

**IBM Analytics**  
Executive Report

IBM® Smarter Workforce Institute

# Starting the workforce analytics journey

*The first 100 days*

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# Foreword

Five years ago in a Harvard Business Review article on how companies leveraged HR analytics for competitive advantage, my co-authors and I found only a small handful of companies to interview. Today, life is very different. Interest in analytics and storytelling through data in HR is booming. But, HR as a whole is still learning how to set up an effective analytics function. That is why I welcome this report. The first 100 days of any effort is critical to success. Analytics is no different.

Lead authors of this report and the people they have interviewed have sat in analytics roles in HR. They've learned a lot about what works and what doesn't. Here's an opportunity to learn from those who have already undertaken this particular journey. They know that to succeed in analytics one needs to:

- Focus on business priorities
- Leverage your analytics through storytelling
- Use analytics to help inform decision making, not as a substitute
- Understand that perfect data isn't required for a successful analysis
- Have a point of view that not only understands the past, but also optimizes the present, and attempts to predict the future

This is the ideal moment to seize the opportunity to make analytics part of HR's standard practice. Now is the time for bold, forward-thinking HR leaders.

**Jeremy Shapiro,**  
Executive Director, Talent Analytics, Morgan Stanley

# The rising importance of analytics in human resources

**Jonathan Ferrar**, Vice President, Smarter Workforce, IBM

In early 2015, I was talking with the Chief Human Resources Officer (CHRO) of a mid-sized business with a few thousand people and revenue in the low billions. The organization was already quite advanced in its thinking about its people and their impact on its business. Being a financial institution it also liked ‘numbers’. This HR leader naturally wanted his business to succeed and he cared about the people.

The CHRO and his team were already starting down the analytics path and had begun to consider their data, technology, partners and skills. They had already started to do a few small ‘studies’ that were business relevant. This was a good start! But I had seen this before—lots of energy, interest and passion, good reporting and a few small projects.

However, I noticed something different about this team. It was the HR Analytics Leader; she was bold! She was prepared to think differently and take some calculated risks. She had been in the role just a short time and she had an energetic team, but she wanted to do more.

The HR Analytics Leader spoke to me about a project that she and her team had recently undertaken. It was a good project, which had sparked board level interest, but it had taken her team three months to complete —most of the time spent sorting data. At that rate, her team would be able to complete just four projects a year. I asked her if she felt comfortable with that. More importantly, I asked her how she thought her executive committee would feel about just one project every quarter. The answers were as I had expected. She knew she had to do more. She knew

her board would want her to tackle more complex business problems with more extensive data sets, combining HR data with customer data, financial data and so on. The answer was to extend her reach. She had achieved her ‘quick win.’ She had secured a number of interested stakeholders. She had a supportive boss. She now had to venture into new data options, new technology options, new partners and new skills for her team. She knew, if she were going to make an impact on the business, she had to be bold herself. She needed a bigger, more complete business plan.

This was her time. And she knew it.

If you have read this far—could this also be your time? Are you prepared to be bold? If so, read on.

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*“She now had to venture into new data options, new technology options, new partners and new skills for her team. She knew, if she were going to make an impact on the business, she had to be bold herself.”*

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# Why analytics for HR? Why now?

Workforce analytics is a diverse collection of data analytic approaches for uncovering unique insights about people in organizations that enable faster, more accurate, and more confident business decision-making. Numerous factors are currently interacting to raise the prominence of workforce analytics for human resources (HR) professionals, with two standing out from the rest:

*1. A confluence of internal and external forces*

Benchmarking studies, such as IBM's Institute for Business Value's (IBV) *Unlock the people equation*, have highlighted the growing interest among HR leaders in using workforce analytics to address both internal and external demands. Internal factors range from the increasing importance of traditional HR responsibilities (e.g. hiring, managing attrition) to changes in strategic direction.

External factors include regulatory requirements and labor market factors that are changing faster than it is possible to monitor using intuition and observation alone. Analytical approaches used in workforce analytics are eminently suited to solving challenges such as these.

*2. An explosion of data, and better ways to manage and analyze it*

Rapid developments in technology for managing and analyzing big data have opened up new analytic possibilities to HR. For example, visualization methods for interpreting transactional data that arise from routine work interactions (e.g., a worker's social media contributions at work or their geographic positioning data from a mobile device) can reveal insights that can help improve business practices.

The potential of these new capabilities to improve HR effectiveness is bringing workforce analytics to the forefront of HR executives' minds. In sum, there is a consensus that workforce analytics presents a world of opportunities to improve business effectiveness that we have only begun to explore.

