# My ECOMMERCE Fulfillment Process is Broken – Why?

Sponsored by:

VARGO


Presented by:

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# Agenda

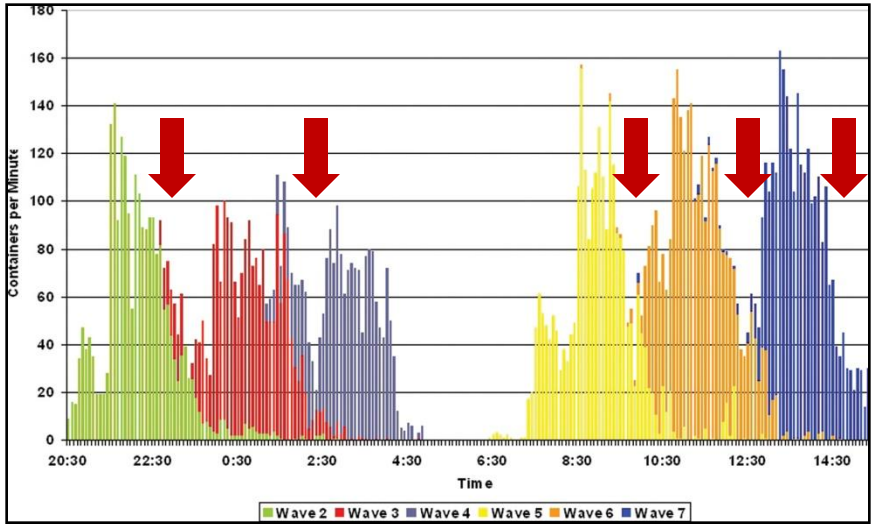
- Retail Replenishment ≠ eCommerce
- “Lean” is a process not an application
- Waveless vs. Continuous Flow(Pull)
- Example eCommerce SKU activity
- Replenishment to Demand
- Effect on Picking

# Fulfillment
# Retail ≠ eCommerce

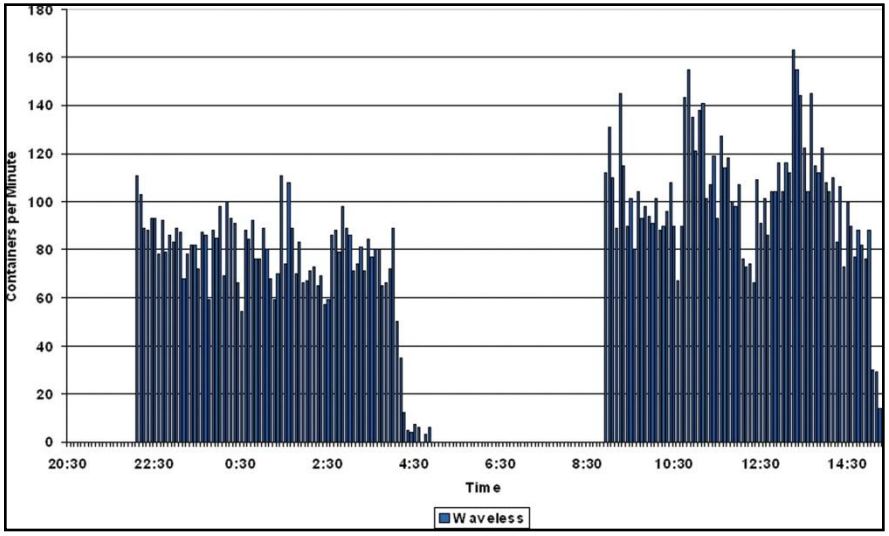
| | Retail | eCommerce |
|---|---|---|
| Desired Order Cycle Time | Daily | Hourly |
| Order Planning Window | Daily | Minutes |
| Errors | Correctable | Costly |
| SKUs/Order | 1000's | 1-10's |
| Items/Order | 10,000's | 1's |
| Cases/Order | 1000's | 0's |
| Daily Destinations | 1-100's | 10,000's+ |
| Peak "Peak" Period | 3-5 Weeks | 3-5 Days |
| Daily Orders | 100's | 10,000's |
| Value Added Services | Ticketing?<br>Security Tagging? | Gift Wrap<br>Gift w/purchase<br>Packing<br>Marketing Collateral<br>Pack Slips |

