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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

AN ANALYSIS OF THE NAVY MANPOWER, PERSONNEL, TRAINING AND EDUCATION ARCHITECTURE

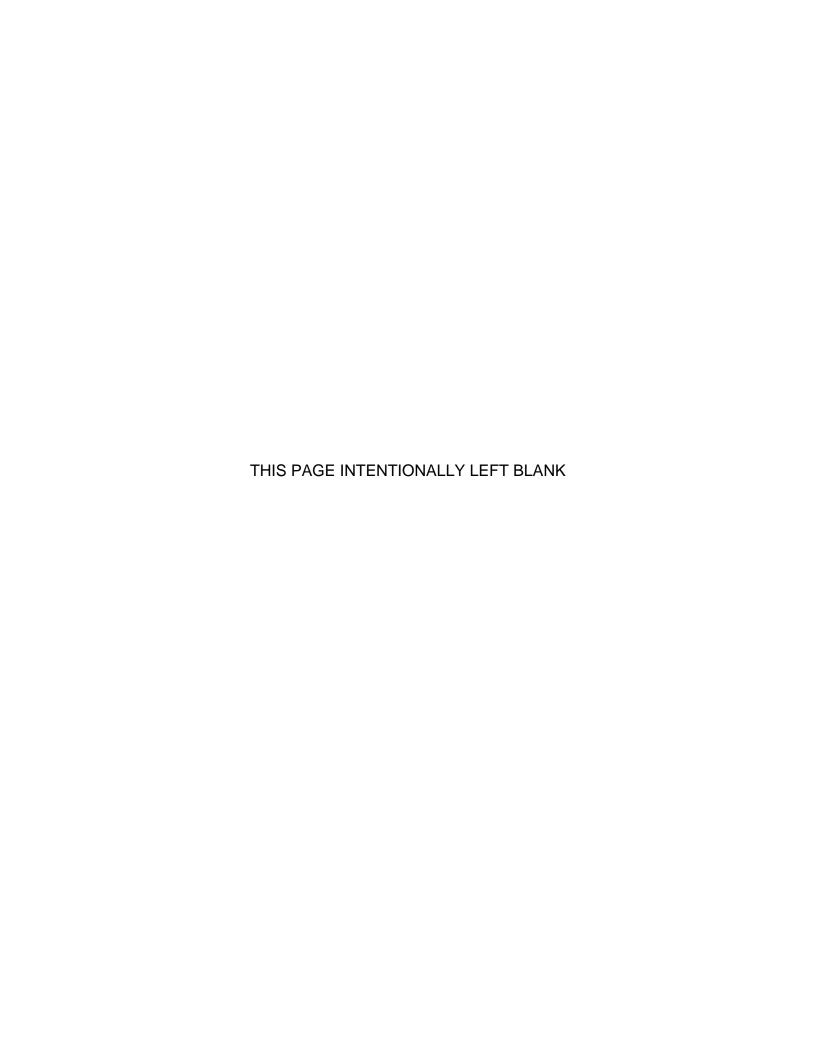
by

Ronald F. Kolpak III

March 2017

Thesis Advisor: William Hatch Second Reader: Benjamin Roberts

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This thesis examines the systems that make up the Manpower, Personnel, Training and Education (MPT&E) process in the United States Navy. The study identifies existing MPT&E system flows of input, throughput, output and outcomes, seeking opportunities to improve MPT&E training and education. While community specific MPT&E training exists on the Navy Education and Training Command (NETC) Learning Management System, E-Learning, there is no fleet-accessible general MPT&E training available to Sailors entering Manpower Billets. The only MPT&E course available that covers all aspects of MPT&E is the Naval Postgraduate School's (NPS) Graduate School of Business and Public Policy course MN2111: Seminar in Manpower, Personnel and Training I, which is only available to NPS students. To address this training and education gap, NPS should update the electronic version of MN2111 and have it posted by NETC on their E-Learning website.

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AN ANALYSIS OF THE NAVY MANPOWER, PERSONNEL, TRAINING AND EDUCATION ARCHITECTURE

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Lieutenant, United States Navy
B.S., Central Connecticut State University, 1998

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL March 2017

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ABSTRACT

This thesis examines the systems that make up the Manpower, Personnel, Training and Education (MPT&E) process in the United States Navy. The study identifies existing MPT&E system flows of input, throughput, output and outcomes, seeking opportunities to improve MPT&E training and education. While community specific MPT&E training exists on the Navy Education and Training Command (NETC) Learning Management System, E-Learning, there is no fleet-accessible general MPT&E training available to Sailors entering Manpower Billets. The only MPT&E course available that covers all aspects of MPT&E is the Naval Postgraduate School's (NPS) Graduate School of Business and Public Policy course MN2111: Seminar in Manpower, Personnel and Training I, which is only available to NPS students. To address this training and education gap, NPS should update the electronic version of MN2111 and have it posted by NETC on their E-Learning website.

TABLE OF CONTENTS

i	INTF	RODUC	CTION	1
	Α.	PUR	POSE	1
	В.	PRIN	MARY AND SECONDARY RESEARCH QUESTIONS	3
	C.	THE	STAKEHOLDERS	3
		1.	OPNAV N1—Chief of Naval Personnel	3
		2.	OPNAV N12—Total Force Manpower, Training, &	
			Education Requirements Division	4
		3.	OPNAV N13—Military Personnel Plans and Policy Division	4
		4.	Naval Personnel Command	4
		5.	Naval Education and Training Command	5
		6.	Navy Recruiting Command (NRC)	
	D.	BEN	EFITS OF THE STUDY	
	E.		HODOLOGY	
	F.	ORG	SANIZATION OF THE CHAPTERS	6
II.	LITE	RATU	RE REVIEW	9
	A.	OVE	RVIEW	9
	В.	DEF	ENSE MANPOWER MANAGEMENT (NPS)	11
		1.	History of the MPT Course	11
		2.	NPS MN2111: Seminar in Manpower, Personnel and	
			Training Course	11
	C.		Y MANPOWER AND PERSONNEL TRAINING (E-	
			RNING)	
	D.		IAVINST	14
	E.		VIOUS RESEARCH ON NAVY MANPOWER,	
		PER	SONNEL, TRAINING AND EDUCATION	15
		1.	An Analysis of Human Resource Officers in	
			Support of MPT&E Enterprise Management: A	
			Succession Management Plan for Human Capital	45
		•	Managers	15
		2.	Comparative Analysis of Navy and Marine Corps	
			Planning, Programming, Budgeting and Execution Systems from a Manpower Perspective	16
		3.	Deputy Chief of Naval Personnel, Rear Admiral J. B.	
		٥.	Hinkle	

	F.	MANPOWER STUDIES—CENTER FOR NAVAL ANALYSES			
	•	(CNA)	17		
	G.	NAVY ENTERPRISES: EVALUATING THEIR ROLE IN PLANNING, PROGRAMMING, BUDGETING AND			
		EXECUTION (PPBE)—RAND	17		
	Н.	WHITNEY, BRADLEY, AND BROWN (WBB)—MILITARY/	17		
	• • •	CIVILIAN MANPOWER, PERSONNEL, TRAINING &			
		EDUCATION (MPTE) COURSE	18		
	I.	NAVY MANPOWER ANALYSIS CENTER (NAVMAC)	18		
	J.	SUMMARY			
III.	THE	NAVY'S MPT&E SYSTEM	21		
	A.	INTRODUCTION	21		
	В.	MPT&E ENTERPRISE ORIGINS	22		
	C.	THE MPT&E SYSTEM ARCHITECTURE	23		
		1. Input	24		
		2. Throughput	25		
		3. Results			
	D.	SUMMARY	31		
IV.	THE	THE MANPOWER, RECRUITING, AND TRAINING AND			
	EDUCATION SUB-SYSTEMS OF THE MPT&E SYSTEM				
	A.	INTRODUCTION	33		
	B.	MANPOWER SUB-SYSTEM			
		1. Manpower Requirements Determination	33		
		2. Manpower Requirements Authorization	34		
		3. Manpower Programming End Strength			
		4. Manpower Programming PPBES	36		
	C.	PERSONNEL RECRUITING SUB-SYSTEMS	37		
	D.	TRAINING AND EDUCATION SUB-SYSTEM	39		
	E.	SUMMARY	40		
V.	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS				
	A.	SUMMARY			
	В.	CONCLUSIONS AND RECOMMENDATIONS			
	C.	FURTHER RESEARCH	46		
APP		A. OPNAVINST 1000.16L BREAKDOWN OF ENCLOSURES	•-		
	$\Delta N \Gamma$	SECTIONS	49		

APPENDIX B. MPT&E MODELS	57
LIST OF REFERENCES	65
INITIAL DISTRIBUTION LIST	67

LIST OF FIGURES

Figure 1.	MPT&E System Architecture Wire Diagram2
Figure 2.	The MPT&E Enterprise—Life Cycle. Source: DON (2016b)9
Figure 3.	Organizational Systems Framework (OSF) Model. Source: Hatch (2016c, slide 7)10
Figure 4.	Manpower Management Overview. Source: Hatch (2016b)21
Figure 5.	Origin of Manpower Management. Source: Hatch (2016b)22
Figure 6.	How Budget Requests Become Appropriated. Source: Hatch (2016c, slide 5)23
Figure 7.	Manpower Sub-processes. Source: Hatch (2016c, slide 20)24
Figure 8.	Manpower Players. Source: Hatch (2016c, slide 21)27
Figure 9.	Manpower Documents. Source: Hatch (2016c, slide 22)28
Figure 10.	Manpower Information Systems. Source: Hatch (2016c, slide 23)
Figure 11.	The Force, as of FY 2016. Source: Hatch (2016c)30
Figure 12.	Executing the Guidance set forth in the National Military Strategy. Adapted from DON (2016a)
Figure 13.	Navy Manpower, Personnel, Training, and Education System. Source: Hatch (2016c, slide 8)32
Figure 14.	Resource Sponsors Model. Source: Hatch (2016c, slide 173) 34
Figure 15.	Navy Manpower Requirements. Source: Hatch (2016c, slide 176)
Figure 16.	Navy Total Force Requirements. Source: Hatch (2016c, slide 181)
Figure 17.	End Strength Equation. Source: Barry & Gillikin (2005, p. 43) 36
Figure 18.	Planning, Programming, Budgeting, & Execution System Model. Source: Hatch (2016c, slide 82)37

Figure 19.	The Current Recruiting Environment. Source: Hatch (2016c, slide 113)38
Figure 20.	The Recruiting System Model. Source: Hatch (2016c, slide 182)
Figure 21.	Naval Education & Training Command Model. Source: Hatch (2016c, slide 183)40
Figure 22.	Manpower Requirements and Programming Summary. Source: Hatch (2016c, slide 157)41
Figure 23.	NETC Learning Management System (eLearning). Source: "My Learning" (Enrolled Courses section, n.d.)
Figure 24.	US Navy MPT&E System Model. Source: Hatch (2016b)57
Figure 25.	Resource Sponsors Model. Source: Hatch (2016b)57
Figure 26.	Budget Submitting Offices Model. Source: Hatch (2016b) 58
Figure 27.	Navy Manpower Analysis Center Model. Source: Hatch (2016b)
Figure 28.	Navy Manpower Requirements Model. Source: Hatch (2016b)59
Figure 29.	Fleet Manpower Requirements Model. Source: Hatch (2016b)59
Figure 30.	Shore Manpower Requirements Model. Source: Hatch (2016b)
Figure 31.	Total Force Requirements Division Model. Source: Hatch (2016b)60
Figure 32.	Planning, Programming, Budgeting, & Execution Model. Source: Hatch (2016b)61
Figure 33.	Military Personnel Plans & Policies Model. Source: Hatch (2016b)61
Figure 34.	The Recruiting System Model. Source: Hatch (2016b)62
Figure 35.	Naval Education & Training Command Model. Source: Hatch (2016b)62
Figure 36.	Naval Personnel Command Model. Source: Hatch (2016b)63

