to command, often armed with only a rudimentary knowledge of where their ship, squadron, station, or group fits in the overall tactical and strategic equation; and slow trackers who are gaining the technical and managerial skills and the tactical and strategic vision to excel at command positions they will never attain.³

However, many argue that the officer corps of the late 1980s was the best ever produced and provide equal anecdotal evidence—including performance in Operation Desert Shield/Storm—to prove their point. The questions as posed above are answerable by structuring career paths based on desired or essential educational and experiential assignments of sufficient frequency and duration to accomplish officer development properly.

How long must minimum careers be? Minimum career length is derived by determining the amount of military experience needed to be successful at each intermediate grade. Grade is, among other things, a proxy for experience at a moment in time. Consistency in the amount of military experience at each grade has been considered desirable. However, throughout the history of the officer corps, the amount of experience at each grade has differed widely, which is caused by the intersection of the career system of the time with either long periods of stability or with force expansions. For example, the officer corps of the 1930s had too much experience at each grade and was called "superannuated" by the time of World War II. (The criticism was really one about vigor, but the measure was age-related experience.) The same was true of the officer corps before the Civil War when officers at all grades had a lot of experience because the only routine mechanism for leaving career service was death or disability. Retirement did not exist as an option.

³George V. Galdorisi, "Nobody asked me, but . . .," *Naval Institute Proceedings*, October 1993, pp. 83–84. Also the Secretary of Defense has expressed his concerns, "We paid—and continue to pay—a heavy price for such frequent rotations. Even an extraordinarily talented and well-prepared officer takes some time to learn his or her job; often it seems that we rotate our officers just as they really hit their stride." Dick Cheney, Letter, op. cit. See also William L. Hauser, "Career Management: Time for a Bold Adjustment," *Parameters*, Spring 1992, pp. 50–59.

However, as the force expands during periods of major or sustained conflict, the military experience at each grade falls drastically as long-serving officers are separated and many new officers enter, are promoted quickly, and tend to leave as quickly if allowed. This was the case during the Civil War, World War II, and during the Vietnam Conflict.⁴ For example, in 1947, 95 percent of Air Force line officers and 85 percent of its regular officers had less than five years commissioned service. Absent an external shock such as a war, the experience distribution by grade results from career flow structure and personnel functions.

The present inventory of officers is indicative of this in that officers tend to get promoted at expected DOPMA points (generally 10 years of experience to O-4; 16 years to O-5; and 22 years to O-6). In general, an O-4 not selected for promotion stays until about 20 years of service before retirement; O-5 and O-6 stay for about 3 years after promotion before retiring. In recent years, the average military experience of officers at each grade has been relatively consistent over time and across service. While there were ups and downs during the 1980s, variation at each grade between the beginning point of 1981 and the end point of 1990 tends to be within a two year band over time and across service as shown in Figure I.1.

One can also look at the data by grade and calculate the average years of military experience as an officer moves from grade to grade. This is done in Table I.1. In this table, it is evident that the widest swings in experience across grades and services occurred in 1981 at the start of the DOPMA era. By the end of the decade, after 10 years of DOPMA implementation, most services had moved closer to the average for the whole period. Uniformity and consistency as espoused in DOPMA had taken hold. Also, differences by grade for each service tend to disappear over the career length. By 1990, the average O-6 in each service had been in service 24.4 years in the Air Force and USMC, 24.5 years in the Navy, and 25 years in the Army. On average, a line officer in the grades of O-4 to O-6 had 17.3 years of experience.

However, these factual data do not actually answer the question of how to structure career paths based on desired or essential educational experiences and assignments of sufficient frequency and duration to accomplish development properly to meet needs of the military services. (However, irrespective of a desired career path some individuals will develop more slowly than others.) For our purposes, we assume current approximations of service career paths by skill

⁴Any number of careers could be selected to show the point. Eisenhower was commissioned as a lieutenant in 1915 after graduating from West Point. He was promoted to the rank of major in 1918 after 2 years of commissioned service. He was not promoted to Brigadier General until September, 1941. General Accounting Office, *Experience of Prominent Generals and Admirals*, NSIAD-88-167FS, August 1988.

