



**Center for
Effective
Organizations**

**Talent Analytics Measurement and Reporting:
Building a Decision Science or Merely Tracking
Activity?**

**CEO Publication
G15-06 (653)**

John Boudreau
*Senior Research Scientist
Center for Effective Organizations
Marshall School of Business
University of Southern California*

Ed Lawler
*Director
Center for Effective Organizations
Marshall School of Business
University of Southern California*

April 2014

To be featured in The ATD Talent
Management Handbook

Talent Analytics Measurement and Reporting:

Building a Decision Science or Merely Tracking Activity?

John W. Boudreau and Edward E. Lawler III

Is the use and effectiveness of talent and HR reporting progressing from a focus on cost-efficiency and process-effectiveness, and toward a balanced combination that includes them, but extends to strategic measures that enhance talent and business decisions? Measures of efficiency and effectiveness are familiar and important, but talent analytics and reporting must begin to evolve toward a focus on strategic impact and business decision support. Only if they progress can decisions by executives and investors be based on complete information about the effectiveness of an organization and its business strategy. The type and condition of an organization's human capital is one of its key assets, and as such, warrants measurement that yields valid data about what it can do, its condition, and how it fits with the management approach and strategy of an organization. In addition, the reality of massive and real-time data about employees, and the increasing expectation that HR will provide predictive analytics, not just descriptive analytics, adds even more importance to the evolution from describing the efficiency and effectiveness of talent and HR, to measuring the current and future impact of talent on strategic success.

Survey Approach

In order to determine how organizations are using talent measurement, we have asked a series of questions in an every three year global study of corporate talent management. Survey data were collected in 2007, 2010, and 2013 from HR executives in companies with 1,000 or more employees (See Lawler and Boudreau, 2015). One executive per company responded, usually the CHRO or a direct report to the CHRO. In 2013, responses were received from 416 companies in Australia, Canada, China, Europe, India, U.K., and U.S. The median company in the U.S. sample had 14,000 employees, while the median company in the international sample had 4,200 employees. The revenue of the U.S. firms was 5.0 billion (median) versus 2.0 billion (median) for the international sample.

We asked about talent measurement in three key areas: efficiency, effectiveness, and impact (Boudreau and Ramstad 2007; Cascio and Boudreau 2011). Efficiency refers to the amount of resources

that HR programs, such as cost-per-hire use. Effectiveness refers to the outcomes produced by HR activities, such as learning from training. Impact refers to the business or strategic value created by the HR activities, such as higher sales. All three of these types of measures can be useful, and indeed measuring all three is often required to fully understand how HR investments and practices affect organizational performance. If the HR profession is building toward a decision science, we should see all three categories of measures being used, and the amount of effectiveness of measurement in each category related to the strategic role of HR.

Talent Measures and Analytics Usage: The Global Picture

Table 1 shows the results for the use of HR metrics in talent analytics for the different nations in 2013. The table reports the mean rated level of use. Predictably, measures of impact are the least frequently used. Even the measures of efficiency are on average are just beginning the building stage.

In a separate analysis we looked at the percentages saying “Have measures now” for different metrics and reports. The percentages are striking. For example, only 21.9 percent of U.S. organizations report having measures of the business impact of HR programs and processes, only about one in ten have measures of the business impact of performance differences in jobs and actually measure the quality of talent decisions. Even 21.9 percent may be an overestimate of the use of business impact measures. Our experience suggests that when HR executives are asked if they “measure business impact,” they often interpret it to mean program effectiveness (the effects of specific programs on workforce changes such as skills, competencies, and attitudes) or efficiency (the effects of programs on cost savings) rather than the effects of such programs on business outcomes such as financial performance and sustainable effectiveness.

All countries reflect the general pattern seen in the United States that efficiency measures are more frequently used than effectiveness and impact measures, though the pattern is less pronounced in Australia, Europe, and the United Kingdom than in the other countries. This pattern occurs in the United States primarily due to significantly higher frequency use of efficiency measures. It occurs in Canada, Australia, Europe, and the United Kingdom due to the lower frequency of the use of impact measures. The difference between efficiency and impact measurement frequency is least pronounced in China, where the averages are

much more similar across the three measurement types. This appears to be due to the lower use of efficiency and effectiveness measures in China, as well as the same low level of impact measures as in other regions.