Figure 37.	Enlisted Placement Management Center Model. Source: Hatch (2016b)6	:3
Figure 38.	Manning Control Authority Model. Source: Hatch (2016b)6	4
Figure 39.	Commander Naval Reserve Force Model. Source: Hatch (2016b)6	5 4

LIST OF ACRONYMS AND ABBREVIATIONS

AILE Afloat Integrated Learning Environment

AMO Aviation Maintenance Officer
BSO Budget Submitting Offices
BUPERS Bureau of Naval Personnel

CFRC Commander Fleet Readiness Center

CMS Career Management System
CNA Center for Naval Analyses

CNET Chief of Naval Education and Training

CNO Chief of Naval Operations
CNP Chief of Naval Personnel

CNRC Commander Navy Recruiting Command

DOD Department of Defense

DON Department of Navy

EDUR Enlisted Distribution Verification Report
EPA Enlisted Programmed Authorization

EPMAC Enlisted Placement Management Center

FLTMPS Fleet Training Management and Planning System

FMD Fleet Manpower Documents

FY Fiscal Year

FYDP Future Years Defense Plan

HR Human Resources

INM Intro to Navy Manpower

LMS Learning Management System

MFT Mission, Function, Task
MPN Military Personnel Navy

MPT Manpower, Personnel, and Training

MPT&E Manpower, Personnel, Training and Education

MRD Manpower Requirements Determination

MSA Manpower Systems Analysis

NAVMAC Navy Manpower Analysis Center

NeL Navy E-Learning

NETC Navy Education and Training Command

NETPDTC Naval Education & Training Professional Development &

Technology Center

NITRAS Navy Integrated Training Administrative Resources System

NMRS Navy Manpower Requirements Center

NPC Naval Personnel Command
NPS Naval Postgraduate School
NRC Navy Recruiting Command

NTRS Navy Training Reservation System
OPA Officer Programmed Authorization

OPNAV Office of the Chief of Naval Operations

OPNAVINST Office of the Chief of Naval Operations Instruction

OSF Organizational Systems Framework

PPBES Planning Programming Budgeting Execution System

ROC/POE Required Operational Capability/Projected Operational

Environments

RTC Recruit Training Center
SECDEF Secretary of Defense

SMD Ships Manpower Documents

SMR Shore Manpower Requirements
SQMD Squadron Manpower Documents

T & E Training and Education

TFMMS Total Force Manpower Management System

TOA Total Obligated Authority

USN United States Navy

WBB Whitney, Bradley, Brown Inc.

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I first and foremost give all thanks to God. I also thank my wife and children for making yet another sacrifice as I complete another milestone in my military career. This thesis would not be possible without the amazing mentorship, support, encouragement, and guidance of Professor William Hatch and Professor Benjamin Roberts. I will forever hold you both in high regard. Lastly, I thank my colleagues and classmates.

I. INTRODUCTION

As we look toward the future, our challenge will be even greater. The rapid pace of technological change and the transforming battle environment will demand innovative approaches to management and good stewardship of personnel resources. We must be both effective and resourceful in our efforts to provide the most capable Naval Force. People remain at the heart of all we do. Our commitment to excellence in personnel management will allow us to achieve the maximum war fighting capability and provide more opportunity to develop our capital asset—our Sailors and Marines!

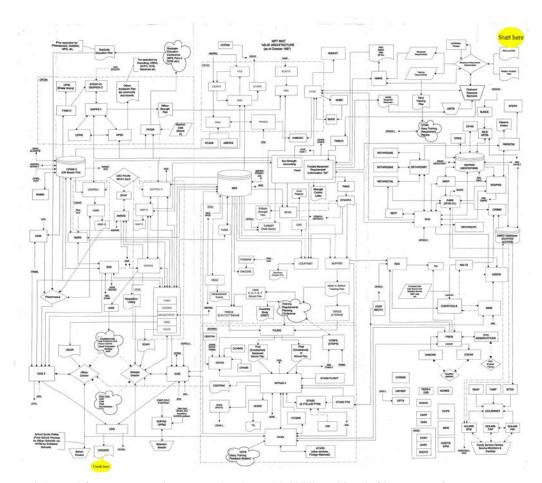
—Michael C. Bachmann, Rear Admiral, USN Ret. ("Introduction," n.d.)

A. PURPOSE

This thesis examines the Manpower, Personnel, Training and Education (MPT&E) system in the United States Navy. As Figure 1 demonstrates, the system is a large enterprise with many sub-processes. Much like a computer or multi-processor server has the capability to take input, process that input in many different applications, and provide output all while processing many tasks at once, so does the MPT&E system. The study identified existing MPT&E process flows by means of input, throughput (processing), output, and outcomes; reviews available training and education on MPT&E; and provided areas for improvement in training and education.

The United States Navy manages the "Total Force" through a myriad of processes. In order to better examine these processes and the role each process plays in the larger MPT&E system, an examination of the system as a whole and each sub-process of Manpower, Personnel, and Training and Education is required. Currently, the Navy does not have a general MPT&E course available to the fleet in real time (as courses in the Navy's e-Learning portal are) that would allow Sailors being assigned to MPT&E billets to receive training prior to

arrival. In reality, Sailors are assigned MPT&E billets with minimum to no prior training or education.



Adapted from personal communication with William Hatch (June 2016).

Figure 1. MPT&E System Architecture Wire Diagram.

The Figure 1 MPT&E system, developed by Dr. R Niehaus, former CNO TECH DEP-IRM/IT (N120G), 1997, has a multitude of processes that would benefit from the availability of a learning management system (LMS). The aim of this research is to identify if a LMS can be used to establish a common baseline understanding of manpower, personnel, training, and education. "A learning management system (LMS) is a software application for the administration, documentation, tracking, reporting and delivery of electronic educational technology (also called e-learning) courses or training programs," ("Learning

management system," n.d.). Could a single learning system improve learning and reduce the time required for new human resource managers to acquire the big picture role of Total Force in today's Navy. This vision would be designed with the intent to improve mission and personnel effectiveness.

B. PRIMARY AND SECONDARY RESEARCH QUESTIONS

Primary Question

1. Does a common MPT&E LMS System exist to support "high velocity" learning?

Secondary Questions

- 1. How would an MPT&E LMS be made available to Total Force Human Resources Managers?
- 2. Who comprises the MPT&E enterprise of Human Resource Managers?
- 3. How does the Navy enterprise conduct MPT&E training and education now, and what has been done in the past?

C. THE STAKEHOLDERS

1. OPNAV N1—Chief of Naval Personnel

The U.S. Navy's official website explains that "The Chief of Naval Personnel (CNP) is a three-star admiral responsible to the Chief of Naval Operations (CNO) for the Navy's manpower readiness," (Department of the Navy [DON], 2017). In the MPT&E domain, the CNP provides the role of oversight, sets strategic priorities, and policy. The Bureau of Naval Personnel (BUPERS), Navy Personnel Command (NPC), and the Navy Manpower Analysis Center (NAVMAC) directly report to the CNP. As the U.S. Navy's second in command to the CNO, the CNP also plays the role of Deputy Chief of Naval Operations (MPT&E/N1).

2. OPNAV N12—Total Force Manpower, Training, & Education Requirements Division

The Total Force Manpower, Training, & Education Requirements Division (N12) is responsible for implementing policy, development, planning and programming concerning Navy manpower requirements determination. N12 releases the CNO's **OPNAVINST** 1000.16 series via doni.documentservices.dla.mil/ and has authority to "issue additional policy or technical guidance to achieve the objectives of the instruction" (DON, 2016, p. 2). Described in more detail in the next chapter, OPNAVINST 1000.16L is the authoritative instruction for all Navy Total Force Manpower Policies and Procedures. N12 is stated as a responsible office in all 9 sections of OPNAVINST 1000.16L.

3. OPNAV N13—Military Personnel Plans and Policy Division

The Military Personnel Plans and Policy Division (OPNAV N13) "develop[s] and issue[s] military personnel plans and policies, monitor[s] adherence to ensure attainment of fiscal and end strength objectives, and plan[s] and direct[s] the career management and progression of Regular Navy personnel" (Barry & Gillikin 2005, p. 56). Commander Navy Recruiting Command (CNRC) recruiting goals and Naval Education and Training Command (NETC) training quotas are directly impacted by N13 plans and policies.

4. Naval Personnel Command

The Naval Personnel Command (NPC) is responsible for naval personnel distribution and assignment, as well as Sailor welfare. NPC hosts www.public.navy.mil/bupers-npc/Pages/default.aspx, which is a one-stop repository of all matters of manpower topics, to include:

- Boards (Administrative, Selection, Screening, etc.)
- Career Info
- Officer Community Management and Detailing

- Enlisted Billet Based Distribution, Career Management System (CMS) Interactive Detailing (ID), Community Management, Detailing, and Placement
- Support and Services
- Organization Information
- Reference Library

5. Naval Education and Training Command

The Naval Education and Training Command is responsible for Training Management, and utilizes LMSs to "provide training to sailors in various training courses. According to the Navy Training Transformation website, it also:

- Tracks and allows bookmarking of lesson screens
- Records testing and course completion
- Stores, manages and distributes training course to any individual capable of accessing Navy E-Learning (NeL) or Afloat Integrated Learning Environment (AILE) ("What is an LMS?," n.d.)

6. Navy Recruiting Command (NRC)

NRC is responsible for attracting, vetting, and contracting new personnel into the Navy. N13 provides NRC the accession plan and goals for a fiscal year, and NRC constructs and executes a recruiting plan to meet those goals. The Navy Recruiting Command's website describes their mission as "Leverage an inspirational culture to inform, attract, influence and hire the highest quality candidates from America's diverse talent pool to allow America's Navy to assure mission success and establish the foundation for Sailors to thrive in a life-changing experience" ("Navy Recruiting Command," Mission section, n.d.). In an all-volunteer force, CNRC is a critical component of the MPT&E system by assuring continuous flow of new personnel.

D. BENEFITS OF THE STUDY

The primary benefit of this study is to provide an online instrument for Navy personnel to establish an entry level understanding of the MPT&E process.

The MPT&E process within the Navy is primarily executed by officers, enlisted, and civil servants and contractors. It is generally accepted that each of these individuals has an in-depth understanding of his or her own assigned infrastructure. The Navy will benefit from personnel who have a broader understanding of what the MPT&E process is and how it is conducted. These educated Sailors or civilians would then be able to run their assigned subprocess more efficiently and be able to improve that process where applicable.

E. METHODOLOGY

This thesis is primarily a qualitative analysis of the MPT&E enterprise and available learning management information systems. A thorough literature review was conducted through analysis of existing documents or websites providing description, analysis, or reports of the Navy MPT&E process. Specifically, previous research on MPT&E and existing MPT&E training and education, hosted on LMSs, or otherwise was used extensively. Primary sources of information were provided by Navy websites, electronic courses, NPS MSA class material, articles, journals, and research reports.

F. ORGANIZATION OF THE CHAPTERS

The chapters of this thesis are structured as follows:

- Introduction: This chapter provides the reader with a general overview of the purpose, research questions, stakeholders, benefits of the study, and methodology, as it applies to the Navy MPT&E enterprise.
- Literature Review: A breakdown of the most important readings, contributing to this thesis is provided in this chapter. An explanation of how the systems model is used as an analysis tool for the MPT&E enterprise is provided in this chapter, as well.
- The Navy MPT&E System: Chapter three contains a general description of DOD Manpower, followed by a more detailed look at Navy MPT&E input, throughput, and results.

- The Manpower, Recruiting, and Training and Education Sub-Systems of the MPT&E System: Details of three major subsystems of the MPT&E enterprise are presented in Chapter IV.
- Summary, Conclusions, and Recommendations: The primary and secondary research questions are answered by means of conclusions and recommendations for each question. A brief summary of areas of further research are presented to identify new found topics to study and identify research outside the scope of this thesis.