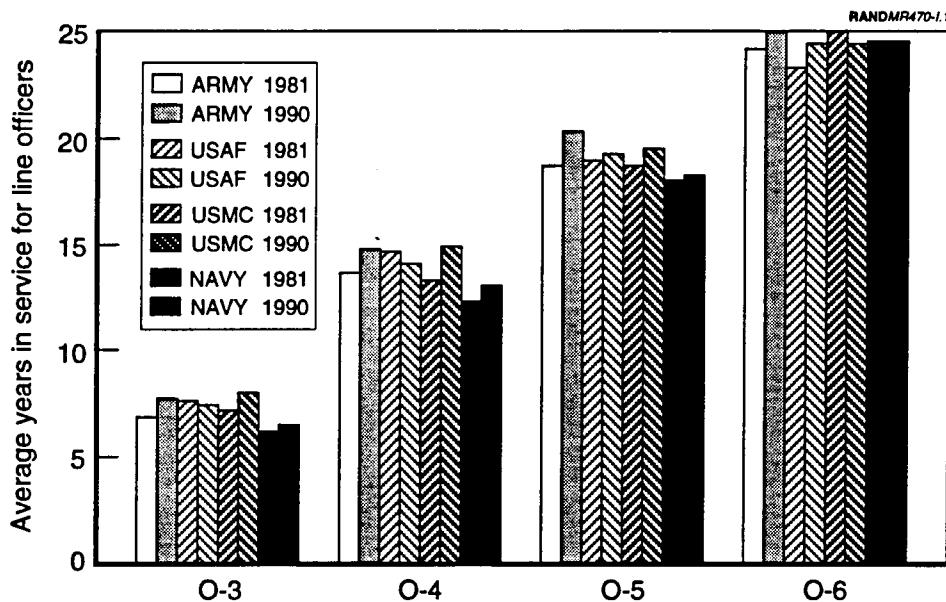


Figure I.1—Average Time in Service for Line Officers at Selected Years by Service

Table I.1

Years of Experience at Each Grade for Line Officers for 1981 and 1990

Grade	Average Experience in Grade (all services)	Least Average Experience in Grade	Most Average Experience in Grade
O-1	0.9	0.7 (1981 Army)	1.0
O-2	2.0	1.8 (1981 USAF)	2.4 (1981 USMC)
O-3	4.3	3.3 (1981 Navy)	4.9 (1990 USMC)
O-4	6.7	6.1 (1981 USMC)	7.1 (1981 USAF)
O-5	5.2	4.3 (1981 USAF)	5.7 (1981 Navy)
O-6	5.4	4.3 (1981 USAF)	6.5 (1981 Navy)

(whether right or not) as a departure point for estimating how career paths could change in the future. That is, we have structured a career path for skill groups based on examining the current career paths and experiences of officers by service and skill.

Currently, career paths exist for skill groups in all services. These existing paths are based on what development can be accommodated during the current career length to meet existing needs. However, these paths may not be the right ones for developing officers against future requirements. For example, as the military becomes located more in the United States in the future, assignments will

increase in duration because the pressures of overseas rotation will no longer cause frequent, short-duration movement. Career paths must extend in length to accommodate this or the same number of developmental assignments will not occur. Similarly, new developmental assignments will appear. Some of these will be in addition to those on current career paths and will broaden officers; others will replace current assignments and thus develop officers differently. For example, while many officers in the Marine Corps have an assignment with the reserves, most Army officers do not. However, Congress has suggested that this should change. Moreover, assignments leading to experience in peacekeeping or humanitarian missions or to joint duty have emerged as needs.⁵ These new assignments might be substitutes for existing assignments on career paths or additive to the path with longer career lengths needed to accommodate them. Some highly specialized assignments may require additional education, and this must be accommodated in careers.

For example, Admiral William Crowe had a distinguished career that included such nontraditional activities as obtaining a doctorate from Princeton and turning down Admiral Hyman Rickover and nuclear submarines. Reflecting on the occasion of his selection to flag rank he noted,

Curiously, once I was selected, my unusual career pattern (which I had always viewed as a handicap in terms of promotion) turned out to be a strength. While I had fewer seagoing commands than some of my peers, I did have experience in a number of areas high on the agenda of senior officers: joint positions, international affairs, strategic planning, political-military affairs. A large part of my career had been devoted to these fields, and now I found the demand for this kind of expertise was high.⁶

Career paths can be conceptualized in a critical path framework. Inserting or removing assignments or lengthening or shortening their duration could affect both the overall length of a required career and the time it takes to gain desired minimum experience at each grade. We reiterate that career paths as we use them are not normative but represent excursions or sensitivity analysis from current career paths. They satisfy our purpose, however, since we are interested in the effect on desired minimum military experience and career lengths (see Table I.2).

