



INTERNATIONAL
INSTITUTE FOR
ANALYTICS™

RESEARCH BRIEF
RESEARCH & ADVISORY NETWORK

Enforcing Tax Compliance in a Turbulent World

SAS EXPERTS: SHAUN BERRY, DAVID CASEY, AND NICOLA FURLONG

IN DISCUSSION WITH BOB MORISON, SENIOR ADVISOR, IIA

JUNE 2023

Discussion Overview

The responsibilities of tax agencies and the complexity of their work continue to expand faster than their funding and staffing. So they seek innovative ways to leverage data and analytics to improve operational efficiency, taxpayer engagement, and smart decisions throughout the revenue and compliance process. To explore these opportunities, IIA spoke with former tax administrators and technologists Nicola Furlong, David Casey, and Shaun Barry.

What are the core challenges with revenue and tax compliance today?

Shaun: The biggest challenges that tax administrators face today are what I call the three V's. First is the *volume* of transactions with citizens and businesses and the enormous volume of data associated with them. Second is the *velocity* at which electronic transactions are happening, so tax administrators need to make decisions very quickly. Third is *vector* – data and transactions are coming from lots of different directions, and that raises many types of compliance issues. This combination of volume, velocity, and vector makes it really difficult for tax agencies to make decisions quickly and efficiently.

David: Tax agency work is further complicated by the growing complexity of tax laws. When things get more complicated, it's easier for fraudulent actors to take advantage, more loopholes and ways to avoid compliance. Then we have the rapid growth of the informal economy, a shadow economy where people have more opportunities to hide.

The informal economy is much less visible, and it's changing at a rapid pace. All this makes it harder for agencies to administer taxes and ensure compliance.

Nicola: In the last few years tax agencies have seen their roles not just change but expand. During the COVID pandemic, national agencies like HMRC had to act almost in reverse. In addition to taking money in, they were charged with distributing it. In the UK, there were four or five different COVID relief schemes operated by the Treasury, and it was HMRC's role to pay individuals. The expectations were that applications would be risk-assessed, processed, and paid in 72 hours. It wasn't really possible, but it had to be done to avoid a political and public backlash. Now we know that many of the applications were fraudulent, and there's a backlash about that. The agency couldn't win either way, and I certainly don't expect this to be the last time that agencies will have to do a job that's not within their normal remit.

Shaun: Let's keep in mind that when tax agencies are being tasked to do things other than collect taxes – whether they're distributing social benefits or managing child support collections – they're being tasked because they're the central hub of data for many other government agencies. They're being asked because they do things well.

Also, it's not just digital commerce and the shadow economy, but now the huge rise of cryptocurrency that's facilitating and obscuring cross-border transactions and really impacting the ways that tax agencies have to do their jobs.

David: As another example, the Wisconsin state tax agency took on collections for all local governments. But expanding scope isn't always tied to expanding resources. So doing more without more staff, while avoiding pulling staff away from essential compliance investigation and enforcement activities, has become a growing challenge.

And Baby Boomer retirements and pandemic-related attrition are just compounding the problem for agencies as they lose experienced staff.

How big is the compliance problem? What do taxpayer errors and non-compliance cost governments?

David: It's close to a trillion dollars annually at the federal level in the United States, according to the IRS when they were lobbying for some of the Inflation Reduction Act money. For state governments, the tax gap ranges from over \$6 billion annually in a large state like California to around \$400 million annually for an average size state such as Minnesota. About 75% of that is under-reported revenue – taxpayers don't report all of their income or sales. About 15% of that is underpayment – taxpayers report honestly, but they don't have the means to pay. The other 10% is those who do not file at all. Each of those presents tax agencies with different compliance challenges.

Shaun: Internationally, non-compliance rates vary enormously. In Norway or Sweden, the estimates are 5 to 10%, in most Western countries 15 to 20%. But in places like Greece or Iraq, it's 70 to 80% – non-compliance is the norm. It's going to vary by region, culture, and history of enforcement.

