



ACQUISITION RESEARCH PROGRAM SPONSORED REPORT SERIES

Strengthening Economic Security in the Force: Recommendation for Baseline Financial Readiness Screening for Initial Accession Candidates

December 2022

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Prepared for the Naval Postgraduate School, Monterey, CA 93943.

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ABSTRACT

In late 2021, Secretary of Defense Lloyd Austin directed expanded financial readiness resources for all Service members. Part of this provision included developing a financial assessment for Service members to help them assess their overall financial well-being and develop strategies to manage their financial affairs. What was missing from this guidance was a provision for an initial accession assessment to provide a baseline for each Service member. Without this baseline data, there is no way to track the improvement of Service members' financial readiness over time, or to assess the effectiveness of financial literacy education programs.

This thesis reviews National and Defense policy, from United States Code to Office of the Secretary of Defense and the Armed Services' policies. The review identified gaps in these policies related to requirements to collect data for the purpose of assessing the performance of and improving the effectiveness of financial literacy education programs. Neither the United States Code, nor the Department of Defense and Service policies require the collection of baseline data.

The product of this thesis is a financial readiness screening matrix, which assesses the (1) financial literacy, (2) debt-to-prospective income ratio, and (3) credit score of initial assessment candidates. The recommendation is for the Department of Defense to adopt this model and initiate a baseline data capture program.



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LIST OF ACRONYMS AND ABBREVIATIONS

ASTB	aviation selection test battery
ASVAB	armed services vocational aptitude battery test
BRS	blended retirement system
CJCS	Chairman of the Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff instruction
CMT	common military training
CNO	Chief of Naval Operations
CQI	continuous quality improvement
CRS	Congressional Research Service
DCNO	Deputy Chief of Naval Operations
DHA	Defense Health Agency
DMDC	Defense Manpower Data Center
DOD	Department of Defense
DODI	Department of Defense instruction
DON	Department of the Navy
DTI	debt-to-income
DTM	directive-type memorandum
DTPI	debt-to-prospective income
FFSC	Fleet and Family Support Center
FFSMIS	Fleet and Family Support Management Information System
FINLIT	financial literacy
FINRED	financial readiness
FRSM	financial readiness score matrix
HRSAP	Human Resources Strategic Assessment Program
INSSG	interim national security strategic guidance
M&E	monitoring and evaluation
MET	mission essential task



MLA	Military Lending Act
NPS	Naval Postgraduate School
OAR	officer aptitude rating
OECD	Organisation for Economic Co-operation and Development
OFR	Office of Financial Readiness
OPA	Office of People Analytics
OPNAVINST	Chief of Naval Operations instruction
OSD	Office of the Secretary of Defense
PFM	personal financial management
SECDEF	Secretary of Defense
SECNAV	Secretary of the Navy
SECNAVINST	Secretary of the Navy instruction
SOFS	Status of Forces Survey
SOFS-A	Status of Forces Survey of Active Duty Members
TFF	Total Force Fitness
TLO	terminal learning objective
UK	United Kingdom
U.S.C.	United States Code
USA	United States Army
USAF	United States Air Force
USD	Undersecretary of Defense
USMC	United States Marine Corps
USN	United States Navy



I. INTRODUCTION

In 2006, the United States Congress amended the United States Code (U.S.C.) by creating Title 10 (Armed Forces), Subtitle A (General Military Law), Part II (Personnel), Chapter 50 (Miscellaneous Command Responsibilities), Section 992 (10 U.S.C. § 992): Financial Literacy Training. This law mandated financial literacy training for all members of the Armed Forces. Since then, the Department of Defense (DOD) has worked to establish a department-wide program to increase the financial literacy of all Service members, thereby decreasing the negative impacts that poor financial decisions can have on DOD operational readiness.

This thesis focuses on the importance of increasing Service member financial literacy, the efforts the U.S. government and DOD have taken to achieve this and identifying methods to improve the effectiveness of this program.

A. BACKGROUND

1. National Strategic Issue: Shrinking Middle Class

In an article for the Pew Research Center, Rakesh Kochhar and Stella Sechopoulos identified a decrease in the share of American adults who live in middle-class households. From 1971 to 2021, middle-class households decreased from 61% to 50% (Kochhar & Sechopoulos, 2022). Further, the shrinking middle -class “has led to a steady decrease in the share of U.S. aggregate income held by middle-class households,” with income from middle-class households accounting for 62% of aggregate income in 1970, falling to 42% in 2020 (Kochhar & Sechopoulos, 2022).

Alana Samuels and Belinda Luscombe, in their article written for Time magazine, described this reality for individuals. A 30% increase in rent caused a 42-year-old teacher and his wife, living in Atlanta, GA and earning \$125,000 a year, were forced to choose between increasingly unaffordable rent and a housing market with rapidly rising prices and mortgage interest rates (Samuels & Luscombe, 2022).



Shifting to macroeconomic picture, the impact on individual finances compounds a shrinking income tax base. In his article for Fortune, Clifton Leaf discusses the COVID-19 impacts on national financial management. With millions of people out of work, whether voluntary or involuntary, local, state, and federal governments lost significant amounts of sales and income tax revenue. Estimates indicated potential losses of \$106-125 billion for state governments in fiscal year 2021 (Leaf, 2020). This drastic reduction in tax revenue, combined with diminished wealth in the middle-class represents a strategic vulnerability for the United States.

There is a bright spot in this time of challenging economic conditions. And this bright spot serves to both underscore the importance of this project and identify a potential solution to the middle-class crisis. In his article, entitled “How the U.S. military became the exception to America’s wage stagnation problem,” Brendan Stickles identifies the divergence in salary and compensation between Service members and civilian employees (between 1990–2016). The following passage briefly explains the progress of the military middle-class:

A mid-grade enlisted sailor, soldier, or airman (at an E5 paygrade) made 10 percent less than the median American in 2000 and at the time (as John McCain pointed out) was eligible for food stamps. By 2011, service members of the same rank were making 10 percent more than the median American, even without including benefits. The most recent jobs report indicated a national wage increase of 3.1 percent, slightly higher than the 2019 military pay raise of 2.6 percent. But for now, even excluding housing cost and medical insurance an ‘E5’ is making an above-average American salary. It’s not that the Pentagon was ‘keeping up with the Joneses.’ It’s just that in the last 20 years, the Joneses weren’t keeping up with the military (Stickles, 2018).

The opportunity I mentioned is derived from the fact that greater than “60 percent of 2016 enlistments came from neighborhoods with a median household income between \$38,345 and \$80,912” (Stickles, 2018).

2. United States Government Response

In response to these challenges and in an effort to take advantage of available opportunities, a 28 October 2021 White House press brief announced President Joe



Biden’s Build Back Better framework, designed to harness the “hard work and ingenuity of the American people” to drive America’s success. A key component of this framework was rebuilding the middle-class, considered the “backbone of the country” (White House, 2021).

In his Interim National Security Strategic Guidance (INSSG), President Biden states that U.S. national security “demands creative approaches that draw on all the sources of national power,” which includes the economy. He continues by confirming the U.S.’s “enduring interest in expanding economic prosperity and opportunity.” To achieve this aspect of national security, the U.S. is required to “defend and nurture the underlying sources of American strength, including our people, our economy, our national defense, and our democracy at home” (Biden, 2021). Two components of this strategy that are key to this project are “our people, our economy.” And because his broader Build Back Better framework is founded on bolstering the country’s economy through support to the middle-class, it follows that national security strategy is nested in these concepts.

Starting with the economic aspect of national security, the U.S. Department of the Treasury On 14 September 2020 the Treasury Department released its U.S. National Strategy for Financial Literacy. This strategy promotes American financial literacy in two ways:

1. It identifies methods to improve and increase the financial literacy and education of Americans and
2. It articulates the federal government’s roles, priorities, and structures for promoting financial education.

This included the following priority, planned actions: basic financial capability, access to financial services, housing, retirement savings & investor education, postsecondary education, and addressing unique issues facing military communities (Department of Treasury, 2020).

Pivoting to the military aspect of INSSG, President Biden states that, “We will sustain readiness and ensure that the U.S. Armed Forces remain the best trained and equipped force in the world” (Biden, 2021). He further makes the promise to, “place the



American People—and especially working families—at the center of our national security strategy” (Biden, 2021). This, then, acts as executive direction for the DOD.

3. DOD Strategic Direction

In his 4 March 2021 “Message to the Force” memorandum for all Department of Force employees, Secretary of Defense (SECDEF) Lloyd Austin detailed an initiative to accomplish the following objectives:

1. Defend the nation,
2. Take care of our people, and
3. Succeed through teamwork (Austin, 2021)

Seven months later, he elaborated on this initiative in his memorandum for Strengthening Economic Security in the Force. A very specific aspect of the “Take care of our people” objective includes expanding financial readiness resources. One of the components of this expansion directs the Department of Defense (DOD) to “Develop a financial well-being assessment for Service members to help them assess their overall financial well-being and develop strategies to manage their financial affairs” (Austin, 2021). The statutory authority to do this was based on 10 U.S.C. § 992, which mandated the financial literacy education for all Service members, as well as requiring the evaluation and updating of training programs (10 U.S.C. § 992, 2016). This provided Austin with the legal and executive foundations to direct the codification of these his guidance into DOD Instruction (DODI) 1322.34: Financial Readiness of Service Members.

This instruction, originated by the Under Secretary of Defense for Personnel and Readiness, became effective on 5 November 2021. It directs the Military Departments to provide programs and resources which address support for Service members’ financial decision-making which impact both their personal and professional lives. These programs are designed to support Service members and their families regarding, “developing skills to maintain their financial readiness, regardless of the type of, or location or, their duty assignment” (USD Personnel and Readiness, 2021).



a. DOD strategic goals

The objectives necessary to achieve the strategic directions from President Biden and SECDEF Austin were two-fold and distilled from President Biden’s INSSG and SECDEF Austin’s guidance to the Force:

1. Minimize financial readiness impact on operational readiness
2. Improve the DOD “end product (Service members and families)” to strengthen the economy

In order to achieve these objectives, a DOD-wide effort to systematically increase the financial readiness of the Force is necessary. But before we explore the efforts taken by the DOD to achieve these objectives, it is important to understand the challenges that act as barriers to the increased financial readiness of the Force.

b. DOD strategic challenges

The first major challenge to achieving the Strategic Goals is based on input, or the level of financial literacy that Service members attain prior to initial accession. The University of Chicago’s Financial Education Initiative provides some insight into the varying degrees of exposure and access to financial literacy education and the potential, life-long impacts. The following findings illustrate this variance:

1. Only 1/3 of states require their students to take a personal finance class in order to graduate.
2. Less than 20 percent of teachers report feeling “very competent” to teach personal finance topics.
3. 31 percent of young Americans agreed that their high school education did a good job of teaching them healthy financial habits.
4. Students exposed to rigorous financial education in high school saw their credit score increase by an average of 20 points and their probability of delinquency reduced.