The use of dashboards or scorecards as well as financial efficiency and benchmarking is significantly lower in China than in other countries. Measures of the business impact of HR programs are rated as most utilized in the United States and Australia, particularly when compared to Europe and Canada. Indian HR leaders tend to rate utilization somewhat higher than others. This is particularly true for the measure of the impact of performance differences in jobs.

China has very similar ratings for all three types of HR measures, at roughly 2.5 on the four-point scale, while other countries show a pattern of more use of measures of efficiency, less use of effectiveness measures, and the least use of impact measures. This may be due to the fact that HR in China has emerged more recently, and so progress on effectiveness and impact measures has been similar to efficiency, while in other countries, the efficiency measures may have emerged earlier, before many of the current impact measurement technologies and frameworks were widespread.

The results from the 2013 survey show a decline in the use of the impact measures compared to earlier years. Every percentage in 2013 is lower than in 2010, with some even lower than in 2007. The largest decrease is in measuring the effects of specific HR programs (32.4 percent in 2010 to 17.5 percent in 2013). When it comes to using Talent analytics and reporting, progress appears at best slow, and it is possible that things are moving backward when it comes to reporting HR's impact.

Is the Use of Talent Analytics and Reporting Related to HR's Strategic Role?

Is the use of talent analytics measures important to HR's strategic role? To find out, we calculated the correlations between each of the measurement items and a separate item assessing HR's role in strategy. HR's role in strategy was measured by asking the survey respondents to rate HR's role in their company by choosing one of the following (percentages of U.S. organizations choosing each item are shown in parentheses): 1=Human Resources plays no role in strategy (4%); 2=Human Resources is involved in implementing the business strategy (22%); 3=Human Resources provides input to the business strategy and

helps implement it once it is developed (54%); 4=Human Resources is a full partner in developing and implementing the strategy (21%). The responses clearly indicate that HR is not a full partner in most companies.

Our data show that use of talent analytics and measurement is significantly related to HR's role in strategy. All except two of the measurement items are positively correlated with greater HR involvement in strategy. It is also important to note that all types of measures are not equal when it comes to HR's role in strategy. In the 2013 and 2010 data, impact measures reflecting non-HR leaders' talent decisions and the difference in the pivotal impact of job performance between roles were not significantly related to HR's role in strategy. More traditional measures such as benchmarks and scorecards were more strongly related to HR's strategic role in 2013 and 2010 than in 2007. All three of the effectiveness measurement types are significantly related to HR's role in strategy, yet only 46.7 percent of companies use scorecards while the other two are used by 25 percent or less of the organizations studied. These proportions are actually lower than in 2010, when more than 50 percent of companies used dashboards and the other two measures were used by more than 25 percent. While correlations do not imply causation, it is nonetheless a paradox that the use of these measures seems to have declined even though their association with HR's strategic role is strong.

Perhaps the prominence of efficiency and effectiveness measures relative to impact measures is understandable, as the tidal wave of data and increasing ability of human resource information systems to deliver those data through cloud-based applications is daunting. Organizations can be forgiven for retreating to measurement approaches that reflect the tried-and-true emphasis on saving money or producing an immediate program effect. Perhaps this is a reflection on the sophistication of HR leaders and their constituents. Measures of specific HR program costs are easy to understand because they associate particular programs with tangible outcomes such as performance ratings, turnover levels, or engagement scores. As a result, they help to establish HR as business focused and a credible contributor to business strategy decisions.

It is, however, also paradoxical, because this same tidal wave of big data is uniformly expected to create a demand for more sophistication and differentiation in human capital decisions. The demand for

predictive analytics reflects an interest in predicting the impact of talent and HR investments on strategic outcomes, not merely on the costs and effectiveness of HR programs. It is the impact measures that form the basis for such sophistication. A fixation on costs can create a tendency to cut expenses, even when as a result important benefits are sacrificed.

