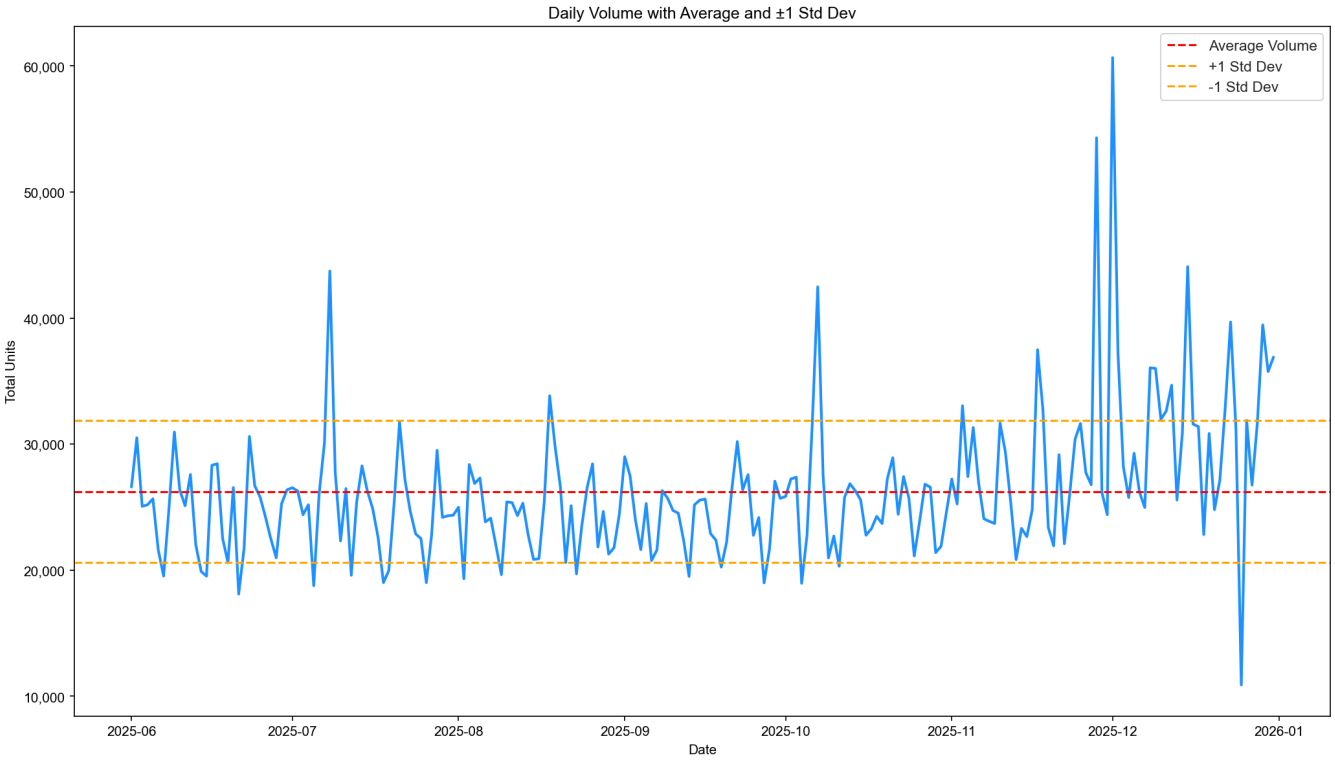
Warehouse Optimization Report (Sample DC)

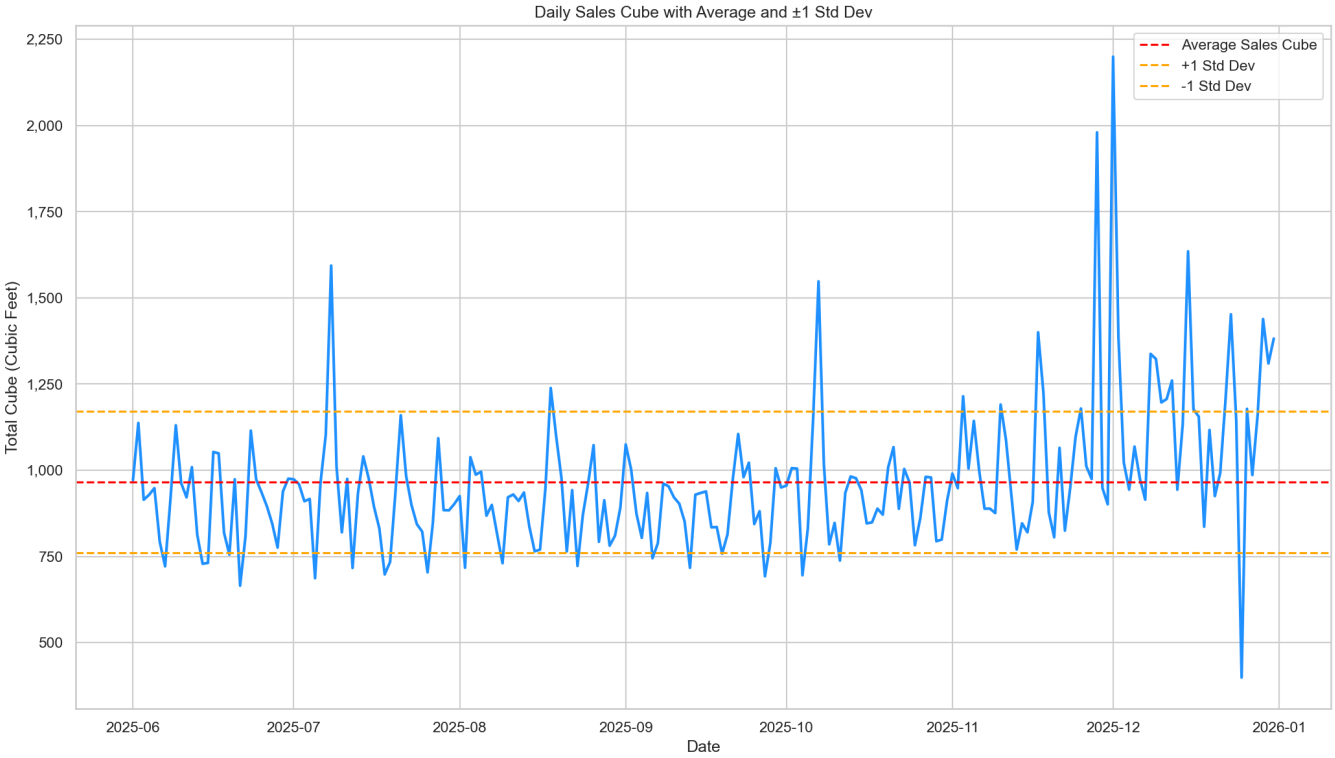
Daily Unit Volume Over Time



Data is collected from either orderline or SKU Volume by Day input tables and shows total unit volume by day.

Highest volume day was 2025-12-01 00:00:00 with 60659.0 units sold.
The 80th percentile day had 29067.2 unit volume.
The peak-to-average ratio is 2.31.

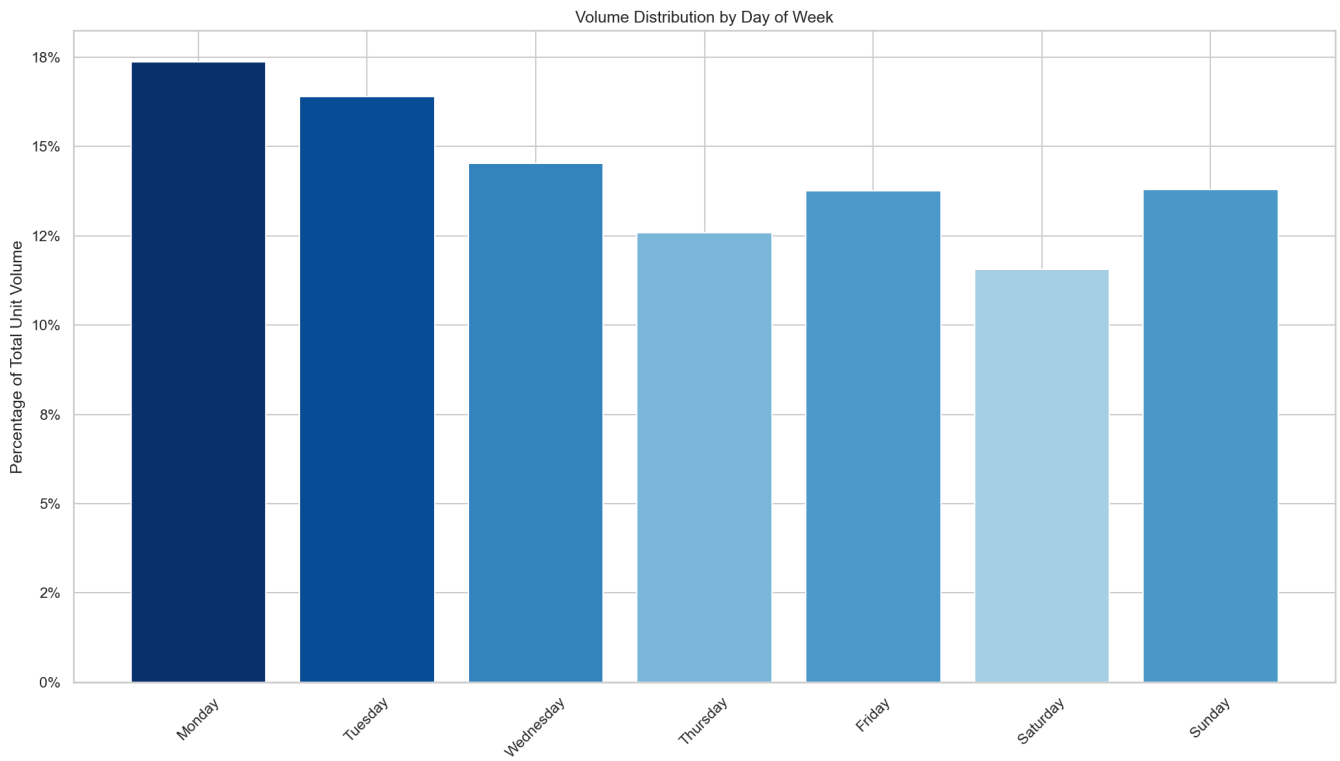
Daily Cubic Volume Over Time



Data is collected from either orderline or SKU Volume by Day input tables and shows total cubic volume by day.

Highest cubic volume day was 2025-12-01 00:00:00 with 2199.302770240162 cubic feet sold.
The 80th percentile day had 1070.1539678858796 cubic feet of volume.
The peak-to-average ratio is 2.28.

