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# HR Analytics: Driving Return on Human Capital Investment

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## The Business Need for Improved HR Analytics

As worldwide economic and political conditions continue to concern business leaders, their attention turns to the various levers that can foster success in uncertain times. Employee salaries make up close to half of many organizations' operating expenses and can be even higher in some industries such as financial services, so the contribution of the workforce to organization success is perhaps the most important lever to competitive advantage. In fact, the challenge of containing costs while developing a high performing workforce is a primary challenge facing most companies today. But, do organizations know enough about their workforce to optimize the workforce lever?

We all know the US workforce is aging, with the number of people 55 and older holding jobs hitting a record 28 million in 2010. At the same time, the portion of people ages 16-24 in the labor market was at the lowest level since the government began tracking in 1948, falling from 66% in 2000 to 55%, just 17 million of the overall employment base<sup>1</sup>. Leaving aside the obvious issue of where we get replacement workers for the retiring workforce, these two employee cohorts are quite different. The ways organizations will hire and retain these workers going forward must be different as well. Retaining older workers requires retention programs that include part-time or project-based work. Hiring Gen-Xers and Gen-Yers requires new approaches and retention programs that must provide them with career development and choices about where, when and even how long to work each day. The older cohort is not yet as enamored with emerging social technologies that are becoming the primary means of communication and collaboration for the younger workforce. The older cohort has a wealth of priceless intellectual capital that organizations cannot afford to lose. The younger group offers innovative and creative ideas that are essential to navigate today's technologies and economic challenges and we must understand how best to tap their contributions. But, do organizations even know, at a glance, how their workforce is comprised?

Organizations struggle to understand their complex existing and potential workforce and how to use each effectively. Which applicants should they recruit? Which of their hires do they wish to retain for their performance and productivity? Who amongst their internal talent do they wish to groom for career advancement? What are the most effective compensation, benefits and development options that will optimize the organization's competitiveness in the marketplace? As we navigate today's dynamic economy, do we need to retrench again or pursue growth? We want answers to these questions almost on a daily basis, in addition to the most obvious one: what is our headcount?

Fortunately, it is now possible for organizations to excel at answering workforce-related questions using workforce analytics. We can know whether to bolster training programs, tweak our benefits and compensation plans, or hire into or terminate from key talent pools. We need not turn to across-the-board cost cutting measures and reductions in staff and services. We can sift through far more data and crunch many more numbers to determine who is performing well, who will be needed, where will they be needed, with what skills, and at what cost? We can look at which individuals are achieving their performance goals and see which of them have the competencies needed for today and tomorrow to build a competitive workforce. With breakdowns in place of competencies and of skills needed for the future, along with performance metrics, organizations can thoughtfully manage their workforce with targeted training, development and retention programs, see the value this support delivers, and even make predictions on future performance or retention. Workforce analytics enables not only a view of the workforce today but offers true insights that can drive talent-related decisions and actions, resulting in improved performance in the future.

According to research by MIT and IBM, top-performing companies are three times more likely than lower performers to be sophisticated users of analytics<sup>2</sup>. These early adopters of workforce analytics simply outperform. Organizations at the

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<sup>1</sup> Workforce Growing Grayer, **USA Today** [http://www.usatoday.com/money/workplace/2010-12-14-older-workers-employment\\_N.htm](http://www.usatoday.com/money/workplace/2010-12-14-older-workers-employment_N.htm)

<sup>2</sup> The New Intelligent Enterprise, Analytics: The New Path to Value, <http://sloanreview.mit.edu/feature/report-analytics-the-new-path-to-value-executive-summary/>).

highest levels of talent analytics practice, including the adoption of workforce analytics, have 8% higher sales growth, 24% higher net operating income growth, and 58% higher sales per employee.<sup>3</sup>

Today, organizations can drive financial return on human capital investment and improve the value the workforce delivers to organizational performance through the use of workforce analytics. This paper discusses Oracle's comprehensive HR Analytics offering and shows how the increased power of metrics and analytic insight can align core workforce business processes with organizational goals and strategies, and help ensure that organizations make the right business decisions today for the future.

## Leading Practices for Improved Organizational Performance

Adoption of business intelligence and workforce analytics practices and technologies lead to increased value for adopters. Examples of leading practices supported by workforce analytics technologies include:

1. **Role and responsibility-based access to relevant, timely and accurate data within the context of the individual's business processes.** For example, a call center manager, using business intelligence and workforce analytics, can see average cost per call and abandonment rates, with and without additional training, and can use them to optimize daily call center performance.
2. **Interactive drill-down and analysis from integrated data extracted from multiple sources to derive insight.** For example, with integrated workforce and financials data displayed on a dashboard, executives can determine if voluntary turnover is increasing and whether groups that deliver highest financial value are at risk of leaving.
3. **Predictive analysis of possible actions that shows potential outcomes of actions, supports optimal decision making, and facilitates immediate action.** Continuing the example above, managers can proactively manage at-risk top performer turnover and conduct impact analysis to understand the potential effects of salary actions, in order to select those actions that optimize turnover, expenses, and financial results.
4. **Enabling action to be taken both outside-in and inside-out.** Outside-in actions might start with access to a dashboard which guides you through an analytic workflow to drill down to details in your core system of record, where you can take action, perhaps by recording a salary increase determined to be needed.

There are two critical factors that must be in place to support role-based embedded processes that in turn deliver insights and predictions and promote effective actions, either inside-out or outside-in. **The first is the ability of individual users to easily access and use these capabilities.** Displays for each role should be visually appealing, easily personalized, intuitive, and highly interactive. The analytics and definition of relevant metrics must be understandable and accessible to everyone in the context of performing their jobs and making their daily operational decisions, not just to analysts or statisticians. Predictive analysis scenarios should be easy to modify by changing a parameter value or set of values as it is often a series of actions that drive a desired outcome. In-context guidance of how results should be interpreted and applied within the given process or decision flow should also be available. Wherever possible, targets or benchmarks for metrics should also be available. The CedarCrestone 2011-2012 HR Systems Survey released on October 1, 2011<sup>4</sup> reports that organizations with direct access for managers continue to outperform those without such direct access.

**The second factor is that data must be accessible, not only about the workforce, but also about organizational financials, customer-facing data, and operational data.** Without these contextual data it is not possible to understand the workforce impact on organizational performance.