5. Differences in financial knowledge account for 30–40 percent of retirement wealth inequality. (University of Chicago, 2022)

These varying degrees of exposure to financial literacy education accompany every single accession into the Armed Forces. Because of this, it is challenging to create a financial literacy education program which can address the knowledge deficits of the least educated, while providing value to the most educated.

The second major challenge to achieving the Strategic Goals centers on process, or the implementation of a comprehensive, DOD financial literacy construct. The most significant effort to consolidate DOD resources in support of holistic Service member fitness was Chairman of the Joint Chiefs of Staff (CJCS) Admiral Mullen’s Total Force Fitness framework, in September 2011.

This first iteration of the framework addressed the concept of assessing effectiveness of the program. Enclosure (a), of the framework, covers the importance of TFF Metrics and states that the identified metrics “must also demonstrate progress toward achievable and realistic outcomes, addressing positive as well as negative outcomes that clearly indicate the overall readiness of the Armed Forces.” Further, these metrics “must tell us whether we are improving the fitness of the force in each TFF domain” (Mullen, 2011).

However, here, as in other instances, the TFF framework does not discuss establishing a baseline of data. Without a baseline, it is impossible to accurately determine the effectiveness of a program, let alone individual aspects of the program.

The final major challenge to achieving the Strategic Goals of (1) minimizing financial readiness impact on operational readiness and (2) improving the DOD “end product” to strengthen the economy, focuses on scarcity and efficiency. The funds available to execute the federal budget are limited and only a small portion of those funds is available for funding financial literacy education. For this reason, efficient use of these funds is paramount.

There are limits to what impact the DOD can have on the “input” aspect of these challenges. Without changing eligibility requirements (which this project is not



recommending), the DOD will continue to receive future accession candidates with levels of financial literacy, which are similar to current candidates. In order for the DOD to overcome these challenges, it must identify and implement a solution that addresses “process” and “efficiency” concerns.

c. *Problem statement*

Critically, in Strengthening Economic Security of the Force, Austin mandated the inclusion of “financial well-being as a mandatory area in each Military Services’ annual wellness program assessments and conduct annual audits of the effectiveness of their financial readiness common military training programs” (Austin, 2021).

What was missing from this mandate was:

1. An initial accession candidate financial readiness screening to provide a baseline data and
2. A means to track and analyze the financial readiness of each Service member, thereby allowing for evaluation of the DOD financial literacy program and identification of opportunities for improvement.

B. SCOPE AND GOALS

1. Scope

- Review the history of Naval research focused on financial literacy.
- Review of the evolution of the DOD’s financial literacy education program from its origin in U.S. law through the Department of the Navy’s implementation.
- Discuss the fundamentals of monitoring and evaluation programs, with an emphasis on process improvement.
- Discuss the significance of baseline data, with regard to establishing benchmarks and key indicators of performance.



2. Goals

- a. Identify gaps in the DOD's financial literacy education program with regard to the ability to assess the effectiveness of financial readiness common military training.
 - Construct a mechanism, for assessing the financial literacy and financial fitness of initial accession candidates, in a manner that can easily be measured, stored, and accessed for future assessment of program effectiveness.



II. LITERATURE REVIEW

This section serves four purposes. The first is to provide a historical summary of previous research conducted, at the United States Naval Postgraduate School (NPS), which focuses on financial fitness and readiness. The second is to provide an overview of DOD financial literacy policy. The third is to discuss the significance of baseline data with regard to evaluation and monitoring for program improvement. And the final purpose is to discuss the benefits of screening applicants for employment to the DOD.

A. REVIEW OF NPS RESEARCH ON FINANCIAL READINESS

Prior to beginning my project, I reviewed past theses from the United States Naval Postgraduate School (NPS), in order to get a sense of the research conducted on this particular subject. The following is a review of these theses.

As far back 1966, the impact of personal financial management on operational readiness was being addressed by NPS students. On 30 April, Daniel Bailey published his thesis entitled Management of Personal Financial Affairs by Submarine Officers. Bailey stated that, “A prudent man will project his planning well into the future, and through systematic savings, proper investments, and continual thought and consideration of objectives, prepare for retirement, education of children, and, lastly, upon death for the welfare of his loved ones” (Bailey, 1966).

Bailey focused his research on the financial literacy of Submarine Officers, including determining if general financial knowledge increased with rank, in the following areas:

1. Personal and Property Insurance
2. Estate Planning
3. Savings and Investment
4. Consumer Credit



His findings indicated that, with varying degree, “one’s general financial knowledge did increase with rank” (Bailey, 1966). A point of emphasis is that Bailey’s research focused on gains in financial knowledge over time, independent of organizational financial literacy education.

In June 1984, Fred Hahndorf and Joseph Riggio’s *Financial Planning and Control for the Military Officer* sought to provide the military officer with, “a single reference in personal financial planning and control” (Hahndorf & Riggio, 1984). Focusing on military pay and benefits, taxes, inflation, and budgets, this thesis presented readers with a “step-by-step guide” for financial planning with an end goal of improving the efficiency and productivity of Navy and Marine Corps officers, with regard to “money management” (Hahndorf & Riggio, 1984).

In June 1988, Alvin Smith published *Financial Planning for the Naval Officer*, which was based on the expectation that “the Naval Officer who masters his/her own financial situation is better prepared to counsel his/her subordinates concerning finances” and will “be better prepared financially to deal with anxieties unique to the Naval Service” (Smith, 1988).

So, it is evident that in the late 20th century, a lack of a coherent financial literacy support system was drawing the attention of Navy Officers. In 2011, the Chairman of the Joint Chiefs of Staff (CJCS), Admiral Mike Mullen, introduced the Total Force Fitness (TFF) Framework. This framework provided a methodology for “understanding, assessing, and maintaining Service members’ well-being and sustaining their ability to carry out missions” (Mullen, 2011). This framework provided the foundation for the Navy’s and DOD’s current Financial Literacy program and will be discussed in detail in my examination of the DOD’s efforts to improve financial readiness in the Force.

In December 2013, John Mullen, Kevin Wilson, and Ian Burgess published *An Analysis of Personal Financial Management Training within the Department of the Navy (DON)*. The goals of this report were to (1) determine the characteristics that determine Service members’ financial fitness (both Officer and Enlisted) and (2) to assess the Navy’s Personal Financial Management (PFM) training program and its ability to impact



the aforementioned characteristics. During their research, they determined that there were 14 characteristics which contributed to financial fitness; these were:

1. Positive Characteristics:

- Regular Financial Advice
- Bank Account Management
- Investment Planning
- Retirement Savings
- Routine Savings
- Funded Emergency Fund
- Budget/Spending Plan

2. *Negative Characteristics:*

- Acquired Payday Loan
- Skipped Payment
- Misuse of Credit Cards
- Accounts in Collections
- Recent Foreclosure or Bankruptcy
- Increased Debt
- Recently Denied Credit (Mullen, Wilson & Burgess, 2013)

The quantitative aspects of each of these characteristics combine to indicate the overall financial fitness of a given individual. The level of financial fitness, then, can be used to indicate the likelihood of negative operational readiness. For instance, Mullen et al. included data from a 1997 study on the scope and impact of PFM issues of Service members on the DON. The study found that from 1991 through 1995, out of 3,070 classified security clearances that were revoked, 2,054 (59.72%, Table 1) were revoked for financial reasons. Mullens et al. describe the impact of clearance revocation for both the individual “unlikely to be able to continue doing the job for which they were hired,” and regarding “a direct impact on the command’s operational readiness” (Mullen, Wilson & Burgess, 2013). With financial fitness impacting operational readiness so significantly, a legitimate appraisal of the PFM training program is essential.



Table 1. Security Clearances Revoked (1991-1995). Source: Mullen, Wilson & Burgess (2013).

SECURITY CLEARANCES REVOKED			
Year	Total #	# for Financial Reasons	(%)
1991	1,020	650	63.72
1992	800	453	56.62
1993	600	382	63.66
1994	350	382	52.28
1995	300	187	62.33
Average			59.72

To address the assessment of the effectiveness of DON PFM training, Mullen, Wilson, and Burgess first identified the three distinct phases:

1. Entry PFM Training:
 - Unit One: Military Pay System
 - Unit Two: Spending Plan
 - Unit Three: Account Basics
 - Unit Four: Essentials of Credit
 - Unit Five: Consumer Awareness
 - Unit Six: Car Buying
 - Unit Seven: Insurance Needs
 - Unit Eight: Investment and Retirement Accounts
 - Unit Nine: Government Travel
 - Unit Ten: Financial Planning for Deployment
2. Annual PFM Training (refresher training)
3. Separation and Retirement PFM Training (Mullen, Wilson & Burgess, 2013)

Mullen et al. assessment of the DON PFM program’s impact on the characteristics of financial fitness returned two major findings:

1. DON personnel would benefit from additional training in the positive financial fitness characteristics including Routine Savings, Regular Financial Advice, and Investment Planning” and



2. There are only “minor differences in the financial fitness characteristics between officer and enlisted DON personnel (Mullen, Wilson & Burgess, 2013).

These findings are significant in that they indicate a positive relationship between the characteristics of financial fitness and the PFM training program’s efforts to increase financial readiness. However, this analysis fails to address a key component of measures of effectiveness: Baseline data.

B. REVIEW OF DOD FINANCIAL READINESS POLICY

1. Overview of the National and Defense Policy Framework

Before detailing the policy created, by the United States government, to address gaps in financial literacy, it is helpful to understand how policy is created at each level of the government and how this policy guides and directs the actions of each subordinate level. Figure 1 displays the hierarchical structure of the U.S. government, along with the originator of each government-generated policy document referenced in this literature review. With specific regard to this thesis, the origin points for all DOD actions for implementing financial literacy programs are the President’s National Security Strategic Guidance and Congress’ amendment to United States Code (10 U.S.C. § 992). Presidential and Congressional guidance direct the efforts of the Defense and Treasury Departments, as well as the Office of People Analytics (OPA) and the Congressional Research Service (CRS). More specifically, the DOD, led by the SECDEF and his office provide guidance to the four Armed Services, the Joint Chiefs of Staff (JCS), and the Defense Agencies. And although each Armed Service uses this guidance to create its own policy, this thesis will focus on the U.S. Navy.

