MASTER OF MILITARY STUDIES

TITLE: THE EFFECTS OF MULTIPLE CONSTRAINTS ON THE ARMY’S FORCE STRUCTURE DOCUMENTATION PROCESS

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
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The System presently used by the army to document personnel force structure is heavily constrained and these constraints may effect the overall ability to produce a document that truly coincides with the desires of the prioritizer of the army, the Deputy Chief of Staff for Operations (DCSOPS). This study involves defining, reviewing the history, and assessing the applicability and necessity of some of the major constraints imposed by directive, law, policy, doctrine, or guidance on Army Force Structure documentation. The intent is to show many of the difficulties encountered by the plans division of the Deputy Chief of Staff for Personnel (DCSPER) in the attempt to balance these constraints while properly aligning the Army’s End Strength (ES).
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EXECUTIVE SUMMARY

Title: The Effects of Multiple Constraints on the Army’s Force Structure Documentation Process

Author: MAJ Eric Handy, United States Army

Thesis: The system presently used by the Army to document personnel force structure is heavily constrained and these constraints may effect the overall ability to produce a document that truly coincides with the desires of the prioritizer of the Army, the Deputy Chief of Staff for Operations (DCSOPS).

Discussion: This study involved defining, reviewing the history, and assessing the applicability and necessity of some of the major constraints imposed by directives, laws, policy decisions, doctrine, or guidance on Army force structure documentation. The intent of this study was to underscore many of the difficulties involved in the attempt to balance these constraints while properly aligning the Army’s End Strength (ES).

Because of the tremendous number of constraints place on force structure documents, it is very improbable that, without intervention, force structure documents will be balanced and within compliance of all requirements. The best that can probably be hoped for is that the documents will be balanced at the macro level. This makes the process very inefficient.
Many of these inefficiencies, however, can be alleviated by focusing efforts on further automating the force structure process. Microsoft Windows or web-based program should be the standard versus antiquated, time-consuming and difficult mainframe based programs. Many of the procedures presently being performed by documenters, could easily be automated. This will lead to a more accurate document and less manhours and personnel necessary to accomplish the task.

**Conclusion:** In the final analysis, the Office of the Deputy Chief of Staff for Personnel’s (ODCSPER’s) Title X responsibility is to man the force with a soldier of the right skill and background, at the right time and place. Policy, budget and legal constraints imply the need for a balanced force structure in compliance with mandated requirements. Therefore, within the framework of the force structure documentation system, there will continue to be a need for personnel to ensure compliance with as many constraints as possible…namely, personnel to perform the functions of the Operations and Analysis Branch of the ODCSPER.
DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

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Preface

This study involves defining, reviewing the history, and assessing the applicability and necessity of some of the major constraints imposed by directive, law, policy, doctrine, or guidance on Army force structure documentation. The intent is to show many of the difficulties involved in the attempt to balance these constraints while properly aligning the Army’s End Strength (ES).

I recently served as a force structure analyst and integrator on the Army staff for almost two years. In this position, I gained significant insight into the complexities of the force structure process. However, I also realized there was a tremendous amount of learning involved to become proficient. One of the problems is the absence of a “single-source” document available to explain the history, application and/or relevance of many of the constraints and processes used to build force structure documents.

This paper is designed to consolidate and synthesize many of the available source materials and references as well as the institutional knowledge from experienced personnel that have been intimately involved in the force structuring process over the past decade.

I would like to acknowledge the assistance of LTC Paul Thornton, LTC(P) J.R. Atkins, Dr. Norman W. Handy, Mr. Mike Carty, Mr. Bill Hanson, and Beth Handy.
CHAPTER 1

Introduction

STATEMENT OF THE PROBLEM

What are the major constraints imposed on the production of the Army's personnel force structure documents and what are their effects?

HYPOTHESIS

The system presently used by the Army to document personnel force structure is heavily constrained and these constraints may effect the overall ability to produce a document that truly coincides with the desires of the prioritizer of the Army, the Deputy Chief of Staff for Operations (DCSOPS).

METHODOLOGY

This study is designed to:
1) Conduct a review of available source materials.
2) Interview present and former force structure analysts, documentors and integrators.
3) Identify major constraints placed on the Army's production of personnel force structure documents.
4) Identify the effects of the constraints and whether the constraints are still applicable.
5) Discuss the present system for implementing the constraints.
6) Recommend alternatives to the present system.
LIMITATIONS ON THE STUDY

FACTS

 ✓ This study will concentrate on documentation issues from 1995 to the present and upon constraints applicable to the documentation process.
 ✓ Civil Works authorizations will not be included in the numbers presented in this paper.
 ✓ No U.S. Army Reserve or Army National Guard issues will be discussed. The focus of this paper is the active component.
 ✓ Emphasis throughout this paper will be on authorizations (spaces).

ASSUMPTIONS

❖ Information contained in historical Headquarters, Department of the Army (HQDA), ODCSPER and HQDA, ODCOPS official briefings accurately reflect known truth.
❖ Current Personnel Management Authorization Documents (PMADs) are in compliance with a majority of required constraints.
❖ Incorrect assumptions or calculations made in personnel force structure documents can take years to totally correct.
CHAPTER 2
Background Information

HISTORY

In the early 1980s the Army began an introspective look at its force structure integration, development, and management systems. This was prompted by the Army senior leadership’s desire to conduct revolutionary changes designed to improve readiness, effectiveness, and the ability to execute prompt and sustained combat. Over 400 new equipment items were in the pipeline for study and possible fielding. The new equipment would require widespread changes in Army doctrine and force structure.

Some of the most noteworthy studies conducted were:

- **The Department of Army Inspector General (DIAG) Inspection of 1980-1983** The inspection reported two findings. “(1) There were extensive documentation and execution problems in force management. (2) There was a lack of knowledge at all levels of the interrelationships of Army systems and how they are used to manage change.”¹ This was described by the Inspector General as a general lack of knowledge of “how the Army runs.”² The DAIG conducted a follow-up inspection from 1985-1986, which included an assessment of the force integration process and other personnel, doctrine and structure issues. The report noted,

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¹ U.S. Army War College, How The Army Runs (Carlisle, PA 1999), 2-4.
² How the Army Runs, 2-4
“although the Army was modernizing, changes in orientation and organization would result in more effective force management.”