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*“The potential of these new capabilities to improve HR effectiveness is bringing workforce analytics to the forefront of HR executives' minds.”*

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# The need for practical advice on analytically enabling HR functions

While enthusiasm for workforce analytics is strong, challenges and barriers persist. Perhaps the biggest barrier is the lack of high quality, practical guidance on how to implement workforce analytics. What currently exists tends to provide only a high-level overview, or represents a statistical tour de force that HR professionals cannot realistically take the time to comprehend. This can create the misperception that analytically enabling the HR function is something only organizations with big ideas and deep pockets can embark upon.

While existing best practice benchmarking studies can be valuable, our clients have also indicated they need practical advice on how to embed analytics capability throughout the HR function, in a manner that can be justified to the business. The questions most commonly asked are:

*“Where do we begin?”*

*“Do we need an HR analytics function, or can we outsource it?”*

*“If we need to begin with a small team, what skills are needed first?”*

In response, this report provides a 10 step framework for embedding workforce analytics practices in HR. The goal is to provide a simple framework and practical guidance to both HR professionals and business leaders. This includes those in HR who want to enhance the effectiveness of their function’s impact on the business and senior leaders who are considering investing in implementing an analytical approach to people-related decision-making in their organizations.

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# Timing of events in the first 100 days

The initial transition period in any new role or transformation is an important time. During this period, signals are transmitted about future intentions, and initial impressions set expectations about the likelihood of future success. The first 100 days is a common time frame for observing progress. Chief Executive Officers (CEOs) and other senior business leaders are often assessed on their accomplishments during this time. We recommend this as a time period for a new HR analytics leader to make an impact.

Consideration should be given to each of the 10 steps from the outset, however, emphasis on any given step will progressively shift throughout the 100 days. It is important to realize the timing of events will be fluid, and issues may need revisiting as new knowledge comes to light.

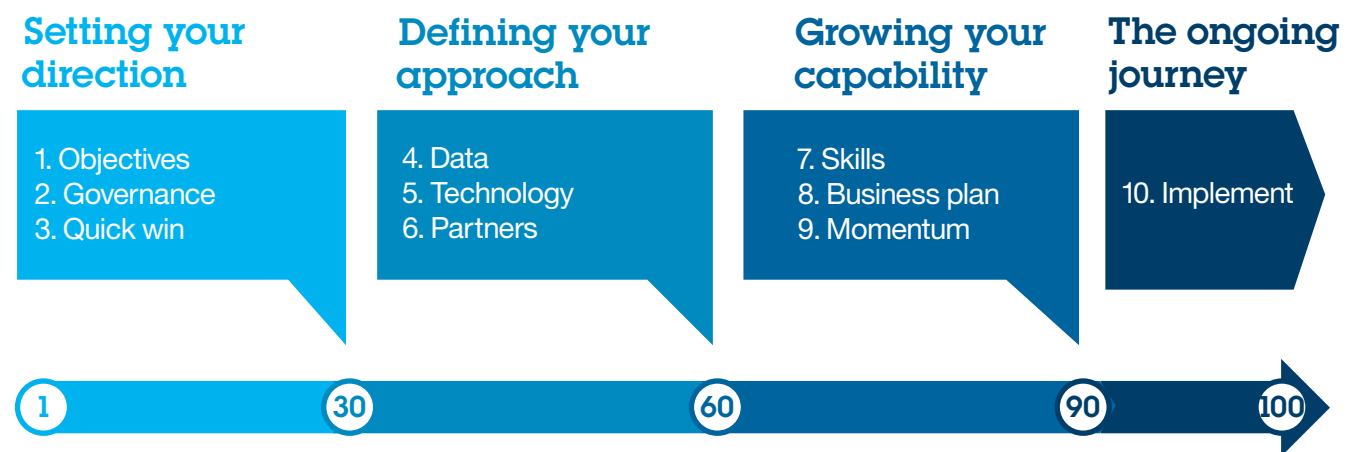
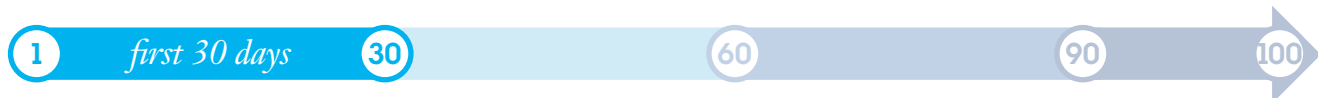


Figure 1: First 100 days implementation timeline



# Phase I. Setting your direction



*“Many people think that workforce analytics starts with the data, but it doesn’t. It starts with clearly establishing why you’re here, and what the business needs are.”*

- Sheri Feinzig, Director, IBM

## Step 1. Articulate your objectives

### Establish your vision

It is important to establish a clear vision for the workforce analytics function. This may take some time to finalize, but it is important that an initial vision is laid out. The vision should focus on supporting business outcomes such as growth, efficiency, productivity, profitability, and risk management. The vision statement plays an important role in direction setting for the workforce analytics team, and communicating aims and objectives to those outside the team.