An action that talent leaders can take is to initiate strategic involvement by using efficiency and effectiveness measures. These measures are often the gateway to developing a more sophisticated decision science, as shown by the history of analytics in disciplines such as marketing and finance (Boudreau and Ramstad 2007). The more common measurement elements (financial efficiency, cost, and dashboards) have credibility with business leaders. They may represent an attractive first step in the measurement journey that leads to HR leader's becoming more strategically effective by using and communicating the value of less common talent analytics such as the quality of talent decisions.

Considering the non-significant correlation with HR's role in strategy for the two types of impact measures, it is not surprising that we have seen a decline in their use since 2007. That said, such measures are often vital to developing a decision science for HR. It may be, however, that the capability of HR to use such measures effectively or the receptivity of HR's constituents to such measures gives them far less of an impact than more traditional measures. For example, if an organization measures the business impact of performance differences, they will likely discover that some positions have much greater variance than others, but leaders are often ill-equipped to explain these differences to employees, and even less prepared to act on them, by putting in place differential rewards or development. Similarly, HR systems that track the quality of talent decisions made by leaders may cast lower-quality leaders in a bad light, and many HR and non-HR leaders are ill-equipped or reluctant to confront the need to address these shortcomings.

An action for talent leaders is to address challenges in analysing impact, that go well beyond simply reporting and analysing the data. Perhaps even more important is that talent analytics encompass how constituents are prepared to use analytics based on impact, not only efficiency and effectiveness. Notably, the correlation with HR's strategic role for an impact measure "the business impact of HR programs," is similar to the more traditional measures of financial efficiency, cost, and dashboards. This suggests that there is value for HR in developing impact measures and educating HR's constituents so they can

understand and use them.

Overall, our results on how talent analytics measures are used shows a very stable pattern. Such measures are used by a minority of organizations. Efficiency measures are used the most, effectiveness measures next, and impact measures the least. This pattern holds across different national samples, with the United States showing greater implementation of efficiency measures and China showing consistent moderate use of measures across all three categories.

Management Approaches and Talent Analytics

In order to determine if the use of talent analytics is related to how an organization is managed, data were collected on the use of five management approaches. The data on their usage of is in Table 2. As can be seen, the sustainable management approach is most common, while the low cost operator is least common.

The bureaucratic and low-cost-operator approaches are not associated with the use of most talent analytics. However, there are significant negative associations for the low-cost-operator approach with measures of HR program cost and dashboards. The global competitor approach and the sustainable approach are generally unrelated to these pattern of measurement usage. However, the high-involvement approach shows significant positive correlations with all the talent analytics measures, in particular for five of the nine measurement uses: measuring HR costs, using dashboards, conducting cost-benefit analysis, measuring the quality of leaders' talent decisions, and the impact of performance differences.

Our research indicates that the high-involvement approach is generally positively associated with advanced HR practices, and this holds true for using more extensive HR measurement (Lawler and Worley, 2012). In particular, organizations that emphasize a high-involvement approach seem friendlier to measuring and reporting leader talent decisions and performance impact (Lawler and Boudreau, 2015). It may be that pursuing a high-involvement approach naturally reveals and creates discussions about leader talent decisions and the relative impact of performance differences in different roles, because of the high involvement of workers. In such situations, this management approach creates a culture and management mind-set that is more prepared for the challenges that come with such measurement.

Talent Analytics Measurement Usage: Promise and Challenges

There is great opportunity for HR to do more measurement and many reasons to believe that it would have a positive impact. Our results present tantalizing evidence that there may be systematic variations in how talent analytics are used and that the pattern of use significantly relates to the management approaches of organizations, as well as HR's strategic role. There is no doubt that HR metrics and analytics remain underdeveloped and underused. Increasing the attention given to HR metrics and analytics is called for given the potential for improvement and the added value it will bring. That said, at the moment, it appears that the best way to increase HR's strategic role is to create and use traditional efficiency and effectiveness measures. It may be wise for HR to start in traditional areas and work toward more advanced impact measures as executives develop their understanding of HR metrics. Notably, an emphasis on high-involvement management approaches has a strong association with impact measures, suggesting an organization's management approach can create a friendly environment for Talent analytics information.

The action items for talent leaders are to consider pilot testing measures in units that take a high-involvement approach, where there may be more support. When implementing talent analytics in units that take a low-cost operator approach, talent leaders should devote additional attention to the change process, as it appears that such units may present more formidable challenges.

