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DEPARTMENT OF DEFENSE AUDIT AND INTERNAL CONTROLS: EVIDENCE FROM THE DEFENSE FINANCE AND ACCOUNTING SERVICE

by

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June 2021

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The purpose of this thesis is to investigate the Department of Defense (DOD) annual audit through analysis of the Defense Finance and Accounting Service (DFAS). This study addresses material weaknesses detailed in the FY 2020 DOD Inspector General (IG) audit by applying internal control standards to the policies and accounting practices of DFAS. The author finds that monitoring and control procedures implemented by DFAS do not meet objectives for producing accurate and auditable financial information. Analysis of the history of audits, GAO reports, and DOD IG inspections reveals patterns of insufficient corrective action that require remediation. Furthermore, antiquated IT systems, unclear accounting policies, and misaligned quality assurance monitoring programs contributed to numerous FY 2020 material weaknesses. Based on major findings, the author makes corrective policy recommendations for the consideration of DFAS and DOD leadership.

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DEPARTMENT OF DEFENSE AUDIT AND INTERNAL CONTROLS: EVIDENCE FROM THE DEFENSE FINANCE AND ACCOUNTING SERVICE

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LIST OF ACRONYMS AND ABBREVIATIONS

AFR	Agency Financial Report
AICPA	American Institute of Certified Public Accountants
CAP	Cross-Agency Priority
CFO	Chief Financial Officer
COSO	Committee of Sponsoring Organizations of the Treadway Commission
DCDS	DFAS Contract Debt System
DFAS	Defense Finance and Accounting Service
DISA	Defense Information System Agency
DOD	Department of Defense
ERP	enterprise resource planning
FBWT	Fund Balance with Treasury
FEI	Financial Executives International
FIAR	Financial Improvement and Audit Remediation
GAAP	Generally Accepted Accounting Principles
GAO	United States Government Accountability Office
HUD	Department of Housing and Urban Development
IG	Inspector General
IPERA	Improper Payments Elimination and Recovery Act
NDAA	National Defense Authorization Act
NFR	Notifications of Findings and Recommendation
O&M	Operations and Maintenance
OMB	Office of Management and Budget
OUSD	Office of the Under Secretary of Defense
PCAOB	Public Company Accounting Oversight Board
PIIA	Payment Integrity Information Act
SOX	Sarbanes-Oxley
Treasury	Department of the Treasury
WCF	Working Capital Fund

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I. INTRODUCTION

The Department of Defense (DOD) accounts for over half of the government's discretionary spending with an annual budget exceeding $700 billion (United States Government Accountability Office [GAO], 2021a), yet remains unable to obtain a complete audit opinion. The DOD has been designated "high risk" in financial management by the GAO since 1995 due to weaknesses in internal controls, policies and procedures, and compliance with government standards (GAO, 2020a). As a recent step in a long series of efforts to improve auditability, the DOD underwent the third annual agency-wide audit in FY 2020. This significant undertaking incurred a cost of $203 million to five independent auditing firms, covering $2.7 trillion in assets (Mehta, 2020). The results of the FY 2020 audit revealed significant progress in the areas of internal controls, financial management systems, and the implementation of updated policy standards when compared to the FY 2019 audit (GAO, 2020c). However, the audit committee identified 3559 Notifications of Findings and Recommendations (NFRs) and 144 material weaknesses across the 24 DOD components, many of which were unresolved from the FY 2019 audit (Inspector General [IG], 2021b). Seven of the 24 components obtained a clean audit opinion, but the DOD is still neither audit ready nor in compliance with the Chief Financial Officers (CFO) Act of 1990 (IG, 2021b). This thesis seeks to identify and provide recommendations for underlying patterns and inefficiencies that contribute to the continued auditability problems faced by the DOD. The methodology of this thesis was to conduct a thorough analysis of DFAS internal controls pertaining to the FY 2020 audit via 14 GAO reports and 18 IG investigations.

The Defense Finance and Accounting Service (DFAS) provides key assistance to the DOD regarding financial management and auditability. As a major service provider, DFAS offers customer service to the other DOD components in the form of maintaining transactions, accounting, and consolidating annual financial reports (DFAS, 2021). In addition, DFAS processes 137 million pay transactions for DOD military and civilian personnel, manages 12.4 million annual commercial invoices, and maintains 98 million General Ledger accounts (DFAS, 2021). Another key responsibility of the organization is preparing the DOD Agency Financial Report (AFR) in conjunction with the Office of the Under Secretary of Defense (OUSD/Comptroller). The AFR includes the results of the annual DOD audit and informs Congress and DOD leadership on the status of the financial health of the defense budget (IG, 2021b). When the financial information prepared for the AFR is inaccurate or unreliable, decision makers are impacted in their ability to efficiently allocate resources when building budgets. Furthermore, Congress and the American people lose confidence that the DOD will effectively manage allocated funding. Audit readiness is a major priority for the DOD, which expends nearly $1 billion annually correcting discrepancies and findings from the agency-wide audit (Mehta, 2020). DFAS plays a key role in supporting and implementing these actions to resolve material weaknesses, improve accounting standards, and achieve a clean audit opinion.

The standards for government financial management and internal controls closely resemble that of the civilian business industry. The U.S. “Green Book” (Standards for Internal Control in the Federal Government) and the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control Integrated Framework both include five internal control components and seventeen principles for federal agencies and public firms. Office of Management and Budget (OMB) Circular A-123 predates the Sarbanes-Oxley (SOX) Act of 2002, which define management responsibilities for internal control implementation, monitoring, and reporting. Public companies expend great cost and manpower efforts every year to achieve compliance with SOX Section 404, which outlines external and internal annual auditing requirements (SOX, 2020). Best practices and lessons learned from the success of public companies can be applied to the FY 2020 audit results as recommendations for DFAS and the DOD to improve internal control procedures and reduce the risk of material misstatement.

This thesis seeks to identify patterns and inefficient internal controls that have led to repeat material weaknesses under the purview of DFAS. The DOD is unable to maintain a complete and accurate universe of accounting transactions, which is exacerbated by unsupported adjustments and unbalanced Fund Balance with Treasure (FBWT) accounts (OUSD, 2020a). In addition, improper payments have been a long-standing issue for the DOD, totaling $1.7 trillion from 2003 to 2019 (GAO, 2020e). The FY 2020 audit also identified multiple instances of non-compliance with OMB Circular A-123 and the Financial Improvement and Audit Remediation (FIAR) plan (2020a). To understand the root cause of these issues, this thesis analyzed the history of investigative reports and audits conducted by the GAO and DOD IG. These organizations conduct detailed investigations into financial management practices and internal controls for the DOD and its components. Many of their recommendations remain open for years, and thorough review revealed underlying patterns that contributed to the DOD's inability to obtain a clean audit opinion.

The history of GAO and IG reports revealed ineffective internal controls and IT systems within DFAS and the DOD, which lead to the major findings of this thesis. Insufficiently designed accounting policies increased the risk of financial misstatement and contributed to eight consecutive years of unreliable AFR data (IG, 2020a). DFAS is non-compliant with the Improper Payments Elimination and Recovery Act, lacking sufficient documentation, procedures, and quality assurance programs to identify and resolve improper payments (GAO, 2014a). In addition, weaknesses in procedures for balancing FBWT and suspense accounts resulted in an unreliable universe of transactions (OUSD, 2020a) and non-compliance with the FAIR (GAO, 2014a). Legacy financial and accounting systems throughout the DOD contributed to over half of all NFRs in the FY 2020 audit and hindered all corrective action efforts by providing inaccurate and unreliable data (IG, 2021b). These findings contributed to ten of the 26 material weakness categories outlined in the FY 2020 audit, many of which have corresponding recommendations from the GAO and IG that have yet to be fully implemented (OUSD, 2020a). While DFAS has made noticeable improvements towards auditability, there are instances of self-reported corrective actions that were found insufficient during follow-on investigations (IG, 2020b). Analysis of these findings led to four corrective recommendations for DOD and DFAS leadership to consider, which may improve efforts towards auditability and reduce future risk of material misstatement. The four recommendations drawn from the author's analysis are redesigning control activities on the DFAS user level, leveraging SOX Section 404 best practices for monitoring activities, increasing ERP funding with a clearly defined roadmap, and updating DOD Directive 5118.05 to better articulate DFAS responsibilities.