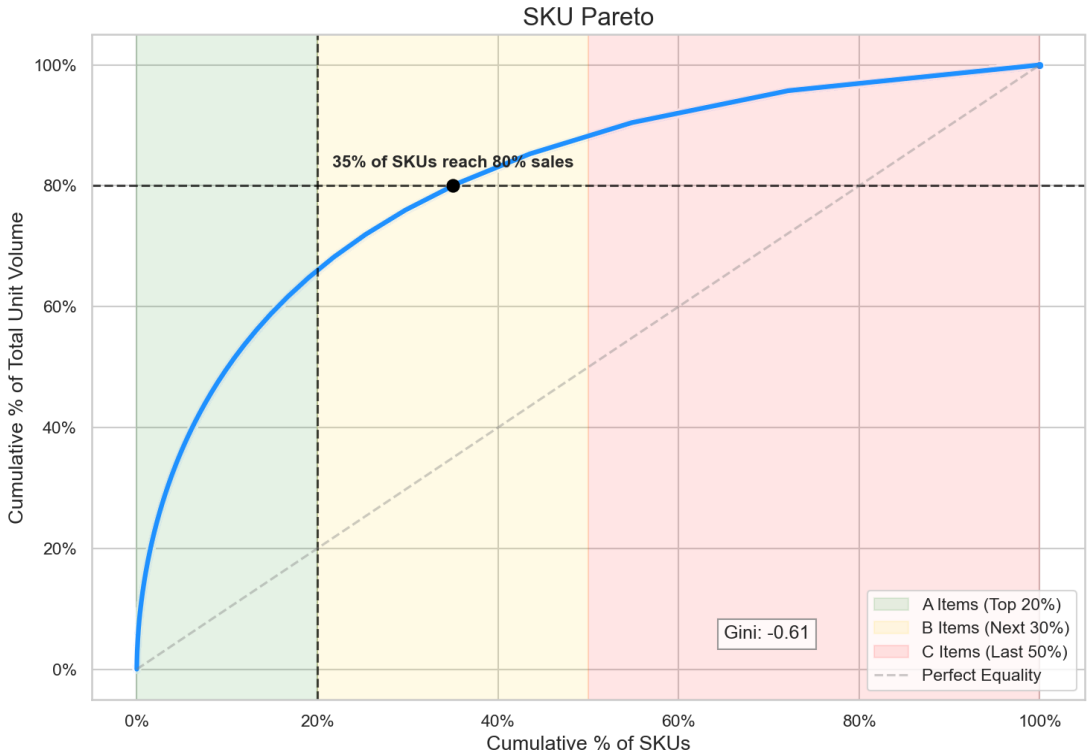
Percent of Sales by Day of Week



Volume is derived from SKU volume by day dataset.

The peak day was Monday being 3.09% higher than the average daily sales volume.

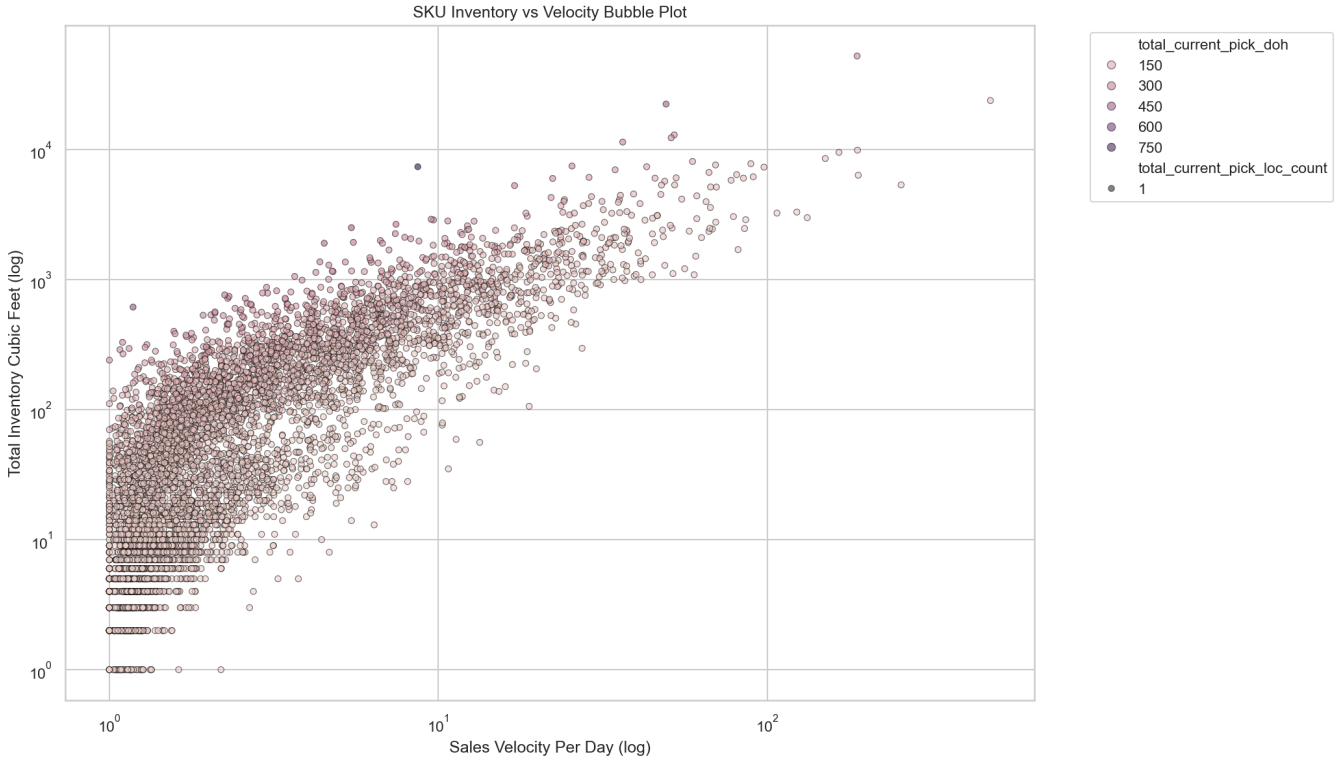
SKU Pareto



SKUs are ordered in descending order by unit volume to produce this chart. SKU data is sourced from SKU volume inputted data table.

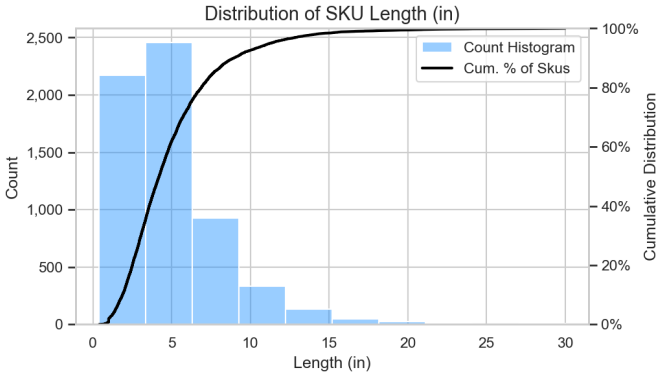
Top 20% of SKUs represent 65.99% of total volume, while the bottom 50% represents 11.75% of toal volume

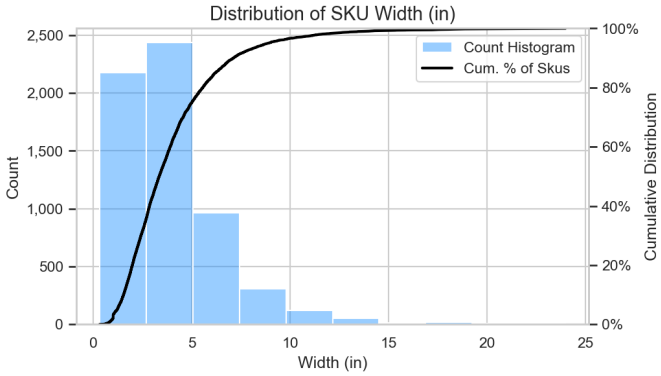
Inventory Levels to Daily Sales Velocity

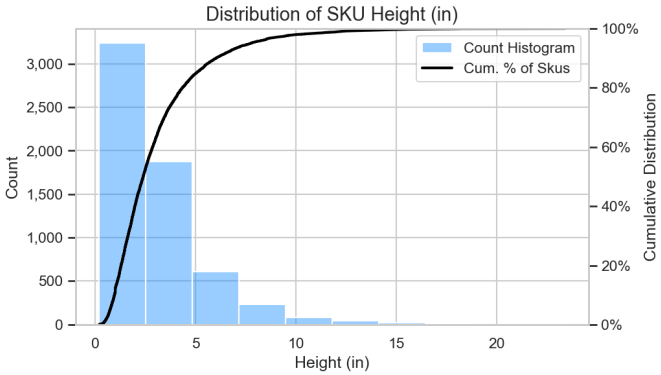


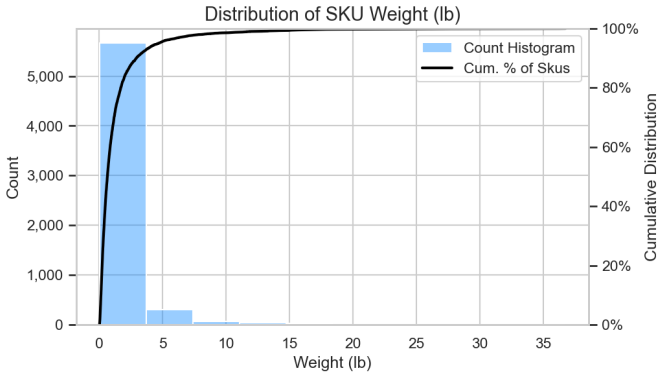
Data is aggregated from inputted order line or SKU volume by day and item master tables. This chart shows each SKU and their current cubic inventory vs. sales velocity.