- **The Documentation Study Task Force (1983)** The Task Force was appointed by the Vice-Chief of Staff to review the Army’s existing data management structure, identify problems, and recommend improvements. This study was commissioned in response to the increasing acceptance of and dependency on “off-line” management to resolve a crisis of the moment. The result was a long-term goal of establishing a single, unified documentation system.

- **Force Management Study (1994)** This study was conducted from 1993-1994 to evaluate the need for revisions to the force management system. As a direct result of the military build-up during the Ronald Reagan presidency, followed by the extreme military reductions that followed in the late 1980s and early 1990s, the force documentation and management system was in unprecedented turmoil. What the study found was, “many of the systems, which supported the process of change, were overwhelmed due to technological obsolescence.”

**THE BIG PICTURE**

Actual force structure requirements are derived from a thorough understanding of national objectives and interest as they are articulated by the political leadership through National Security Directives (NSD). The Chairman of the Joint Chiefs of Staff (CJCS),

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3 How the Army Runs, 2-4
4 How the Army Runs, 2-5
guided by NSD, has the responsibility to develop and recommend a National Military Strategy (NMS) to the Secretary of Defense and the President. Using the force levels contained in the NMS as a basis and taking into account the threat and, where appropriate, the externally-imposed constraints (dollars, manpower, equipment, industrial capacity, technology, etc.), the force design process is begun.  

The National Defense Authorization Act (NDAA), for any given year, delineates the Army’s budget. It spells out how much the Army will be given for military pay. It dictates the maximum authorized number of soldiers for the Army for that year. The target endstrength specified by the NDAA is an end of year strength. The Army must be within plus or minus .5% of the mandated ceiling at the end of the fiscal year. Adhering to the maximum number set by Congress, how the Army breaks out the number of officers and enlisted (or leader to lead) is entirely an Army level policy decision.

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5 How the Army Runs, 4-17.
6 This information is used to drive The Army Plan (TAP) eventually leading to the budget force.
7 For example, section 401, Title IV (Military Personnel Authorizations) of the fiscal year 2000 authorizations act authorizes the active duty end strength for the Army for FY00 to be 480,000.
8 The present ratio is 1 officer to every 5.11 enlisted soldier. This ratio has been relatively constant.
The policy decision is prepared at the macro level and only shows the programmed or allocated inventory as an aggregate number broken into three groups or Military Personnel Categories (MPCs): Commissioned Officer, Warrant Officer, and Enlisted. After this decision is made, Title X delineates the breakout of field grade officers by grade, the number of general officers and their distribution by grade, limits to the top two grades of senior NCOs by percentage and a percentage limit to Master Warrant officers.

THE FORCE STRUCTURE PROCESS

The force structuring process develops a fiscally constrained force based on NMS objectives to be achieved, threats, and the dynamics of internal and external constraints. The fiscally constrained force is developed to achieve an affordable and competent force to support national objectives.

According to AR 71-32, the DCSOPS has responsibility for determining and implementing Army priorities as well as developing and managing the Army's force structure. The primary method for reflecting the force structure is the production of force structure / authorization documents.

Authorization documents are used to manage personnel and materiel procurement, force planning, programming, budgeting, training, and distributing.9 There are three primary force structure documents. ODCSOPS in coordination with the U.S. Army Force Management Support Agency (USAFMSA) produces the Master Force (MFORCE) and the Total Army Authorization Document System (TAADS) files. The

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9 How the Army Runs, 5-29.
ODCSPER produces the third file, which is the Personnel Management Authorization Document (PMAD).

The Structure and Manpower Allocation System (SAMAS) is the DCSOPS automated system that records and maintains total Army force structure information and is considered the Army's "database of record" for all force structure actions. One of the primary outputs of this system is the Army's MFORCE. This file, when locked, accurately reflects the "approved", documented and programmed force structure for every unit in the Army. The MFORCE provides aggregate detail at the officer, warrant, and enlisted level over a time horizon of seven years.

TAADS takes the information from the MFORCE and provides more detailed information down to the Military Occupational Specialty (MOS) and Grade level. This database holds both authorized and required authorizations and, the time horizon focus is two years.

The Plans Division of the ODCSPER has primary responsibility for coordination with the ODCSOPS for personnel related force structure matters. The primary force structure document used by the personnel community is the PMAD. This document is generally produced after the Army-wide release of MFORCE and TAADS. It incorporates the most recent force structure decisions and ensures that the force structure document is in compliance with written directives, policy, and procedures prior to dissemination to personnel agencies.

Total Army End Strength (ES) is the sum of the Force Structure Allowance (FSA) and TTHS (Trainees, Transients, Holdees, and Students).

\[ ES = FSA + TTHS \]
The end strength of the Army is set by law\textsuperscript{10}; however, the Army does have flexibility in the manner in which it sets the FSA and TTHS.

The TTHS accounts for those Army personnel not readily available for assignment to authorized spaces in the operating force. TTHS, as an accounting or management tool for all armed services, is governed by Department of Defense Instruction (DODI) 5500-13. The Army’s TTHS is a joint decision between the ODCSOPS and the ODCSPER. ODCSOPS controls the length of courses, the number of seats, the number of courses, etc. ODCSPER decides how many soldiers to access, which determines the number of sessions/classes required, the number of Advanced Civil Schooling (ACS) slots, assignment and rotational policies, etc.

Although TTHS is often referred to as a policy decision, it is actually a combination of several individual policy decisions. For example: How many soldiers do we send to school? How many will we access? How long is each course? Is attendance accomplished as part of normal rotational move or as temporary duty? These are only a sample of the policy decisions which drive the actual TTHS.

Historically, when the actual TTHS count is compared to the planned TTHS the planned target has been exceeded. The level to which the planned TTHS is exceeded, is the level to which we cannot support the structure.

\textsuperscript{10} It is important to note that ES is the total strength on the last day of the fiscal year. On any given day during the fiscal year, the "actual" strength of the may vary tremendously from the end strength.
Chapter 3

ENLISTED ISSUES

Senior Enlisted

E9 (Sergeant Major/Command Sergeant Major) Background

Title X, chapter 31, section 517 of the U.S. Code dictates that the total number of E9s on active duty cannot exceed more than 1% of the total enlisted force. Of this total number of E9s on active duty, a portion will be in TTHS and therefore not available to fill authorizations. The remainder, those filling authorizations, provide the “implied” Title X limit to E9s.