Without a vision that summarizes its purpose, efforts to establish and grow a workforce analytics function are likely to fail. An example of a vision statement might be: *The workforce analytics function uses data-driven approaches to provide people-related insights that improve business outcomes.*

The vision can become more fixed as progress is made through the first 30, 60, and 90 days, but it should show intent, direction and energy from the start. Most importantly, it should link people-related issues to business

performance. Once the vision is clearly set, test it with the CHRO, HR business partners, business executives and other functional experts and refine as needed.

### Confirm the scope of the analytics function

To set a path for success it is important to agree on the scope of responsibility for the analytics function with the CHRO. Establish whether the function encompasses the full range of analytics (e.g. everything from benchmarking and reporting to predictive modeling, social analytics and behavioral analytics), or whether the function has responsibility for just an element of analytics (e.g. dashboarding and reporting). The former, broader interpretation typically has the biggest impact on business performance.

If the scope is initially restricted to focusing exclusively on reporting, consider options for broadening it as there is a great deal of potential to do more. Be prepared to discuss the impact that you can have if you stretch your scope beyond reporting. This is certainly not to say that reporting is an unimportant aspect of HR analytics. However, the contributions to business performance are



generally maximized when a wider perspective on analytics is taken (e.g. developing predictive models of HR issues like attrition, rather than simply reporting on current levels).

Another option for broadening beyond simply reporting is to combine forces with other analytics functions in the company such as those in Finance, Marketing or Corporate Strategy. The economies of combining skills might allow you to stretch your scope.

## Step 2. Define your governance model

### Stakeholder management

The HR analytics function is typically accountable for helping ensure that the work of HR contributes to business objectives. To help make certain work contributes to this goal, consult with HR business partners and business executives. Aim to schedule meetings with leading business executives within the first 30 days to understand business problems and opportunities. It is also important to arrange interviews with HR business partners in the early days. A critical objective of these interviews is to get an accurate baseline of important business metrics, and to understand how factors under the influence of HR impact these business metrics.

In the interviews with HR and business executives, there is an opportunity to gauge whether the rest of the business views HR as a strategic or an operational function. If HR has a strategic relationship with the business, then it is well positioned to do the things we discuss in this paper. If HR is viewed as operational, more work may be needed to show that analytics can provide real business insight—and not just HR transactional insights. In the latter case, choose to engage with the business executives directly whereas in the former, leverage the relationships that HR partners already have with the business as well as the business executives themselves.

### Understand the rules of the game

Privacy regulations and laws must be respected at all times. This may mean the perfect data set is not analyzed because the conditions in which it was collected do not permit re-analyses. If permission is required keep in mind that it is usually more straight forward to get overarching permissions for strategic group level decision-making, but for decisions impacting particular individuals more care may be needed.

On a related note, it may be okay to use analytics to surface issues about groups, but not to make decisions about particular individuals. Organizations often have corporate information councils, or similar functions, in which HR executives should participate to stay abreast of privacy related issues in the organization. We recommend the HR analytics function is represented on these councils.

In some cases, it is better to collect new data to solve a problem. IBM has developed a four-factor framework that can encourage employees to share data for workforce analytics. These are covered in the IBM Smarter Workforce white paper entitled *Active Employee Participation in Workforce Analytics: A Critical Ingredient for Success*.

The white paper recommendations can be summarized by the acronym FORT:

- Listen to **Feedback** on the analytics goals from people who will be affected
- Where possible, make sharing of data **Optional**
- Give some **Recognition** to those who decide to share their data for workforce analytics
- Be **Transparent** about everything that is done

### Plan for action

A point expanded on later in this report is that workforce analytics is about more than analyses. It is also about the

interventions prompted by analytically driven insights and, most importantly, the evaluation of the effectiveness of those interventions.

Executing and evaluating interventions demand effective planning. Both steps require a strong research design to allow examination of the impact of the work. Such examination can also be resource intensive, depending on the nature of the interventions. An important recommendation is to anticipate the different possible outcomes before running analyses. This puts HR in a stronger position to intervene and effectively evaluate the work in a timely manner.

### Step 3. Get a quick win

#### Prioritization: Select an initial project

In the early days of establishing an analytically enabled HR function, it is important to select a project that will have an impact on the business. A quick-win project will most likely be focused on topics that do not require substantial change management to implement, but which will have a business impact on a portion of the business, or will uncover some important insight that will generate executive discussion. Projects that do require substantial change management, while likely to deliver great value, will probably take longer to deliver and are best left until after you have established your business case.

A quick-win project is also likely to involve improving the efficiency of an existing process, rather than attempting to improve future productivity by transforming the business. Future productivity enhancements via business transformation may take too long to materialize to be considered a quick win.