# Wave vs. Continuous

***Traditional Wave Processing***




***Continuous Flow Processing***




## *A 26% Improvement!!*

***Using Pull Based, Continuous Flow Processes***

**+**

***Greater Operational Flexibility***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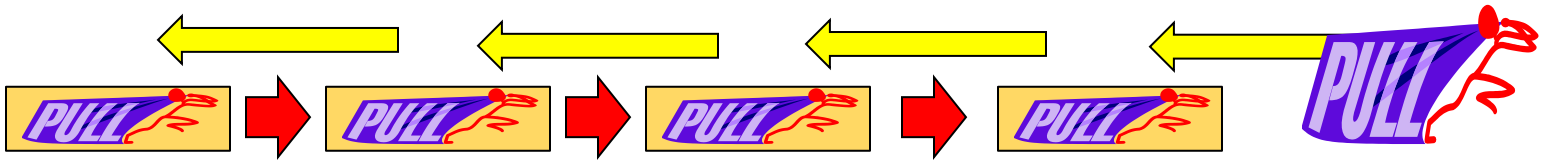
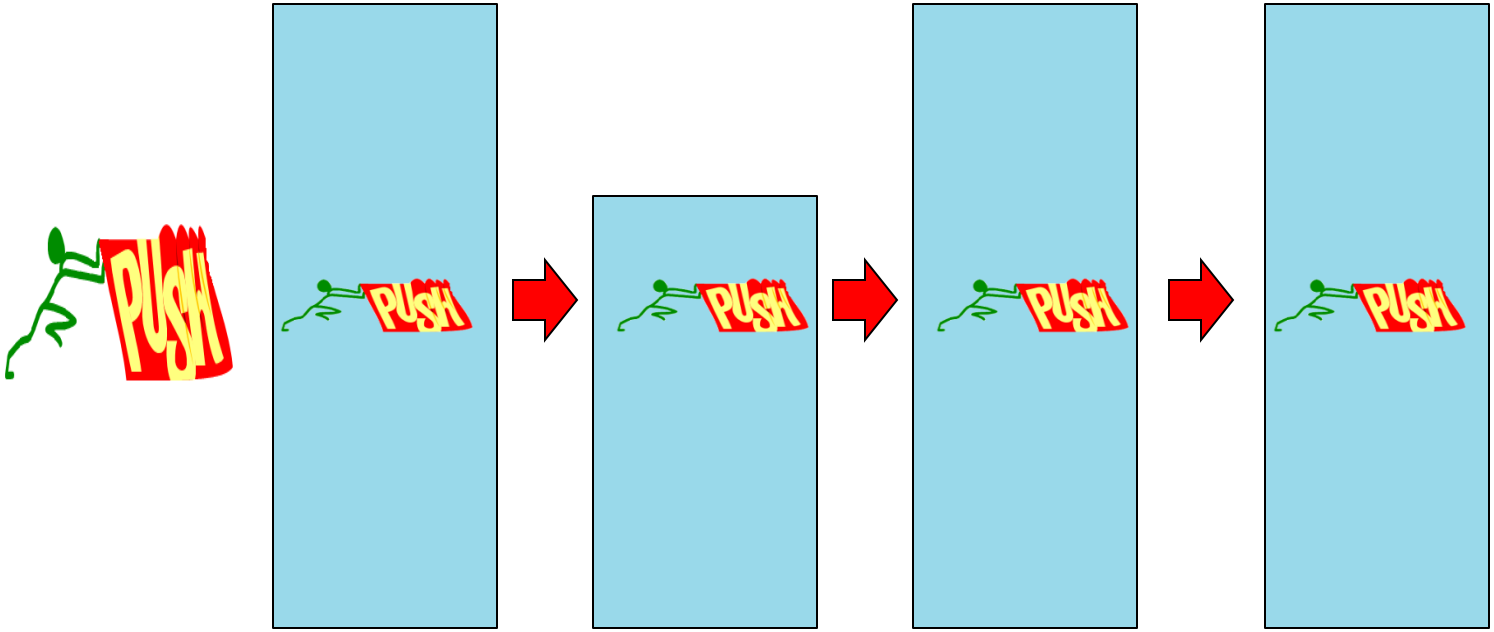
# De-Coupled WorkCells