Implementing these recommended actions may result in more efficient and lasting corrective action efforts by the DOD and DFAS.

II. BACKGROUND

The audit readiness initiative for the DOD largely began with the Chief Financial Officers (CFO) Act of 1990. The act established standards and procedures for federal agencies regarding financial management, accounting practices, and auditing (1990). This included establishing the CFO position for 24 agencies, requirements for preparing and auditing financial statements, and greatly enhancing the Office of Management and Budget (OMB). The impetus for the CFO Act of 1990 arose from the Federal Managers' Financial Integrity Act of 1982, which identified over 2,200 material weaknesses within executive agencies (Brass & Fiorentino, 2020). In addition, the Department of Housing and Urban Development (HUD) faced a widespread scandal of fraud, waste, and abuse in 1989 (Ifill, 1989). To address these concerns, the CFO Act outlined comprehensive financial reform and sought to integrate accounting systems across the executive branch (Brass & Fiorentino, 2020). In 1994, further legislation required the CFO agencies to prepare financial statements covering all accounts, and by 1996 six agencies had achieved unmodified audit opinions (Brass & Fiorentino, 2020). In 2021, the DOD remains one of only two federal agencies unable to receive an unmodified audit opinion.

A. TIMELINE

- The Federal Manager's Financial Integrity Act of 1982 identified over 2,200 material internal control weaknesses within executive branch agencies (Brass & Fiorentino, 2020).

- The Chief Financial Officers Act of 1990 established the CFO position within the DOD and outlined standards for financial management and auditing (CFO, 1990).

- The National Defense Authorization Act (NDAA) of 2002 required the DOD IG to conduct only the necessary procedures to audit financial statements the DOD deemed audit ready, resulting in years of incomplete audits with little focused improvement (IG, 2021b).

- The 2010 NDAA required the DOD to develop a Financial Improvement and Audit Readiness Plan (FIAR) which would describe the specific corrective actions and associated costs to correct financial management deficiencies. In addition, the 2010 NDAA required the DOD to provide audit ready consolidated financial statements by September 30, 2017 (GAO, 2014a).

- The 2014 NDAA required the Secretary of Defense to conduct full-scope audits of the DOD beginning FY 2018, which would review consolidated financial statements in accordance with Generally Accepted Accounting Principles (GAAP) and result in audit opinions (IG, 2021b).

- The 2016 NDAA required independent external auditors to review the nine Office of Management and Budget (OMB) required DOD reporting entities (IG, 2021b).

- The first full-scope annual audit was conducted in FY 2018 by the DOD IG and five independent public accounting firms (IG, 2021b). The most recent FY 2020 audit of the DOD and its 24 components resulted in nine clean audit opinions, one qualified opinion, and 15 disclaimers of opinion due to the inability to provide sufficient documentation for a complete audit (IG, 2021b).

B. AUDITING

To understand why Congress and the DOD have invested billions of dollars into passing these audits, it is important to discuss the process of auditing and the significance of financial statements. The Government Auditing Standards, known as the "Yellow Book," outline the requirements for conducting audits with integrity, transparency, and competence (GAO, 2018). Audits provide decision makers with objective analysis of agencies and programs to inform budgets and policy (GAO, 2018). Increased visibility and strict guidelines for financial management reduce the risk of fraud, waste, and abuse and improve efficiency, integration, and resource allocation (GAO, 2020c). Since the CFO Act of 1990, the GAO assessed that government agencies have made significant improvements in leadership, financial reporting, and internal controls (2020c).

The American Institute of Certified Public Accountants (AICPA) defines four types of audit opinions that may be issued for an organization:

- Unmodified Opinion: the auditor has sufficient evidence to conclude that "financial statements are presented fairly, in all material respects" (2020b, AU-C §700.10)

- Qualified Opinion: the auditor has sufficient evidence to conclude that misstatements are "material but not pervasive to the financial statements" (2020c, AU-C §705A.08)

- Adverse Opinion: the auditor has sufficient evidence to conclude that misstatements are "both material and pervasive to the financial statements" (2020c, AU-C §705A.09)

- Disclaimer of Opinion: the auditor is "unable to obtain sufficient appropriate audit evidence on which to base the opinion, and… that the possible effects on the financial statements of undetected misstatements, if any, could be both material and pervasive" (2020c, AU-C §705A.10)

Within the context of audits, the term "material" is defined as misstatements that would "influence the judgement made by a reasonable user based on the financial statements" (2020a, AU-C §320.02). Therefore, the goal of the DOD is to receive an unmodified audit opinion indicating the appropriate use of government resources according to accounting standards.

C. INTERNAL CONTROLS

The Standards for Internal Control in the Federal Government, known as the "Green Book," defines internal controls as processes "effected by an entity's oversight body, management, and other personnel that provide reasonable assurance that the objectives of an entity will be achieved" (2014c, OV1.01). These controls provide the means for the

DOD and its components to implement and maintain financial and accounting standards. Furthermore, the Green Book provides a framework for government entities to implement internal controls in categories covering operations, reporting, and compliance. The five major components of internal controls are Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring Activities (2014c). These components are further broken down into 17 principles (Figure 1), which provide specific focus points for improving and implementing standard controls. By following these guidelines, government bodies can improve efficiency in business practices and reduce the risk of fraud, waste, and abuse (GAO, 2014c).

Control Environment

1. The oversight body and management should demonstrate a commitment to integrity and ethical values.

2. The oversight body should oversee the entity's internal control system.

3. Management should establish an organizational structure, assign responsibility, and delegate authority to achieve the entity's objectives.

4. Management should demonstrate a commitment to recruit, develop, and retain competent individuals.

5. Management should evaluate performance and hold individuals accountable for their internal control responsibilities.

Risk Assessment

6. Management should define objectives clearly to enable the identification of risks and define risk tolerances.

7. Management should identify, analyze, and respond to risks related to achieving the defined objectives.

8. Management should consider the potential for fraud when identifying, analyzing, and responding to risks.

9. Management should identify, analyze, and respond to significant changes that could impact the internal control system.

Control Activities

10. Management should design control activities to achieve objectives and respond to risks.

11. Management should design the entity's information system and related control activities to achieve objectives and respond to risks.

12. Management should implement control activities through policies.

Information and Communication

13. Management should use quality information to achieve the entity's objectives.

14. Management should internally communicate the necessary quality information to achieve the entity's objectives.

15. Management should externally communicate the necessary quality information to achieve the entity's objectives.

Monitoring

16. Management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.

17. Management should remediate identified internal control deficiencies on a timely basis.

Figure 1. Principles of Internal Controls. Source: GAO (2014c).

D. APPLICABLE LEGISLATION

Additional legislation published by various federal agencies provide further amplification on the CFO Act and government standards for auditability and internal controls. These regulations provide specific details and guidance that form a framework for analyzing and understanding the FY 2020 audit results and plans for corrective action.

1. OMB Circular No. A-123

OMB Circular A-123 defines management's responsibility for internal control in Federal Agencies (OMB, 2016). These requirements include establishing, assessing, correcting, and reporting on internal controls. The circular emphasizes the importance of integrated, coordinated internal controls for effectively adhering to government standards (OMB, 2016). It outlines six actionable requirements for federal program management:

> 1. Develop and implement appropriate, cost-effective internal control for results-oriented management;
> 2. Assess the adequacy of internal control in Federal programs and operations;
> 3. Separately assess and document internal control over financial reporting consistent with the process defined in Appendix A;
> 4. Identify needed improvements;
> 5. Take corresponding corrective action; and
> 6. Report annually on internal control through management assurance statements. (OMB, 2016, para. 4)

The extent to which DFAS and the DOD implement these requirements is analyzed in the results of GAO and IG reports, as well as the material weaknesses outlined in the FY 2020 audit. Multiple components report non-compliance with OMB Circular A-123, and DFAS does not adequately meet this standard (OUSD, 2020a).