SKU Dimension and Weight Distributions





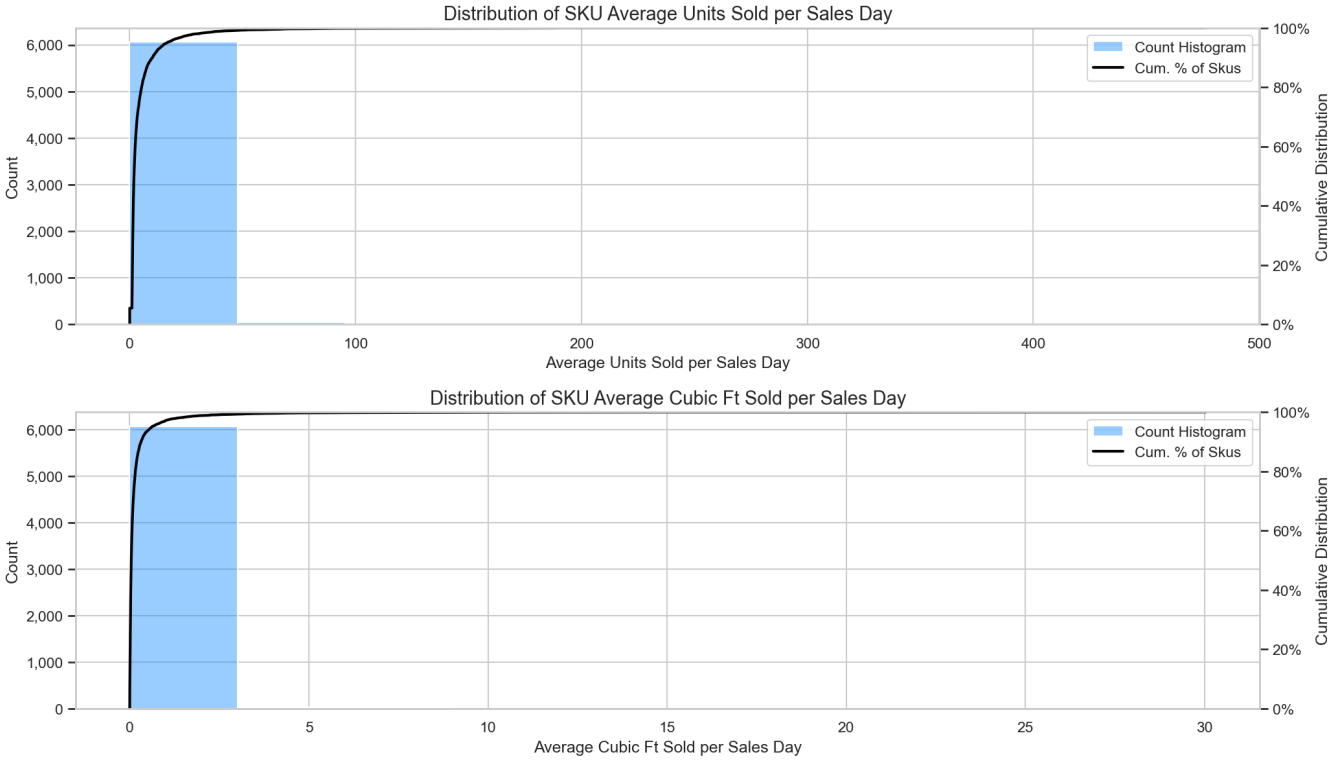




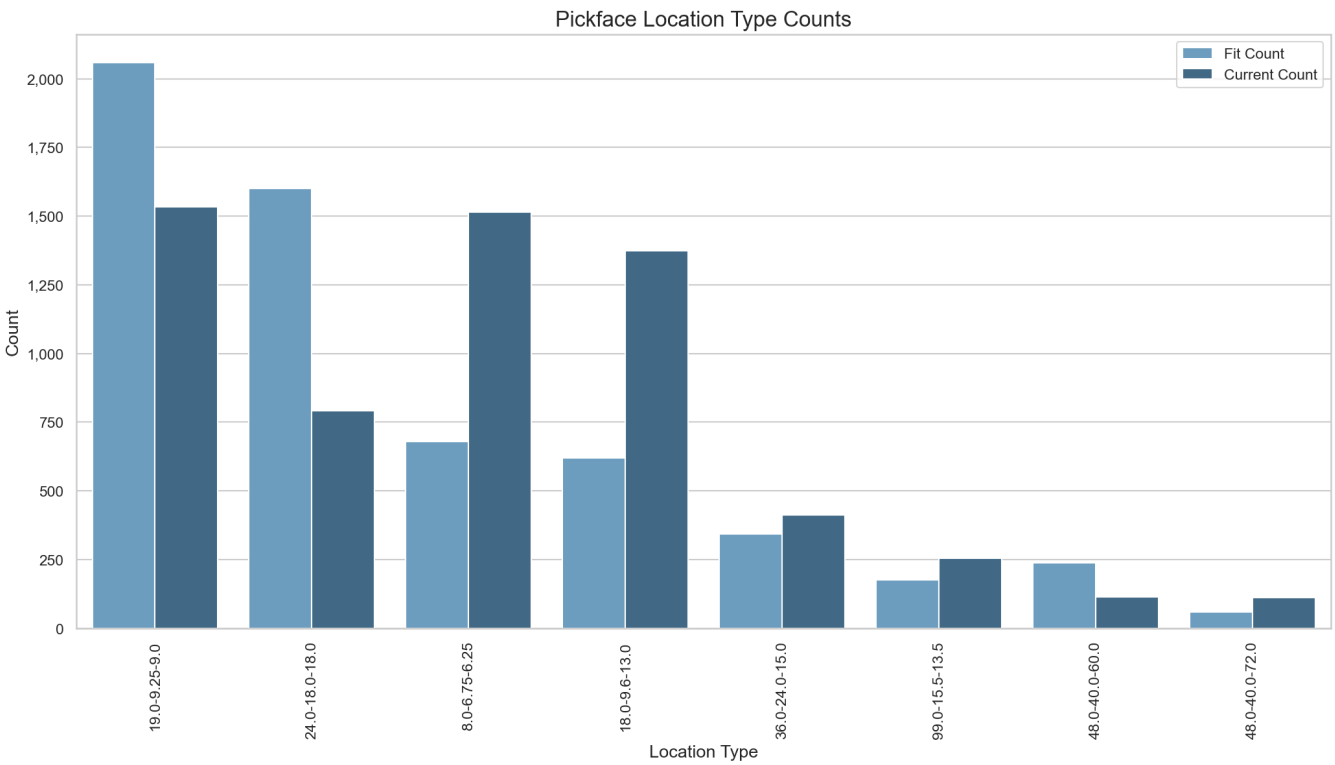
Data is derived from inputted item master table. Items flagged for review have not been removed from these charts.

SKU with the largest length: SKU-982409
SKU with the smallest length: SKU-462061
SKU with the largest width: SKU-432277
SKU with the smallest width: SKU-752923
SKU with the largest height: SKU-856257
SKU with the smallest height: SKU-117960
SKU with the largest weight: SKU-419996
SKU with the smallest weight: SKU-122392

Sku Sales Distribution



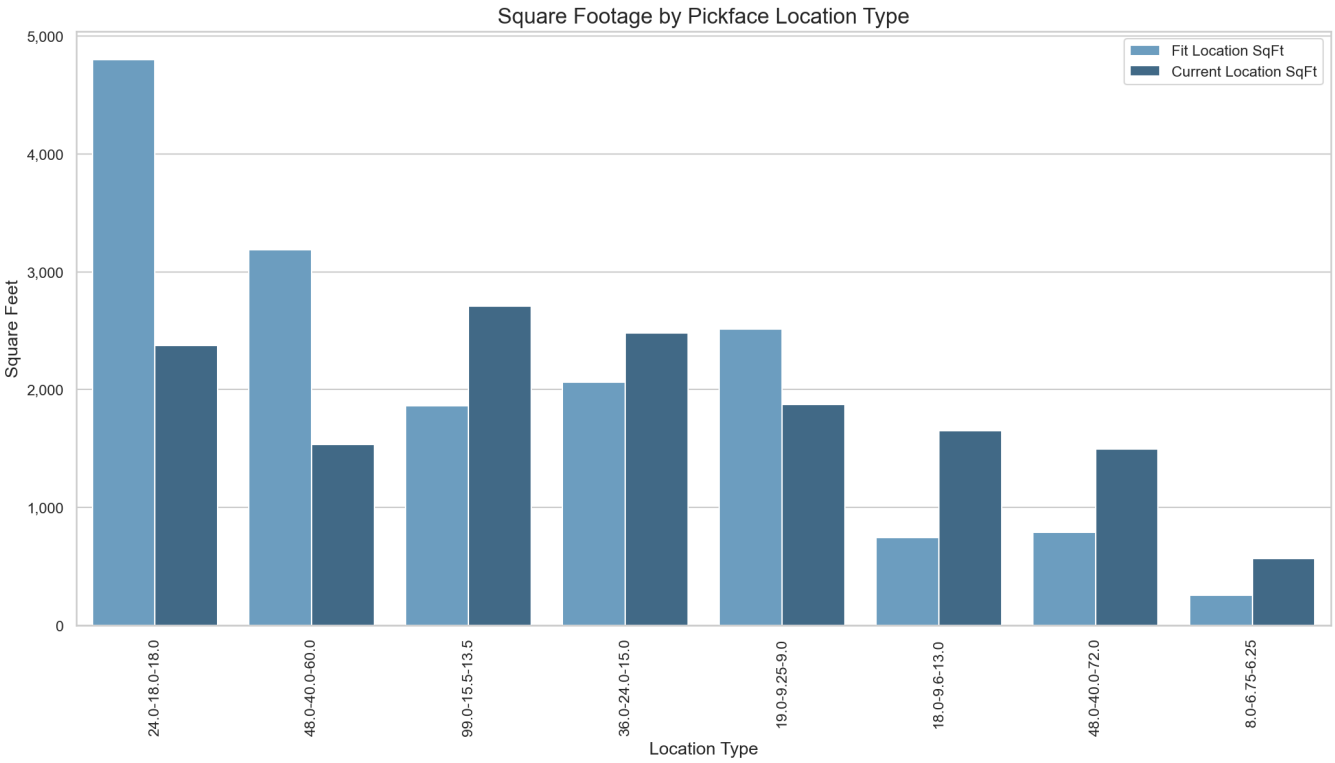
Comparison of Current and Fit Pickface Location Counts



Count of current pickface locations is sourced from the inputted inventory table, and fitted values are calculated by the storage model.

The three locations with the largest differences in counts are:
8.0-6.75-6.25,
24.0-18.0-18.0,
18.0-9.6-13.0.