II. LITERATURE REVIEW

A. OVERVIEW

Merriam-Webster defines a system as "a regularly interacting or interdependent group of items forming a unified whole," ("System," n.d.). As demonstrated in Figure 1, the U.S. Navy's Manpower, Personnel, Training, and Education (MPT&E) system is complex and comprised of many processes, tasks, actions, and operations. To achieve an understanding of this system, previous research and class material provided by the Manpower Systems Analyses (MSA) curriculum is used extensively. Figure 2 assists the MPT&E education process by using a Life Cycle model to simplify the MPT&E enterprise.

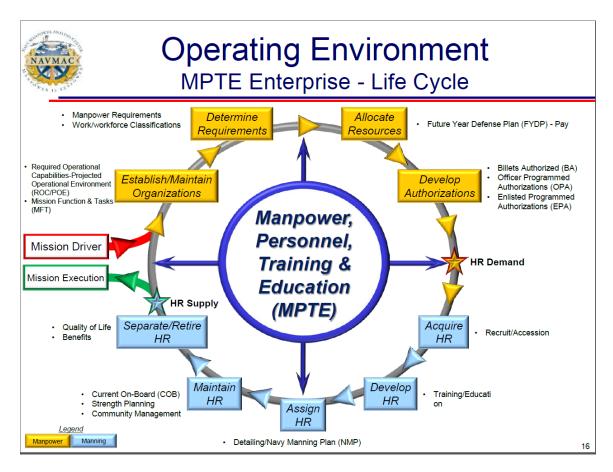


Figure 2. The MPT&E Enterprise—Life Cycle. Source: DON (2016b).

The single common model utilized as an analysis tool for the MPT&E system is the Organizational Systems Framework (OSF) Model, which describes an organization as a system. According to Damian Wilborne and Sarah Sharpe in their December 2005 thesis titled "Business Organizational Systems Framework Model Applicability and Analysis," the OSF model "gives a comprehensive analysis of all of the factors of inputs, throughput, results and how they all relate to each other," (p. 2). Figure 3 provides a graphical representation of the OSF model.

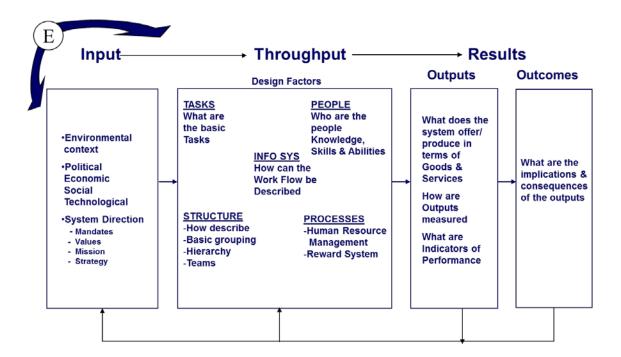


Figure 3. Organizational Systems Framework (OSF) Model. Source: Hatch (2016c, slide 7).

Circa 1999~2000, Rear Admiral J. B. Hinkle was extremely influential in recognizing the need for MPT&E training and provided the first initiatives to create a course and appropriate funding for the training. However, after completing an in depth review of currently available Navy MPT&E courses in 2017; it was revealed that most of these courses present MPT&E as community specific, rather than Navy specific. For example, the courses offered on the Navy

Education and Training Command (NETC) Learning Management System (LMS), better known as "E-Learning," are tailored to the Aviation Maintenance Officer (AMO) community, Chaplain Corps, and Personnel Specialists. One course, titled "Navy Manpower and Personnel Training," offers a trimmed down version of the Defense Manpower Course offered at the Naval Postgraduate School (NPS). None fully satisfy training and education of the entire MPT&E process for the Navy as a whole.

B. DEFENSE MANPOWER MANAGEMENT (NPS)

1. History of the MPT Course

In 2000, the Deputy Chief of Naval Personnel and Commander, Navy Personnel Command, Rear Admiral John B. Hinkle tasked his staff to approach NPS to develop and teach a course on Manpower, Personnel, and Training (MPT) during FY-2000. Rear Admiral Hinkle stated in a memo dated 10 Aug 00, that "after many years of working in and around the MPT enterprise, I saw a definite need to develop a program of instruction that would introduce newly reporting personnel to the MPT enterprise as well as provide refresher training to our senior members," (Hinkle 2000, p. 1). The course was a tremendous success, and the CNP committed funds to sponsor the course into FY-01. At that time, the course was taught in a class room for three days, either in Millington, TN, or Washington, DC, to over 238 personnel from "Naval Personnel Command (NPC), Commander Fleet Readiness Center (CFRC), Navy Manpower Analysis Center (NAVMAC), Enlisted Placement Management Center (EPMAC), and Chief of Naval Education and Training (CNET)," (Hinkle 2000, p. 1). "I firmly believe this training program is having a far reaching, positive impact on the MPT enterprise," (Hinkle, 2000, p. 2).

2. NPS MN2111: Seminar in Manpower, Personnel and Training Course

Upon completion of this literature review, there was no doubt that the workbook provided by Professor Bill Hatch in his course NPS MN2111: Seminar

in Manpower, Personnel and Training I (FA16_BH) was above and beyond the single best resource for Navy MPT&E. Developed by Professor Hatch for his Manpower students in order to fill a gap identified by senior Navy officials, the "Defense Manpower Management" (2016) workbook provides the foundation and reference for the Manpower novice. As stated, "the manpower objective is to build a foundation for you to increase your knowledge of how the Military Manpower Management Enterprise works," (Hatch, 2016a, p. 2). The *Defense Manpower Management* material is not Navy-community specific, but is rather a generalized approach to fostering an understanding of the whole Navy MPT&E system.

The course, also created by Hatch, and accompanying workbook takes the Manpower student through:

- (a) Manpower (Spaces)
- Identify the Mission
- Determine Requirements
- Authorize Requirements
- Create AMD
- (b) Personnel (Faces)
- Strength Plans
- Inventory
- Distribution
- Current on-board

Key takeaways, taken from page 171 of Hatch's workbook, are:

- Fiscal constraints restrict the Services from authorizing (buying) all the manpower requirements specified
- The Chief of Personnel and Resource Managers must choose the amount of mission/workload to fund

- Operational Commanders must choose which requirements to authorize (by skill and paygrade)
- Estimates for future Manpower Requirements is conducted by capability (2016a, p. 171)

Carrying the mission of teaching MPT&E forward from Rear Admiral Hinkle's original idea, more than 450 NPS students have completed the NPS MN2111: Seminar in Manpower, Personnel and Training course, taught by one professor, one time per year, since 2000. MN2111 is followed up by MN4119: Navy Manpower Requirements Process (SU16_BH), which continues the education tract with exercises and projects designed to have the learner demonstrate applied concepts learned in the MN2111 course.

C. NAVY MANPOWER AND PERSONNEL TRAINING (E-LEARNING)

Available to all Navy Personnel with access to E-Learning, the Navy Manpower and Personnel Training course is a web-based and self-paced way to learn the basics of Manpower, Personnel, and Training (MPT), with a concentration on the aviation community. As stated in the course description, the objectives of the course for the learner are:

- Explain the importance of his/her position in the success of Navy operations.
- 2. Explain the significance of the Manpower Manager.
- 3. Identify the Purpose of Manpower and Personnel System.
- 4. Identify how Manpower and Personnel Management achieves its goals. ("Objectives section," n.d.)

Students who complete the course will understand that:

- The OPNAVINST 1000.16 series provides the policies and procedures needed to manage the requirements and authorizations of Total Force manpower.
- The Enlisted Distribution Verification Report (EDVR) and the Fleet Training Management and Planning System (FLTMPS) are the two most relevant reports and systems for Personnel Management at the Unit level.

- The two most important documents for Squadron Manpower Management are the Squadron Manpower Documents (SQMD) and the Required Operational Capability/Projected Operational Environments (ROC/POE).
- "Training requirements are generated by customer organizations (COCOM's, Type Commanders, Enterprises, Agencies, and other services, etc.)," (NM&PT course feedback on Pre-Test Question 4).
- NAVMAC is the decider for Fleet Manpower Requirements, and conducts the manpower review of all Navy Units. (Objectives section, n.d.)

D. OPNAVINST

The Chief of Naval Operations (OPNAV) Instruction 1000.16L provides guidance on Navy Total Force manpower policies and procedures. Specifically, the instruction provides guidance for Navy policy concerning manpower determination requirements, as required by federal law. The purpose of OPNAVINST 1000.16L, as stated in paragraph 1, is "to establish policy and procedures required to develop, review, approve, implement and update Total Force manpower requirements and authorizations for all naval activities," (Department of the Navy, 2015, p. 2). OPNAVINST 1000.16L is also a resource for the Manpower process:

This instruction is a general reference and procedural tool for all personnel engaged in manpower requirements determination (MRD) and approval. It defines and explains the overall manpower management process as they pertain to the Navy's Total Force. It establishes the general roles and responsibilities and provides universal manpower requirements overview as well as specific requirements for sea and shore billets. It also provides descriptions of MRD rules and manpower programming, reprogramming and authorizations. (Department of the Navy, 2015, p. 3)

Authority is granted by the 1000.16 series to the "Office of the Chief of Naval Operations, Total Force Manpower, Training and Education Requirements (OPNAV (N12)) which has the authority, within the scope of this instruction, to issue additional policy or technical guidance to achieve the objectives of the instruction," in Section 2, Total Force MRD, under the topic of "Manpower

Quality," (Department of the Navy, 2015, p. 3). OPNAVINST 1000.16L states that "Manpower requirements must be identified in the AMD providing the required information to the manpower, personnel, training, and education (MPT&E) processes through the applicable systems (recruiting, accessing, training, educating, and distributing) and throughout the supply chain," (Department of the Navy, 2015, p. 21).

E. PREVIOUS RESEARCH ON NAVY MANPOWER, PERSONNEL, TRAINING AND EDUCATION

1. An Analysis of Human Resource Officers in Support of MPT&E Enterprise Management: A Succession Management Plan for Human Capital Managers

Seeking process improvements, John C. Barry and Paul L. Gillikin employed an Organizational System Framework (OSF) model in an analysis of Navy manpower, personnel, and training systems and the Marine Corps Human Resources Development Process. Of particular interest to this thesis was their third chapter, on Navy Manpower, Personnel, and Training (MPT) Systems. "Ultimately, the MPT system translates the National Security Strategy to program and fund the correct number of sailors with the right qualifications and experience to specific assignments in preparation for war and support of peacetime personnel readiness levels" (Barry & Gillikin, 2005, p. 43). Each of the four processes of the MPT systems (Manpower Requirements, Manpower Programming, Personnel Planning, and Personnel Distribution), as well as the sub-processes, players, documents, and information system components of each, was analyzed using OSF.

In summary, Barry and Gillikin concluded that while "complex and inefficient," the system works and has for decades. "The Navy MPT system is not a sequential system that operates in a specific order, nor is it easy to understand it fully," (Barry & Gillikin, 2005, p. 61). Taking a look at the MPT architecture of October 1997 (Figure 1), there can be no argument concerning the complexity of the system. However, "the MPT system supports the Navy's requirement for high

personnel readiness while attracting, training, developing and retaining the right amount of sailors (Barry & Gillikin, 2005, p. 61).

2. Comparative Analysis of Navy and Marine Corps Planning, Programming, Budgeting and Execution Systems from a Manpower Perspective

In September 2007, Derrick E. Blackston "examined the Human Resource (HR) community's ability to effectively manage its human capital (active duty officers) and to establish this as the foundation for value creation," (Abstract). The purpose of his research was:

to critically analyze the existing systems and processes used to educate, train and prepare HROs to conduct the business of the MPT&E enterprise within the United States Navy. Critical in the process is an examination of the alignment of the existing systems with respect to the strategic goals of the Navy. Finally, recommendations were made to increase the effectiveness of the process and improve its relevance to the strategic goals of the organization. (Blackston, 2007, p. 3)

Blackston's thesis discovered mismatches in the assignment of 1200 HR Officers to billets, based on qualification. Specifically, the occupation mismatches were in designator, grade, and sub-specialty codes, suggesting that these metrics were not a high value in the placement determination. "This research further identified critical control points whereby the HR community manager could leverage considerable change within the system in order to gain the desired effects of a stable succession-management plan" (Blackston, 2007, p. 62). This would allow the HR community to break old stereo-types of being professional "N1" Department Heads, and utilize successive tours in MPT&E billets to grow the value of the HR community and known Manpower Managers.