Small Increments of Work




Order Assembly




Larger Masses of Work

Product Picking

WIP

Packing & Manifest

Shipping

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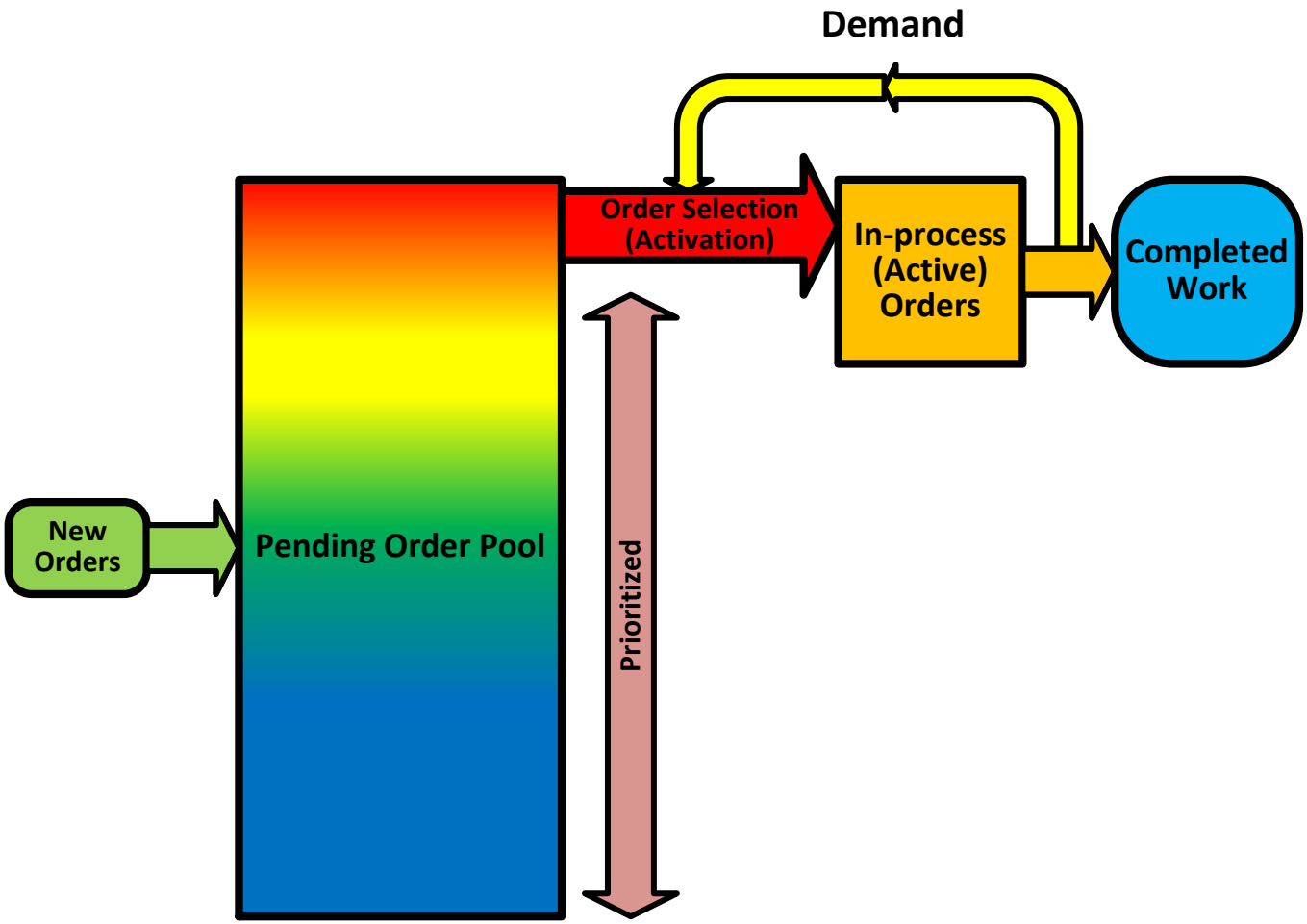
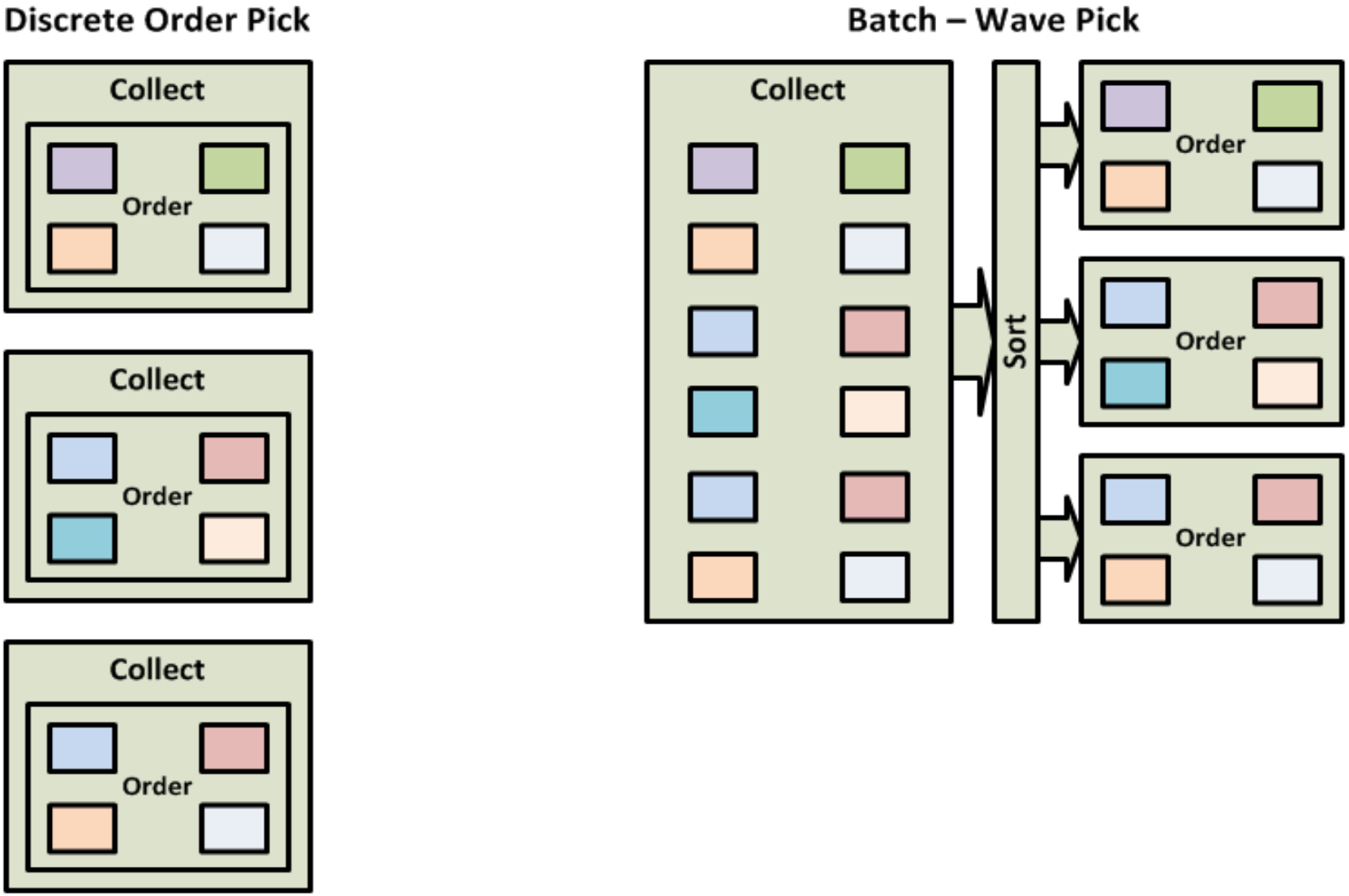
# Pulling Product for Order Assembly

- Not a function of volume
- Does not require automation
- Provides better operational flexibility
- Is a process not an application