2. Financial Improvement and Readiness (FIAR) Directorate

In 2005, the DOD comptroller established the first Financial Improvement and Readiness (FIAR) Directorate to standardize and document DOD efforts to develop more effective financial management (Property & Equipment Policy Office, 2021). Each DOD component is responsible for providing detailed progress reports on the milestones published in the FIAR, which are specific corrective actions designed to promote accurate and complete financial reporting (OUSD, 2020b). The key focus areas of the FIAR are internal controls, financial information accuracy, and systems improvement. The intent of this annual process is to create a uniform, integrated strategy for DOD components to work together to achieve audit readiness. The most recent FIAR was released in June 2020, which incorporated the results of the FY 2019 audit and DOD corrective action plans

(CAPs) (2020b). The FIAR provides a foundation to measure the progress of DFAS and the DOD when analyzing the results of audits, reports, and investigations.

3. Payment Integrity Information Act (PIIA) of 2019

The Payment Integrity Information Act (PIIA) of 2019 supersedes all previous iterations of the Improper Payments Elimination and Recovery Act (IPERA) of 2002, 2010, and 2012, as well as the Fraud Reduction and Data Analytics Act of 2015. The PIIA did not remove any elements from previous versions of the law, only added clarity and additional requirements (2020). Since the first IPERA of 2002, the GAO and IG have conducted extensive research and investigation into improper payments. Those reports provide valuable insight into the related material weaknesses and instances of non-compliance outlined in the FY 2020 audit.

The PIIA requires government organizations to identify and review programs at high risk of improper payments, which are payments made in error, underpaid, or overpaid (IG, 2020b). These payments can result in monetary loss to the government and create risk of financial misstatement. The President's Management Agenda of 2018 listed the reduction and correction of improper payments as one of 11 Cross-Agency Priority goals (IG, 2020b). Each year the DOD IG releases a status report on DOD compliance with the criteria of the PIIA, which are (2020b):

1. Publishing annual financial statements
2. Conducting risk assessment for programs
3. Publishing improper payments estimates
4. Publishing corrective actions for improper payments
5. Publishing and meeting reduction targets for improper payments
6. Meeting a threshold of no more than 10% improper payments

The most recent 2021 IG investigation found that DFAS complied with four of six PIIA requirements for FY 2020, but "published unreliable improper payments estimates" and "missed its annual improper payment reduction target" (IG, 2021a).

E. DEFENSE FINANCE AND ACCOUNTING SERVICE

The Defense Finance and Accounting Service (DFAS) was created in 1991 to "standardize, consolidate, and improve accounting and financial functions throughout the Department of Defense" (DFAS, 2020a). DFAS processes pay for all DOD military and civilian personnel, handles contractor and commercial invoices, maintains millions of general ledger accounts, and manages Foreign Military Sales, Retirement and Health Benefit Funds, and DOD appropriations (2020a). In addition, as the DOD component service provider, DFAS is responsible for consolidating each agency's financial information to publish the annual DOD Agency Financial Report (AFR) in conjunction with the OUSD (Comptroller). DFAS is a Working Capital Fund (WCF) agency, which means a goal of "net zero" balancing funding and expenses for performing finance and accounting services. The 2020 DFAS operating budget was $1.44 billion, and the DFAS WCF has consistently received unmodified audit opinions for the past 21 years (DFAS, 2020b).

DFAS plays a major role in the annual DOD audit as the accounting and financial service provider (OUSD, 2020a). DFAS is largely responsible for balancing and maintaining the universe of financial transactions for all components, standardizing and consolidating financial information, and reconciling Fund Balance with Treasury (FBWT) accounts with the Department of the Treasury (Treasury). Each of these areas of responsibility is identified as a category of material weakness in the FY 2020 audit (OUSD, 2020a). While the responsibility of auditability is shared across the entire DOD, the internal control weaknesses within DFAS inhibit its ability to meet the mission of providing service and financial support to the DOD components.

F. RESULTS OF FY 2020 AUDIT

The results of the FY 2020 audit for the DOD are published by the OUSD in the FY 2020 AFR. The DOD IG, along with independent auditors Cotton & Company, LLP, Ernst & Young, LLP, Grant Thornton, LLP, Kearney & Company, P.C, and KPMG, LLP, provided over 1,400 auditors to review 76,000 sample items, 36,000 document requests, and visit over 100 locations (IG, 2021b). The auditors reissued 2,641 Notifications of

Findings and Recommendations (NFRs) from the previous FY 2019 audit and opened 918 new NFRs. Nine of the 24 DOD components received unmodified audit opinions, one received a qualified opinion, and 14 received disclaimers of opinion. In addition, the audit identified 144 material weaknesses and 49 instances of non-compliance with U.S. laws and regulations across the 24 components. The breakdown of results by reporting entity are displayed in Table 1.

Table 1. Results of FY 2020 DOD Audit. Adapted from IG (2021b).

Reporting Entity	NFRs	Fund Type	Material Weaknesses	Non-Compliance
Department of the Army	505	General	12	2
		WCF	13	2
		Sub-allotted	2	2
Department of the Navy	1,160	General	17	2
		WCF	11	2
Department of the Air Force	521	General	12	2
		WCF	10	2
		Sub-allotted	2	2
U. S. Marine Corps	151	General	8	4
U. S. Army Corps of Engineers	57	Civil Works	2	2
Defense Health Program	155	General	11	4
Defense Information Systems Agency	69	General	5	3
		WCF	5	3
Defense Logistics Agency	457	General	7	2
		WCF	7	2
		Transaction	6	2
		Sub-allotted	1	2
U. S. Special Operations Command	101	General	5	2
		Sub-allotted	1	2
U. S. Transportation Command	161	WCF	5	2
Defense Health Agency-	13	Contract Resource Management	0	0
		Sub-allotted	1	2
Medicare	14	Eligible Retiree Health Care	1	1
Military Retirement Fund	10	General	0	0
Agency-Wide	185	N/A	N/A	N/A
Total	3,559		144	50

The following 26 categories of material weakness were identified in the FY 2020 audit, which indicate risk of material misstatement in financial reporting:

- Legacy systems
- Configuration management and security management
- Access controls
- Segregation of duties
- Universe of transactions
- Fund balance with treasury
- Suspense accounts
- Inventory and related property
- Operating samples and supplies
- General property, plant, and equipment
- Real property
- Government property in the possession of contractors
- Joint strike fighter program
- Military housing privatization initiative
- Accounts payable
- Environmental and disposal liabilities
- Beginning balances
- Unsupported accounting adjustments
- Intradepartmental eliminations and intragovernmental transactions
- Gross costs
- Earned revenue
- Budgetary resources
- Service providers
- Entity-level controls
- DOD-wide oversight and monitoring
- Component-level oversight and monitoring. (OUSD, 2020a)

In order to improve compliance with the Payment Integrity Information Act (PIIA) of 2019, the FY 2020 AFR lists detailed information about improper payments, summarized in Table 2 (OUSD, 2020a). This data is reported by DOD components through DFAS and subject to error, as reported in investigations by both the GAO and DOD IG.

Table 2. Improper Payments Report FY 2020. Adapted from OUSD (2020a).

Program Name	Total (millions)	Unsupported (millions)	Percentage Unsupported
Military Health Benefits	$338.88	$17.05	5.16%
Military Pay – Army	$3,556.3	$3,827.47	79.5%
Military Pay – Navy	$51.41	$27.50	53.49%
Military Pay – Air Force	$1,568.79	$1,170.85	74.63%
Military Pay – Marine Corps	$0.19	$0.0	0%
Civilian Pay	$4,915.83	$4,911.19	99.9%
Military Retirement	$352.49	$4.08	1.16%
DOD Travel Pay	$314.87	$68.67	21.8%
Commercial Pay	$306.65	$0.0	0%
USACE Travel Pay	$0.8	$0.0	0%
SACE Commercial Pay	$0.0	$0.0	0%
Total	$11,406.21	$9,026.81	79.14%

G. SARBANES-OXLEY ACT OF 2002

One of the largest accounting scandals in American history involved the fraudulent practices of the energy company Enron Corporation. Through deceptive accounting practices and joint corruption with the Arthur Andersen accounting firm, executives artificially inflated the value of the company and pocketed investment profits. Along with other accounting scandals at the time, this factored into the establishment of the Sarbanes-Oxley (SOX) Act of 2002 (Bondarenko, 2019). The federal law set requirements for company boards and management regarding accounting practices, responsibilities, auditing, and criminal penalties. Sarbanes-Oxley amplified and standardized requirements for financial statement disclosures and increased accountability for corporate fraud. In addition, the act established the Public Company Accounting Oversight Board (PCAOB) which governs the auditing of public companies through publishing standard policies (SOX, 2020).

