

INTRODUCTION

The explosive growth of ecommerce and the complexity of omnichannel distribution have created new and formidable challenges for the logistics industry. In recent years, logistics companies have invested in various types of technology to help them keep pace with emerging market trends and maintain a competitive edge. Technology solutions — from shipping and tracking systems to RFID and robots to warehouse management systems — have helped these organizations control costs, improve productivity, and deliver superior service to customers.

Having successfully leveraged automation to achieve new levels of operational efficiency, logistics companies are now turning to technology to better understand and optimize their most valuable resource: their employees. This white paper discusses the crucial role that people play in the supply chain, presents strategies for building flexibility and agility into the workforce, and explores how metrics and data-driven insights can help organizations optimize the workforce for better business outcomes.

PEOPLE POWER THE SUPPLY CHAIN

While technology plays a pivotal role in today's logistics industry, people continue to power the supply chain. The workforce — from inventory control managers and customer service representatives to order pickers and forklift operators — keeps the supply chain moving efficiently and responsively. Because warehouses, distribution centers, shippers, and third-party logistics companies run first and foremost on people, the ability to optimize the workforce can make or break a business — especially in a competitive market with razor-thin margins.

The current talent shortage, however, is making it difficult to build and maintain a high-performing workforce capable of meeting rising service expectations and driving profits. Between 2010 and 2020, the number of available jobs in the supply chain will grow by 26 percent. Currently, the demand-to-supply ratio of jobs to qualified individuals is six to one. In a few years, that could be as high as nine to one. With such fierce competition for talent, an organization's ability to attract, engage and retain quality workers will be critical for achieving sustained growth. "This issue isn't just for entry employees, but is most significant when looking for candidates with around ten years of experience. This is a group everyone wants, but is scarce," says Karl B. Manrodt, Ph.D., professor of Logistics at Georgia College. "Tomorrow's problem can only be solved by planning today, and bringing along the right people."

But finding and keeping best-fit employees is just the beginning. Because labor typically accounts for more than 50 percent of all operating costs in the logistics industry, effective workforce management is necessary to avoid budget overspend that can eat into already thin profit margins and erode the bottom line. A recent benchmark study revealed that three of the top employee metrics tracked by best-in-class logistics organizations — annual turnover rate, overtime hours to total hours, and unplanned absence percentages — are directly related to labor costs.³

¹ Amy Clark, Four Reasons for the Supply Chain Talent Shortage, Part 1, Supply and Demand Chain Executive (February 1, 2016), found at http://www.sdcexec.com/article/12154883/four-reasons-for-the-supply-chain-talent-shortage-part-1.

²Society for Human Resource Management (SHRM), SHRM Customized Benchmarking Service (Unpublished data), 2014.

³ Joseph Tillman, CTL, SCOR-P, Karl Manrodt, PhD, and Donnie Williams, PhD,, *DC Measures 2016*, WERC Watch (Spring 2016), at 6.

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Karl B. Manrodt, Ph.D., Professor of Logistics Georgia College According to the American Trucking Association, the turnover rate at large truckload carriers increased one percentage point to an annualized rate of 97% in the third quarter of 2014. Warehouse employees also have high turnover rates, and shortages in the availability and quality of labor may have a lasting effect on a firm's ability to compete effectively.⁴ Given these challenges, understanding workforce churn and its impact on business results is fast becoming a top priority for logistics companies. Direct costs such as overtime, temporary labor, recruiting, and training can add up quickly, while indirect costs related to employee burnout and poor morale can reduce productivity and service quality, ultimately hurting the bottom line.

How can logistics companies address these challenges to help ensure competitive, profitable operations moving forward? Organizations need to take immediate steps to attract and retain top talent. They need to optimize their people resources by building flexibility and agility into their workforce. And they need to put processes and systems in place to track key workforce metrics and leverage data to better manage labor costs, performance, and engagement.

A THREE-STEP FORMULA FOR SUCCESS

Successful logistics companies are able to adapt and respond to ever-changing market conditions and customer demands faster and more effectively than their competitors. How do they achieve this level of responsiveness? It starts with recognizing employees as a key strategic asset and investing in tools and processes to drive more effective workforce management.

Organizations can lay the foundation for workforce optimization by applying these best practices:

- 1. Equip your workforce to be flexible and agile
- 2. Establish aligned metrics to drive corporate goals
- 3. Leverage real-time workforce data to gain actionable insights

The following sections will expand on these recommendations and describe how they can help logistics companies manage their workforce to better meet supply and demand requirements and drive profitable growth.