# What To Pull


Demand
Order Selection (Activation)
In-process (Active) Orders
Completed Work
New Orders
Pending Order Pool
Prioritized

# Collection Of Items

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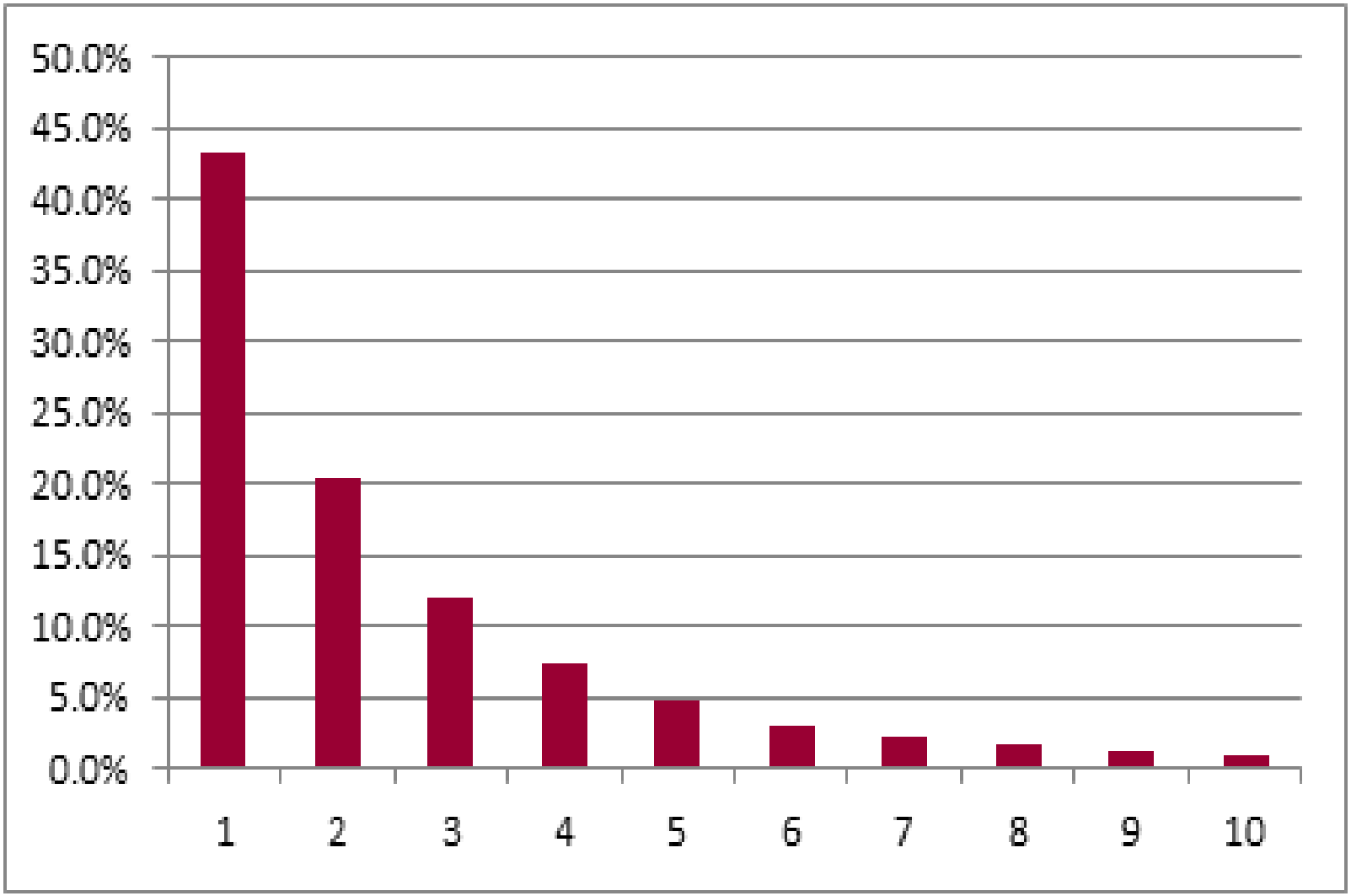
# Pull Replenishment

