Public procurement integrity at risk

How data and AI can strengthen the procure-to-pay life cycle

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It's estimated that **organizations lose 4% – 8% of total expenditures** annually to procurement fraud, and governments and public health are no different.

The **Organization for Economic Cooperation and Development (OECD)** says that "public procurement is the government activity most vulnerable to waste, mismanagement and corruption."

Fraud, waste and abuse (FWA) take many forms, from duplicate invoices, ghost vendors and fake invoices to overbilling billing for goods. Bad actors exploit loopholes in procurement processes. They exploit the government's inability to connect the dots between the data to see the bigger picture. What's more, complex, decentralized procurement processes leave room for errors and abuse.

The stakes are high. Deceptive and inefficient practices drain government resources – both employees and taxpayer funds. A lack of robust internal controls in the procure-to-pay process can erode citizen and supplier trust.

Governments and public health organizations around the world face similar challenges: spending money wisely and using resources efficiently.

The good news? Many departments and agencies are realizing the significance of the funds lost to procurement FWA and are setting up ethics, counter-fraud and governance missions to address the challenge.

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Understanding procurement integrity

Governments spend billions each year on mission-critical public services. Spending taxpayer funds on goods, services and work from vendors is complex, making departments and agencies vulnerable to procurement FWA, resulting from a lack of integrity in the procure-to-pay process. These losses pose one of the greatest risks to governments worldwide.

The UK government currently estimates the annual level of FWA across public spending entities to be between **£33 billion and £59 billion GBP**. In the US, with **$759.2 billion USD** in federal government contract spending during FY2023 alone, its scale makes it an enticing target.

While multiple layers of safeguards are built into government procurement systems — from certified contracting officers to compliance professionals and auditors to the Inspectors General — siloed data and the lack of automated risk detection and prevention creates the perfect opportunity for wrongdoing. Sadly, FWA is often discovered after the fact.

Procurement fraud, waste and abuse at a glance

TYPES

Fraud
Intentional deception or misrepresentation intended to result in personal or financial gain

Waste
Thoughtless or careless use of resources resulting in unnecessary costs and inefficiency

Error
Accidentally purchasing the wrong thing, not following processes correctly or following an incorrect process

Abuse
Willful misuse of services or non-compliance with policy, typically for personal convenience

FOCAL POINTS

Disbursements	Purchasing	Incoming/outgoing payments	Corporate expenses
Pre-contract award	Payroll	Vendors	Corruption/bribery

COMMON CHALLENGES

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Invoice accuracy	Invoice duplication	Sanctions list breaches	Ultimate beneficiary ownership
Compliance risk	Category cost management	Bid rigging	Pricing breaches

02
Obstacles to spotting government fraud, waste and abuse

FWA drains the public sector of monies for vital public services – both quickly and slowly. Often, governments rely on manual processes and low-level FWA detection and prevention mechanisms. It can be nearly impossible to detect rare FWA events or ongoing FWA hovering just below detection thresholds.
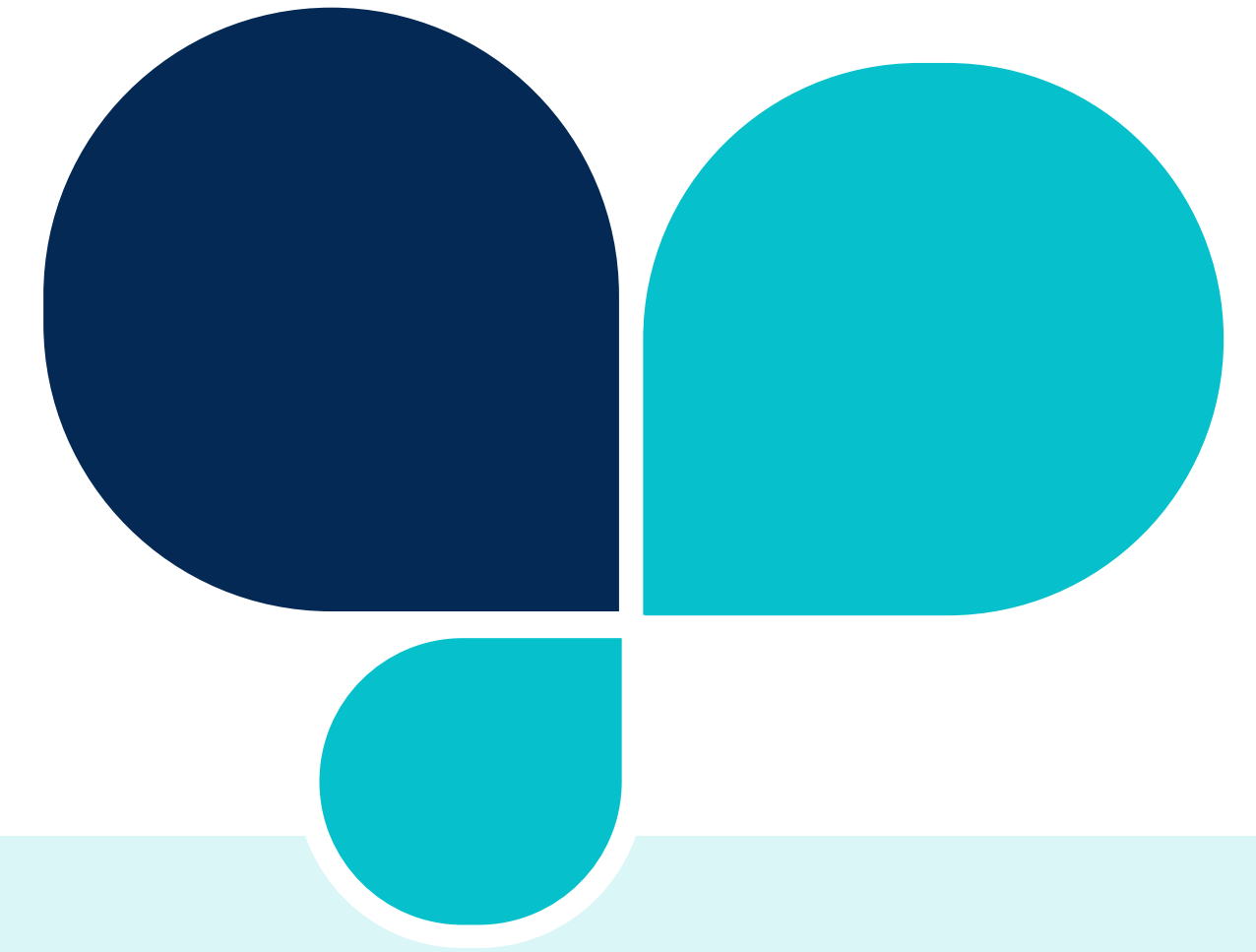
Top challenges