EQUIP YOUR WORKFORCE TO BE FLEXIBLE AND AGILE IN A DYNAMIC ENVIRONMENT

In order to operate successfully as part of a flexible and agile supply chain, logistics companies must build flexibility and agility into their workforce. While the terms "flexibility" and "agility" are often used interchangeably, they actually describe distinct capabilities — both of which are needed for a workforce to execute quickly and effectively in an ever-changing environment.

⁴ Kelli Saunders, Coming and Going: A Look at Employee Turnover in the Logistics Industry (March 5, 2015), found at http://morailogistics.com/coming-and-going-a-look-at-employee-turnover-in-the-logistics-industry.

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In the context of workforce management, flexibility describes the ability to adapt to a wide range of environments and circumstances. A flexible workforce is equipped to handle conflict, ambiguity, and change — from supply chain delays to a sudden spike in customer orders — in a variety of ways. Agility, on the other hand, describes the ability to respond *quickly* to dynamic changes and transform unexpected challenges into opportunities. An agile workforce can respond to all kinds of changes — even disruptive ones — with speed and ease. It's important to note, however, that workforce agility can only be achieved when an organization has developed a flexible workforce.

Building a Flexible Workforce

A flexible workforce can help logistics companies respond more effectively to changing environments. There are three types of workforce flexibility that can help organizations stay agile:

Functional flexibility is achieved by developing adaptable employees with a broad range of cross-functional skills and a willingness to take on new challenges. Managers can reassign these employees to different jobs and tasks within the company as needed to maintain service levels. This type of flexibility requires a corporate commitment to investing in continuous employee development using internal or external training resources.

Numerical flexibility is the ability to adjust the quantity of human resources by changing the hours that employees work. This type of flexibility requires employees who are able to work longer hours when needed or to work at multiple locations on different schedules — criteria which can make it more challenging to recruit and retain best-fit workers.

External numerical flexibility is based on adjusting the numbers of employees by supplementing the existing workforce with temporary employees or individual contractors. While this type of flexibility makes it easier to respond to fluctuating demand, it can add cost and risk if temporary workers lack proper training or a shared commitment to excellence.

Source: Robert A.W. Kob and Paul E.M. Ligthart, *Differentiating Major and Incremental Development: The Effect of Functional and Numerical Workforce Flexibility*, Product Development and Management Association (2016), at 32-35.

The more flexible the workforce becomes, the more agile it can be in responding to changes and challenges. From human resource (HR) and operational perspectives, building a flexible and agile workforce can create a strong competitive advantage and drive better business outcomes by improving overall productivity and responsiveness.

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ESTABLISH ALIGNED METRICS TO DRIVE CORPORATE GOALS

Developing and optimizing a flexible, agile workforce is a complex and ongoing process that cannot be performed in a vacuum. To make workforce decisions that support corporate goals, HR leaders and operational managers need to understand how the organization is performing by defining and tracking the right set of metrics. According to HR thought leader John Sullivan, PhD, "the single largest difference between a great HR department and an average one is the extensive use of metrics." 5

Logistics companies that delay tracking workforce metrics until they encounter significant performance problems may be putting themselves at risk. This kind of reactive management leads to increased costs and inefficiencies while making it nearly impossible to align operational performance with strategic priorities. Establishing and monitoring key HR metrics better enables organizations to manage the workforce proactively and make more informed business decisions.

Because collecting data and calculating HR metrics is no small undertaking, it's important to focus on the ones that really matter; tracking too many metrics can be overwhelming and counterproductive. "We recommend three to five key metrics to keep the organization focused on what's important," explains Manrodt. Determining which metrics to measure and report will depend on an organization's strategy and goals, so collaboration among company leaders is strongly recommended. For example, when HR leaders enlist the help of the chief financial officer in selecting those HR metrics that are most likely to measure business impact and be considered strategic by top management, they not only eliminate potential roadblocks, but recruit a high-level champion at the same time. This approach helps HR focus on those metrics that support operational managers and most directly impact progress toward business goals.

Some of the most powerful and commonly used HR metrics include:

Employee turnover: Tracking turnover not only helps an organization budget more accurately for replacement and training costs, but it alerts HR and operations to potential problems, such as noncompetitive salaries or low employee engagement, that require immediate attention.

