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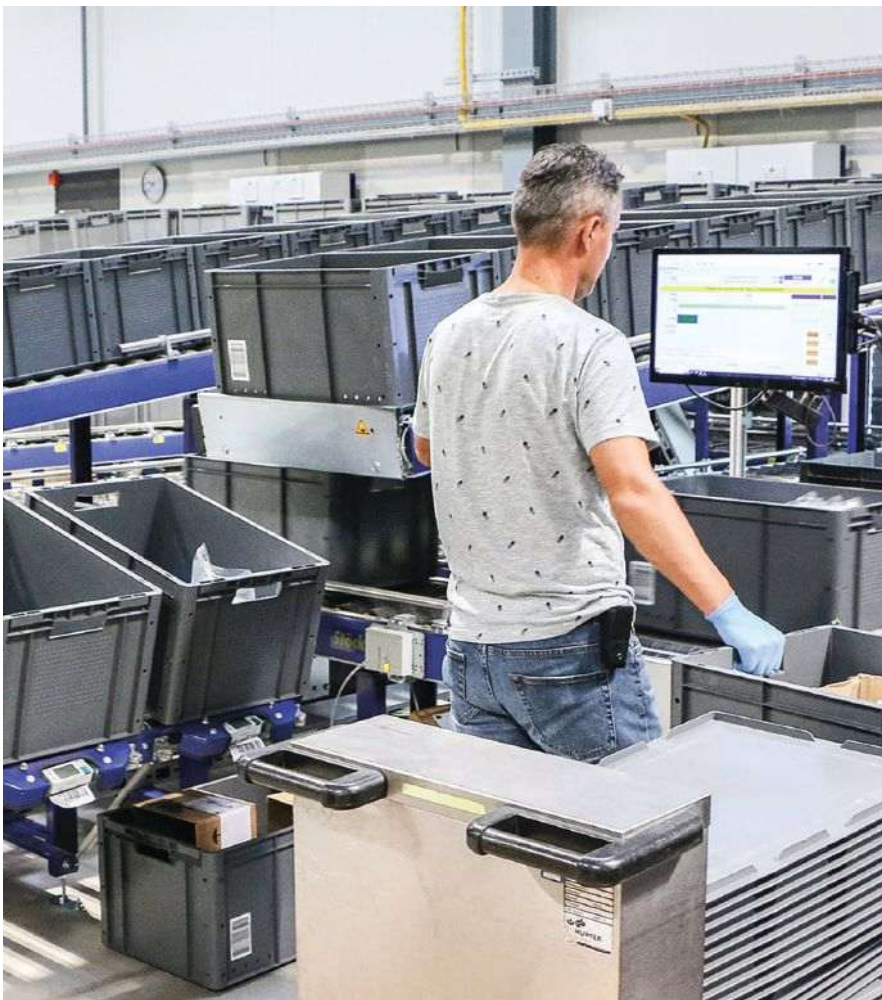
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Labor optimization has never been more important

A convergence of issues is shrinking the workforce. Optimizing the labor you have is critical.