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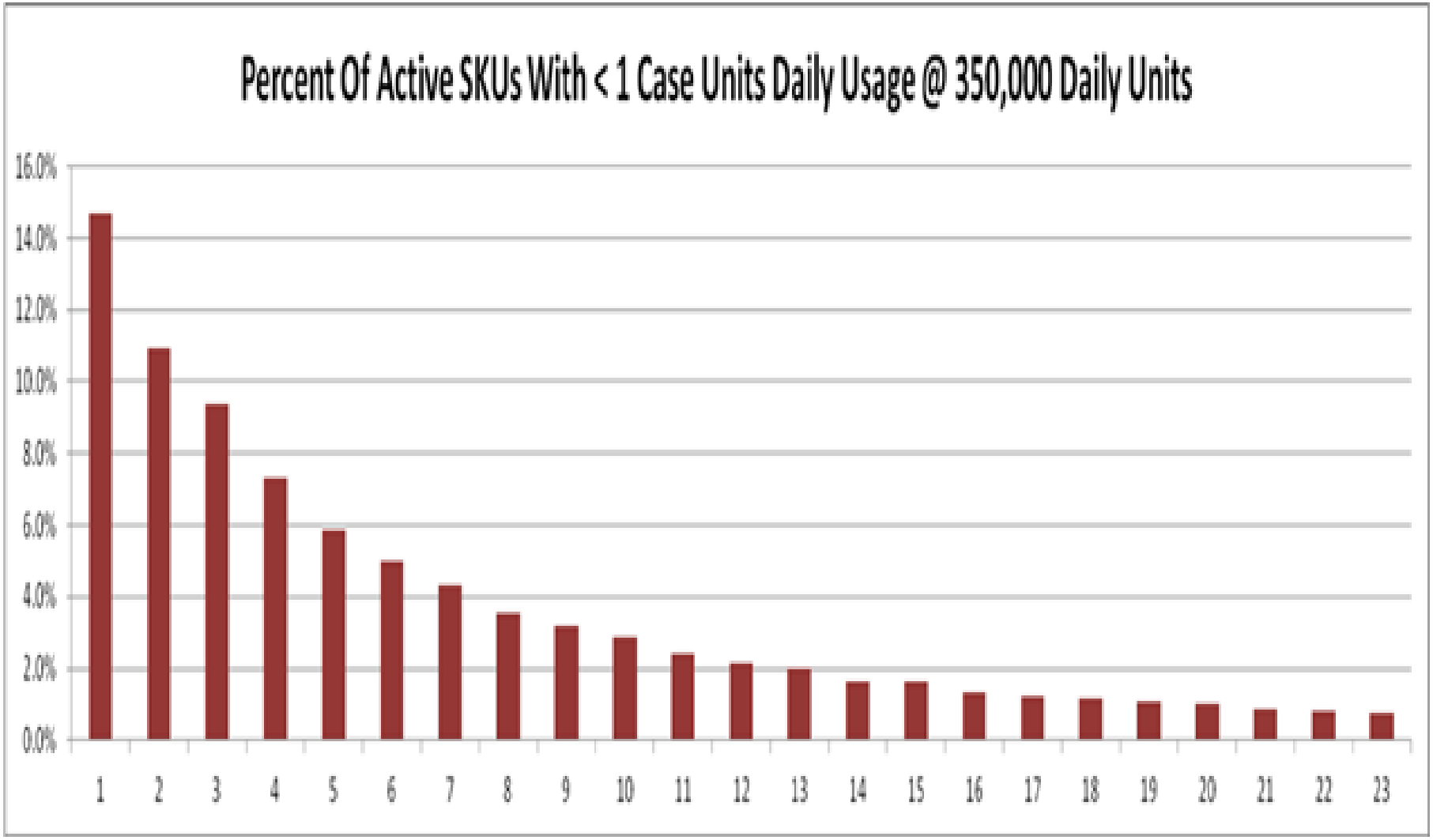