Initial research is likely to identify a number of potential projects that need to be prioritized, and you should aim to complete one of these projects over the first 100 days.

There are at least two ways to classify the projects to focus on:

- How difficult the projects will be to execute
- The type and magnitude of impact on business results (cost reduction or business transformation)

Figure 2 categorizes potential projects according to whether they target immediate cost reduction or enhanced productivity via business transformation. You may want your initial project to be in the upper left quadrant, representing little change required and a path to big results. Realistically, however, there will be more opportunities to work in the lower left quadrant, representing some value for relatively little change. Ultimately it will be desirable to establish a portfolio of analytics projects that deliver both short- and longer-term value to the business.

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*“Most workforce analytics initiatives have both direct impact (cost savings) and indirect impact (opportunity costs). Rarely does one exist without the other. Direct impact is used to sell the deal to finance and is mostly driving budgeting. On the other hand, indirect impact is usually more significant and is the way to sell it to the business leaders.”*

- Rafi Ezry, Partner, IBM

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## Identify sponsors

It is critical to have senior sponsorship for the selected quick-win project, and indeed, for all workforce analytics projects. The role of the senior leader is to champion the project, supporting the value of the analyses and ensuring that actions are taken to capitalize on the insights. Without senior sponsorship, there is a risk that the analyses will not get acted upon. If analytics projects are going to affect employees of a particular business unit, the best approach may be to obtain buy-in at the top of that business unit. Given how much organizations invest in their people (salaries are between 18 percent and 52 percent of operating expense, depending on industry; SHRM, 2008) workforce analytics insights that can make human assets more productive or effective will very likely secure executives' attention.

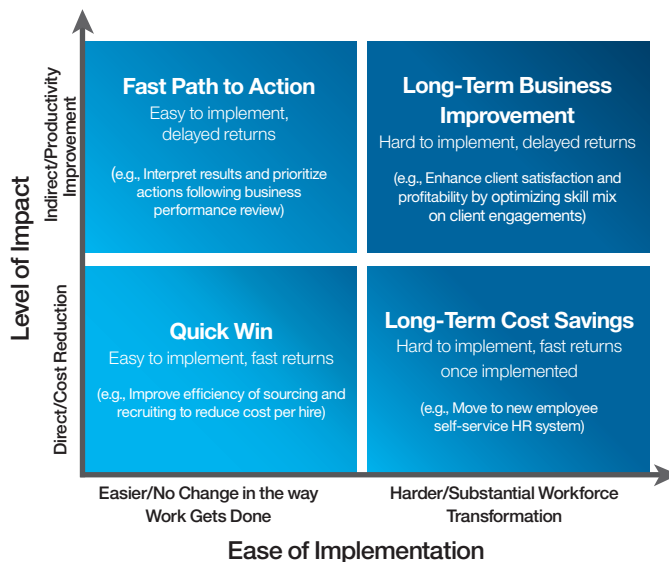


Figure 2: Analytics project categorization framework

## Summary

### Phase I: Setting Your Direction

- Develop a vision that incorporates the core elements of workforce analytics.
- Tailor the vision to suit the organization.
- Confirm which aspects of analytics are in and out of scope with the CHRO.
- Identify stakeholders and gather information regarding the key metrics that drive the business, the current business issues, and the view of HR's role in the business.
- Understand the cultural and legal perspectives of privacy in the relevant geographies. When in doubt, consult privacy lawyers and err on the side of caution.
- Identify senior sponsors for the first quick-win project (as well as all subsequent projects).

# Phase II. Defining your approach



*“We usually find that as long as the data is accurate, 30 percent of the data drives 70 percent of the value. To make the data accurate, make it visible to as many people as possible, while maintaining security and privacy, as people will usually tell you if their data is wrong”*

*- Tom Stachura, Vice President, IBM*

## Step 4. Know your data

### Data quality

A key issue HR analytics executives need to think about is the reliability and accuracy of the organization’s data. It is equally important to agree with relevant stakeholders what level of data accuracy is considered appropriate before undertaking any analysis.

Perfect data across all data sets is unrealistic, but there may be many views on what is an acceptable level of completeness. The skill is in being able to suggest an alternative if data quality is too poor to be used to solve a business issue. It is better to rely on the judgment of experts than the work of inexperienced analysts using inadequate data.

It might be fine to limit the data sample or to limit the data fields to those fields with accurate and complete data. But trying to achieve perfect data in every data source across every employee in the organization is an unrealistic goal. It is also the most common excuse as to why projects never start.

Identifying the right data requires leveraging the expertise of HR business partners and executives. Once the data are identified, they should be cleansed and harmonized. Without accurate data, analytics will be ineffective at best and potentially misleading at worst.

It can also be useful to make data visible to as many as people as possible, while maintaining security and privacy, as people will usually say if their data are wrong.

