SYM-AM-26-110

Excerpt from the Proceedings

of the

Twenty-Third Annual Acquisition Research Symposium and Innovation Summit

Thursday, May 7, 2026 Sessions
Volume II
"Accelerating Warfighting Capabilities"

Leveraging the Working Capital Fund Model to Scale and Sustain Innovation

Published: April 30, 2026

The research presented in this report was supported by the Acquisition Research Program, Graduate School of Defense Management at the Naval Postgraduate School.

To request defense acquisition research, please contact:

Acquisition Research Program
Department of Defense Management
Naval Postgraduate School
E: arp@nps.edu
www.acquisitionresearch.net

Copies of Symposium Proceedings and Presentations; and Acquisition Sponsored Faculty and Student Research Reports and Posters may be printed from the **NPS Defense Acquisition & Innovation Repository** at **https://dair.nps.edu/**.

ACQUISITION RESEARCH PROGRAM
DEPARTMENT OF ACQUISITION, FINANCE, AND MANPOWER
NAVAL POSTGRADUATE SCHOOL

Leveraging the Working Capital Fund Model to Scale and Sustain Innovation

Major Rachel Kim, USA—Army Acquisitions Program Manager, Joint Program Executive Office Armaments and Ammunition.

Abstract

The Department of War is undergoing an ambitious acquisition transformation, but the underlying fiscal architecture that governs how capability is funded, scaled, and sustained has remained unchanged since 1949. This paper argues that the Working Capital Fund (WCF), authorized under 10 U.S.C. § 2208, is an underutilized instrument of incentive architecture that, if reinterpreted, can deliver the patient capital that the defense innovation ecosystem requires. Drawing on structural comparisons between the current Defense Working Capital Fund (DWCF) and commercial working capital fund models, the paper proposes an Innovation Working Capital Fund (IWCF) that retains every element required by the break-even mandate and the Financial Management Regulation while replacing the input-based denominator (direct labor hours) with an output-based denominator (availability units), recognizing government-contributed assets through four explicit equity offsets, embedding an Innovation Premium within the rate under existing § 2208(c) and § 2208(e)(1) authority and assigning the Portfolio Acquisition Executive the role of fund manager.

Keywords: working capital fund, defense acquisition, sustainment, innovation capital, Portfolio Acquisition Executive, gainsharing, Planning, Programming, Budgeting, and Execution (PPBE) reform

Background

The defense acquisition enterprise is undergoing an ambitious structural realignment since the Goldwater-Nichols Act of 1986. The 2025 Acquisition Transformation Strategy, which redesignates the Defense Acquisition System as the Warfighting Acquisition System, commits the Department to aggressively prioritize the timely and urgent delivery of operations capabilities to the warfighter through faster decision cycles, commercial-first sourcing, and warfighter-driven requirements (DoD, 2025a; Executive Order No. 14265, 2025; Secretary of War, 2025). The Army's May 2025 reorganization established six Portfolio Acquisition Executives (PAE), consolidating requirements, contracting, testing, sustainment, and international sales under decentralized decision authorities to manage programs across traditional boundaries (DefenseScoop, 2025; Roque, 2025). Major defense innovation reform has crowded in more capital, pathways, and competition for rapid prototyping and fielding. The Office of Strategic Capital's (OSC's) credit program, which provides loans and loan guarantees across 31 Covered Technology Categories ranging from $10 million to $150 million and total loan authority of $984 million through FY2026, was designed to attract and scale private investment in potentially overlooked market segments that support critical technology development (National Defense Authorization Act [NDAA], 2023). The Department has concurrently embraced Middle-Tier Acquisition and Other Transaction Authority (OTA) and propelled speed by streamlining Commercial Solutions Opening (CSO) and Commercial Off-the-Shelf (COTS) acquisition through rapid vehicles such as Undefinitized Contract Actions (UCA) and Defense Other Transaction Consortium (DOTC) structures.

While these efforts have bridged various parts of the "valley of death," the underlying funding architecture remains unchanged. The Commission on Planning, Programming, Budgeting, and Execution (PPBE) Reform concluded that the PPBE process is structurally incompatible with the speed, flexibility, and portfolio-level thinking that modern acquisition requires (Congressional Research Service [CRS], 2024a; PPBE Reform Commission, 2024).

The Commission issued 28 recommendations across five critical areas, including biennial budgeting for appropriate accounts, restructuring the budget around major capability activity areas rather than lifecycle phases, consolidating budget line items, addressing the challenges with colors of money, and authorizing the Department to start or accelerate programs using budget authority under continuing resolutions if approved by defense committees. It identified a single systemic problem: The PPBE architecture cannot respond to new information faster than the Program Objective Memorandum cycle allows, cannot redeploy capital from underperforming programs to overperforming opportunities within the fiscal year, and cannot make the multi-year financial commitments that both the industrial base and private capital markets require to make rational investment decisions.

The FY2026 NDAA addressed some elements, such as the PAE authority, but the fundamental fiscal architecture remains intact: annual appropriations, classified by color and purpose, expiring at the fiscal year boundary, allocated through a two-year budget cycle that produces funding decisions 18 to 24 months before execution and cannot be revised without triggering a laborious reprogramming process (Purpose Statute, n.d.; Anti-Deficiency Act, n.d.; Reprogramming of Funds, n.d.). Congress has not passed a defense appropriations bill on time since 1997, meaning that for nearly three decades, every fiscal year has begun under a continuing resolution that restricts new starts, prevents production rate increases, and freezes program obligations at prior-year levels (Duffey, 2026; GAO; SC World, 2026). Budgeting reform has not kept up with acquisition reform in the same manner, exposing the gap between reform language and budget reality (GAO, 2024).

The empirical evidence that the current reforms have not addressed the core problem is documented across four years of successive GAO reports. The June 2025 Weapon Systems Annual Assessment found that cost growth continues to accelerate despite reform: Combined total estimates for 30 major defense acquisition programs grew by $49.3 billion in a single year. Programs using the MTA pathway entered with low technology maturity and experienced the same schedule delays as the traditional path they were meant to replace. Of seven former MTA programs the GAO (2025a) reviewed, none were ready for production or fielding when the MTA effort ended.

This “ditch of death” exists at the transition from production to sustainment (Federal News Network, 2025; MITRE, 2025). The GAO reported that Operations and Maintenance (O&M) dollars account for approximately 70% of a weapon system’s total lifecycle cost. Of 16 weapon systems the GAO assessed in FY2022, nearly half had sustainment cost growth above the thresholds identified in statute. The Department projects to spend approximately $2.4 trillion on its costliest major defense acquisition programs across their operational lifetimes. Despite the enormous capital flows to the supply side, the sustainment enterprise that consumes 70% of lifetime program cost operates with no self-financing innovation mechanism, no performance-based incentive structure, and no instrument to attract private capital at the scale the industrial base modernization challenge requires (DoD, 2022; GAO, 2025b; National Defense Industrial Association [NDIA], 2023). Until sustainment is treated as a coequal pillar of modernization, rather than an afterthought, Army modernization will remain trapped between intent and execution.

Urgent procurement without sustainment financing creates operational dependency on commercial supply chains that neither the government nor its vendors have planned to maintain (GAO, 2024). Once a production contract is awarded, the feedback loop between the warfighter and the industrial base is effectively disincentivized: the contractor, having achieved program of record status, moves from a competitive market into a structural monopoly; the government has made its platform choice; the technical data package (TDP) can be controlled by the original equipment manufacturer; the sustainment relationship is governed by sole-source contracts that

GAO has found account for the majority of post-production spending. If PAEs cannot manage their portfolios like fund managers—with retained earnings, multi-year commitment authority, and the ability to redeploy capital across program boundaries based on performance—then the PAE authority, however ambitious in concept, cannot produce the outcomes the acquisition transformation strategy promises. If appropriations are classified in colors with expiration dates rather than treated as the fungible capital that private sector portfolio managers command, the same mechanical problems will continue to occur: Investment lags because the capital cannot be deployed when the opportunity appears; program overruns because the correction mechanism cannot engage until the next rate cycle; sustainment cost growth because the post-production incentive structure rewards consumption rather than performance. Notwithstanding the concentration of investment across RDTE Budget Activities 6.1 through 6.4—the $71.8 billion RDT&E portfolio that drives the Department's innovation investment—the underlying incentive structure remains oriented toward a singular objective: attainment of program of record status, after which the contractor's financial incentives run directly against the continued modernization and innovation the warfighter requires (DoD, 2025b).