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<sup>3</sup> CedarCrestone 2010–2011 HR Systems Survey: HR Technologies, Service Delivery Approaches, and Metrics: 13<sup>th</sup> Annual Edition, CedarCrestone, <http://www.cedarcrestone.com/research.php>

<sup>4</sup> CedarCrestone 2011-2012 HR Systems Survey: HR Technologies, Service Delivery Approaches, and Metrics: 14<sup>th</sup> Annual Edition, CedarCrestone, <http://www.cedarcrestone.com/research.php>

Integration of these data sources at the lowest total cost of ownership matters. Since 2007, the annual CedarCrestone HR Systems Surveys have shown that organizations with HCM and talent management processes *and* data integration with the underlying HRMS, financial and other organizational systems, as well as to the business intelligence environment, *all on the same platform*, outperform.<sup>5</sup> Early adopters among global organizations also outperform and pay less for their technology environment, especially those that adopt shared services and standardize their processes and data handling.<sup>6</sup>

## HR Analytics Contributes by Driving Insights to Action

By using analytics, organizations can more effectively manage and improve performance. HR analytics can help an organization improve its profitability through more effective workforce cost control, balancing the lowest effective headcount while ensuring satisfactory service delivery, thereby appealing to the CFO. Executives, the CHRO and line managers can see top and bottom-performing employees to better develop and retain key talent pools, and address retention trouble spots or looming gaps in needed competencies. Executives and managers can better understand the causal effect of workforce investment on operational results, as shown in the call center manager and predictive analytics examples above. The call center manager can optimize call costs and abandonment rates with additional training, leading to higher customer satisfaction levels and lower service delivery costs.

More than ever during unstable economic times, action on issues must be immediate. Organizations need analytic solutions that provide proactive, event-based, and scheduled *alerts*, delivered directly by email, cell phones and other mobile devices, or to personalized dashboards. If overtime levels for a particular time period on a hospital floor are in danger of exceeding budgeted levels, for example, an analytics solution would send an alert to the scheduling nurse and financial officer. With this information, they can quickly correct the deviation, examining alternatives to paying overtime such as more hiring independent nurses or full-time staff; as a result, profit margins can be preserved.

Alerts matter! In the 12<sup>th</sup> annual CedarCrestone HR Systems Survey<sup>7</sup>, organizations with alerts, also known as “push technology,” outperformed organizations without these technologies on one and two year sales growth as well as average sales per employee by 35%, 37%, and 37% respectively, a significant difference.

### Addressing Information Needs through Analytic Workflows

The core functions of HR are ultimately to optimize the workforce through adroit processes to optimize, acquire, develop, and pay the workforce, while complying with statutory requirements. Each of these processes has a set of business objectives; sometimes there are issues in meeting those objectives. Organizations can use analytics to dig into the issues surrounding each process, using an analytical workflow within Oracle’s Action Framework that guides users to answer questions about each area, to gain insights from available information, and then to take action. For example:

- **Optimize:** To meet the business objective of developing a strategic workforce plan, workforce composition can be juxtaposed with external data to model how the workforce will be impacted by population aging. With this information, they can identify key positions for succession planning. An analytical workflow would guide the planner through assessing the current headcount level, turnover trends, and projected turnover so that workforce capacity can be forecasted. The planner can factor in workforce compensation and develop forward looking scenario-based workforce plans, varying the workforce cost structure to determine the best future scenario.
- **Acquire:** To meet the business objective of an efficient, cost-effective, and scalable recruiting process, recruiting specialists can see into the recruiting pipeline to help develop a recruitment plan. Starting from a high-level metric of new hires, an analytical workflow can guide them to drill down to see the best recruiting sources and candidate pipeline for specific jobs, along with such metrics as average time and cost to hire, to determine the best candidate source. They

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<sup>5</sup> CedarCrestone 2010–2011 HR Systems Survey

<sup>6</sup> CedarCrestone Going Global with HR Technologies: One Organizational Model Consistently Outperforms!  
[www.cedarcrestone.com/research](http://www.cedarcrestone.com/research)

<sup>7</sup> CedarCrestone 2009–2010 HR Systems Survey, 12<sup>th</sup> Annual Edition, [www.cedarcrestone.com/research](http://www.cedarcrestone.com/research)

can also view successful candidate profiles, matching to current workers in comparable roles, and then conduct a competitive offer analysis to support a hiring decision that balances between acquiring the new hire, while not alienating and disengaging current talent in similar positions.

- **Develop:** To meet the business objectives of developing workforce capabilities while increasing workforce engagement, a learning strategist can assess the organizational skills and experience levels and organizational strengths and weaknesses. Starting with an organizational skill map, the strategist can assess the effectiveness of learning programs, development plans, and employee potentials to help employees understand the development and career opportunities available to them to optimize the overall skill portfolio. To ensure engagement, the strategist can also determine the top performers and identify which development activities helped them reach that level then use that information to develop a top performer profile. The development group can use that performer profile to make recommendations for new hire training that builds a new set of top performers.
- **Pay:** To meet the business objective of developing a competitive compensation plan that drives business results, the compensation manager can view total employee compensation throughout the organization hierarchy, drilling down to look at pivotal groups that drive performance, and focus on compensation-sensitive groups. With guided analysis to show the correlation of pay with performance, pay with retention, and pay with new hire attraction, the manager can predict the effect of compensation on retention and performance. Pulling in company pay levels, a compensation specialist might compare these results to market benchmarks and then model compensation to see the effect on budget. The manager might then adjust compensation that will sustain organizational performance at a competitive level – neither too high nor too low.
- **Comply:** To meet the business objective of recruiting and promoting a diverse workforce, the HR specialist can monitor the demographics of candidate pools and of the existing workforce, and from these fine-tune the diversity hiring plan. To meet the objective of reducing accidents, a specialist can see accident trends and assess safety and health risks of the workforce and then develop a health and safety risk mitigation plan. To ensure license compliance, specialists can see at a glance which employees' licenses are going to expire, and can then alert managers and employees of the need for license renewal. Or these compliance deviations can generate automatic alerts for appropriate actions by the managers.

### Analytical Workflow Defined

Analytical workflows and embedded decision support are key elements of analytical user interfaces. What does an analytical workflow look like? In the example in Figure 1, the analytical workflow that comes pre-built with the Oracle HR Analytics product, within the Analytics Action Framework, addresses the objective of ensuring that Human Capital is leveraged properly, guiding the user seamlessly from the summary level to details stored in the Human Resources transactional system. Along the way, it helps HR or executives to answer questions they might have about turnover and staffing. It starts at the highest level – the Business Objective/Issue level then guides users to explore the issue by drilling down from that high level to see the turnover data underneath. Users can thus gain insight into the transactional system, and even take action, as appropriate, to address the issue.

The Action Framework within Oracle's HR Analytics is available for PeopleSoft, EBS and Fusion. It lets a user take action on analytical results by sending a notification, triggering a workflow, enabling navigation to more information, and facilitating where to take action.

