Elder Research Builds Custom Tool to Help Reduce Fraud, Waste, and Abuse at the Postal Service IG

Elder Research (ERI) partnered with the USPS OIG to create and field a custom solution to detect anomalies and generate investigative leads based on risk indicators. With the tool, ERI created predictive models that scored and rank-ordered contracts based on weighted combinations of risk indicators, generating leads that proved to be 74% actionable, resulting in over $11 million in recoveries, restitutions, and cost avoidance cases in the first year of the tool's deployment.

The Client

The USPS OIG maintains the integrity and accountability of the U.S. Postal Service. The agency's core mission is to find fraud, waste, and abuse. USPS OIG partnered with Elder Research to optimize the agency's efforts using data mining and predictive analytics.

The Magnitude

The U.S. Postal Service generates $73 billion in revenue and employs more than nine million people in the mailing industry. The Postal Service delivers more than 213 billion pieces of mail annually to 146 million delivery points and operates 37,000 postal facilities. In fiscal year 2009, the USPS managed more than $33 billion in Postal contracts.

The Challenge

The USPS OIG has relied primarily on initiating investigations based on tips. To be more proactive, the agency sought to create a systematic process to provide investigative analysts with leads based on known fraud, waste, and abuse schemes. The USPS OIG needed a custom solution to reveal questionable Postal contracts. However, the USPS OIG could provide only a few known cases of fraud to guide analytics. Further, the existing investigative process to validate leads was time-intensive, the availability of solicitation and financial data was scattered, and the data was inconsistent and incomplete.
**THE SOLUTION**

Elder Research partnered with the USPS OIG to customize a solution to help the agency generate leads based on risk indicators and anomaly detection. ERI created predictive models using more than 30 custom fraud indicators, or “red flags,” to zero in on suspicious Postal contracts. The models each produce an output that scores and ranks the contracts based on weighted combinations of the risk indicators.

Forensic examiners evaluated each metric to determine its usefulness and contribution to the overall model. Leads generated by the contract fraud model proved to be 74% actionable; 23 out of 31 highest scored contracts showed evidence of fraud, waste, and abuse.

The contact fraud model’s results were delivered in an easy-to-use display tool called RADR (Risk Assessment Data Repository). The tool enabled analysts and investigators to access and visualize data on high-risk contracts. The deployment of the contract fraud model (V1.0) spurred three investigative inquiries and two opened cases.

**HEALTHCARE FRAUD MODEL**

RADR was also employed to amplify the effectiveness of a healthcare model which was previously under-utilized. RADR strategically made the model results visual and interactive, which led to the opening of 113 investigations and aided in over $11 million in recoveries, restitutions, and cost avoidance from 12 closed cases. The RADR tool amplified the productivity of USPS OIG investigators by reducing their number of hours spent on a case by 30% and increasing the dollars returned per case by 35%.

**ABOUT US**

Elder Research Inc. (ERI) is the USA’s leading consulting company in data mining, predictive analytics, and text mining. ERI helps government agencies and Fortune Global 500® companies solve real-world problems by amplifying the productivity of their analysts. Drawing from experience in multiple industries, ERI brings cutting-edge technology into front-line practice to achieve high return on investment.

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