Talent Analytics and Measurement Effectiveness: The Global Picture

Table 3 shows how HR leaders rate the effectiveness of HR measures and reporting for achieving various strategic and operational outcomes. The pattern is similar across all Western countries. All the measurement and reporting outcomes show effectiveness ratings hovering around 3.0 (neither effective nor ineffective), with many below 3.0. The results for 2010 and 2007 are similar. Progress is slow at best, but with some promising trends.

For the U.S. sample, in 2010 no outcomes were rated effective or very effective by more than 40 percent of respondents, but in 2013 three exceeded this level. The items were "Contributing to decisions about business strategy and human capital management," "Supporting organizational change efforts," and "Assessing and improving HR department operations." Two of the highest-rated outcomes are related to strategic contributions: "supporting organizational change efforts" and "contributing to decisions about

business strategy and human capital management.” These were also highly rated in the 2010 study. A third strategic outcome, “identifying where talent has the greatest potential for strategic impact,” showed a significant increase in the proportion of those rating it effective in 2013 as compared to 2010, particularly in the U.S. The other two highly rated items concern assessing and improving HR department operations and using logical principles that clearly connect talent to organizational success.

It is encouraging that some strategically related items are gaining in effectiveness, but again this is in the context of rather low effectiveness ratings overall. The effectiveness ratings fall at or are slightly below the midpoint (3.0) of the five-point scale, suggesting improvement is possible in all areas. Although there has been some progress, the results are largely similar to those from as far back as 2004. None of the ratings in 2013 was significantly different from the 2010 levels.

The notable exceptions to the pattern of similar national results are those from China and India, where the ratings are generally higher. Both the Chinese and Indian HR executives consistently rate the effectiveness of their metrics slightly above the scale midpoint on almost all items, while in the other countries, the ratings are more varied. From our data, we cannot say if companies in China and India are more effective at talent analytics, or if this is a novelty effect, reflecting the recency with which Talent analytics systems have been implemented in these two countries. In countries where such systems have a longer history, HR executives may have developed higher standards for effectiveness. It may also be that in China and India, the more recently-emerged HR functions can immediately use the increasingly efficient measurement systems that are embedded in modern technology platforms and HR information systems. This may be because in China and India there are fewer legacy systems to hold back such adoption, so a leapfrog effect takes place.

Talent analytics Effectiveness and HR’s Strategic Role

All of the effectiveness ratings are significantly associated with HR’s role in strategy. Uniformly high correlations suggest that effectively measuring both HR’s strategic and functional/operational outcomes relates to HR’s strategic role. Notably, although big data appear to still be an emerging area, effectiveness in using these data nonetheless generated a significant correlation with HR’s strategic role, albeit somewhat

less than other areas. Thus, it appears that when HR organizations are effective even in this emerging arena, they also play a stronger strategic role.

Compared to the 2007 results, the 2013 correlations between measurement effectiveness and strategic role are higher and more frequently statistically significant. It appears that effective talent analytics and reporting is increasingly associated with a strong HR strategic role. An action for talent leaders is to emphasize measurement and analytics effectiveness, not simply its usage. That means carefully considering how talent analytics can visibly add value in ways that constituents understand and embrace.

Management Approaches and the Effectiveness of Talent analytics

The management approach taken by an organization is systematically related to the effectiveness of their talent analytics and measures. The high-involvement approach shows strong correlations with the effectiveness of talent analytics. The biggest difference between the 2010 and 2013 surveys is for the focus on sustainability, which showed many significant correlations with analytics effectiveness in the 2010 sample but only a few in the 2013 sample. The strong relationship between the high-involvement approach and talent analytics effectiveness across virtually all items suggests that high-involvement organizations may make employees and the employment relationship a key element of competitive success and the employment relationship a key performance driver.

Bureaucratic and low-cost operator approaches show a pattern that parallels the results for talent analytics usage discussed earlier. Both approaches show negative correlations with most elements of measurement effectiveness, and some of these negative correlations are statistically significant. When organizations emphasize a bureaucratic or low-cost-operator management approach, they are significantly less likely to have measures that contribute to strategic decisions, support organizational change efforts, improve HR department operations, encourage using logical principles, and motivates action. The causal direction could go either way, but it seems most likely that pursuit of the bureaucratic or the low-cost-operator approach simply and directly leads to less attention to talent analytics and thus less effective HR measures.