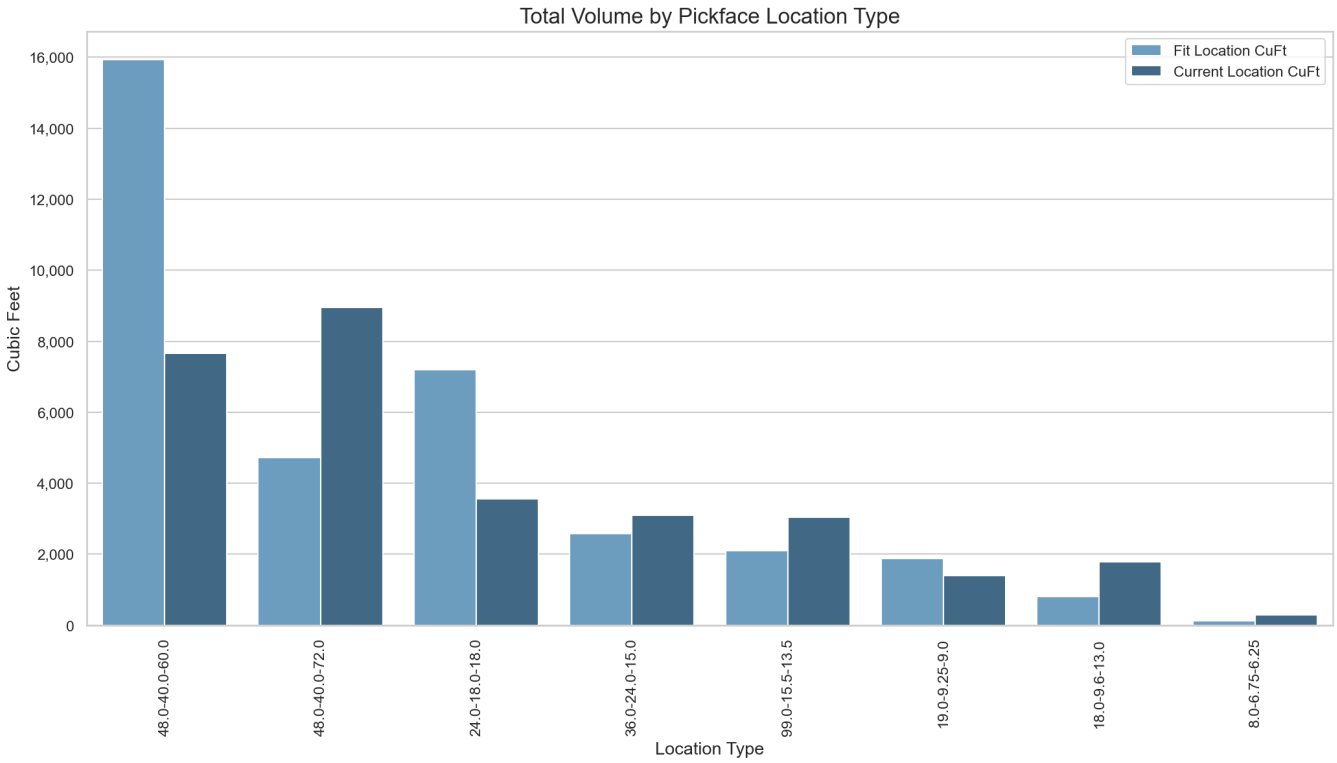
Comparison of Current and Fit Pickface Location Square Feet Requirements



Square feet of current pickface locations is sourced from the inputted inventory table, and fitted values are calculated by the storage model.

The three locations with the largest differences in square feet are:
24.0-18.0-18.0,
48.0-40.0-60.0,
and 18.0-9.6-13.0.

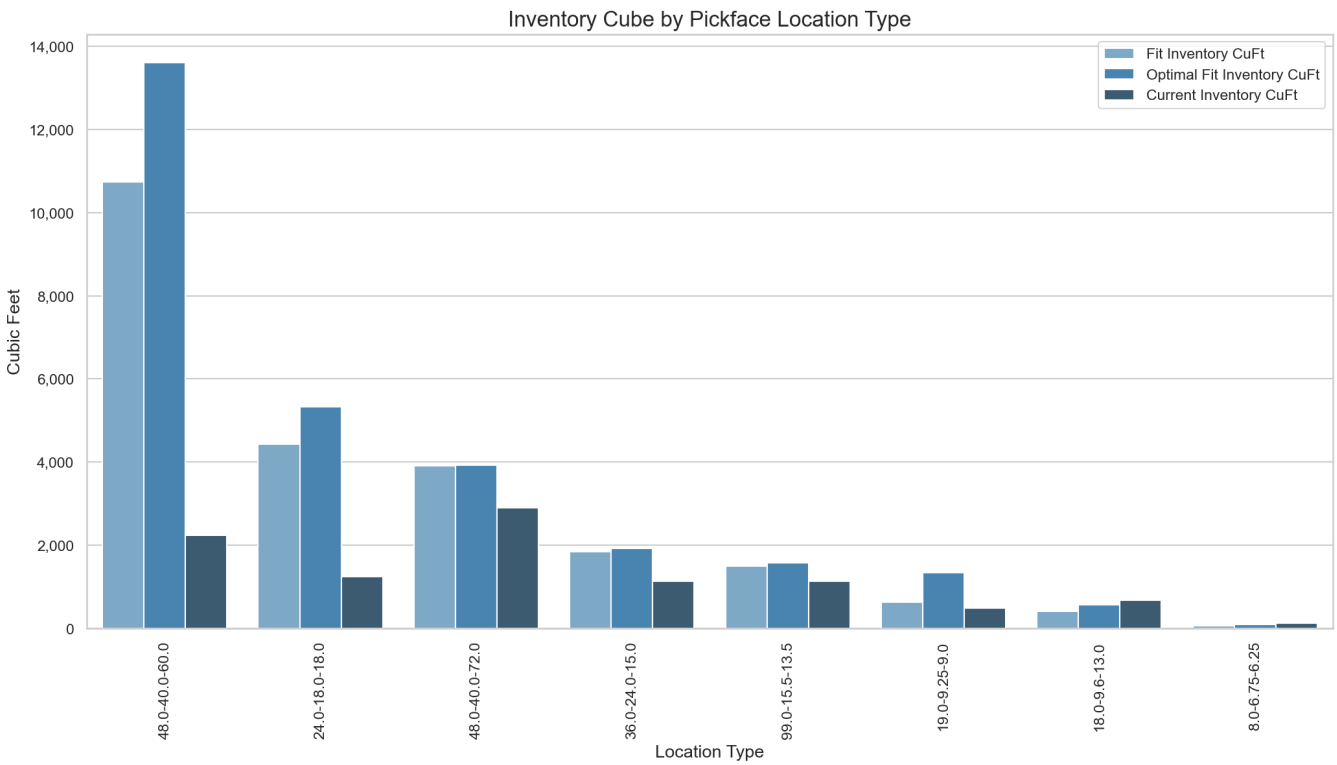
Comparison of Current and Fit Pickface Location Cubic Feet Requirements



Cubic feet of current pickface locations is sourced from the inputted inventory table, and fitted values are calculated by the storage model.

The three locations with the largest differences in cubic feet are:
48.0-40.0-60.0,
48.0-40.0-72.0,
and 24.0-18.0-18.0.

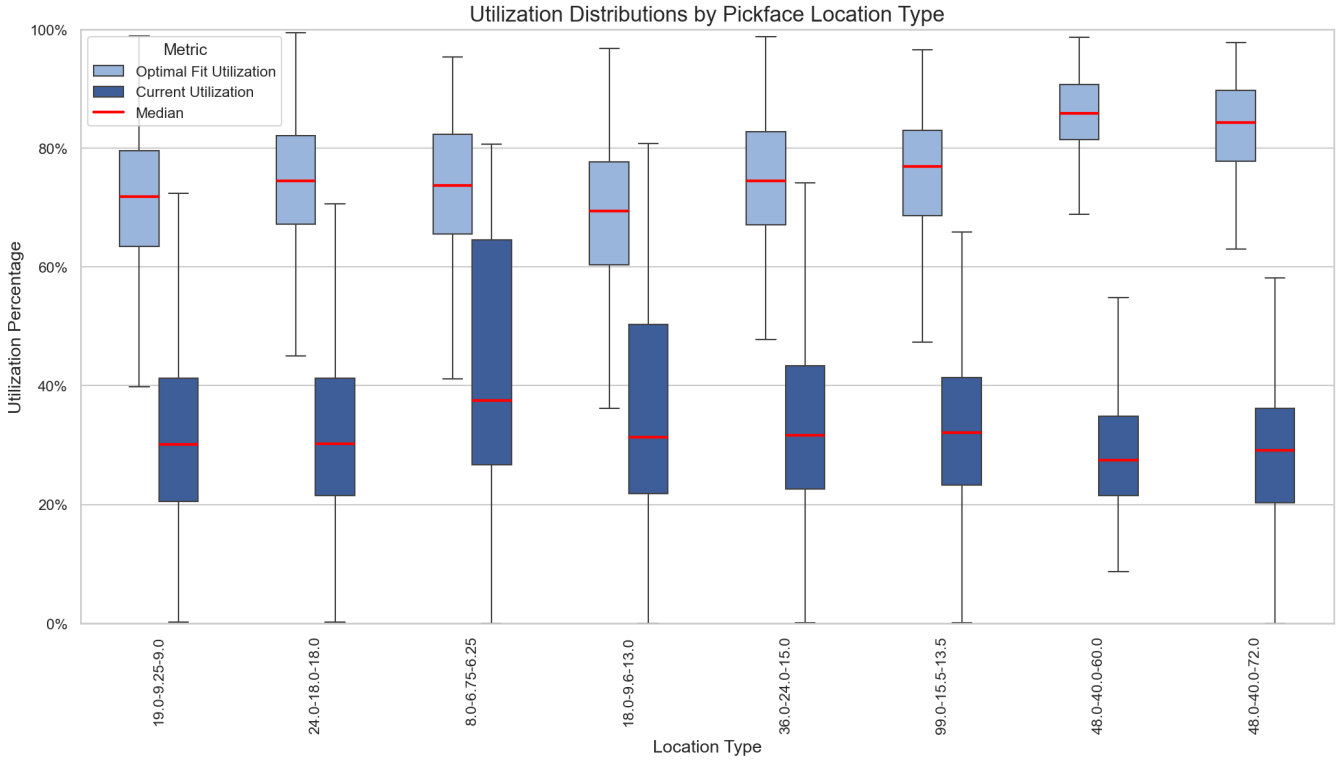
Comparison of Current and Fit Pickface Inventory Cube



Inventory cube of current pickface locations is sourced from the inputted inventory and item master tables, and fitted values are calculated by the storage model (optimal fit).

The three locations with the largest differences in inventory cube are:
48.0-40.0-60.0,
24.0-18.0-18.0,
and 48.0-40.0-72.0.

