WHITE PAPER

Benchmarking and improving distribution center metrics

Best practices to optimize warehouse operations and lift truck fleet utilization for 2026

Yale®
LIFT TRUCK TECHNOLOGIES

Whether replenishing retail locations or facilitating direct-to-consumer deliveries, you're tasked with moving inventory more quickly than ever to meet growing demand, making flexibility and efficiency imperative.

And to compete as a modern warehouse, metrics are critical to help you identify latent inefficiencies in daily work and power through peak challenges. But what distribution center (DC) metrics are most valuable? What data should you lean on to track business strategies and ultimately drive operational efficiency?

The Warehousing Education and Research Council (WERC) surveys the distribution and fulfillment industry each year to understand these top metrics as a reflection of today's demands. This white paper presents the findings from the 2026 DC Measures Report and highlights best practices to help leverage lift truck fleets for best-in-class performance.

Top 12 warehouse operational metrics

The 2026 WERC Report revealed the new top 12 metrics identified by warehouse professionals.

1. On-time shipments
2. Dock-to-stock cycle time, in hours
3. Average warehouse capacity used — Tied
4. Peak warehouse capacity used — Tied
5. Backorders as a percentage of total lines
6. Inventory count accuracy — Tied
7. Order-picking accuracy — Tied
8. Total order cycle time — Tied
9. Percent of supplier orders received with correct documents — Tied
10. On-time receipts
11. Internal order cycle time — Tied
12. Overtime hours to total hours — Tied

YEAR-OVER-YEAR CHANGES

The 12 most popular measures in 2026 signal a meaningful shift in priorities compared to 2025's themes. While efficiency, throughput and cost control are evergreen targets, supply chain leaders are placing greater emphasis on the earliest stages of warehouse operations. Receiving-focused metrics, such as dock-to-stock cycle time and supplier order documentation accuracy, have climbed in importance, reflecting a proactive approach to preventing downstream disruptions before they ripple through the facility.

Accuracy continues to underlie cost control and customer service as a defining priority, with inventory count and order-picking accuracy maintaining strong positions in the top 12 measures. Meanwhile, capacity metrics have dipped slightly, suggesting that warehouse performance is increasingly measured by how effectively inventory flows through the organization rather than how much the warehouse can store. Ultimately, the focus remains on operational excellence, with greater attention to optimizing the front of the warehouse to proactively improve performance across the application.

Lift truck operations and best-in-class performance

In the WERC report, surveyed warehouse operations ranked the most important DC metrics, including on-time shipments, dock-to-stock cycle time, average warehouse capacity used and order-picking accuracy. The table below summarizes the 2026 WERC Report's best-in-class performance for these metrics. High performance is difficult to maintain across all aspects of warehouse operations, so DCs generally make strides in some areas while facing greater challenges or setbacks in others. For this reason, there are instances where the measure for best-in-class performance does not improve, even as that metric grows in relative importance. Such is the case for percent of orders received with correct documents, which leapt from No. 30 in 2025 to No. 8 in 2026. Even so, the best-in-class measure for receiving orders with correct documents remained static (>=99%) across both years. On-time supplier receipts also moved up eight places, from No. 18 in 2025 compared to No. 10 this year, despite a marginal performance improvement (0.01%) among best-in-class operations.

METRIC	DESCRIPTION	BEST-IN-CLASS MEASURE*	YEAR-OVER-YEAR TREND
 On-time shipments	Percent of orders shipped at the planned time, meaning off the dock and in transit to its final destination.	>=99.5%	Best-in-class performance remained steady at 99.5%, indicating sustained importance for warehouses.
 Dock-to-stock cycle time	Time elapsed between the arrival of goods and when they are put away and recorded into inventory management systems.	<3.1 hours	Best-in-class cycles reduced by 0.4 hours, reversing a performance decline of half an hour from 2024 to 2025.
 Average warehouse capacity used	Average amount of warehouse capacity used over a specific interval, such as a monthly or yearly window.	>=90%	Best-in-class utilization remained at 90% or above, suggesting organizations are maximizing storage capacity while preserving operational flflexibility.
 Order-picking accuracy	Measures the accuracy of the order-picking process, where errors can be caught and corrected before shipment.	>=99.7%	Best-in-class picking accuracy remained steady, underscoring how difficult it is for warehouses to sustain an already-high benchmark.

**Best-in-class operations exhibit a level of performance that falls within the top 20% of all respondents.*

On-time shipments

Best-in-class operations ship more than 99.5% of orders on time, meaning off the dock and in transit to the customer. To reach this level of efficiency, operations must make sure lift truck fleets are running at peak efficiency, with minimal downtime. Three factors that can contribute to peak efficiency include:

- Using best-fit power solutions
- Delegating repetitive tasks to automation
- Ensuring proper maintenance and parts availability

USING BEST-FIT POWER SOLUTIONS

Lift truck power options are now more robust than ever, with newer technologies like lithium-ion batteries and thin plate pure lead (TPPL) proving their worth. By implementing the right lift truck power source, operations can unlock greater productivity.