The following DOD policy literature review is broken into four subsections. These focus on:

1. The Total Force Fitness Framework, promulgated by the Chairman of the Joint Chiefs of Staff
2. The DOD’s Financial Readiness (FINRED) Policy



3. DOD's Office of Financial Readiness
4. The Department of the Navy's (DON) Personal Financial Management Program
5. Congressionally mandated Data Collection and Analysis

It is important to note that some of the references cited appear out of chronological order. This is the result of the update process inherent in defense policy, which requires periodic reviews and reissuance, even when the document does not substantially change.



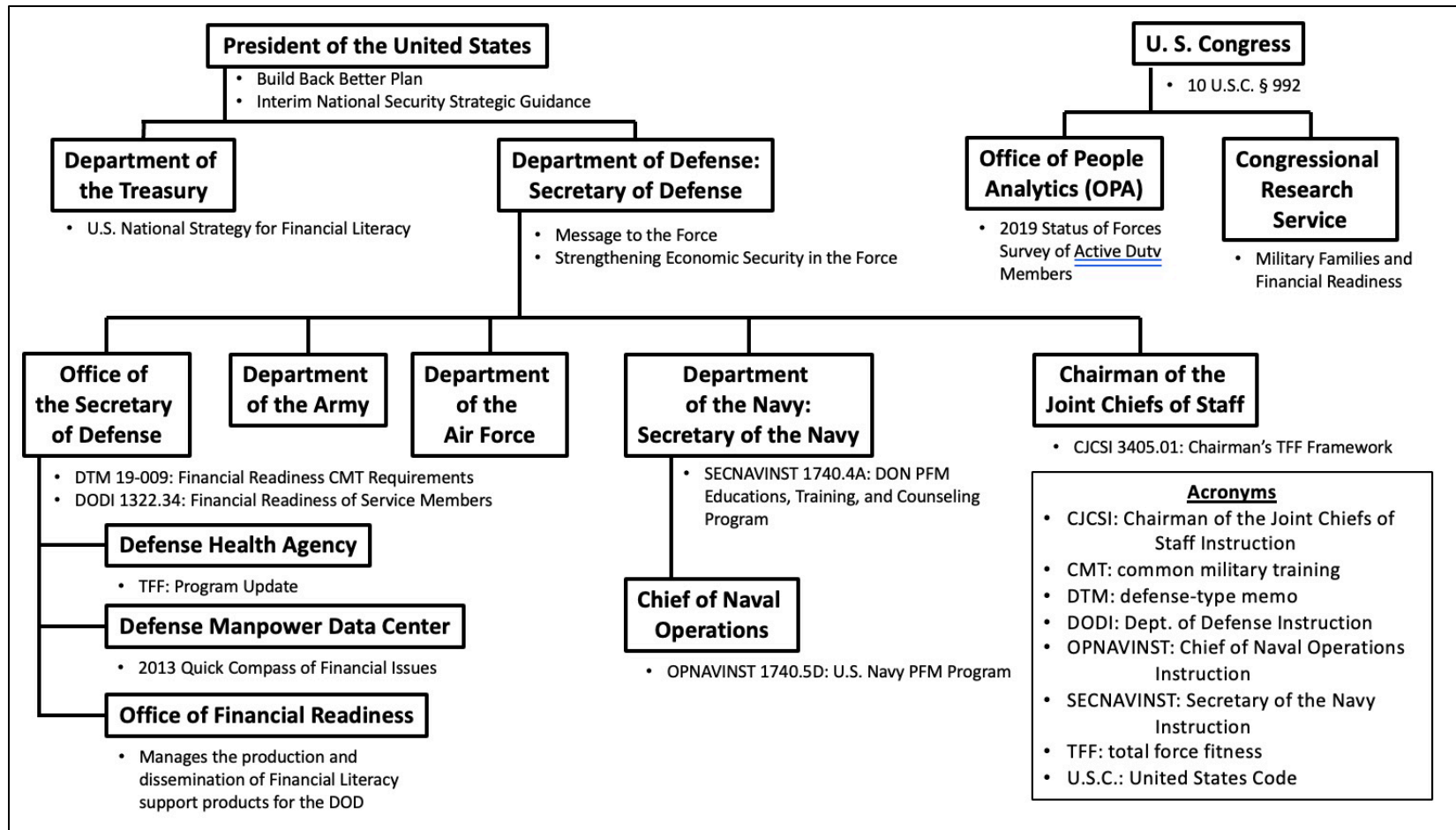


Figure 1. National and Defense Policy Framework



2. Total Force Fitness Framework

The U.S. Government has always understood the importance of individual Service member financial literacy and its impact on operational readiness. This is the reason that the U.S. Congress implemented 10 U.S.C. § 992. And as discussed in the introduction, this is the reason that President Biden’s Build Back Better initiative and INSSG directed the DOD to make financial literacy a top priority. One of the efforts to minimize operational readiness impacts caused by overall Service member fitness was the Total Force Fitness (TFF) framework. Instituted by CJCS Admiral Mullen in September 2011, the TFF framework provided “a methodology for understanding, assessing, and maintaining Service members’ well-being and sustaining their ability to carry out missions” (Mullen, 2011). Consisting of eight functionally-interrelated domains, the TFF framework was designed to be applied in a way that maintained Service members’ resilience in operational deployment and combat environments.

The eight, functional TFF domains are listed below:

1. Physical
2. Environmental
3. Medical and Dental
4. Nutritional
5. Spiritual
6. Psychological
7. Social
8. Behavioral

These domains were informed by TFF Tenets, which guided the interrelation between domains. The five TFF Tenets follow:

1. Total fitness extends beyond the Service member; total fitness should strengthen resilience in families, communities, and organizations.
2. A Service member’s family’s health plays a key role in sustained success and must be incorporated into any definition of total fitness.



3. Total fitness metrics must measure positive and negative outcomes, and must show movement toward total fitness.
4. Total fitness is linked to the fitness of the society from which the Service members are drawn and to which they will return.
5. Leadership is essential in achieving total fitness. (Mullen, 2011)

The third Tenet is significant in that it addresses the need for metrics to assess the improvement of fitness in Service members. However, as mentioned in the discussion on Strategic Challenges, there is no mention of establishing a baseline of data to compare to these metrics. This is a fundamental flaw in this framework. Over the course of the next decade, the TFF framework was continually updated. In the intervening period, several DOD and DON efforts, in collaboration with the medical and academic communities advanced the development of an organizational culture which prioritized financial fitness and its connection to operational readiness.

In the Defense Health Agency's (DHA) February 2020 Program Update, the TFF framework had replaced the "Behavioral" domain with the "Financial" domain (displayed in Figure 2). Included in the TFF's major efforts was an effort to, "emphasize the significance of financial fitness as it can impact performance in other domains." The Financial domain focused on:

1. Debt management skills
2. Responsible money management
3. Insurance and emergency planning, and
4. Investment wealth strategies (Defense Health Agency, 2020)





Figure 2. Total Force Fitness Framework. Source: DHA (2020).

Another notable change to the TFF framework was a programmatic approach, which included mission and vision statements, as well as specific annual objectives. These are detailed below:

1. Mission: To measurably improve human performance optimization and readiness of the Total Force through addressing eight domains of fitness via data-informed and synchronized policy, programs, and business practices.
3. Vision: A state in which all Service members excel at completing mission essential tasks (METs) and the unit/organization sustains optimal performance, even under difficult conditions.

4. 2020 Objectives: Transformational implementation of TFF across the DOD, which includes:
 - Authority. Establishing enterprise level governance of TFF policies and activities.
 - Governance. Aligning policies and business practices impacting TFF domains.
 - Understand & Assess. Creating and maturing an analytic capability to support holistic solutions to improving individual readiness and completion of METs. (Defense Health Agency, 2020)

It is evident that the DOD understands the importance of data analytics regarding efforts to improve, but what is still missing from this program is any evidence of effort to establish baseline data.

3. DOD's Financial Readiness Policy

In line with the TFF's Financial domain, Assistant Secretary of Defense, James Stewart issued a memorandum directing Financial Readiness Common Military Training (CMT) Requirements. This issuance addresses the identified, Strategic Goals by mandating that “financial readiness CMT requirements provide Service members the common knowledge, skills, and behavior standards to enable them to manage their financial affairs in a manner that enhances mission readiness” (Stewart, 2019).

Refer to the Appendix for several key personal financial management program terms.

Additionally, the memorandum provides a matrix of Financial Readiness CMT Terminal Learning Objectives (TLO). These TLOs are associated with the following career “touchpoints”:

1. Initial entry training
2. Leadership training
3. Pre- and post-deployment training
4. Transition (separation/retirement) (Stewart, 2019)



These CMT TLOs are then applied to a matrix to display training required throughout a notional Service member’s career. These are displayed in Tables 2 and 3.

Table 2. DTM 19–009 Financial Readiness CMT TLOs. Source: Stewart (2019).

		Initial Entry Training	First Duty Station	Permanent Change of Station	Promotion	Vesting in TSP	Entitlement to Continuation Pay	Major Life Events	Leadership Training	Pre- and Post-Deployment	Transition
Basic Finance	Recognize the importance of personal financial management and what resources are available.	X							X		
	Identify warning signs of Service members at risk for financial problems.	X							X	X	
	Understand the fundamentals of banking services and fees.	X	X								
	Understand the fundamentals of creating and managing a spending plan, and the importance of updating a spending plan.		X	X	X		X	X		X	X
	Understand the fundamentals and management of debt and credit.	X	X	X						X	
Consumer Protections	Understand fundamentals of income tax and common tax benefits, and potential changes to tax situation.		X				X	X		X	X
	Know military consumer protection law fundamentals (SCRA/MLA).	X								X	
	Recognize and understand how to protect yourself from misleading consumer practices, and report complaints.		X				X			X	
Major Purchases	Recognize and identify steps to resolve identity theft.		X							X	
	Analyze the implications and identify strategies for financing a major purchase.	X	X								
	Analyze financial implications and identify strategies for buying a car.		X								
	Understand education financing, to include available benefits, obligations, and repayment options.		X					X			



Table 3. DTM 19–009 Financial Readiness CMT TLOs, Continued. Source: Stewart (2019).