### Data management

A common problem is that HR typically owns the data, but does not manage it. It may sit with another business area, a vendor, or another function that is not willing to share it. For example, the IT function might manage the data. Or a third party provider might manage benefits data, for example. Senior sponsor relationships can be leveraged to overcome this problem.

A further challenge concerns the need to bring together disparate data sources. Cloud technology can address this challenge, as explored later in this report.

Finally, data management challenges can be a result of company growth and in particular multiple company acquisitions. In such situations, disconnected databases with various definitions of key variables are common. Addressing this challenge requires mapping, and standardizing of data will be necessary before effective analytics can occur. It is important to get the basics correct, e.g., the definition of headcount. It can be difficult to articulate business impact without agreement on the fundamentals across the business units.

## Step 5. Know your technology options

### Traditional technology solutions

Until recently, analytically enabling an HR function has required a substantial investment in technology and infrastructure. Historically, this investment covered the cost of hardware and software for an HR data warehouse. The investment would also need to cover other elements of the information supply chain, such as an integration platform to bring together the various software applications and services.

On top of these data management and integration costs, the up-front investment usually had to cover the purchase of software licenses, e.g. any statistical software that might be used to run analytics models. Even after dealing with these costs, substantial technical expertise would probably be required to operationalize and maintain the system and software. In short, the decision to implement and maintain a system like this on premise was usually a major technology decision requiring sign-off from the Chief Technology Officer and the Chief Financial Officer since these costs were considered capital expenses.

### Cloud technology solutions

Today, rapid advancements in cloud technology and major vendor investment in capabilities to offer cloud services have moved the debate around the cost of analytics in HR. Cloud technology developments mean the goals of any HR analytics function can often be achieved without the need for large up-front capital spending.

Cloud technology means that technology solutions are more likely to fall within the budget of the CHRO in a moderate-sized organization as it is considered operational expense. These large cost economies have been driven by analytics services providers offering data management systems with Software as a Service (SaaS) licenses in the cloud.

As discussed, data quality and cleanliness are as important as they always have been; however, with cloud solutions, service providers are likely to take on quality and cleanliness challenges behind the scenes. These challenges only need to be navigated once before rules are developed and the process is automated.

While it is clear that cloud computing can be a powerful enabler of HR analytics, it is important to be aware of the local legal environment and associated restrictions that could impact what can be done with the technology. For example, there may be legal implications of transferring data from a data center in one country to the cloud Software as a Service (SaaS) function in another country. It is important for HR professionals to understand the legal aspects associated with handling sensitive data.

### Make use of visualization technology

Effective storytelling is a key part of successful analytics enablement. Ideas need to be shared with end users in a way that they can quickly comprehend. One of the best ways of ‘storytelling’ is to use visualization software. Technologies today allow for very effective easy-to-understand graphical presentations. These can be provided at a very low cost. Visualization can be critical because momentum may be lost if stakeholders cannot easily comprehend the analyses.

### Cognitive computing

A further benefit of cloud technology is access to cognitive computing. Many of the modeling techniques that were once the domain of highly specialized analysts are now accessible to business managers as cognitive computing enables them to query data with natural language. For example, a manager can query the software with phrases such as “What is the attrition rate of my software developers by geographic region?”

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*“Many of the modeling techniques that were once the domain of highly specialized analysts are now accessible to business managers as cognitive computing enables them to query data with natural language.”*

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Unlike a search engine, cognitive computing leverages natural language processing and artificial intelligence to understand the context of queries, and the system learns relationships in data to predict what the important questions might be.

## Step 6. Know your partner options

### Insource, outsource, or partner?

All HR analytics functions should have certain foundational capabilities. This means having a method to store people information along with variable definitions, a reporting interface, and statistical analysis tools.

Beyond this minimum standard, how much capability a business develops internally depends a lot on the nature of the business. The big question is whether analytics is managed within HR, by another area of the company or is outsourced. The answer could be a combination of these options. It is possible to outsource specific elements of the analytics process—for example, expertise that the business does not have in-house like specific modeling skills, behavioral science expertise or data cleaning services.

Small business are likely to benefit most from outsourcing anything beyond the foundational capabilities. The choice between managing internally versus outsourcing is not so clear-cut for large organizations.

Outsourcing the function or obtaining some external help while building the business case may be the best option if the organization does not have a strong track record with analytics. Large analytical organizations might keep things in-house and supplement skills by bringing people in from other business areas to help with the HR analytics.

An important observation is that some lines of business are developing their own HR capabilities, separate from the HR function. Sometimes this is due to the perception that HR cannot meet business demand. For example, the need to hire a large number of staff in a short period of time to fulfill business obligations might have led to those business areas developing their own analytic techniques for forecasting workforce requirements and filling vacancies. Where such capability exists, collaborative working is recommended. In most instances, the best approaches come when the analytics expertise in the lines of business and the HR analytics experts work together to resolve business problems.