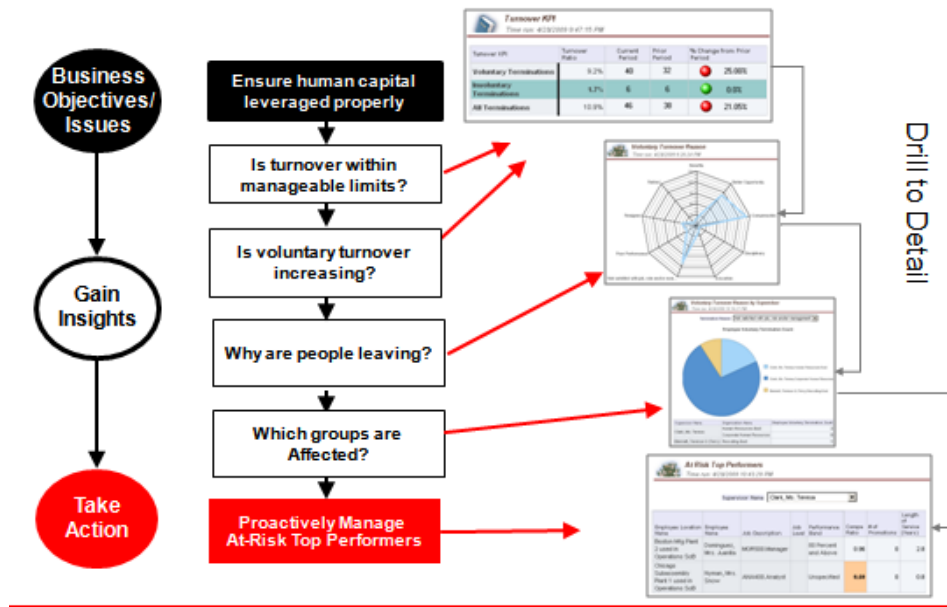


FIGURE 1: Analytic Workflow

**Real-World Example: leveraging human capital effectively**

For any organization, one of the key elements in the effective leveraging of human capital is the successful management of turnover. Is turnover within manageable limits? In the first table at the top right of the workflow in Figure 1, an analyst is able to view a turnover dashboard with some key performance indicators. At a glance, the analyst can see that voluntary turnover shows red, meaning that it is trending up, beyond acceptable limits (which are established by the organization). Since voluntary turnover has increased, the logical next question is “why are people leaving?” The user can drill into detail in the radar chart to see the reasons. Then, rather than look at everyone, the analyst can discover which groups are affected, quickly find the group with a disproportionately high number of employees, and see that their salaries are well below the mid-point of the competitive range. The user can drill down further to actual employee job summaries to see compensation and how it compares to peers. From this information, the analyst can begin to understand whether individual salary actions are needed, or perhaps that an overhaul of the compensation program is required. If individual salary actions are required, the analyst can notify the supervisor to take action at the transaction level into the system of record by giving an off-cycle salary adjustment. By taking action, the supervisor is able to effect a change in the organization for the better.

With its tight integration between the business intelligence environment and the transaction system Oracle HR Analytics enables organizations to close the loop of this issue by enabling action through the action framework. Oracle HR Analytics supports the organization all the way from insight to action with pervasive integration of workforce, financial, and operational data sources and guided analytical workflows. Each part of an analytical workflow is supported by pre-built reports and navigations that allow users to easily drill to further levels of detail to answer questions. Workflows capture information at the transaction line level so that users can easily drill from the summary information to the most detailed level of information required. Ultimately this allows users to not only monitor progress on addressing an issue at a high level but also to easily navigate to the right information, so that in the end any required corrective action can be proactively taken and recorded back into core systems as appropriate.

**About Oracle Business Intelligence Applications**

Oracle HR Analytics is one of the products in Oracle Business Intelligence Applications (OBIA). Oracle Business Intelligence Applications are Oracle’s next-generation suite of pre-built enterprise analytical applications that provide timely, fact-based insight into activities across the entire organization including CRM, Supply Chain, Finance and HR. Because data is pulled from multiple systems, cross-functional analysis becomes possible and siloed views eliminated.

Everyone—from executives to front-line employees—gets complete and in-context insight that is personalized, relevant, and actionable.

Oracle Business Intelligence Applications are built on an open data model using standards-based technology, enabling easy integration with existing IT environments, which may include multiple and disparate data sources. Oracle Business Intelligence Applications offer prebuilt integration to the Oracle family of transactional applications, including Oracle E-Business Suite, PeopleSoft Enterprise, Siebel CRM, and JD Edwards EnterpriseOne. Oracle Business Intelligence Applications also provide universal adapters to extract, transform, and load (ETL) data from non-Oracle or legacy applications.

Oracle Business Intelligence Applications deliver comprehensive, role-based business content through dashboards, metrics, alerts, guided analytics, and reports. With data shared across the business functions, Oracle Business Intelligence Applications provide the data foundation that correlates HR/workforce data with finance and business operations for more advanced workforce costing and workforce performance metrics.

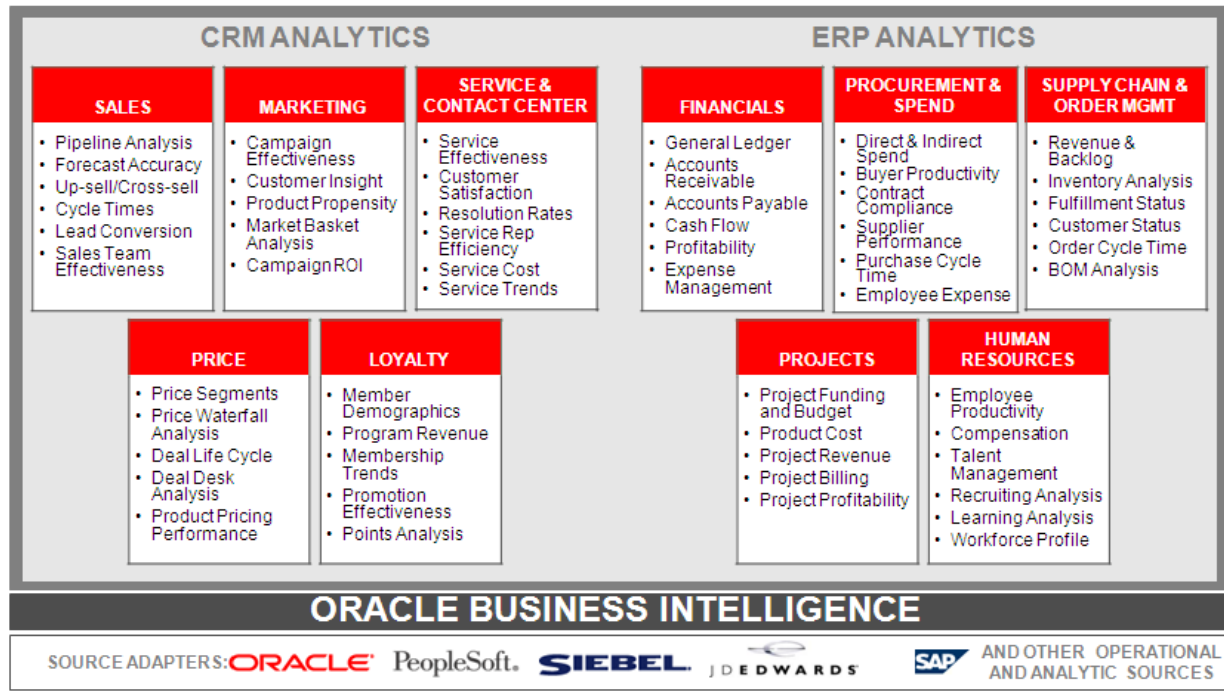


### The Foundation: OBIEE 11g

Oracle Business Intelligence Enterprise Edition 11g (OBIEE) is the business intelligence technology that powers Oracle HR Analytics. OBIEE 11g is a comprehensive business intelligence platform that delivers a full range of capabilities – including interactive dashboards, ad hoc queries, notifications and alerts, scorecard and strategy management, business process invocation, search and collaboration, mobile, integrated systems management and integration with Microsoft Office. The BI infrastructure that supports this broad range of capabilities is built on a common information model that unifies metadata across all Oracle BI tools and analytical applications.