3. Deputy Chief of Naval Personnel, Rear Admiral J. B. Hinkle

In 1999, Rear Admiral Hinkle directed his Training and Education Division (PERS-015) to conduct a needs analysis. The panel conducting the analysis was

comprised of members from CNO, CNET, Reserve Forces Command, Recruiting Command, NAVMAC, EPMAC, and other subordinate N-Codes of NPC. This panel defined the training requirements that became the three-day course developed by NPS and taught from FY-00 to FY-01. This early MPT course was taught in fleet concentration areas around the United States for two years before being canceled due to loss of funding.

F. IMPROVED FORECASTING METHODS FOR NAVAL MANPOWER STUDIES—CENTER FOR NAVAL ANALYSES (CNA)

Forecasted manpower inventory, the number of individuals available in a given time period, are derived from stay/loss models, where estimates of the probability of staying in the navy informs the advancement and gains modules used within the Department of the Navy...As such, the accuracy of these probability rates is critical to these related functions. Extending an earlier study, we focus on two methodologies, autoregressive and logistic methods, and consider the effect of structural changes on forecast accuracy. (Ballamy & Blackstone, 2015, Abstract)

Overall, the results show that controlling for structural breaks to improve the accuracy of forecasts is mixed. What is important to note is that there is no one methodology or model with consistently superior performance...Forecasting models and methodologies should be tailored to the data. (2015, p. 23)

G. NAVY ENTERPRISES: EVALUATING THEIR ROLE IN PLANNING, PROGRAMMING, BUDGETING AND EXECUTION (PPBE)—RAND

RAND Corporation conducted research to determine the Navy Enterprise organizational participation in the PPBE system. "The objectives of this research were to (1) identify and describe current participation of organizations in PPBE and (2) identify and evaluate potential alternatives for participation," (Riposo, Blickstein, Friel & Fell, p. xi). Evaluations of available documentation, along with "extensive interviews with nearly twenty senior leaders throughout the Navy," (Riposo et al., 2009, p. xi), allowed RAND to complete their objectives. The results did not produce a preferred option for participating in the PPBE system, which lead RAND to recommend that further research should be conducted. In conclusion, RAND recommends that "efforts should be made to foster the

benefits of participation observed and to pursue ways to evaluate the cost of such participation" (Riposo et al., 2009, p. xiii).

H. WHITNEY, BRADLEY, AND BROWN (WBB)—MILITARY/CIVILIAN MANPOWER, PERSONNEL, TRAINING & EDUCATION (MPTE) COURSE

Whitney, Bradley, and Brown (WBB) Inc., a business management consultant in Reston, Virginia was contracted to teach the Navy MPT three-day course designed by Rear Admiral Hinkle's staff and NPS. In the two years WBB conducted this training in the major fleet concentration areas, more than 800 students were trained. As described on the WBB webpage:

The course provides a working knowledge of the MPTE system, its relationship with the planning, programming, budgeting and execution (PPBE) system, and how the process can be influenced. It is useful to anyone who develops or executes policy, carries out MPTE activities, manages human resources, or leads people. Course curriculum can be customized to focus on client specifications. ("Military/Civilian Manpower, Personnel, Training & Education," Courses offered section, n.d.)

I. NAVY MANPOWER ANALYSIS CENTER (NAVMAC)

The NAVMAC Mission Statement is: "We define, translate, and classify the Navy's work into a workforce structure and position demand signal to sustain a combat ready force" ("Navy Manpower Analysis Center," n.d.). NAVMAC determines manpower workload capabilities required to run Navy platforms, factoring minimum skill, pay grade, and quantity required to "accomplish 100% of mission in a defined scenario," (Hatch, 2016c, p. 35). According to the NAVMAC Vision Statement listed on their website, they are the leader in manpower solutions. The four core Manpower Functions provided by NAVMAC are "Occupational Classification, Manpower Requirements Determination (MRD), Total Force Management, and Manpower Business Requirement Governance," ("Navy Manpower Analysis Center," Four Core Manpower Functions section, n.d.). In the late 1990s, NAVMAC hosted a "Into to Navy Manpower" (INM) self-

paced desktop computer course, which no longer exists due to budget cuts and replacement by Rear Admiral Hinkle's MPT course taught by WBB Inc.

J. SUMMARY

What Rear Admiral Hinkle identified in 1999, holds true today. All personnel working in the MPT&E enterprise need a training and education resource that allows them to 1) enter the MPT&E enterprise with basic competence, and 2) maintain proficiency by being able to access MPT&E training and education resources as they become more senior. The Naval Postgraduate School's MN2111: Seminar in Manpower, Personnel and Training course is the premier education tool available, but is not currently accessible to Sailors or Civilian personnel not assigned as a student at NPS. While Department of the Navy personnel have access to NETC's LMS, E-Learning, there are no courses currently available that train the MPT&E enterprise as a whole, and without community bias.

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III. THE NAVY'S MPT&E SYSTEM

A. INTRODUCTION

To better understand the Manpower, Personnel, Training, and Education (MPT&E) system, a thorough investigation of the flow through the system architecture is conducted in this and the following chapter. In this chapter, an overview of manpower management is provided to give the reader a macro view of the system, while a micro view of three major sub-systems is provided in Chapter four. NPS course material from MN2111 and MN4119 is used extensively to support explanations and interpretations, as there is currently no better source. A basic understating of the Navy Manpower enterprise will provide the background required to interpret the findings of this research: "If we understand the language, the systems, and the processes of manpower management; and if we understand the cause and effect of our actions, then we are more likely to obtain the results we seek" (Hatch, 2016c, slide 2). Figure 4 shows the MPT&E process in its most general form.

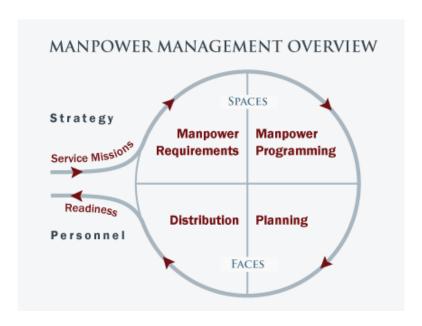


Figure 4. Manpower Management Overview. Source: Hatch (2016b).

The Manpower Management circle of life model, with four primary subsystems working together, transforms strategic service missions into personnel readiness.

B. MPT&E ENTERPRISE ORIGINS

The Input for the MPT&E systems model originates from National Security Strategy, National Military Strategy, and the Service Missions of each branch, as demonstrated in Figure 5.



Figure 5. Origin of Manpower Management. Source: Hatch (2016b).

Each service must submit budget requests to Congress and the President, who in return provide appropriations through the Secretary of Defense (SECDEF) to the Service Secretaries. Figure 6 provides a graphical representation of how budget requests from the Chief of Naval Personnel (CNP) become appropriated.

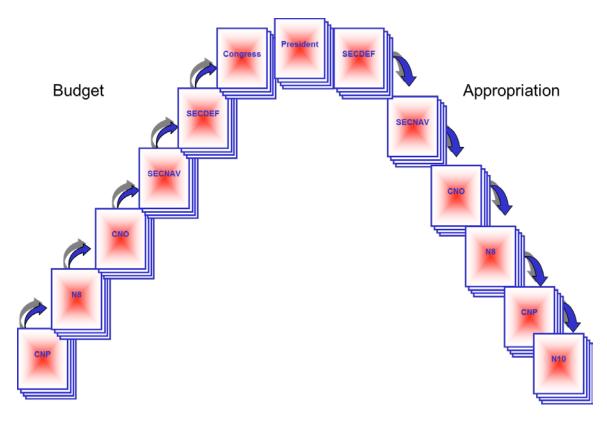


Figure 6. How Budget Requests Become Appropriated. Source: Hatch (2016c, slide 5).

In An Analysis of Human Resource Officers in support of MPT&E Enterprise Management: A Succession Management Plan for Human Capital Managers, Barry and Gilikin said: "Ultimately, the MPT system translates the National Security Strategy to program and fund the correct number of sailors with the right qualifications and experience to specific assignments in preparation for war and support of peacetime personnel readiness levels" (Barry & Gilikin, 2005, p. 43).

C. THE MPT&E SYSTEM ARCHITECTURE

In order to understand all of the system components, the variables should be isolated using a systematic methodology when conducting systems analysis. Professor Bill Hatch describes the MPT&E system with the following:

Manpower management consists of several processes and is akin to manufacturing or production systems, specifically; the Manpower

Management process is comprised of Sub-processes, Players (organizations), Documents, and Information Systems.

The system is intended to provide trained sailors in the proper numbers, assign them to jobs to meet planned and emerging fleet needs, and do this within budgetary, legal, and policy constraints. (Hatch, 2016c, slide 18)

The circle of life model in Figure 7 breaks the quadrants from inside the circle used in Figure 4 and includes the process, task, action, operation, or document correlating to each outer-label inside the circle. Specifically, Figure 7 depicts the Manpower Sub-processes in the requirements, programming, planning and distribution categories.

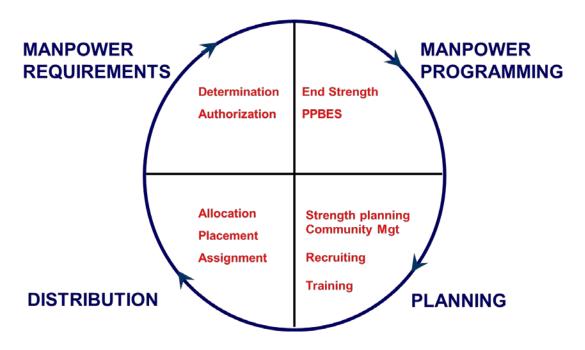


Figure 7. Manpower Sub-processes. Source: Hatch (2016c, slide 20).

1. Input

Guided by the National Military Strategy, the CNO builds platforms capable of achieving assigned DON missions. "Under CNO's guidance, Navy missions are assigned to individual Resource Sponsors to execute the greater

National Military Strategy and National Security Strategy through the Required Operational Capability & Projected Operational Environment statement (ROC/POE) documents used to execute various platform design capabilities in anticipated wartime environments" (Barry & Gilikin, 2005, pp.44–45). The ROC/POE and the Mission, Function, Tasks documents are used by the Navy to present their budget request up the chain of command, as described in the MPT&E enterprise origins section. The claimants/resource sponsors send the demand signal for manpower needs based off of the ROC/POE.

2. Throughput

The four sub-processes that comprise the MPT&E Enterprise are depicted in Figure 8 as a circle of life model

a. Tasks

In the Throughput phase of the system, there are two primary tasks, each with two sub-tasks, 1) Manpower a. Requirements and b. Programming; and 2) Personnel a. Planning and b. Distribution.

b. Manpower Requirements and Programming

The Navy Manpower Analysis Center (NAVMAC) conducts the Manpower Requirements Determination, which is the first decision point in the system. The MRD provides input to both manpower requirements and training requirements, which feeds output to documents, such as the Ship Manpower Document (SMD), the Squadron Manpower Document (SQMD), and the Fleet Manpower Document (FMD). As the manpower demand signal pulses through the system, the next process is funding. Funding is determined by authorization from the Chief of Naval Personnel (CNP) and from Budget Submitting Offices (BSO). You can find current and historical manpower information, including requirements, authorizations, and end strength in the Total Force Manpower Management System (TFMMS).

Congress approves end strength, which is the total number of personnel authorized to be in the Navy on 30-SEP for each fiscal year (FY), based on the requested manpower from the CNP. Billets authorized are actual funded requirements: "Based on the billets authorized and end strength in Total Force manpower management systems, officer programmed authorization and enlisted programmed authorization (OPA/EPA) are published to project planned authorizations for officer and enlisted for current and future fiscal years. OPA/EPA provides the manpower signals to strength planners and community managers to determine accessions, training, promotion plans, and retention. OPA/EPA provides the manpower signals to strength planners and community managers to determine accessions, training, promotion plans, and retention," (Hatch, 2016c, slide 7).