Traditional lead-acid batteries can suffer performance degradation during the second half of their charge, leaving operators with a less-capable lift truck. This can negatively impact performance metrics, including the percent of shipments that leave later than expected.

TPPL offers a middle ground between lead-acid and lithium-ion. Relative to lead-acid, TPPL enables opportunity charging and eliminates battery maintenance requirements, and also provides faster recharging and less of a power output decline as the charge depletes. Lithium-ion batteries, meanwhile, deliver consistent power until full depletion and charge up to two times faster than lead-acid.

DELEGATING REPETITIVE TASKS TO AUTOMATION

Advances in sensor technology and processing power permit automated lift trucks to pick up, transport and drop off pallets independently and reliability. By providing smooth, consistent operation of repetitive tasks, automated lift trucks help increase operational uptime and productivity, while reducing errors associated with misplaced or damaged goods.

ARRANGING PROPER MAINTENANCE AND PARTS AVAILABILITY

Factory-trained, certified technicians offer superior product knowledge to help keep lift trucks running and shipments moving. The combined geographic footprint of the lift truck original equipment manufacturer (OEM) and dealer network affects service capacity and how quickly unscheduled service issues can be addressed. The larger the dealer network, the faster the response, the less downtime.

Additionally, telemetry systems with fault-code monitoring can automatically contact the service organization to initiate maintenance if a fault code is triggered. This can prevent minor issues that may not be apparent to operators from escalating into more serious problems.

Dock-to-stock cycle time

According to the WERC Report, best-in-class operations can move inventory from the receiving dock to storage and record it in inventory management systems in less than 3.1 hours. But operations are challenged by two major trends: accommodating growing SKU counts and deliveries, and labor shortages, which leave warehouse positions unfilled or regularly turning over. Best practices to enhance putaway include:

- Using technology to move product more efficiently
- Eliminating unnecessary product touches

USING TECHNOLOGY TO MOVE PRODUCT MORE EFFICIENTLY

Because automated lift trucks reliably handle a range of repetitive functions without intensive supervision and intervention, they can help operations more efficiently move loads to storage with less labor. For instance, an automated tow tractor can be deployed to handle horizontal moves in picking and putaway workflows, allowing lift trucks that are specialized for vertical storage to stay in racking aisles doing the work they perform best.

One day, automated solutions will also shape how operations handle products in dark warehouses. But operator assist solutions (OAS) are a step that warehouses can take today, speeding up dock-to-stock times by supporting both operator confidence and productivity. Disruptions like crashes or tip overs can delay product put away and result in equipment downtime that further hampers productivity. An OAS can help to limit the risk of these accidents by increasing reaction time and reinforcing adherence to best practices.

ELIMINATING UNNECESSARY PRODUCT TOUCHES

Unnecessary product touches and movements are wasteful and slow cycle times. Using telemetry systems, operations can track movements to eliminate unnecessary steps, minimizing product touches and reducing put away times.

Average warehouse capacity used

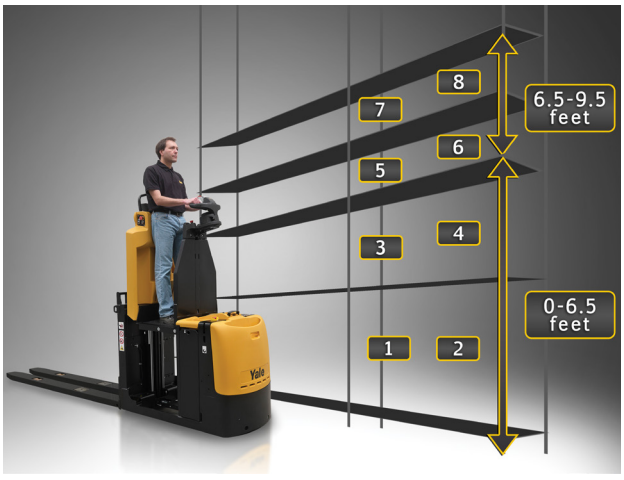
Best-in-class operations, on average, utilize 90% or more of available warehouse space. Operations can improve their response to shifting inventory demands by using lift truck fleets that are designed to support optimized storage configurations and efficient workflow strategies. Best practices that support optimization include:

- Implementing slotting and storage strategies
- Using cross-docking

IMPLEMENTING SLOTTING AND STORAGE STRATEGIES

SKU proliferation and increasing order counts can complicate efficient use of space. These conditions can force DCs to expand their picking footprint, reduce slot sizes and reduce inventory in each pick slot, risking decreased efficiency and productivity. Conducting a slotting analysis can determine the optimal storage space and location for each item — some of which might be at height. The conversation then shifts to selecting the right equipment, with appropriate speed, dimensions and vertical heights to access the loads.

For instance, a low-level order picker can raise operators vertically to expand the "golden zone" of the pick face. This can enable new slotting strategies to help increase pick positions up to 400% and slot capacity 140% within the same footprint.



Warehouse configurations with tall, narrow aisles can benefit from reach trucks with double-deep reach capabilities, enabling maximum storage density by easily storing and retrieving loads from positions that are two pallets deep. When lifting and placing loads at height, characteristics such as strong visibility through the mast are especially important for productivity. A significant front field of view for the operator helps optimize visibility of the forks and load for precise, efficient handling. Other tools like wireless cameras, built-in fork LED lights or even fork laser levels can help boost precision and accuracy when picking and placing loads at height.