## Summary

### Phase II: Defining your approach

- Do not wait for perfect data, and trust subject matter experts to suggest alternatives if data quality is really poor.
- Draw on the expertise of HR business partners and executives to identify variables to be analyzed.
- Identify data owners and agree on procedures for ensuring accuracy and securing access.
- Consider cloud technologies for efficiencies, convenience and cost effectiveness.
- Make use of cognitive and visualization technologies to aid storytelling and presentation of results.
- Decide whether an insource, outsource, partner or hybrid resourcing option is most appropriate.



# Phase III. Growing your capability



*“The leader of the analytics function doesn’t need to be the best statistician. They need to be skilled in building organizational capability, understand people issues and HR in the context of their business and be able to talk about business outcomes and results using analytics in an easily understandable manner.”*

- Tina Marron-Partridge, Vice President and Executive Partner, IBM

## Step 7. Identify roles and skills

### Leader role

The head of the HR analytics function should ideally have business experience as well as HR experience. In particular, if workforce analytics projects significantly impact the core business, then commercial or operational business experience can bring considerable credibility to the results. Being savvy with analytics is a critical skill, but the analytics executive needs to bring much more to the role, including business acumen.

Change management experience is also an important requirement for the leader of a workforce analytics function. As described earlier in this report, workforce analytics does not end with the analyses; it also requires implementation of action to drive change in the business.

Not every head of an HR analytics function can have extensive skills and experience across the business in operations, change management and analytics. However, any areas of weakness can be addressed by partnering closely with people who do have these skills.

### Analytics team: Generalists, specialists, or blended skill sets?

As success is achieved, it is likely that the HR analytics team will grow from having a few people to a more formal team. Think about the skills required for this growth. The skills needed to use HR analytics in a strategic fashion fall into four broad categories.

1. HR domain expertise: Knowledge of people-related issues is needed for working with the business to understand requirements and feedback and interpret results.
2. Statistical analysis and methodology skills: Running statistical analyses using specialized tools and methodologies is needed to understand how facts about people translate into business success in mathematical terms.
3. Data science and technology skills: Technical skills are needed for maintaining the accuracy of the system information, developing scorecards and reporting, managing relationships with IT services, and having a deep understanding of the data and data sources.

4. Consulting Skills: Core consulting skills such as business problem definition, facilitation, problem solving, and project management are important. Bear in mind that technical people can have good consulting abilities, so don't assume that the two skill sets have to reside in different people.

If the decision is made to set up an HR analytics center of excellence (CoE), there is no straightforward answer to the question of how big that CoE should be. The required size will depend on the nature of the business problems being addressed by analytics, the overall complexity of HR, the size of the workforce, and the level of analytics capability of senior HR leaders. It is better to think about the types of skills needed in order to execute a particular project, and then scale the types of skills according to the number of projects.

## Step 8. Complete your business plan

### Plan your approach to enablement

A decision about how HR analytics will be embedded will be needed. One option is to develop all HR staff so that analytics is part of everyone's responsibility. In this instance, there would not be a dedicated analytics function since it is embedded in day-to-day business practices.

Up-skilling HR business partners means that the analytics work will be visible to the business, but up-skilling requires a significant change in mindset.

A recent Harvard Business Review article pointed out that HR has traditionally been run based on qualitative judgments rather than quantitative insights. In addition, HR partners may not have time to focus on up-skilling in analytics. Given that it can be difficult to find HR professionals who can do this work, the specialist skills needed may be better sourced as a dedicated analytics sub-function within HR. Indeed, there may be resistance

to this type of work from experienced HR leaders if they feel their experience is being replaced by mathematics and statistical models. A sub-function of HR analytics as a CoE might provide a way to overcome this resistance.

Another option is to align the HR analytics with a broader enterprise-wide analytics group in the organization. This is attractive because of the analytics capability that is likely to accumulate and synergies that emerge when a group of like-minded people forms a work unit. However, a wider analytics function may reduce the focus on analytics that examine how people impact business performance. Finally, there is a possibility to use an external service provider, which is discussed later in this report. The pros and cons of these options are summarized in figure 3.

	Pros	Cons
Up-skill HR business partners	Analytics becomes a way of doing business as opposed to an add-on	HR staff may lack time or interest in becoming analytics specialists
Create dedicated HR team or center of excellence	Clear mandate to work on HR issues from an analytical perspective	Process associated with establishing the function may detract from executing the work
Join existing enterprise analytics function	Broad and deep analytics experience always on hand	May distract from a clear focus on people related problems
Use external service providers	Time consuming data and technology problems are handled by external experts	May offer less control than internal provision

Figure 3: Enablement strategy pros and cons

### Adopt a consultancy model

Executives should consider the role of HR analytics in the organization and prepare the business case as if establishing a small consulting business. This means taking a project-based approach with start and end dates, deliverables, resource allocations, and client agreements. Working from a CoE can sometimes create a perception of authority around projects and work streams. This can make it easier to get business buy-in. HR practitioners who have not worked in a CoE environment may feel uncomfortable about trying to sell ideas internally. However, a consulting approach where people are persuaded of the benefits of the proposals means many critical first-100-day tasks will typically fall naturally into place, e.g. build a draft business plan, develop budgets, delineate whether HR or the business will pay for the analytics work, hold meetings with clients, and identify anchor clients.