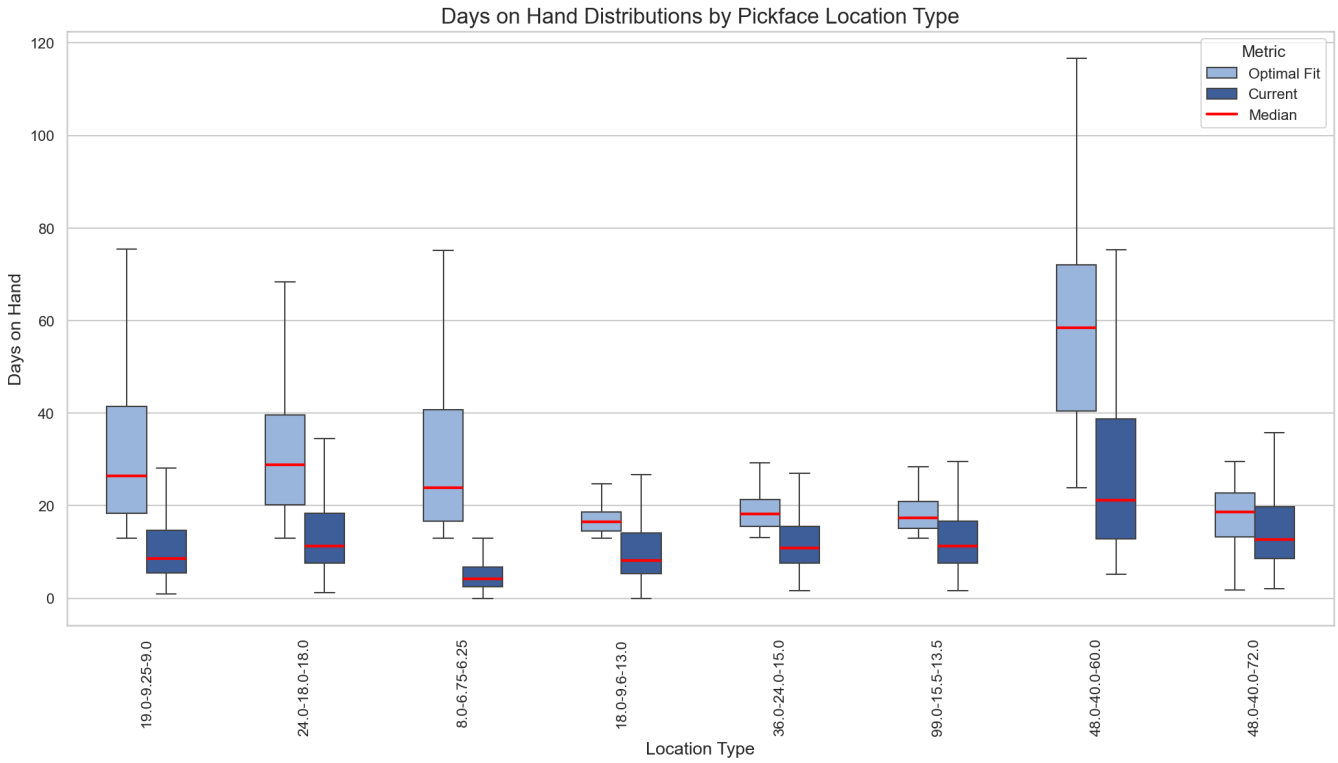
Comparison of Pickface Location Utilization of Current and Optimal Fit



Current data is calculated from inputted inventory and item master tables, and optimal fitted values are derived from storage model. Optimal shows the maximum inventory cube that could fit in the location regardless of known inventory, while considering days on hand requirements and utilization limits.

The three least currently utilized location types are:
48.0-40.0-60.0,
48.0-40.0-72.0,
and 19.0-9.25-9.0.
The three least utilized location types in the optimal fit are:
18.0-9.6-13.0,
19.0-9.25-9.0,
and 8.0-6.75-6.25.

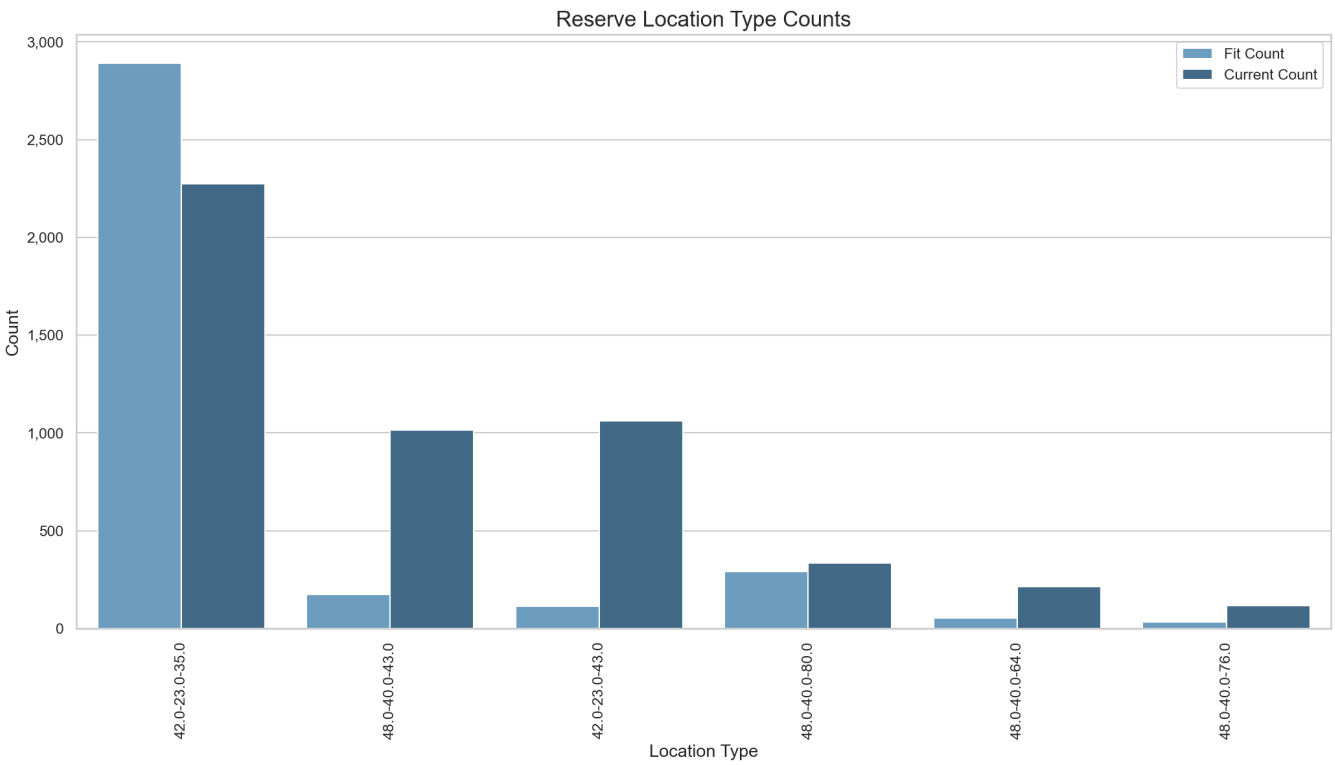
Comparison of Pickface Location Days on Hand of Current and Optimal Fit



Current data is calculated from inputted inventory table, and optimal fitted values are derived from storage model. Optimal shows the maximum days on hand that could fit in the location regardless of known inventory, while considering days on hand requirements and utilization limits.

The three current least days on hand location types are:
8.0-6.75-6.25,
36.0-24.0-15.0,
and 99.0-15.5-13.5.
The three optimally-fitted least days on hand location types are:
18.0-9.6-13.0,
48.0-40.0-72.0,
and 99.0-15.5-13.5.

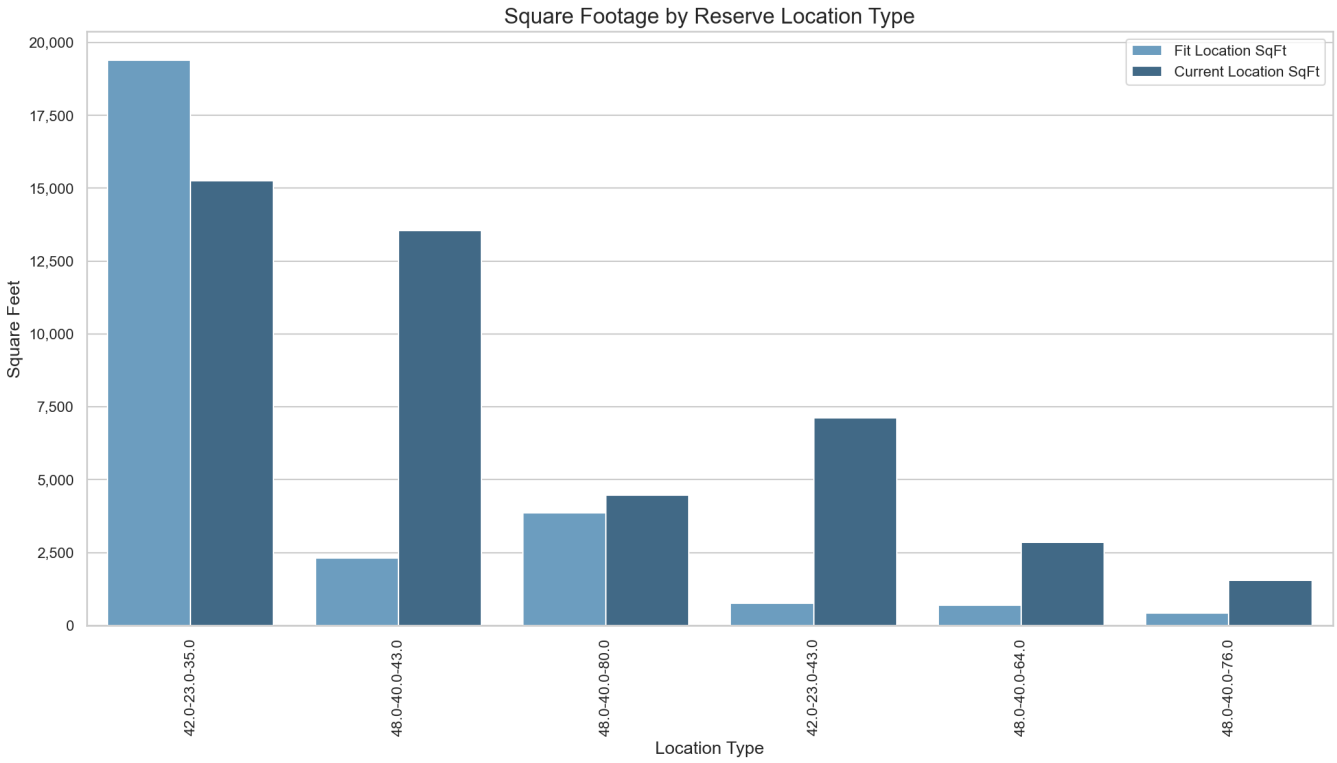
Comparison of Current and Fit Reserve Location Counts



Count of current reserve locations is sourced from the inputted inventory table, and fitted values are calculated by the storage model

The three locations with the largest differences in counts are:
42.0-23.0-43.0,
48.0-40.0-43.0,
42.0-23.0-35.0

Comparison of Current and Fit Reserve Location Square Feet Requirements



Square feet of current reserve locations is sourced from the inputted inventory table, and fitted values are calculated by the storage model

The three locations with the largest differences in square feet are:
48.0-40.0-43.0,
42.0-23.0-43.0,
and 42.0-23.0-35.0

