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STRATEGIES FOR SUCCESS

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Warehouse Optimization



Jared Frederici, Senior Solution Architect at TPG, goes beyond benchmarking to advise on common inefficiencies you may not have noticed in your warehouse, strategies for quick wins and more

What type of inefficiencies do you see most often in warehouse systems?

Variables such as, size-of-network, quantity and type of inbound, ratio of third party vs. in-house, vendor performance and other logistical variables can be negatively impacted by not having an optimized 24 hour and weekly dock schedule.

Dock schedules, in particular, may seem simple, but ultimately become quite complex because they depend on the in-bound truck schedule where even less than a percent variation can throw off the plan (thereby underlining the need for a flexible and agile 24-48 hour schedule that is also connected to physical space constraints, the ability to handle put-aways in parallel, recovery, cross docking, direct to store, etc.).

Even if your schedule works perfectly, poor layout can lead to inefficiencies. We use great Lean and other tools we've developed to do heat mapping, topographical and three-dimensional mapping of your layout. We also look at inbound/ outbound, full case for pallet movements, case pick, the type of racking you have and the hours of order selection and then simulate what happens in the warehouse to predict at which points you're likely to hit hotspots of heavy congestion, causing potential safety issues.

We've seen 20 to 25% minimum efficiency improvements from just mapping effectively, getting the top view of what's going on, and then, in many cases, re-slotting the warehouse, creating different zones and spreading things out. This can be a complex process because it has to connect appropriately to your warehouse management systems or transportation management systems, but there are many efficiencies to be gained here.



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ACCOUNTING FOR VARIATION

Often when building a dock schedule and forecasting labor, managers rely on perfect situations — 100% inbound on time, workers not fatigued and taking perfectly timed breaks, etc. They don't account for **minor variations within the warehouse that can have a ripple effect on the schedule**.

It is essential, therefore, to understand variation using data wisely— to look at not just means or averages, but also the variance and standard deviation of arrivals and various points in the network to better predict how we need to forecast people, process and technology.



"Map past performance onto upcoming problems so that your solutions are proactive, not reactive"



3 QUICK WIN STRATEGIES TO HELP YOU REALIZE RESULTS TODAY

Enhanced Quality Control



Create a quality program that includes technology and common sense, alongside crossfunctional peer review or human auditing, where possible.

Staggered Shift Structures



Where possible, stagger shift structures so that you have constant coverage (while also ensuring that you have enough workers and maintain a good environment).

New Hire Training and Onboarding



Training and using appropriate methodologies can improve efficiency. Emphasize new hire and case pick training using videos instead of pamphlets or writing, since people tend to respond better to video.



What are some things that warehouse managers can do immediately for a quick win?

Note that these measures may vary depending on site, but overall:

A good quality program is essential. Even if you are tracking at half a percent or less miss-picks and/or defect rate, the ripple effect of these can be quite disruptive to order release. That small amount may have a 5-10X multiplier on travel inefficiencies. Also, as more people use technology in these settings—2D or 3D barcodes, voice activated picking tech and other mechanisms— they error-proof their tech, but often have issues in their master data. Therefore, quality control has far-reaching components, including infrastructure and IT.

Shift structure (including shift start-up and end) may seem simple, but can be key to racking up a quick win. As workers coordinate between shifts, you often have holes or pockets in time where no activity happens in the warehouse. Often, especially if you're non-unionized, you may have a little more leeway when constructing shift structures to stagger shifts and ensure constant coverage. We've seen a **5-7% efficiency increase** if this is done correctly and consistently.

New hire training and onboarding: Most small to midsize operators and even many large DCs have a significant amount of case pick vs. full pallet pick. For those organizations who have world-class order selection training, we see, in some cases, 30-40% improvement in CPH. Our techniques and methodologies can also help you from a physical health perspective— this is a physically demanding job that puts a lot of pressure on your lower back. Every little detail is important— the way you pick what you grab, the sequence in which those cases go on the pallet— especially in settings with large warehouses, like Tier 1 grocery stores. If done correctly, you can see a 5% improvement per person, which is huge.



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What is a key long-term measure that warehouse managers should implement for sustainable success?

People strategy is currently wildly critical. We're seeing a real mix between organizations struggling to keep people (especially on second and third shift) and other extremely competitive organizations offering significant stay and other bonuses just to retain quality labor in such a competitive market. There is so much competition for these rolesparticularly in Atlanta, Dallas, Utah, Nevada and other pockets in the US that are corridors to really good highway systems that organizations not taking people strategy seriously are seeing their best workers get poached by other warehouses fairly easily. In order to boost crucial talent retention and acquisition moving forward, I think we will have to look beyond traditional compensation models- alternative and creative labor pay models, as well as performance based pay structures, are going to present a huge opportunity for those who haven't already implemented them.

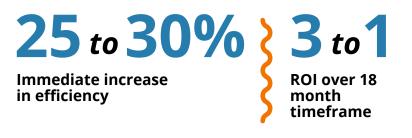
Depending on the job, there may still be contexts in which fixed price labor is appropriate but, by and large, in addition to benefits, people want to be rewarded for going above and beyond and to be more connected to their performance targets.

In addition to physical pay, consider:



In order to pay for performance accurately, however, you need technology infrastructure that provides a good data baseline and ensures that your employees are not taking advantage of you or you're not taking advantage of your employees. This is where we step in often, to provide labor modeling for the time and motion study element of this process, so that you can get proper pay for performance.

However, once implemented correctly, the ROI increase is fantastic:



OTHER STRATEGIES FOR LONG- TERM SUCCESS

ONGOING RE-SLOTTING CAPABILITY

Re-slotting the warehouse in 2-3 weeks is a quick win, but at the end of the day, organizations need a process and an ongoing way to do that as a capability. This takes training and software typically. Then the software must be merged with their existing WMS and CMS platforms. Although the process might take a while, I'd rate it as immediately critical for organizations to not just have one instance of efficiency, but build an ongoing practice around it.

OUTBOUND LOGISTICS SOFTWARE UPGRADE

Small to mid-market organizations have been routing and doing outbound logistics using spreadsheets, Google Maps and other free or off-the-shelf packages for a long time. Recently, however, there's been a proliferation of great affordable boutique or even larger solutions at aggressive price points— meaning that even small warehouses can now do their outbounds in fairly automated ways, using some fairly complex algorithms for routing optimization.

So organizations that have historically believed that TMS (Transportation Management Systems) are out of their price range may be surprised as to how much has changed in the last 10 years. This is an **easy way to bump up trailer utilization significantly, as well as reduce the number of stops and potential fees** that may happen because of sub-optimal truck routings.



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ABOUT US

The Poirier Group (TPG) is a Toronto-based boutique management consulting firm focused on strategy execution, with specialties in process improvement, cost optimization and operational efficiency.

We partner with clients across diverse industries who are motivated to transform their business, with an ambition to become the best version of themselves. Then, we work collaboratively with their team from executives to the shop floor, to implement sustainable solutions, and guide them through the changes along the way.

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GET IN TOUCH



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