Section 404 of SOX requires public companies to conduct top-down risk assessment of internal controls. Due to the strict requirements and intensive senior management involvement, it is considered the most costly and difficult element of the SOX

Act. A 2007 study by Financial Executives International (FEI) found that costs of compliance ranged from .03%-.05% of revenue, and only 22% of companies believed the benefits of SOX section 404 outweighed the costs (2007). To reduce the burden on smaller companies ($75-$250 million public float), the SEC released additional guidance in 2007 and 2009 (SEC, 2011). With relaxed requirements for new companies and updated clarification from the SEC, PCAOB, and COSO Internal Control Framework, the 2011 SEC study found costs of section 404 had declined, more investors viewed internal control reporting favorably, and that financial reporting had increased in accuracy for public companies (2011). A 2012 study by Arping and Sautner (2012)compared cross-listed and non-cross-listed companies and found that SOX increased transparency in reporting financial data which resulted in more accurate earnings forecasts, stock evaluations, and company reliability.

The Protiviti 2016 Sarbanes-Oxley Compliance Survey found that two thirds of companies have seen significant improvements in internal controls as a result of SOX compliance (Protiviti, 2016). The release of the updated 2013 Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control Integrated Framework saw a short duration increase to cost and manpower requirements, but as companies entered their third or more year of compliance over 70% saw costs decrease by 10% annually. The time requirements for compliance are still evident, as large companies average 7.5 hours a year testing each internal control through management review processes (Protiviti, 2016). In recent years, automation has improved standardization, time requirements, and overall efficiency of internal controls for public organizations. The most recent 2020 Protiviti study includes best practices compiled from 735 different organizations regarding monitoring activities, control procedures, and IT systems (Protiviti, 2020). Appendix A lists examples applicable to the DOD and DFAS.

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III. FINDINGS

The FY 2020 DOD audit identified 26 categories of material weakness, ranging from oversight and monitoring to the F-35 program (OUSD, 2020a). For the purposes of this thesis, the author investigated material weaknesses related to DFAS, accounting, and internal controls. Trends and patterns in data and historical reports revealed inefficiencies in internal controls related to the findings of the FY 2020 audit. These findings discuss those trends and potential root causes of material weaknesses and non-compliance faced by the DOD and DFAS.

A. IMPROPER PAYMENTS

Improper payments were one material weakness category reported in the FY 2020 audit, and the DOD was found non-compliant with the Payment Integrity Information Act of 2019 (2020a). The FY 2020 AFR listed $660.32 billion in DOD contract payments subject to the PIIA, of which $11.41 billion were reported as improper. This data represented a total reduction of $2.27 billion in improper payments from FY 2019 and consisted of 1.73% of all transactions. However, DFAS has a history of reporting inaccurate improper payments data, a key reason why they remain a source of investigation and material weakness. When these payments are not accurately captured or reported, appropriate corrective action to address root cause issues cannot be taken. In addition, improper payments can result in financial loss to the government, as 37% of Defense Travel System FY 2017 improper payments resulted in monetary loss totaling $205 million (GAO, 2019). The most recent report by the IG regarding improper payments states that the data reported by DFAS has been unreliable for at least eight consecutive years (IG, 2020b), and the underlying internal control failures date back to the initial implementation of the Improper Payments Information Act of 2002 (GAO, 2002).

Following the Improper Payments Information Act of 2002, GAO (2009) and IG (2008) investigations revealed DFAS was unable to accurately capture, report, or correct improper payments. DFAS suspended its Internal Review recovery audit (GAO, 2009), did not have sufficient procedures to investigate improper payments, and did not document contract resolution (IG, 2008). Both reports identified sampling procedures, risk assessment, and insufficient internal controls as contributing factors. The IG found that $1.4 billion in contract refunds from FYs 2005 and 2006 were not adequately researched (2008), and the GAO found that $20.5 billion in commercial payments were not audited or assessed (2009).

In 2015, the DOD IG released a report investigating improper payments for the FY 2013 AFR (2015b). The IG found that DFAS did not employ accurate testing measures to identify improper payments, largely due to a lack of guidance from OMB. Without a systematic method that comprehensively considered all payments, DFAS could neither pinpoint underlying weaknesses that caused improper payments nor take proper action to correct or prevent future errors. The improper payment data in the FY 2013 AFR was deemed unreliable, and DFAS was found non-compliant with existing legislation.

Between 2015 and 2020, the IG and GAO released over 10 reports pertaining to improper payments in various DOD programs. The common themes across all reports were improper sampling plans, inadequate quality assurance review, lack of documentation and procedural guidance, and a lack of published corrective action plans (IG, 2020b). Appendix B provides further detail on reports not discussed in the body of this thesis. In 2016, the IG began conducting annual payment integrity compliance investigations, the results of which are displayed in Figure 2.

Fiscal Year	Published Payment Integrity Data in the AFR in Accordance with OMB Guidance	Conducted Risk Assessments, if required	Published Accurate Improper Payment Estimates	Published Corrective Action Plans	Published and Demonstrated Improvements to Meet Reduction Targets	Reported Improper Payment Rates Below 10 Percent
2016	X	X	X	X	X	✓
2017	X	✓	X	X	X	✓
2018	✓	✓	X	X	X	✓
2019	✓	✓	X	✓	X	✓

Figure 2. Annual IG Investigation Results. Source: OUSD (2020a).

DOD compliance with the PIIA has improved annually but the same patterns of ineffective internal controls and procedures, insufficient monitoring activities, and lack of risk assessment persist. The 2018 DOD IG investigation into the Commercial Pay program identified $5.7 billion in improper payments missed by the sampling plan, and an additional $1 billion misreported by DFAS Enterprise Solutions and Standards (ESS) personnel (2018b). The sampling plan was poorly designed, search criteria were not validated, and risk assessment was insufficient (IG, 2018b). The 2020 DOD IG investigation into the Mechanization of Contract Administration Services system (MOCAS), revealed similar root cause issues. DFAS failed to identify $136 million in improper payments, including $25.8 million reviewed by the quality assurance Post-Pay Review team (IG, 2020a). The sampling process remained flawed, utilizing paid invoice data instead of actual disbursement amounts. Reviews were not conducted for vouchers, duplicate payments, or recoupment amounts, and 464 underpayments were reported through the DFAS Contract Debt System (DCDS) instead of the AFR. Over 30 IG recommendations remain open regarding improper payments according to the 2020 compendium (IG, 2020c). While DFAS has reported corrective action plans for most open recommendations, the IG has previously identified instances of insufficient remediation. The GAO, IG, and external audits document a pattern of ineffective internal controls, inadequate data sampling processes, a lack of management oversight and training, and substandard quality assurance verification (IG, 2020a).

B. UNIVERSE OF TRANSACTIONS

The FY 2020 audit identified the universe of transactions as another category of material weakness that increased the risk of material misstatement (OUSD, 2020a). The universe of transactions is “the entirety of underlying, individual, accounting transactions that support a financial statement line or balance” (OUSD, 2020b, p. 35). To reconcile the budget with financial statements, DFAS and the DOD components perform balance comparisons with transaction data for the fiscal year. Current system limitations often require those reconciliations to occur on a summary level vice transaction level, which fails to properly document the underlying financial information for the transaction (OUSD, 2020a). OMB Bulletin No. 19–03 requires the universe of transactions the reconcile with underlying transaction-level detail (OMB, 2019), since summary level data does not provide the necessary information to support adjustments for balance differences. An incomplete universe of transactions negatively impacts the DOD's ability to balance accounts and accurately prepare financial statements (OUSD, 2020a). Other categories of material weakness contributed to the DOD's inaccurate universe of transactions and have been the subject of extensive GAO and DOD IG investigation. Review of these historical reports provided insight into ineffective policies and controls resulting in inaccurate financial data.