For talent leaders, the action implications are again to approach talent analytics as a change process,

not simply one of generating data and findings. Considering the strong association between talent analytics effectiveness and HR's role in strategy, there is great potential here. However, talent leaders should be aware that in units that emphasize bureaucratic or low-cost-operator approaches, the change process may be more challenging, and achieving effectiveness may be more difficult. It may be advisable to begin in units with a management approach that is more supportive or compatible with talent analytics. When talent analytics is implemented in units with more of a bureaucratic or low-cost operator approach, it may be advisable to find creative ways to demonstrate the value of a more strategic approach to talent analytics and HR more generally.

Conclusions: Talent Analytics and Reporting

The results reported here suggest that progress is slow, but there are some promising indicators that talent analytics through HR measurement is progressing.

- (1) Overall, our data suggest that talent analytics has remained stubbornly traditional for decades, despite evidence that the use and the effectiveness of talent analytics is positively related to HR's role in strategy.
- (2) There is little activity in arenas that are dedicated to decision support. Most activity is in arenas that measure efficiency and activity effectiveness.
- (3) The results for talent analytics system effectiveness indicate moderate effectiveness and a slight improvement since 2007. The outcomes of Talent analytics continue to show consistently strong relationships with HR's strategic role, an important area for HR and one where improvement is needed in order for HR to have a meaningful role in determining business strategy. Not only does measurement effectiveness generally relate to HR's strategic role, but effectiveness in HR functional and operational areas relates particularly significantly with the strength of HR's strategic role.
- (4) These findings hold true globally, particularly in Western countries, while China HR leaders rated their organizations somewhat lower on Talent analytics and reporting usage and effectiveness, and Indian HR leaders were generally more positive about both the use and effectiveness of talent analytics and reporting.

- (5) Finally, our data strongly suggest that the management approach of the organization is related to the use and effectiveness of talent reporting and measurement. Specifically, the greater use of a low-cost competitor or bureaucratic approach to management, the less likely it is that talent reporting approaches are used, and that they are effective. A greater emphasis on a high-involvement approach to management, in contrast, makes it more likely that talent measurement and reporting is used, and effective.

Overall, the potential for HR metrics and analytics to contribute to HR's strategic value is significant, while the adoption and perceived effectiveness levels remain stubbornly moderate. Our results also suggest that leaders both inside and outside HR can find great value in pursuing talent analytics effectiveness at the strategic and functional levels. While our survey did not specifically address the role of big data and predictive analytics, we believe that the trends depicted here will be amplified as these two forces increase. Talent leaders will need to be clear about the focus of their predictions, and know the difference between predicting program cost efficiency and effectiveness versus the ultimate impact of programs on organizational outcomes. Similarly, it will be even more vital to consider how talent analytics, fuelled by even greater data and prediction, is used and affects the decisions of constituents. Our data suggest that the path to a greater strategic role today is through traditional HR measures, perhaps because key constituents define the value of talent in terms of costs and efficiency, rather than impact. Talent leaders must attend to the change process necessary to achieve improved decisions and performance, not only to enhancing analytics elegance, predictability or accessibility. Moreover, the nature of this change process appears to vary by the management approach of the organization and unit involved, with high-involvement approaches offering greater support for talent analytics, and bureaucratic and low-cost operator approaches being somewhat more resistant, and requiring greater change efforts.

References

- Boudreau, J.W. & Ramstad, P.M. (2007). *Beyond HR: The new science of human capital*. Boston, MA: Harvard Business School Publishing.
- Cascio, W.F. & Boudreau, J.W. (2011). *Investing in people* (2nd Ed.). Upper Saddle River, NJ: Pearson

Education.

Lawler, E.E., III & Boudreau, J.W. (forthcoming, 2015). *Global trends in human resource management: A twenty year analysis*. Stanford, CA: Stanford University Press.

Lawler, E.E., and Worley, C.G. (2012). Designing Organizations for Sustainable Effectiveness. *Organizational Dynamics*, 41, (4) 265-270.