OBIEE 11g provides one integrated business model to users at all levels of the organization. The sources of data might be in an Oracle EBS or Enterprise HRMS, or in other applications such as a talent management solution, a data warehouse or set of data marts, or even in everyday tools such as Excel. Information is optimized for the user’s role by leveraging the unified BI foundation that drives intelligence-driven business processes and workflow. OBIEE11g can access data from multiple heterogeneous sources and present users with a single reporting and analytical interface with one common business metadata.





## HR Analytics Subject Areas

HR Analytics subject areas available in 7.9.6.3 include:

### Workforce Profile

The Workforce Profile dashboard provides a starting place for analysis of headcount and headcount movement trends, turnover, and span of control, providing a consistent view of the workforce to line managers and HR. Drilling down from this level, one can gain insight into the recruiting life cycle, analyze staffing (i.e. staffing levels, retention, diversity and performance), view employee performance by organization, see retention (i.e. retention hotspots or retention by top performers), and various other demographic trends. Users can view the entire organization by time periods and can select a divisional, departmental, or workgroup view within the organizational hierarchy. With the tight integration between the Workforce Profile subject area, with its dashboards and metrics, and the underlying HR system of record, managers can view up-to-date workforce counts, something that has eluded most organizations to date and helps HR build credibility with Finance.



FIGURE 3: Workforce Profile

### HR Performance

From the HR Performance dashboard, operational managers can correlate financial measures with key workforce metrics to demonstrate HR’s strategic value in the workforce. For example, the top two graphics in Figure 4, show rising revenue per employee in the Employee Productivity chart and rising contribution per employee in the Return on Human Capital chart. These trends indicate a potential problem with turnover. But, in fact, looking further, the Employee Expense Trend chart shows overtime expenses trending sharply up, as are contracting expenses shown in the Key Variable Cost Drivers chart. With this information, managers can move to reduce overtime costs or contractor costs, such as hiring full time staff at lower and more stable salary costs.



FIGURE 4: HR Performance

## Compensation

Using the Compensation metrics and dashboards, financial officers and compensation specialists can monitor the costs of payroll, overtime and variable compensation. Managers can view performance by company pay levels, comparing these either within the company’s own structure or to external competitive benchmarks (compa-ratios). Compensation specialists and managers can link compensation with worker performance as shown in the Figure 5. With this view, managers can analyze high performers with potential to fine tune their rewards to ensure their retention, thereby optimizing compensation plans while managing costs.

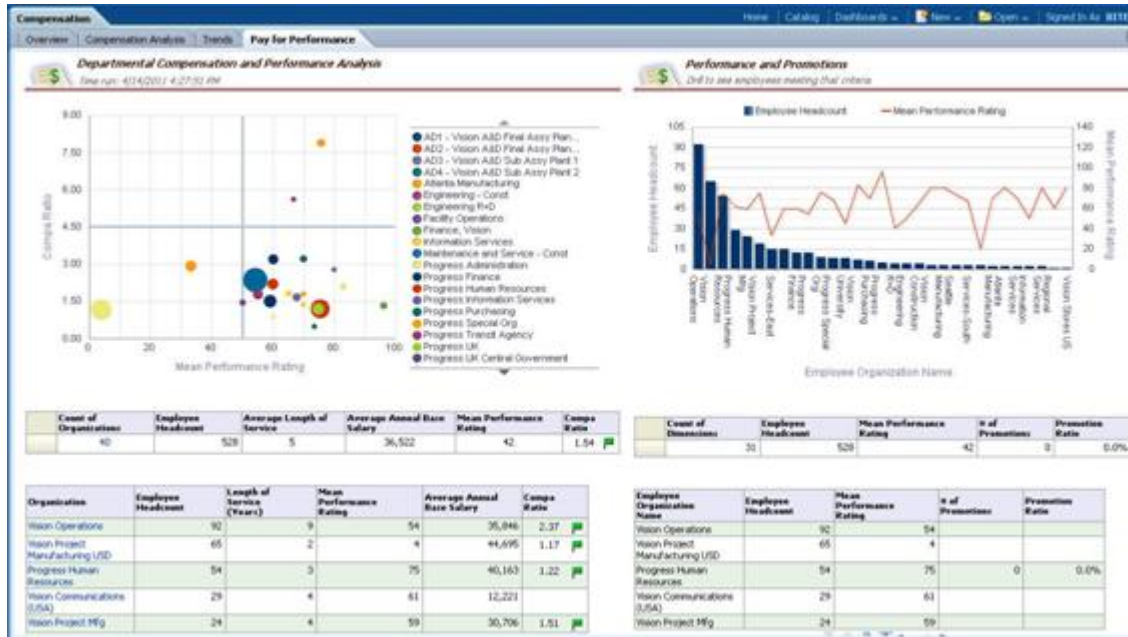


FIGURE 5: Compensation

## Recruiting

The Recruiting dashboards and pre-configured analytical workflows provide a complete set of recruiting metrics that measure the efficiency and effectiveness of the entire recruitment life cycle, from pre-hire to post-hire employment. (Note the available tabs in Figure 6.) It enables optimization of candidate sourcing; analysis of the recruitment pipeline and “hire-to-retain” process efficiency; analysis of time to fill to support optimization; monitoring of vacancies; and measurement of quality of hires and their retention by source. Providing this comprehensive ability to monitor quality of hire differentiates Oracle’s HR Analytics for the recruiting process; it does not stop at hire, but continues through employment and beyond to provide an ongoing quality of hire analysis.

With the Recruitment subject area, recruiting specialists can see job applicants, hire ratios, and retention rates by recruiting source. They can drill into performance of new hires to assess the quality of these hires. By analyzing these effectiveness metrics, an organization can fine tune its recruiting strategy, balancing costs, retention, and performance.

Through the Retention subject area and its dashboards, managers can view the voluntary turnover for top performers and can drill down to see the reasons they are leaving. Then, guided through a set of workflow analyses, they can determine corrective actions to address any retention issue. Users can monitor performance at first service milestone of new hires, along with separations and separation rate, assisting them to gain a total picture of new hire quality.