NOTE: Only authorized billets count as demand signal. Current year, budget year, and the budget for five years out give you the Future Years Defense Plan (FYDP).

c. Personnel Planning and Distribution

The next stop in the process is personnel planning. "The personnel planning process is the basis by which end strength, recruiting, training, promotion and personnel inventory to be distributed has its origins" (Hatch, 2016c, slide 10). Planners depend on the Planning, Programming, Budgeting, and Execution System (PPBES) to determine a maximized mix of personnel and hardware, while remaining within the fiscal constraints. PPBES is a constant cycle of planning, programming, budgeting, and execution. The Planning Process comprises:

(a) Sub-Processes

- Strength Planning—forecasting and managing gains and losses for a FY, in order to meet end strength mandated from Congress.
- Community Management—manage the entire community from accession to retirement.

- Recruiting—One in 80 prospects becomes an accession.
- Training—community managers determine training needs based on the input and output of each rating or designator, combined with budget and school capacity limitations.

(b) Players

Figure 8 displays the Manpower players who are the human factor engaged in running the system.



Figure 8. Manpower Players. Source: Hatch (2016c, slide 21).

(c) Documents

Figure 9 lists the critical documents that are used as input and output throughout the MPT&E system.

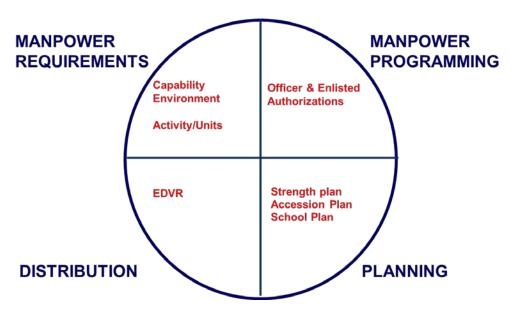


Figure 9. Manpower Documents. Source: Hatch (2016c, slide 22).

(d) Information Systems

Figure 10 lists the Information Management Systems which continuously update and access Manpower data repositories and allow the players in the system to run computer based reports, calculations, and planning models to execute tasks in the MPT&E system.

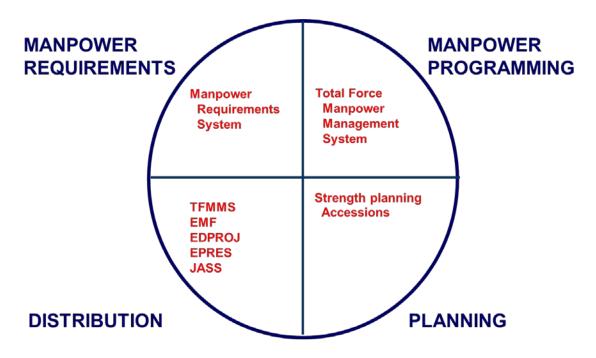


Figure 10. Manpower Information Systems. Source: Hatch (2016c, slide 23).

(e) People

Personnel distribution is the process of allocating the right faces to the right manpower spaces requiring their skillset, at the right time. "Distribution is sometimes considered the end of the "food chain" in the MPT business," (Hatch, 2016c, slide 16). Three major sub-processes make up personnel distribution:

- Allocation—Navy Personnel Command identifies available inventory and makes every effort to assign the right person, to the right place, at the right time.
- Placement—spread the pot of personnel resources across the force as equitably as possible.
- Assignment—Detailers assign faces to spaces, while considering Sailor's needs vs. Navy's needs.

In Figure 11, U.S. Navy approved Fiscal Year 2016 manpower, as of 30 September 2016 is shown.

Navy FY16

Manpower Personnel Navy (MPN/RPN)	≈\$28/2 Billion
Personnel (AD)	329,200
Personnel (FTS)	9,934
Personnel (SELRES; Drilling Reserve)	<u>47,466</u>
Uniformed Personnel	386,600
Civilian Personnel	176,173
Personnel to Manage	562,773 Total

MPN - Military Personnel Navy RPN - Reserve Personnel Navy AD - Active Duty FTS - Full Time Support SELRES - Selective Reserves

Source FY 2016 DoN Budget Highlights

Figure 11. The Force, as of FY 2016. Source: Hatch (2016c).

3. Results

The results of the MPT&E system are 1) Outputs: Right person, with the right skills, at the right time and place, and 2) Outcomes: Force Readiness, which is the ability for the Navy to provide security, deter and win wars, and project force as directed by the President, Congress, and SECDEF. Figure 12, sourced through the DON FY 2017 President's Budget brief displays U.S. Navy presence across the globe.

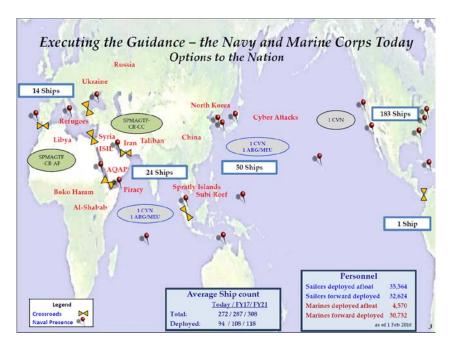
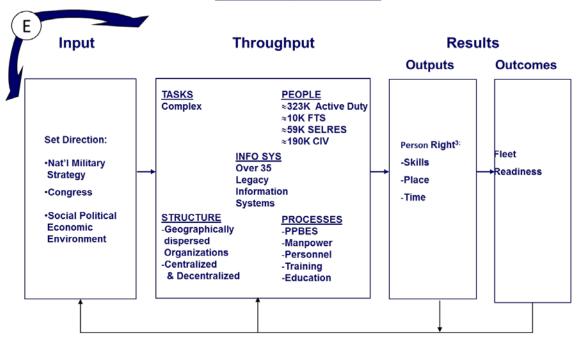


Figure 12. Executing the Guidance set forth in the National Military Strategy. Adapted from DON (2016a).

D. SUMMARY

As the MPT&E Systems Model in Figure 7 demonstrates, Strategy is the input by which Manpower and Personnel sub-processes generate throughput, and produce the output of a manned and ready Fleet, capable of meeting an enemy, winning, or preventing war, and providing security in peacetime. Only authorized, or funded billets, allow the Navy to obtain/maintain personnel to fill billets. Now that we have achieved a general overview of the MPT&E system at the macro level, we must now look at the micro systems in the enterprise. The following chapter breaks down the Manpower, Recruiting (Personnel), and Training and Education sub-systems. The Organizational System Framework (OSF) model in Figure 13 summarizes the many tasks, people, information systems, structures, and processes that take system input and produce results.

Navy Manpower, Personnel, Training & Education (MPT&E) SYSTEM



PPBES - Planning Programming Budgeting Execution System

Figure 13. Navy Manpower, Personnel, Training, and Education System. Source: Hatch (2016c, slide 8).

IV. THE MANPOWER, RECRUITING, AND TRAINING AND EDUCATION SUB-SYSTEMS OF THE MPT&E SYSTEM

A. INTRODUCTION

In Chapter three, we conducted a review of the Navy Manpower, Personnel, Training, and Education (MPT&E) system, as a whole. Now, we must breakdown and understand the sub-systems of the complex, bigger picture. The Manpower system provides authorization for the spaces, or billets, while the Recruiting system brings faces, or personnel, into the Navy in order to fill the spaces. In addition, the Training and Education systems provide the methods to make the Sailor a qualified fit for the billet. The systems work together to put the right person in the right billet at the right time. Looking at and trying to understand the MPT&E system as a whole is overwhelming. Therefore, breaking down the system into three main components and following the process of each, provides further explanation of the MPT&E enterprise.

B. MANPOWER SUB-SYSTEM

Revisiting Figure 7 in Chapter three, we know that the top two quadrants of the Manpower Sub-processes Circle of Life Model are Manpower Requirements and Manpower Programming.

1. Manpower Requirements Determination

Initially, Resource Sponsors use <u>inputs</u> such as the Navy Total Obligated Authority (TOA), SMD, SQMD, FMD, Statement of Manpower Requirements (SMR), and N80 fiscal guidance to distribute funding, buy billets, and approve the ROC/POE. Next in the process, NAVMAC takes the inputs from the claimants, ROC/POE, and MFT and conducts the <u>Manpower Requirements Determination</u>, which is the first decision point in the system. As previously stated, the MRD provides input to both manpower requirements and training requirements and is entered into the Navy Manpower Requirements System (NMRS). The Ship Manpower Document (SMD), Squadron Manpower Document (SQMD), and

Fleet Manpower Document (FMD) are completed with the information received from NMRS. Figure 14 uses the Organizational Systems Framework (OSF) Model to demonstrate the input, throughput, and results Resource Sponsors use to manage the Manpower Requirements Determination sub-process.

RESOURCE SPONSORS

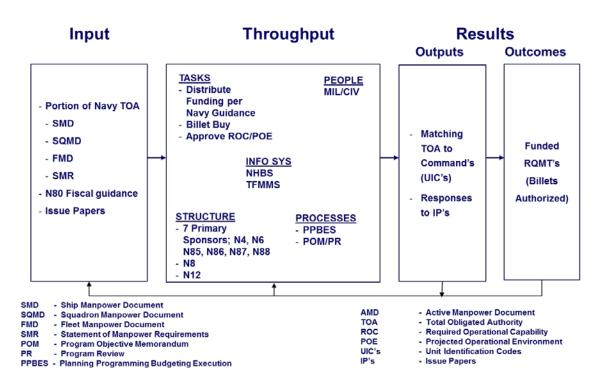


Figure 14. Resource Sponsors Model. Source: Hatch (2016c, slide 173).

2. Manpower Requirements Authorization

Analogous to a data node traveling through a computer network, as manpower demand signal travels through the Manpower system, the next process is funding for billet authorization. Funding is determined by authorization from the Chief of Naval Personnel (CNP) and from Budget Submitting Offices (BSO). The Total Force Manpower Management System (TFMMS) is the repository of current and historical manpower information, including

requirements, authorizations, and end strength. Figure 15 demonstrates the Navy Manpower Requirements sub-process in an OSF model.

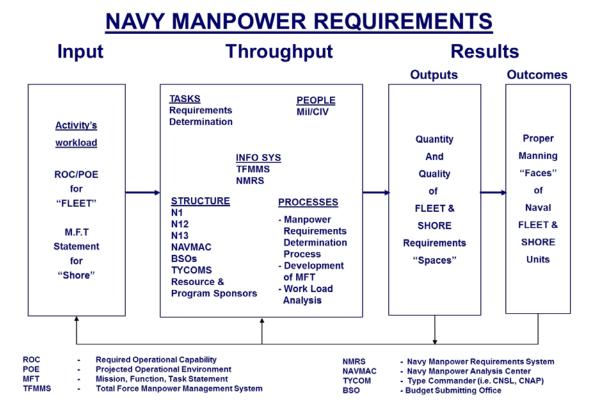


Figure 15. Navy Manpower Requirements. Source: Hatch (2016c, slide 176).

3. Manpower Programming End Strength

Funded Manpower requirements become Billets Authorized, with Congressional approval, and End strength. Managed in the TFMMS information system, End-strength is written into the Strength Control Letter, EPA/OPA, Officer Strength Plan, and Enlisted Strength Plan. The Navy Personnel, Plans, and Policies sub-process, in Figure 16, demonstrates how the Navy Achieves End Strength.

MILITARY PERSONNEL PLANS & POLICIES

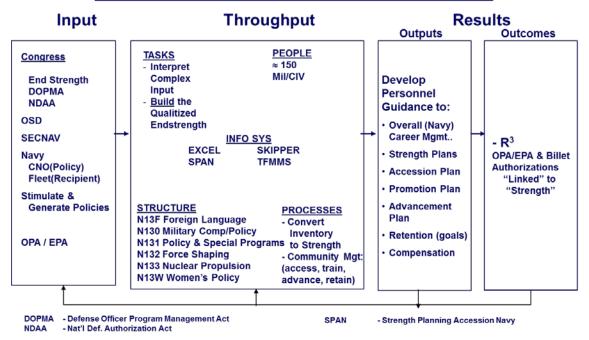


Figure 16. Navy Total Force Requirements. Source: Hatch (2016c, slide 181).