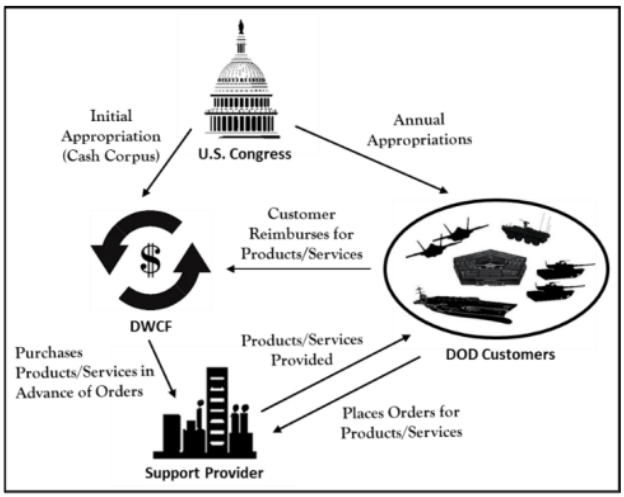
What the defense innovation ecosystem lacks is patient capital investment that can absorb multi-year development cycles, tolerate procurement delays, and remain solvent through the appropriations environment. Drawing on existing authorized programs and currently available statutory authority, this paper argues that the Working Capital Fund (WCF), authorized under 10 U.S.C. § 2208—a $63.8 billion annual instrument that already exists and possesses the structural properties (CRS, 2024b; DoD, 2025c)—would circumvent reliance on volatile appropriation cycles, fund next-generation capability qualification from sustainment cost-recovery revenue, restore competitive discipline through mandatory government ownership of TDP, and create the incentive architecture necessary to crowd in private capital on the supply side. In the interim of larger structural reforms to the PPBE process, this paper reexamines the WCF not as a legacy accounting mechanism but as an underutilized incentive architecture.

How the Current Defense Working Capital Fund Works

The DWCF is the Department's revolving fund mechanism for financing common services and industrial-type activities. Authorized originally in the National Security Act Amendments of 1949 and now codified at 10 U.S.C. § 2208, the fund was established to allow the Department to aggregate demand from multiple military departments and agencies, recover costs through a stabilized billing rate, and smooth cash flow across fiscal years (CRS, 2024b; National Security Act Amendments of 1949, 1949).

It encompasses five activity groups operated by three defense agencies: the Defense Logistics Agency (supply chain management, energy, and document services), the Defense Information Systems Agency (information services), and the Defense Finance and Accounting Service (financial operations). Together, these five activity groups disbursed $63.8 billion in FY2026 and received new orders totaling $62.2 billion (DoD, 2025c).

Figure 1 illustrates a general example of how a DWCF operates and follows the rate-setting methodology described below.



Source: CRS Graphics.

Notes: The process illustrated above is a general example of how a DWCF operates. Variations can exist (e.g., private party customers).

Figure 1. How a DWCF Operates (CRS, 2024b)

- Ordering activities, such as military departments, defense agencies, and in limited cases allied governments through Foreign Military Sales, submit funded orders to the fund at the published rate, using their O&M or other appropriations.
- The fund executes the work, delivers the service, or ships the supply.
- The fund bills the ordering activity at the published rate and collects the reimbursement.
- At year-end, the difference between actual cost and actual revenue, or the Net Operating Result, accumulates into the AOR balance and is scheduled for recovery or return in a future rate cycle.
- The WCF must submit its Justification Books (J-Books) to Congress annually, which provide complete visibility into each WCF activity's revenues, costs, rate changes, and capital investment program, without requiring separate appropriation for each transaction or increment. Congress retains oversight through transparency rather than transactional control.

Congress appropriates cash or authorizes in-kind inventory transfer to the fund's opening balance. This initial appropriation, a one-time capitalization, combined with any inventory or physical assets transferred in-kind from prior appropriated fund accounts, constitutes the cash corpus. The corpus gives the fund manager working capital to purchase materials, pay labor, and execute the first cycle of work before customer reimbursements arrive. The Office of the Under Secretary of Defense (Comptroller), or the Assistant Secretary of the relevant military department for the service funds, establishes the annual rate schedule 18 to 24 months before the fiscal year in which it takes effect. The rate is set against a projected workload forecast and a projected cost base, incorporating any prior-year Accumulated Operating Result (AOR) correction from the cycle two years back.

The WCF rate is stabilized and published before the fiscal year, held constant throughout the fiscal year regardless of actual cost experience, and corrected only in subsequent rate cycles through the AOR mechanism. This stabilization provides ordering activities with the budget certainty that direct appropriations cannot, absorbing variance in the fund's own balance sheet

rather than exposing ordering activities to mid-year cost shocks. The cost of this feature is the 18-to-24-month correction lag between a cost event and its appearance in the rate.

The standard DWCF rate equation consists of four cost-recovery components in the numerator divided by a projected volume of Direct Labor Hours in the denominator:

$$Rate\ (\$/DLH)\ =\ \frac{(Direct\ Labor\ +\ Indirect\ Overhead\ +\ Capital\ Surcharge\ \pm\ AOR)}{Projected\ Direct\ Labor\ Hours}$$

$$Direct\ Labor\ =\ Civilian\ workforce\ fully-loaded\ compensation$$

$$Indirect\ =\ Allocated\ overhead: G\&A, facilities, IT, management$$

$$Capital\ Surcharge\ =\ Depreciation\ recovery\ on\ government-owned\ equipment$$

$$AOR\ =\ Accumulated\ Operating\ Result: prior-year\ surplus\ (-)\ /\ deficit\ (+)$$

$$DLH\ =\ Direct\ Labor\ Hours: the\ input\ unit\ the\ fund\ bills\ against$$

The rate denominator is the projected DLH volume, or the total number of direct labor hours the fund expects to bill in the coming fiscal year, derived from the FTE count and a productive yield assumption. The rate is a single hourly price that ordering activities pay for every hour of depot labor they consume. It is then stabilized for the full fiscal year, meaning customers pay the same rate regardless of whether actual costs come in higher or lower than projected.

This equation has three structural weaknesses. First, the unit of account, DLH, is an input, which means the government buys time, not performance. Second, every component of the numerator is a cost-recovery element. No component rewards performance above baseline, attracts capital investment, or creates a return window. Third, the denominator is a forecast, rather than a validated demand signal. If actual volume falls below projection, the rate under-recovers. If it exceeds projection, the rate over-recovers. Neither outcome triggers any automatic response within the FY.

The break-even mandate, which is the fund's defining legal constraint, requires that rates recover the full costs of operation over a reasonable period. Surplus in excess of working capital requirements must be returned to ordering activities through rate reductions or carried as AOR. Deficits are recovered through rate increases in subsequent years (Working-Capital Funds, n.d.). The AOR is the WCF's self-correction mechanism: the running total of all prior-year surpluses and deficits, which the fund must drive toward zero over the budget cycle. The Net Operating Result (NOR) for any given fiscal year is revenue minus expenses; a positive NOR means the fund over-recovered relative to cost, and a negative NOR means it under-recovered. NOR values accumulate into the AOR balance and are recovered through rate adjustments in subsequent years until the AOR returns to zero.

The FY2026 Budget reveals how this AOR mechanism works in both directions. The Army WCF's Industrial Operations activity group entered FY2026 with an AOR deficit of −$129 million accumulated over three years of under-recovery, driven primarily by workforce reductions under the Army Transformation Initiative that were not priced into the rate at the time it was set. The FY2026 rate was set above the cost floor to zero out this deficit, which means ordering activities are paying a premium rate in FY2026 to recover losses the fund incurred in FY2024 and FY2025. At the same time, the DWCF entered FY2026 with an accumulated prior-year surplus of $5.5 billion, which the fund resolved by writing off $3.05 billion as non-recoverable and deferring $2.56 billion to future years (DoD, 2025c, 2025d). In other words, the

ordering activities who funded that $5.6 billion surplus through their O&M appropriations will not receive a rebate.

The Defense-wide WCF cash balance must always remain positive. A DWCF cash balance that goes negative represents an Anti-Deficiency Act violation under 31 U.S.C. § 1341. The Lower Operating Range (LOR) acts as a hard floor that triggers mandatory corrective action. When the DWWCF's cash position of $3.1 billion is compared against the Lower Operating Range of $2.26 billion, the $840 million cushion represents a narrow margin of approximately four days of operating disbursements, and therefore is one of the primary reasons the current rate-setting mechanism cannot absorb much additional stress without triggering either a rate increase, an AOR acceleration, or a corpus replenishment request.

The WCF's cash management operates within two statutory limits: an LOR below which the fund is considered insolvent and an Upper Operating Range (UOR) above which surplus is presumptively subject to offset. Between those two limits, the fund holds its working capital and the stabilization reserve, which absorbs demand volatility and price fluctuation that the annual rate cannot anticipate (Working-Capital Funds, n.d.; DoD, 2025c). The FY2026 DWWCF cash table illustrates both the scale of the fund's cash cycle and the pressure it has been under in recent years.