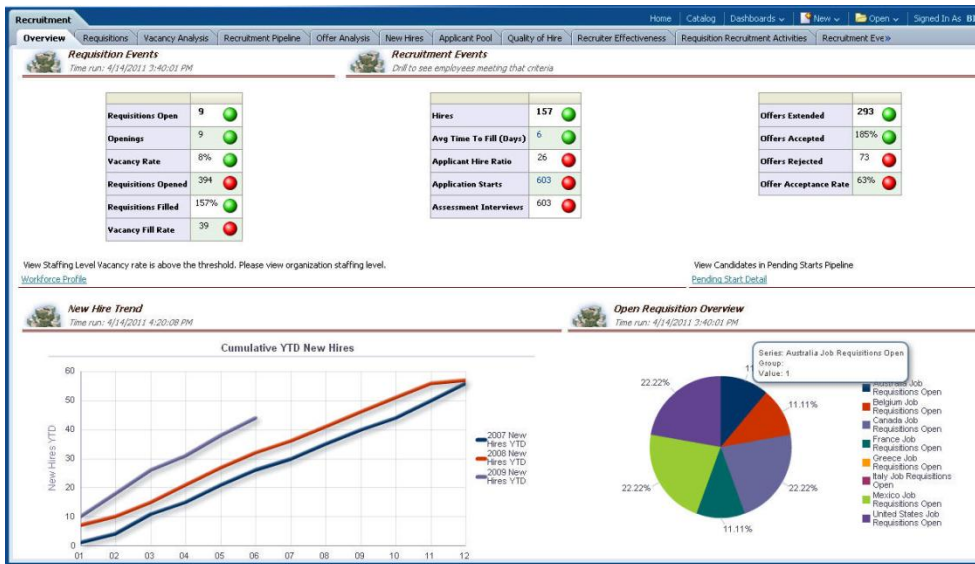


FIGURE 6: Recruitment Life Cycle Insight

### Learning Enrollment and Completion

From the Learning Management metrics and dashboards, specialists can assess learning offerings and how those programs affect employee performance and tenure. They can monitor learning offering effectiveness and the costs to deliver by delivery option. For example, users gain insight into learning demand through top enrollments by job (see Top 10 Enrollments in Figure 7), delivery methods, or organizational units and can identify the courses with the longest wait time (see Longest Average Enrollment Wait Time in Figure 7). With this information, they can fine tune the overall learning program, perhaps adding more courses or eliminating those not well attended.



### Absence

From the Absence subject area metrics and dashboards, specialists and managers can monitor planned and unexpected absence events to gain greater insight into lost productivity and the cost impact of unplanned absences, as well as staffing. The Absence Overview dashboard, (see Figure 8) shows staffing levels, absence rates, and trends at a glance, along with a scorecard view of absence by location, enabling managers to immediately pinpoint problems and from there drill down to causal factors where action can be taken.

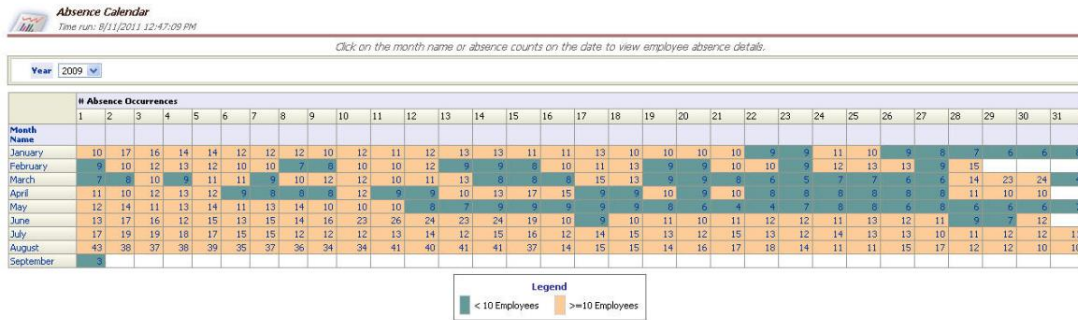


Figure 8: Absence Overview

## US Statutory Compliance

HR no longer needs to run individual reports, but now from a single dashboard launch pad, can monitor US EEO, AAP, Vets100, and other compliance reporting to view the state of compliance to determine if action is necessary. Users can decide on next actions by navigating to other dashboards to further analyze issue areas such as workforce diversity.

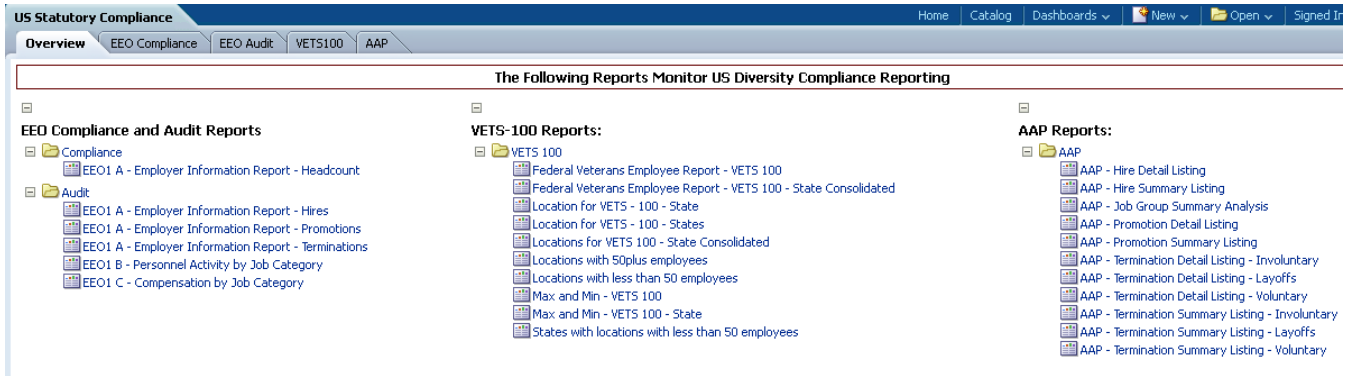


Figure 9: Compliance Overview



### Available as a Mobile Application

HR Analytics dashboards can also be deployed as a mobile application to smart phone and tablets without additional development efforts. Mobile BI is a new feature that comes with OBIEE 11g and is available to deliver all out-of-box 7.9.6.3 OBI Application dashboards.