Application

The total number of E9 authorizations with the force structure document was calculated and compared against the 1% ceiling. If there were more authorizations documented than could be supported by the implied legal constraint, a wedge is created to bring the authorizations in-line with the constraint.

Net Effect

Typically, force structure documents is in compliance with this requirement and do not require any adjustment. If changes are necessary, authorizations are usually
decremented by the appropriate number by creating a management Unit Identification Code (UIC) that show negative authorizations for E9, with a corollary effect of an increase of E7 authorizations.\textsuperscript{11}

\textbf{Relevance}

Thus, the data and documentation strongly indicates a valid requirement for this constraint. Proponents use this E9 ceiling to ensure their MOSs are “grade feasible”. Proponents work to ensure the number of soldiers accessed can grow to the needs at the next higher grade in terms of structure and professional development. The E9 ceiling is the “apex” of the pyramid. It is important to understand that every individual MOS does not have a 1\% cap on E9s. This is a ceiling for the entire Army in aggregate. Therefore, there may be some MOS that will have more or less than the 1\%, as long as the total is below the mandatory ceiling.

\textbf{E8/E9 Background}

Title X, Chapter 31, section 517 of the U.S. Code limits the combined total of E8s and E9s on active duty to be no greater than 3.5\% of the total enlisted force structure.

\textbf{Sec. 517. Authorized daily average: members in pay grades E-8 and E-9}

(a) The authorized daily average number of enlisted members on active duty (other than for training) in an armed force in pay grades E-8 and E-9 in a calendar year may not be more than 2 percent (or, in the case of the Army, 2.5 percent) and 1 percent, respectively, of the number of enlisted members of that armed force who are on active duty (other than for training on January 1 of that year).\textsuperscript{12}

\textsuperscript{11} There is no ceiling on E7 authorizations.
\textsuperscript{12} Title X, U.S. Code.
This constraint is in addition to the 1% cap on E9s but it does not mean that there is a 2.5% cap on E8s:

\[ 1\% \text{ E9} + 2.5\% \text{ E8} = 3.5\% \text{ E8 and E9} \]

For example, if the total number of E9s is less than 1% of the total enlisted force/inventory (which would be in accordance with directives), then the percentage of E8s could be increased as long as this increase, when combined with the E9 population, did not exceed the 3.5% ceiling.

\[ .8\% \text{ E9} + 3.2\% \text{ E8} = 3.5\% \text{ E8 and E9} \]

This can be done in accordance with a subsection of Section 517 that states:

(b) Whenever the number of members serving in pay grade E-9 is less than the number authorized for that grade under subsection (a), the difference between the two numbers may be applied to increase the number authorized under such subsection for pay grade E-8.\(^{13}\)

**Application**

The documented number of senior NCOs is, in almost all cases, greater than the implied limit allowed by law. Since E9 authorizations are typically in accordance with law, E8 authorizations are changed to bring the overall senior enlisted authorizations into compliance with the constraints. Since there is no legally mandated ceiling on the total number of E7s allowed in the force, the wedge typically changes E8 authorizations to E7. Under this process, E9 authorizations are usually not changed. One wedge contains the reductions to E8 and increases to E7 necessary to insure compliance with the implied Title X limits.

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\(^{13}\) Title X, U.S. Code.
Net Effect

The management wedge created does not dictate or identify the specific unit required to make the necessary changes to their authorizations. A wedge applies to the personnel system at the aggregate level, so the action officers dealing with planning can use a “balanced” and feasible document. Action officers that deal with assignments can not use wedges and therefore are forced to prioritize units for fill in those rankswedged to meet limits.

Relevance

The net effect strongly indicates that there is still a valid need to monitor this constraint, since senior enlisted promotion numbers are calculated based on the final number of authorizations that appear in the PMAD. Again, as is the case with the E9 ceiling, this constraint works to ensure that each MOS is grade feasible.

Non-Commissioned Officer (NCO) Content

NCO Content Background

The present target for the percentage of NCOs in the enlisted force structure allowance has its origins in a former force structure initiative known as the Change in Non-Commissioned Officer Structure (CINCOS). There were three key events in the evolution of CINCOS. The first of these events was the initial study and initiation of CINCOS. This process was a direct corollary of the recent drawdown years.
After the military drawdown of the early 1990's, the Army’s NCO structure had increased to almost 50% of the total enlisted force. As a direct result, there were tremendous grade imbalances in many occupational specialties. These imbalances resulted in poor career progression and limited promotion potential for enlisted personnel. The primary goals of CINCOS were:

- To reduce the NCO content of the total enlisted structure from 50% to 47.5%.
- To improve career progression and promotion opportunities.
- To achieve "pre-drawdown" enlisted structure NCO content

To affect the necessary changes, Major Commands (MACOMs) and personnel proponents were directed to adjust their enlisted grade structure in order to bring it into compliance with written Standards of Grade requirements. (The May 1996 TAADS-R Database and the 9606 PMAD would serve as baseline documents for required redocumentations.) When all the changes were submitted, there was still a shortfall in reaching the 47.5% target. Further, it was noted that the 47.5% reduction of the NCO content target was not actualized because a further study indicated that the changes, if implemented, would result in a further reduction of needed enlisted personnel.

Therefore, a command decision was made and approved to allocate funds to “buy-back” some of the enlisted force structure, enough to raise the NCO content to 49.2%. The DCSOPS, as the prioritizer for the Army, took the lead on identifying and documenting the necessary changes to implement the buyback. When all of the DCSOPS changes were implemented, the percentage of NCOs in the FSA was still well below the targeted 49.2% goal. Thus, in order to achieve the desired results, an NCO content

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14 Information gathered from DCSPER CINCOS briefing charts.
15 CINCOS as well as the CINCOS buy-back were to be a zero sum drill; therefore, in the aggregate, no authorizations would be lost. Typically, where possible, a NCO authorization was “rolled down” to an E4
wedge is currently implemented to maintain the 49.2%. The difference between the current structure and the 49.2% goal for NCO content is expected in new force structure documents for the Corps and Division headquarters.