### Link analytics projects to business outcomes

Linking people-related issues to business performance is perhaps the biggest opportunity for HR analytics interventions, and should be a key focus of a business case. Justifications for headcount and budgets need to be based on the expected returns to the business. It is incumbent on HR to begin validating costs and returns in the same way that the rest of the business does. There are two things that can be done in this regard for the business case.

1. Set clear expectations about what sorts of results businesses might see from workforce analytics.
2. Be clear about explaining the importance of statistical associations in business terms.

When consulting with the business about what is possible and preparing the business case, we recommend presenting case studies of similar work that has been well executed and

clearly shows the business returns (e.g. performance, time to productivity, cost). This helps set expectations early and, if necessary, stimulates conversation about what the expected deliverables of analytics work could be.

### Perspectives on the technology investment

We have observed two different perspectives on the technology investment for HR analytics. The first perspective is that the executives responsible for HR analytics see the investment as unnecessary in the short to medium term, and may try to avoid or delay the investment. Most of the time, these organizations are only considering HR analytics to address traditional HR problems, such as employee engagement, attrition, or efficiency of recruiting processes (e.g., time to hire, cost of recruitment). These executives are more likely to apply analytics to standard HR problems. They may aim to develop their analytics and data management capability in-house, or perhaps to work in conjunction with a partner who has more analytical expertise.

The second perspective is seen in organizations with HR departments staffed with professionals from a variety of disciplines including HR, technology, consulting, finance, risk, and the lines of business. These departments tend to be concerned with problems that stretch beyond the traditional HR function. One example from our interviews involved HR analytics experts studying career development and turnover in the context of client satisfaction. Their work provided employees with clear career paths and growth opportunities, and clients with continuity in the people they were dealing with. It also reduced costs by shifting from a strategy of hiring and replacing leavers with new hires, to a strategy of hiring workers, and developing and promoting them. Issues such as this go beyond traditional HR boundaries since they tend to involve

multiple HR sub-functions and they also involve the business and the wider operating environment.

The executives responsible for this second type of workforce analytics have historically been more likely to make investments in technology to support their work. There are two reasons for this.

1. Investing in technology is the way these executives have mostly done business.
2. Executives' experience at building business cases and demonstrating returns means they are more likely to be successful at convincing CEOs, CIOs, and CFOs of the need and the expected returns.

## Step 9. Build momentum

### Communication and influence

Once the team is in place and has grown in capability, the analytics work should begin to gather traction in the business. This requires effective communication and influencing. The first step in influencing stakeholders is to understand the audience. Think about whom to reach, what their interests are and what preconceptions they may have. Consider potential barriers in persuading them to do what is required. Also consider the audience's communication preferences. Is face-to-face or written communication more appropriate?

Understanding the target audience will help tailor messages effectively. The key messages should not only reflect what needs to be said, but they should also be adjusted to address the audience's areas of interest. Think about the audience and what is in it for them. How can the benefits offered to your audience be made explicit? Can their lives be made easier or their reputation enhanced? Keep it simple to make it as easy as possible for people to understand and absorb.

Next, consider the channel or route to the audience. If there is a clear understanding of the audience and key messages, the channel should be obvious. But also consider practicalities and make the most of any existing channels, for example, team meetings, cascade briefings, events, and newsletters. Throughout communications, be conscious about listening and taking action on feedback. Ensure the communication is two-way. Be open to and encourage feedback. Really think about the feedback received, and listen closely to ensure the audience's perspectives are fully understood.

Finally, don't expect overnight miracles. Building analytics capability will take time and concerted effort. If it were easy, it would have been done before. Be patient and focus on the approach.

## Summary

### Phase III: Growing your capability

- Identify an HR analytics leader with strong commercial and operational business experience.
- Ensure the HR analytics team has a balance of skills including HR knowledge, analysis expertise, and consulting.
- Scale the size of the team according to the number of intended projects.
- Set up the business case as though starting a small consulting business—include project start dates and end dates, resource allocations, and budgets.
- Identify analytics projects that go beyond traditional HR boundaries to impact the business and wider operating environment.
- Build momentum through effective communication and influence, identifying audiences, communication channels and key messages.