⁵For joint assignments, most seem to argue that they are in addition to service needs for development of officers and there is "inadequate time" in the current career for them. See, for example, Association of the United States Army, "The Serious Issues Impacting on Officer Retention," 1987.

⁶Admiral William J. Crowe, Jr., *The Line of Fire*, Simon & Schuster, 1993, p. 87.

Table I.2
Career Paths

Type of Experience	Line ^a (yrs/#tours)	Specialist (yrs/#tours)	Support (yrs/#tours)	Professional ^b (yrs/#tours)
Year 0– Year 9				
Training	2 yrs/2+	3 yrs/1 ^c	1 yrs/1	Minimal
Mil skill	5 yrs/2	7 yrs/2	3 yrs/1	3 yrs/1
Other skill	3 yrs/1		6 yrs/2	
Prof skill				7 yrs/2
Year 10–Year 19				
PME/training	2 yrs/2	2 yrs/1.5	2 yrs/2	1 yrs/1
Mil skill	4 yrs/1.5	5 yrs/1.6	3 yrs/1	3 yrs/1
Other skill	4 yrs/1.5	3 yrs/1	5 yrs/2	
Prof skill				6 yrs/2
Year 20–Year 30				
PME	1 yrs/1	1 yrs/1	1 yrs/1	
Mil skill	6 yrs/2	6 yrs/2	3 yrs/1	3 yrs/1
Other skill	3 yrs/1	3 yrs/1	6 yrs/2	
Prof skill				7 yrs/2

^aGeneral Accounting Office, *Military Personnel: Impact of Joint Duty Tours on Officer Career Paths*, GAO/NSIAD-88-184BR. The GAO reviewed the field-grade tours of FY 1987 and 1988 line flag and general officer selectees. These are fast-track careers but tended to mirror the published career paths of the services as regards types of duty. Tour lengths were shortened but frequency was increased.

^bIn addition to the references used to develop line, specialist, and support generic career paths, Army Pamphlet 600-4 of May 1979, dealing with the professional development of medical corps officers, and Captain George J. Tarquino, "Straight Talk on Dental Corps Career Planning" in *Navy Medicine*, January–February 1990, pp. 20–22 were used.

^c18–36 months of initial and follow-on training.

We established a military experience requirement baseline by first reviewing officer career paths⁷ for kind of experience provided and for when, in the career, that experience was provided. Table I.3 is a tabulation that captures the essence of the generic career tracks that evolved from our review.

We then established the minimum desired military-unique experience for the four skill groups by differentiating military experience and training from other skill and professional skill experience and training, which is experience that need not be provided (uniquely) by the military.

⁷Department of the Army, *Commissioned Officer Professional Development and Utilization*, Department of the Army Pamphlet 600-3, August 1989; *The Naval Officer's Career Planning Guidebook* (NAVPERS 15605, FY 1990); Kenneth W. Estes, *The Marine Officer's Guide*, Naval Institute Press, 1985, p. 278–279; the Air Force allowed us to review a draft of their forthcoming new career manual.

Table I.3
Minimum Military-Unique Experience Based on Career Paths

Type of Experience	Line (yrs/#tours)	Specialist (yrs/#tours)	Support (yrs/#tours)	Professional (yrs/#tours)
Year 0–Year 9				
Training	2 yrs/2+	3 yrs/1	1 yrs/1	Minimal
Mil skill	5 yrs/2	7 yrs/2	3 yrs/1	3 yrs/1
Year 10–Year 19				
PME/training	2 yrs/2	2 yrs/1.5	2 yrs/2	1 yrs/1
Mil skill	4 yrs/1.5	5 yrs/1.6	3 yrs/1	3 yrs/1
Year 20–Year 30				
PME	1 yrs/1	1 yrs/1	1 yrs/1	
Mil skill	6 yrs/2	6 yrs/2	3 yrs/1	3 yrs/1

In addition to displaying frequency and duration of military experience, Table I.3 also indicates that service career planners provide a balance of experience throughout⁸ a typical career. Military experience varies by skill group over the career length and is summarized in Figure I.2.