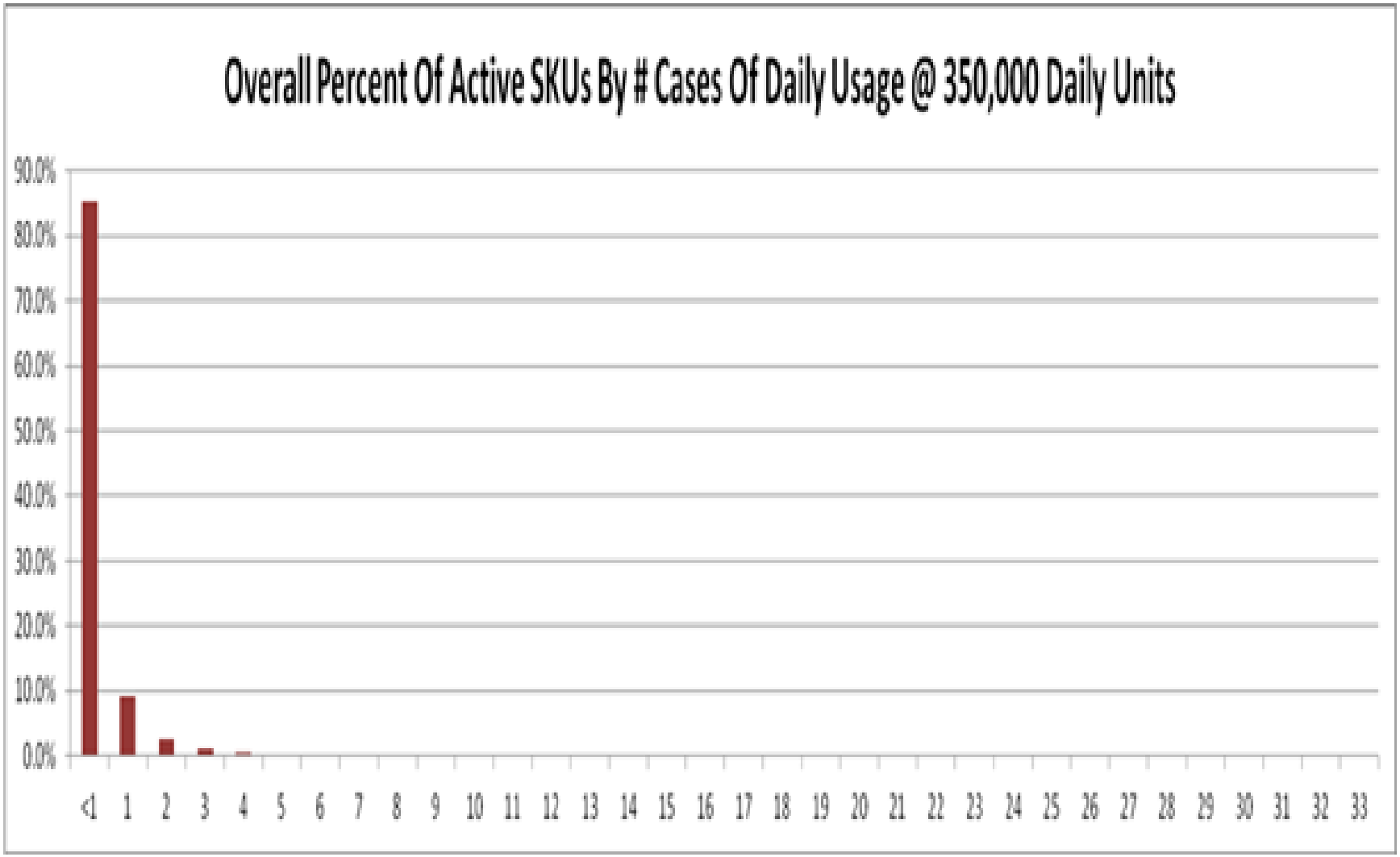
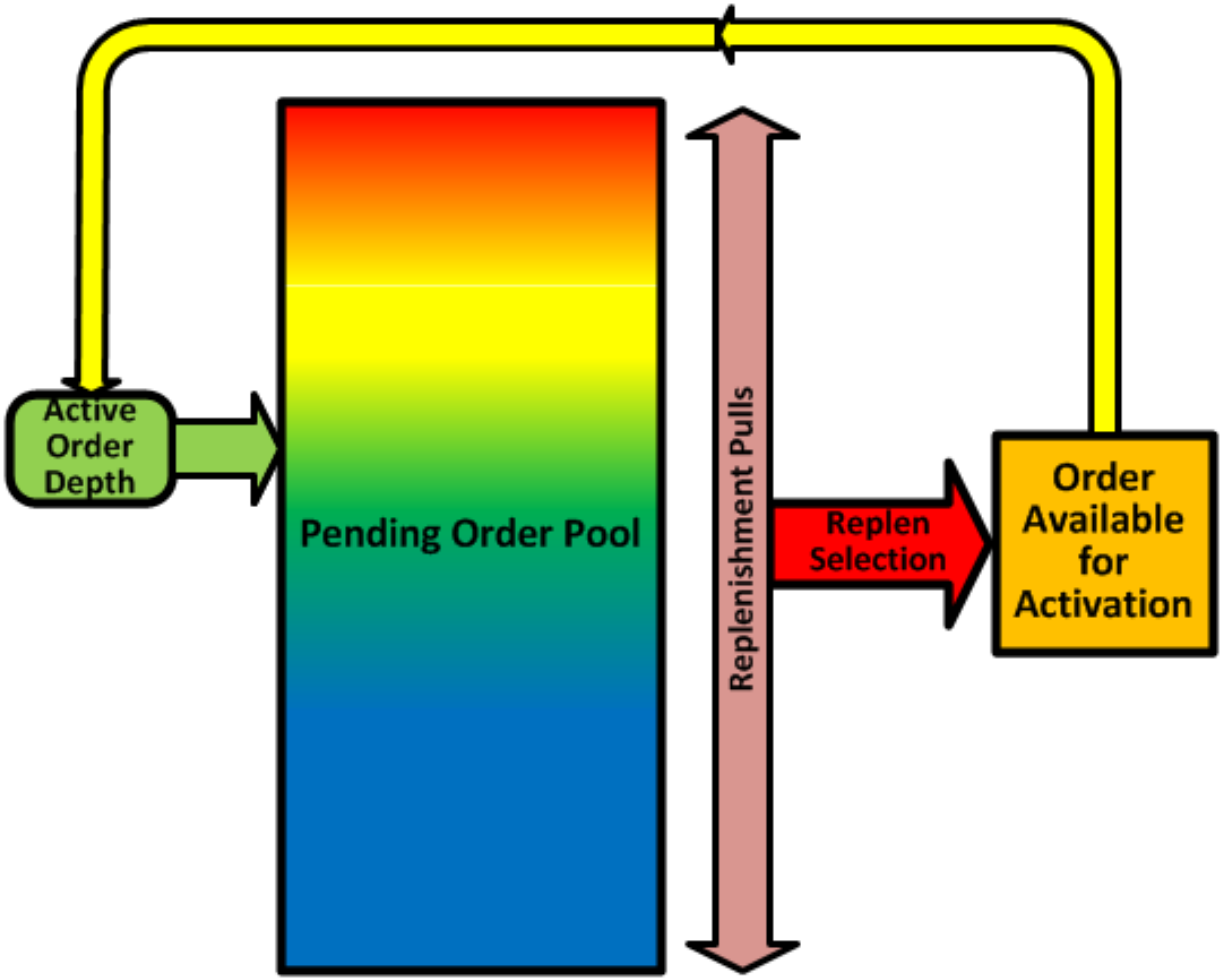
# Units/Active SKU