1 Large government supply chains spanning thousands of partners and external suppliers result in a complex and broad risk surface.

2 Diverse procurement processes, policies and norms across government bodies lead to procure-to-pay life cycle inconsistencies.

3 Copious amounts of data make awareness and monitoring of spending difficult, and it is hard to pinpoint FWA.

4 Multiple, disjointed ERP and accounting systems create data silos that limit the complete procurement risk picture.

5 Internal audits take considerable time and effort and offer only a retrospective view.

6 Tip lines are only as good as the quality and frequency of incoming information.

7 Limited resources across the entire procurement process may result in inadequate internal controls.

8 Without process automation, increasing procurement efficiency is difficult without more headcount.

Government departments and agencies can take steps to ensure the integrity of their procurement processes.

03
Strengthening government procurement

What if governments could detect existing conflicts of interest, irregular transactions, relationship links and ghost employees before the invoices were paid? Or focus the internal investigations team only on highly scored, potentially high-value fraudulent activity rather than false positives or low-value alerts?

Procurement controls are typically enforced through finance, procurement and internal audit teams via user-permission IT platforms and their associated policies. Auditors manually sample historical data, run spot checks and feed their findings back into revised policies and controls. It's impractical to check even a sizeable proportion of suppliers, let alone transactions. At best, it provides a retrospective view with limited scope for remediation.

"The best method of mitigating fraud is to set up a strong detection system," according to **Laurent Colombant**, Global Advisor at SAS with expertise in FWA. If procurement teams had a highly automated, data-driven approach, they could enable agencies to identify potential FWA in real time and enhance their financial and operational risk management postures.

Ellen Roberson, CFE, Global Product Marketing Director of Health Care and Public Sector at SAS, champions a continuous monitoring strategy that helps ensure the integrity of the procure-to-pay life cycle by placing rigorous, ongoing monitoring and controls throughout the process to look for signs of fraud, waste and abuse.

There are opportunities to improve payment integrity across the procure-to-pay life cycle with suppliers, contracts, payables and spending. Depending on the stage, FWA detection requires a different strategy. During the supplier and contract integrity phases, it's about identifying and predicting inconsistencies signaling fraud or corruption. In the payables and spend integrity phases, the emphasis is on analyzing transactions to prevent duplicate, irregular or unnecessary payments.

Procurement fraud, waste and abuse at a glance

Supplier integrity

As government agencies adopt ecosystem-based business models, the risk of FWA increases due to supply chain complexity. Centrally managing third-party risk information is challenging and makes identifying procurement risks difficult. Contracts may be awarded to vendors outside the main list, requiring proper vetting to prevent unapproved vendors. Investigating suppliers ensures they are who they claim to be, allowing users to create a measurable profile. Transactions can then be evaluated against this profile, identifying and eliminating FWA.

Data and AI can automate compliance by checking for fraudulent suppliers and optimizing practices. This provides a complete supplier view across financials, transactions and ultimate beneficial owners. Proactive supply chain management helps prevent losses, identify systemic issues, tighten policies, negotiate better terms and foster a compliance-oriented culture.

Contract integrity

Bid rigging and cartels are harmful anti-competitive behaviors where suppliers collude on contract bids, inflate prices, and cause financial and reputational damage. This discourages future bids and reduces value for money. Such corruption can lead to severe public security issues, like failing infrastructure. Bid rigging occurs at the tender stage, with colluding bidders eliminating competition and raising prices by an **average of 45%**.