**Application**

A command decision was made not to increase E9 authorizations and to severely limit any increases to E8 authorizations. Some of the buy-back was held for future FS increases expected for Corps and Division redesign efforts. The buyback was documented over three years due to difficulty in inventory “re-growth”.

**Net Effect**

Additional NCO force structure was added to the FSA while lower enlisted force structure was reduced by the same amount. The net effect was zero overall growth, but appropriate grade growth to bring NCO numbers up to acceptable levels.

**Relevance**

As strongly indicated by an analysis of the process and implementation procedures, this constraint works in parallel with the Title X senior enlisted requirements. However, time horizon for the documentation changes has expired and all necessary

or below authorization. There was to be a one for one exchange (NCO authorization for an E3 or E4 authorization) preferably within the same MOS or specialty branch.
changes have been made. There is probably no longer a need to “wedge” the buyback information but as with all policy decisions, the compliance must be confirmed.
Chapter 4
OFFICER ISSUES

DOPMA LIMITS

Background Information

The Defense Officer Personnel Act (DOPMA) is an integrated part of Title X. The promotion goals and timing windows are consistent across the military services.

Section 523 of Title X sets the ceilings for the number of field grade officers authorized for each service based on their total programmed or allocated officer inventory.

Sec. 523. Authorized strengths: commissioned officers on active duty In grades of major, lieutenant colonel, and colonel and Navy grades of lieutenant commander, commander, and captain

Except as provided in subsection (c), of the total number of commissioned officers serving on active duty in the Army, Air Force, or Marine Corps at the end of any fiscal year (excluding officers in categories specified in subsection (b)), the number of officers who may be serving on active duty in each of the grades of major, lieutenant colonel, and colonel may not, as of the end of such fiscal year, exceed a number determined in accordance with the following table:....

The field grade officer targets limits are extracted directly from the Title X table and broken out into the four Army competitive categories. From these numbers, TTHS is subtracted to arrive at the actual field grade ceilings within the force structure allowance. However, the tables are face limitations, not space/force structure limitations. Also,

16 Title X, U.S. Code
doctors, dentist, general officers, and warrant officers are not included in the DOPMA tables, but they are a part of the overall officer limit.

Application

There are two primary choices when our structure exceeds Title X targets. Cut structure or reduce TTHS. ODCSPER and ODCSOPS agree that the numbers used to reflect TTHS are good planning figures, so they have been held constant and structure has been targeted for the necessary cuts.

(c) Whenever the number of officers serving in any grade is less than the number authorized for that grade under this section, the difference between the two numbers may be applied to increase the number authorized under this section for any lower grade.  

Net Effect

Historically, the Army has never been in compliance with the "implied" force structure targets. However, the Army has never exceeded the number of faces directed by Title X.

Relevance

The belief is that the targets will eventually be reached. Tremendous strides have been made towards reaching the goal over the past five years. While structure has been reduced over this time, future changes in the method of education may assist by reducing TTHS.

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17 Title X. The capability of using the limits of a higher rank to allow for more officers in a lower one is referred to as a “roll-down”. Roll-downs are specifically allowed by this subsection of Title X.
GOLDWATERS-NICHOLS AND JOINT REQUIREMENTS

Background Information

The Joint Duty Authorization List (JDAL) is a direct result of the Goldwater-Nichols Act. The end result is that each branch of the armed service is required to allocate a certain amount of force structure to fill positions on the JDAL. In the Army’s force structure documents, these positions are identified by an additional skill identifier (ASI) code of either 3A or 3L typically within a joint or defense MACOM.

The number of positions on the JDAL has stayed relatively constant, while each of the armed services have downsized. The end result is the current number of JDAL positions are a proportionally larger percentage of the Army structure. Additionally, JDAL positions only affect Army competitive category.

<table>
<thead>
<tr>
<th></th>
<th>FY95</th>
<th>FY96</th>
<th>FY97</th>
<th>FY98</th>
<th>FY99</th>
<th>FY00</th>
<th>FY01</th>
</tr>
</thead>
<tbody>
<tr>
<td>JDAL</td>
<td>2610</td>
<td>2735</td>
<td>2699</td>
<td>2692</td>
<td>2473</td>
<td>2771</td>
<td>2714</td>
</tr>
<tr>
<td>Yearly Delta</td>
<td>125</td>
<td>-36</td>
<td>-7</td>
<td>-219</td>
<td>298</td>
<td>-57</td>
<td></td>
</tr>
<tr>
<td>Yearly Change</td>
<td>4.79%</td>
<td>-1.32%</td>
<td>-0.26%</td>
<td>-8.14%</td>
<td>12.05%</td>
<td>-2.06%</td>
<td></td>
</tr>
<tr>
<td>Total Change</td>
<td>3.98%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

JDAL/Army 0.58% 0.63% 0.62% 0.63% 0.59% 0.66% 0.65%

Application

By law, the services are required to fill JDAL coded positions to 100%. Other positions in these same organizations, not on the JDAL, are filled at the Army average.
Net Effect

There is an overall increase in the percentage of field grade authorizations with a required level of fill. Army units suffer all shortages of officers regardless of cause.

Relevance

Current force structure documents are already over-structured at the field grade level. The greater the number of JDAL positions, the smaller the number of authorizations available for Army discretion. Or stated another way, as the number of units or authorizations that are guaranteed 100% fill increases, the impact of any shortages in the officer corps likewise increased to the non-guaranteed units.

GENERAL OFFICER LIMITS

Background Information

Title X Section 526 of the U.S. Code sets a ceiling on the total number of General Officers on active duty. It states:

Sec 526. The number of general officers on active duty in the Army, Air Force, and Marine Corps, and the number of flag officers on active duty in the Navy, may not exceed the number specified for the armed force concerned as follows:

(1) For the Army, 302.
(2) For the Navy, 216.
(3) For the Air Force, 279.
(4) For the Marine Corps, 80.
There is, however, an exception/exclusion to this policy that states:

Limited Exclusion for Joint Duty Requirements. - (1) The Chairman of the Joint Chiefs of Staff may designate up to 12 general officer and flag officer positions that are joint duty assignments for purposes of chapter 38 of this title for exclusion from the limitations in subsection (a). Officers in positions so designated shall not be counted for the purposes of those limitations. ¹⁸

There are presently 5 General Officers from the Army that fall under this exclusion. Additionally, there is a new category called the JCS 10, under which the Army is authorized six more general officer authorizations. This gives the army a ceiling of 313 general officer authorizations.