In Figure I.3, these data are portrayed as ratios of minimum-desired military-unique experience to maximum career length,⁹ which also indicates that support and professional careers have less emphasis on uniquely military experience and more emphasis on skill use and experience.

This information on experience is used in two ways in our study. First, it will be the basis for making judgments about lateral entry. Under our assumption that lateral entry is from civilian life, one can observe that there is little ability for making a substitution in line and specialist skill groups because those skill groups have predominantly military experience for which there is no comparable civilian skill. (However, it does suggest that lateral entry from reserve status or with prior active service is more workable because these groups have some military experience already.) On the other hand, the support and professional skill groups are better candidates for lateral entry because of the lower proportion of military-unique experience over a career.

⁸Line officers, for example, have 7, 6, and 7 years, respectively, of military experience in each decade of a 30 year career. Specialist career paths tend to emphasize military experience in the first decade and then have a pattern similar to that of line officers, a reflection of either military-unique initial specialist training (e.g., Navy nuclear power) or establishing military experience before "specializing."

⁹Line: 20/30 (0.67); specialist: 24/30 (0.8); support: 13/30 (0.43); professional: 10/30 (0.33).

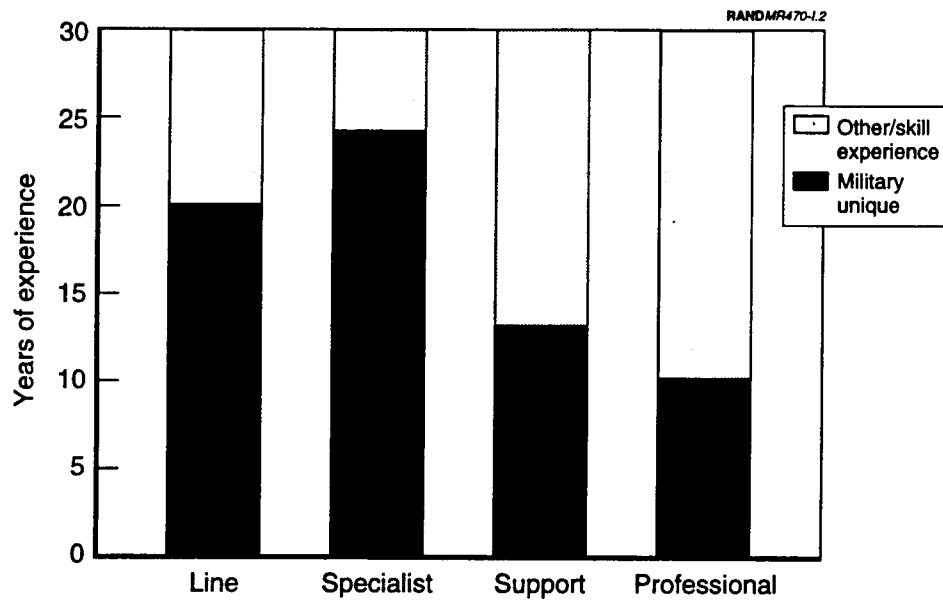


Figure I.2—Type of Experience Required for Development

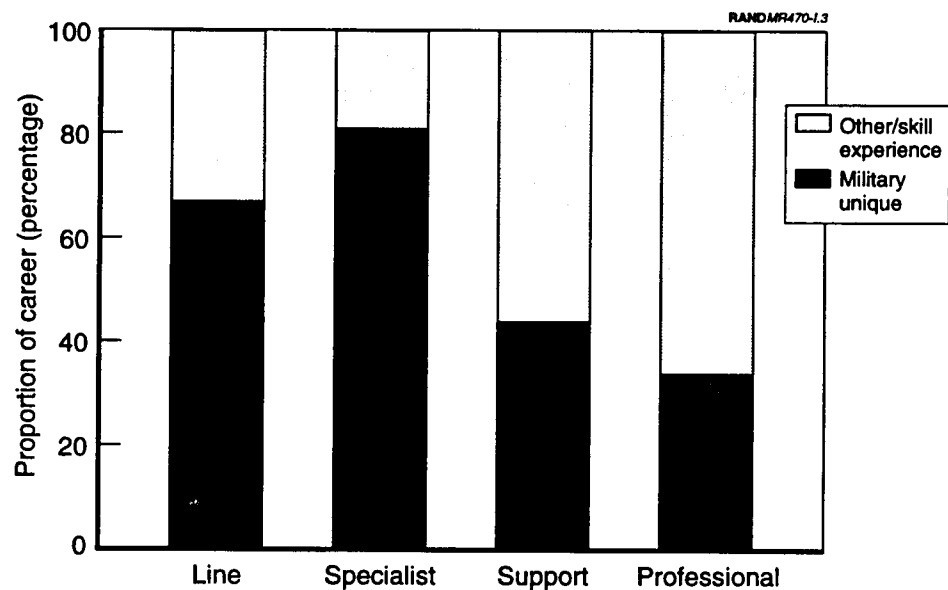


Figure I.3—Proportion of Career Path

The second way we use experience is to estimate the amount of future needed or desired experience to be successfully developed as an officer in each skill group. When additional experience is required, additional time must be provided on the career path or the new requirement must displace an assignment already on the career path or some combinations of the two must occur.

Section 2 discussed how the requirements for military experience might change in the future. These changes included increased emphasis on joint matters, reserve matters, humanitarian missions (peacekeeping/enforcement), and advances in technology. The additional experience needed was judged to be uniquely military. We estimated that the above changes were equivalent to one additional experience tour of 4 years (1 year of training/education¹⁰ and a 3 year tour of duty) to be *added* to the career path of line and specialist skill groups. In support and professional skill groups, we estimated that this military experience could be *substituted* for existing skill assignments. We included both the assignment for a typical length of three years and training/education of one year to prepare for the assignment. Career paths for line and specialist were modified by adding four years in total. In reality, this additional time in a career might be spent in one year increments added to existing assignments rather than in one entire additional assignment. The net effect would be the same.

For a 30 year maximum career, service career paths typically allocate 20 years to military-unique experience for line officers and, as shown in Figures I.2 and I.3, less for other skill groups. An increase of 4 years of military-unique experience would mathematically equate to 24 years of military experience over a 34 year period.

