Computational Stewardship

A Data-Driven Framework for Demand-Side Visibility and Fiscal Integrity — Tailored for Federal Agencies and Public-Sector Leadership

> This document is tailored to federal and public-sector guidance and internal control frameworks (OMB A-123, GAO Green Book, PIIA). For private-sector applications, see our Efficiency Ratio Playbook whitepaper.

EXECUTIVE SUMMARY

This framework addresses demand-side variances in federal procurement by augmenting OMB Circular A-123 internal controls via a low-touch Computational Stewardship Overlay (CSO). By leveraging comparative benchmarking, the CSO identifies consumption variance to support decision-support visibility into discretionary demand discipline, subject to agency context, governance posture, and leadership review.

The methodology is aligned with the Payment Integrity Information Act (PIIA), GAO's Fraud Risk Framework, and current Executive Branch efficiency priorities.

I. THE STRATEGIC CHALLENGE: UNMANAGED CONSUMPTION VARIANCE

Federal acquisition strategy has historically prioritized supply-side management — leveraging enterprise-wide buying power to negotiate favorable unit prices through Best-in-Class (BIC) contracts and GSA Schedules. While these efforts are foundational, variance in service contract obligations and requirements validation has been highlighted in GAO studies on DoD efficiencies and acquisition fragmentation, with comparable analyses indicating material variance across similarly situated units, consistent with findings in GAO service acquisition reviews.

This lack of visibility into demand patterns contributes to government-wide improper payments, which have exceeded $160B annually per recent PIIA reporting, underscoring the need for enhanced demand-side controls.

II. THE SOLUTION: THE COMPUTATIONAL STEWARDSHIP OVERLAY (CSO)

SpendWell.AI provides a Computational Stewardship Overlay (CSO) — a decision-support intelligence layer designed to identify consumption variance and support leadership-led normalization efforts while augmenting existing internal controls. All procurement decisions remain the responsibility of warranted Contracting Officers; the CSO provides analytical decision support only.

The CSO utilizes a read-only ingestion approach that analyzes agency-provided datasets without modifying legacy Enterprise Resource Planning (ERP) environments or systems of record. By applying transparent, repeatable comparative benchmarking, the CSO identifies workgroups for early-warning visibility into outliers.

III. OPERATIONAL MODULES

1. Comparative Consumption Benchmarking
Standardizes disparate procurement data into a Consumption-per-FTE Index, using agency-provided or derived baselines to support mission-aligned comparisons.

Integrity Focus:
Peer-group workgroups are benchmarked by fiscal efficiency relative to their specific mission requirements.

Outcome:
Leadership may gain early-warning visibility into outliers for management by exception,

supporting workgroup leads to align consumption with the agency's peer-normalized consumption baseline derived from agency data.

2. Pre-Obligation Alignment & Price Parity
Identifies potential unit-price variance and maverick spend during the requisition review window by leveraging data from FPDS, SAM.gov, and GSA Advantage!

Integrity Focus:
Automated analytical review of requisitions against enterprise best-achieved prices and designated vendor lists.

Outcome:
Supports agencies in maximizing strategic sourcing value and policy alignment, providing alerts for deviations before obligation to support adherence to OMB strategic sourcing guidance and FAR principles.

3. Internal Control Readiness
Facilitates proactive closure of control gaps in line with A-123 appendices, aiding in the mitigation of remediation efforts during formal OIG or GAO reviews.

Integrity Focus:
Evaluation of requisitions against internal control benchmarks to identify systemic gaps prior to final obligation.

Outcome:
Augments continuous monitoring under OMB Circular A-123 and the GAO Green Book by providing early-warning visibility into alignment risks that may be relevant to oversight review.

4. Temporal Obligation Analysis (Deobligation Roadmap)
Automated identification of obligations with no recent activity or anticipated disbursement, respecting statutory requirements under the Anti-Deficiency Act (31 U.S.C.).

Integrity Focus:
Deep-scan identification of stagnant unliquidated obligations (ULOs) post-requirement satisfaction or performance period lapse.

Outcome:
Delivers a prioritized roadmap for fund deobligation, enabling CFOs to re-align underutilized capital toward mission priorities while supporting consideration of applicable legal requirements.

IV. DATA GOVERNANCE AND SECURITY POSTURE

The CSO architecture is designed for Low-Touch Implementation: requiring no write-access or on-premise installations. The platform is intended to align with FISMA and NIST SP 800-171 requirements, analyzing agency-provided exports from systems such as G-Invoicing and FedMall, consistent with agency security and access controls. All analytical processing occurs outside operational procurement workflows and does not introduce new system dependencies. All analytical outputs are exportable in machine-readable formats to support records retention, FOIA, OIG, and GAO review. Initial Stewardship Briefs may be prepared within 60–90 days, contingent on data export approvals and security review.

V. STATUTORY & DOCTRINAL ALIGNMENT

The framework is mapped to federal authorities and guidance: PIIA 2019, OMB Circular A-123, and current Executive Branch statements related to efficiency, transparency, and payment integrity. This aligns with the GAO Fraud Risk Framework (GAO-15-593SP) for pre-payment anomaly visibility.

VI. ABOUT THE SPENDWELL FEDERAL PROGRAM OFFICE

The SpendWell Federal Program Office leverages decades of acquisition expertise derived from Fortune 100 leadership and highly-regulated industries. We provide analytical decision-support intended to inform stewardship discussions related to buying power, demand variance, and fiscal integrity, subject to agency governance and professional judgment.

REFERENCES (DESCRIPTIVE)

- GAO studies on DOD service contract efficiencies and requirements validation.
- GAO studies on federal buying power and acquisition fragmentation.
- Recent PIIA reporting on government-wide improper payment estimates.
- Benchmarks on strategic sourcing outcomes and efficiency opportunities.
- OMB Circular A-123: Management's Responsibility for Enterprise Risk Management and Internal Control.
- GAO Green Book: Standards for Internal Control in the Federal Government.
- Payment Integrity Information Act (PIIA) of 2019 (Public Law 116-117).
- GAO Fraud Risk Framework: A Framework for Managing Fraud Risks in Federal Programs.

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*This document describes a policy-aligned analytical framework and illustrative implementation approach. It does not represent an operational deployment, policy determination, or endorsement by the U.S. Government. Detailed citations, additional implementation details, and illustrative pilots are available upon request.

AUTHORSHIP & AVAILABILITY

This document was prepared by SpendWell.AI as an illustrative analytical framework for decision-support purposes only.

Availability: This framework is available through Carahsoft on applicable contract vehicles, subject to agency acquisition strategy, contracting office determination, and applicable procurement regulations.

Contact (Informational):
www.spendwell.ai
info@spendwell.ai
850-588-1457