Application

The total number of general officer authorizations (Grades O-7 to O-10) is calculated prior to the release of a new force structure document. Discrepancies are presented during the approval briefing.

Net Effect

The Army is usually over-structured in general officer authorizations.

Relevance

Although the actual number of General Officers (faces) is always in compliance with Title X ceilings, force structure documents (spaces) are typically not in compliance with statutory requirements. This leads to colonels filling general officer authorizations which causes a cascading effect of increasing shortages to the lower ranks.

¹⁸ Title X U.S. Code
Chapter 5

Special Interest

EQUAL OPPORTUNITY ADVISORS

Background Information

As a means of improving Equal Opportunity (EO) support within units, on 19 June 1997, the Secretary of the Army (Togo West) directed the number of full-time active duty Equal Opportunity Advisors (EOAs) be increased to 500 total authorizations. This would result in a net increase of 102 authorizations above the force structure at the time. The Human Resources Division of the DCSPER (DAPE-HR) was to take the lead on coordinating this effort with support from the Operations and Analysis Branch of the Plans Division, (DAPE-PRP-A) ODCSPER and the Force Development Division, (ODCSOPS). The changes were to be reflected in the 9801 PMAD. Specific guidance for implementation was handed down by then Deputy Chief of Staff Personnel (LTG F.E. Vollrath) in a memorandum dated 30 October 1997. This guidance was codified and specific directives on rank, location, and exceptions were given in a change to AR 600-20 (Army Command Policy), par. 6-6.

It was the Secretary of the Army's intent for these changes to be implemented by Fiscal Year (FY) 1999. To support this, the ODCSPER in coordination with the ODCSOPS, established January 1998 as the target data to release a new force structure
document that accounted for the required changes to EOA authorizations. The mandatory date for compliance was no later than May of 1999. The Equal Opportunity Section of the Directorate of Human Resources, ODCSPER (DAPE-HR) was designated as the controlling proponent.

**Application**

According to amendments made to AR 600-20 to facilitate the changes, all EOA positions were to be readily identified by special identifiers. Enlisted EOA positions were to be given the Special Qualifications Identifier (SQI) of "Q" and officers would have a Skill Identifier (SI) of "5T". These codes are used by the personnel community to identify EOA positions or an EOA trained soldier. In total, the positions so coded should meet the mandated 500. Although the duty position for an authorization may state it is an “EOA” position, unless it has the correct identifier associated, it cannot be counted against the 500 requirement.

**Net Effect**

To date, the Secretary of the Army’s goal to achieve 500 EOA authorizations and the Human Resources guidance for the desired locations and grade of each EOA has not been met.

A key point that was often missed in the discussion of the increase to 500 authorizations was that there was to be zero growth in the total force structure. This implies every EOA authorization increase would have to have a corresponding offset or decrease. Major Commands were told it was necessary to find internal billpayers for the
increases. Many units were unwilling to take required decrements and the result was a net increase in TAADS documented force structure. This forced the personnel community to reduce authorizations elsewhere, in order to get the force structure allowance down to mandated levels. The result is that the proper coding, grade, location and number of EOAs continues to violate the written policies and guidance.

There are two conflicting schools of thought. One argument is that authorizations must comply with the criteria established by the Secretary of the Army and the changes made to AR 600-20. Therefore, until the requirement/policy changes, the Army must document 500 Equal Opportunity Advisor authorizations. By the same token, it is argued that the original policy was written during a time when the Army was much larger; therefore, since there are not as many soldiers, the Army simply does not need as many EOAs and that they should be placed where the EOA proponent (DAPE-HR) feels they are needed. By their calculations, this would reduce the Equal Opportunity Advisor requirement from 500 authorizations to somewhere between 470 and 480 authorizations.

The 9902 PMAD documented 511 EOA authorizations for Fiscal Year 1999 and an average of 504 authorizations for Fiscal Years 2000-2005. These numbers were based on a strict interpretation of the Secretary of the Army’s guidance. DAPE-HR recommended that EOA authorizations be documented based on need. This would equate to a decrease of 20-30 authorizations. DAPE-PR countered that, until the policy is changed, there must be a strict adherence to the Secretary of the Army’s guidance of 500 documented authorizations. DAPE-HR and DAPE-PR have held meeting to discuss alternatives and options. This discrepancy/conflict is still an open matter.
Relevance

The Secretary of the Army’s overall intent of improving Equal Opportunity support for Army units has been met; however, the exact goal of 500 documented authorizations has still not been achieved. If the optimal number of needed EOAs is lower than 500, as DAPE-HR suggests, then the Army is wasting scare resources (personnel and training dollars) by requiring more authorizations than necessary to effectively accomplish the Equal Opportunity mission.
WOMEN IN THE ARMY

Background Information

In 1991, Congress repealed laws that prohibited the assignment of women to combat aircraft. In April of 1993, then Secretary of Defense, Les Aspen, directed the military services to open even more specialties and assignments to women. In an April 28th memorandum, Subject: Policy on the Assignment of Women in the Armed Forces; Secretary Aspen laid out the framework for the changes to be made, effective immediately. The following is a summary of items that directly pertained to the Army:

(1) Permit women to compete for assignment to all aircraft including those engaged in combat missions.

(2) Study the feasibility of women to serve in additional assignments to include air defense and field artillery.

Additionally, the services were directed to review the appropriateness of the "Risk Rule", policies on pregnancy and deployability, as well as other family related polices. As a result of this review, the Risk Rule was rescinded on 1 October 1994 and the phrase "direct ground combat" became the operative term.

In response to the Secretary of Defense's directives, Togo D. West, Secretary of the Army, issued guidance to bring the Army into compliance. He stated the Army's intentions in a 27 July 1994 memorandum, Subject: Increasing Opportunities for Women in the Army. According to Secretary West, the Army's review of its positions was based on two principles: Maintain the Army's combat effectiveness, while determining if there
are additional areas where military women should serve. As a result of this memorandum, the opening of eight unit types was recommended:

- Maneuver Brigade Headquarters (open MOSs/AOC only)
- Division Military Police Companies
- Chemical Recon and Smoke Platoons
- Mechanized Smoke Platoons
- Engineer Bridge Companies
- Military Intelligence Collection and Jamming Companies
- Forward Support Teams of Forward Support Battalions

Additionally, action was taken to open authorizations at the Army’s premier ceremonial unit, The Old Guard, in Washington, D.C. This was accomplished by attaching a Military Police Company (minus) to the 3rd Infantry Regiment. In 1996, with few exceptions, all Table of Distribution and Allowances (TDA) authorizations were required to be coded as open to women.