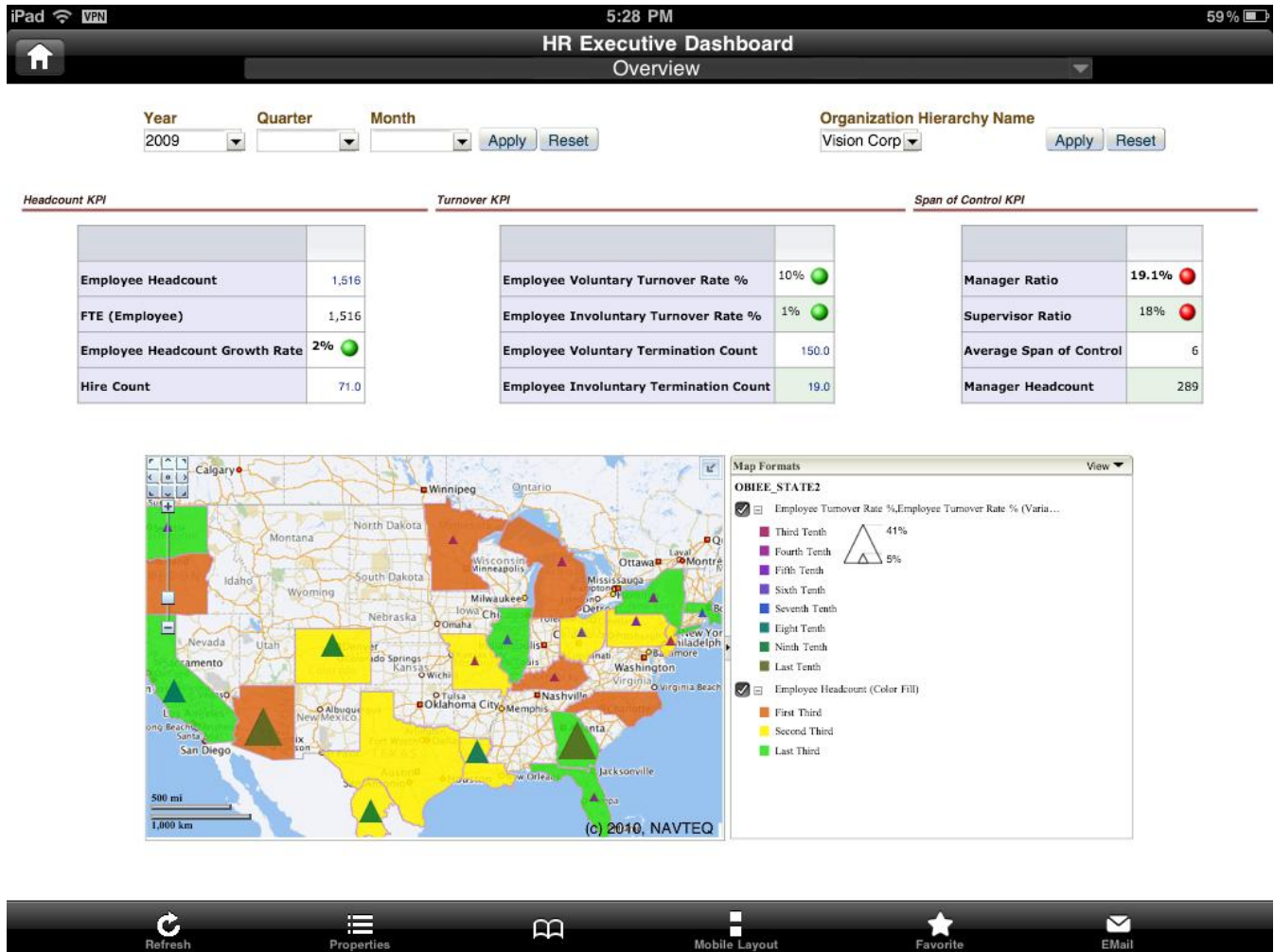


Figure 10: Mobile HR Analytics

## A Case Story

### *Large Brokerage Firm Uses Dashboards to Deliver Key Workforce Insight to Its Managers*

**Industry:** Large brokerage

**Employees:** Over 10,000

#### **Oracle HR Products**

PeopleSoft Enterprise - Human Capital Management v8.9  
HR  
Payroll  
Compensation  
OBIEE  
BI Publisher  
HR Analytics

Choosing OBI and HR Analytics *“was the best decision we could have made and we would do it over again. It was a very successful project that we were able to get up and running very quickly, with minimal user training and at a low cost.”*

#### **Vice President of HR Technology and Operations**

This large brokerage firm supports individuals and businesses in growing their investments and manages over \$1 trillion in assets. As with any financial services organization, the recent economic downturn impacted technology budgets. As it began to move from lean times, the executive group realized its managers needed improved data and analytics about their workforce. Stakeholders wanted information on attrition, diversity, compensation and hires by job family – really basic information about talent. There were long delays and much manual effort in retrieving and merging data from multiple sources to produce holistic reporting about the organization’s talent. The IT and HR groups were unable to provide “metrics at the fingertips” for managers. As for many organizations, these metrics are exactly what it takes to remain competitive and to excel.

#### **Key Benefits:**

- Less costly to implement pre-built warehouse, ETLs, metrics and reports than to build from scratch.
- Significantly less time to deliver results – key metrics and analyses can now be delivered in less than two days, where it used to take two weeks or more.
- The use of HR Analytics is helping the firm move towards evidence-based decision making, eliminating rumors and gut feel

To support reporting and analytics, the firm was using PeopleSoft Query against PeopleSoft, MS Access, and various reporting tools provided by the talent management solutions that it used for recruiting, learning management, and compensation. Nothing was integrated except for what was in the PeopleSoft HCM 8.9 repository (HR, payroll, and compensation data), with most of the really valuable talent data residing elsewhere. The firm had also experimented with a standalone analytics product available in the cloud. It was always a “mad scramble” to consolidate the data from various sources for input to it and there were security issues. So, the IT group looked at developing its own corporate data warehouse and reporting engine. But then “the economy intervened” and plans for custom development had to be scratched. Oracle presented OBIEE and HR Analytics and the solution was compelling given the delivered PeopleSoft integration/ETL along with the HR metrics, reports, and schema.

Once the combined IT and HR business team defined the direction and desired metrics for talent, it took just five short months to go live.

IT supports HR: PeopleSoft, self service applications, time applications, interfaces, and now Oracle Business Intelligence and HR Analytics. IT partners on all projects with HR. HR does the business requirements; IT manages and runs the solution. Development and implementation was a tight collaboration of HR and IT, using an Oracle Business Intelligence implementation partner as budget permitted. The IT staff received some training, but the solution required no training of executives or line managers, other than to provide metrics definitions. This BI/Analytics project is the first project where business users build reports to meet their needs without IT support.

Once the firm got OBIEE and OBIA installed, “the technical team had the ETL configured and running and pulling data from PeopleSoft in one day”, reports the Technical Director. The team used the delivered Universal Adaptor tools to build ETL maps to load data from their SaaS-based recruiting and learning management vendors. The majority of its dashboards and reports are custom. The OBIEE toolset made it easy to create the dashboards and reports once they had the data in the warehouse tables and the metadata defined. They now

have strategic, transactional and compliance metrics in OBIEE to provide an executive level experience with their metrics reports.

*“We started in July, 2010 and went live in five months with installed servers, hooking ETLs to PeopleSoft, and developing dashboards. We required no training for our executive business users other than what the metrics mean.”*  
**Technical Director within IT responsibility for Human Resources**

### **Providing Metrics to Foster Manager Accountability**

The 120 end users are in three groups today. There is a team of HR analysts, supported by IT, that pulls data, builds charts, and provides drill downs. Another group is comprised of the executive officers and their administrative aides. The third group is made up of recruiters and HR generalists who provide strategic HR services to the executives.

The executives are keenly interested in talent attrition now that the economy is improving. They have used the dashboards to address rumors on Employee Turnover. For example, executives were able to use HR Analytics to dispel a rumor about escalating turnover and show that, in fact, it was declining. With attrition issues, the executives can make compensation decisions for employees at risk of leaving by reviewing market compensation ranges for relevant job groups and responding fairly. The use of HR Analytics is helping the firm move towards evidence-based decision making, eliminating rumors and gut feel.

Recruiters can forecast hiring needs, see historical hires with trends, and view total time to fill and thereby work to fine tune hiring approaches.