Overtime costs: Reliance on overtime can quickly send labor costs spiraling out of control. Tracking overtime can help managers identify patterns, understand relationships to demand, and limit use only to those circumstances where it makes good business sense.

Employee mix: Tracking the number of part-time, full-time, temporary, and contract workers — and how that correlates to supply and demand — helps organizations maintain an optimal employee mix that balances service and cost.

Unplanned absences: Tracking employee time off provides insight to help control the costs of unplanned absenteeism including overtime pay and temporary replacement labor. The more accurately time off is monitored and managed, the better organizations can plan and budget for unplanned absences.

⁵ Dr. John Sullivan, *HR Metrics the World Class Way, Kennedy Information, Inc.*, Peterborough, NH (2003), at 9.

⁶ Dr. John Sullivan, *What are the Best HR Metrics for a Large Organization?*, ERE Media (July 26, 2004), found at https://www.eremedia.com/ere/what-are-the-best-hr-metrics-for-a-large-organization.

Cross-training: Because cross-training is fundamental for building functional flexibility into the workforce, it's important to track employee skills and certifications. These metrics make it easier for managers to fill open shifts or replace absent workers with qualified employees to meet service level agreements and minimize compliance risk.

Workforce management technology captures the pertinent data, including labor hours and costs, absences, leave, schedules, skills, certifications, and more, needed to calculate and track employee metrics and stores it in a single, unified database. Access to centralized employee data provides a wealth of information that can be extracted to evaluate performance and keep the workforce aligned to meet — or exceed — performance standards and achieve corporate goals.

Workforce analytic tools transform labor data from multiple sources — time and attendance, scheduling, payroll, job activity tracking, and more — into actionable business intelligence.

LEVERAGE REAL-TIME WORKFORCE DATA TO GAIN ACTIONABLE INSIGHTS

Workforce metrics are valuable tools for assessing and improving HR practices that support achievement of strategic business objectives. Workforce management technology not only captures the data behind the metrics, but it also enables you to leverage that data for real-time visibility into critical workforce processes. System reports and dashboards present visual displays of key data, making it easy for managers to identify trends, spot potential problems, and take steps to get performance back on track. Conversely, visibility into high-performing teams enables HR to model that structure with Operations and use it as a benchmark for driving improvement across the enterprise.

Data-driven insights can help HR leaders and operational managers build and maintain a high-performing workforce and better control the impact of employee behavior on the bottom line. Consider these examples:

Absenteeism: By identifying patterns where absenteeism leads to use of temporary or replacement workers and overtime, organizations can examine and address the issues that increase absenteeism in the first place, thereby saving significant costs over time. For example, they may choose to implement more flexible work schedules or introduce wellness programs that help employees deal with health issues and stress.

Overtime: Viewing overtime costs by department, manager, and individual employee can also yield important insights. Are the overtime hours within acceptable limits, and if not, which locations, teams, and employees are consistently exceeding established guidelines? Armed with this information, HR can work with managers to determine more cost-effective solutions, such as optimizing shift schedules to meet operational demand, training managers in more efficient scheduling, or hiring more employees to avoid chronic understaffing.

Turnover: A recent study revealed that losing an employee can cost anywhere from 16% of their salary for hourly, unsalaried employees, to 213% of the salary for a highly trained position. Leveraging workforce data to determine employee engagement and turnover trends can help control the costs associated with low retention rates. For example, if new hires are leaving within the first 30 days, an organization may want to review its onboarding processes.

⁷ Julie Kantor, *High Turnover Costs More Than You Think*, The Huffington Post (February 11, 2016), found at http://www.huffingtonpost.com/julie-kantor/high-turnover-costs-way-more-than-you-think_b_9197238.html.

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While standard reporting provides a great deal of useful information, analytics can make data work even harder to inform workforce optimization strategies. Workforce analytic tools transform labor data from multiple sources — time and attendance, scheduling, payroll, job activity tracking, and more — into actionable business intelligence. These insights help organizations uncover hidden costs and capacity within the workforce and make data-driven decisions to maximize efficiency and boost service quality for more profitable operations.

Many workforce management solutions include sophisticated analytics that provide real-time visibility into workforce costs and productivity trends by location, enabling managers to identify problem areas and outliers, drill down to root causes, and take steps to maintain service levels and profit margins. For example, if labor costs are running over for the week in certain distribution centers, managers can figure out the source of the problem by taking a closer look at actual, overtime, nonproductive, and unscheduled hours.