Units were allowed to submit to the DCSPER letters requesting relief or exception from these policies. Some of these exceptions have been approved (although very rare); however, the exceptions are not "blanket" relief. They must be periodically revalidated.

The Defense Advisory Committee on Women in the Services (DACOWITS) performs periodic checks of the armed services to monitor the progress of Women in the Army (WITA) policy compliance and recommend adjustments or changes.

**Application**

Identity codes are used to signify whether a position is open or closed to women. For example an authorization with an identity code of “E” means the position is only open to an enlisted male. Any authorization where the MPC is the same as the Identity Code is closed to women.
Several days prior to the publication of a new PMAD, a systematic check is done of all identity codes. Specific emphasis is placed on validating whether or not those positions specifically mandated be coded “open to women” are actually coded properly.\textsuperscript{19}

If disconnects or errors are found, the Personnel System Staff Officer (PERSSO) coordinates with the appropriate agency to resolve the problem. Those errors / discrepancies that cannot be immediately resolved are brought to the attention of the action officer in DAPE-HR responsible for WITA policy actions.

In addition to the checks that are done during the production of force structure documents, a report is generated once a year to show the status of compliance with WITA policy. This report concentrates on the status of positions in those eight types of units specifically identified in the original WITA policy letter. Historical information is also presented.

\textit{Net Effect}

The implementation of the changes to WITA documentation should not have caused any changes to the underlying numbers in the force structure. These changes affected the identity code only. Although, the 9902 PMAD reflected 100% compliance with the Department of Defense and Department of the Army requirements for WITA policies, a thorough check is still conducted prior to release of each personnel force structure document.

The Human Resources Division of the ODCSPER (DAPE-HR) is the policy proponent for Women in the Army policy related issues. DAPE-HR is also the waiver

\textsuperscript{19} These codes very seldom changed from one document to the next; however minor, changes do occasionally take place.
approval authority. By default, the DAPE-PRP-A checks compliance with this policy each time a force structure document is produced. DAPE-PRP-A must also produce for the Assistant Secretary of the Army for Manpower and Reserve Affairs (ASA-MRA) and DACOWITS a yearly report to show compliance with the WITA policy. DAPE-HR has overall staff responsibility for submission of the report.

Relevance

Ensuring women are afforded every opportunity to succeed in the Army is an important component of equal opportunity. The WITA policies help ensure specialties and jobs are available to allow women every opportunity for success.

The process of checking every identity code affected by the WITA policy changes, as well as ensuring that all other positions remain in compliance is a very time consuming and labor intensive process. At present, there is no automated system to accomplish all of the tasks necessary to validate WITA policy compliance. An action officer must complete the checks manually. Automating the system would accomplish the following: save time and money, reduce or eliminate subjectivity, improve accuracy and efficiency and free up personnel for other tasks.
Title XI Requirements (AC/RC)

Background Information

The active Army has always supported and been actively involved in the training and maintaining of the National Guard and Reserve. Between 1990 and 1992, Congress saw major problems with the readiness of the Guard and Reserve. Title XI requirements were enacted in the 102nd Congress, under the FY93 National Defense Authorization Act, to ensure the full integration of the active Army, Army National Guard, and Army Reserve. The requirement totals 5,000 active duty personnel authorizations be designated as full-time support to the National Guard and Reserve. This total includes officers, warrants, and enlisted personnel. The overwhelming majority of these requirements are for E6-E9 and O3-O6. Prior to the enactment of Title XI, these authorizations were filled as any other Army authorization. Now, by law, they must be filled to 100%. The current Title X DOPMA tables reflect an increase in field grade officers as a direct result of the mandatory Title XI support.

Application

Prior to the publication and dissemination of a new force structure document, an action officer20 is required to determine if there are 5,000 documented AC/RC positions.21 If there are not, DCSOPS is responsible for resolving any disconnects prior to publication. Typically, the Title XI target is met.

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20 Robert Carty, ODCSPER, Plans Division
21 These positions are readily identified by the Army Management Structure Code(AMSCO) 12101300. Non-Titled structure is identified by the AMSCO 12101400. Each is further identified with a Management Decision Package (MDEP) code of “TRCS”.

29
Net Effect

The Army has been authorized an increase in the number of leaders in order to support and fulfill Title XI requirements. However, there continues to be unsupportable grade growth as well as an increase in the number of non-titled active to reserve support positions. These authorizations are the second set of authorizations that require 100% fill (JDAL was the first).

Relevance

Based on recent information for fiscal years 2001 and 2002, there are close to 1,100 authorizations documented active to reserve support positions that are not covered by Title XI.\textsuperscript{22} This number includes General Officers, field grade officers, and E8/E9, all of which are currently over legal limits.

\textsuperscript{22} Based on TAADS data using AMSCO 12101400.
Chapter 6

ADJUSTING FORCE STRUCTURE DOCUMENTS

OVERVIEW

The Plans Division of the ODCSPER (DAPE-PRP) uses two basic methods to adjust force structure documents: “toploading” and “wedges”. Some changes cannot be executed through the creation of a wedge and, therefore, individual toploads are required. (The CINCOS buy-back mentioned earlier is a perfect example.) Toploading involves making specific changes to individual authorization lines. Because toploads are done more precisely, the changes, usually, more accurately reflect authorizations than a wedge. However, toploading can be a very time consuming and manhour intensive process.

The term wedge has been discussed throughout this paper. A “wedge” is the primary means used to adjust final force structure documents. For this study, a "wedge" is defined as:

A logical, calculated estimate based on the most accurate and current force structure decisions. It’s purpose is to bring the force structure document into compliance with budget, legal and/or policy requirements.

