

AMTRAK:

# Additional Insights on Fraud Risks as the Company Increases Its Contracts and Procurements

OIG-SP-2024-005 | April 15, 2024



OFFICE *of* INSPECTOR GENERAL  
NATIONAL RAILROAD PASSENGER CORPORATION



The Amtrak Office of Inspector General remains committed to investigating and prosecuting fraud cases, and identifying opportunities to improve related internal controls. Ultimately, the company is responsible for preventing, detecting, and reporting fraud and instituting the controls necessary to do so.



Kevin H. Winters | *Inspector General*

# FROM THE INSPECTOR GENERAL

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The Infrastructure Investment and Jobs Act (IIJA)<sup>1</sup> provides \$66 billion for passenger and freight rail improvements—\$22 billion exclusively to Amtrak (the company) and \$44 billion for competitive grants to the company, state and local governments, and other rail carriers. The nation’s historic investment provides significant opportunities for improving rail infrastructure, but it also provides criminals with a lucrative target for fraud. As with other massive public investments in the past, criminals will target this funding through a variety of fraudulent schemes. From 2017 through September 2023, the Amtrak Office of Inspector General (OIG) has investigated 110 fraud-related cases impacting the company and helped recover \$269 million in restitution, forfeitures, and other recoveries. During this same period, we also issued 25 audit reports identifying weak controls that would-be criminals could exploit.

Our office remains committed to investigating and prosecuting fraud cases, and identifying opportunities to improve related internal controls. Ultimately, the company is responsible for preventing, detecting, and reporting fraud and instituting the controls necessary

to do so. To help inform the company’s efforts to combat this persistent threat, we issued a report<sup>2</sup> in May 2023 that identified four fraud risk areas facing the company: contracts and procurements, health care, employee wrongdoing, and cybercrime. That report highlighted indicators of potential fraud as well as mitigation activities the company could undertake to address these risks. This follow-on report provides deeper insights on a specific fraud risk area—contracts and procurements—for the company’s consideration as it continues its unprecedented expansion in mission and federal funding. Accordingly, the purpose of this report is to share insights from industry practices and our own observations about collecting and analyzing data to monitor for and detect contract and procurement fraud.<sup>3</sup>

**THE PURPOSE OF THIS REPORT IS TO SHARE INSIGHTS FROM INDUSTRY PRACTICES AND OUR OWN OBSERVATIONS ABOUT COLLECTING AND ANALYZING DATA TO MONITOR FOR AND DETECT CONTRACT AND PROCUREMENT FRAUD.**

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# DATA ANALYTICS TO DETECT CONTRACT AND PROCUREMENT FRAUD

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Contract and procurement fraud schemes come in several forms and at various times in the procurement process—from the bidding and award of contracts through project and contract delivery.<sup>4</sup> Leading fraud risk management practices emphasize the importance of collecting and analyzing data to monitor for and detect fraud throughout each phase of the procurement process. Such data analytics help organizations spot patterns, trends, and suspicious activity that can help them identify and recover fraudulent payments to vendors or prevent them from making such payments in the first place. In a study of more than 1,900 cases of fraud affecting organizations in 138 countries, the Association of Certified Fraud Examiners found that fraud losses for organizations that use data analytics to combat fraud are 50 percent lower than for organizations that do not.<sup>5</sup>

Industry research and observations from our work suggest several key components that leading organizations implement to facilitate fraud detection, including the following.

*Centralizing procurement data.* Industry research suggests that to effectively analyze data for fraud

indicators, organizations store procurement data in information systems or databases from which they can extract or view the data they need for analysis. Doing so makes it easier to identify suspicious patterns that otherwise may not be visible if organizations do not consolidate data maintained in separate or local systems or if they do not collect the data at all. In August 2022, we reported that the company did not have a centralized and automated repository to store its contracts and instead stored them in multiple locations, affecting its ability to determine the total number of contracts, suppliers, and other contract information.<sup>6</sup> As the company continues to take steps to address this challenge, leading practices suggest that rigorously collecting procurement data throughout the entire cycle and centrally storing it for analysis is essential for uncovering fraud.

*Collecting the procurement data elements necessary for detecting fraud.* Industry research and observations from our work suggest that leading organizations collect key data elements in a structured format to recognize indicators of potential fraud. For example, to identify whether the same group of bidders have a winning and losing pattern



across multiple procurements—an indicator of a bid rotation scheme—organizations collect information on all winning and losing bids, including bidders' names, addresses, methods of bid submission, and bid item price details. These data elements also help organizations detect bidders posing as different entities when in fact they are the same entity fraudulently creating the appearance of competition. These are examples of how leading organizations can use specific data elements to detect fraudulent behavior. For descriptions of different types of contract and procurement fraud schemes and a list of data elements to help detect them, see Appendix A.

*Actively analyzing data to identify suspicious activity.* Industry research and our observations also point to the importance of establishing analytical tests to enhance fraud detection efforts. These include pre-defining rules to identify patterns that deviate from what is expected or permitted—such as sudden increases in spending or a high number of change orders with vendors—and setting up tests or alerts based on those rules. Such tests depend on the fraud risks facing the organization and vary in levels of sophistication depending on the organization's analytics maturity, ranging from the use of basic spreadsheet software to the advanced use of artificial intelligence tools to detect fraudulent patterns.