If changed experience requirements can be satisfied by substituting for other (no longer needed) experience, no further evaluation is required. We felt that additional or changed military experience requirements for support and professional skill groups could be accommodated through substitution of the new required military experience for other or skill experience. However, we did not substitute military experience for skill experience for line and specialist skill groups because there was less other/skill experience for which to substitute. Thus, for a line officer with a career path having 20 of 30 years of military experience, an additional 4 years would be added resulting in a new career path having 24 of 34 years of military experience.¹¹ This suggests that longer career paths are needed for line and specialist officers simply to accommodate the increased developmental needs.

¹⁰ Adding an educational/training tour manifests itself also in the individuals' account, which has a ripple effect in diverse areas of officer career management. For this evaluation, we were interested only in the effect of an additional tour on average years of service.

¹¹ For a specialist having 24 years of military experience in a 30 year career, an additional 4 year tour results in 28 years of military experience over a 34 year career or a 3 percent increase of about 6 months. For a support officer, there is no change because the additional needed military experience has been substituted for assignment and experience already on the career path and not added to the career path.

However, not all officers stay for a complete cycle over the 30 or 34 year career path. We are more interested in determining how much additional experience is desired for a field-grade officer over an actual expected career profile. Actual experience of the overall officer corps or of field-grade officers is frequently and commonly expressed in terms of average years of service. As shown in Figure I.1 and Table I.1, at a given moment in time, a field-grade officer in the line skill group has about 17 years of service.¹² We selected average years of service of field-grade officers as the measure of *desired* future experience and of future experience *provided* by career management alternatives for our evaluation.¹³

Desired average years of service for a field-grade officer in each skill group was calculated by comparing two ratios. For a line officer, it is the ratio of 20 years of desired military experience in a 30 year career path compared with the new desired 24 years of military experience in a 34 year career path. This is about a 6 percent increase in desired experience or about one additional year in average years of service. Similar calculations were made for support and specialist skill groups to arrive at desired average years of service for field-grade officers for each skill group.¹⁴ Thus, desired average field-grade years of service for line officers was estimated to be 18 years, for specialists 17 years, and for support officers 17 years.

The experience provided by each career management alternative—average years of service for field-grade officers—was calculated for the line, specialist, and support¹⁵ skill groups by service. Tables I.4 and I.5 display these calculations for officers averaged across service, and by service, respectively.