Wedges are critical tools necessary to balance force structure documents. However, a wedge can only be effectively used when a specific unit or other detail specific data is not required to make a necessary correction.
THE HISTORICAL METHODOLOGY

The wedges in the 9902 PMAD will be used to demonstrate the previous method in which wedges were calculated. To further demonstrate the specific effects of wedges, the MOS 11B (Infantryman) will be used for illustrative purposes.

There were many different types of wedges used in the 9902 PMAD and varied methodology was used in the application thereof. The more prominent wedges were:

- **FSA Wedge**—Brings the overall FSA total to required levels at the aggregate level of officer, warrant, and enlisted detail.
- **NCO Content Wedge**—Brings the NCO content to the required level of 49.2%
- **Senior Enlisted**—Brings the percentage of E8s and E9s into compliance with law.
- **ZSOF**—helps ensure proper accountability of “special” units.

The FSA wedge was calculated as follows:

Step #1: Sum the total number of Officers, Warrants, and Enlisted in the FSA

Step #2: Calculate the required “aggregate” adjustment

Step #3: Breakout the FSA by MOS and Grade

Step #4: Calculate the % of the FSA total

Step #5: Calculate the required decrease at MOS and Grade of level detail

Step #6: Produce a wedge by rounding Step #5 values to the nearest whole number

Step #7: Apply the wedge against the FSA to adjust totals to appropriate MPC levels.
The tables below show illustratively how the FSA wedge would be calculated using MOS 11B infantryman as an example:

<table>
<thead>
<tr>
<th>MOS (Step #3)</th>
<th>GRADE (Step #3)</th>
<th>FSA Total (Step #3)</th>
<th>% of Army Total (Step #4)</th>
<th>Total Enlisted Decrease (Step #5)</th>
<th>Decrease Rounded (Step #6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11B</td>
<td>E3</td>
<td>50</td>
<td>5.00%</td>
<td>-1.5</td>
<td>-2</td>
</tr>
<tr>
<td>11B</td>
<td>E4</td>
<td>40</td>
<td>4.00%</td>
<td>-1.2</td>
<td>-1</td>
</tr>
<tr>
<td>11B</td>
<td>E5</td>
<td>30</td>
<td>3.00%</td>
<td>-0.9</td>
<td>-1</td>
</tr>
<tr>
<td>11B</td>
<td>E6</td>
<td>20</td>
<td>2.00%</td>
<td>-0.6</td>
<td>-1</td>
</tr>
<tr>
<td>11B</td>
<td>E7</td>
<td>10</td>
<td>1.00%</td>
<td>-0.3</td>
<td>0</td>
</tr>
<tr>
<td>11B FSA Total</td>
<td></td>
<td>150</td>
<td>15.00%</td>
<td>-4.5</td>
<td>-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Army Total FSA (Step #1)</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Enlisted Overage (Step #2)</td>
<td>-30</td>
</tr>
</tbody>
</table>

**Step #7: “THE WEDGE”**

<table>
<thead>
<tr>
<th>UIC</th>
<th>WZFSAA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOS</td>
<td>GRADE</td>
</tr>
<tr>
<td>-----</td>
<td>--------</td>
</tr>
<tr>
<td>11B</td>
<td>E3</td>
</tr>
<tr>
<td>11B</td>
<td>E4</td>
</tr>
<tr>
<td>11B</td>
<td>E5</td>
</tr>
<tr>
<td>11B</td>
<td>E6</td>
</tr>
<tr>
<td>11B</td>
<td>E7</td>
</tr>
<tr>
<td></td>
<td>UIC Total</td>
</tr>
</tbody>
</table>

Each of the wedges in the 9902 PMAD required a different set of calculations and the methods used to create the specific wedges varied. Although this methodology does bring the force structure document into compliance with the majority of the constraints and requirements, it has tremendous potential for errors. The potential for human or
mathematical error is introduced each time a new calculation or spreadsheet is done. Since one step is dependent upon the numbers from a previous step, an error made early on in the process can be compound throughout. Additionally, because some of the wedges are done for very large numbers, the necessity to round calculations to the nearest whole number is more like to introduce the potential for rounding errors. This process was very labor intensive and took several manhours (typically as much as a day or more) to complete.

THE PRESENT METHOD

The present Branch Chief, DAPE-PRP-A, has devised a system, while not totally perfect in its present form, has enabled the Army to more accurately calculate and make all necessary adjustments in the same computation.

This is how the present system is applied:

The constrained limit to each rank is known and is the target for the wedge building process. The current raw authorizations are used to establish the percentage each MOS represents as a portion of the total. The difference between the target and the raw authorizations is then apportioned to each MOS based on its percentage of the total. Mathematically this is represented as

\[ W = \text{ROUND} \left( D \times S \times \frac{\text{MOS}}{\text{Total}} \right) \]

where S is a single factor that corrects for round-off errors associated with using the round function and is adjusted by the analyst to force the result to the target value, MOS is the raw number of authorizations for the given MOS, Total is the summation of all MOSs and D is the difference between the raw authorizations and the target. All changes
required to meet the target are consolidated in one wedge with a value for each combination of MOS and grade. Using a commercial spreadsheet, wedges can be generated in approximately 15 minutes for each fiscal year.

This system is far more accurate, involves fewer calculations, and is far less labor intensive. In addition, it eliminates double counts and/or double wedges offsetting or conflicting with each other.

**THE NET EFFECT**

Wedges and toploading have become the accepted methods for adjusting force structure documents. Regardless of the methodology used, wedges are still not the preferred method for balancing force structure documents. Although these methods are effective management tools, as presented earlier, they are not without limitations.

The most critical shortcoming is that by creating wedges, the assignment personnel are forced to make assignment decisions that may not align with the goals of the prioritizer of the Army, the DCSOPS. In the final analysis, in many cases, PERSCOM is forced to make the hard decisions on actual force structure implementation with limited guidance. Readiness is adversely impacted each time a valid authorization is left unfilled.
Chapter 7

CONCLUSION

TECHNOLOGY

Many of the manhours necessary to complete force structure documents, especially wedges and toploads, could be greatly decreased and their accuracy increased if the processes were more automated. Simple spreadsheet programs greatly reduce the time and necessary calculations, but further automation of the process could be achieved. Some work has been done towards automating the process, but it deserves more focus.