		Initial Entry Training	First Duty Station	Permanent Change of Station	Promotion	Vesting in TSP	Entitlement to Continuation Pay	Major Life Events	Leadership Training	Pre- and Post-Deployment	Transition
Planning for the Future	Comprehend the components of Service member's military retirement system and the importance of preparing for retirement.	X				X	X	X	X		X
	Discuss the reasons, needs, types, and options for purchasing insurance.		X					X		X	X
	Understand purpose and implications of estate planning (beneficiaries, wills, trusts, power of attorney, etc.)	X						X		X	X
Compensation, Benefits, and Entitlements	Know the components of basic pay and allowances throughout one's military career.	X									
	Examine the impact of special pay and entitlements.		X	X						X	
	Discuss TRICARE options and costs.		X					X		X	X
	Discuss survivor and dependent benefits.							X		X	X
	Understand future financial benefits afforded by the Department's Career Investment Programs.		X		X						
Saving and Investing	Understand interest and how the concept of compounding works.		X								
	Recognize the importance of and be able to develop savings and an emergency fund.		X		X			X		X	X
	Describe the fundamentals of investing.		X								
	Understand and be able to manage a Thrift Savings Plan (TSP) account.		X		X	X				X	X
Notes:											
<ul style="list-style-type: none"> • <i>Permanent Change of Station</i> applies to Service members in paygrades E-1 to E-4 and O-1 to O-3. • <i>Promotion</i> applies to Service members in paygrade E-1 to E-5 and O-1 to O-4. • <i>Major Life Events</i> includes, at a minimum, marriage, birth of first child, divorce, and disabling sickness or condition. • <i>Transition</i> includes separation, transition between Active and Reserve Components, and retirement. 											

This, then, provided a solid framework for the application of a holistic financial literacy education program. Additionally, the memorandum mandates that, in accordance with Title 10 of United States Code and DOD Instruction 1322.31: Common Military Training policy, financial readiness CMTs must “provide a functional baseline of common knowledge, skills, and behavior standards for all Service members across all Military Departments” (Stewart, 2019).

This requirement for establishing a common baseline of financial literacy, among all Service members provides tremendous value in the effort to minimize the potential negative impact on operational readiness. However, this approach removes incentive to apply a quality improvement process and assess the effectiveness of financial readiness CMTs.

In early 2020, the COVID-19 pandemic affected a global shut-down phenomena. This caused significant economic and personal financial turmoil. Included among those



affected were DOD Service members. In an effort to combat these negative impacts, President Biden released both the INSSG and Build Back Better framework. SECDEF Austin then responded by releasing memorandums to his executive leadership and the Force. This executive guidance led directly to the establishment of the DOD's Financial Readiness program, codified in the DOD Instruction 1322.34: Financial Readiness of Service Members. The stated responsibility of the Military Departments is to “provide programs and resources addressing the financial decisions facing Service members, and the effects such decisions can have on their personal and professional lives” (Cisneros, 2021).

As mentioned in Assistant SECDEF James Stewart's memorandum, the DOD's goal was to provide a “functional baseline” of common, financial knowledge to all Service members. This is echoed in the DOD Instruction 1322.34: Financial Readiness of Service Members, issued by Gilbert Cisneros, Under Secretary of Defense for Personnel and Readiness, in November 2021. This issuance came on the heels of SECDEF Austin's Message to the Force and immediately preceded his memorandum for Strengthening Economic Security in the Force.

As with preceding policy, DODI 1322.34 mandated the provision of “a functional baseline of common knowledge, skills, and behavior standards for all Service members” (Cisneros, 2021). However, unlike previous documents, DODI 1322.34 provided greater detail in guidance on assessments. The following is a list of statements regarding the employment of assessments to drive quality improvement:

1. Training assessment and program evaluation plans with a description of how the results of such assessments and evaluations will be used for adjusting training content and procedures (Sec. 2.9, para. d, line 7).
2. Develop procedures to regularly assess the educational needs of Service members, and develop content and resources to address unique needs, such as those for particular populations or locations, that are not already addressed by financial readiness CMT (Sec. 2.9, para. e).



3. Identify, as appropriate, additional data sources to assess the financial readiness of Service members and the impact of financial issues on readiness, resiliency, and retention, and to identify and address necessary training needs (Sec. 2.9, para. i).
4. The Secretaries of the Military Departments may, as appropriate, assign the assessment, planning, conduct, and evaluation of CMT requirements to appropriate organizations under their purview, as long as learning outcomes are consistent for all Service members under their respective Military Services (Sec. 3.1)
5. Unless otherwise directed by Military Department implementing guidance, leaders at all levels may use these TLOs [terminal learning objective] to meet financial readiness CMT requirements and determine how best to achieve these requirements, and will use their individual and collective training assessments to identify subject matter gaps. (Appendix 3A)
(Cisneros, 2021)

In addition to this detailed guidance, the CMT TLOs issued by Assistant SECDEF Stewart's memorandum were updated to reflect the increased emphasis on program improvement. These are displayed in Tables 4 through 6.



Table 4. DODI 1322.34 Financial Readiness CMT TLOs. Source: Cisneros (2021).

		Initial Entry Training	First Duty Station	Permanent Change of Station	Promotion	Vesting in TSP	Entitlement to Continuation Pay	Major Life Events	Leadership Training	Pre- and Post-Deployment	Transition
Basic Finance	Recognize the importance of personal financial management and what resources are available.	X							X		
	Identify warning signs of Service members at risk for financial problems.	X							X	X	
	Understand the fundamentals of banking services and fees.	X	X								
	Understand the fundamentals of creating and managing a spending plan, and the importance of updating a spending plan.		X	X	X		X	X		X	X
	Understand the fundamentals and management of debt and credit.	X	X	X						X	X
	Understand fundamentals of income tax and common tax benefits, and potential changes to tax situation.		X				X	X		X	X

Table 5. DODI 1322.34 Financial Readiness CMT TLOs, Continued. Source: Cisneros (2021).

		Initial Entry Training	First Duty Station	Permanent Change of Station	Promotion	Vesting in TSP	Entitlement to Continuation Pay	Major Life Events	Leadership Training	Pre- and Post-Deployment	Transition
Consumer Protections	Know military consumer protection law fundamentals, including Service members' Civil Relief Act and Military Lending Act.	X	X	X					X	X	
	Recognize and understand how to protect yourself from misleading consumer practices and report complaints.		X				X			X	
	Understand how to access credit protection benefits available to Service members.		X							X	
	Recognize and identify steps to resolve identity theft.		X							X	
Planning for the Future	Comprehend the components of Service member's military retirement system and the importance of preparing for retirement.	X				X	X	X	X		X
	Discuss the reasons, needs, types, and options for purchasing insurance.		X					X		X	X
	Understand purpose and implications of estate planning (e.g., beneficiaries, wills, trusts, power of attorney).	X						X		X	X



Table 6. DODI 1322.34 Financial Readiness CMT TLOs, Continued.
Source: Cisneros (2021).

		Initial Entry Training	First Duty Station	Permanent Change of Station	Promotion	Vesting in TSP	Entitlement to Continuation Pay	Major Life Events	Leadership Training	Pre- and Post-Deployment	Transition
Compensation, Benefits, and Entitlements	Know the components of basic pay and allowances throughout one's military career.	X									
	Examine the impact of special pay and entitlements.		X	X						X	
	Discuss TRICARE options and costs.		X					X		X	X
	Discuss survivor and dependent benefits, including Survivor Benefit Plan and Service members' Group Life Insurance.							X		X	X
	Understand future financial benefits afforded by the Department's career investment programs.		X		X				X		
Saving and Investing	Understand interest and how the concept of compounding works.		X								
	Recognize the importance of and be able to develop savings and an emergency fund.		X		X			X		X	X
	Describe the fundamentals of investing.		X								
	Understand and be able to manage a TSP account.		X		X	X				X	X
Major Purchases	Analyze the implications and identify strategies for financing a major purchase.	X	X								
	Analyze financial implications and identify strategies for buying a car.		X								
	Understand education financing, to include available benefits, obligations, and repayment options.		X					X			

Notes: For definitions, see Section G.2.

Definitions for some of the key terms and concepts that enable program execution are included in the Appendix.

First, the “test-out module” concept introduces us to the implementation of an incentive measure in the policy. If Service members have demonstrated proficiency in their financial literacy, they are provided with the ability to forgo CMT. This gives the Service member greater agency in managing their free time, thereby incentivizing increases in financial literacy.

Second, within the definition for the CMT term, is the imperative to “establish a functional baseline that improves the effectiveness” of the DOD program (Cisneros, 2021). Here we have the connection of baseline establishment and quality improvement. This is a movement in the right direction, however it is misguided in that the “baseline” mentioned refers to specific training topics and content delivered to all Service members. This misnomer diverts attention away from the actual concept of baseline, which refers to a foundational data set, which is used as a basis by which to compare all future



collections of data and thereby analyze program effectiveness and identify opportunities for quality improvement.

4. Office of Financial Readiness

Currently, all DOD financial readiness efforts are coordinated under the auspices of the Office of Financial Readiness (OFR). OFR's core mission is to "lead the department's financial readiness efforts to support a mission-ready force through policy, programs and advocacy" (Office of Financial Readiness, 2022). Under the DOD OFR, each of the Service Departments (U.S. Army, Marine Corps, Navy, and Air Force) and the U.S. Coast Guard execute their own financial management program. And although OFR provides overarching guidance, the individual services have flexibility in how they implement the required training.

5. DON's Personal Financial Management Program

In April 2019, Secretary of the Navy (SECNAV) Gregory Slavonic issued a revision of the Department of the Navy Personal Financial Management (PFM) Education, Training, and Counseling Program. The PFM program sought to reduce the "number of financial difficulties amongst DON personnel and families through education, counseling, information, and referral" and to prevent "financial difficulties and mismanagement through education of Sailors, Marines, and their families" (Slavonic, 2019). Further, the program consisted of three major elements:

1. Financial education and training
2. Financial information and referral
3. Financial counseling (Slavonic, 2019)

Furthermore, the PFM program took a holistic approach to the training element, by employing the Initial/Lifecycle Training Continuum. This continuum of common military training (CMT) provided Service members with career "touch point" training requirements and included the following subjects:

1. Military Pay Issues



2. Banking and Financial Services
3. Developing Your Spending Plan
4. Credit Management
5. Car Buying Strategies
6. Introduction to Saving and Investing
7. Consumer Awareness
8. Insurance/Risk Management
9. Legal Issues
10. Home Purchasing/Housing
11. Financial Planning for Deployment
12. Money and the Move
13. Savings and Investments
14. The Basics of Retirement Planning, including the Blended Retirement System (BRS)
15. College Savings
16. Retirement Resources (Slavonic, 2019)

This “life cycle” approach is a clear demonstration of commitment, on the DOD/DON’s part, to support Service members with the resources necessary to effectively manage their finances and reduce potential, negative impacts to operational readiness. But what is more significant is the inclusion of a requirement for the offices of the Chief of Naval Operations and the Commandant of the Marine Corp to “ensure that system(s) are in place to capture PFM activity/data/metrics. Navy and Marine Corps headquarters personnel, in cooperation with the Office of the Secretary of Defense staff, will identify the specific data to be collected, the frequency, and other reporting elements” (Slavonic, 2019).