BY AMANDA LOUDIN,
CONTRIBUTING EDITOR

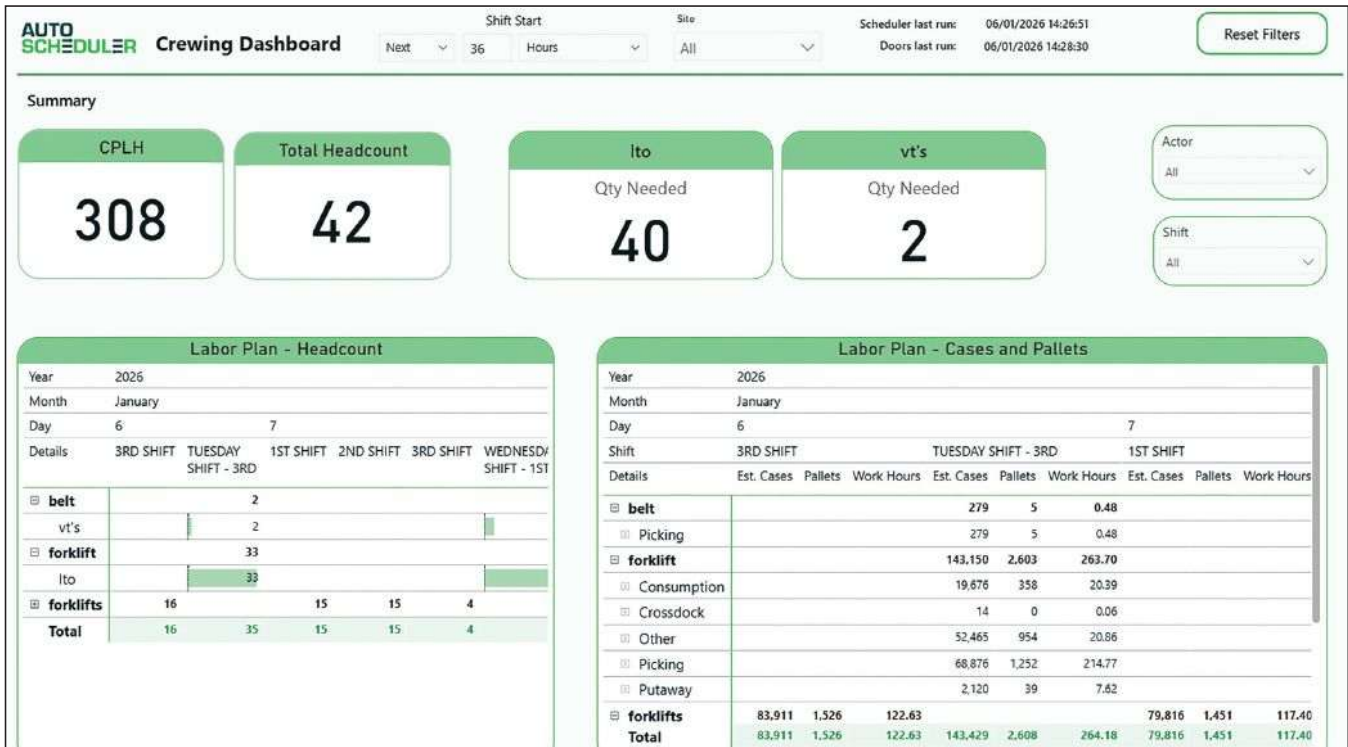
Labor. It's the simple, two-syllable word that's causing warehouses not-so-simple issues.

Since 2000, the labor force participation rate has trended downward—the available pool is shrinking. It's the product of many factors, and they're all converging at once to make this one of the toughest and most expensive issues for any warehouse to solve.

Add to the mix e-commerce growth and rising customer demands for rapid delivery, and the gap between labor needs and reality is widening.

According to the U.S. Bureau of Labor Statistics, logistics jobs are among the fast-growing sectors, but the industry faces turnover of around 30% to 40% annually. The jobs match the three “Ds”:

For many operations, the first step at optimizing labor is a hard look at processes.



AutoScheduler's system harmonizes the data from WMS, warehouse execution systems (WES) and transportation, which enables continuous optimization.

demanding, dirty and dangerous, which makes them increasingly unappealing in an ever-high-tech world.

"Finding labor is a big problem in warehousing," says Keith Moore, CEO at AutoScheduler.AI. "Turnover is a huge issue, especially because loyalty to companies has died."

Moore pointed out that with millennials on down the generational lines, when a better opportunity arises, they jump at it. In warehousing, that means the warehouse down the road offering 50 cents more per hour makes it easy to pick up and leave the one you are in after a short stint.

"The gig economy has played a role, here, too," Moore adds. If driving an Uber on your own schedule offers similar or better pay than working in manual labor, then why would you choose the latter?

Other issues at play include the

aging workforce. The share of the U.S. population that's reaching the age of 65 and leaving the workforce was 17.9% in 2024, and will hit 21.2% by 2035, according to the Economic Policy Institute.

Those aging workers who remain in the workforce are less likely and less able to participate in grueling manual labor jobs. There's also the loss of the retiring management pool, taking its years of experience and know-how with it.

Replacing the aging workforce with younger entrants is also not working in the industry's favor. Millennials, Gen Z and others are increasingly drawn to higher tech positions and avoid blue-collar work. Topping it off, warehouses are increasingly located in rural areas, where the available labor pool inherently is smaller.