# SKU Case Consumption/Day



# What to Replen?

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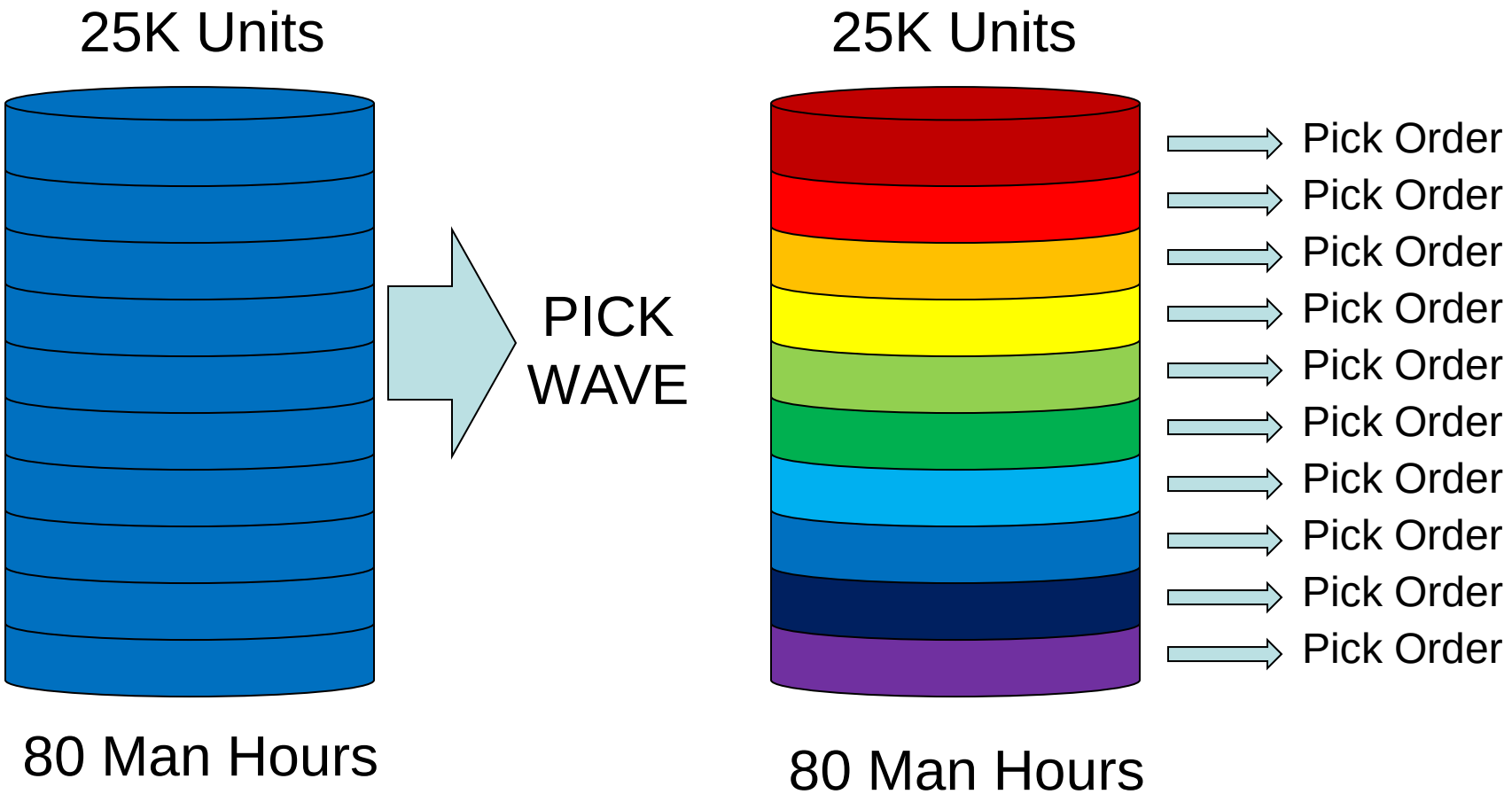
# Batch vs Lean Replenishment

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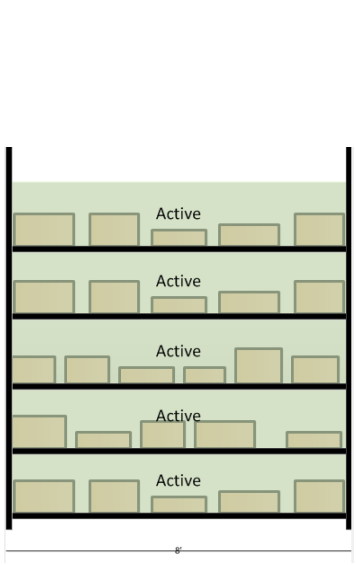
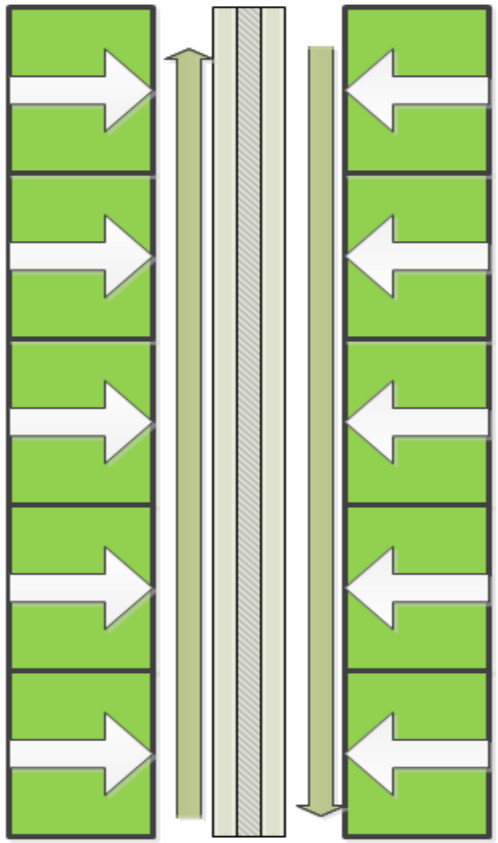
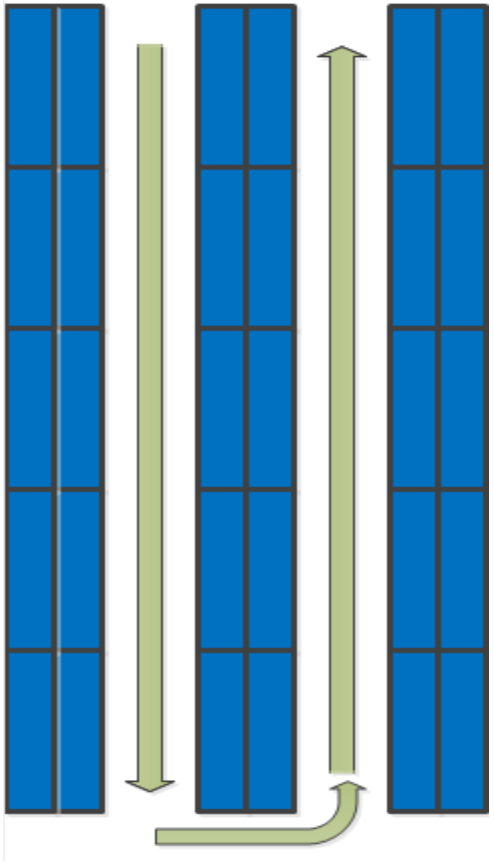
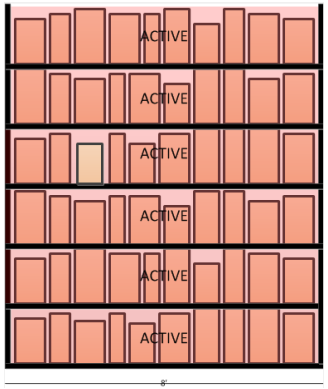
# Effect on Picking & Density