This is another example, in which emphasis on data capture is expressed, but no consideration is made for acquiring a baseline for comparison and analysis.

In October 2017, Deputy Chief of Naval Operations, Robert Burke issued a revision to the United States Navy Personal Financial Management Program. This document was relevant in its timely incorporation of language focused on gambling disorders. It also addressed the fact the previously identified Strategic Challenge of the wide spectrum of financial literacy among initial accessions in acknowledging “the lack of basic consumer skills and training in how to prudently manage finances” and identifying the following “financial difficulty” factors:

1. High cost of living in some areas in the United States and overseas
2. Prevalence of easy credit and predatory lenders
3. High-pressure sales tactics
4. Clever and deceptive advertising techniques that include internet ads
5. Undisciplined buying and the tendency to live beyond one’s means
6. Consumer rip-off schemes (Burke, 2017)

Another concept that is a critical resource to Service members, addressed here, is that of the Fleet and Family Support Center (FFSC). This center provides information and support to Service members and their families and acts as a starting point for addressing financial problems, either proactively or reactively. They are an invaluable source of support for in-extremis Service members, but their effectiveness is limited. According to this issuance, FFSCs must “ensure records are maintained utilizing the Fleet and Family Support Management Information System (FFSMIS), of personal financial management education, training, and counseling conducted” (Burke, 2017).

Of note, here, is the decreasing clarity with regard to how data is to be collected and recorded, and what purpose it will serve. This decrease began in the transition from SECNAV Policy (SECNAVINST 1740.4A) to OPNAV Policy (OPNAVINST 1740.5D). Without providing consistent clarity in how and what data is to be collected for analysis,



the DOD Policy leaves direction open to the interpretation of all subordinate levels, which increases the likelihood that aggregated data will not support consistent analysis.

6. Congressionally Mandated Data Collections and Analysis

In response to the consistent demand for data collection and evaluation, originating in 10 U.S.C. § 992 and mandated by SECDEF Austin, the DOD established a partnership with the Office of People Analytics (OPA) to generate the Status of Forces Survey of Active Duty Members (SOFS-A). The most recent survey, initiated in 2019, included the following “Leading Indicators”:

1. Retention: how likely active duty Service members are to remain on active duty
2. Satisfaction: how satisfied people are with the “Military way of life”
3. Tempo: the amount of time people are working or away from their home and how this impacts their likelihood to remain on active duty
4. Stress: current levels of work and personal stress
5. Readiness: percentage of Service members reporting as ready to “perform wartime job or mission” (OPA, 2021)

This survey indicates the DOD’s ability to obtain insight on the status of Service members, at a moment in time. But this information neither captures a comparison of where Service members started nor an understanding of their progress. And because of this, it provides little value in understanding the effectiveness of the programs created to positively impact the “Leading Indicators.”

A survey, conducted by the Defense Manpower Data Center (DMDC), did provide more appropriate data regarding Financial Issues. Released in 2013, through the Human Resources Strategic Assessment Program (HRSAP), the 2013 QuickCompass of Financial Issues was conducted as an addition to the SOFS and focused on assessing the following focal areas:



1. Attitudes towards the use of credit and broader limitations on high-cost credit
2. Frequency and purpose of the use of high-cost credit products
3. Extent of the use of certain high-cost credit products not currently covered by Military Lending Act (MLA) rules
4. The potential impact of broadening limitations for credit on members' ability to manage their finances (HRSAP, 2013)

The survey provides insight to DOD leadership regarding the challenges that Service members face and potentially identifies opportunities for targeted education, but offers absolutely zero information regarding the effectiveness of financial literacy education programs.

Data compiled by the Congressional Research Service was released in the December 2021 Military Families and Financial Readiness. It summarizes statistics of overall financial readiness among Service members and compares readiness among different groups, such as officers/enlisted and active/reserve components.

This report, however, provides insight in a way that the majority of other DOD reports do not. Because this report was targeted for a Congressional audience, its intent is to inform policy. Regarding the effectiveness of financial literacy education, the following are general findings:

1. Financial literacy training is correlated with positive credit behaviors, better retirement planning and wealth accumulation, and overall financial well-being
2. Evidence is limited as to whether financial literacy training is effective in increasing knowledge and shifting behaviors for military servicemembers and households
3. A study of the U.S. Army's personal financial management course for new enlistees found that it reduced credit delinquencies and debt balances in



the year following the course, and increased retirement savings rates for at least two years afterwards

4. The effect of the course on adverse credit events did not persist beyond the first year, suggesting that the current approach of requiring training at multiple career milestones (as per 10 U.S.C. § 992) may be effective for sustained impact
5. Outcomes associated with financial education are sensitive to the timing, method of delivery, and content, among other factors
6. There also is some research to suggest that there are racial and gender differences in baseline financial knowledge and post-training outcomes. These findings suggest that offering targeted or tailored training to various military sub-populations might increase its effectiveness. (Kamarack, 2021)

This is the most significant and applicable research that I could find regarding assessments (evaluations) of the effectiveness of DOD financial literacy education efforts. Collecting this data is in accordance with all superior guidance, mandating that efforts be taken to measure outcomes and demonstrate improving Force fitness. However, without the baseline data to compare with, assessments of program impact of changes in Force financial fitness may be weak.

7. Summary of DOD Financial Readiness Policy

To review, the DOD has an established track record of mandating quality improvement processes in its policy. The following list summarizes these statements from the previously discussed issuances:

1. “The results of the annual financial literacy and preparedness survey shall be used by each of the Secretaries concerned as a benchmark to evaluate and update training” (10 U.S.C. § 992).
2. “Conduct annual audits of the effectiveness of their financial readiness common military training programs” (Austin, 2021).



3. Further, these metrics “must tell us whether we are improving the fitness of the force in each TFF domain” (Mullen, 2011).
4. “Total fitness metrics must measure positive and negative outcomes, and must show movement toward total fitness” (Mullen, 2011).
5. “Understand & Assess. Creating and maturing an analytic capability to support holistic solutions to improving individual readiness and completion of METs” (Defense Health Agency, 2020).
6. CMTs must “provide a functional baseline of common knowledge, skills, and behavior standards for all Service members across all Military Departments” (Stewart, 2019).
7. “Training assessment and program evaluation plans with a description of how the results of such assessments and evaluations will be used for adjusting training content and procedures” (Sec. 2.9, para. d, line 7) (Cisneros, 2021).
8. “Unless otherwise directed by Military Department implementing guidance, leaders at all levels may use these TLOs [terminal learning objective] to meet financial readiness CMT requirements and determine how best to achieve these requirements, and will use their individual and collective training assessments to identify subject matter gaps” (Appendix 3A) (Cisneros, 2021).
9. According to this issuance, FFSCs must “ensure records are maintained utilizing the Fleet and Family Support Management Information System (FFSMIS), of personal financial management education, training, and counseling conducted” (Burke, 2017).
10. “Ensure that system(s) are in place to capture PFM activity/data/metrics. Navy and Marine Corps headquarters personnel, in cooperation with the Office of the Secretary of Defense staff, will identify the specific data to



be collected, the frequency, and other reporting elements” (Slavonic, 2019).

8. Weakness in DOD Financial Readiness Policy

Nowhere in any of these documents exists direction to capture baseline data on Service member financial literacy. Why is this? To answer this question, we look a little closer at United States Code. 10 U.S.C. § 992 deals with Financial Literacy Training. Updated under the 2016 National Defense Authorization Act (NDAA), the previously discussed “touchpoint” concept required financial literacy training, which occurs at specific points in the careers of Service members. This update is what drove the programmatic changes in DOD policy on financial readiness and literacy education.

Also included in this law is the requirement for the Director of the Defense Manpower Data Center to “annually include in the status of forces survey (SOFS) a survey of the status of the financial literacy and preparedness of members of the armed forces” (10 U.S.C. § 992, 2016). The results of the SOFS were directed to be:

1. Used by each of the Secretaries concerned as a benchmark to evaluate and update training provided under this section
2. Submitted to the Committees on Armed Services of the Senate and House of Representatives (10 U.S.C. § 992, 2016)

This, then, brings us to our answer. Although there is a requirement to collect data and perform assessment and evaluation, the bottom line is that there is no statutory requirement to establish baseline data. Figure 3 represents a simplistic representation of the “touchpoint” construct. Under this framework (and in accordance with 10 U.S.C. § 992), all Service members receive the same training, regardless of initial financial literacy.



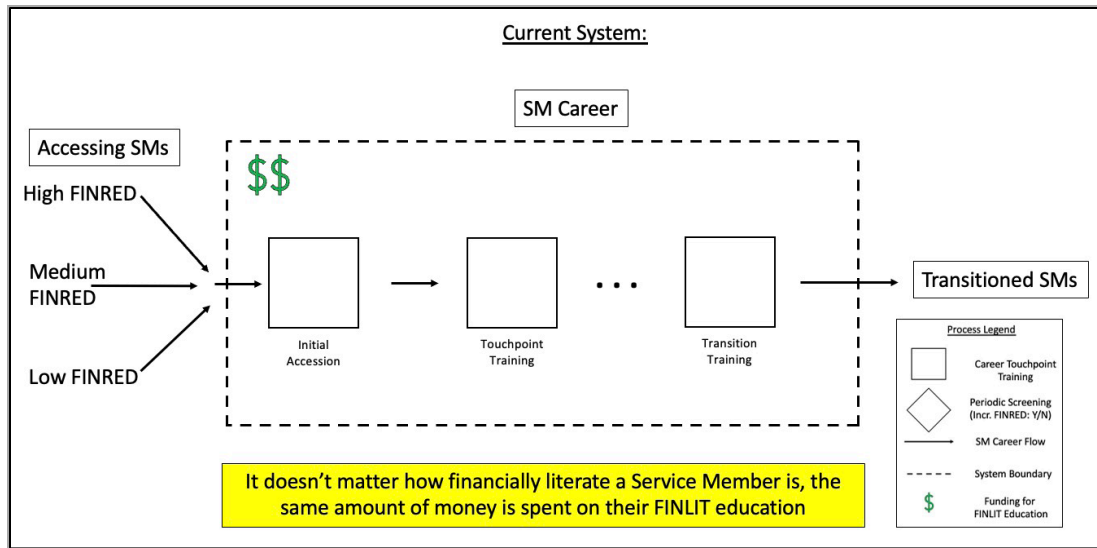


Figure 3. Current Financial Literacy Education System.