Best described in an equation used by Barry and Gilikin in their thesis, End Strength as of 30 September of any Fiscal Year (FY) is calculated:

$$BS - L + G = ES$$

Beginning Strength (1 OCT) – Losses + Gains = End Strength (30 SEP)

Figure 17. End Strength Equation. Source: Barry & Gillikin (2005, p. 43).

4. Manpower Programming PPBES

The next stop in the process is personnel planning: "The objective of the Department of Defense Planning, Programming, Budgeting & Execution System is to provide the best mix of forces, equipment & support attainable within fiscal constraints" (Hatch, 2016c, slide 78). Resources are a product of the Planning,

Programming, Budgeting & Execution System (PPBES), and authorized billets send demand signals to the Recruiting, Training & Personnel Placement systems. The PPBES OSF model in Figure 18 demonstrates how Navy Personnel managers determine the Navy Personnel Financial Plan.

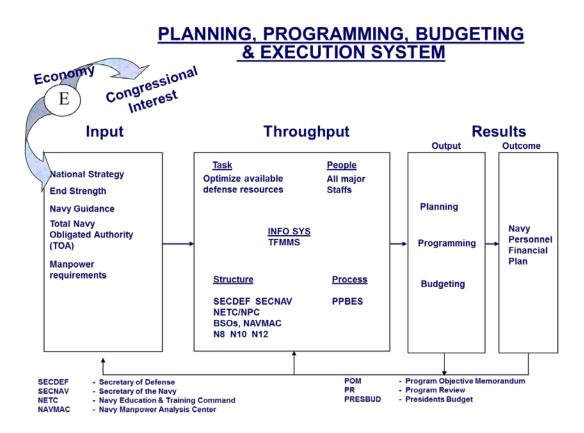


Figure 18. Planning, Programming, Budgeting, & Execution System Model. Source: Hatch (2016c, slide 82).

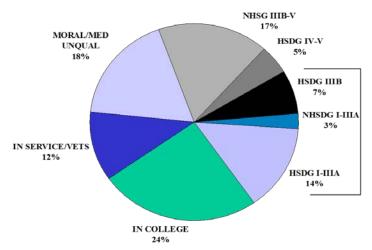
C. PERSONNEL RECRUITING SUB-SYSTEMS

The Manpower requirements and programming processes produce funded end strength, which determines policy. Based on this policy, Community Managers conduct strength planning to provide accession goals to Navy Recruiting. These inputs drive tasking for Recruiters to produce accessions by generating leads from qualified applicants. The leads come from purchased lists, High School lists, Selective Service lists, and state Department of Motor vehicles

(DMV), among others. The next tasking is to qualify and classify the pool of applicants. For example, enlisted rates require varying ASVAB minimal scores to qualify.

Navy Recruiting Districts manage the Recruiters and recruiting stations in their geographical areas and assure that quotas are met with enlistment contracts. For the Recruiting process to be successful, Navy recruiting strives to provide "the right quantity of recruits at the right time, to meet Navy accession requirements" (Hatch). A Navy Recruiter will work with a prospect through the entire recruiting process, from initial contact to getting the "recruit" to Navy Recruit Training Center (RTC) Great Lakes. The recruit will then transform from trainee to Sailor, and continue in the MPT&E process to training and education. Figure 19 visualizes the American recruiting pool that Navy Recruiters must work with.

Recruiting Environment



About 1/4 of 17-21 year olds meet Navy enlistment standards: about 250K

Figure 19. The Current Recruiting Environment. Source: Hatch (2016c, slide 113).

Figure 20 presents the Recruiting System OSF Model as it turns End Strength goals (Quotas) into contracts, accessing new Sailors into the Navy Manpower System.

The Recruiting System

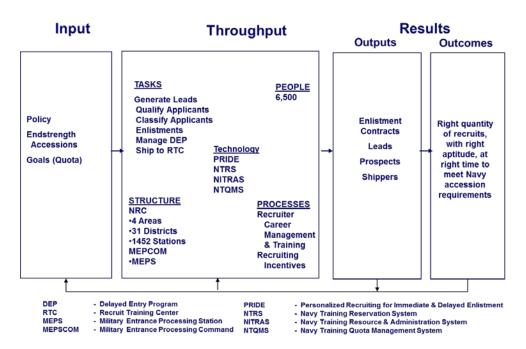


Figure 20. The Recruiting System Model. Source: Hatch (2016c, slide 182).

D. TRAINING AND EDUCATION SUB-SYSTEM

Community managers determine training needs based on the input and output of each rating or designator, combined with budget and school capacity limitations. Training requirements are driven by Billet Authorized spaces. Occupational standards, accessions, and the "A" and "C" school plan provided by Community Managers are other important inputs to the Training and Education (T & E) process. The throughput of the T & E process is managed using the Navy Integrated Training Administrative Resources System (NITRAS) and Navy Training Reservation System (NTRS). Organizations, such as the Naval

Education & Training Professional Development & Technology Center (NETPDTC), Naval Education & Training Command (NETC), School houses, and command/unit Training Departments (N7) manage these processes; including needs determination, planning, and quota management. A successful output of the T & E system is a qualified face for the space, supporting the "right sailor, right time, right place, and <u>right skills</u> (R⁴)" (Hatch, 2016c, slide 148) theory. The Naval Education and Training OSF model is presented in Figure 21.

t Throughput Results

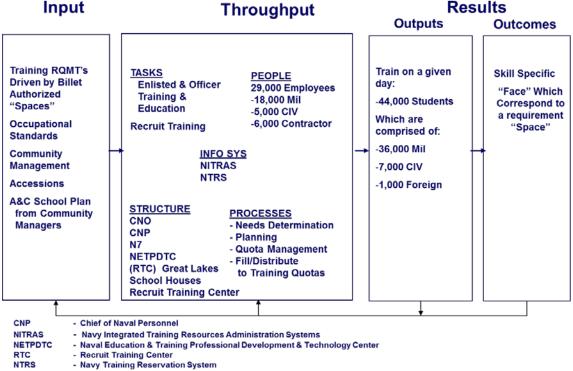


Figure 21. Naval Education & Training Command Model. Source: Hatch (2016c, slide 183).

E. SUMMARY

The Manpower Requirements and Programming Summary depicted in Figure 22 simplifies the MPT&E enterprise brilliantly. The previous three chapters

of this thesis have covered how Manpower Requirements are determined, authorized, and are funded through Billet Authorization. Strength plans are a product of TFMMS, once End Strength is funded, that allow Community Managers, Recruiting, and Training to develop accession and training plans. Personnel in the system become current on-board and are distributable inventory for Community Managers to fill open billets. Now that analysis of the MPT&E processes and available training and education solutions has been achieved, conclusions and recommendations can be summarized. Figure 22 summarizes the entire U.S. Navy MPT&E process.

Manpower Requirements & Programming Summary Manpower

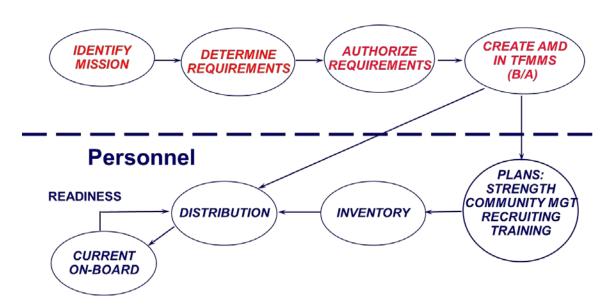


Figure 22. Manpower Requirements and Programming Summary. Source: Hatch (2016c, slide 157).

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V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A. SUMMARY

A thorough explanation of the MPT&E system has been provided in Chapters three and four. The literature review and open source research conducted has revealed a problem with Fleet accessibility to training and education in MPT&E as Vice Admiral Hinkle identified in 1999. While a MPT course was offered in Fleet concentration areas by WBB Inc. in FY 2000 and 2001, lack of funding as a result of the Global War on Terror suspended the class in subsequent FYs. The Naval Postgraduate School's MN2111 and MN4119 courses cover all that the traveling WBB Inc. MPT course covered, but is only offered to students enrolled at NPS.

B. CONCLUSIONS AND RECOMMENDATIONS

Primary Research Question: Does a Common Navy Manpower, Personnel, Training and Education Learning Management System Exist to Support "High Velocity" Learning?

a. Conclusion

When visiting NPS for the Spring 2016 graduation ceremony, Chief of Naval Operations (CNO) Adm. John M. Richardson "stressed that his vision of a Navy that embraces high-velocity learning can only be achieved if it is able to break free from the confines of academia, and be put to use throughout the fleet," (www.nps.edu/About/News/Chief-of-Naval-Operations-Shares-His-Vision-for-High-Velocity-Learning.html). NPS has an opportunity to answer the CNO's call by making the MN2111 and MN4119 course material available to the Fleet. The MPT&E courses presently offered on the NETC LMS, "E-Learning," provide some of the picture, but do not provide a complete basic understanding of the MPT&E system. The NPS MN2111 course is the only class available in the Navy that provides the complete picture in a learning environment, strengthened by the MN4119 course as a follow-up. However, this course is only available in the

academic confines of NPS, and is not available to the Fleet online. A Sakai version of the course exists, but is several years out of date. Still, a learner would require access to the NPS Sakai site.

NOTE: "Sakai is an open, flexible, feature-rich platform for learning, teaching and collaboration" ("Why Sakai", n.d.).

b. Recommendation

The fastest method to market, particularly with the CNOs support, would be to revise the NPS Defense Manpower Management course on Sakai and give NETC access to the course. NPS would benefit through a cost savings of utilizing the Sakai LMS, which is already paid for, and dropping the cost of printed media for the workbook version. A more permanent solution would be to interpret the course material into an E-learning course, which would give the entire Fleet access to the NPS course in the eLearning format. Since NETC owns the eLearning LMS, NPS should partner directly with NETC to bring the e-course online.

Secondary Question 1: How Would an MPT&E LMS Be Made Available to Total Force Human Resources Managers?

a. Conclusion

The NETC's eLearning platform is already available to the entire Fleet. Shown in Figure 23, it is a well-known system that is easily accessible to all Department of Navy personnel.



Figure 23. NETC Learning Management System (eLearning). Source: "My Learning" (Enrolled Courses section, n.d.)

b. Recommendation

Utilize existing technology and develop a MPT&E e-course with NETC, using existing NPS course material and make it available on eLearning. This work can be complete by NPS faculty, contracting, or NPS students as a class project.

Secondary Question 2: Who Comprises the MPT&E Enterprise of Human Resource Managers?

a. Conclusion

The Chief of Naval Personnel, N1, is responsible for the Total Force and the MPT&E enterprise. Subordinate in the MPT&E enterprise are Navy Human Resources Officers in the (120x) community, who work in all aspects of the MPT&E enterprise, to include:

- Naval Education and Training Command
- Navy Manpower Analysis Center
- Navy Recruiting Command

b. Recommendation

Navy HR Officers should have priority in filling these billets. As a community, they are the MPT&E experts and should continue to develop this expertise through training, education, and experience in key MPT&E billets.

Secondary Question 3: How Does the Navy Enterprise Conduct MPT&E Training and Education, Now, and What Has Been Done in the Past?

a. Conclusion

MPT&E training and education is currently community specific training on eLearning, or provided to Manpower Systems Analysis students through attendance at NPS.

b. Recommendation

Expand access to MPT&E training and education to the Fleet using existing LMSs.

C. FURTHER RESEARCH

NPS faculty from the Graduate School of Business and Public Policy should partner with their Information Systems counter-parts to encourage NPS Information Systems Students in continuing the momentum on the MPT&E systems analysis, with the logical next step being a MN2112 and MN4119 LMS design. An NPS student with web programming skills could design and write the system specifications that could be used to build a future MPT&E training and education system that would be available through Navy Knowledge Online (NKO) E-Learning. Further research and analysis should focus on what it would take to produce the LMS design, build the LMS, and launch it to the Fleet.