USING CROSS-DOCKING

Cross-docking involves transferring incoming merchandise from receiving directly to shipping — without spending time in storage. This workflow can help move goods more rapidly, reducing inventory levels and permitting more efficient use of existing warehouse storage capacity.

Order-picking accuracy

Best-in-class operations pick more than 99.7% of their orders correctly. The core focus of this benchmark is accuracy — picking the right items, every time — but the efficiency of those picks is important, too. Delivery speed within the four walls of warehouses still matters, with order-picking efficiency playing a key role in overall turnaround time. Recommendations to support order-picking performance include:

- Focusing pickers on picking
- Optimizing operator handling and visibility

FOCUSING PICKERS ON PICKING

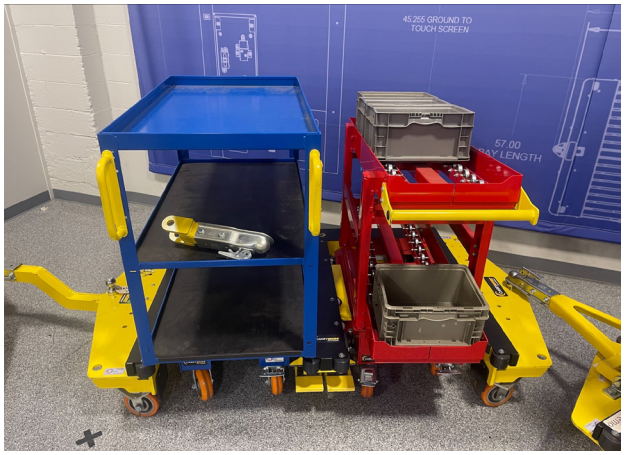
Best-in-class operations focus on minimizing pickers' travel time, on foot and on lift trucks, so they can dedicate more time to actually picking orders. Strategies like limiting the number of aisles a picker must cover help reduce time spent in transit, minimize product touches and damage, and ease aisle congestion. When longer distances are unavoidable, using ride-on pallet trucks, instead of pallet jacks that operators must walk behind or alongside, can significantly speed up travel between pick locations.

Focusing pickers goes beyond shaving the physical territory they must cover — it's equally important to keep them comfortable and confident on the job. If operators are picking at floor level, consider a pallet truck with features designed for operator comfort and productivity that lasts through the shift. Examples include a platform cushion for reduced vibration, a handrail with auxiliary controls to minimize wrist stress and power assist steering for easier maneuverability.

If picking at height, medium and high-level order pickers should provide a sense of stability and security while operators are working on a raised platform. Retractable side gates with one-hand operation offer side protection and quick access can help increase operator confidence and performance in the compartment. Stepless speed control can maximize travel speed while smoothing out speed adjustments to minimize the "pogo effect" that can distract or unsettle operators picking at high-level bays. Look for technology that drives productivity. A wire guidance system allows operators to focus on picking — not steering. Assisted pallet clamps automatically center and grip pallets for faster alignment with loads. Multi-turn steering increases sensitivity for more granular control and agility.

OPTIMIZING OPERATOR HANDLING AND VISIBILITY

To improve order-picking accuracy and efficiency — especially in high-throughput environments shaped by e-commerce demand — warehouse professionals should consider using specialty picking carts or baskets with dividers. These attachments, which can be mounted on order pickers or pallet jacks, allow operators to sort multiple orders simultaneously while keeping items separated, increasing the odds that the right products end up in the right package.



For operations focused on case or pallet-level fulfillment, particularly in the food and beverage sector, layer picker attachments are another valuable tool. Mounted to electric sit-down forklifts, these devices use rotating claws to grab and place full layers of product to assemble mixed pallets. This approach significantly speeds up order building for bulk shipments while maintaining precision. Leveraging the right attachments can help teams work smarter while meeting modern fulfillment demands.

Just as visibility is critical for picking and placing loads in storage, it's also important for correctly and efficiently pulling the right items, whether at height or floor level. Equipment features like LED fork lights can enhance visibility at the pick point and help minimize risk of collisions that disrupt smooth, efficient picking. Also consider upgrades to the facility's overall lighting, especially if workspaces are dimly lit. Additional or brighter lights can noticeably enhance speed and accuracy.

Rising to best-in-class DC performance

You can't afford to settle for status quo solutions and strategies — achieving best-in-class performance requires both the attention and resources for continuous improvement. Top DCs strive to constantly improve velocity and accuracy, while fostering a culture of self-examination that enables warehouses to identify and remove inefficiencies and excess costs.

The labor, safety and productivity challenges that make it so difficult for operations to attain and uphold high levels of performance should directly inform materials handling solutions. At Yale, customer challenges are the foundation of product design and engineering, so that resulting equipment and technologies are precisely matched solutions to help address these issues.

For a deeper conversation about achieving best-in-class performance, contact a solutions expert at your local Yale® dealer.

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