Because of this, the DOD can apply a “one-size-fits-all” approach, collect independent data from surveys and training completion, and then make assessment based on untethered information. But is this truly bringing value to the DOD, in terms of actually assessing the effectiveness of these programs? It is not.

Returning to the Strategic Challenges addressed in the Introduction:

- a. Input: Diverse levels of financial literacy of initial accessions
 - Process: Lack of comprehensive; holistic approach to providing financial literacy education to DOD personnel
 - Efficiency: Employing limited taxpayer dollars to achieve the Strategic Goals

As mentioned before, there is not much the DOD can do to impact the financial literacy of potential accessions. However, with regard to the process, I have demonstrated the tremendous efforts the DOD has taken to systematically improve the financial literacy of the Force and to create a culture of stronger financial readiness. As to efficiency, this is the weak point in the DOD’s policy. Although the mandate to collect data, assess effectiveness, and identify opportunity for improvement is consistent throughout the

organization, the lack of demand for baseline data of initial accessions fundamentally hinders all quality improvement efforts. In order for us to provide the DOD with the tools to accurately assess the effectiveness of its financial literacy education programs and enact impactful, quality improvements, we need to begin capturing baseline financial literacy and readiness data on new accessions immediately.

C. PROGRAM IMPROVEMENT: BASELINE DATA, EVALUATION & MONITORING

1. Significance of Baseline Data

I have mentioned the term baseline many times throughout this paper, but not delved into the significance of this term. This section deals with the value baselines provide and how they are used to improve the effectiveness of systems.

In February 2016, the Center for the Study of Traumatic Stress and the Uniformed Services University of the Health Sciences' Department of Psychiatry conducted a conference entitled Financial Stress and Behavioral Health in Military Servicemembers: Risk, Resilience, Mechanisms and Targets for Intervention. The conference focused on identifying and quantifying financial stress in Service members and their families and on employing aggregated data to identify mitigations to these stressors.

Two very significant discussions, among many, that took place during this conference involved current knowledge gaps and the concept of Continuous Quality Improvement. First, conference attendees, recommended that studies be conducted to examine the concept of financial stress as a matrix of individual stressors, which includes:

- Pre-existing risk factors prior to entering the military
- Predisposing factors (debts, dependents)
- Acute and precipitating factors
- Sustaining factors



- Modifying and mitigating factors and events (injury, career transitions, deployment, support) (Ursano, Fullerton & Dichtel, 2016)

These factors, which were not being tracked, would help to establish a baseline of data which contributes to an overall “snapshot” of the financial stress that a Service member would potentially be exposed to. This approach is in line with the TFF framework and contributed to the DOD’s approach to financial literacy education, with particular regard to the Career Touchpoint construct.

The second, the concept of Continuous Quality Improvement (CQI), addresses “improving quality with evidence” (Ursano, Fullerton & Dichtel, 2016). The CQI process is further explained as a quality management process which “requires close collaboration of researcher/[subject matter expert] and leadership to continuously ask the questions, ‘How are we doing?’ and ‘Can we do it better?’” (Ursano, Fullerton & Dichtel, 2016).

Ronald Kessler, McNeil Family Professor of Health Care Policy at Harvard Medical School, illustrated CQI with an example of businesses using data to make advertising and sales decisions and says that this approach can apply in the DOD, as long as the “same level of rationale” and a “good, solid benchmark” are applied (Ursano, Fullerton & Dichtel, 2016). And this is the key to what the DOD is attempting to address with its Financial literacy education efforts. Kessler drives the point further by stating:

Centralization of baselines is critical. We need to be thoughtful realizing that we do randomization all the time. We need to figure out what is the right before and after case-control comparison loop from which to draw inferences. We need centralization bringing all the data together so we can go up the line to say here are the implications (Kessler: Ursano, Fullerton & Dichtel, 2016).

So, even though the importance of baseline data was identified at this conference, it did not materialize in the 2016 update to 10 U.S.C. § 992.

Next, we take a step back from the DOD to review the perspectives of the academic community, on the importance of baseline data.

In 2019, Juan Ballesteros-Canovas, Simon Allen, and Markus Stoffel published a case study entitled The Importance of Robust Baseline Data on Past Flood Events for



Regional Risk Assessment: A Case from the Indian Himalayas. The focus of their case study was an effort to boost the effectiveness of a flood-prediction model by increasing the baseline data. They attempted to do this by “extending the records of past flooding” (Ballesteros-Canovas, Allen & Stoffel, 2019).

By increasing the baseline data of their model, they discovered that flood frequency was much higher than previously recorded information indicated. This meant that established models were underestimating the likelihood of flooding in the Indian Himalayas, which increased risk to the highly populated, mountain region. Likewise, the DOD runs the risk of potentially inaccurately estimating the effectiveness of its programs and underserving its Service members.

In December 2009, Elaine Kempson of the Organisation for Economic Co-operation and Development (OECD) released a paper entitled Framework for the Development of Financial Literacy Baseline Surveys, in which she addressed the increasing concern “across a wide range of countries, about the levels of financial capability of consumers” (Kempson, 2009). Further, she acknowledges the large number of initiatives and national strategies aimed at impacting this issue. However, Kempson states that the effectiveness of these strategies requires:

- Evidence of the areas where financial capability in the population is low
- Identification of the extent to which these should be addressed by financial education and/or consumer protection measures (Kempson, 2009)

Kempson argues that baseline data is vitally essential to effectively administering any national strategies. And this applies directly to the DOD’s financial literacy education program.

2. Concept for Monitoring and Evaluation

To take this a step further, we apply baseline data to a systematic approach to program improvement. In their book, Ten Steps to a Results-based Monitoring and Evaluation System, Jody Kusek and Ray Rist state, simply, that “an effective state is essential to achieving sustainable socioeconomic development” (Kusek & Rist, 2004).



Further, they recognize that “as demands for greater accountability and real results have increased, there is an attendant need for enhanced results-based monitoring and evaluation of policies, programs, and projects” (Kusek & Rist, 2004).

This statement represents the heart of this project. The DOD truly desires to evaluate its policies and programs. It truly desires for these programs to achieve both an effective state and sustainable development of its most valuable resource, its people. But as we have seen, the DOD has not taken the efforts to develop the preliminary data to perform this evaluation.

Kusek and Rist’s book focuses on how monitoring and evaluation, which are based on results, provide powerful feedback to fuel organizational improvement. It centers on a ten-step process of designing and building a results-based monitoring and evaluation (M&E) system. Figure 4 displays the ten-step model.

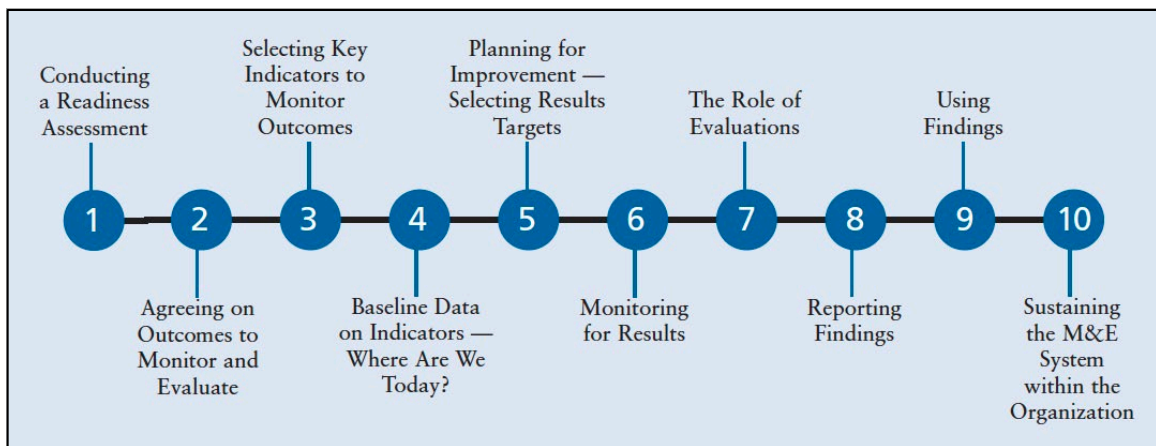


Figure 4. Ten Steps to Designing, Building, and Sustaining a Results-based Monitoring and Evaluation System. Source: Kusek & Rist (2004).

The following are key terms from the book:

- Outcome: the likely or achieved short-term and medium-term effects of an intervention’s output
- Base-line study: an analysis describing the situation prior to a development intervention, against which progress can be assessed or comparisons made

- Benchmark: reference point or standard against which performance or achievements can be assessed
- Target group: the specific individuals or organizations for whose benefit the development intervention is undertaken
- Monitoring: “a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds.
- Evaluation: the systematic and objective assessment of an on-going or completed project, program or policy, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors. (Kusek & Rist, 2004)

Key to this idea is the differentiation between “Implementation” versus “Results” monitoring. Figure 5 details the difference in elements between these two types of monitoring.