Table 1. Defense-Wide Working Capital Fund Cash Balance ($K)

DWWCF Cash Balance ($K)	FY24 Actual	FY25 Est.	FY26 Budget
Cash, Beginning of Period	$5,704,207	$4,133,096	$3,652,262
Total Disbursements	**−$59,194,098**	**−$65,046,825**	**−$63,758,247**
Total Collections	+$57,197,601	+$64,563,738	+$63,194,062
Net Cash Loss from Operations	**−$1,571,111**	**−$480,834**	**−$552,216**
Cash, End of Period	$4,133,096	$3,652,262	$3,100,046
Lower Operating Range	$2,586,107	$2,371,318	$2,259,522
Upper Operating Range	$7,183,747	$7,250,500	$7,238,410
Three-year projected cash decline	**−$2,604,161K total**		Cash position declining toward lower bound

Note. Data from the *Defense-Wide Working Capital Fund FY2026 Budget Estimates* (DoD, 2025c).

The DWWCF's cash position has declined by $2.6 billion from the beginning of FY2024 to the end of FY2026, a drawdown approximately equivalent to 18 days of operating disbursements. This rate-setting mechanism cannot adjust fast enough to match cost experience. The stabilization reserve, which was intended exactly for this kind of volatility absorption, has been depleted faster than the AOR correction mechanism can replenish it.

The Capital Investment Program

The WCF finances not only operating expenses but also capital improvements through a Capital Investment Program (CIP), which permits the fund to acquire capital assets (major equipment, automated process improvements, facility modernization, and IT systems) with expected useful lives beyond one year. The CIP is funded through a Capital Surcharge component included in the rate, which recovers depreciation on the acquired assets over their useful lives. This allows the fund to make multi-year capital investments that would otherwise require separate appropriations, and it ensures that the cost of those investments is borne by the ordering activities who benefit from the resulting operational improvements.

The AWCF Industrial Operations CIP grew sharply in FY2026, from $100.3 million in FY2025 to $197.7 million in FY2026. The CIP authority is one of the few existing mechanisms

through which the WCF can make forward-looking investment rather than pure cost recovery (DoD, 2025d).

A final structural feature of the current WCF model is that every DWWCF activity group operates on a mandatory-use basis, which means that ordering activities cannot source the services the fund provides from any other provider. The Army, Navy, and Air Force cannot buy their financial accounting services from anyone but the Defense Finance and Accounting Service. The services cannot replace DLA as the supply chain manager for the 5 million consumable items DLA manages. They cannot source their information services outside the Defense Information Systems Agency for the mission sets it operates. Under 10 U.S.C. § 2466, the Army, Navy, and Air Force cannot source more than 50% of their depot-level maintenance from private contractors, effectively mandating use of the organic industrial base financed through the service working capital funds.

The mandatory-use structure preserves the organic industrial base as a strategic resource independent of commercial market availability, maintains readiness capabilities that would atrophy if exposed to normal commercial competition, and ensures continuity of critical services during periods of commercial market disruption. However, the consequence of the structure is that the WCF rate is not a market price, but an accounting allocation. The provider has no competitor offering the same service at a lower rate, and the ordering activity has no alternative supplier to threaten switching to. Whatever financial pressure exists on the provider's cost performance must come from the internal rate-setting process, not from external market discipline. This is the structural environment in which the feedback loop between efficiency and reward either operates or does not.

Characteristics of the Model That Must Be Retained

- The WCF provides multi-year execution across fiscal years and thus is resilient to budget lapses. When Congress fails to pass a defense appropriations bill, which has been an annual occurrence since 1997, the WCF continues to operate because it is funded through this revolving fund. No other defense financial instrument provides this without specific multi-year appropriation authority.
- The WCF aggregates demand across all military departments and defense agencies into single financial relationships with its provider activities. For instance, DLA Supply Chain Management manages supply chains for the Army, Navy, and Air Force simultaneously, enabling purchasing leverage that no individual service could achieve independently.
- The WCF provides price stability for ordering activities who can plan off their respective direct appropriations. Ordering activities budget against a published rate that is held constant for the full fiscal year, thus acting as an insurance function. They can plan against a stable sustainment rate to manage their budget decisions rather than the alternative of appropriated funds, which can be exposed to mid-year cost volatility.
- The WCF produces full-cost visibility. When a program is funded through direct appropriation, the visible cost to the program is the contract price; the overhead costs of the depot that performs the work, the depreciation on the equipment used, and the management burden of the contracting activity are all absorbed into defense-wide overhead that the program manager never sees. When the same program is funded through the WCF, all of those costs appear in the rate, making the true cost of the service visible.
- External Sales Authority (10 U.S.C. § 2208(j) and 10 U.S.C. § 4543). Section 2208(j) authorizes WCF-funded industrial facilities to manufacture and sell articles to persons outside the Department when the purchaser is fulfilling a defense contract and the

solicitation was open to competition. Section 4543 extends this to Army industrial facilities manufacturing ammunition, munitions, or components thereof. For instance, Foreign Military Sales can generate additional revenue, creating a strategic export dividend that reduces the per-unit cost burden on domestic customers.

How the Private Sector Manages Working Capital

In the private sector, working capital is a fundamental operating metric defined as current assets minus current liabilities. Firms actively manage this balance to ensure liquidity while deploying capital productively. Unlike fixed capital investments—plant, equipment, long-term debt—working capital finances the short-cycle operations that keep the enterprise running: raw material procurement, payroll, accounts receivable, and inventory.

A healthy firm manages working capital through the cash conversion cycle (CCC): the elapsed time between cash outflow for inputs and cash inflow from sales. Firms with shorter CCCs—those that collect receivables quickly, turn inventory efficiently, and stretch payables appropriately—require less working capital to sustain the same revenue volume. Lean manufacturers, software-as-a-service companies, and platform businesses often achieve negative CCCs, meaning customers pay before the firm incurs full production costs (CFA Institute, 2024).

In a for-profit model, working capital funds are traditionally managed by setting a billing rate using the following general structure:

Commercial Managed Services Rate

$$Commercial\ Managed\ Services\ Rate$$

$$Rate\ (\frac{\$}{output}) = \frac{Cost\ Floor\ +\ Operating\ Margin\ +\ Reinvestment\ Premium\ +\ Risk\ Reserve}{Contracted\ Output\ Volume}$$

Cost Floor = All direct and indirect operating costs.

Operating Margin = 8–15% retained earnings.

Reinvestment Premium = 2–5% (typically).

Risk Reserve = 1–3% contingency.

Output Volume = unit of output.

The commercial fund's rate is constructed to generate four distinct layers of value: cost recovery, operating margin, reinvestment premium, and risk reserve. Cost recovery captures the direct and indirect costs of delivering the service (the equivalent of the DWCF's full cost build-up). The operating margin of 8% to 15% for industrial managed services, or 15% to 25% for IT and professional services, is retained by the fund as earnings available for reinvestment, distribution to shareholders, or accumulation as retained earnings (Boston Consulting Group, 2024a; KPMG, 2023). The reinvestment premium of 2–5% of revenue is the self-financing mechanism that allows the fund to modernize without requiring external capital injection. The risk reserve of 1% to 3% absorbs volume variance and demand fluctuation, analogous to the DWCF's stabilization reserve but retained by the fund rather than subject to customer return.

How Commercial Working Capital Funds Are Governed

The commercial fund's governance structure reflects its portfolio orientation. The fund manager is evaluated on three metrics simultaneously: return on invested capital, customer performance

outcomes, and forward capability investment. The three metrics are integrated through the rate and the fund's capital allocation authority. A fund manager who beats the performance benchmark retains margin, which funds the reinvestment premium, which in turn improves next period's performance against benchmark. The feedback loop is immediate, attributable, and compounding.

The General Partner/Limited Partner Model

In more sophisticated structures, the commercial WCF is organized as a closed-end fund with a General Partner (GP) managing capital supplied by Limited Partners (LPs). The GP makes the portfolio allocation decisions: which assets to acquire, what capital improvements to fund, when to exercise governance rights, when to divest. The LPs supply the capital and receive their returns through distributions based on fund performance (Blackstone Group, 2024; Macquarie Asset Management, 2024). The GP earns a management fee (typically 1%–2% of committed capital annually) covering operational expenses and a performance fee (typically 20% of profits above an 8% hurdle rate), or carried interest, that directly aligns the GP's incentives with LP returns.

In a commercial fund, efficiency gains flow through a three-step cycle: the gain appears as margin improvement in the current period; the margin flows to retained earnings or distribution at the fund manager's discretion; retained earnings fund the next round of process improvement investment, which generates the next efficiency cycle. The cycle is self-reinforcing. A commercial depot that achieves a 10% labor productivity improvement captures the full 10% as margin for at least the life of the contract period, deploys 2%–5% into further reinvestment, and distributes the remainder. The next contract cycle, the depot negotiates from a stronger competitive position because it has demonstrated performance.