Nicola: In the UK, the tax gap is at 5.1% in the 2021-2022 period. That equates to 32 billion pounds. But it's quite interesting when you look across tax types. For national insurance, which pays for the health system and pensions, non-compliance is quite low at 3.5%. There's more compliance where people see the services they're getting in return. If you look at corporate tax, it's quite high at 11.5%. For individual income taxpayers, it's around 8%. The general public may perceive that high-net-worth individuals get special treatment or escape taxes, when in fact their non-compliance rate is only around 5%.

It's great that HMRC publishes all this data, but the good news never seems to get reported as much as the bad does.

Shaun: You see higher compliance where, for citizens or businesses, the government has a trusted third party to check against. In the U.S., we have employer withholding. So the IRS or state tax agency gets to know how much money was earned and withheld. Similarly, most business sales are recorded. Third-party data reporting makes it pretty hard for somebody to cheat. In places where there is no trusted third-party reporting, especially in the cash economy, you get much less compliance. Anywhere around the world, data reporting drives compliance up or down.

What are some new strategies for encouraging compliance and reducing non-compliance?

Nicola: Definitely bringing more real-time technology into play. The UK tax agency are starting to deploy “nudging” within the system in real time. For example, when you file a tax return, you're asked what interest you've earned on your savings in the last year. For the vast majority of people, that number is less than 200 pounds. Because it's a low number compared with the amount of tax that they're paying, people just estimate. They're reluctant to go through their bank statements to determine the precise amount. As a result, hordes of people are non-compliant when reporting interest earned. And if you project that out amongst the whole population, it's a huge number, but it costs too much to investigate such common and low-amount entries.

Nudging people with messages regarding their interest entries changes their situational awareness. It makes them think the tax agency knows more and can do more than they'd assumed, so they go back and check and get the number right.

Agencies are using technology to score every return in real time, and to negate the need to do an investigation in the first place, by nudging people to do the right thing at the point of submission of the tax return.

Shaun: There are two categories of compliance. There's voluntary compliance, where people on their own meet their obligations and report accurate information. And then there's enforced compliance, which is harder to do and costs a lot more money. The strategies are quite different. Most tax agencies would very much like to use gentle nudging and education up front to generate more voluntary compliance.

David: That's also the goal with business taxpayers. The tax agency can educate and engage with the taxpayer early on, making sure taxpayers know their obligations as soon as they register, and building a relationship premised on reporting consistently and accurately. For example, the construction industry is notoriously lax at collecting sales and use tax. So tax agencies develop education programs targeted at the industry – especially at new construction companies – on what their responsibilities are. As another example, in one Midwestern U.S. city, there was a trend of non-compliance among small businesses in a largely Hispanic community. We learned that the fundamental problems were language and social barriers. So we started an educational outreach program, working in part through community organizations. The goal was not just collecting taxes but helping business owners run better businesses. The goal was voluntary compliance.

How else are the roles of data and technology evolving?

Shaun: Tax agencies cannot audit their way out of the non-compliance problem. So where can they turn? To data and analytics. Looking for data sources that can give you a sense of the economic activity of individual taxpayers.

Are they telling the truth in their self-reporting of their data, the truth about their economic circumstances?

Agencies are inundated with data. And for many years, tax agencies would gather data, then that data would gather dust. But now technology has given them the ability to be able to link data across sources, so they can see if James Brown and James W. Brown are the same person or different people. Identify them and link to data about their reported income or their reported economic activity. The big challenge is just being able to manage this tsunami of data that's coming at them. And then apply analytics to turn that data into good information about how to guide taxpayers towards compliance with tax laws.

David: Many agencies are successfully using data and technology to do more with less. One of the key positive changes over the last decade or so is that electronic filing rates for individuals in the U.S. has risen from about 75% to over 90%. In most places, business filings are required to be electronic. So there's much less on paper. Agencies have this vast amount of electronic data, but also greater ability to take advantage of it to automate and improve compliance efforts. With good data on past taxpayer behavior, we have a good idea what to expect when the taxpayer files. When a return looks different, it may merit a compliance nudge without having to do close analysis of the return.