Feedback is positive. “It has been a success. The initial users love the real time metrics. And they didn’t need much training,” reports the IT director.

### **Next Steps and Lessons Learned**

The development and support team for HR analytics are currently working to provide a **Manager dashboard** with a single integrated array of metrics related to the areas for which managers are accountable: hiring diverse talent, improving productivity and engagement of talent, developing talent, and retaining key talent. Analyses that used to take months to complete can be delivered in days. From the current set of 120 users, they will quickly roll out to 300+ more officers and to 1200 users by next year, budget permitting.

Future plans for HR Analytics are to support strategic workforce planning. As the firm’s baby boomers will be retiring, they need to be able to see where retirements will have the biggest impact by location and take action.

The most significant lessons learned from the project were the importance of working out up front the metrics the executive group needs and of mocking up potential solutions for them to test, not just using what is delivered. Other lessons included doing thorough performance testing for the end state user base and obtaining guaranteed funding up front for the required servers and technical support.



## Benefits and ROI

Oracle HR Analytics offers two key financial benefits that will appeal to C-level executives. The first is the cost savings of purchasing a pre-built solution versus developing a custom, in-house solution. The second, more valuable, financial benefit is the business value added by the ability to address workforce issues with the insight to action functionality available through the Analytics Framework and analytical workflows.

### The Value of a Pre-Built Solution

A pre-built data warehouse, embedded analytics in key business processes, pre-built metrics with standard definitions, and role-based dashboards, are cheaper to implement in terms of total cost of ownership and faster time to value than building such a solution from components. This is one of the benefits recognized in the financial services case story above. The delivered detailed integrations and data models that support the analytical workflows all contribute significantly to a reduction in costs compared with developing from scratch. Figure 11 summarizes this value proposition by comparing the relative time to build from scratch using component BI tools versus deploying with the Oracle BI applications.

The bottom line is a **lower total cost of ownership**. The pre-built solution reduces the need for IT and HRIT development and reporting labor costs, cuts down on customizations, and eliminates the need for 3<sup>rd</sup> party licenses and maintenance agreements, by giving organizations a single solution that enables integration with any data source and system. Also, the added value of educating both IT and business users not previously familiar with analytics on what metrics and dashboards make sense for the various HR processes is priceless. This familiarity can further be translated into easy development of new dashboards to address other workforce issues unique to the organization.

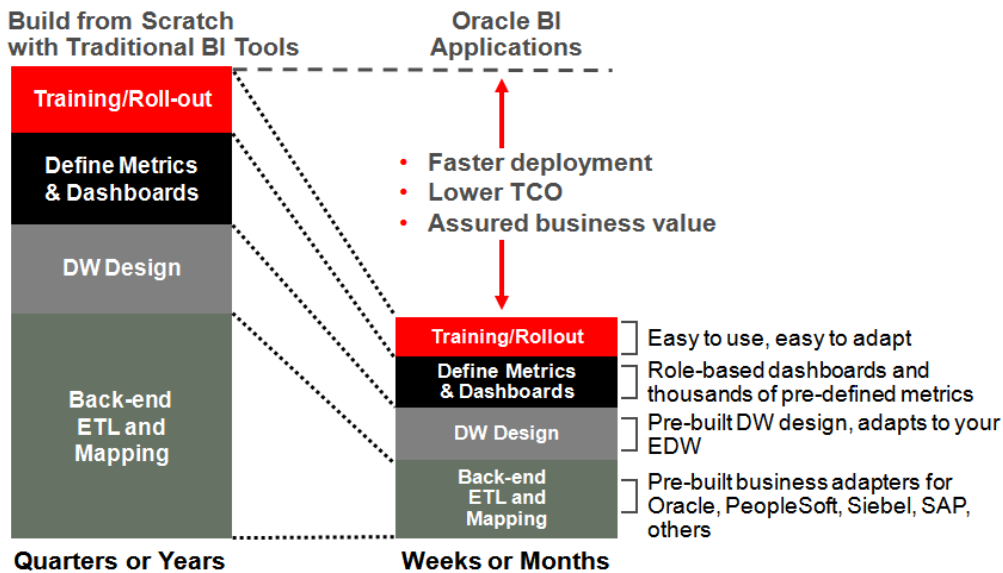


Figure 11: The Value of Pre-Built Analytics

### Business Value Adds Up

More important even than a lower total cost of ownership of the technology, Oracle's HR Analytics can contribute business value in many other ways which will resonate with your CEO, CFO, and CHRO. The CEO is interested in knowing which workforce segments create the most value and by how the business will be impacted by impending retirements and whether the organization is prepared for them. The CHRO, knowing that costs are carefully scrutinized, wants to be able to show the CFO that HR delivers employee services cost effectively. The CHRO also knows the importance of minimizing top performer turnover, managing internal versus external hiring costs, and optimizing salaries and benefits. Line managers want to know how much money is being lost each day by not having hires in place and how that impacts current projects. They also want to know how turnover is impacting customers, productivity, innovation, and

quality of product. Long range planners want to know what skills will be needed in the next five years and how they can best be acquired or developed.

To answer these questions, Oracle's HR Analytics brings together multiple content areas, merging finance, customer, operational and HR cost data to provide workforce costs, and merging project and HR data to provide workforce productivity data to result in value such as:

- **Minimized risk of losing key talent:** By being able to see the revenue generated by high performers and the competencies they hold, and being able, through turnover analysis, to determine if any are at risk of leaving and whether the revenue stream they generate can be protected or if the cost of replacing them can be avoided.
  - What about the impact of turnover on product innovation? Within the manufacturing sector, research by National Center for Manufacturing Sciences from the early 90s indicated that getting to market a month earlier than internal plan projections improves profits an average of 3.1% and beating the competition by six months improves profits by nearly 12%.<sup>8</sup> Whether or not these exact metrics still apply, it is clear that knowing which people with which competencies support faster time to market can optimize revenue.
- **Managing internal versus external hiring costs:** By being able to see the cost tradeoffs of hiring external versus internal talent and the interplay of the costs of development for either group, organizations can achieve lower costs of hiring and development. Organizations may also achieve increased revenue with the best mix of internal and external hires. Hiring from internal sources, for example, appears to deliver value faster.
  - Internal hires, according to the Mellon Financial Corporation's Learning Curve Research Study, come to productivity about 50% faster than external hires.<sup>9</sup>
- **Avoiding over- or underpaying salaries and benefits:** By comparing current salaries and benefits with market benchmarks organizations can avoid overpaying. They can also avoid underpaying employees, which may result in increased turnover and new employee acquisition costs which.
- **Avoid costly exodus of baby boomers:** Understanding the retirement plans of an older workforce that has key skills, contacts, and knowledge of business strategies, will facilitate planning of alternatives to retirement such as promotions or different compensation packages. Keeping these employees happy is important to customer satisfaction and can minimize loss of revenue from loyal customers currently handled by these workers. Numerous studies<sup>10</sup> support this notion of a link between employee satisfaction, customer satisfaction, and financial results. It is a worthwhile effort within corporations to review this causal link for themselves and to address the levers that make sense.
  - For example, research by Watson Wyatt Research in 2002 identified employee satisfaction with the work environment as a leading indicator of increased shareholder value.<sup>11</sup>