Another area of research should be to looks at what other services are using to train MPT&E. Are the Army and Air Force employing a high velocity learning environment to teach Manpower and Force Management? Are these other services utilizing a electronic based LMS for this task, classroom training

and education supported by print and electronic media, or a combination of learning methods? The Air Force offers two courses that cover the manpower determination process. They are:

- E3ALR3S331 0A1A—Manpower Apprentice—8 weeks
- E3OBR38F1 0A1A—Force Support Officer—10 weeks.

Further information can be found at the Air Force Education and Training Announcements website. (etca.randolph.af.mil/).

The Army provides one course and has a mobile training team. The links for these courses are:

- Manpower and Force Management Career Program 26 or (www.cp26.army.mil/training/fa50.cfm)
- U. S. Army Manpower Analysis Agency Manpower Training Request or (<u>www.asamra.army.mil/usamaa/TrainingRequest.cfm</u>)

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APPENDIX A. OPNAVINST 1000.16L BREAKDOWN OF ENCLOSURES AND SECTIONS

Enclosure 1: Manpower Requirements and Authorizations

<u>Section 1</u>—Total Force Manpower Management, contains:

- Manpower Requirements Overview
- Manpower Programming and Reprogramming Overview
- Manpower Authorizations Overview
- Personnel, Training and Education Procedures
- General Roles and Responsibilities

<u>Section 2</u>—Total Force Manpower Requirements Determination, contains:

- Background
- Basis of Requirements
- Staffing Standards
- Request for a New Comprehensive Staffing Standard
- Request for New BSO, Manpower Manager and Stakeholder-Developed Comprehensive Staffing Standards
- Efficient Use of Resources
- Manpower Mix
- Manpower Quality

<u>Section 3</u>—Fleet Manpower Requirements Determination (Three Sections)

300—General, contains:

Authority

- Manpower Documents
- Basis of Requirements
- Production Schedule
- On-site Reviews
- Review Process

301—Manpower Determination Process Elements, contains:

- Elements that Determine Manpower Requirements
- Computation of MRW and SEAOPDET Requirements

302—FMRD Associated with the Navy's Acquisition Programs, contains:

- Authority
- Manpower Documents
- Production Plan
- Review Process
- Fiscal Responsibilities
- HSI

<u>Section 4</u>—Shore Manpower Requirements (Six Sections)

400—General, contains:

- Authority
- Manpower Documents
- Basis of Requirements
- Phases of SMRD
- Fiscal Responsibilities

401—Guidance for MFT Statements, contains:

- Authority
- Content
- Format
- Phases of SMRD
- Fiscal Responsibilities

402—MRD Procedures, contains:

- Definitions
- Manpower BSO Responsibilities
- Activity Responsibilities

403—CSM, contains:

- Background
- Inherently Governmental and Commercial Activity (IGCA)
- IGCA Inventory
- OMB
- Military-to-Civilian Conversion
- Business Process Reengineering (BPR)

404—Management of Key and Emergency-Essential Civilian Billets, contains:

- Background
- Responsibilities

405—Qualifications to Determine Shore Manpower Requirements, contains:

- Background
- Execution

Training and Education

<u>Section 5</u>—Other Manpower Requirements (Two Sections)

500—IA, contains:

- Authority
- Policy
- Quantity Determination
- Manpower Balancing

501—Manpower Requirements in Non-Navy Controlled Activities, contains:

- Authority
- Non-Navy Controlled Activities
- Manpower Mix

<u>Section 6</u>—Mobilization MRD Programs (Two Sections)

600—Graduated Mobilization Response (GMR), contains:

- Background
- Assumptions
- GMR Framework

601—Mobilization Manpower Determination (MOBMAND) Study, contains:

- Policy
- Mobilization MSMR Requirements
- MOBMAND Study Process

Section 7—Manpower Management (Seven Sections)

700—General, contains:

Authority

- Definition
- Overview
- Authorization Level of Detail
- Authorization to Requirement Alignment
- Planning Horizon

701—Military Manpower, contains:

- Authority
- Responsibility
- Manpower Balancing
- LOA
- Programmed End Strength
- Manpower Authorization and Conversions of Officer
 Designator Pay Grade and Enlisted Rate

702—Civilian Manpower, contains:

- Authority
- Responsibility
- Overview

703—Manpower Programming and Out-of-Cycle Programming, contains:

- Manpower Programming
- Civilian and Contractor Programming
- Out-of-Cycle Programming
- End Strength Compensation Source
- Out-of-Cycle Programming Methods

• Out-of-Cycle Programming Thresholds

704—AMD, contains:

- Background
- BCR
- BCR Decision Matrix
- Authorization of General Duty Requirements
- Minimum Duration Time for Authorizations
- Authorization Effective Dates

705—Authorizations for Bureau of Medicine (BUMED), BISOG, Naval Reactors and Joint Activities, including CCMDs, OSD, Defense Agencies, JCS, NATO, International Commands, and Outside DOD Activities, contains:

- Policy
- Scope

706—Users of Manpower Requirement and/or Authorization Information, contains:

- Background
- OPA and EPA Documents
- Indirect Uses of Funded Billets
- Limitations of Funded Billets

<u>Section 8</u>—Special Authorizations Procedures (Five Sections)

800—ADDU Manpower Authorizations, contains:

- Background
- End Strength Assignment

- Military ADDU Manpower
- Procedures for Requesting Manpower Changes

801—PEP, contains:

- Background
- Billet Compensation
- Policies for PEP Manpower Authorizations at U.S. Navy Activities

802—Flag Officer Manpower Requirements and Authorizations, contains:

- Authority
- General
- Policy

803—Officer Subspecialty System, contains:

- Background
- Establish, Change, Modify or Delete Subspecialty Codes or Curriculum
- Authorization of Subspecialty Coding
- Other Procedures for Requesting Subspecialty Codes
- Verification of Existing Codes
- Graduate Education Quota Plan

804—Enlisted CNO Priority Manning Policy, contains:

- Manning Control Authority (MCA)
- Policy
- Administrative Procedures
- Primary Manning Codes

Section 9—Activity Management (Two Sections)

900—Establishment, Disestablishment, and Modifications to Navy Organizations, contains:

- Authority
- UIC
- Titles of Official in Charge
- Actions

901—Establishment, Disestablishment, and Modifications to Components and Detachments That Do Not Require Official SECNAV or DNS Approval, contains:

- Policy
- Requirements

Appendix A—References

Appendix B—Acronyms

Appendix C—Glossary of Terms

Appendix D—Navy Availability Factor (NAF)

(Department of the Navy, 2015)

APPENDIX B. MPT&E MODELS

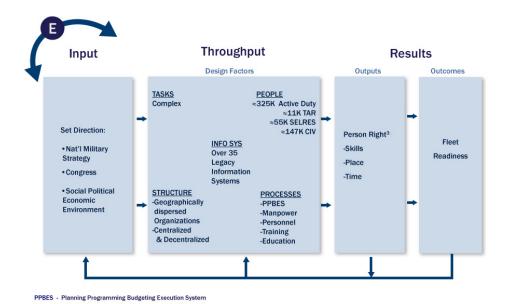


Figure 24. US Navy MPT&E System Model. Source: Hatch (2016b).

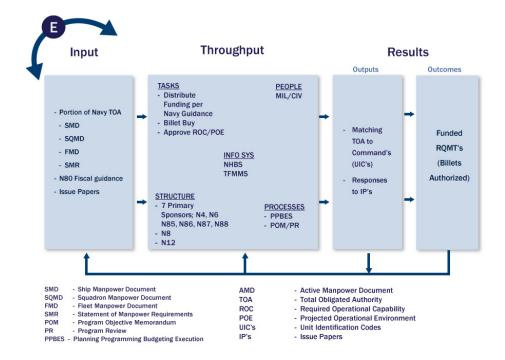


Figure 25. Resource Sponsors Model. Source: Hatch (2016b).

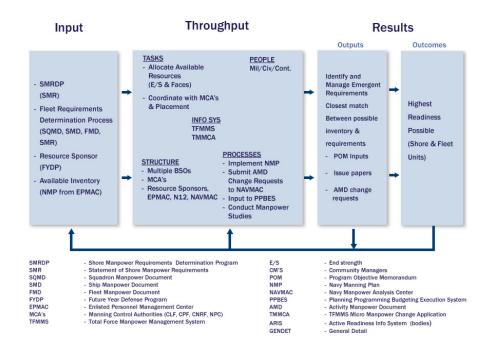


Figure 26. Budget Submitting Offices Model. Source: Hatch (2016b).

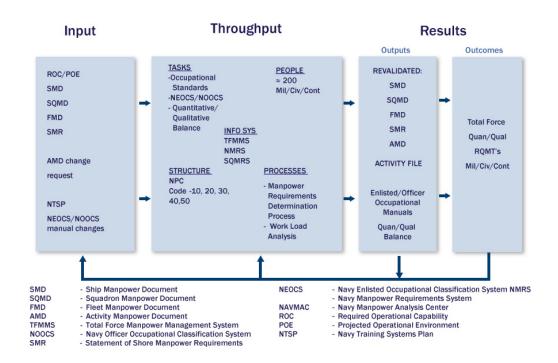


Figure 27. Navy Manpower Analysis Center Model. Source: Hatch (2016b).

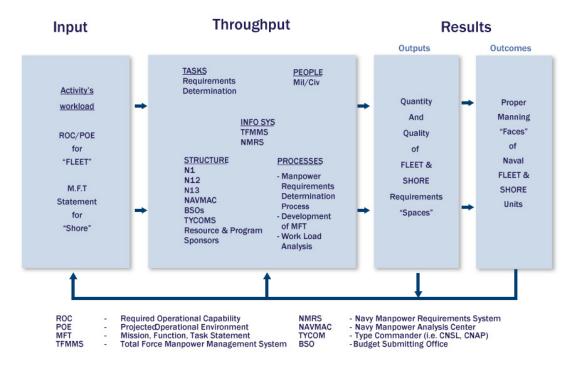


Figure 28. Navy Manpower Requirements Model. Source: Hatch (2016b).

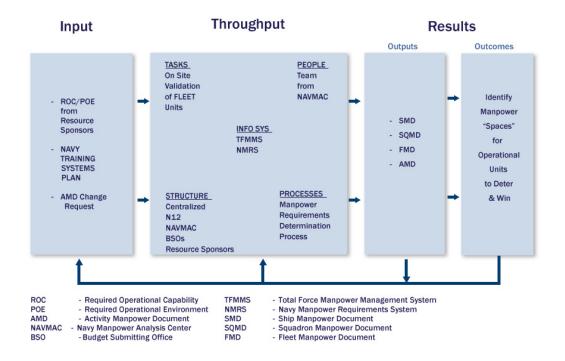


Figure 29. Fleet Manpower Requirements Model. Source: Hatch (2016b).

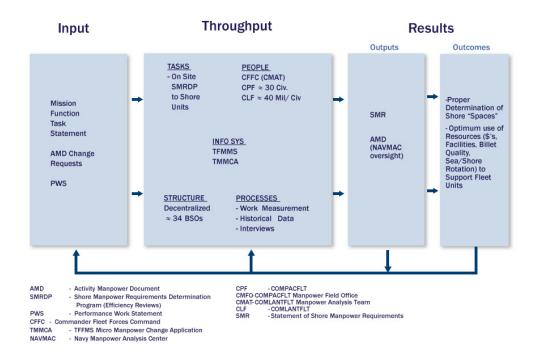


Figure 30. Shore Manpower Requirements Model. Source: Hatch (2016b).