Nicola: Network analytics and the ability to link entities, both people and things, is starting to make a huge difference. An example would be where an individual has a second home, and business accounts associated with that address, different from the address from which they're submitting their tax return. Making those connections and understanding the situation has gone from manual and time-consuming to quick and visual. That changes how tax agency people work and the efficiency they can achieve.

David: We see partnerships that pass through multiple ownership entities, sometimes crossing state lines and national borders. Are they trying to avoid scrutiny? Network analytics make it much easier to construct these relationships and understand how funds are being passed from one entity to the next. It could otherwise take years to audit a taxpayer with an intentionally complex network of corporations and partnerships. Now we have the ability to really speed that process up.

Please say more about the applications and benefits of risk scoring.

Nicola: The tax gap is shrinking because agencies have so much access to new and different types of data for scoring risk. But the flip side can be that now they are getting far more false positives than they ever did before, which places additional stress on staff. The scoring analytics have to be monitored and tuned to minimize false positives and provide the right kind of actionable information.

Shaun: In case management, the actionable information helps determine whether to conduct an audit or examination of a given taxpayer, based in part on the likelihood that they're going to be able to pay. Are you auditing somebody who is essentially insolvent and won't be able to pay, even though they may owe millions in delinquent debt? For a tax agency, such a case turns out to be a waste of time. Scoring helps us get much smarter about recognizing the people who are least compliant and have the ability to pay. In addition, who are the taxpayers who will respond to some type of reasonable and low-cost action and then pay quickly? This is basically about "How can I be smart about the work I do? If I've got too much to handle, what's the best work for me to pursue?"

David: Scoring improves operations at all stages of the revenue and compliance process.

For example, what kinds of treatments can we apply to a delinquent taxpayer? Some business taxpayers are habitually late, a week late every month. You know they're going to pay, so just send them an email reminder. But if they've paid consistently and gone delinquent, and you can start to see that their sales are dropping, then something's going on with that business. You want to call them or pay a visit.

Nicola: Big advances have come with *real-time* scoring. If you don't do some things in real time, then you're never going to do them. As in my interest income example, some of these non-compliance issues are so small, you need to nudge promptly, because they're not worth investigating later. If you're not operating and communicating in real time, you've lost the opportunity.

David: That lost opportunity can be huge. The majority of the 250 million taxpayers in the US have one interaction a year with their tax agencies, and you have that chance right then and there to encourage compliance. If you can't nudge them to correct their return, they've moved on, and you've got to figure out how to contact them and tell them about an error and get it corrected. And that can be an absolute waste of time. So real time is vital.

Nicola: I think it encourages better behavior all around, because if you've been submitting a tax return for 20 years, and no one's ever questioned you about the interest payment, you just assume they've got no way of checking. Indeed, most tax agencies do have such an ability, but it's usually not worth their while. Once you're nudged, you may think, "Ah, the tax agency has more data than I expected, so what else do they know?" So you check everything more carefully. Psychologically it changes the situation for an individual or a corporation submitting a tax return. Interacting in real time helps people make the right decisions about their tax.



How do we make sure that we're implementing risk scoring and other analytics equitably?

David: The example I mentioned of Hispanic community businesses led to a lot of discussion about how you can target a group ethically and equitably and help them become compliant without profiling and singling out just one group. We landed on making sure we're looking at them for the right reason. Do you use the data to be proactive and preventative more often than to be reactive and disciplinary or punitive? That's one of the distinctions that we made.

As another example of a beneficial program, we looked at data about the earned income tax credit for low-income individuals. We estimated that in Wisconsin, there were 30,000 taxpayers who should be getting the credit but weren't even applying for it. So we did a targeted outreach program to educate them, and the next year about half had filed for the credit. Most didn't know it was available.

Nicola: Tax agencies often don't profile, and they're usually very careful not specifically target any individual groups. This is very important from a governance perspective, and it comes up regularly in conversation. When a decision has been made to audit a given individual, they review why and how the decision was reached to check that the individual hasn't been profiled. It's really stringent in the UK.