1. Unsupported Accounting Adjustments

Unsupported accounting adjustments were a material weakness identified in the FY 2020 audit that resulted in increased risk of financial misstatement. Forced-balance journal entries are implemented by DFAS when prepared financial documents for DOD accounts do not match the Treasury balances (GAO, 2020a). These "plugs" replace submitted financial statements and have been identified as a material weakness in every annual DOD audit. Furthermore, they contributed significantly to the DOD's inability to maintain an accurate universe of transactions (IG, 2021b). During the last two quarters of FY 2020 DFAS conducted 1,900 adjustments, exceeding $293 billion, without sufficient documentation (OUSD, 2020a). The GAO investigated financial data from FY 2018 and found that over 180,000 adjustments lacked supporting documentation in the fourth quarter alone (GAO, 2020a). This investigation found that DFAS control activities were insufficient and inconsistent, lacked root-cause analysis, and resulted in substantial risk of material misstatement in financial reports. DFAS acknowledged the lack of procedures governing root cause analysis but stated that they "do not have any plans to modify the current financial management environment to eliminate the recording of these types of adjustments" (GAO, 2020a, p. 13) until the implementation of enterprise resource planning (ERP) systems in 2025. There is no documented evidence that existing internal controls are properly followed, and the GAO found that the periodic random samples conducted by DFAS are insufficient (2020a). In addition, DFAS does not have adequate guidance defining what entails supporting documentation for accounting adjustments. These practices contributed to the DOD's inability to maintain an accurate and complete universe of transactions and resulted in unreliable financial data reported in the AFR. None of the GAO recommendations to correct these issues have been fully implemented (GAO, 2020a).

2. Fund Balance with Treasury

The FY 2020 audit identified the Fund Balance with Treasury (FBWT) as another material weakness that impacted the universe of transactions and indicated risk of financial misstatement (OUSD, 2020a). FBWT accounts contain cash balances for government agency spending. Hundreds of these accounts are maintain by the Treasury and must be balanced with annual financial reports (IG, 2021b). Discrepancies between the Treasury balance and individual DOD components have been a recurring material weakness identified in the three annual audits, as well as many IG and GAO reports.

The IG investigated the FY 2014 Department of the Navy (DON) FBWT reconciliation process and identified $226 million of unresolved differences in the first quarter alone (2015a). The IG concluded that the inability to resolve differences was largely due to a lack of supporting transaction data for the FBWT balances. The DON used Program Budget Information System (PBIS) and Defense Cash Accountability System (DCAS) data instead of general accounting ledgers, preventing DFAS from maintaining an accurate universe of transactions. Furthermore, DFAS did not implement required controls for the FBWT reconciliation process. The IG recommendations to utilize accounting ledgers, review DCAS and PBIS for control weaknesses, and implement standard procedures for the FBWT process have not been closed (2015a). Overall, the IG report revealed that insufficient control procedures and unreliable data resulted in increased risk of material misstatement.

In 2017, the IG investigated the FY 2016 Army Reserve Operations and Maintenance (O&M) FBWT reconciliation process with DFAS. This report identified that 7,789 of 11,359 differences were not resolved within the required 60 days (2017b). DFAS did not design control activities to identify and investigate these differences in a timely manner and instead utilized unsupported accounting adjustments. These problems were exacerbated by a lack of standardized financial systems in the Army. Legacy system deficiencies impacted disbursements and transaction processing, preventing DFAS from receiving sufficient data to investigate differences. The IG reviewed the relatively small O&M fund's $5.7 million in adjustments to gain insight into the larger $1.9 billion of adjustments conducted for the Army general fund. Overall, the IG found DFAS practices were not in accordance with financial regulation and increased the risk of material misstatement. Three recommendations from the report specifically addressed the FBWT reconciliation process and Army accounting systems, none of which have been closed (2017b).

The FY 2020 audit revealed some improvements by DFAS in support of developing complete and accurate FBWT reconciliations (IG, 2021b). DFAS reduced $250 million of undistributed funds for the Army's account balance and resolved 98% of statement differences for the Defense Information System Agency (DISA). However, DFAS stated that the organization had exhausted all possible efforts to accurately clear aged FBWT transactions. $1 billion in transactions were cleared by transferring unsupported amounts to accounts that had available funds. This included 18,824 transactions totaling $404.20 million placed in an expired DOD O&M fund without knowledge of the purpose of those funds (IG, 2021b). The DOD reported 2022 as the target year for remediation of the FBWT material weakness but has not provided a clear and actionable plan to do so. Discrepancies in FBWT accounts contributed to the incomplete universe of transactions and were primarily caused by insufficient internal controls and legacy financial systems (OUSD, 2020a).

3. Suspense Accounts

The FY 2020 audit identified suspense accounts as another category of material weakness that negatively impacted the universe of transactions (OUSD, 2020a). Suspense accounts are "accounts used to temporarily hold transactions that belong to the Government while waiting for information that will allow the transactions to be matched to a specific receipt or expenditure account" (OUSD, 2020a, p. 86). According to the audit findings, DFAS was unable to adequately monitor, research, or clear funds from these accounts. Many of these accounts are shared by multiple DOD components, further complicating the process (OUSD, 2020a). DFAS control activities do not sufficiently reduce the risk of material misstatement in suspense accounts, a common pattern investigated by the GAO and IG.

The 2016 IG investigation into the Department of the Army suspense account revealed inadequate internal controls and procedures (2016c). The IG identified financial misstatements totaling $189.87 million in FY 2014 and $223.70 million in FY 2015 (2016c). DFAS did not perform historical data analysis to determine what portion of the accounts correlated to Army financial statements. $173.1 million in the Army suspense account were unsupported transactions or accounting adjustments. DFAS did not verify accounting activities or clear suspense account transactions within the required 60 days. Two of the IG recommendations to establish additional accounts and adjust regulations regarding account usage remain open (2016c).

The 2016 IG investigation into the Department of the Air Force suspense account revealed similar practices resulting in increased risk of material misstatement (2016d). DFAS did not analyze historical data to accurately correlate balances between financial statements. Additionally, DFAS personnel did not research or clear suspense transactions within 60 days due to a lack of standard procedures (IG, 2016d). Unsupported accounting entries were used to manually correct balances which resulted in financial misstatements totaling $22.7 million and $7.6 million in FY 2014 and FY 2015, respectively (IG, 2016d). Incorrect use of suspense accounts for the Thrift Savings Plan and payroll tax withholding resulted in overstatements exceeding $400 million in both FY 2014 and 2015. Two of the IG recommendations to revise federal regulation and establish proper suspense accounts remain open.

More recently, the 2021 GAO investigation into DFAS suspense account practices revealed the same consistent patterns of ineffective internal controls (GAO, 2021b). DFAS still lacked sufficient documentation and procedures to clear suspense account transactions. $366 million out of $1.6 billion outstanding funds were more than 30 days old, and over half of all transactions were over 60 days old (GAO, 2021b). DFAS initiatives to clear transactions focused on reducing numbers and lacked root cause analysis. The lack of a complete DOD universe of transactions made accurate correlation of funds nearly impossible, and corrective actions related to suspense account initiatives had not materialized. Suspense accounts still held invalid transactions from revenue, payroll, and taxes. While some existing procedures for reconciling suspense accounts exist, they are outdated and inconsistently followed. Specifically, policies failed to define the appropriate use of suspense accounts and outline the correct procedures to clear balances. Recent initiatives to correct deficiencies through the creation of working groups fell short of identifying root causes, developing response plans, or documenting progress (GAO, 2021b). All eight recommendations to correct these findings remain open.

C. INFORMATION SYSTEMS

Legacy information systems were a key material weakness identified in the FY 2020 audit (OUSD, 2020a). The DOD reported over 250 systems relevant to financial management, 30 of which were identified as legacy systems, or those "scheduled for retirement within 36 months" (OUSD, 2020a, p. 83). The audit team found legacy systems inconsistently categorized, several instances of non-compliance with the Federal Financial Management Improvement Act (FFMIA), and no comprehensive plan to update systems in a timely manner. Information technology problems have plagued DOD financial management for years, and over 1,400 outstanding NFRs remain open since the first full DOD audit (IG, 2021b). The hundreds of financial systems employed by the various DOD components do not provide transaction level accounting detail, do not integrate with each other, and often do not comply with regulations. The DOD missed target goals for improving IT material weaknesses by over 50% between FY 2019 and FY 2020 and acknowledged the significant level of effort still required to correct these issues (IG, 2021b).