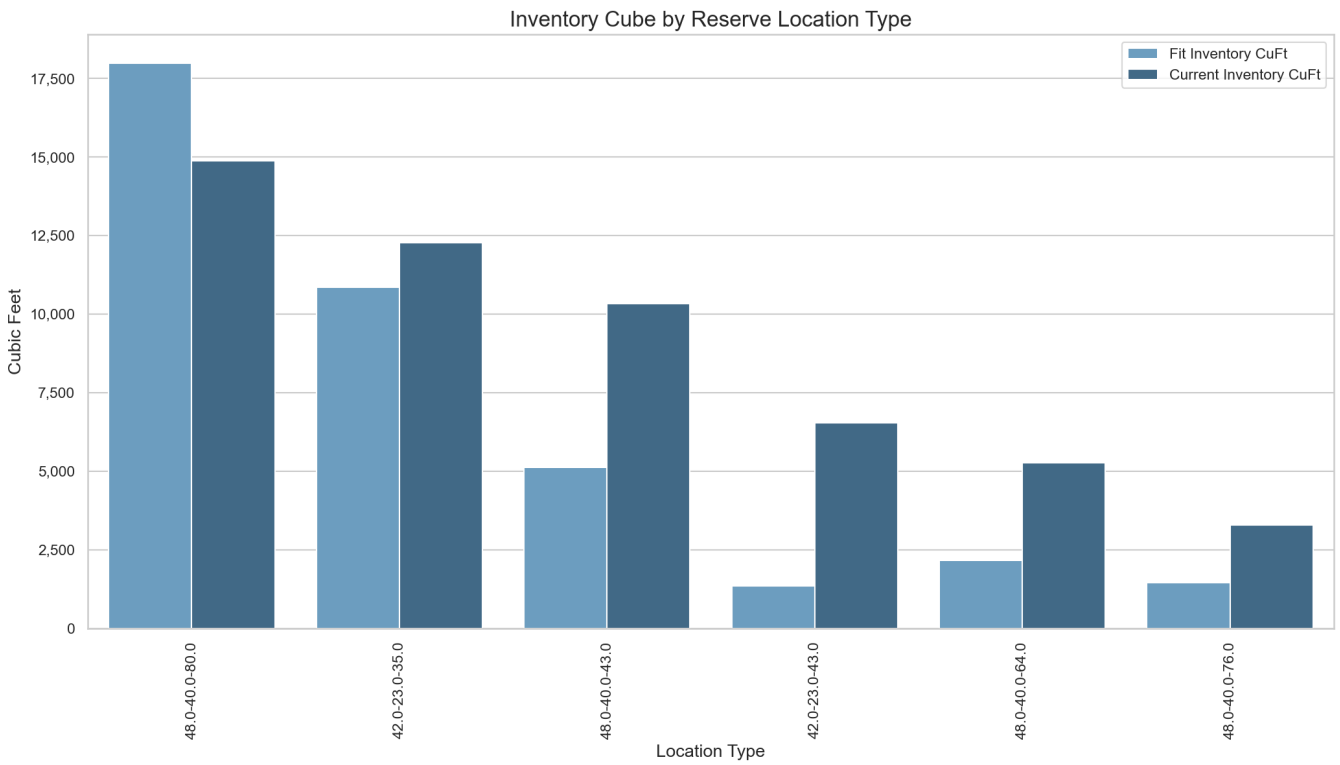
Comparison of Current and Fit Reserve Location Cubic Feet Requirements



Cubic feet of current reserve locations is sourced from the inputted inventory table, and fitted values are calculated by the storage model

The three locations with the largest differences in cubic feet are:
48.0-40.0-43.0,
42.0-23.0-43.0,
and 42.0-23.0-35.0

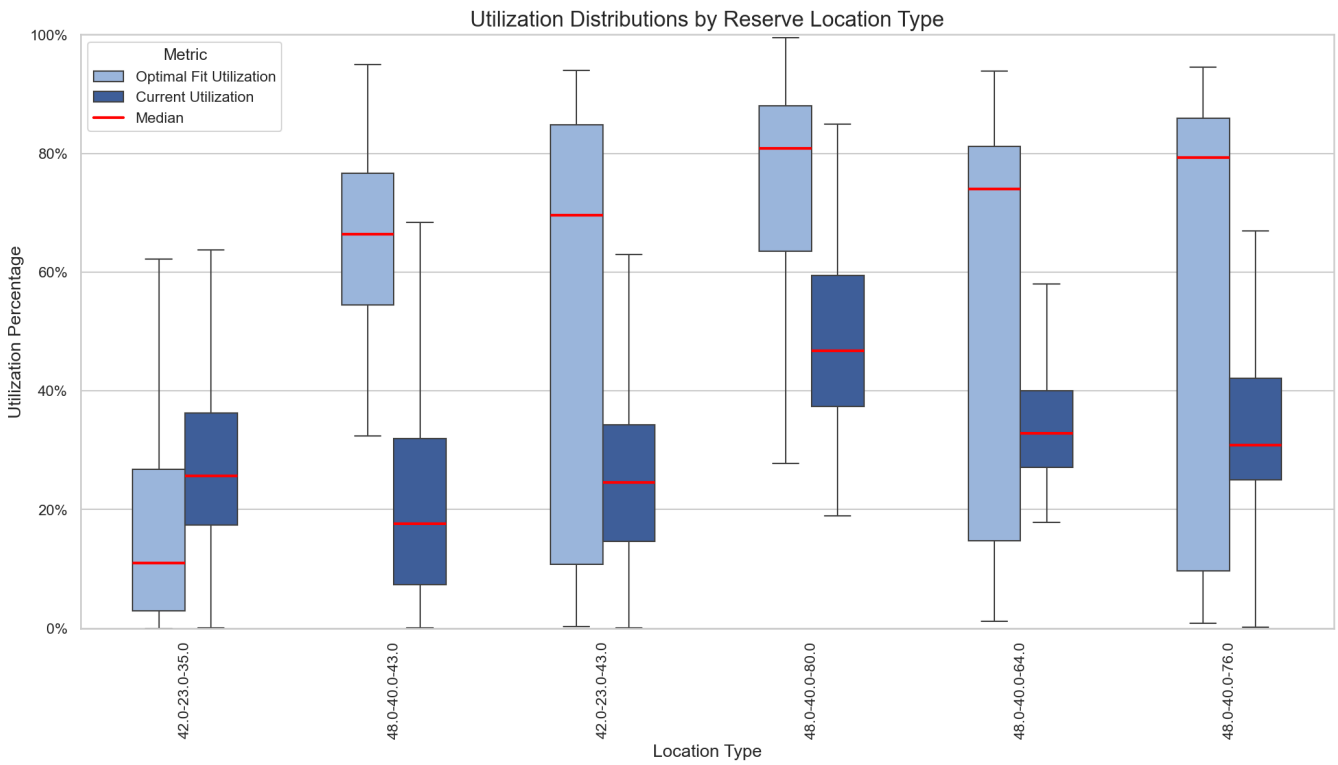
Comparison of Current and Fit Reserve Inventory Cube



Inventory cube of current reserve locations is sourced from the inputted inventory and item master tables, and fitted values are calculated by the storage model.

The three locations with the largest differences in inventory cube are:
48.0-40.0-43.0,
42.0-23.0-43.0,
and 48.0-40.0-80.0

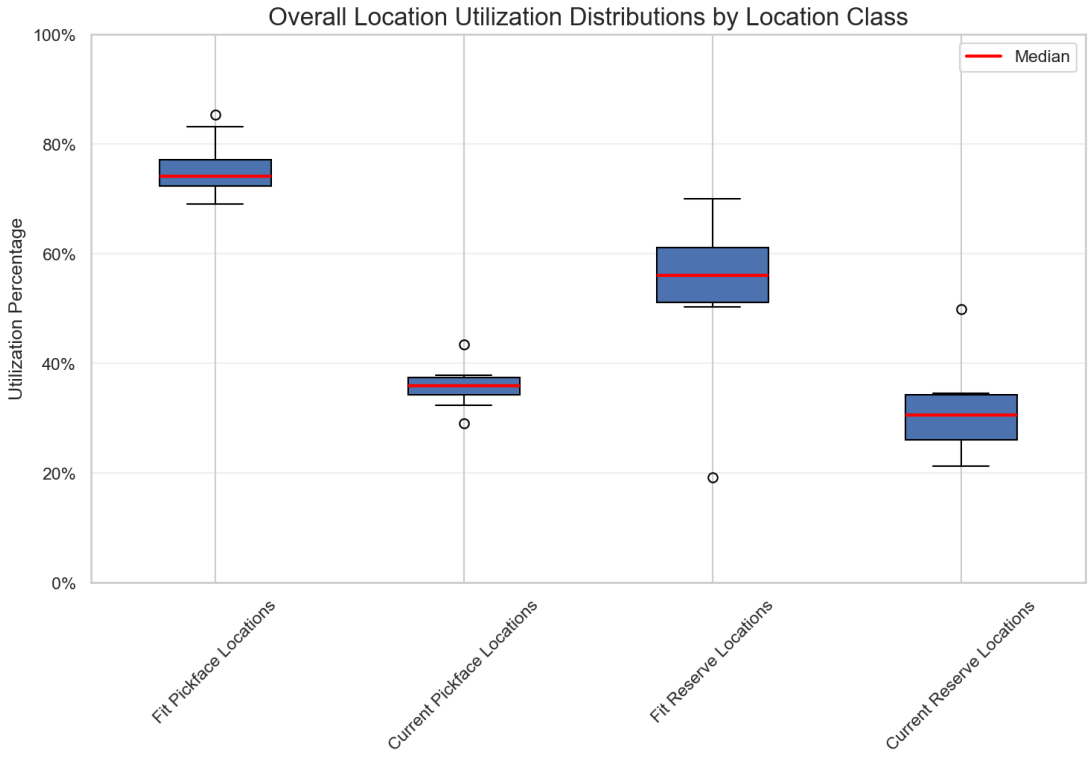
Comparison of Reserve Location Utilization of Current and Fit



Current data is calculated from inputted inventory and item master tables, and fitted values are derived from storage model.