Shaun: To build on what Nicola and Dave have said, tax administrators are keenly aware of and discussing questions about equitable treatment and when the analysis of groups is beneficial. Let's say, hypothetically, that identity thieves are more likely to prey on communities of color. Examining those communities to reduce identity theft is a worthwhile endeavor.

Now, this doesn't mean that you have to flag everybody equally, because at the end of the day, you're looking for bad behavior. There are legitimate reasons why tax administrators may focus on certain communities, not on the communities per se, but on the behaviors. And if those behaviors are more endemic in a particular community, then that can create the appearance of bias. Tax agencies wrestle with this all the time, and there are not a lot of easy answers. The fact that they are talking about ethical questions openly and building a strong sense of fairness is a very good sign. In my experience, tax administrators are thoughtful and deliberate in addressing bias and equity.

Nicola: There's a broader issue of trust that I alluded to earlier. Tax agencies must operate equitably, but they also need the public to perceive that they're operating equitably. Because there's so much misinformation out there, including on social media, it's difficult to build trust. When people hear stories about wealthy and privileged individuals and large corporations avoiding taxes or being treated leniently, it's not unreasonable that they're thinking, why am I treated differently? Are the agencies really being as rigorous around tax compliance with high-net-worth individuals as they are with me? In fact, they are, and more so. But that's not the public impression. The UK media are really good at picking up on bad-news stories about government services.

I think tax agencies are going to have to be more transparent about who they check, why, and how in order to build and maintain trust in the whole revenue and compliance process. They also need to get better at their own PR. The people working in the UK tax agency are very dedicated, even passionate, about the roles they perform and the services they provide.

There are so many good-news stories about the things that they do, how they make the country fairer, and that news should be more widely communicated and appreciated.

What are the common pitfalls agencies encounter when they're addressing tax compliance challenges?

David: Tax agencies may focus on the low-hanging fruit. They have limited resources, not enough to go after all the complexity and the detail. They'll focus on how to generate revenue quickly. But that low-hanging fruit typically comes from your more compliant taxpayers, the wage earners. That leaves the shadow or informal economy relatively untouched. So a pitfall can be low ambition, usually resource-constrained.

Nicola: Another pitfall is the walls that are put up between the business side of the agency and IT. The business will always be really ambitious about what they want to achieve, but it's not necessarily achievable. And IT tries to maintain distance to avoid scope creep and to finish a specific project on time and budget. But that often leads to disappointment with what's delivered, compared with a growing business expectation. Both sides need to be collaborating throughout, driven by business opportunity but with governance and project management limiting scope creep. We don't want to disappoint the people who actually end up using the technology in their work.

Shaun: As David said, in some ways, tax agencies are not ambitious enough and they need to aim higher. And as Nicola said, sometimes they're too ambitious and can bite off more than they can chew. Maybe the pitfall is simply being unable to calibrate and make the most of the work you do. I'm thinking Goldilocks and the Three Bears – the bed is not too hard or too soft, the porridge not too hot or too cold.

Finding the right middle ground, maximizing the potential of the people and technology you've got, that is the tough part for tax agencies. So the pitfall is going to either extreme, rather than the middle with an ambitious yet manageable workload.

Finally, what's the most important advice you have for agency leaders?

Nicola: Make the most of the technology available to you. For every dollar or pound or euro that tax agencies spend on technology, they collect an additional three in revenue. Data and technology are key to reducing the tax gap, not to mention operating efficiently and effectively with limited resources. And work with experienced technology partners who have seen and addressed many times before the sorts of challenges you're encountering.

David: My advice is to get curious about the data. Look at the data, see what it can tell you, what insights it reveals, and then use it to take action. Better information improves the entire taxpayer lifecycle, from education up front, to guidance and nudging at filing time, to case management, audit, and compliance enforcement where needed

Shaun: I'd summarize what's just been said this way: for any tax administrator, data and analytics are your best friends. With so much data, so much complexity, and so much change, you cannot hire enough people to handle all the important work that needs to be done. To better influence and manage taxpayers and their compliance, tax agencies need to put in more systemic controls and make more productive decisions with the help of data and analytics.