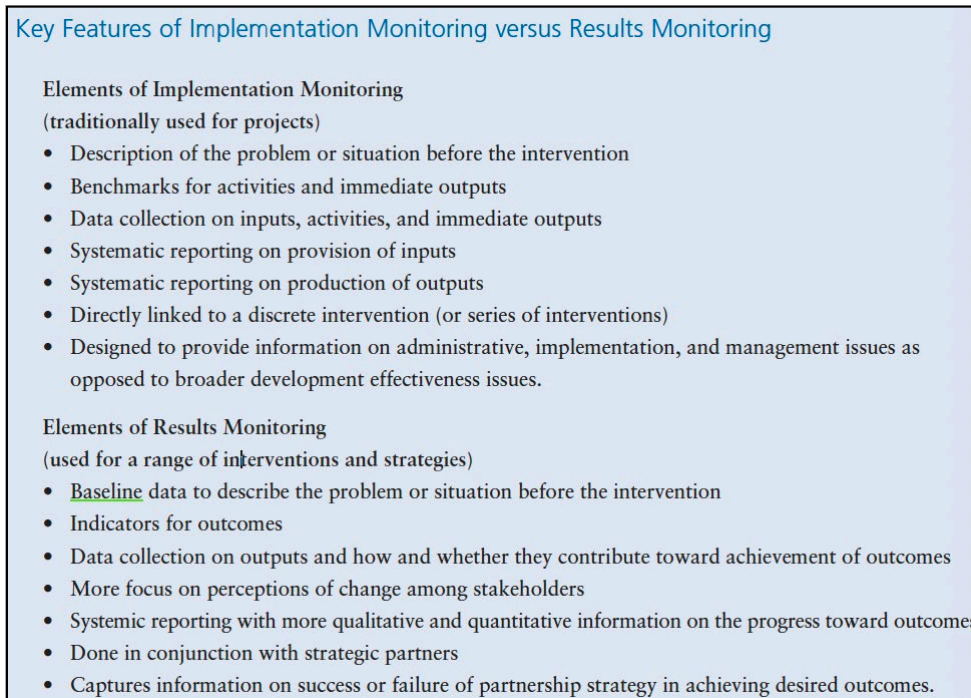


Figure 5. “Implementation” versus “Results” Monitoring. Source: Kusek & Rist (2004).

As you can see, “Implementation” monitoring describes the process that the DOD is currently applying to evaluating the effectiveness of the financial literacy education program. The “Results” monitoring, which Kusek and Rist advocate for, requires a baseline and clearly identified indicators. Only with these can the DOD truly evaluate and monitor the performance of their program.

Applying this model to the DOD’s Financial Literacy education program, we can assess the effectiveness of their monitoring and evaluation:

- Conducting a Readiness Assessment: No (not on an individual basis)
- Agreeing on Outcomes to Monitor and Evaluate: No (no standard method of evaluation)
- Selecting Key Indicators to Monitor Outcomes: Yes (Touchpoints)

- Baseline Data on Indicators—Where Are We Today?: No (not on an individual basis)
- Planning for Improvement—Selecting Results Targets: No (the only target is completion)
- Monitoring Results: Yes (limited to completion)
- The Role of Evaluations: Input from FFSC (or Service equivalent) communicates how many Service members are receiving counseling; training completion via e-learning
- Reporting Findings: Yes (reported through Services to DOD)
- Using Findings: N/A (limited assessment value without baseline data)
- Sustaining the M&E System within the Organization: N/A (limited assessment value without baseline data)

So how do we fix the DOD’s ability to monitor, evaluate, and improve its financial literacy education program? How do we shift from the current system, displayed in Figure 3 to a more effective and adaptive system, illustrated in Figure 6?



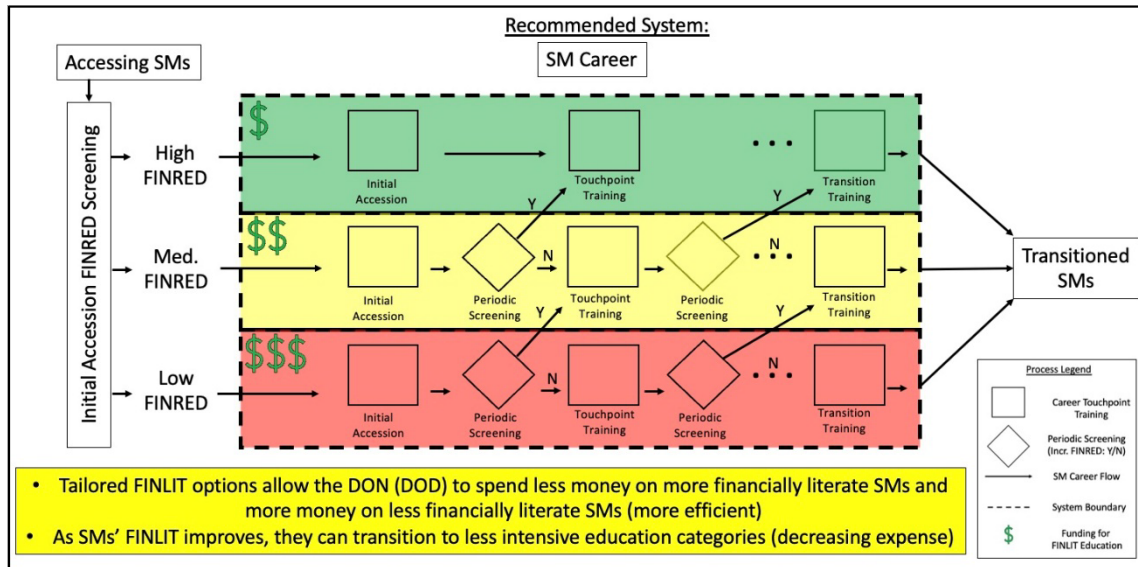


Figure 6. Recommended Financial Literacy Education Framework

We do this by implementing a financial screening process for initial accession candidates. A predictable objection to this is “Why should we increase the administrative expense and burden on the intake process, when we already have a system that works?”

D. BENEFITS OF SCREENING NEW ACCESSIONS

In an article for the Human Resource Management section of the Harvard Business Review, entitled When Hiring, First Test, and Then Interview, John Bateson, Jochen Wirtz, Eugene Burke, and Carly Vaughan explain the benefits of applying a screening process in hiring activities. In particular, this article focuses on the British call center industry. Historically, the industry employed the following hiring regimen:

- Resume review
- Phone-based or face-to-face interviews
- Various tests (including psychometric) to determine “best fit” (Bateson, Wirtz, Burke & Vaughan, 2013)

The researchers asserted that placing the testing step at the beginning of the process would “efficiently weed out the least-suitable applicants, leaving a smaller,

better-qualified pool to undergo the more costly personalized aspects of the process” (Bateson, Wirtz, Burke & Vaughan, 2013).

An example of this was demonstrated by a United Kingdom (UK) energy company that was concerned with absenteeism among its employees. They administered the Dependability and Safety Instrument (DSI; an 18-question online assessment) to 136 new employees and tracked absences over a six-month period. The data collected showed that “workers who scored in the highest 30% of the group were 2.3 times as likely to have perfect attendance as workers who scored in the bottom 30%” (Bateson, Wirtz, Burke & Vaughan, 2013).

The researchers also provided the example of a security company that “gave the test to 72 drivers and learned that the bottom 30% had five times as many accidents in six months as the top 30%” (Bateson, Wirtz, Burke & Vaughan, 2013).

In the case of the DOD, there are other aspects of overall accession screening that more effectively determine ineligibility, but the value in this research is its applicability to financial screening as a potential indicator of how susceptible an individual would be to have reduced operational readiness, based on poor financial readiness. And this is the solution to addressing this thesis’ problem statement: identifying a means to track and analyze the financial readiness of each Service member, thereby allowing for evaluation of the DOD financial literacy program and identification of opportunities for improvement.



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III. METHODOLOGY

A. FINANCIAL READINESS SCREENING OVERVIEW

The financial screening process that I will detail will accomplish the following:

- Assesses the financial literacy of accession candidates
- Assesses the likely impact that their financial readiness will have on operational readiness
- Assigns a financial readiness classification to them which will determine the level of financial literacy education resources applied to them
- Most importantly, create an individual baseline of data for each accession candidate that can be periodically monitored and evaluated, thus allowing the DOD to make accurate assessments of financial literacy education programs and drive quality improvement

After this initial screening, the DOD must archive this data and track it over the course of their career. The financial literacy can then be re-evaluated at the Touchpoints and a determination could be made to:

- Continue the previous level of financial literacy education resources (flow indicated in Figure 6)
- Decrease the level of financial literacy education resources (because of increased, assessed FinLit)
- Increase the level of financial literacy education resources (because of decreased assessed FinLit; not supported by data)

Most importantly, the progress of every Service member could be tracked and correlated to financial literacy education. This data could then be aggregated and applied to effectiveness measures. This would legitimately drive decisions on changes to the program.



B. FINANCIAL READINESS SCREENING MODEL

The intent of applying a financial readiness screening process is, similar to the results described in the Bateson et al. research, to employ a tool that can indicate the likely financial readiness of initial accession candidates. An added benefit is that this screening can establish a baseline of data which can be compared to future evaluations of financial readiness and analyzed to determine the effectiveness of the DOD's financial literacy education program. This would legitimately meet the intent of statutory law, requiring the use of annual financial literacy and preparedness surveys "as a benchmark to evaluate and update training" (10 U.S.C. § 992, 2016).

The proposed financial readiness screening contains three components:

1. Financial Literacy Test
2. Debt-to-Pro prospective Income (DTPI) Ratio
3. Credit Score

The results of these three components are weighted, based on projected impact to financial readiness (indicated below):



1. Financial Literacy Test

a. Weight: 50%

b. Rationale: Highest indicator of financial decisions which may positively/negatively impact financial readiness

c. Source: ASVAB/OAR/ASTB component; Exam administered at Armed Forces Career Center, etc.

d. Format: Multiple-choice examination (25-100 questions, computer-based)

e. Exam categories:

(1) Interest Rates

(2) Time value of money

(3) Budgeting money

(4) Debt management

(5) Using credit

(6) Cyber security/passwords/social media scams

(7) Taxes

(8) Insurance

(9) Investing

(10) Retirement planning

2. Debt-to-prospective Income Ratio

a. Weight: 30%

b. Rationale: Considerable indicator of potential for negative financial readiness

c. Source: Debt information provided/documentated by Initial Accession Candidate, verified by credit report; Compared to prospective income of entry paygrade

d. Format: Reported by Candidate, captured by recruiter



e. Metrics:

- (1) Positive = DTPI ratio <0.36 (100 points)
- (2) Neutral = DTPI ratio $=0.36$ (67 points)
- (3) Negative = DTPI ratio >0.36 (33 points)
- (4) DTPI set at .36 in accordance with Fannie Mae loan underwriting guidelines (Fannie Mae, 2022)

3. Credit Score

a. Weight: 20%

b. Rationale: Lowest indicator of financial readiness, especially with regard to younger Initial Accession Candidates who may not have any established credit (provides a benefit to people with Good/Excellent credit scores; minimal negative impact to overall score for Candidates with No/Bad/Fair credit scores)

c. Source: Credit reporting agency (Equifax/Experian/Transunion)

d. Format: Report generated via request to credit reporting agency

e. Metrics:

- (1) Bad score: 300 – 629 (25 points)
- (2) Fair score: 630 – 689 (50 points)
- (3) Good score: 690 – 719 (75 points)
- (4) Excellent score: 720 – 850 (100 points)

The weights are set with the intent of applying the most weight to the financial literacy test, as the leading indicator for overall financial readiness. Once the raw data is received, it is entered into a matrix which applies a value from 0 – 100 points.