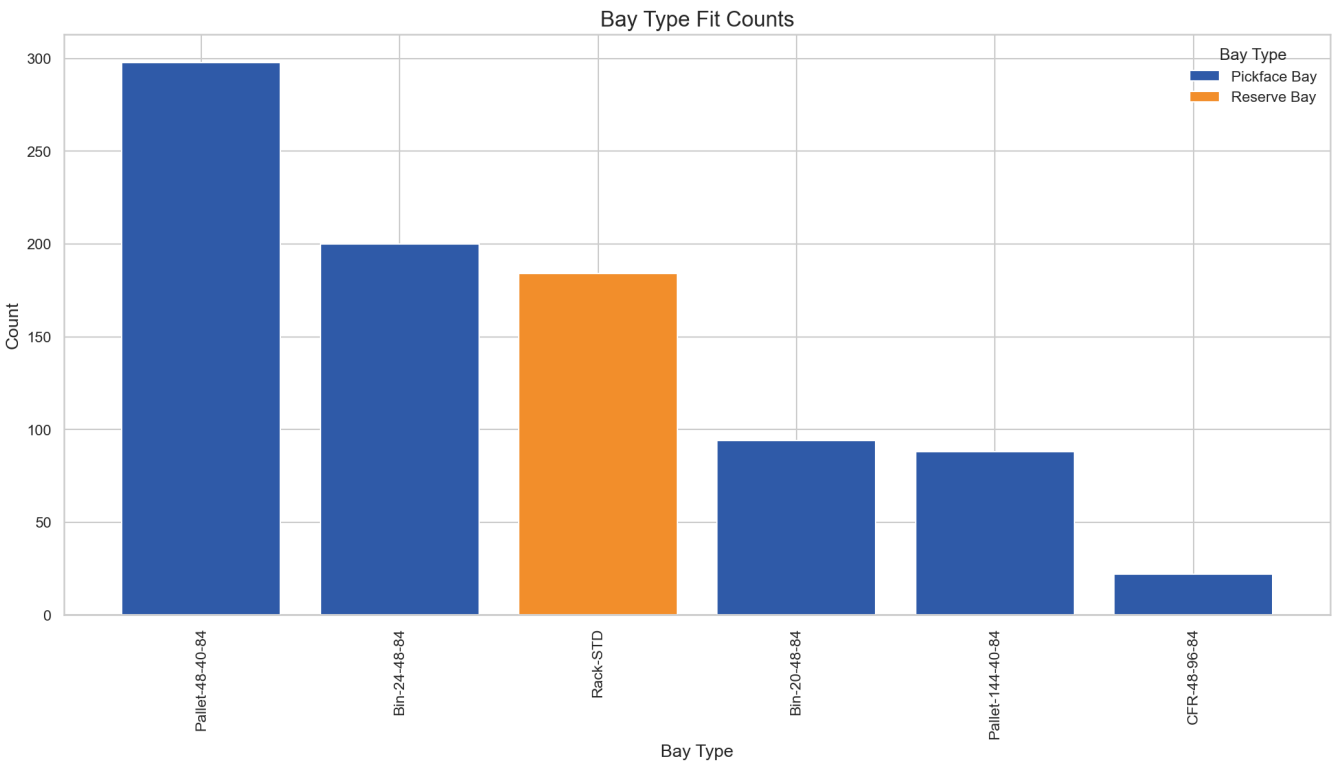
The three least currently utilized location types are:
48.0-40.0-43.0,
42.0-23.0-43.0,
and 42.0-23.0-35.0.
The three least utilized location types in the optimal fit are:
42.0-23.0-35.0,
42.0-23.0-43.0,
and 48.0-40.0-76.0.

Overall Comparison of Location Utilization of Current and Optimal Fit



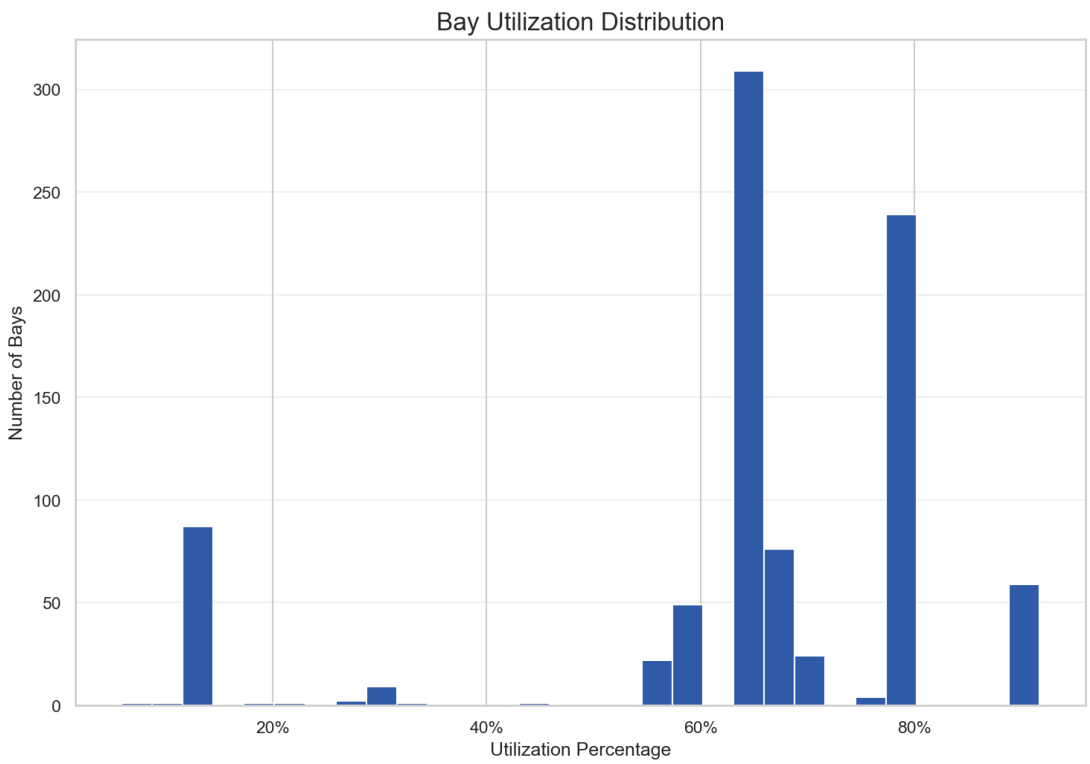
Current data is calculated from inputted inventory and item master tables, and optimally-fitted values are derived from storage model. Optimal shows the maximum days on hand that could fit in the location regardless of known inventory, while considering days on hand requirements and utilization limits.

Modeled Count of Bays



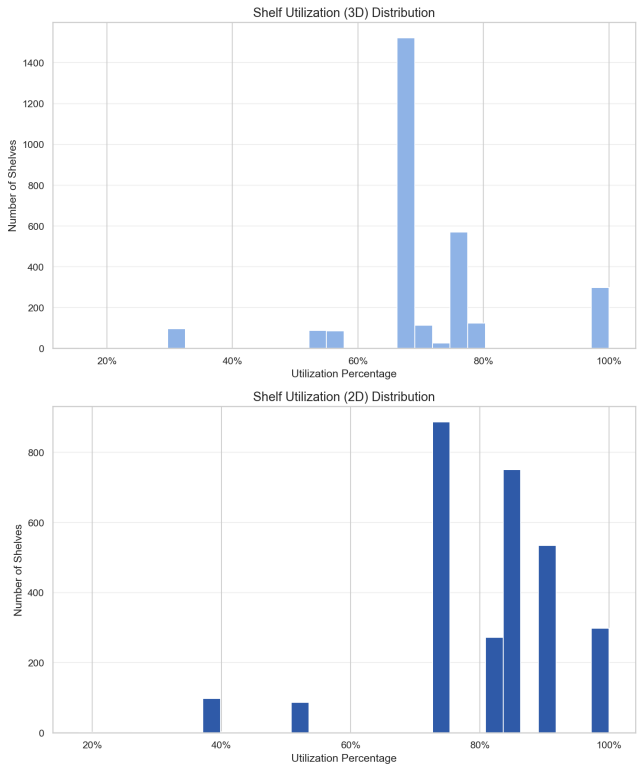
Bays are determined by storage model and various input tables.

Bay Utilization Distribution



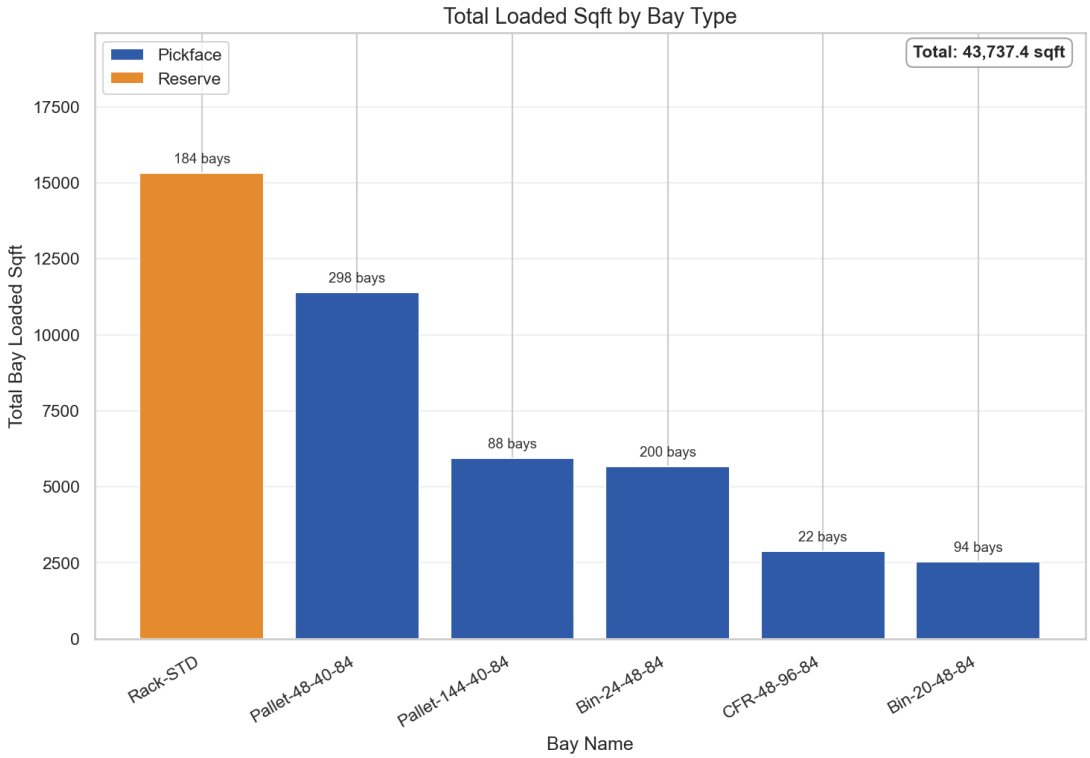
Bay utilization is calculated by the storage model and reflects volumetric fill of each modeled bay.