# The ongoing analytics journey



*“Don’t make the mistake of thinking HR analytics is only about statistical analysis. The real value is the business improvement that results from the interventions—so analyze, intervene and evaluate.”*

*- Eric Lesser, Research Director, IBM*

## Step 10. Implement

### Get going

Essentially, this is the most important part of the 100 days. After all the investigation, analysis of your resources and data, and discussions with executives, HR, and other leaders, it is time to get going. As implementation starts, some actions can be the focus of more detailed attention.

### Analyze links between data sources

In this step, deploy resources with quantitative expertise to analyze the links between the different data sources identified. There are two key points:

- The nature of the analyses will be determined by the question being addressed and the data available; for these reasons, no particular statistical method can be recommended.
- All analytical models should make sound conceptual sense. In order to achieve this goal, HR subject matter experts should provide context which will inform the approaches used by statistical specialists.

A broad and well-established conceptual framework that links the different data sources is presented in Figure 4.

This model suggests that HR practices and processes have an initial impact on HR effectiveness metrics and on worker behaviors. These HR metrics and worker behavioral changes, in turn, affect business outcomes. A key goal of the analyses is to identify the specific HR practices that have the greatest impact on HR efficiencies and worker behaviors, as it is these practices that will most impact business performance.

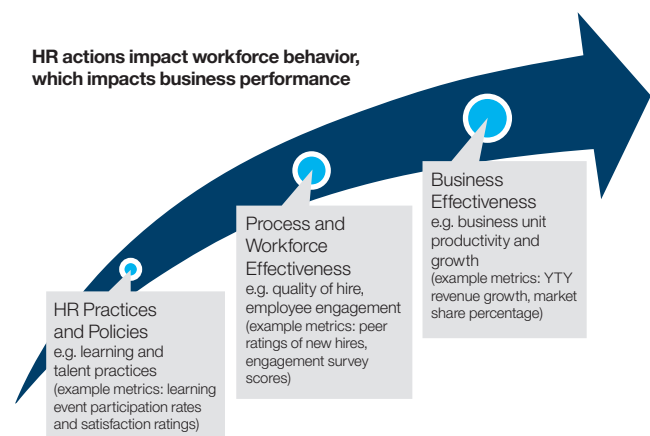


Figure 4: Workforce analytics value chain

### **Take action based on insight**

The hardest element of analytics can be deciding what action to take and executing the change. Analytics does not end with analysis, measuring or monitoring. It is important to help ensure actions are taken, even if other teams execute the interventions. This may mean relying on other teams to help prove the value.

It is also critical to ensure there is an upfront agreement with business executives about the types of actions likely to be required following the analytics work. For example, if the outcomes of your analytics project suggest targeted compensation actions for a specific job family, it is important that those responsible for compensation in HR and local management understand and will take responsibility for executing it if the decision is taken to implement the action. Ensure there is a clear idea of where these organizational capabilities and resources are going to come from in order to do this work. For example, are they in-house already or will they be outsourced?

When it comes to implementing action plans following analyses in HR, we also need to realize that traditional change management methods might need to be adapted for today's dynamic and complex environment. The reality is that other projects and issues will likely arise before the change cycle is completed, and it may be impossible to know what these are in advance. Be prepared to implement interventions following analytics exercises in fluid business environments, because this reflects the reality of today's work environment.

### **Evaluate interventions for impact**

It is important to be aware of methodologies for showing the impact of interventions. For example, one group of analysts wished to study the impact of different recruitment mechanisms on storefront attrition for a retail client. To do so, they managed to isolate recruitment practices to specific stores in different geographic locations. They implemented new practices in selected stores. By comparing attrition in the stores that implemented the new recruitment practices with stores that had not, they were able to draw reasonable conclusions about the efficacy of the new recruitment practices. This approach is called a quasi-experiment, and there are other evaluation designs that can be considered. The choice of design should be influenced by the business circumstances.

### **Beyond the first 100 days**

The huge potential impact of workforce analytics will begin to become clear as the new function gets into its stride after the first 100 days. However, many of the insights presented in the 10 steps outlined in this report continue to be highly relevant after the 'start-up' phase.

Most important of all, keep in mind that analytics has the potential to give HR an enhanced strategic role in helping the business grow and improve its operational effectiveness. The insights can have a huge impact on the business and its workforce.

## For more information

To learn how to build a smarter workforce, visit:  
[ibm.com/smarterworkforce](http://ibm.com/smarterworkforce)

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## IBM Smarter Workforce Institute

The IBM Smarter Workforce Institute produces rigorous, global, innovative research spanning a wide range of workforce topics. The Institute's team of experienced researchers applies depth and breadth of content and analytical expertise to generate reports, white papers and insights that advance the collective understanding of work and organizations. This report is part of IBM's ongoing commitment to provide highly credible, leading-edge research findings that help organizations realize value through their people.

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## Notes



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