



Complimentary Edition

**Whitepaper:**

# IIA 2021 Retrospective

The World of Analytics Year in Review



November 2021

As we move towards 2022 and IIA's upcoming annual Predictions and Priorities webinar with associated research brief, we thought it would make sense to also take a look back at the biggest trends that IIA saw within our client base in 2021. The topics that follow have been compiled from IIA's interactions this past year across our Research & Advisory Network, Analytics Leadership Consortium, and Analytics Assessment service lines. Clear patterns emerged among the concerns of IIA clients, some unique to last year and some continuations of popular topics from years past. All, however, are worthy of reflection and understanding as you plan for the year ahead.



## Retention and Hiring

Perhaps no topic was as urgent and frustrating for IIA's clients as finding and keeping talent. Especially as we entered the later part of 2021, clients across industries and across geographies were all struggling mightily to fill open roles and to keep current employees from leaving. There were several underlying societal trends contributing to this:

1. As the pandemic waned and the economy started to recover, companies began to hire at an accelerated pace. More jobs available means more choices for active job seekers to consider and more opportunities to entice even an employee not actively job hunting to consider a change.
2. Many companies are not only keeping flexible work arrangements, but allowing workers to take a job while staying where they are without relocating. As a result, a far higher percentage of the jobs available are relevant for any given individual, which magnifies the trend above.

3. Companies have struggled to figure out the right mix of engagement opportunities to complement flexible work arrangements and keep employees happy. While employees value flexibility, they also want more than just continuous Zoom or Teams meetings from their home office.

This trend from 2021 is going to continue for the foreseeable future and every analytics manager and executive must make an honest assessment of what their organizations can and can't offer to employees. Once that assessment is done, develop hiring and retention strategies that focus on the strengths and differentiators identified. See [this month's blog](#) from IIA's Chief Analytics Officer for additional insights on this topic.



## Cloud Migration

Virtually every IIA client is in the midst of an ongoing migration to the cloud. If not a full movement of everything to the cloud, they are undertaking the movement of a substantial portion of corporate data and processing to the cloud. Between the newness of cloud, the disruption of the migration, and the challenges of getting employees proficient in a cloud environment, analytics organizations are experiencing some pain even as they make progress. Several consistent themes IIA heard in our client interactions are:

1. You won't get the most of a cloud environment if you just lift and shift what you were doing already into a cloud environment. There are new opportunities and pitfalls that come with a cloud

architecture and environment. It is important to update current practices to take full advantage of the shift to the cloud. Many client disappointments stemmed from their organizations not adapting to what cloud offers, just like the early mistakes of replicating classic “green bar” mainframe reports in then-new client-server environments in the 1990s and early 2000s.

2. It is easy to get locked into a cloud vendor if you aren’t careful. Today, there are cloud-neutral options for virtually every aspect of cloud data processing and analytics. Clients that avoided cloud vendor lock-in felt more confident in their implementations. It also isn’t uncommon to hear of clients using different cloud providers for different needs if they aren’t locked in to one.
3. One factor leading to the rapid adoption of the cloud has been the acceptance that clouds can be secure. Corporate systems were all online anyway, with all the advantages and risks that being online entails. Companies have realized that it may be better to let a few centralized teams of highly skilled and scaled security professionals handle it than to try to do it themselves. The theme here is, “Can your security team really do a better job than those of Amazon or Microsoft?”
4. Predicting and controlling cloud costs is still a struggle for analytics organizations. Those inefficient or runaway queries that used to be annoying are now quite costly. Additional controls and policies are being put in place to help manage this, but it is still a broad concern.
5. Be cautious about adapting brand new toolkits in a cloud environment. Many tools, even from

major vendors, get shelved before even getting to a year past release. Make sure a tool appears to have market traction and long-term development support before integrating it. Otherwise, be prepared to rip and replace tools that lose support.

As with talent, the challenges of migrating to the cloud are going to continue. The good news is that analytics organizations are becoming comfortable in the cloud and are learning how to make the most of it. Like happens with any disruptive change, progress continues to be consistent and meaningful. Soon enough, people won’t remember what it was like not to be in the cloud.