The defense WCF's break-even mandate converts this cycle into a liability. Every efficiency gain above the cost floor becomes surplus that 10 U.S.C. § 2208(m) requires be returned to customers. The same 10% productivity improvement that a commercial depot captures as margin flows immediately into next year's rate reduction at a defense depot. The depot has nothing left to reinvest. The next round of process improvement requires competing for appropriations in the normal PPBE cycle against every other defense priority.

Incentive Structure: The Profit Motive as Innovation Engine

The defining feature of private-sector WCF management is the alignment between working capital efficiency and shareholder value. Firms that deploy working capital more productively—generating higher return on invested capital (ROIC) per dollar of liquidity deployed—create equity value. This incentive cascades through the organization: Division managers who generate cash from operations earn autonomy and resources; those who consume working capital without revenue justification must explain the gap.

Crucially, this incentive structure rewards innovation that reduces cost, expands revenue, or compresses cycle time. A product manager who modernizes a sustainment offering to command a recurring software subscription fee creates working capital—cash flow that the firm can redeploy. The same logic drives continuous improvement in manufacturing, logistics, and support: Efficiency gains translate directly into capital available for the next investment cycle.

Side-by-Side Comparison: Commercial vs. Defense WCF

Table 2: Structural Comparison: Commercial WCF vs. Defense WCF

Dimension	Commercial WCF	Defense WCF	Structural Consequence
Rate denominator	Output unit (flight hour, available vehicle-day, completed transaction)	Input unit (Direct Labor Hour consumed)	Commercial provider profits from reliability; defense provider profits from consumption
Operating margin in rate	8–15% retained; self-finances innovation and modernization	0%, break-even mandate prohibits retained margin	Commercial fund generates revenue off its base; defense fund generates $0
Reinvestment premium	2–5% range	Not in rate; innovation competes in PPBE appropriations	Commercial: innovation is a rate component. Defense: only with investment dollars
Surplus / AOR treatment	Retained earnings; redeployed at management discretion	Mandatory customer rebate or write-off	Commercial: efficiency creates reinvestment capital. Defense: efficiency creates rebate obligation
Correction cycle speed	Current period; variance absorbed in fund's margin buffer	18–24 months via AOR mechanism	Commercial fund self-corrects; defense fund carries error for two years
Innovation return window	Defined: first-mover margin captured for 2–5 years until competition	None; efficiency gains returned immediately	Commercial fund rewards first mover; defense fund penalizes first mover with rate reduction
Capital leverage ratio	3:1 to 6:1 leverage against contracted revenue	0:1; no multi-year commitment authority	Commercial: $100M equity supports $400–600M of deployed capital. Defense: $100M is $100M
Annual innovation capital generation	3–8% of revenue self-financed; plus 3–5× private leverage crowded in	0% self-financed; 0× private leverage	The gap is an incentive architecture problem

Note: Analysis based on DoD Financial Management Regulation Volume 11B (DoD, n.d.-c), Working-Capital Funds (n.d.), KPMG (2023), BCG (2024a), and Preqin (2024).

The Innovation Capital Gap Quantified

The structural comparison translates into a specific, quantifiable innovation capital gap. Using an example of the Army Abrams sustainment base of approximately $5.1 billion annually, the commercial model produces approximately $255 million in annual self-financed innovation capital, at a conservative 5% operating margin.

The operating margin retained after cost recovery is the primary source of capital that can be reinvested toward innovation. The mechanics of how retained earnings translate into reinvestment can be expressed as:

Commercial: $Innovation\ Capital = Revenue - Cost\ Floor - Required\ Distributions$

$= EBITDA - Capital\ Charges - Required\ Payout$

$= 3 - 8\%\ of\ revenue\ annually, self - financed$

Applied to a notional $5.1 billion Abrams sustainment base at 5% margin:

Innovation Capital = $5.1B × 0.05 = $255M/yr, self-financed, retained

DWCF: $Innovation\ Capital = (Rate \times Volume) - Cost\ Floor - AOR\ Return$

By break-even mandate: Rate × Volume ≈ Cost Floor

Therefore: Innovation Capital = 0. The gap on an identical $5.1 billion portfolio is $255 million, and over a 20-year program life, this is $5.1 billion in foregone innovation capital.

The gap compounds when private capital leverage is factored in. Commercial infrastructure funds routinely deploy 3:1 to 6:1 leverage against contracted revenue streams, meaning each dollar of retained margin supports $3 to $6 of deployed capital (Deloitte, 2022; Preqin, 2024). The commercial $255 million of retained innovation capital becomes $1.0–1.5 billion of deployed capacity once leveraged through the private market. The DWCF $0 of retained innovation capital supports $0 of deployed private capital because there is no retained fund balance against which to raise co-investment and no multi-year revenue commitment against which private capital can underwrite a return (CFA Institute, 2024; Preqin, 2024). The cumulative gap, on a single program's 20-year lifecycle, is measured in the billions of dollars of foregone industrial modernization.

One notable caveat is the legal interpretation of Section 2208(c)(1) mandating that WCFs shall be charged with the cost of the procurement and qualification of technology-enhanced maintenance capabilities that improve reliability, maintainability, sustainability, or supportability and have, at a minimum, been demonstrated to be functional in an actual system application or operational environment. It is written for industrial-type and commercial-type activities such as supply management, depot maintenance, transportation, and finance, but it is not designed as an investment fund. The statute requires the fund to break even over the long term, and § 2208(m) directs the Department to ensure fund balances do not exceed working capital requirements (Working-Capital Funds, n.d.).

Gainsharing: The Commercial Instrument for Aligning Provider and Customer

A final dimension of the commercial WCF model is the gainsharing instrument. Commercial firms routinely use gainsharing agreements to align provider and customer incentives around a shared efficiency objective. Before the contract begins, the parties agree on a should-cost baseline. If the provider delivers below that baseline, savings are shared at a pre-agreed ratio—typically 50/50 for mature programs, sometimes 60/40 or 70/30 in favor of the party that assumed more risk (Defense Acquisition University [DAU], 2019; Schuster, 1993). Both parties are better off than under a pure cost-plus arrangement; both are aligned on the shared objective of driving cost below baseline; neither has an incentive to conceal efficiency opportunities from the other.

Commercial Gainsharing vs. Defense WCF

Commercial: $Provider\ Gain = (Should\ Cost - Actual\ Cost) \times 50\%$

$$Customer\ Gain\ =\ (Should\ Cost\ -\ Actual\ Cost)\ \times\ 50\%$$

$$Timing\ is\ usually\ a\ current\ contract\ year,\ thereby\ immediate, direct$$

DWCF: $Provider\ Gain\ =\ (Should\ Cost\ -\ Actual\ Cost)\ \times\ 0\%$

$$Customer\ Gain\ =\ Full\ savings, deferred\ 18-24\ months\ as\ AOR$$

The defense should-cost analysis is already mandatory under FAR 15.407-4. The provider has zero financial stake in beating should-cost. The customer receives the benefit two years later as rate adjustment. Therefore, neither party has a current-year financial incentive to drive efficiency.

The gainsharing formula converts the adversarial cost-plus dynamic into a cooperative one. The provider has a direct financial incentive to find efficiencies and share them with the customer. The customer has a direct financial incentive to provide the provider with the information, access, and flexibility needed to find those efficiencies. The should-cost baseline is the shared reference point against which both parties measure performance. The DWCF has no gainsharing mechanism despite having a mandatory should-cost requirement.