[John Boudreau](#) is professor and research director at the University of Southern California's Marshall School of Business and [Center for Effective Organizations](#), and author of [Retooling HR: Using Proven Business Tools to Make Better Decisions About Talent \(2010\)](#), [Transformative HR \(2011\)](#) and [Short Introduction to Strategic Human Resources \(2012\)](#).

[Ed Lawler](#) is Director of the Center for Effective Organizations and Distinguished Professor at the University of Southern California. He is the author of over 360 articles and 46 books. His most recent books include [Management Reset: Organizing for Sustainable Effectiveness \(2011\)](#), [Effective Human Resource Management: A Global Analysis \(2012\)](#), and [The Agility Factor \(2014\)](#).

Table 1. HR analytics and metrics use, by Country

Table 1. HR analytics and metrics use, by Country							
Measures	Means						
	United States	Canada	Australia	Europe	United Kingdom	India	China
Efficiency							
Measure the financial efficiency of HR operations (e.g., cost-per-hire, time-to-fill, training costs)?	3.1	2.8	3.0	2.7	3.1	3.1	2.3
Collect metrics that measure the cost of providing HR programs and processes?	2.9	2.5	2.6	2.6	2.6	3.1	2.4
Benchmark analytics and measures against data from outside organizations (e.g. Saratoga, Mercer, Hewitt, etc.)?	3.0	2.9	3.1	2.7	2.8	3.0	2.2
Effectiveness							
Use HR dashboards or scorecards?	3.1	3.0	3.2	2.9	3.3	3.1	1.8
Measure the specific effects of HR programs (e.g., learning from training, motivation from rewards, validity of tests, etc.)?	2.3	2.0	2.5	2.2	2.4	2.7	2.4
Have the capability to conduct cost-	2.3	1.9	2.2	2.0	2.5	2.7	2.2

benefit analyses (also called utility analyses) of HR programs?							
Impact							
Measure the business impact of HR programs and processes?	2.5	2.0	2.8	2.3	2.5	2.8	2.4
Measure the quality of the talent decisions made by non-HR leaders?	1.9	1.5	2.0	2.0	1.7	2.4	1.9
Measure the business impact of high versus low performance in jobs?	1.9	1.8	1.8	1.8	1.6	2.6	2.0
Note: Response scale: 4 = yes, have now; 3 = being built; 2 = planning for; 1 = not currently being considered.							

Table 2. Management approaches

To what extent do the following approaches describe how your organization is managed?	Means
Bureaucratic (hierarchical structure, tight job descriptions, top-down decision making)	2.8
Low-cost operator (low wages, minimum benefits, focus on cost reduction and controls)	2.2
High involvement (flat structure, participative decisions, commitment to employee development and careers)	2.9
Global competitor (complex interesting work; hire best talent; low commitment to employee development and careers)	2.9
Sustainable (agile design, focus on financial performance and sustainability)	3.2
Note: Response scale: 1 = little or no extent; 2 = some extent; 3 = moderate extent; 4 = great extent; 5 = very great extent.	

Table 3. HR analytics and metrics effectiveness							
Outcomes	Means						
	United States ¹	Canada	Australia	Europe	United Kingdom	India	China
Strategy contributions							

Contributing to decisions about business strategy and human capital management	3.1	3.1	3.4	3.1	3.0	3.3	3.2
Identifying where talent has the greatest potential for strategic impact	3.0	2.8	3.0	2.9	2.6	3.4	3.1
Connecting human capital practices to organizational performance	2.7	2.6	2.7	2.8	2.2	3.4	3.0
Supporting organizational change efforts	3.3	3.2	3.4	3.2	3.3	3.5	3.3
HR functional and operational contributions							
Assessing and improving HR department operations	3.3	3.0	3.4	3.3	3.3	3.5	3.4
Predicting the effects of HR programs before implementation	2.6	2.6	2.5	2.6	2.5	3.2	3.1
Pinpointing HR programs that should be discontinued	2.7	2.8	2.6	2.5	2.9	3.1	2.8
Utilizing big data ^a	2.4	2.4	2.2	2.5	2.2		3.0

Note: Response scale: 1 = very ineffective; 2 = ineffective; 3 = neither; 4 = effective; 5 = very effective.

^aIndia was not asked this question