SHAUN BARRY

GLOBAL DIRECTOR, FRAUD AND SECURITY INTELLIGENCE DIVISION, SAS

Shaun Barry is a renowned expert in fraud and integrity, with a specific focus on government and healthcare. Shaun has worked globally with governments (central, state/provincial, and local levels), healthcare payers, and other organizations for 30 years to foster innovation and efficiency. He is a frequent speaker at industry events, and he has testified before legislative bodies for numerous governments. Shaun has also served on advisory boards that provide citizen oversight to the US Internal Revenue Service. Presently, he oversees a team of 35 experts who use data and analytics to help government and healthcare organizations work better.

Prior to joining SAS, Shaun worked as a public servant for US state government agencies in Ohio and South Carolina. For the state of Ohio, he served as the top aide to Tax Commissioner Roger Tracy and was responsible for replacing the IT systems that supported the Department of Taxation.

Shaun holds a Bachelor of Arts degree in American Studies from the University of Notre Dame and a Master of Public Policy degree from Duke University. He and his wife Kristen have two children and reside in New York.



DAVID CASEY

PRINCIPAL INDUSTRY CONSULTANT, TAX AND REVENUE COMPLIANCE, SAS

David Casey has 25 years of consulting experience assisting state agencies with process and technology improvements. His focus has been on the entire taxpayer lifecycle within tax agencies. David has delivered integrated tax systems for several state and local governments, working with all levels of the organizations to drive successful adoption and ultimately a customer-centric solution.

As the Deputy Secretary for the Wisconsin Department of Revenue, David served as the Chief Operating Officer. He empowered employees to launch and deliver strategic initiatives which led to higher customer service, improved efficiency, and resulted in stronger employee engagement.

David is a self-proclaimed data wonk who is always asking for the data to drive decision making. Within the network of tax and revenue industry leaders and vendors, he advocates for and develops transformative business cases that produce a strong return on investment. He has also created tax agency benefits-based procurement models. David is a leader in strategic planning using the Appreciative Inquiry process. With a life-long dedication to improving government service, David's curiosity for ways to improve tax administration keeps him at the forefront of the industry.

When David is not at his desk, he is often found on his bike.



NICOLA FURLONG

DIRECTOR, PUBLIC SECTOR, HEALTH AND LIFE SCIENCES, SAS

Nicola Furlong joined SAS in 2012 following a 20-year career in the technology sector (IBM, CA & BMC) where she held various client-facing and leadership roles focused on delivering value from data.

During her 10 years at SAS, Nicola has worked with most of SAS's key clients in banking and the public sector, taking on a leadership role in 2019.

Nicola's focus is on helping the people and organisations within government to deliver the maximum possible value from their investments in analytics. Whether the aim is to prevent fraud, improve interactions with UK citizens, streamline operations or to get more insight into data, Nicola strives to ensure that her team fully understands the challenges at hand, so that we can best serve the interests of our clients and their desired outcomes.



ROBERT MORISON

Robert Morison serves as senior advisor to IIA. An accomplished business researcher, writer, discussion leader, and management consultant, he has been leading breakthrough research at the intersection of business, technology, and human asset management for more than 25 years. He is co-author of *Analytics At Work: Smarter Decisions, Better Results* (Harvard Business Press, 2010), *Workforce Crisis: How to Beat the Coming Shortage of Skills And Talent* (Harvard Business Press, 2006), and three Harvard Business Review articles, one of which received a McKinsey Award as best article of 2004. He holds an A.B. from Dartmouth College and an M.A. from Boston University.

IIANALYTICS.COM

Copyright © 2023 International Institute for Analytics. Proprietary to subscribers. IIA research is intended for IIA members only and should not be distributed without permission from IIA. All inquiries should be directed to membership@iianalytics.com.