### Example of ROI, IRR, and Payback Period from Oracle Value Analysis

Oracle provides a Value Analysis service to selected prospects in which their specialists deeply analyze current processes and costs and compare them to future processes and costs with the addition of new technologies such as business intelligence and analytics. For example, an analysis of a \$1 billion company that was considering Oracle HR Analytics estimated 5-year savings ranging from \$1.75 million to \$2.5 million, with benefit impacts stemming from improved visibility in all talent management areas, as well as absence management and US Statutory Compliance. Specific areas of key value for this organization include:

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<sup>8</sup> National Center for Manufacturing Sciences, FOCUS, October, 1991, <http://www.qualisci.com/NL2.asp?xYu3P=ofxtmfuufst&newsstat=1>

<sup>9</sup> "Getting New Hires up to Speed Rapidly", MITSloan Management Review, Winter 2005, Vol. 46 No. 2. See Footnote 2 referencing original research in Mellon Learning Curve Research Study, 2003 (no longer available)

<sup>10</sup> "Linking Employee Satisfaction with Productivity, Performance, and Customer Satisfaction", Corporate Leadership Council, Corporate Executive Board, July 2003. [www.keepem.com/doc\\_files/clc\\_articl\\_on\\_productivity.pdf](http://www.keepem.com/doc_files/clc_articl_on_productivity.pdf)

<sup>11</sup> Watson Wyatt's 2002 Human Capital Index®, TowersWatson, <http://www.watsonwyatt.com/render.asp?catid=1&id=9047>

- Retention of key performers and their associated customers and revenue
- Better management of hiring costs through identification of the best hiring source delivering improved quality of hires
- Reduced compensation overpayments
- Improved HR staff productivity resulting in the need for fewer HR staff
- Reduced risk of litigation due to non-compliance
- Lower costs of business intelligence development with a pre-built solution.

Five year investment costs ranged from \$0.9 million to \$1.25 million to cover software, implementation, and change management. Five year pretax ROI, pretax internal rate of return (IRR), and investment payback period expectations ranged as follows:

	PESSIMISTIC	PROBABLE	OPTIMISTIC
5-Year pretax ROI	100%	140%	200%
5-year pretax IRR	45%	60%	80%
Payback period	29 months	24 months	21 months

It is easy to make the case for Oracle HR Analytics. Technical and analytical staff time is minimized and replaced with the automatic generation of reports and dashboards delivering significant cost savings. But the strategic value that early adopters are achieving with workforce analytics is where the real value lies.

## Maximizing Success – Next Steps

While the benefits of implementing Oracle’s HR Analytics are compelling, organizations will not achieve them unless they deploy the application successfully. At CedarCrestone we derive huge benefits for our customers in our implementation work by adhering to best practices. The most significant of these best practices include:

1. **Invest in data cleansing to correct or remove inaccurate data.** The volume of data used in reporting and analytics is often quite large. Organizations frequently have multiple sources of the same or similar data and the preferred source needs to be agreed upon. We encourage a realistic evaluation of data availability, the allocation of sufficient time to clean and align data sets, and early agreement on preferred sources for, and definitions of, simple metrics such as headcount. Your organization likely already has a single system of record for employee data. If not, we recommend that you move to a single system of record and standardize your processes as a way to support clean data collection. Clean data makes for improved reporting and will be the source for trusted metrics.
2. **Focus data and analysis on business results.** Look for key organizational, talent-related pains to address with your initial efforts – don’t just implement a technology project. Start with a limited number of key metrics and dashboards that contribute to addressing your organization’s workforce issues, but be prepared to expand.
3. **Help your end users understand how to use metrics and dashboards.** In order to help users be effective in solving their own business problems, they will first need to understand what the metrics are telling them, so at minimum, share definitions. But also familiarize them with the notion of an analytical workflow so that they will get used to looking at issues broadly, and diving into underlying factors that impact them, and ultimately to begin to see ways in which issues can be addressed.
4. **Start with the goal in mind.** Your organization today may use simple metrics and reports, do analysis in Excel or have a standalone analytics solution. To institutionalize metrics-based management, a more complete technology environment will ultimately be needed. Develop a technology blueprint that includes everything you will need – reporting, warehouse, analytics, presentation through dashboards or other visualization approaches, and notification and distribution along with

the integrations needed to financials, customer-facing data, and operational data sources. The Oracle products provide this complete technology infrastructure. Review the performance requirements for the initial and projected user bases and make sure you size your database servers appropriately or request adequate funding for projected growth.

5. **Plan for incremental deployment.** The taste of an organization for data and analytics will evolve, as seen in the financial services example above. Start small with your metrics but plan to deploy more over time. Build in flexibility as you prepare to respond to the inevitable increased demand from users for new and additional analytics. Again, the Oracle HR Analytics pre-built solutions can support your deployment needs and will evolve as your needs evolve.
6. **Use a data-driven business case.** We develop an analytical framework for the business case that can serve as a baseline for the organization to track the performance of its workforce management processes and support further needed investments. Use the HR Analytics solution to provide ongoing business impact results.
7. **Manage change.** If your organization is not already driven by numbers, metrics and analytics, getting to that level will be major a shift, not only for your technical and functional experts, but also for operational managers. Do not underestimate the cost of change management to ensure a successful deployment.

## Conclusion

To address the uncertainties of economic and political conditions, business leaders must be able to constantly fine tune decisions about their workforce. Fortunately, it is now possible for organizations to excel in answering questions about their workforce and making decisions to optimize the workforce through the power of metrics and analytics. Oracle's HR Analytics delivers comprehensive dashboards, along with logical analytical workflows through the Oracle Action Framework that deliver insights from available information to support actions. An investment in this product today is also a bridge to Oracle's Fusion products.

### *Visit Oracle.com and Contact your Oracle Sales Representative*

To put Oracle HR Analytics in context, see the following:

1. Oracle Enterprise Performance and Business Intelligence  
[http://www.oracle.com/solutions/business\\_intelligence/index.html](http://www.oracle.com/solutions/business_intelligence/index.html)
2. Oracle Business Intelligence Foundation: <http://www.oracle.com/technetwork/middleware/bi-foundation/overview/index.html>
3. Oracle Business Intelligence Applications and specifically Oracle HR Analytics:  
<http://www.oracle.com/us/solutions/ent-performance-bi/hr-analytics-066536.html>
4. Contact your Oracle Sales Representative to discover what Oracle HR Analytics can do for your organization.

### **About the Author**

As director, research and analytics at CedarCrestone, Lexy Martin is responsible for its annual HR Systems Survey, now in its 14<sup>th</sup> year. When not working on the survey, she provides strategy, business case, and metrics and analytics services, along with deep dive benchmarking in all industries. Working with many of the leading HCM vendors, she has helped develop their value propositions and conducted numerous surveys of their customer bases. Lexy is also managing editor for the IHRIM *Workforce Solutions Review*.



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Investment  
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