## Data-Driven Culture

Most large companies now acknowledge the need to embrace and implement a data-driven culture. Unfortunately, few have come anywhere near achieving that goal. Even within analytics organizations, there are struggles around how to help themselves and their sponsors to be more data driven. A few of the themes IIA saw in this area in 2021:

1. A big challenge across many clients is the fact that “data-driven culture” is a very broad term, and therefore it can be hard to get everyone in an organization to agree precisely what it means. When there isn’t a clear definition of the destination, it is challenging to develop strategies and make progress towards getting there.
2. IIA clients did seem to agree that data-driven culture is about actions much more than words

or plans. Being data driven is about seeking out and acting upon data as an everyday activity. If people don't walk the talk, success will not come. One example used to illustrate the distinction between words and actions was the fact that Enron had clear ethical guidelines, yet clearly many people did not apply them in practice!

3. Many IIA clients are attempting to better measure progress toward becoming data driven. To address this need, IIA has expanded our assessment offerings to include more questions that dig into the adoption and progress of clients' data-driven cultures.

One pragmatic reality many large and dispersed organizations have realized is that a single data-driven culture may not work for all business units and every country or region around the world. Certainly, there need to be consistent goals and practices, but some fine tuning may be required to implement those goals and practices most effectively in a diverse set of units and locations.



## Upskilling

While upskilling can be related to the retention issues mentioned previously, it really is a

fundamentally different topic. There are multiple reasons why upskilling should be a significant focus, and within IIA's client base, the rapidly changing landscape requires everyone to keep their skills up to date. Several of the core reasons why companies saw upskilling as important this past year:

1. You hire people because you value their skills. Those same employees want to keep their skills current and to have new challenges. If you don't provide them that opportunity, then they'll become part of the retention problem discussed previously.
2. Your organization's needs will change as technologies advance and the breadth of analytics requirements expand. Helping your current employees to learn how to adapt to those new tools and techniques is cheaper and less risky than making new hires and churning people out.
3. Many of IIA's clients are dealing with technical debt. As that debt is paid off, the organization must be ready to move forward quickly with the updated and upgraded environments and tools that helped resolve the technical debt.

IIA's clients are using a variety of approaches to upskill their analytical talent. This includes using vendors who provide training, building their own internal programs, partnering with universities, or a combination of all three. As we move past the pandemic-related business disruption, expect to see the need to get back to supporting upskilling efforts with both time and money.



## Data Governance and Management

This is a virtual constant over the past several years. Even mature companies still struggle with data governance and management. Across IIA's Analytical Maturity Assessments in 2021, these topics were the top issues in every single case across all levels of maturity! Some of the drivers of this continued struggle include:

1. As companies mature analytically, they use more data, more often, for more things. As a result, even if their governance processes are improving, they may not be keeping up with the pace of progress and demand.
2. Many companies are beginning to view the flow of data as a conductor would. How is it flowing? Where is it being used? Who is using it? The more that light is shined upon such things, the more the flaws that may exist become apparent and must be dealt with.
3. The increased regulatory pressure to secure data and monitor its usage has helped to drive maturation of data governance tools and processes. However, companies are still under constant pressure to improve the status quo, even as progress is made.

Data governance and management will continue to be a concern and will likely never be fully “solved.” This is not surprising since our analytics requirements will never be “solved” either. There will always be new sources of, and uses for, data due to always evolving analytical needs. Data governance and management must be kept on the priority list.

## IIA's Predictions and Priorities 2022

This blog looked back at the past year's trends in 2021. In December, we'll be providing our annual look forward with our 2022 Predictions and Priorities webinar and research brief.

Please join Tom Davenport, Bill Franks, and Drew Smith from 12:00 – 1:00 pm ET / 9:00 – 10:00 am PT on December 14 to hear firsthand what IIA sees coming next for the analytics and data science community. Registration is free and can be found [here](#).



**2022 Predictions and Priorities**

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