

Call for Evidence: Government use of data analytics on error and fraud

We welcome the opportunity to contribute to the Public Accounts Committee's inquiry into the Government's use of data analytics on error and fraud. This submission focuses on how internal audit within the public sector is helping departments use data analytics to prevent and detect fraud and error, improving value for money. It draws on evidence from the Chartered IIA's work on internal audit and data analytics from both the public and private sector, as well as insights from the Government Internal Audit Agency (GIAA), the shared internal audit function for the majority of UK government departments and various arm's length bodies.

The Chartered Institute of Internal Auditors (Chartered IIA) represents over 10,000 internal auditors working across the public, private and third sectors in the UK and Ireland. Our members operate across central and local government, the NHS, and wider public bodies. Internal audit plays a vital role in providing independent assurance on the effectiveness of governance, risk management, and internal control, including controls designed to prevent and detect fraud and error.

Across both the public and private sectors, internal audit functions are increasingly using data analytics to deliver faster, broader and more forward-looking assurance. The Chartered IIA's report, *Embracing Data Analytics*¹, shows that data analytics is now becoming an established feature of assurance in many private-sector organisations, enhancing risk insight and enabling earlier identification of anomalies and potential fraud. The same opportunities exist across the public sector, where internal audit provides assurance on fraud and error controls in central government as well as in local authorities.

A case study from the Chartered IIA report² illustrates how the GIAA within central government has become a leading example of how data analytics can be embedded to strengthen assurance and support counter-fraud work. The agency's data analytics team was established as part of a wider innovation initiative and has since expanded into a permanent fixture in the agency. This team of specialists, many recruited from outside traditional audit roles, works alongside internal auditors to identify opportunities where analytics can increase coverage, consistency and impact.

Early projects demonstrated the efficiency gains achieved when automation and coding were applied. For instance, analysis of timesheet compliance that once took hours was automated to process hundreds of records in seconds, allowing internal auditors to test full populations rather than samples and to reuse scripts across audits. The GIAA has also developed natural-language-processing tools such as the "Insights Engine", which enables auditors to search and

¹ **Embracing data analytics, Chartered IIA, November 2022**

² **Embracing data analytics, Chartered IIA, November 2022**

summarise large volumes of documents and meeting minutes, identify patterns in narrative text, and assess sentiment. These capabilities have transformed how the agency produces its annual opinions for multiple departments, from work that previously took several days to an exercise now completed in hours, illustrating the productivity and insight gains from analytical automation. Many of these techniques are similar to those already used by private-sector internal audit functions, and can be further utilised by internal audit in local and central government to identify fraud and error.

Across government, departments are increasingly aware of the potential for data analytics to strengthen counter-fraud controls and are now seeking targeted analytical support from GIAA data specialists. In some cases, GIAA provides assurance over the effectiveness of departmental fraud-detection tools, such as i2 (a visual and link-analysis platform used to map relationships between entities and transactions). In others, GIAA performs bespoke analysis—such as expense or supplier data reviews—before handing the results back with guidance on how to interpret and apply the findings. This dual role enables GIAA to provide assurance while simultaneously helping departments build their capability to apply data analytics effectively within assurance and counter-fraud frameworks. Some of the most effective analytical methods include pattern detection, clustering, and network analysis, all of which can help reveal anomalies in large datasets that may signal fraud or control weakness. Visualisation techniques have proved essential for communicating these insights to senior stakeholders, translating complex relationships into intuitive graphics that inform decision-making.

With the rise of AI, the technology is now used not only to detect fraud but also to perpetrate it, for example, through the rapid creation of grant applications by potentially fraudulent companies. To counter this, GIAA has helped departments use text-similarity analysis of applications, cross-referenced with Companies House data, to identify shared directors and company formations. This work, alongside cross-referencing these datasets with credit reports and National Crime Agency fraud lists, provides an extra layer of assurance before awarding grants and public sector contracts. These cross-dataset techniques, supported by network analysis, have strengthened early detection and prevention of fraud and error. The pace at which AI-enabled fraud techniques are evolving emphasises the need for both central and local government to accelerate their use of data analytics to tackle these risks, keeping in-step with private-sector organisations in this area.

However, local and central government continue to face challenges in embedding data analytics at scale. Many departmental counter-fraud teams consist of highly experienced investigators but have limited internal expertise in data analytics. This restricts their ability to exploit datasets fully or even to ask the right questions of their data in the first place. Departments, therefore, still rely on the GIAA and their data analytics team for direct support or advice on building sustainable in-house capability.

Beyond central government, local authorities' use of data analytics to counter fraud relies largely on the National Fraud Initiative, which provides periodic data-matching exercises across mandatory and discretionary datasets, complemented by guidance and standards issued by the Public Sector Fraud Authority. However, this is not the same level of data analytics support as the one offered by GIAA to government departments. As a result, data analytics maturity varies across local authorities, many of which depend on small corporate fraud teams, some positioned within internal audit teams, with limited specialist resources. This contributes to a wider capability gap across the public sector, despite local authorities facing fraud risks that are often similar in nature to those in central government.

The GIAA example shows that progress depends on both culture and capacity. Its success has stemmed from establishing a dedicated core of data analytics experts who champion good practice across the agency. This model has helped normalise the use of analytics in everyday internal audit work and created a virtuous cycle of innovation, with each new use case inspiring further applications. Both local and central government could draw on this example by designating data analytics leads within counter-fraud teams and utilising their data sets to prevent fraud and error.

Expanding access to analytical tools such as Spotlight, investing in data and AI specialists within government departments, and providing ongoing training to upskill existing teams would help embed analytics as a routine element of fraud and error prevention. In some cases, targeted use of external consultants with specialist data or AI skills can help bridge short-term capability gaps for departments and local authorities, provided there is clear oversight, appropriate knowledge transfer, and assurance over the data analytics methods and tools they introduce.

Internal audit also plays a key role in providing independent assurance over the governance of data analytics and artificial intelligence. As these techniques become increasingly embedded in public service delivery, there is a growing need for oversight of how data is collected, processed and interpreted. Internal audit ensures these activities are carried out responsibly, transparently and in ways that maintain public trust and deliver value for taxpayers.