In an industry facing volatile demand, shorter lead times, and rising customer expectations, labor data analytics can be a powerful competitive weapon. Armed with actionable insights into labor costs, performance trends, and outliers, logistics organizations can stay one step ahead of issues to deliver perfect orders and achieve more predictable results.

Workforce Flexibility and Agility in Action

When a fine tea importer approached a warehouse-based third-party logistics provider (3PL) about storing its raw leaves for a short period, the logistics provider recognized the potential for a long-term business relationship. Although the 3PL was not set up to handle food-grade products at the time, it had a flexible, agile workforce that was ready and able to act on this opportunity and serve the immediate needs of the customer.

As its relationship with the tea importer grew, the 3PL continued to train its employees on processes and regulations related to handling food-grade materials in order to deliver consistently high-quality service. The importer was so impressed that it asked the 3PL to handle the final roasting and packing of the imported tea leaves as well — a request that required additional employee training as well as facility upgrades to meet even more stringent FDA regulations.

While the learning process did not occur overnight, the 3PL management was able to take advantage of the functional flexibility of its workforce to capitalize on an unexpected opportunity —quickly and effectively — and forge a mutually beneficial relationship with the customer. The diverse skill set of the workforce, combined with a corporate commitment to ongoing cross-training and employee development, enabled the 3PL to increase its value-added services and respond to new customer demands with speed and agility

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CONCLUSION

As e-commerce, omnichannel distribution, competition for qualified talent, and customer service expectations continue to grow, logistics companies need to embrace innovative solutions to support their corporate objectives and drive profitable growth. Workforce management technology can help organizations attract, engage, and retain high-quality employees, develop a flexible, agile workforce, and gain actionable insights into trends and issues — before they impact business outcomes.

Our workforce solutions provide the complete automation and real-time visibility logistics companies need to manage and engage their entire workforce — both salaried and hourly employees — from pre-hire to retire. Delivering easy-to-use tools and on-demand access to centralized workforce data, our powerful solutions enable organizations to hire best-fit employees, track costs and performance, and align staffing to fluctuating demand to stay on course — and on budget. Our workforce solutions help forward-looking logistics companies unlock the full potential of their workforce by uncovering hidden capacity, proactively managing costs, and optimizing employee engagement for better business results.

About the Authors



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An Assistant Professor of Logistics/Supply Chain Management at the J. Whitney Bunting College of Business, Georgia College and State University, Dr. Williams teaches classes in Logistics Management, International Trade and the Logistics Environment and Leadership Development in the Masters of Logistics/SCM. In addition, he teaches

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Dr. Williams' current research interests include understanding and overcoming barriers to innovation in the logistics industry; strategic human resource management through talent and workforce management; leadership in the logistics/supply chain environment; and alignment between strategic goals and operational performance.

Dr. Williams' professional experience includes warehouse operations, project management and leadership training. In each of these positions, Dr. Williams learned the importance of the firm's most valuable resource — its people. Understanding the importance of training and developing potential logistics/supply chain talent is what motivated Dr. Williams to enter academia and it is what continues to drive his research today. Dr. Williams' research has been published in the *Journal of Marketing Theory & Practice, Transportation Journal, Supply Chain Quarterly,* and various Warehouse Education and Research Council (WERC) publications.



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Malysa O'Connor is a senior director of the services and distribution practice group at Kronos Incorporated, a leader in human capital and workforce management software solutions.

At Kronos, O'Connor leads product direction and go-to-market strategies for several target industries including field and contract services, financial services, logistics, non-profits, staffing, and transportation. She is also responsible for partnering across sales, services, product development, and customer support to achieve sales growth and customer satisfaction goals.

Under O'Connor's leadership, Kronos has also achieved significant growth in the human capital management (HCM) market as increasingly customers across all industries are leveraging Kronos' HCM suite to attract and retain talent, engage the workforce, and manage all employees — hourly or salaried. O'Connor's efforts in educating the market on the relevance of a comprehensive suite of solutions, which supports a full range of HR and payroll functionality, has led to many new opportunities for Kronos.

Prior to joining Kronos in 2005, O'Connor worked as a product manager at Aspect Software after working as a consultant for Monster.com.

O'Connor earned her bachelor's degree in political science at Ohio Wesleyan University.