130 SKUS
40’ Travel
480 sq/ft

600 SKUS
40’ Travel
280 sq/ft

HOT SKUs randomized when stored by case, flow rack causes congestion bottleneck

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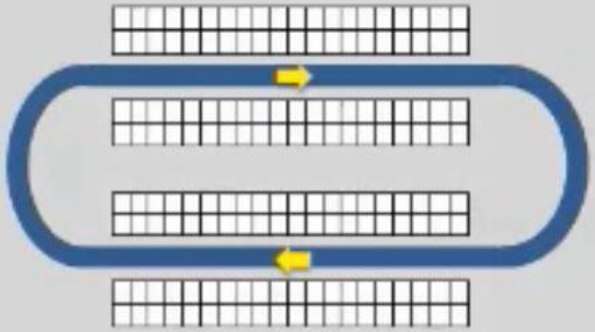
# Pull Replenishment to Demand

- Easily add SKUS
- Add volume
- Adapts to order profiles
- Flexes to product order synergies
- Better use of warehouse cube

- Same amount of cases being replenished to picking
- Lean – Based upon demand
- Wave – Anticipated demand
- Shrinks travel distances during picking

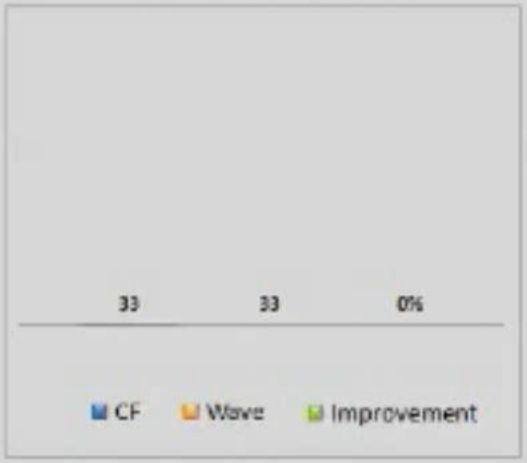
# Vargo "Lean" Processing
# Continuous Order Fulfillment



# Traditional
# Wave Order Fulfillment

Empty
Sorting
Pack Ready

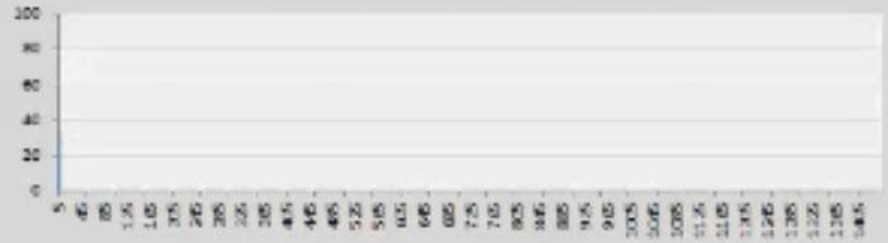
## Total Picked Units



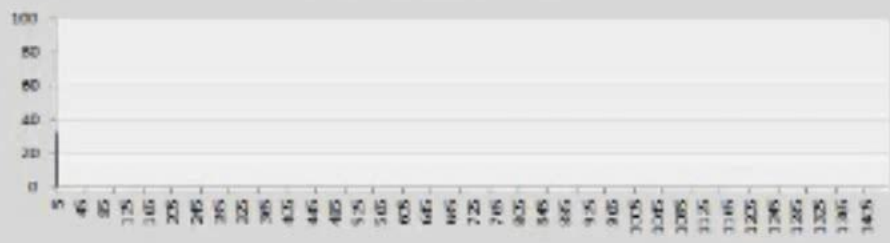

## Chute Utilization

## Total Packed Orders

## Continuous Fulfillment Picked Units




## Wave Picked Units



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# *For More Information:*

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