*Referring cases for further investigation as appropriate.* Like other organizations, the company is responsible for preventing, detecting, and reporting fraud, including training employees how to spot fraud indicators. When leading organizations identify potential fraud through their analysis of procurement data, they take steps to act on and report any suspicious activity, which—in Amtrak's case—includes involving the Office of Inspector General when appropriate. To its credit, the company has a policy that requires all employees, contractors, and representatives to report any suspected violations related to fraud, waste, or abuse to our office. This is a key leading practice to successfully identify and investigate criminals looking to defraud Amtrak and ultimately the American taxpayer.



## Spotlight on Fraud Analytics: Protecting Taxpayer Investments

Since fiscal year 2017, the U.S. Environmental Protection Agency has awarded more than \$2 billion worth of contracts for goods and services. Its Office of Inspector General recently reported,<sup>7</sup> however, that the agency does not store and organize its procurement data in a manner that allows it to effectively detect and prevent fraud, putting its 3,500 contracts at risk of vendor collusion. The report noted that agency officials relied on whistleblowers to identify collusion instead of taking a proactive approach. The report stated that automated fraud protection practices such as data analytics are a more efficient use of taxpayer dollars because they can prevent or detect collusion behavior before the government awards a contract and spends the funds.



## End Notes

1. Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429 (2021).
2. *Amtrak: Insights on Fraud Risks as the Company Expands Its Mission* (OIG-SP-2023-007), May 15, 2023.
3. This report is not an audit performed under Generally Accepted Government Auditing Standards. We provided management with a draft of this report prior to issuance.
4. Given this risk, we launched one of two audits in 2023 to assess the company's procurement process, starting with the pre-solicitation, solicitation, and pre-award phases. We also plan to assess the extent to which the company effectively oversees and manages contracts after awarding them. Because of this ongoing and planned work, this follow-on report does not assess the company's procurement processes.
5. Association of Certified Fraud Examiners, *Occupational Fraud 2024: A Report to the Nations*, 2024.
6. *Acquisition and Procurement: Company's Electronic Procurement System Limits Effective Contract Oversight* (OIG-MAR-2022-013), August 16, 2022.
7. U.S. Environmental Protection Agency Office of Inspector General, *Management Implication Report: The EPA Has Insufficient Internal Controls for Detection and Prevention of Procurement Collusion* (Report No. 24-N-0027), March 12, 2024.

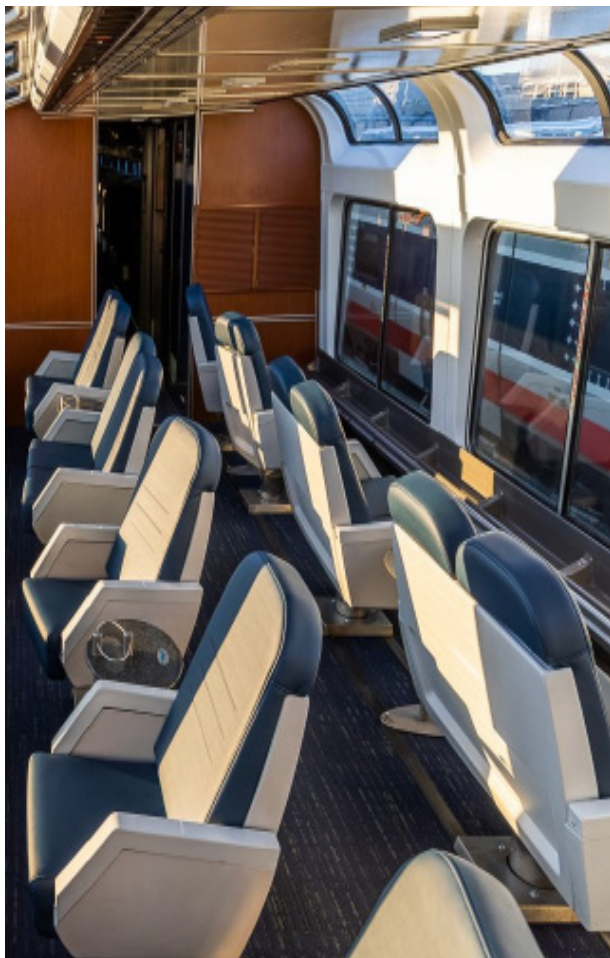




# APPENDIX A: Contract and Procurement Fraud Schemes and Data Elements Organizations Can Use to Detect Them

Table 1 provides the contract and procurement fraud schemes that criminals use to harm victim organizations.

Table 2 (on the next page) provides examples of data categories and their associated data elements that leading organizations can collect to help detect those schemes. This list is not exhaustive. Leading practices suggest that each organization identify, collect, and analyze the data—and pursue the applicable analysis methods—that best address their specific fraud risks.



## TABLE 1. CONTRACT AND PROCUREMENT FRAUD SCHEMES

### Bid Suppression

Competitors agree to refrain from bidding or withdraw a submitted bid so that the designated competitor is likely to win.