Additionally, computer based systems being used by force structure documentors are systemically antiquated and are not totally compatible. Any new system should avoid being overly dependent on the use of a mainframe computer. There is a tremendous amount of time, effort, and manhours required to train an individual in becoming proficient on the present mainframe based system. Therefore, by switching the database to a web-based or desktop spreadsheet format could help shorten the learning curve and increase overall efficiency.

FINAL THOUGHTS

Because of the tremendous number of constraints place on force structure documents, it is very improbable that, without intervention, force structure documents
will be balanced and within compliance of all requirements. The best that can probably be hoped for is that the documents will be balanced at the macro level. For example, documents can and should be balanced at the aggregate level with the FSA equal to established ceilings and the MPC aggregate targets met. Additionally, EOA, WITA, and senior NCO requirements can easily be accomplished and checked prior to TAADS lock.

Many of these inefficiencies can be alleviated by focusing efforts on further automating the force structure process. Microsoft Windows or web-based program should be the standard versus antiquated, time-consuming, difficult mainframe based programs. Many of the procedures presently being performed by documenters, could easily be automated. This will lead to a more accurate document and less manhours and personnel necessary to accomplish the task.

In the final analysis, the ODCSPER’s Title X responsibility is to man the force with a soldier of the right skill and background, at the right time and place. Policy, budget and legal constraints imply the need for a balanced force structure in compliance with mandated requirements. Therefore, within the framework of the force structure documentation system, there will continue to be a need for personnel to ensure compliance with as many constraints as possible…namely, personnel to perform the functions of the Operations and Analysis Branch of the ODCSPER.
1) **Constraint**—Legal, budgetary, or other mandatory requirement placed on the production of force structure documents.

2) **Wedge**—A "wedge" is a logical, calculated estimate based on the most accurate and current force structure decisions. Its purpose is to bring the force structure document into compliance with budget, legal and policy requirements.

3) **TTHS**—The Trainees, Transients, Holdees, and Students (TTHS) accounts for those soldiers that are not readily available for assignment to authorized spaces in the operating force.

4) **End Strength**—Total Army End Strength (ES) is the sum of the Force Structure Allowance (FSA) and TTHS. The End Strength of the Army is set by law. However, the Army does have flexibility in the manner in which it sets the FSA and TTHS. It is important to note that ES is the total strength on the last day of the fiscal year. On any given day during the remainder of the fiscal year, the "actual" strength may vary tremendously from the end strength.

5) **Force Structure Allowance**—It is derived from subtracting the TTHS from the End Strength. This is the actual number of "spaces" available and it sets the maximum number of authorizations that will appear in the PMAD and other force structure documents.

6) **Spaces**—Refers to an authorization in a force structure document

7) **Faces**—Refers to an actual person filling an authorization

8) **PMAD**—Personnel Management Authorization Document

9) **MFORCE**—Master Force

10) **TAADS**—Total Army Authorization Documentation System

11) **WITA**—Women In The Army

12) **ODCSOPS**—Office of the Deputy Chief of Staff for Operations

13) **ODCSPER**—Office of the Deputy Chief of Staff for Personnel

14) **DCSPER**—Deputy Chief of Staff for Personnel

15) **DCSOPS**—Deputy Chief of Staff for Operations
BIBLIOGRAPHY

BOOKS


This regulation gives the Army's position on procedures for the assignment of women. It has some historical information and will be the primary source for information pertaining to Women In The Army (WITA) issues.


This pamphlet provides information on the classification of individuals by skill identifiers and positions. Also provides grading guidance to be used in both the requirements and authorization documents.


This is the source document that explains the Army's entire documentation system. It is the nuts and bolts of how the system is "suppose" to work. This regulation will be the gauge to see how the "actual" system is or is not in compliance with written/approved procedures.


More detailed look of how the documentation system should work. This regulation is a great source document for identifying agencies I can visit to get first-hand information as to the actual way the system works.

This book has a general overview of the force structure system and how it flows down to the unit level. It gives some general information that may be useful and double checking procedures.

**BRIEFINGS**


This briefing gives the latest status of Army force structure issues. It also details comparisons between the current ODCSPER force structure documents and the ODCSOPS. This brief will also assist in illustrating and explaining current force structure policy compliance.

**U.S. Army Deputy Chief of Staff for Personnel (DCSPER), 0005 Personnel Management Authorization Document (PMAD) Briefing. N.p., n.d.**

This briefing in conjunction with the 0009 PMAD brief helps to establish the "history" of what changes have occurred from document to document. It also help show some of the thought process behind the changes.

**U.S. Army Deputy Chief of Staff for Personnel (DCSPER), Changes in Non-commissioned Officer Structure (CINCOS) Briefings. N.p., n.d.**

This is a series of informational and update briefings presented by the CINCOS action officers in the Plans Division of the ODCSPER.
MEMORANDUMS

WITA


This memorandum gives the Secretary of Defense’s guidance on WITA. It is the initial source document for subsequent WITA actions.

Lister, Sara E., Assistant Secretary of the Army, Manpower and Reserve Affairs message to Director of the Army Staff, Subject: "Tables of Distribution and Allowances Positions". 31 July, 1996

Gives some of the details reasons behind the current Women in the Army (WITA) policy.


This is the Army’s response to the Secretary of Defense’s initial memorandum.

EOA

Vollrath, LTG F.E., Deputy Chief of Staff for Personnel Subject: “Equal Opportunity Advisors (EOA)”. 30 October, 1997.

Gives the Army’s guidance for the implementation of the mandatory changes to EOA authorizations.

INTERVIEWS

Thornton, Paul (LTC), ODCSPER Plans Division, Operations and Analysis, Branch Chief.
Served as primary source and subject-matter expert on present force structure documentation system as well as historical officer information.

Carty, Robert, ODCSPER Plans Division, Operations and Analysis, Senior Analyst.

Subject-matter expert on past NCO issues and AC/RC (Title XI requirements).

OTHER SOURCES


Provides background data on fiscal authorizations and how they are broken into different categories.


Primary sources for information pertaining to congressional requirements.


Information on AC/RC requirements.
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| Total FY99 | 48 |
| Total FY00 | 22 |

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| Total FY99 | 91 |
| Total FY00 | 42 |
These leader to leader calculations do not consider the impact of TTHS. While this table does support your comment that the ratio has been consistent overtime it does not support the 1:5.11 which is an inventory or allocation ratio not structure.