The weights for each components is then applied to the values, which produces a total score from 14.9 to 100 points. Based on candidates' scores, they will be placed into one of three categories, indicating level of financial readiness:

1. High Financial Readiness (68 – 100 points)
2. Medium Financial Readiness (34 – 67)



3. Low Financial Readiness (14.9 – 33)

Table 7 is an empty Financial Readiness Score Matrix (FRSM). Table 8 is a FRSM with a notional score, based on the United States’ national averages for financial literacy, debt-to-income ratio, and credit score (source).

Table 7. Financial Readiness Score Matrix (Empty)

<u>Component</u>	<u>Raw Score</u>	<u>Value</u>	<u>Weight</u>	<u>Total Score</u>
Financial Literacy Examination			50%	0
Debt-to-Pro prospective Income Ratio			30%	0
Credit Score			20%	0
Total			100%	0

C. FINANCIAL READINESS SCREENING EXAMPLE

Table 8. Financial Readiness Score Matrix (Notional Initial Accession Candidate Score)

<u>Component</u>	<u>Raw Score</u>	<u>Value</u>	<u>Weight</u>	<u>Total Score</u>
Financial Literacy Examination	67.93%	67.93	50%	33.965
Debt-to-Pro prospective Income Ratio	9.50%	100	30%	30
Credit Score	679	50	20%	10
Total			100%	73.965



The data inputted into Table 8 was collected from the following sources:

1. Financial literacy score: provided by the National Financial Educators Council, based on a national (United States) average score for 15–18 year old people in the United States (Balancing Everything, 2021).
2. Debt-to-Income ratio: provided by the St. Louis Federal Reserve and averaged across all U.S. households (Caporal & Albright, 2022).
3. Credit score: provided by Experian and was averaged across all 18–24 year old people in the United States (Horymski, 2022).

In the example displayed in Table 8, we can see that the notional score of 73.965 would be assessed as High Financial Readiness. This would place them in the first row of the Recommended System, illustrated in Figure 6.

Once the overall financial readiness score is computed, it is recorded in the Candidate's record and tracked over the duration of their career. At each Touchpoint, these components can be reevaluated, recomputed, and recorded for comparison to previous scores. And because the financial literacy examination is broken into categories, analysis can be conducted to determine DOD financial literacy education effectiveness in specific categories. This analysis can be applied to all Service members or applied to specific populations to determine opportunities for program improvement, as mentioned in the Congressional Research Services report on Military Families and Financial Readiness.



IV. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSION

The terminal objective of this project was to construct a potential mechanism for assessing the financial literacy and readiness of initial accession candidates. The Financial Readiness Score Matrix achieves this objective as well as satisfying the strategic goals of minimizing the financial readiness impact on operational readiness and improving the DOD “end product” (Service members and families) to strengthen the economy. The following section provides recommendations for implementing the Financial Readiness Screening Model effectively and opportunities for further research.

B. RECOMMENDATIONS

The two recommendations generated from this thesis project center on changes to the 10 U.S.C. § 992 and updates to DOD Financial Readiness Policy. This is the only mechanism that can compel the DOD and Services to assess initial accession candidate financial readiness and capture this data for further analysis. And as this screening and data analysis are the most accurate ways to truly determine program effectiveness, it is imperative that these recommendations are adopted.

1. Update 10 U.S.C. § 992

Update 10 U.S.C. § 992 to mandate:

a. *Initial accession candidate financial readiness screening*

Screening initial accession candidates will create a baseline data set which will communicate individual financial readiness, as well as establishing a statistical understanding and track record of overall DOD financial readiness.

b. *Periodic financial readiness re-screening at each Touchpoint*

Periodic re-screening of individual financial literacy, at a minimum, will build on the information captured from the initial screening and provide insight into the change of financial literacy over time, both at the individual and DOD-wide levels. Further, the



change in financial literacy would be compared to the level of financial literacy education provided (via the Office of Financial Readiness) to determine which aspects of training are more or less effective. This correlation, between training provided and change in financial literacy, would be used to update future financial literacy education programs.

There is also the potential to re-evaluate Debt-to-Income ratios and Credit Scores, though the primary focus should be on financial literacy, as it is directly impacted by the training.

c. Data collection and storage management for each Service member for all screening activities

The collection and storage of data incurs a cost to the government. Due to the fact that this overall recommendation would increase this cost to the DOD, a mandate for collection and storage would be necessary to ensure funding would occur.

d. Data analysis to determine the financial readiness progress of each Service member correlated to individual aspects of the DOD's comprehensive financial literacy training

Similar to data collection and storage management, data analysis would incur a cost to the government and require specific inclusion to secure funding. The DOD benefits from its established relationship with the Office of People Analytics and could potentially leverage this to control this cost.



e. Annual report from the DOD, to Congress, detailing:

- (1) The average financial readiness of initial accessions for the fiscal year
- (2) The rate of change of overall financial literacy for all Service members for the fiscal year
- (3) The rate of change of financial literacy by individual Touchpoint for all Service members for the fiscal year
- (4) Explanation for changes in financial literacy and any gaps of weaknesses identified in current DOD financial readiness policy and financial literacy training
- (5) Recommendations for changes to DOD financial readiness policy and improvements for financial literacy training program

2. Update DOD Financial Readiness Policy

Currently, each Service is able to manage its own financial readiness program. On the DOD's OFR website, each Service has a link to its own page. Each page is unique and the training provided, while acceptable under 10 U.S.C. § 992, is nonuniform. As a result, the results of financial literacy training in the U.S. Army would most likely not yield the same change in financial literacy for an individual that training from the USN, USMC, or USAF would yield. For data collected from literacy examinations to be comparable across Services, this training needs to be uniform across all Services. Update all Department of Defense Instructions focused on Financial Readiness and Literacy training, directing the Services to conduct:

a. Uniform initial accession candidate financial readiness screening

The DOD must take a Service-agnostic approach to conducting this screening. Each Service must conduct the screening in the exact same way, in order to ensure uniformity of data collection.

b. Uniform Career Touchpoint financial readiness re-screening

Currently, the Services are free to execute their own financial management program. The Services must align their programs to ensure consistency in how training is applied. This will create a more reliable data set, as opposed to a scenario in which the re-



screening results from members of one Service are incompatible with members from another Service.

c. Uniform data collection and management at all point of screening and training

This ensures that all screening and training activities yield data which is collected and stored for analysis.

d. Uniform data analysis to determine the financial readiness progress of each Service member and to determine the effectiveness of financial literacy training

This ensures that no matter what Service is collecting the data, it will be analyzed the same way, so that aggregated data (DOD-wide) will be reliable in its ability to correlate changes in financial literacy to the individual Touchpoint education event.

e. Annual reports from the Services to the DOD, detailing:

- (1) The average financial readiness of initial accessions to each Service for the fiscal year
- (2) The rate of change of overall financial literacy for all members of each Service for the fiscal year
- (3) The rate of change of financial literacy by individual Touchpoint for all members of each Service for the fiscal year
- (4) Explanation for changes in financial literacy and any gaps of weaknesses identified in current Service financial readiness policy and financial literacy training
- (5) Comparison of financial literacy in each of the individual Services
- (6) Recommendations for changes to Service financial readiness policy and improvements for financial literacy training program

3. Further Research

Due to the limited scope of this project, there were several aspects which were unexplored, but would provide value with regard improving the overall effectiveness of the DOD Financial Readiness policy and the implementation of the Recommendations.



a. *Cost of data management for financial readiness scores for all Service members*

As discussed in the Recommendations for updating 10 U.S.C. § 992, the data collection and storage management would result in increased cost for the DOD. In a fiscally-constrained environment, accurate cost estimation is essential for successful changes to U.S.C. This involves both considering existing methods of data management and exploring novel alternatives. Currently, the DOD employs the FFSMIS to capture and track Service member data. The determining factor for expanding this capability would be the marginal cost for this expansion. If the cost was too high, then an alternative may provide a lower cost solution.

b. *Steps/cost necessary to adapt the ASVAB/OAR/ASTB to include a Financial Literacy exam component*

A potentially prohibitive aspect of the proposed recommendation is the Financial Literacy exam component of the FRSM. Although generating the exam is not difficult, creating space in the initial accession process may be. A simple solution to this potential issue would be to incorporate this exam into the Armed Services Vocational Aptitude Battery (ASVAB), Officer Aptitude Rating (OAR), and, or Aviation Selection Test Battery (ASTB). These are all required examinations and adding the Financial Literacy component would have minimal impact, but immense benefit with regard to the proposed recommendations. Additionally, because these examinations are administered to initial accession candidates to all Services, it satisfies the requirement for universal administration.

c. *Development of a model which allows for more or less resource expense on financial literacy training, per Service member, based on individual level of financial readiness*

Slightly outside of the scope of this thesis project, but in line with the goal of data collection analysis, is the opportunity to streamline the financial literacy education system in a way which applies the appropriate level of training to Service members. Once initial accession candidate financial readiness scores are universally captured, the DOD can create a system which tailors training to the level of financial readiness (as depicted



in Figure 6. Recommend Financial Literacy Education Framework). This would allow the DOD to spend less money education highly, financially literate Service members and focus more resources on those members at lower levels. However, this all starts with capturing baseline data and this potential cannot be implemented until that happens.



APPENDIX. KEY TERMINOLOGY

1. Military Training (CMT): non-occupational directed training that sustains readiness, provides common knowledge, enhances awareness, Common reinforces expected behavioral standards or obligations, and establishes a functional baseline that improves the effectiveness of the DOD and its constituent organizations. (Cisneros, 2021)
2. Financial literacy: the ability to use knowledge and skills to manage financial resources. (Stewart, 2019)
3. Financial readiness: the state in which successful management of personal financial responsibilities supports a Service member's ability to perform their wartime responsibilities. (Stewart, 2019)
4. Terminal Learning Objective (TLO): the performance required of the student to demonstrate competency in the material being taught. A TLO describes exactly what the student must be capable of performing under the stated conditions to the prescribed standard on lesson completion. (Cisneros, 2021)
5. Test-out Module: a mechanism that allows an individual to opt out of some or all of a particular training program by successfully completing a knowledge test or other assessment. (Cisneros, 2021)
6. Touchpoint: personal and professional life events when financial literacy training is to be provided to Service members in accordance with Section 992(a) of Title 10, U.S.C. (Stewart, 2019)



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