"Employees don't want to commute an hour to reach a warehousing job,"

says Lee Rector, founder and CEO of LaborAI.

Finally, the current administration's immigration policies are also a factor. "Warehouses that rely heavily on temporary labor, including those near ports or handling imported goods, are increasingly vulnerable to sudden labor gaps when immigration enforcement actions or workplace raids occur," says Damaris Gruetter, CMO and managing director at Stoecklin Logistics. "These incidents create ripple effects in hiring pipelines, increase worker anxiety and can lead to unexpected staffing shortages that operators must absorb overnight."

With a stack of labor problems, then, warehouses must find their way to optimizing what they have. There are several approaches to that, each with its own pros and cons. Sometimes, it's a combination of automation, technology and process changes.

“To address the pressures, facilities are taking a layered approach that blends process optimization with scalable automation,” says Gruetter.

However they go about it, one thing is certain: Warehouses are looking for solutions.

Process improvement

For many operations, the first stop at optimizing labor is a hard look at processes. Few can afford to approach the issue the way an Amazon does—by over hiring for “what-if” scenarios, and on a daily basis, sending home workers they don’t need with “show” pay. Instead, they look to squeeze what they can out of their operations strategies.

“From the process standpoint, we’re helping operators streamline inbound-to-outbound flows, eliminate unnecessary touches, and redesign workstations to reduce fatigue,” says Gruetter. “Even simple improvements like slotting optimization, standardized tasks or reorganizing replenishment paths can reduce the amount of labor needed per order.”

Companies are also trying to get the right people into the building and keep them there. “There’s a sense that temporary labor can’t perform to the level of a permanent team,” says Rector. “People want to be team focused and to scale within their operations.” This means trying to pull off a flexible labor approach on a more cost-effective basis than what an Amazon approach provides.

Many brands take a close look at floor

layouts, too, when looking to optimize their labor. Building up is one approach, making the most of the warehouse’s cube. Improved SKU slotting is another consideration in layout, minimizing the time that employees must travel for picking. Batch and zone picking can be a piece of this approach, and when done right, can make a substantial dent in picking costs.

While better processes can get a company part of the way, much of these changes rely on modern automation and software. Combined, this is a more powerful tool for optimization.

Software assist

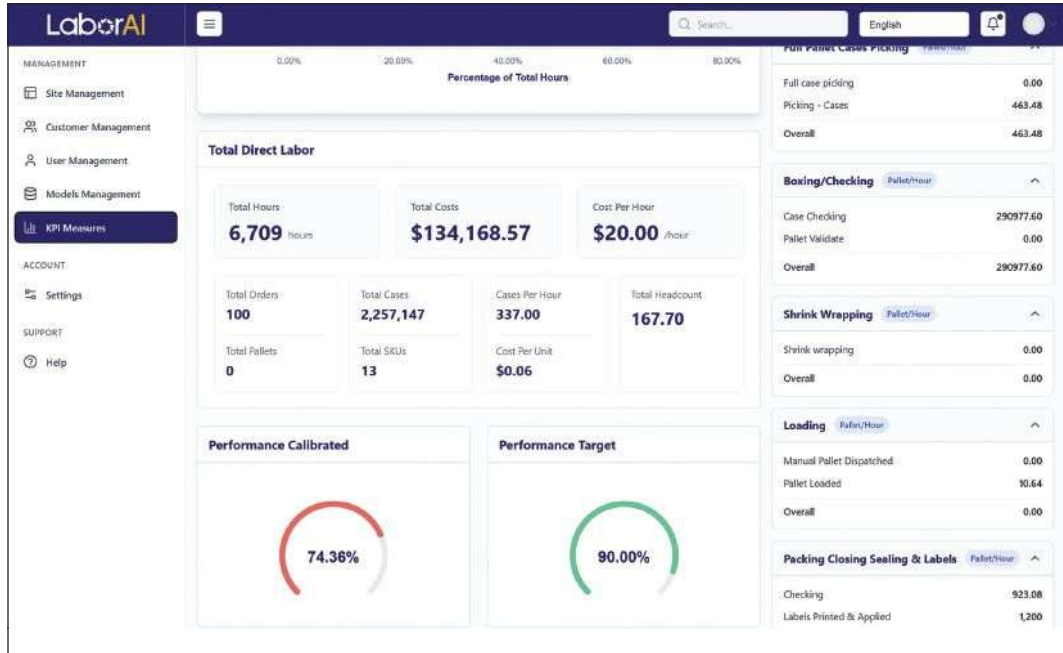
There’s been a general sense that many employees are hesitant to adopt automation and fear that it will replace them. Exotec recently conducted an online survey of 400 warehouse workers, however, and found that sentiments are changing, according to Stan Normand, managing director of Exotec. Nine out of 10 work-