A Reinterpreted DWCF Is Needed: Innovation Working Capital Fund

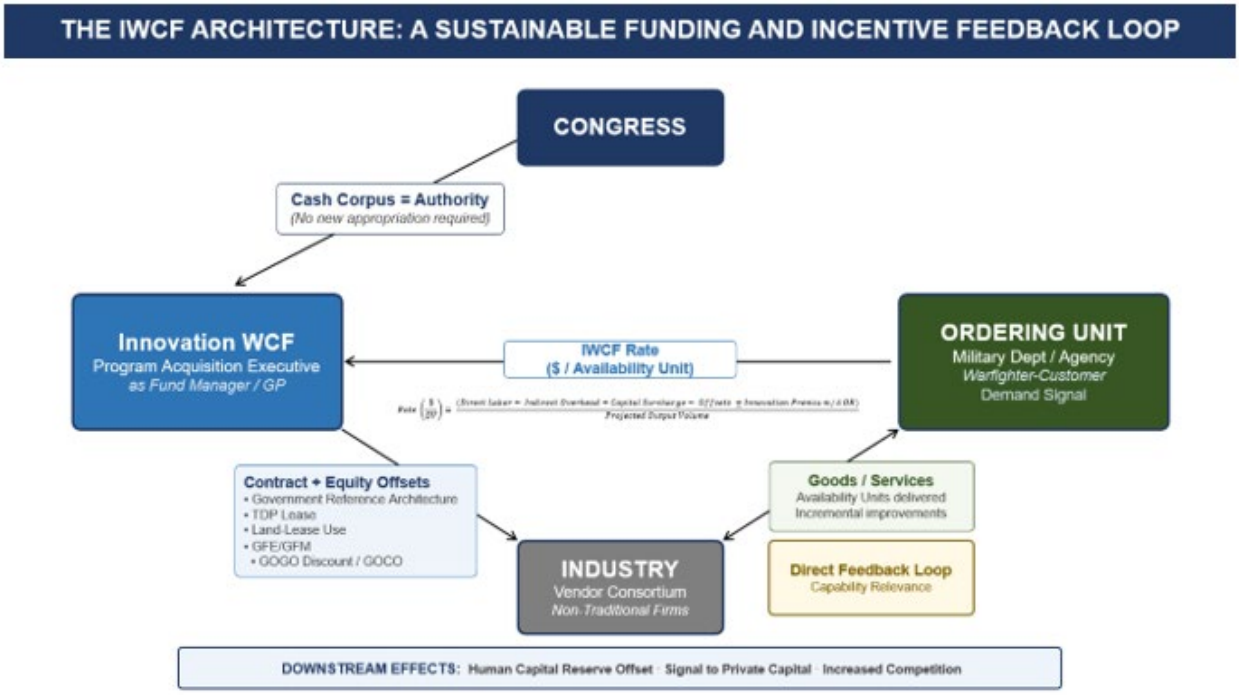
The current Defense WCF, as examined in detail, is a cost-recovery instrument that operates with mechanical fidelity to its 1949 statutory purpose—and consequently generates break-even solvency, full-cost visibility, zero innovation capital, and, more importantly, is insufficient for the sustainment problem the Department faces. The commercial working capital fund, by contrast, operates a rate equation with structurally identical inputs but categorically different outputs: cost recovery, operating margin, reinvestment premium, and risk reserve, producing 3%–8% of revenue in self-financed innovation capital and 3-to-1 to 6-to-1 leverage against contracted revenue streams (BCG, 2024a; KPMG, 2023; Preqin, 2024).

This paper proposes a new DWCF model, the Innovation Working Capital Fund (IWCF), which draws on the benefits of a commercial WCF but still complies with the statutory constraints of 10 U.S.C. § 2208 and does not require a new appropriation or new legislative authorities. It preserves the aforementioned benefits of the DWCF while authorizing innovation, incentivizing a direct feedback loop, and crowding in in-kind private capital. It assigns the PAE the integrator of the WCF that can function like a GP to make portfolio allocation decisions, exercise governance rights, and set performance expectations. The ordering activities function as LPs, supplying capital through their sustainment appropriations in exchange for defined service delivery.

More than just an accounting function, the IWCF is modeled to realign incentives through the following mechanics:

- Streamlines the feedback loop between the warfighter and industry, which delivers the capability. In a post-production contract under the current requirements process, changes are made through a maintenance reporting system, which then has to undergo a contract modification through the contracting office, which is subject to the budget window and funding. The supplier has no in-year financial motive in the urgency of the solution.
- Promotes collaboration between the PAE-led IWCF and vendor consortia built on a codified reference architecture to lower barriers to entry, with structured financial equity and offsets against government equity.

- Bakes in an innovation premium in the prospective cost component in the rate, which self-finances innovation capital and eliminates reliance on additional appropriations or laborious contract modifications.
- As the integrator, the PAE improves the marketplace through public-private partnership structures that attract more competition and private capital. It can create a competitive refresh window that allows non-traditional firms to participate at MOSA-defined interfaces, providing ongoing market access that converts one-time demonstration projects into recurring revenue relationships.



Note. The IWCF architecture as a sustainable funding and incentive feedback loop.

Congress → PAE IWCF
Cash Corpus = Authority. Congress provides § 2208 authority, new appropriation not required..

Ordering Unit → PAE IWCF
IWCF Rate paid per Availability Unit. Denominator shifts from Direct Labor Hours to system-mission-capable-days delivered.

PAE IWCF → Industry
Contract + Equity Offsets: Government Reference Architecture, TDP lease, GFE/GGM (GOGO Discount and GOCO Use)GOCO/GOGO, Land lease agreements

Industry → PAE IWCF
Gainshare Return: revenue share 4–8%, Reliability Bond 2%, surge capacity 20–30% callable, and affirmative data rights transfer.

Industry → Ordering Unit
Goods and services delivered as Availability Units, with incremental reliability improvements reflected in the rate.

Ordering Unit → Industry
Direct Feedback Loop on capability is streamlined between demand and supply side

Figure 2: The IWCF Architecture: A Sustainable Funding and Incentive Feedback Loop

The IWCF Rate Mechanics

The IWCF rate is still based on the DWCF within Financial Management Regulation compliance but incorporates the efficiencies of the commercial model by replacing the reinvestment premium with an innovation premium that is absorbed in the AOR within the rate period. It also hedges the capital surcharge with government equity offsets. The denominator is also now measured in output volume, defined as one system-mission-capable-day for a specified platform, and not labor hours, thus rewarding performance over consumption.

The IWCF is a single-rate structure decomposed into five components:

$$\boldsymbol{Rate}\left(\frac{\$}{\boldsymbol{OU}}\right) = \frac{(\boldsymbol{Direct\ Labor + Indirect\ Overhead + Capital\ Surcharge - Offsets \pm Innovation\ Premium/AOR})}{\boldsymbol{Projected\ Output\ Volume}}$$

The commercial cost floor was decomposed to the status quo DWCF components of direct labor and indirect overhead. Capital surcharge also remains the same—depreciation recovery on government-owned equipment—but it is offset by government equity offsets modeled after the aforementioned commercial gainsharing.

Government Equity Offsets

Four categories of government equity are eligible for gainsharing integration into the rate structure. Government equity can be currently unpriced or under-priced in the relationship with industry, but each can be converted into rate leverage through instruments that existing law already permits.

Technical Data Package Rights

Under Defense Federal Acquisition Regulation Supplement (DFARS) 252.227-7013, the government holds default unlimited data rights in items developed with exclusive government funding and in technical data pertaining to the form, fit, and function of items delivered under government contracts. In practice, the government owns substantial data rights by operation of law in many cases where commercial practice then permits the contractor to operate as though the government's rights did not exist—either through inadequate government TDP curation, through ambiguity about which specific data is subject to government rights, or through the contractor's practical monopoly on operational use of the data. The GAO (2025b) has documented that a majority of sole-source contract justifications cite inadequate technical data as the basis, even when the underlying legal entitlement of the government is unambiguous.

The government's unexercised TDP rights are the single most valuable unmonetized asset in the defense industrial relationship. Every dollar of sole-source premium the government pays on a sustainment contract is, in effect, a premium for the contractor's practical control of data the government legally owns. Converting that control into rate leverage—through contractual mechanisms that make TDP access operationally as well as legally available—is the highest-leverage gainsharing opportunity in the architecture.

Under the IWCF, the PAE maintains an annual sole-source premium benchmark by commodity category, documenting the implicit premium the government has historically paid for sustainment services where TDP access was limited. Where TDP access is structurally available, the premium the government would otherwise pay is avoided. The avoided premium is captured as the TDP Offset and deducted from the Cost Floor.

Real Property Offset: Outleasing and Enhanced Use Leases

The Department owns real property infrastructure—including five hard-iron Army depots (Anniston, Corpus Christi, Red River, Tobyhanna, and Watervliet), three arsenals, two munitions production plants, and multiple Air Force Air Logistics Complexes and Navy shipyards, all

government-owned—valued in aggregate at well over $10 billion in replacement cost. Comparable commercial industrial capacity would cost a private operator approximately $18 to $25 per square foot per year to lease in current markets (CBRE, 2024; JLL, 2024). Across the government-owned defense industrial footprint, the government is effectively foregoing hundreds of millions of dollars annually in market-rate lease revenue that it could either collect or exchange for reduced rates on the services the facilities produce.

Under 10 U.S.C. § 2667, the Secretary of Defense is explicitly authorized to lease non-excess Department property, including at below-market rates where the public interest is served and in-kind consideration is accepted (CRS, n.d.). The proposed IWCF rate-structure mechanism captures the foregone lease value as reduced WCF cost to the government—converting the lease discount from an unpriced subsidy into an explicit rate offset.

Under the IWCF model, the PAE, as fund manager, commissions an annual independent valuation of market-rate lease equivalents for each GOCO and GOGO facility using standard commercial real estate methodologies. The difference between the market-rate lease equivalent and the actual lease rate (which may be zero at GOGO facilities and below-market at GOCO facilities) constitutes the Real Property Offset. The offset is deducted from the Cost Floor (Direct Labor + Indirect Overhead + Capital Surcharge) on a per-unit basis, reducing the rate the PAE charges ordering activities. The valuation operates under existing 10 U.S.C. § 2667 authority and standard commercial real estate appraisal practice (Appraisal Institute, 2024).

