

# Internal Audit Should Embrace Data Analytics

Our clients are talking about data analytics more than ever. Here's what we've heard from them

Like all functions, internal audit (IA) is forever looking to do more with less and has been wrestling with the twin concepts of continuous auditing and data analytics for some time now. We [first wrote about continuous auditing](#) at the request of our clients back in 2005. Recently, however, we have been hearing many more questions on the topic of data analytics.

I'm currently working on a project for the [Audit Director Roundtable](#) (ADR) on how IA teams can improve their efficiency and effectiveness in collecting and analyzing data ([please take three minutes to add to our survey data](#)). For those new to the topics (or just curious), I'll briefly cover both continuous auditing and data analytics, and then give some advice on the latter based on what our internal audit network tells us is working well.

## **Defining the Terms**

Continuous auditing was devised in the famous [Bell Labs in 1989](#) as a way to provide constant monitoring of AT&T's billing system (AT&T owned Bell Labs at the time). From that has grown a whole discipline of automated monitoring to ensure a company's financial and non-financial data is valid and that the firm's internal controls are functioning properly (i.e., employees are not making grave errors or committing fraud). Firms use a range of software products to run this type of continuous monitoring. For IA, the term 'data analytics' has come to mean the discipline of automating the collection of data from around the firm and then using both simple and complex analytical tools to make that data meaningful for the function.

## **The Adoption of Data Analytics**

Data analytic procedures are a much more cost-effective way to collect audit evidence. Analytic procedures cost \$0.01 compared to \$4 for a standard audit of the same evidence. So, slowly but surely, IA is taking up analytic tools, and their suppliers are following suit. As one head of audit at a computer hardware firm told us,

*“We are developing our own data analytic tools in-house. Some of the functionality we were looking for — dashboard reporting, comparisons and trends over time, thresholds and drill-down ability — were not available to the extent we would like. Slowly I believe the vendors are implementing this functionality.”*

However, at the moment, IA teams are not making best use of the discipline. While 87% of audit teams tell us they use data analytics as part of their engagement, only 18% use the most valuable types of procedures like regression analysis. The leading lights in our network (check out [our Force of Ideas award](#) if you want to know more about the best firms) have invested in complex analytic capabilities to cut down the amount of auditing they have to do in low risk areas. These more complex capabilities also allow them to run intensive tests on more critical risk areas and increase overall confidence in audit results.

As one head of audit at an insurance firm said:

*“One of our major objectives for 2010 is to make better use of data analytic procedures. We have purchased ACL [continuous auditing software], and in the short term we will have a core team of trained specialists that develop the methodology and complex analytics. In the longer term, these analytics will be handed over to our general auditors.”*

ADR clients can use [online training](#) to get up to speed on both basic and more advanced data techniques, and can also read the results of [our recent survey on data analytics](#). All Corporate Executive Board clients can participate in our [audit technology online forum](#) (among many others) — one discussion on [who should own audit analytics](#) generated some interesting answers.

If you have questions or advice to share please [contact me](#) or submit your thoughts via the comments section below.



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