ers said automation was not a hiring barrier for them, and three times more workers say they are attracted to working in a warehouse with automation than are put off by it.

The industry is also seeing a growing enthusiasm for automation from employees already using it. Half of warehouse workers surveyed reported a decrease in stress levels as automation made their jobs easier, and 59% report a decrease in physical strain on their body. Some 85% report that they are more productive with automation.

This should all come as good news to companies considering an investment in technology and automation. Historically, the starting point is a warehouse management system (WMS) and labor management system (LMS), according to Moore. But as volatility, complexity of workflows and customer expectation levels grow, there’s now a need for more.

Right now, AutoScheduler’s product is in the hands of retailers, food



LaborAI works by analyzing the details and is moving from predictive analytics to prescriptive analytics. The tool measures what an operation has done, in addition to what it needs to do tomorrow.

and beverage, and CPGs, according to Moore, and falls under the umbrella of orchestration software.

“The plan you create for any given day will change dozens of times because of circumstances on the floor,” he explains. “You need an overarching system that can keep you up to speed on changes and track compliance against it.”

AutoScheduler’s system harmonizes the data from WMS, warehouse execution systems (WES) and transportation, which enables continuous optimization, says Moore. With AI-enablement, the software keeps operations on track in a dynamic environment.

“You can know the risks, even before you load a truck,” says Moore. “You can call a customer and tell them what’s heading their direction, avoiding chargebacks.”

Likewise, LaborAI’s product orchestrates tasks with employees and workflows, according to Rector. “It can align the task with the body that’s best for it,” he explains. “So, if someone is good at driving a forklift and likes it, the software can assign it to that person.”

LaborAI works by analyzing the details, said Rector, and is moving from predictive analytics to prescriptive analytics. The tool measures what an operation has done, in addition to what it needs to do tomorrow.

“We’re selling accuracy and can tell you down to the hour what labor you’ll need,” he adds. “The ROI comes from precision hiring versus over hiring.”

Automation helps, too

Software provides a backbone, but changing processes with automation is another layer to help make the most of available your labor.

“Automation provides not only labor relief, but operational consistency,” says Gruetter. “In environments where



The industry is seeing a growing enthusiasm for automation from employees already using it.

workforce availability can change daily, automation helps operators maintain throughput without relying on variable headcount.”

Adding solutions like an automated storage and retrieval system (AS/RS), conveyor and shuttle systems, and goods-to-person solutions all reduce dependence on manual labor. They take over the “three Ds” and make life easier for the worker. Many companies begin small and scale up as their employees become more accustomed to working alongside and with automation.

“Our systems are designed to integrate gradually,” says Gruetter. “Many companies begin with semi-automation with vertical lifts, robotic palletizing or automated replenishment, and expand into full AS/RS as volumes grow.”

When companies are ready for a more comprehensive automation approach, robotics are an increasingly important piece of it. Exotec’s autonomous mobile robots (AMR) are one of the most sophisticated examples of this, complete with its own orchestration

software, Normand says.

They can travel up to 13 feet in three dimensions, and cycle up to 600 bins per hour at each workstation. Normand says that its biggest vertical presence right now is apparel, followed by industrial parts and food and beverage.

“We just released a new system that is very strong at managing full cases, which is allowing us to push into the U.S. beverage market,” Normand says.

As automation becomes more common, warehouse roles are shifting away from heavy manual work to system supervision, says Gruetter, except for handling and quality control. This provides an opportunity for upskilling, which makes warehouse jobs more appealing.

Ultimately, says Gruetter, “the goal isn’t to remove people from the warehouse, it’s to enable reliable, safe, sustainable operations where workers can focus on tasks that require judgment and oversight, while automated systems absorb the repetitive, physically intense work.” ■