The 2020 GAO study on information systems found that the DOD lacked a clear and comprehensive plan to implement enterprise resource planning (ERP) systems across its components (2020d). In response to the FY 2019 audit, OMB directed the DOD to define the current state of IT systems and develop a plan to transition to an integrated, effective system environment (GAO, 2020d). The GAO found that the DOD did not have detailed plans for migrating individual accounting systems, lacked performance goals and milestones, and could not calculate the cost of supporting current financial systems. The

GAO assessed that these systems generated a minimum of $2.8 billion in annual operations and maintenance costs, which did not include 45 systems the DOD failed to include in the list provided. Based on the report, the DOD remained at high risk for information systems related material weakness while incurring high short-term maintenance costs (2020d).

The goal of an integrated, effective DOD ERP system has been slowly gaining ground for many years, although not without delays and significant financial loss. The 2012 GAO study on Army and Air Force ERP systems highlighted the key role they would plan in achieving auditability by 2017 (GAO, 2014b). At that time, the GAO found that acquisition controls failed to deliver the required capabilities on time or within the original budget (2014b). The Army's General Fund Enterprise Business System (GFEBS) and the Air Force's Defense Enterprise and Accounting Management System (DEAMS) did not meet minimum accounting standards for data receipt, invoicing, or reporting accounts receivable. The system employment was delayed by the DOD due to major system weaknesses, and the training plan for DFAS personnel did not provide adequate skillsets to effectively operate the systems (GAO, 2014b). The five recommendations provided by the GAO to address these issues were closed without implementation, which provided insight on the current material weaknesses and NFRs identified in the FY 2020 audit.

Recent initiatives to deploy ERP systems for the major DOD components have encountered significantly more success. The Army GFEBS system successfully completed a cloud migration in July of 2020 (Brading, 2020) and considered fully deployed by the DOD (OUSD, 2020a). Furthermore, the 2019 IG follow-up audit on GFEBS revealed that the Army had successfully implemented some of the recommendations from previous audits in 2013 (IG, 2019b). Only one corrective recommendation from the 2019 IG audit remained open in the March 2020 IG compendium, which demonstrated active progress by the Army regarding GFEBS. The Army has also deployed the Logistics Modernization Program (LMP) and Global Combat Support System – Army (GCSS-A) to leverage integrated ERP for supply and acquisition (OUSD, 2020a). Likewise, the Navy and Air Force are in various stages of deploying and integrating ERP systems. Navy ERP is a fully deployed financial accounting system overseeing half of the organization's obligation activity. The Navy recently awarded an $850 million contract to IBM for wholistic technical support of their ERP system (Edwards, 2021). The Air Force is still in the process of deploying DEAMS and the Air Force Integrated Personnel and Pay Systems (AF-IPPS) and does not have an active fully serviceable ERP system (OUSD, 2020a). Lastly, the Defense Agencies Initiative (DAI) is another partially deployed ERP financial system for many other components and services within the DOD, including DFAS. DAI is to be a fully integrated budget, finance, and accounting system that will automate controls and provide reliable, accurate information for the DOD (Defense Logistics Agency, 2021). The target year for fully deploying and integrating these systems is FY 2028, but the recent GAO study found that the DOD did not have a clearly defined path to attain that goal (2020d).

D. SERVICE PROVIDERS

The FY 2020 audit identified service providers as a broad material weakness category related to internal controls and financial statements (OUSD, 2020a). As the financial and accounting service provider for the DOD, DFAS is largely responsible for consolidating and producing accurate financial statements. (IG, 2021b). DOD Directive 5118.05 states that DFAS shall "direct and oversee finance and accounting requirements," "establish and enforce requirements, principles, standards, procedures, processes, and practices necessary to comply with finance and accounting statutory and regulatory requirements," and "provide finance and accounting services for the other DOD components" (DOD, 2020, p. 2). This guidance indicates that DFAS is fully responsible for all financial activity within the DOD, and consequently most of the corrective action resulting from the annual audit. However, 13 open IG recommendations were transferred from DFAS to the OUSD (Comptroller) (IG, 2020c). DODD 5118.05 states that DFAS shall "provide advice and recommendations to the USD(C)/CFO on finance and accounting matters" (DOD, 2020, p. 2), which creates confusion as to where the responsibility for corrective action lies. The FY 2020 audit indicates that internal control deficiencies within DFAS, along with unclear responsibility, increased the risk of financial misstatement (OUSD, 2020a).

In 2014, the GAO conducted a study on the DFAS contract pay Financial Improvement Plan (FIP) (2014a). The Financial Improvement and Readiness (FIAR) Directorate required DFAS to generate a plan to test its internal controls and processes for contract pay, which covers disbursements approximating $200 billion annually. At the time, DFAS self-reported full compliance with the FIAR and “asserted audit readiness” (GAO, 2014a p. 1). The GAO investigation found that DFAS met none of the guidelines outlined in the FIAR, and that the contract pay FIP could not reliably be used by DOD components. The original FIP written by DFAS excluded reporting to the Treasury, reconciling disbursements to general ledgers, and closing the contract (GAO, 2014a). Additionally, DFAS identified and self-reported the correction of 399 deficiencies related to internal controls and IT processes. The GAO found that DFAS did not adequately address any of the deficiencies, and their review process most likely missed many more. DFAS did not perform adequate planning activities, risk assessment, data reconciliation, or the necessary testing of internal controls. Consequently, DFAS was found to be at risk for financial misstatement regarding contract pay. Of the nine GAO recommendations regarding documentation, internal controls, and testing, five were closed without implementation (GAO, 2014a). This report provided cautionary insight into the accuracy of self-reporting and the need for external verification of corrective action.

The FY 2020 audit demonstrated that DFAS had taken significant steps to address material weaknesses and NFRs since 2019 (OUSD, 2020a). DFAS implemented a project to reconcile FBWT differences, reducing the amount from $6.6 billion to $821 million in the last two years. Those differences amounted to .25% of the 2019 FBWT, and the DOD is seeking to downgrade the material weakness in the FY 2021 audit. DFAS shared the results of their data analysis with the DOD components to improve ownership of the process, and the quarterly transaction detail report was deemed auditable for the previous two years (OUSD, 2020a). In addition, improvements to internal controls resulted in a 78% reduction of unsupported journal vouchers for a total dollar amount reduction of 63%. Lastly, DFAS reduced transaction disparities from FY 2019 financial statements by $29.4 billion by clearing offsetting data and developing a sustainable base of individual accounting lines for future fiscal years (OUSD, 2020a). However, DFAS still generated misstated financial reports in the FY 2020 AFR.

DFAS does manage their own WCF well. Each year they are audited by Williams Adley & Company of Washington, D.C., and have received 21 consecutive unmodified opinions (DFAS, 2020b). The WCF consists of $1.44 billion as an operating budget for DFAS. This fund was one of seven to receive a clean audit opinion in the FY 2020 audit, indicating that DFAS has a structure in place to accurate and effectively manage accounts (OUSD, 2020a). The WCF is smaller than most other funds managed by DFAS and largely consists of pay and O&M costs for personnel but could provide lessons learned and best practices applicable to other accounts and funds. In addition, the 2020 IG investigation into the DFAS Internal Review (IR) audit organization found they met internal control standards and complied with applicable regulation (IG, 2020d). Over a three-year period, the IR organization conducted 52 audits and attestation engagements designed to implement quality control within DFAS. The IR team consists of 62 personnel in the three DFAS offices, and they received a passing rating from the IG (IG, 2020d). Based on the IG report, they did not investigate material weaknesses or major findings identified in the annual audit (2020d).

IV. ANALYSIS

The material weaknesses identified in the FY 2020 audit, as well as the findings of multiple GAO and IG investigations, revealed patterns of internal control weaknesses within DFAS and the DOD. This chapter analyzes the findings compiled from various sources and highlights common threads that may be addressed by specific policy recommendations.