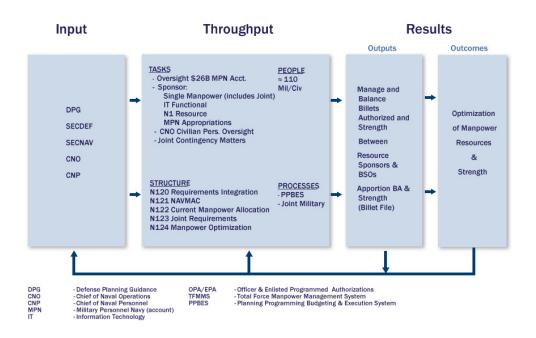


Figure 31. Total Force Requirements Division Model. Source: Hatch (2016b).

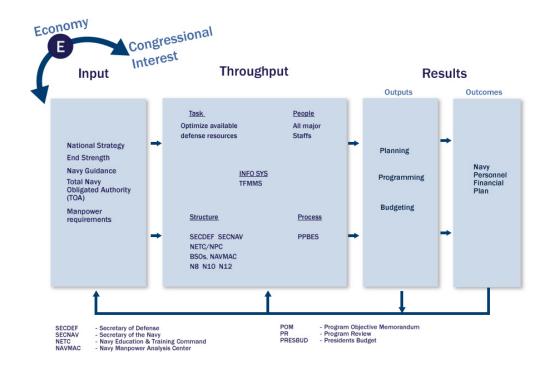


Figure 32. Planning, Programming, Budgeting, & Execution Model. Source: Hatch (2016b).

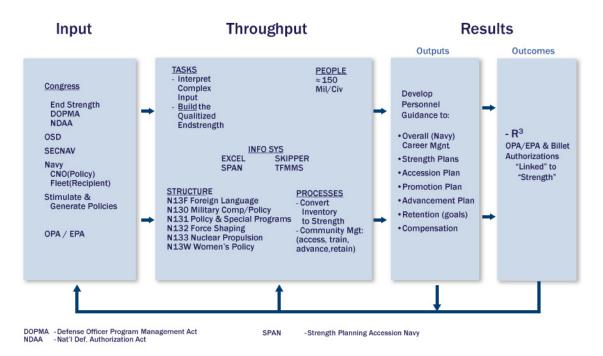


Figure 33. Military Personnel Plans & Policies Model. Source: Hatch (2016b).

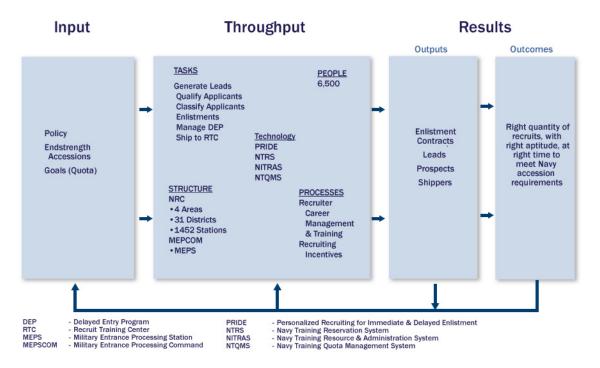


Figure 34. The Recruiting System Model. Source: Hatch (2016b).

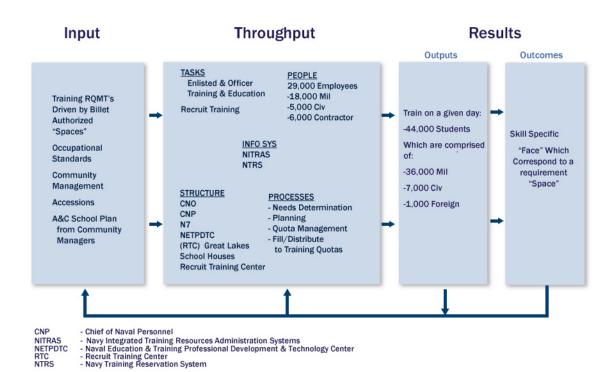


Figure 35. Naval Education & Training Command Model. Source: Hatch (2016b).

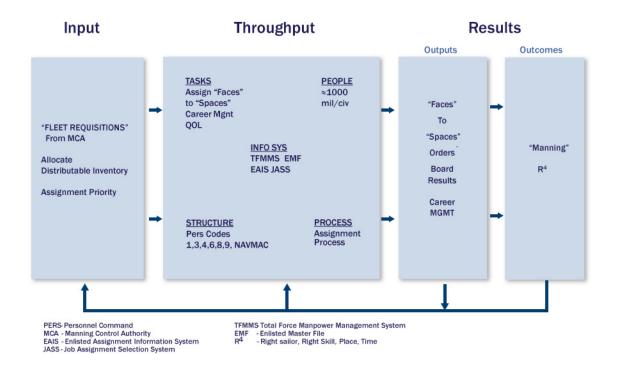


Figure 36. Naval Personnel Command Model. Source: Hatch (2016b).

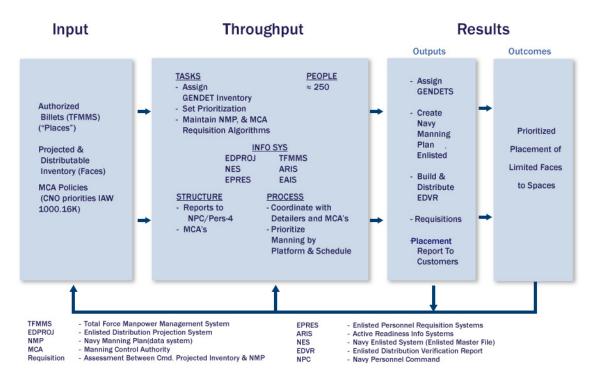


Figure 37. Enlisted Placement Management Center Model. Source: Hatch (2016b).

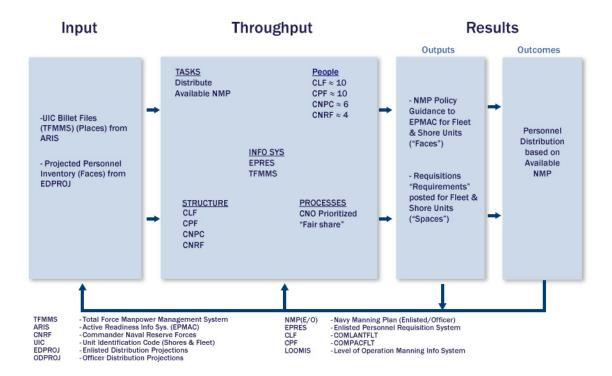


Figure 38. Manning Control Authority Model. Source: Hatch (2016b).

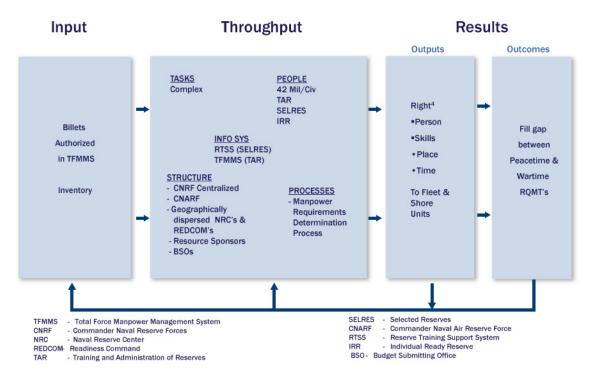


Figure 39. Commander Naval Reserve Force Model. Source: Hatch (2016b).

LIST OF REFERENCES

- Ballamy, P. Y. & Blackstone T. F. (2015). *Improved Forecasting Methods For Naval Manpower Studies*. Washington, DC: Center for Naval Analysis. Retrieved from www.dtic.mil/get-tr-doc/pdf?AD=ADA614084
- Barry, J. C., & Gillikin, L. (2005). Comparative Analysis of Navy and Marine Corps Planning, Programming, Budgeting and Execution Systems from a Manpower Perspective (Master's Thesis). Retrieved from http://calhoun.nps.edu/handle/10945/2322
- Blackston, D. E. (2007). An Analysis of Human Resources Officers in Support of MPT&E Enterprise Management: A Succession Management Plan for Human Capital Managers (Master's Thesis). Retrieved from http://calhoun.nps.edu/handle/10945/3357
- Department of the Navy (2016a). FY 2017 President's Budget brief. Washington, DC: Secretary of the Navy. Retrieved from https://www.secnav.navy.mil/fmc/fmb/Documents/17pres/DON_PRESS_BRIEF.pdf.
- Department of the Navy (2016b). *Modified Intro Course* (2016). Monterey, CA: Human Resources Center of Excellence. Retrieved from: https://cle.nps.edu/portal/site/840998d9-51ee-4f07-8b44-a5cb477e6c77/page/583e6b35-6a46-4c6a-83a0-fd253825997c
- Department of the Navy (2017). *Chief of Naval Personnel Responsibilities*. Washington, DC: Chief of Naval Personnel. Retrieved from http://www.navy.mil/navydata/leadership/cnp_resp.asp
- Department of the Navy. (2015). Navy Total Force manpower policies and procedures (OPNAV 1000.16L). Washington, DC: Naval Personnel Command. Retrieved from: https://doni.daps.dla.mil/allinstructions.aspx
- Hatch, W. (2016a). Defense Manpower Management. (Graduate School of Business and Public Policy course, Monterey, California. Naval Postgraduate School). Retrieved from Naval Postgraduate School MN2111: Seminar in Manpower, Personnel and Training I (FA16_BH) course.
- Hatch, W. (2016b). *Human Resource Models*. (Graduate School of Business and Public Policy course). Retrieved from: https://cle.nps.edu/portal/site/f22bd56c-6189-44cb-85bc-4fb53cefd26e/page/b1b4d1e0-3113-4dac-b0bd-14e9f181a975
- Hatch, W. (2016c). MN4119 Brief Summer 2016. (Graduate School of Business and Public Policy course). Retrieved from https://cle.nps.edu/portal/site/1543377c-53ad-40ec-92eb-f80f3fb8c99b/page/3dc446a9-7386-4884-b89c-9eea147da317

- Hinkle, J. B. (2000). *Manpower, Personnel and Training (MPT) Enterprise* [Memorandum]. Washington, DC: Deputy Chief of Naval Personnel.
- Introduction (n.d.). Retrieved from https://www.lms.prod.nel.training.navy.mil/ CourseWare/1800545/1/NAVY_AMDO_CBTr5_121411.html
- Learning Management System. (n.d.) In Wikipedia. Retrieved January 28, 2017, from http:en.wikipedia.org/wiki/Learning_management_system
- Military/Civilian Manpower, Personnel, Training & Education (MPTE) Course (n.d.). Retrieved on February 28, 2017, from http://wbbinc.com/training/course-list/military-civilian-manpower-personnel-training-education-mpte)
- Navy Education Training Command Learning Management System homepage (n.d.) Retrieved February 28, 2017, from https://www.lms.prod.nel.training.navy.mil/
- Navy Manpower Analysis Center (NAVMAC) (n.d.). Retrieved February 28, 2017, from https://www.public.navy.mil/bupers-npc/organization/navmac/Pages/default3.aspx)
- Navy Personnel Command Homepage (n.d.). Retrieved February 28, 2017, from https://www.public.navy.mil/bupers-npc/Pages/default.aspx
- Navy Recruiting Command Mission Statement (n.d.). Retrieved February 28, 2017, from http://www.cnrc.navy.mil/about.htm
- Riposo, J., Blickstein, I., Friel, J.A., & Fell, K. (2009). *Navy Enterprises:*Evaluating Their Role in Planning, Programming, Budgeting and

 Execution (PPBE). Santa Monica, CA: RAND Corporation. Retrieved from http://www.rand.org/pubs/monographs/MG794.html
- System. (n.d.). Retrieved March 22, 2017, from http://www.merriam-webster.com/dictionary/system
- What is an LMS? (n.d.). Retrieved January 16, 2017, from https://navy-training-transformation1.wikispaces.com/What is an LMS%3F
- Why Sakai (n.d.). Retrieved on February 28, 2017, from https://sakaiproject.org/ why-sakai
- Wilborne, D. O. & Sharpe, S. J. (2005). *Business Organizational Systems Framework Model Application and Analysis*. (Master's Thesis). Retrieved from http://calhoun.nps.edu/handle/10945/10008

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