Government-Furnished Material and Equipment (Non-Land)

The same structural condition exists across GOCO facilities in the defense industrial complex. The contractor operates the equipment; the government owns it; the products manufactured using the equipment are sold back to the government at rates that do not discount for the government's contribution of the capital asset base.

DFARS 252.245-7001 and related Government-Furnished Property clauses establish the accountability framework for government-furnished equipment (GFE), and the clauses assume the contractor bears stewardship obligations for the equipment. What the clauses do not establish—and what the proposed gainsharing architecture introduces—is a valuation framework that recognizes the contractor's free use of the GFE as an implicit subsidy that should be priced into the rate.

Under the IWCF model, the PAE commissions an annual valuation of the GFE and tooling in active use at each facility, applying standard commercial depreciation and opportunity-cost methodologies (Equipment Leasing and Finance Association [ELFA], 2024). The annual opportunity cost of the GFE/M, or what a commercial operator would pay to lease equivalent equipment in a capital-asset leasing market, constitutes the GFE/M Offset. The offset is deducted from the Cost Floor. The PAE captures the value of its capital contribution; the contractor retains operational use of the equipment without separate lease payments.

Configuration Management and Process Data Generated on Government Equipment

A fourth category is emerging rapidly as digital engineering, automation, and technological improvements are required to meet the operational needs of the battlefield. When a contractor performs government-funded work using GFE or government-furnished material (GFM) in a government-owned facility, the process data generated during that work—the machine settings, tolerances, inspection results, and configuration records—is generated with government resources and pertains to government property. The default data rights framework under DFARS 252.227-7013 suggests this data belongs to the government, but few contracts assert the claim explicitly, and fewer still build the administrative infrastructure to capture,

curate, and use the data (DoD, 2024b).

Under the proposed model, this data is treated as a government-contributed asset in the gainsharing relationship: The contractor retains operational use during the contract period, but the government retains the right to license the data to alternative providers during solicitation, to use the data for should-cost baseline validation, and to require the data be maintained in a digital thread format that supports the Department's configuration management and predictive maintenance objectives. Thus, the data rights belong to the government, but the administrative infrastructure to exercise them is converted into rate leverage.

Under the IWCF, where the contractor is required to deliver digital thread configuration data, process data, and predictive maintenance telemetry in a government-accessible format, the commercial value of that data—measured against comparable data licensing transactions in the commercial sectors—is captured as the Process Data Offset (BCG, 2024b; Deloitte, 2023). The offset is modest in size compared to the other three components but grows materially over time as digital engineering and technology become standard practice and as the commercial value of curated industrial data increases.

These government offsets are menu options that industry can elect into based on the use case, so the offset will vary. For instance, the Government Equity Offset captures:

- (a) Foregone lease value on GOCO/GOGO real property → 1.5%–2.5% of rate.
- (b) Amortized value of Government-Furnished Equipment → 1.0%–2.0% of rate.
- (c) Avoided sole-source premium from TDP access rights → 2.0%–4.0% of rate.
- (d) Process data licensing value (digital thread) → 0.5%–1.5% of rate.

Total Government Equity Offset: approximately 5%–10% of rate.

The structural effect of the offset is that the government pays a rate 5% to 10% below what the same services would cost if procured from a commercial provider with no government-contributed assets. Industry is no worse off, because the assets industry uses were not industry's capital in the first place. The government captures the value of what it already owns, in the form of a lower rate on the services it purchases back. Both parties have made the gainshare explicit, priced it against market benchmarks, and made the arrangement auditable.

A critical distinction of the IWCF's gainsharing is its architecture. The Government Equity Offset is structured as an explicit gainshare in which both parties are measurably better off than under the alternative (DAU, 2019; Schuster, 1993). Industry gives up market-rate lease payments on GOCO facilities, market-rate leasing income on GFE, sole-source premium revenue on TDP-protected work, and commercial data licensing revenue on process data—in exchange for reduced-margin contracts that nonetheless provide guaranteed multi-year revenue, reduced market-entry cost, access to government infrastructure at below-market effective rates, and a defined innovation return window. The government gives up the right to charge market rates for its assets—in exchange for the above example rate of 5% to 10% below commercial equivalent, a defined feedback loop to supplier performance, and structured private capital co-investment through the partnership architecture.

The arithmetic of the gainshare is favorable to both parties precisely because each party values what the other gives up differently. The government values reduced sustainment cost more than it values forgone lease revenue; the lease revenue the government would receive under a market-rate structure would flow to the Treasury as miscellaneous receipts, disconnected from the sustainment operation that created the value (Miscellaneous Receipts Statute, n.d.). Under the gainshare, the value flows directly to reduced rate on the sustainment services the PAE purchases. Industry values guaranteed multi-year demand and reduced

market-entry cost more than it values marginal additional margin on facility lease payments it would otherwise receive and then deploy into general corporate operations. The structure makes both parties' value curves visible and aligns the arrangement accordingly.

Favorable Rates Through Structured Equity, Not Subsidy

The Government Equity Offset is distinct from a subsidy in a specific and important sense. A subsidy is a government payment that reduces a party's cost below what that party would otherwise bear. The Offset is a pricing recognition of assets the government has already contributed to the production relationship—assets whose cost has already been borne by the government through prior appropriations and whose value industry is already benefiting from on a free basis under the current structure. The Offset makes the existing implicit subsidy explicit and captures its value as rate leverage rather than leaving it unrecognized in the relationship.

This distinction matters to audit defensibility. An OSW Comptroller or GAO reviewer examining the rate will see each component of the Government Equity Offset tied to a market-benchmark valuation, documented through an independent third-party appraisal, and applied as a mathematical deduction from the Cost Floor. The reviewer can trace each dollar of rate reduction to a specific government-owned asset and to the market-rate equivalent that would otherwise have been charged. Therefore, the audit trail is complete: Valuations are independent, the methodology is standard commercial practice, and the final rate is transparently reconcilable to both the Cost Floor baseline and the Offset components.

Innovation Premium Under Existing Authority

Section 2208(a) limits WCF authorization to finance inventories of such supplies as the Secretary may designate and provide working capital for such industrial-type activities as the Secretary may designate. The chartered scope is industrial-type activities and supply inventory management. It does not extend to independent research and development, venture investments, equity stakes in suppliers, or procurement of major end items. The Innovation Premium can only finance activities that fall within the chartered scope—which is a material constraint on what kinds of innovation the premium can support, but also an affirmative definition of what kinds of innovation it can (Working-Capital Funds, n.d.).

However, the FY2024 NDAA amendment to § 2208(c) explicitly added to the list of WCF-chargeable costs: the cost of the procurement and qualification of technology-enhanced maintenance capabilities that improve either reliability, maintainability, sustainability, or supportability and have, at a minimum, been demonstrated to be functional in an actual system application or operational environment (NDAA, 2023). Furthermore, the FY2026 NDAA codification of the PAE authority and the Warfighting Acquisition System establishes Congressional intent that the Department manage sustainment at the portfolio level and modernize the industrial base through executive rate-structure management (NDAA, 2025).

The IWCF Innovation Premium operates in the same legal category as the Capital Surcharge—a recognized prospective cost-recovery component with an established precedent. As authorized under 10 U.S.C. § 2208(e)(1), the Capital Surcharge recovers the cost of capital investments the fund makes during the rate period. In parallel, the Innovation Premium recovers the cost of technology-enhanced maintenance activities the fund performs during the rate period.

The Innovation Premium can finance five qualifying activity categories, each of which falls within the WCF's chartered scope under § 2208(a) and each of which incurs its cost during the rate period.

Table 3: Innovation Premium Qualifying Activity Categories Under Existing Working Capital Fund Authority

(DoD, n.d.-c, n.d.-d, 2024; Working-Capital Funds, n.d.)

Qualifying Category	Activity	WCF Authority Precedent
Technical Data Package Acquisition	One-time payment to original manufacturer or prior developer to acquire or expand government rights in technical data required for sustainment operations.	10 U.S.C. § 2208(c) technology-enhanced maintenance language.
Alternative Supplier Qualification	Payments to testing laboratories, certification bodies, and qualification engineers to qualify second-source suppliers for parts currently sole-sourced.	DLA Supply Chain Management activity group precedent.
Digital Engineering Infrastructure	Software licenses, sensor installations, and data platform configuration to support configuration management and predictive maintenance on platforms the fund sustains.	DISA Information Services activity group precedent; DoD Instruction 5000.97.
Condition-Based Maintenance Tooling	Diagnostic equipment, test stands, and reliability-monitoring systems placed in service at depot locations during the rate period.	Existing Capital Investment Program under DoD FMR Vol. 11B Ch. 6.
Competitive Evaluation Activities	Costs of soliciting, evaluating, and qualifying alternative providers during the Competitive Refresh Window.	10 U.S.C. § 2208(e)(1) rate-setting authority for evaluation activities.
All five categories	Each produces cost incurred in the rate period; each has direct precedent in existing WCF practice.	Combined authority basis is affirmative and established.