A. CONTROL ACTIVITIES

Control activities are the "policies, procedures, techniques, and mechanisms that enforce management's directives to achieve the entity's objectives and address related risks" (GAO, 2014c, 10.02). As evidenced by the FY 2020 audit results, the accounting practices and procedures employed by DFAS personnel are not effective at producing accurate financial information or reducing the risk of material misstatement. The poorly defined use of forced balance adjustments resulted in an unreliable universe of transactions, demonstrated by FBWT and suspense account discrepancies. Likewise, improper payment reporting and reconciliation procedures were not sufficient for reducing risk, identifying root cause problems, or preventing financial loss to the government. Almost all audit material weaknesses identify insufficient policies and documentation as a root cause, as do the applicable GAO and IG reports. In response, the DOD and DFAS have identified corrective actions to improve current procedures or implement new ones as needed. These corrective actions have been listed for years but have not been followed through to the extent necessary to meet auditing and financial management standards. Without sufficient control activities that clearly outline the procedures necessary to obtain audit readiness when managing accounts and preparing financial statements, DFAS cannot make substantial progress. While other corrective measures are also important, improving the control policies that contributed to material weaknesses must be a high priority for DFAS and the DOD.

B. MONITORING ACTIVITIES

The Standards for Internal Control require management to "establish and operate monitoring activities" (GAO, 2014c, 16.01) to define a baseline for evaluation, continuously monitor control activities, and evaluate the results of internal review. As evidenced by the FY 2020 audit results, existing monitoring efforts within DFAS do not effective reduce the risk of material misstatement. The Post-Pay Review team missed 100% of improper payments assessed by the IG (2020a), and the existing Internal Review (IR) Audit organization did not address controls contributing to $300 billion in unsupported accounting adjustments (OUSD, 2020a). The IR organization conducted 52 audits and attestations in the past three years, which were assessed as effective by the IG (2020d). Management oversight and quality assurance remain material weaknesses within DFAS that contributed to the results of the annual audit. Furthermore, DFAS frequently self-reports corrective action and compliance which is later revealed to be insufficient. Many GAO and IG recommendations have remained open for years, including those that would directly address existing material weaknesses. DFAS does not adequately monitor control activities to the standard outlined in OMB Circular 123-A, which contributed to billions of unsupported transactions and improper payments and millions in financial misstatement or loss.

C. INFORMATION TECHNOLOGY SYSTEMS

Information technology systems should be utilized to draw "relevant data from reliable sources" (GAO, 2014c, 13.01) and produce quality information. The myriad of legacy and independent financial systems within the DOD prevented effective financial reporting and largely contributed to material weaknesses identified in the FY 2020 audit (OUSD, 2020a). 1,400 of the existing NFRs deal directly with DOD IT systems, and annual operational and maintenance costs exceeded $2.8 billion (GAO, 2020d). The lack of a comprehensive and integrated DOD ERP system negatively impacted DFAS's ability to employ effective internal controls and contributed to long timelines for corrective action. Insufficiently designed IT systems contributed to material weaknesses in the universe of transactions, balance accounts, and improper payments. Many DOD components reported transactions on the summary level vice detail level, which prevented DFAS personnel from reconciling differences. While progress has been made to deploy ERP systems for finance, supply, and acquisition within the DOD components, the GAO found no comprehensive plan to adequately implement corrective action plans and meet auditability standards (GAO, 2021c). Until the DOD can identify a complete list of existing systems and develop a plan to effectively deploy ERP systems, sufficient corrective action cannot be taken to address material weaknesses and NFRs identified in the FY 2020 audit.

D. RESPONSIBILITY

Organizational responsibility has a key role in the effectiveness of DOD and DFAS plans for auditability. The FY 2020 IG compendium identified 17 open recommendations from seven reports for DFAS, and 13 instances where responsibility was transferred to a different organization. The GAO does not maintain such a database, but research identified 13 reports with unresolved recommendations pertaining to DFAS and DOD auditability. The GAO also found that the corrective action plans developed by various DOD components lack critical data, root cause analysis, and sufficient documentation (2020b). DFAS does not have the personnel or resources to address all 144 material weaknesses and 3,559 NFRs resulting from the previous three annual audits, but the scope of their responsibility is not well defined. This is due to the broad language in DOD Directive 5118.05, which defines the mission, responsibilities, functions, authorities, and administration of DFAS (DOD, 2020). The directive tasks DFAS with overseeing all finance and accounting procedures and requirements, establishing and enforcing principles and standards to comply with all applicable regulatory requirements, and providing finance and accounting services to all other DOD components (2020). DFAS is also responsible for advising the Undersecretary of Defense (Comptroller) on all finance and accounting matters. The IG recommendations transferred from DFAS to the OUSD highlighted the lack of clearly defined responsibility between the two organizations. The language in DODD 5118.05 implies that DFAS is largely responsible for correcting all material weaknesses and achieving auditability for the DOD but does not provide the requisite tools and resources for DFAS to accomplish such a massive undertaking. Therefore, there is no clear existing delineation of responsibility regarding corrective action, and as a result many material weaknesses were not sufficiently addressed. This lack of responsibility and accountability will continue to result in small, short term fixes instead of wholistic root-cause analysis into material weaknesses identified by the annual audit.

V. RECOMMENDATIONS

This thesis provides policy recommendations for DFAS and DOD leadership to consider. Applying additional resources and funding to auditability corrective actions may be difficult due to budget constraints but could result in reduced long term costs. Lessons learned and best practices from the Sarbanes-Oxley Act provide additional opportunities for improvement to existing corrective action efforts. The DOD spends nearly $1 billion annually to address the findings of the IG audit, which has resulted in partial progress towards achieving a clean audit opinion. To improve upon existing efforts, these recommendations focus on root cause issues pertaining to multiple material weaknesses that will continue to prevent auditability until adequately corrected.

A. REDESIGN CONTROL ACTIVITIES

The author recommends that DFAS redesign control activities by publishing new guidance for improper payments, accounting practices, and compiling financial data. This includes a comprehensive overhaul of internal controls for sampling procedures, balancing FBWT accounts, managing suspense accounts, and maintaining the DOD universe of transactions. The existing guidance does not adequately provide DFAS personnel with adequate procedures to prevent misstatements, a finding consistent to IG, GAO, and independent auditor reports. In addition to updating policy, the author recommends a standardized training plan for DFAS team members. Where existing policy is sufficient, DFAS employees have not successfully implemented guidance due to a lack of training or understanding of procedures. A training plan to provide clear and uniform instruction on how to manage transactions, data reconciliation, and reporting will reduce the risk of manual error. DFAS responses to the FY 2020 audit and recent IG and GAO reports outlined corrective action plans that included improving control procedures and training. As audit costs exceed $1 billion annually, it is recommended that DFAS devote attention and resources to implementing these actions in an efficient and timely manner. By implementing adequate control activities, DFAS can directly address five of the major material weaknesses from the FY 2020 audit, steadily resolve NFRs, and reduce audit costs on an annual basis.

B. LEVERAGE SOX SECTION 404 BEST PRACTICES

The author recommends that DFAS leverage Sarbanes Oxley (SOX) Section 404 best practices to improve monitoring activities. Management within SOX compliant companies spent an average of 7.5 hours assessing and reviewing each internal control on an annual basis (Protiviti, 2016). In addition, senior management was responsible for personally verifying financial statements and internal control effectiveness (SOX, 2020). The 2020 Protiviti survey of 735 SOX compliant companies provided options for DFAS leadership to consider when assessing internal controls (2020). In FY 2020, 70% of companies used an internal audit review team, and 68% of companies conducted additional management reviews of internal controls (Protiviti, 2020). The author recommends DFAS utilize the existing IR audit organization to review material weaknesses identified by the FY 2020 audit and recent GAO and IG reports. In addition, DFAS management could consider personally reviewing internal controls and measuring the effectiveness against an established baseline to verify corrective actions. Long term recommendations for reducing costs and improving efficiency for monitoring activities include leveraging automated ERP tools for workflow, financial processes, and journal entries (Protiviti, 2020). Collaborative tools and process workflow checklists with digital signing procedures would improve visibility and ease of oversight for management. This recommendation directly addresses one material weakness from the FY 2020 audit but would increase the effectiveness of corrective action efforts for multiple others. Additional management responsibility requires a short-term increase of allocated resources. However, long term results from civilian companies demonstrated decreased costs, improved efficiency, and overall enhanced control procedures and activities.