Shelf Utilization Distributions (3D and 2D)



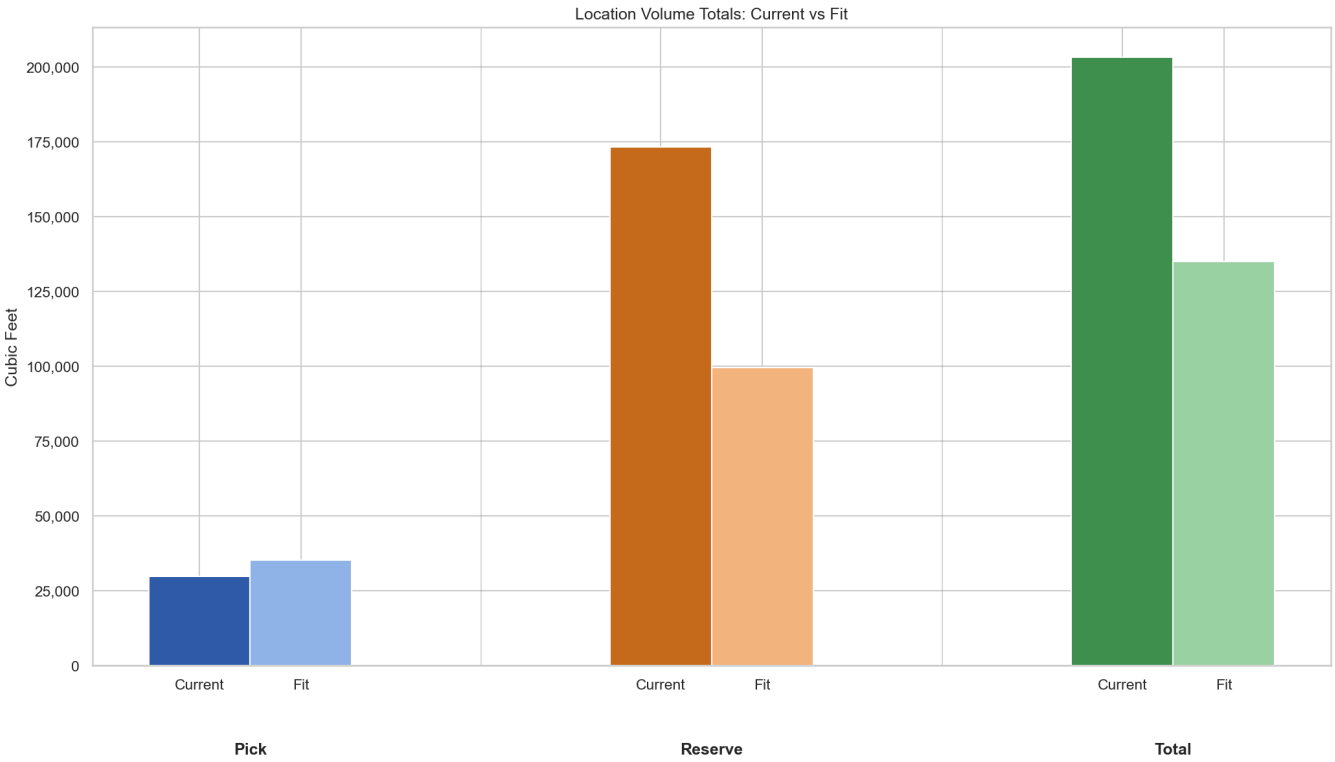
Shelf utilization is calculated by the storage model, showing both volumetric (3D) and footprint (2D) fill across all modeled shelves.

Loaded Square Feet by Bay Type



Loaded Square Feet includes square feet of the bay as well the square feet of aisles.

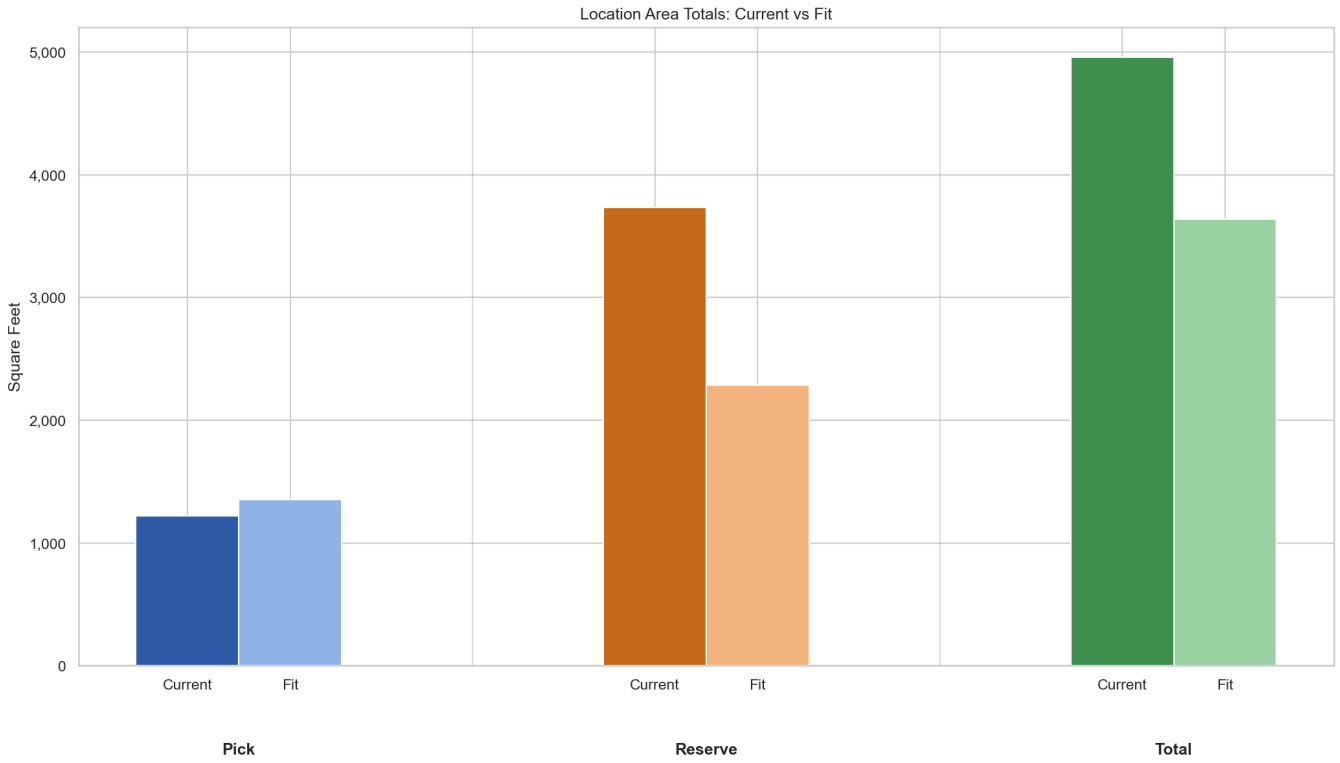
Current vs. Fit Comparison of Location Volume by Category



This chart shows total location cube data. Current values are calculated from inputted inventory table, and fitted values are derived from storage model.

Current pickface locations total 18.57% less location cube than fitted.Current reserve locations total 42.53% more location cube than fitted.Storage model calculates that overall location cube can be reduced by 33.57%.

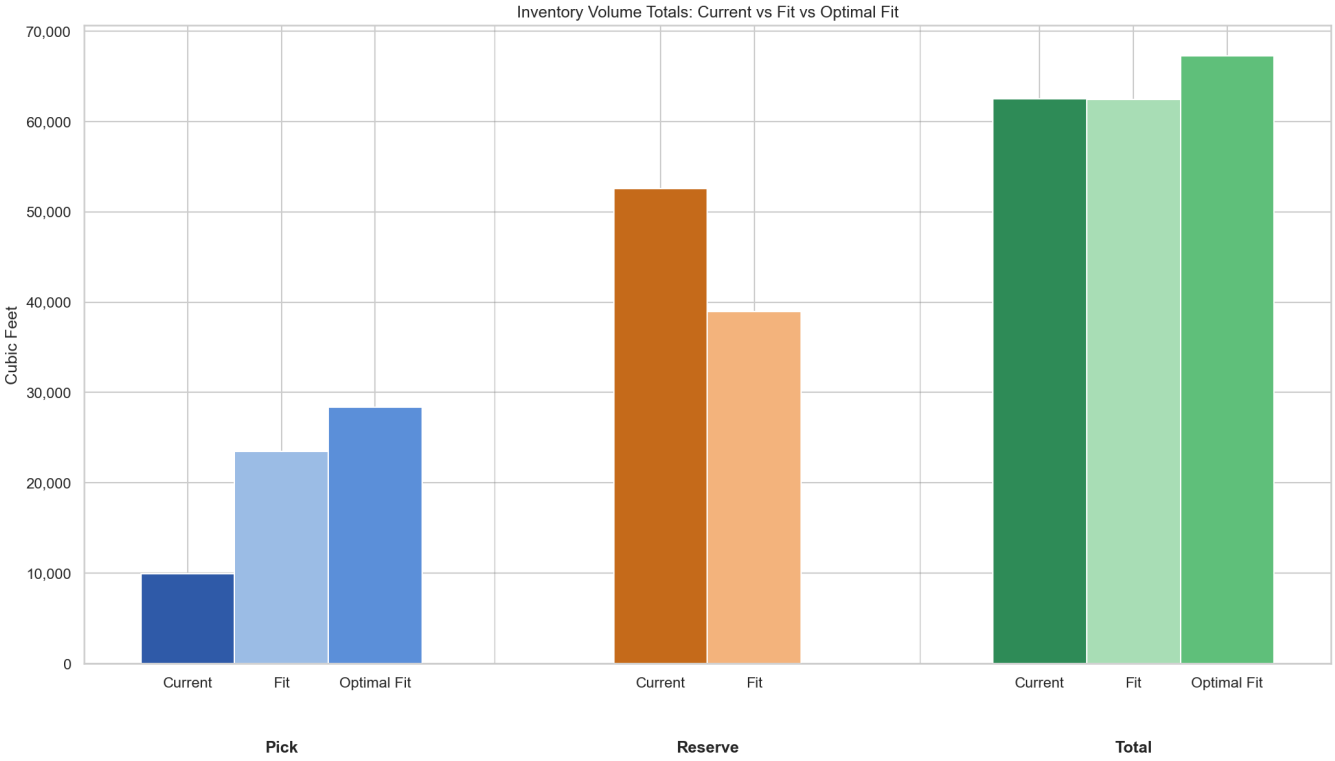
Current vs. Fit Comparison of Square Feet Requirements by Category



This chart shows total square feet requirements. Current values are caluclated from inputted inventory and item master tables, and fitted values are derived from the storage model.

Current pickface locations require 10.48% less square feet than fitted.Current reserve locations require 38.77% more squre feet than fitted.Overall, all current locations require 26.61% more square feet than fitted.

Current vs. Fit vs. Optimal Fit Comparison of Location Inventory Cube by Category



This chart shows the total location inventory cube data. Current values are calculated from inputted inventory and item master tables, and fitted values are derived from the storage model. Optimal fit values show how much inventory could fit in storage locations if inventory had enough volume. Reserve locations have no difference in fit vs. optimal fit.

The fit yields 136.36% less pickface inventory volume than the current pickface locations.The optimal fit yields 184.99% less pickface inventory volume than the current pickface locations.The fit yields 25.95% more reserve inventory space, due to the pickface allocation change.The optimal fit ultimately yields 7.61% less total inventory volume.