The Innovation Premium is a cost component of the rate itself, charged prospectively for innovative activities the fund will perform in the rate period. The PAE, as fund manager, publishes the annual rate with an example Innovation Premium line of 3% to 5% of the rate, designated for specific, PAE-verified innovation investments planned for that year. Ordering activities pay the premium at the time of billing. The fund spends it on the designated purposes during the year. Any unspent balance at year-end is returned through the AOR mechanism in the subsequent rate cycle, preserving the break-even mandate over the operating cycle. These funds must be spent or returned via AOR within the rate period, confirming no multi-year retention.

This is authorized under 10 U.S.C. § 2208(e)(1) because it is how the DoD Financial Management Regulation already treats the Capital Surcharge component—the surcharge funds capital investments made during the rate period, not retained for future speculative use. The Innovation Premium operates on the identical legal theory that distinguishes an authorized rate component from an unauthorized fund balance accumulation (DoD, n.d.-c).

Justification Under the Expanded Capital Investment Program Scope

The Capital Investment Program, authorized under DoD FMR Volume 11B Chapter 6, already permits the WCF to fund capital improvements with expected useful lives beyond one year. Expanding the CIP definition to include specific categories of innovation investment treats these investments as capital assets of the fund rather than as retained surplus.

The investments would appear on the fund's balance sheet, then be depreciated over their useful lives (typically 5 to 10 years depending on asset category), and recovered through the Capital Surcharge in future rates. In essence, the fund buys assets that produce an operational benefit during their useful lives, which reduces the fund's cost of operations in each depreciation period. These industrial-type activities financed on a revolving basis with the qualifying innovation categories can be explicitly recognized as capital assets. However, this

scope expansion may require a policy memorandum. The scope expansion depends on the Comptroller's interpretative authority and may require a policy memorandum at the Under Secretary level, but not a statutory amendment.

Furthermore, Section 2208(l) authorizes the WCF to maintain a stabilization reserve against demand volatility and price fluctuation. The statute requires the reserve be held against future working capital requirements, and it does not restrict the form in which the reserve is held. Under this interpretation, the PAE can direct the stabilization reserve's holding into innovation investments that simultaneously qualify as working capital—specifically, prepaid supplier qualification (reducing future qualification cost requirements), pre-positioned alternative-source inventory (reducing future supply-chain disruption working capital), and efficiency-improving digital infrastructure (reducing future inventory carrying costs). In other words, they are the working capital itself, deployed into assets that reduce the fund's future working capital requirements while remaining available as a reserve against volatility (Working-Capital Funds, n.d.).

When the alternative supplier is qualified, the fund's future working capital requirement is reduced because sole-source risk premiums in inventory and pricing decline. When the digital engineering infrastructure is built, inventory carrying costs decline because demand forecasting improves. When the pre-positioned inventory is in place, the working capital requirement against supply-chain disruption declines. The reserve is being held against future needs but held in a form that actively reduces those future needs.

A similar example of this expanded mechanism can be extrapolated from 10 U.S.C. § 4123, which authorizes the director of a defense laboratory or test organization to charge customer activities a fixed fee that may not exceed 4% of costs to fund infrastructure projects.

The PAE-Integrated Vendor Consortium

This model also reinterprets the PAE's relationship with its vendor base from a series of bilateral program-level contracts into an integrated consortium operating under a single portfolio-level governance framework. The PAE-Integrated Vendor Consortium, structured through existing OTA authority under 10 U.S.C. § 4022, creates a standing vehicle through which alternative suppliers can be qualified and deployed without requiring bespoke program-level solicitations. Under this model, it would also manage and enforce a Government Reference Architecture (GRA) compliance standard to ensure interoperability and technical consistency across vendors and only source firms that opt into GRA compliance. The Air Force has already proven this example through its Collaborative Combat Aircraft (CCA) program, in which the program integrator's role is to enforce that all vendor candidates must be compliant with the Government Avionics Reference Architecture (GARA) and compete to deliver modular, interoperable AI services rather than bespoke systems (U.S. Air Force, 2024).

The consortium structure produces three effects the current fragmented contracting environment cannot. First, it reduces the transaction cost of bringing non-traditional firms into defense sustainment, because the consortium provides a standing vehicle rather than requiring every new entrant to navigate individual program solicitations. Second, it enables portfolio-level cost-reduction initiatives that span multiple programs simultaneously because the consortium's governance structure can modify obligations across all members concurrently. Third, it creates a recurring venue for competitive pressure on incumbents.

Downstream Effects of the IWCF Model

The Signal to Private Capital

Private capital deployment into defense sustainment markets has historically been limited because the revenue commitments the government could offer were annual, appropriation-dependent, and subject to continuing resolution volatility. The IWCF architecture, operated by a PAE as fund manager with multi-year rate stability and outputs anchored to the fund's revolving working capital, creates the counterparty profile that commercial infrastructure funds recognize (Deloitte, 2022; Preqin, 2024). The effect is observable in capital-expenditure runway: A non-traditional firm considering entry into defense sustainment faces materially shorter time-to-revenue when the counterparty is a PAE managing a multi-year demand certificate than when the counterparty is a program office managing an annual contract modification.

Increased Competitive Landscape and Human Capital Reserve Credits

The proposed architecture extends two downstream benefits. First, small and mid-sized companies gain immediate access to government revenue through the PAE-Integrated Vendor Consortium, compressing engagement-to-first-revenue timelines from the current 18-to-36-month traditional contracting cycle to roughly 3–9 months under new contract strategies. Second, the architecture opens the policy pathway for a Reservist Industrial Skills framework connecting civilian industrial work on qualifying contracts to the reservist's military career through two complementary instruments: retirement points credit for qualifying civilian industrial work, implementable under the Secretary of Military Department's existing authority under 10 U.S.C. Chapter 1209 to define qualifying activities, and a Reservist Industrial Skills Tax Credit extending the established I.R.C. § 45P framework from the Heroes Earnings Assistance and Relief Tax Act of 2008, under which employers whose reservists perform qualifying work on contracts issued through the fund receive a tax credit calibrated to wages paid for that work. This also gives the Department a pre-identified surge workforce—aligning contract access, workforce development, and industrial base resilience.

Conclusion

A reimagined capability-based WCF offers not only a funding mechanism to 'innovate sustainment' but also market-aligned feedback loop that streamlines demand, promotes collaboration between the PAE and vendor consortia, maximizes industry partnerships and incentives through offsets and public-private partnerships, and ensures that our warfighters can meet the needs of today's battlefield, and not that of a prior budget cycle.

References

Anti-Deficiency Act, 31 U.S.C. § 1341 (n.d.). https://www.law.cornell.edu/uscode/text/31/1341

The Appraisal Foundation. (2024). *Uniform standards of professional appraisal practice (USPAP)* (2024 ed.). Appraisal Standards Board. https://appraisalfoundation.org/pages/uspap

Assistant Secretary of the Army (Financial Management & Comptroller). (2025, June). *Army working capital fund FY2026 budget estimates*. Department of the Army. https://www.asafm.army.mil/Budget-Materials/

Blackstone Inc. (2025). *Annual report (Form 10-K) for fiscal year 2024*. U.S. Securities and Exchange Commission. https://www.sec.gov/Archives/edgar/data/0001393818/000119312525042469/d912273d10k.htm

Boston Consulting Group. (2024). *Where's the value in AI?* https://www.bcg.com/publications/2024/wheres-value-in-ai

Boston Consulting Group & World Economic Forum. (2021, January). *Data excellence: Transforming manufacturing and supply systems*. https://www.bcg.com/about/partner-ecosystem/world-economic-forum/data-value-manufacturing

CBRE. (2024). *U.S. real estate market outlook 2024: Industrial & logistics*. https://www.cbre.com/insights/books/us-real-estate-market-outlook-2024/industrial

CFA Institute. (2024). *Working capital management: CFA program level I curriculum, corporate issuers module*.