### Complementary Bids

Competitors collude to submit high bids or bids with terms unacceptable to the buyer to give the appearance of competition while favoring selection of one vendor.

### Bid Rotation

A group of competitors predetermines the strongest bidder to take turns winning across multiple procurements.

### Market Allocation

Competitors divide customers or geographic locations and either refrain from bidding or submit a complementary bid to reduce competition.

### Subcontracting

Competitors agree not to bid or submit losing bids in exchange for subcontracts from the successful low bidder.

### Price Fixing

Competitors collude to set prices for services, which restricts competition and results in inflated prices.

### Bribery/Kickbacks

Competitors make payments to gain an advantage or avoid a disadvantage in a procurement or during contract execution.

### Conflicts of Interest

Employees conduct business with related parties or those with whom they have a financial interest.

### Billing/Payroll Schemes

Vendors knowingly charge unallowable costs; falsify labor, material, or equipment charges; or submit duplicate invoices for goods and services.

### Substandard Materials/Work

Contractors boost profits by using substandard materials or work, or substituting products and services that do not meet contract specifications.

### Disadvantaged/Minority Owned Business Enterprise (D/MBE) Fraud

Contractors use D/MBE as a pass-through or create bogus firms to create the appearance of meeting D/MBE participation requirements on projects.

## TABLE 2. DATA ELEMENTS AND HOW ORGANIZATIONS CAN USE THEM TO DETECT FRAUD SCHEMES

### BIDDING VENDORS

- Bidding vendors' company names
- Vendors' tax identification numbers
- Vendors' physical and email addresses
- Vendors' phone numbers
- Vendors' bank account data
- Vendor company size
- Vendor's past performance

Collecting basic details about bidding vendors for each solicitation is foundational to procurement fraud analytics and helps organizations identify patterns across procurements, match vendor information with employee information to identify suspicious activity, and help uncover bid rotation and market allocation schemes we describe in Table 1 above.

### BID/AWARD INFORMATION

- Bid amounts for all bidders
- Bid item price details
- Bid dates and times for all bids
- Winning and losing bidders' data
- Method of bid submission, original bid file, and relevant metadata
- Bid internet protocol addresses
- Details about subcontractors
- Award value / subsequent change orders

Collecting bid and contract information for each solicitation—including from losing bidders—is foundational to procurement fraud analytics and helps organizations spot bid rotation, market allocation, and price fixing schemes we describe in Table 1. Bidders' internet protocol address or pertinent bid metadata can help identify a vendor who may be posing as multiple vendors with different login accounts to create an appearance of competition.

### PRE-QUALIFICATION

- Pre-qualified vendors
- Pre-qualification criteria
- Criteria justification and approval
- Bid specifications
- Bid publication methods
- Time allowed to bid

Collecting pre-qualification criteria and methods helps organizations identify patterns across procurements to identify potentially collusive and fraudulent tactics to exclude otherwise qualified bidders and avoid fair competition.



## APPENDIX A

**TABLE 2. DATA ELEMENTS AND HOW ORGANIZATIONS CAN USE THEM TO DETECT FRAUD SCHEMES (CONTINUED)**

### PROPOSAL DETAILS

- Request-for-proposal dates
- Request-for-proposal cost estimates
- Details about purchasing officials
- Details about contracting officers
- Contract location and scope
- Company officials' information involved in the procurement

Understanding the proposal helps organizations determine whether bidding vendors can provide the goods or services the organization describes in the proposal and how the prices that vendors submit compare to what the procuring organization estimated the cost would be. A gross misalignment on qualifications and prices could indicate fraud. Understanding these details also helps identify close relationships between those running the solicitation and those bidding on it, as well as other schemes we describe in Table 1.

### VENDOR OFFICIALS

- Names of owners
- Vendor officials' names and titles
- Address/phone number of vendor officials
- Other companies the vendor owners own
- Any relationships between vendor officials and procuring officials
- Procurement officials the vendor worked with

Understanding links between officials from vendors and an organization's employees (contracting officers or purchasing officials) can help organizations spot signs of potential collusion or conflicts of interests, such as when a procuring company's employee or their family member is the vendor, owner, or vendor official.

### BID HISTORY

- Prior bids the vendor lost
- Prior bids awarded to the vendor
- Prior bids the vendor withdrew
- Whether a procurement was rebid
- Details about subcontractors the awardee plans to use

Analyzing bid history data can help organizations detect potential bid schemes we describe in Table 1, including suppression schemes when a vendor deliberately loses a bid or withdraws its successful bid to provide the appearance of competition when the vendor is receiving subcontracted work by the winning vendor.

Sources: OIG observations and analysis of industry practices. For more information on industry sources, see Appendix B.



## APPENDIX B - Industry Sources and General References

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## MISSION

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The Amtrak OIG's mission is to provide independent, objective oversight of Amtrak's programs and operations through audits and investigations focused on recommending improvements to Amtrak's economy, efficiency, and effectiveness; preventing and detecting fraud, waste, and abuse; and providing Congress, Amtrak management and Amtrak's Board of Directors with timely information about problems and deficiencies relating to Amtrak's programs and operations.

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