Data and AI can combat pre-contract award fraud by analyzing bid patterns, prices, structures, document similarities and whistleblower insights. Red flags like bid price giveaways, distributions and geographical clustering can be detected more easily, preventing malpractice and ensuring better procurement practices.

Payables integrity

Manual checks for FWA in invoicing and payments are time-consuming and error-prone. Due to transaction volume, small payments, duplicate invoices and shared bank accounts can easily be missed. Manual checks also introduce human bias, especially in regions where corruption is culturally accepted. Corruption is the most common occupational fraud in government, representing **56% of schemes.**

Data and AI when used to continuously monitor procurement activities can be faster and more consistent in spotting fraud. Humans will still need to decide which transactions to investigate and what action to take, but now they are focused on prevention instead of mitigation.

Spend integrity

Because of the volume of suppliers an agency uses, it may pay a wide range of unit prices over time for the same item or product category. This variation may not indicate supplier fraud or internal wrongdoing but can result in needless overspending.

Data and AI can help find typical item price levels by location and comparable items outside the normal bounds. Procurement teams can clarify who pays what and how those prices compare. Agencies may choose to further investigate a part of the highest-priced products to decide whether corrective action is needed or use the information to negotiate better prices or volume discounts from suppliers.

04
What's possible in the real world

There are examples cropping up globally of organizations tackling procurement FWA and gaining greater efficiency, effectiveness and transparency over their spending.

Public utility

CHALLENGE:
As a supplier to numerous countries, a large public utility company was under pressure to reduce spending levels and deliver enhanced value for the monies it committed to the supply chain. It positioned advanced analytics as one of its top five strategic priorities to deliver improved value.

RESULT:
Discovered excessive multiple invoices and inflated and duplicated payments – costing over **$700 million USD**. And **600 employees** were identified as having an active interest in suppliers.

Government institution

CHALLENGE:
A large government institution's lack of controls led to more than $300 million USD in procurement fraud over several years.

RESULT:
Uncovered employee collusion with a large supplier paid over **$300 million USD**. Forensic analysis revealed multiple and split invoicing, which continuous monitoring could have prevented – **saving more than $16 million**.

Energy provider

CHALLENGE:
Facing pressure to reduce its cost base and improve operating margins, a global energy provider used advanced analytics to examine employee, supplier and transactional data for potentially fraudulent, wasteful, or abusive procurement transactions.

RESULT:
Identified **$500 million USD** paid to suppliers without receiving goods and found **25 ghost employees**.

Utility company

CHALLENGE:
A national utility company needed to address FWA. A media-sensationalized fraud incident catalyzed change in a historically collusive culture.

RESULT:
Analyzed three years of supplier data and found conflicts of interest in **10%** of employees, **$300 million USD** in collusive spending and immediate savings of over **$16 million** in unpaid duplicate invoices.

05
A data and AI-driven approach

Data and AI have the potential to enhance government productivity and service levels, underpin innovative operating models and enable government to do what it does best: improving the lives of the people it serves. Public leaders worldwide are also recognizing the benefits of data and AI on the procure-to-pay process and are applying it to ensure compliance, fairness, and transparency in that process.

The benefits of an innovative approach to procurement integrity include:

• **Freeing up public funds** and ensuring they are spent wisely to reduce procurement FWA.

• **Enhancing policies and enterprise risk control** through the timely examination of empirical data, not guesswork.

• **Providing better returns on public spending** by enabling procurement and audit teams to focus on high-probability items.

• **Driving value** from historical payment data in procurement systems.

• **Accelerating remediation and recovery** through faster detection and substantiated proof of anomalies.

• **Simplifying reporting, monitoring and governance**.

• **Preventing fraud**.

With predictive analytics and embedded AI capabilities, SAS helps governments gain a realistic view of operations. We know that data management is crucial to procurement integrity. SAS empowers public procurement professionals to achieve **productivity across the supplier management and procure-to-pay life cycle**.

"Whatever tools and processes are in place now, there's always the opportunity to evolve to a higher level for earlier and more accurate detection – for more high-value alerts and fewer false positives."

Jen Dunham, CFE, works with governments worldwide on security risks such as insider threat targeting, analytics lead generation, cybercrime and all-source (fusion) analysis with SAS.

The approach to continuously monitoring procurement

SAS provides governments with a data and AI solution to prevent losses by continuously monitoring procurement for fraud, waste, error and abuse. Our solution integrates structured and unstructured data from various sources, including supplier management systems, payments, ERP platforms and data repositories, automating data cleansing and preparation for analysis.

Transactions are scored using business rules, 250 FWA-specific detection scenarios, AI and advanced analytics to generate timely risk alerts. These "early warning" alerts, along with structured workflows and customizable reporting, enhance decision-making speed and productivity in supplier management and the procure-to-pay life cycle.

Onward: The future of government is powered by data and AI

SAS helps the public sector do more – better, faster and easier.

Learn more about **payment integrity for procurement from SAS**.

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