C. INCREASE ERP SYSTEM FUNDING

To address material weaknesses related to information technology systems, the author recommends increased funding for DOD ERP systems. Inadequate accounting and financial systems are the largest and most significant hurdle preventing DOD auditability, and caused over half the outstanding audit NFRs. Without effective IT systems, corrective action plans for control activities, management oversight, and accounting practices will not be fully successful. System sustainment costs exceed $2.8 billion annually, which presents the opportunity for long term cost saving through short term investment. The corrective target year in the FY 2020 AFR is 2028 (2020a), but the DOD does not have a sufficiently detailed and actionable roadmap to achieve this goal (GAO, 2021c). Fully deploying ERP systems is directly tied to the timeline for auditability, and the author recommends the DOD aggressively pursue a closer target date of 2026. The DOD could reduce overall audit and IT maintenance costs by applying available resources and additional funding to a comprehensive contract for ERP deployment in the next five years. In addition, the DOD could break the pattern of short-term fixes that do not sufficiently address material weaknesses and the risk of financial misstatement. To improve IT management and control, the DOD should consider a commercial framework such as Control Objectives for Information and Related Technology (COBIT). COBIT is an internal control framework that allows management to review and minimize technical issues, reduce risk, and establish control activities (Information Systems Audit and Control Association, 2021). Many companies utilize COBIT to reduce the costs of SOX compliance, and the DOD could benefit from a modernized, integrated framework while deploying ERP systems. This recommendation addresses three material weaknesses from the FY 2020 audit and would indirectly support the correction of five more weaknesses related to control processes.

D. REVISE DFAS RESPONSIBILITIES

The author recommends DOD leadership consider revising the language in DOD Directive 5118.05 regarding DFAS responsibilities. The existing language is broad enough to place all DOD financial and accounting requirements under the purview of DFAS. DFAS is not equipped to address such a scope of work regarding auditability, and as a result must pass on recommendations and corrective action plans to other organizations. The other DOD components turn back to DFAS as the financial service provider when seeking to address those findings, which creates confusion and a lack of clearly defined responsibility. Without the funding, manpower, and resources to adequately address material weaknesses, DFAS has focused on short term solutions to fix what they can. This has extended the timeline for DOD auditability and increased associated costs. Clearly defined DFAS responsibilities related to auditability would allow more effective accountability and focus for corrective action. This could be accomplished by either narrowing the scope of DODD 5118.05 to a role that DFAS can successfully accomplish, or by expanding the resources, manpower, and authority of DFAS. Without a delineation of responsibility between DFAS and the other components, the DOD cannot efficiently achieve long term auditability and reduce financial management costs. This recommendation addresses one FY 2020 material weakness specific to management and oversight and would provide benefit to all auditability findings.

VI. CONCLUSION

This thesis investigated the results of the FY 2020 DOD-wide audit to identify patterns and underlying causes of material weaknesses. The author researched historical GAO and IG reports, the results of the annual external audit, and studies on the effectiveness of the Sarbanes-Oxley Act on civilian organizations. Based on the findings of that research, the author concluded that consistent patterns do exist in DFAS control procedures and monitoring activities that contributed to material weaknesses. Furthermore, the author found that ineffective financial systems in the DOD were the root cause of most FY 2020 audit material weaknesses. Analysis of the findings provided four policy recommendations for DOD and DFAS leadership to consider, which addressed control procedures, monitoring activities, financial systems, and the definition of DFAS responsibilities. The author concluded that these four areas contributed to a significant amount of FY 2020 material weaknesses and NFRs, and that existing corrective action plans were not sufficient for achieving auditability. One limitation in the research was a lack of quantitative cost-benefit analysis for ERP system deployment, which is a recommended area for future study. DFAS and DOD leadership have made substantial progress towards auditability, as reflected in the improvements between the FY 2019 and FY 2020 audits. However, the analysis of research conducted in this thesis indicated that the DOD will not achieve a clean audit opinion without addressing these findings. Implementing all four recommendations may not be possible in a budget constrained environment, but they provide a starting point for leadership to consider and provide insight on underlying patterns and weaknesses impacting auditability efforts.

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APPENDIX A. SOX BEST PRACTICES

The 2020 Protiviti survey of Sarbanes-Oxley compliant companies generated a list of lessons learned and best practices which could apply to DFAS and DOD internal controls, listed in Table 3 (Protiviti, 2020).

Table 3. Sarbanes-Oxley Best Practices. Adapted from Protiviti (2020).

Internal Control	Short-Term Practice	Long-Term Solution
Manual Journal Entry Review	Employ digital signatures within PDF software to review documents.	Utilize ERP workflow tools to increase automation for account reconciliation and other accounting processes.
Period-End Journal Review	Use PDF software to sign and document the review of journal reports in audit programs.	Use modern software such as Microsoft Teams to record task completion. Rank transactions by risk factors to focus on high-risk areas.
Account Reconciliation	Focus efforts to determine low-risk and high-risk accounts. Validate email submissions and utilize shared folders with restricted access for review.	Use automated reconciliation software to minimize the risk of manual error. Rank accounts by risk to focus on high-risk areas.
Period-End Checklists	Use online signature tools to document the review and approval of checklists.	Use software such as Microsoft Teams to collaborate and record task completion. Use ERP workflow tools to structure progression and allow monitoring.
Employee Change Notices	Use a centralized email box. Use signature tools to document review and approval.	Use IT incident management tools to document approval.
Physical Inventory Validation	Use third parties to certify inventory counts.	Use automated scanning technology to validate inventory.

Internal Control	Short-Term Practice	Long-Term Solution
User Access Review	Run reports on exact period-end dates.	Program software to automatically run reports on predetermined dates.
Dual Signature Requirements	Have central transactional authority review and double sign high risk transactions.	Employ modern banking software tools for transaction verification.
Manual Approval of Invoices	Use PDF software to document signatures.	Use ERP workflow tools to secure and monitor manual documents.

APPENDIX B. ADDITIONAL IG REPORT DATA

The Inspector General conducted multiple investigations into improper payments between 2015 and 2021. The findings of the investigations not discussed in the body of the thesis were:

- January 2015: DFAS methodologies did not capture improper payment estimates or fully disclose overpayments. Weaknesses in control activities limited the ability to identify, assess, and correct improper payments (IG, 2015b).

- May 2015: DFAS provided unreliable improper payment estimates and did not conduct adequate quality assurance review (IG, 2015c).

- March 2016: DOD component actions did not adequately reduce improper payments in the DOD Travel Pay program (IG, 2016a).

- May 2016: The DOD did not provide reliable improper payment estimates or achieve reduction targets outlined in the FY 2015 Improper Payments Elimination and Recovery Act (IPERA) (IG, 2016b). The IG recommendation to determine the source of obligations not reviewed for improper payments remains open (IG, 2020c).

- May 2017: The DOD did not comply with five of six IPERA requirements including publishing the AFR on time, conducting risk assessment, publishing relevant improper payment estimates, including planned completion dates for corrective action plans, or meeting reduction targets for two of nine programs (IG, 2017a). The IG recommendations to verify risk assessment procedures and outline corrective action plans remain open (IG, 2020c).

- May 2018: The DOD did not comply with four of six IPERA requirements including publishing all required information in the AFR, reporting statistically valid improper payment estimates, publishing required elements of corrective action plans, or meeting reduction targets for four programs (IG, 2018a). The IG recommendations to develop statistically relevant sampling plans for testing improper payments remain open (IG, 2020c).

- May 2019: The DOD did not comply with three of six IPERA requirements including publishing reliable improper payment estimates, publishing required elements of corrective action plans, and meeting improper payment reduction targets (IG, 2019a). Ten IG recommendations regarding documentation, auditing, improper payment reporting, corrective action plans, procedure development, sampling processes, and establishing a review process remain open (IG, 2020c).

- May 2020: The DOD did not comply with two of six IPERA requirements including publishing reliable improper payment estimates and meeting annual reduction targets for three programs (IG, 2020b).

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