Congressional Research Service. (n.d.). *Military installations, real property, and land management* (CRS Report No. IF11309). https://www.congress.gov/crs_external_products/IF/PDF/IF11309/IF11309.2.pdf

Congressional Research Service. (2024a, May). *PPBE reform commission final report recommendations: Issues for Congress* (CRS Report No. IN12372). https://crsreports.congress.gov/product/pdf/IN/IN12372

Congressional Research Service. (2024b, December). *Defense primer: Defense working capital funds* (CRS Report No. IF11233). https://crsreports.congress.gov/product/pdf/IF/IF11233

Defense Acquisition University. (2019). *Gainsharing guide*. https://www.dau.edu/

Defense Laboratory and Test Organization Fees, 10 U.S.C. § 4123 (n.d.). https://www.law.cornell.edu/uscode/text/10/4123

DefenseScoop. (2025, November 14). *Army introduces sweeping reform of its acquisition structure*. https://defensescoop.com/2025/11/14/army-acquisition-reform-2025/

Deloitte. (2022). *Infrastructure finance: The private capital opportunity*. https://www2.deloitte.com/

Deloitte. (2023). *Industrial data monetization*. https://www2.deloitte.com/

DFARS 216.405-1, Cost-Plus-Incentive-Fee Contracts (n.d.). https://www.acquisition.gov/dfars/216.405-1-cost-plus-incentive-fee-contracts

DFARS 252.227-7013, Rights in Technical Data—Noncommercial Items (n.d.). https://www.acquisition.gov/dfars/252.227-7013-rights-technical-data-noncommercial-items

DFARS 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation (n.d.). https://www.acquisition.gov/dfars/252.227-7014-rights-noncommercial-computer-software-and-noncommercial-computer-software-documentation

DFARS 252.227-7019, Validation of Asserted Restrictions—Computer Software (n.d.). https://www.acquisition.gov/dfars/252.227-7019-validation-asserted-restrictions-computer-software.

DFARS 252.245-7001–252.245-7004, Government-Furnished Property Clauses (n.d.). https://www.acquisition.gov/dfars/part-252-clauses

DoD. (n.d.-a). *Accelerate the Procurement and Fielding of Innovative Technologies (APFIT) program overview*. https://ac.cto.mil/apfit/

DoD. (n.d.-b). *DoD financial management regulation* (DoD 7000.14-R, Vol. 3, Chapter 15). https://comptroller.defense.gov/FMR/

DoD. (n.d.-c). *DoD financial management regulation* (DoD 7000.14-R, Vol. 11B, Chapter 1, §§ 010201–010207). https://comptroller.defense.gov/FMR/vol11b_chapters/

DoD. (n.d.-d). *DoD financial management regulation* (DoD 7000.14-R, Vol. 11B, Chapter 6). https://comptroller.defense.gov/FMR/vol11b_chapters/

DoD. (2022, February 15). *State of competition within the defense industrial base*. https://media.defense.gov/2022/Feb/15/2002939087/-1/-1/1/state-of-competition-within-the-defense-industrial-base.pdf

DoD. (2024, February). *Digital engineering* (DoD Instruction 5000.97). https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/500097p.PDF

DoD. (2025, November 10). *Acquisition transformation strategy: Rebuilding the arsenal of freedom*. https://www.war.gov/

DoD, Office of the Under Secretary of Defense (Comptroller). (2025a, March). *Department of Defense FY2026 budget overview*. https://comptroller.defense.gov/Budget-Materials/

DoD, Office of the Under Secretary of Defense (Comptroller). (2025b, June). *Defense-Wide Working Capital Fund FY2026 budget estimates*. https://comptroller.defense.gov/Budget-Materials/

Duffey, M. (2026, March). *Testimony before Congress* [Under Secretary of War for Acquisition and Sustainment].

Employer Wage Credit for Active Duty Members of the Uniformed Services (Heroes Earnings Assistance and Relief Tax Act of 2008), 26 U.S.C. § 45P (n.d.). https://www.law.cornell.edu/uscode/text/26/45P

Equipment Leasing and Finance Association. (2024). *State of the equipment finance industry report*. https://www.elfaonline.org/

Exec. Order No. 14265, 90 Fed. Reg. 15,621 (2025, April 9). https://www.federalregister.gov/documents/2025/04/14/2025-06347/modernizing-defense-acquisitions-and-spurring-innovation-in-the-defense-industrial-base

FAR 15.407-4, Should-Cost Review (n.d.). https://www.acquisition.gov/far/15.407-4

FAR 16.405-1, Cost-Plus-Incentive-Fee Contracts (n.d.). https://www.acquisition.gov/far/16.405-1

FAR Part 48, Value Engineering (n.d.). https://www.acquisition.gov/far/part-48

Federal News Network. (2025, October 29). *A new framework aims to build a bridge across the defense acquisition valley of death*. https://federalnewsnetwork.com/

GAO. (2023). *F-35 sustainment: DOD needs to address challenges affecting readiness and cost transparency* (GAO-23-105262). https://www.gao.gov/products/gao-23-105262

GAO. (2024, February 29). *Weapon system sustainment: DOD identified operating and support cost growth but needs to improve the consistency and completeness of information to Congress* (GAO-24-107378). https://www.gao.gov/products/gao-24-107378

GAO. (2025a). *Weapon system sustainment: DOD can improve planning and management of data rights* (GAO-25-107468). https://www.gao.gov/products/gao-25-107468

GAO. (2025b, June 11). *Weapon systems annual assessment: DOD leaders should ensure that newer programs are structured for speed and innovation* (GAO-25-107569). https://www.gao.gov/products/gao-25-107569

JLL. (2024). *U.S. industrial market statistics & trends*. https://www.jll.com/en-us/insights/market-dynamics/industrial-market-statistics-trends

KPMG. (2023). *Global managed services industry survey*. https://kpmg.com/

Lease of Non-Excess Property of Military Departments and Defense Agencies, 10 U.S.C. § 2667 (n.d.). https://www.law.cornell.edu/uscode/text/10/2667

Macquarie Asset Management. (2024). *Infrastructure fund series disclosures*. https://www.macquarieam.com/

Miscellaneous Receipts Statute, 31 U.S.C. § 3302 (n.d.). https://www.law.cornell.edu/uscode/text/31/3302

MITRE. (2025). *Transition maturity framework* [Developed with OSD Acquisition and Sustainment/Operational Energy Innovation Organization]. https://www.mitre.org/

National Defense Authorization Act for Fiscal Year 2024, Pub. L. No. 118–31, 137 Stat. 136 (2023). https://www.congress.gov/bill/118th-congress/house-bill/2670

National Defense Authorization Act for Fiscal Year 2025, Pub. L. No. 118–159 (2024). https://www.congress.gov/bill/118th-congress/house-bill/5009

National Defense Authorization Act for Fiscal Year 2026, Pub. L. No. 119–__, §§ 1801–1802 (2025). https://www.congress.gov/

National Defense Industrial Association. (2023). *Performance-based logistics policy paper*. https://www.ndia.org/

National Security Act Amendments of 1949, Pub. L. No. 81–216, 63 Stat. 578 (1949). https://www.govinfo.gov/app/details/STATUTE-63/STATUTE-63-Pg578

Office of Strategic Capital. (2024). *FY2025 investment strategy*. DoD. https://www.cto.mil/osc/

Other Transactions for Prototypes, 10 U.S.C. § 4022 (n.d.). https://www.law.cornell.edu/uscode/text/10/4022

Other Transactions for Research, 10 U.S.C. § 4023 (n.d.). https://www.law.cornell.edu/uscode/text/10/4023

PPBE Reform Commission. (2024, March). *Final report of the Commission on Planning, Programming, Budgeting, and Execution Reform*. https://ppbereform.senate.gov/

Preqin. (2024). *Global infrastructure report 2024*. https://www.preqin.com/

Prohibition on Contracting for Performance of Depot-Level Maintenance and Repair, 10 U.S.C. § 2466 (n.d.). https://www.law.cornell.edu/uscode/text/10/2466

Purpose Statute, 31 U.S.C. § 1301 (n.d.). https://www.law.cornell.edu/uscode/text/31/1301

Reprogramming of Funds, 10 U.S.C. § 7013 (n.d.). https://www.law.cornell.edu/uscode/text/10/7013

Roque, A. (2025, December 19). *From Army contracting pause to Pentagon acquisition overhaul: 2025 review*. Breaking Defense. https://breakingdefense.com/2025/12/from-army-contracting-pause-to-pentagon-acquisition-overhaul-2025-review/

Sale of Ammunition, Munitions, and Components Thereof, 10 U.S.C. § 4543 (n.d.). https://www.law.cornell.edu/uscode/text/10/4543

SC World. (2026, April). *Acquisition reform is materializing, but the harder test still lies ahead*. https://scworld.com/

Schuster, M. H. (1993, September–October). Gainsharing: Sharing productivity with employees. *Harvard Business Review*. https://hbr.org/

Secretary of War. (2025, November 10). *Transforming the Defense Acquisition System into the Warfighting Acquisition System* [Memorandum]. DoW. https://www.war.gov/

U.S. Air Force. (n.d.). *Collaborative Combat Aircraft (CCA) program overview*. https://www.af.mil/

Working-Capital Funds, 10 U.S. Code § 2208 (n.d.). https://www.law.cornell.edu/uscode/text/10/2208


Acquisition Research Program
Department of Acquisition, Finance, and Manpower
Naval Postgraduate School
555 Dyer Road, Ingersoll Hall
Monterey, CA 93943

www.acquisitionresearch.net