Tables I.6 and I.7 compare the desired average years of service to the average years of service provided by each career management alternative for field-grade officers by line and specialist across all services, and by service, respectively. For support officers, all career management alternatives meet the desired level of field-grade average years of service.

¹²A field-grade officer in the support skill group has about 17.1 years of service, and a field-grade officer in the specialist skill group has about 16.5 years of service. These differences reflect underlying patterns of continuation. Support officers tend to stay longer than line officers, while specialists tend to leave earlier than line officers.

¹³Overall average years of service for the officer corps include large numbers of officers who attrite (or are attrited) after initial obligated service. Field-grade officers compose all of the career force in all but the Long, Stable alternative where a proportionately much smaller number of company-grade officers attain career status.

¹⁴This calculation is an approximation of the actual increase in desired average years of service. Mathematically, the actual calculation is akin to measuring how the centroid of a triangle extends to the right (longer) as the base of the triangle moves by 4 years. (See note 11.)

¹⁵Computation of years of service for professionals was addressed separately.

Table I.4
Field-Grade Average Years of Service Provided by Career Management
Alternatives by Skill Group

	Line	Specialist	Support
DOPMA Short	17.0	16.5	17.1
DOPMA Long	18.8	18.3	18.9
Lateral Entry ^a	17.6	16.8	18.4
Long, Stable	19.2	18.8	19.3
Career Selection	19.4	18.9	20.2

^aLateral entrants are assumed to enter the service with no military experience. Because of the dominance of military experience in the career paths of line and specialist skill groups, for this evaluation, we adjusted the average years of service credited to line and specialists to reflect only professional/other experience. Our assumption is somewhat worst-case; it is highly conceivable that there would be lateral entrants with either military experience (e.g., reserve officers, prior enlisted with subsequent professional/other experience) or professional/other experience that equates to military experience (paramilitary training/experience, airline pilots).

Table I.5
Field-Grade Average Years of Service Provided by Career Management
Alternatives by Service and Skill Group

	Army			Navy			USMC			Air Force		
	Line	Spec	Supp	Line	Spec	Supp	Line	Spec	Supp	Line	Spec	Supp
DOPMA Short	17.1	17.0	17.2	17.3	16.1	16.4	17.4	15.5	15.8	16.6	16.5	17.8
DOPMA Long	18.4	18.3	18.5	19.6	18.2	18.5	19.2	16.8	17.1	18.6	18.5	20.0
Lateral Entry	17.5	17.2	18.4	18.0	16.6	17.8	19.2	16.9	18.2	17.0	16.7	18.9
Long, Stable	19.0	18.9	19.1	19.6	18.7	19.2	19.9	18.5	18.7	18.9	18.8	19.9
Career Selection	19.1	19.0	20.1	20.2	19.2	19.1	19.8	18.3	18.5	18.9	18.8	21.6

Table I.6
Desired vs. Provided Years of Service, Averaged Across All Services

	Line	Specialist
Desired	18.0	17.0
DOPMA Short	17.0	16.5
DOPMA Long	18.8	18.3
Lateral Entry	17.6	16.8
Long, Stable	19.2	18.8
Career Selection	19.4	18.9

Table I.7
Desired vs. Provided Years of Service, by Service by Skill Group

	Army		Navy		USMC		Air Force	
	Line	Spec	Line	Spec	Line	Spec	Line	Spec
Desired	18.1	17.5	18.3	16.6	18.4	16.0	17.6	17.0
DOPMA Short	17.1	17.0	17.3	16.1	17.4	15.5	16.6	16.5
DOPMA Long	18.4	18.3	19.6	18.2	19.2	16.8	18.6	18.5
Lateral Entry	17.5	17.2	18.0	16.6	19.2	16.9	17.0	16.7
Long, Stable	19.0	18.9	19.6	18.7	19.9	18.5	18.9	18.8
Career Selection	19.1	19.0	20.2	19.2	19.8	18.3	18.9	18.8

In summary, when additional experience is required, specifically in the line and specialist groups, a lengthened career is indicated. The nature of the experience required of support and professional skill groups supports careers that start later¹⁶ or that include lateral entry. Lateral entry is generally not desirable from an experience standpoint for line and specialist skills; however, on a situational basis, lateral entry may provide adequate military experience if the entrants have reserve or prior active military experience.

¹⁶Building on the experience gained in not-unique-to-the-military skills.