

# Identifying Current Gaps in Parcel Shipping: Packing and Packaging Optimization



IN PARTNERSHIP WITH  **FREIGHTWAVES**

# Contents

3

Overview

5

Shippers Rely on Old School  
Dimensioning Techniques

7

Current Cartonization  
Processes Promote Inefficiencies

11

Understanding the Intersection  
of Rates and Cartonization

12

Unlock Cost Savings with  
Modern Solutions

# Overview

In recent years, the logistics industry has poured unprecedented amounts of time, effort, and money into revolutionizing and optimizing the way goods move through the supply chain. These efforts have successfully changed the way companies approach everything from shipment tracking to RFPs.

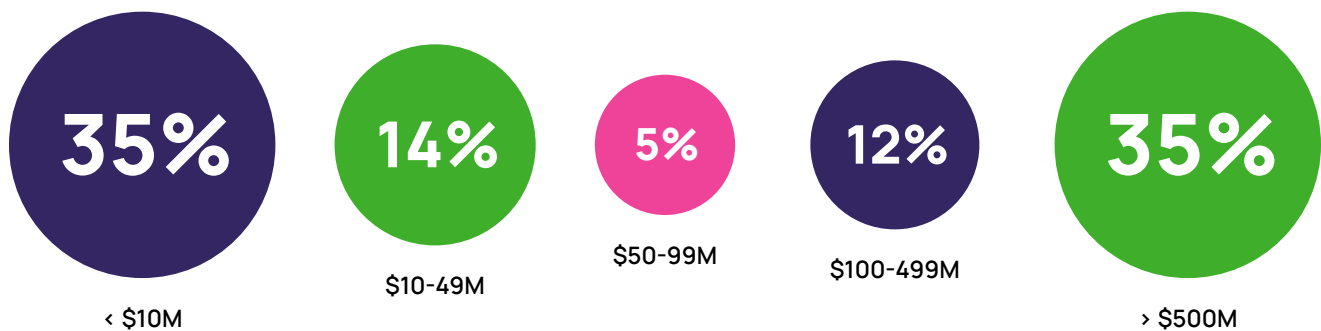
One area that has garnered much less attention, however, is shipment packing efficiency. Despite this lack of focus, proper cartonization is a crucial piece of a thriving supply chain, especially as e-commerce continues to grow.

FreightWaves teamed up with Paccurate and Cubiscan to survey shippers about their packing and cartonization processes. The duo set out to better understand what companies are doing today and uncover opportunities for a more efficient tomorrow.

Companies of a variety of sizes were surveyed in order to make sure the results were representative of the industry as a whole, not just a subset of players.

## What is your company's annual revenue?

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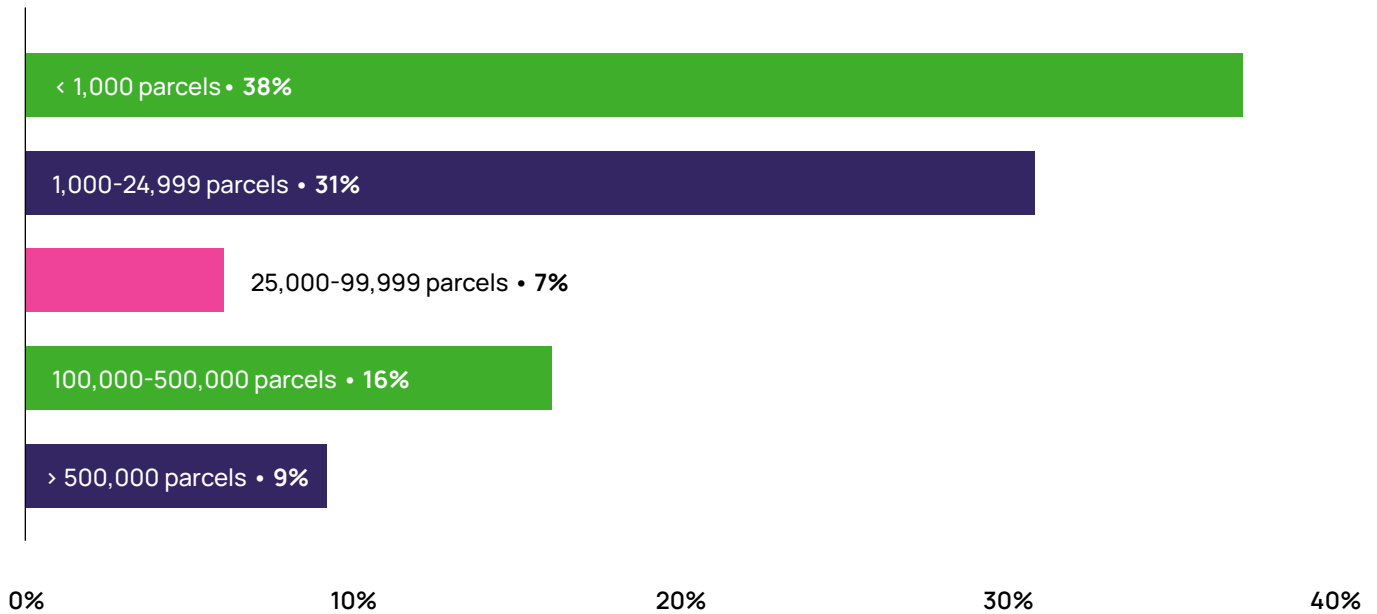


An equal percentage of respondents said their company generated less than \$10 million and \$500 million or more. Almost one-third (31%) of participants landed somewhere between those two ranges, ensuring survey answers reflect a wide array of perspectives.

FreightWaves also asked survey respondents how many parcels their companies ship per month in order to get a better understanding of their positions in the market.

## What is your company's monthly shipping volume?

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The majority of respondents fell on the lower end of the spectrum, with 38% shipping fewer than 1,000 parcels monthly and 31% shipping 1,000-24,999 parcels. However, about a quarter (24%) of respondents said they ship 100,000 or more parcels monthly.

## Do you perform ship-from-store operations?

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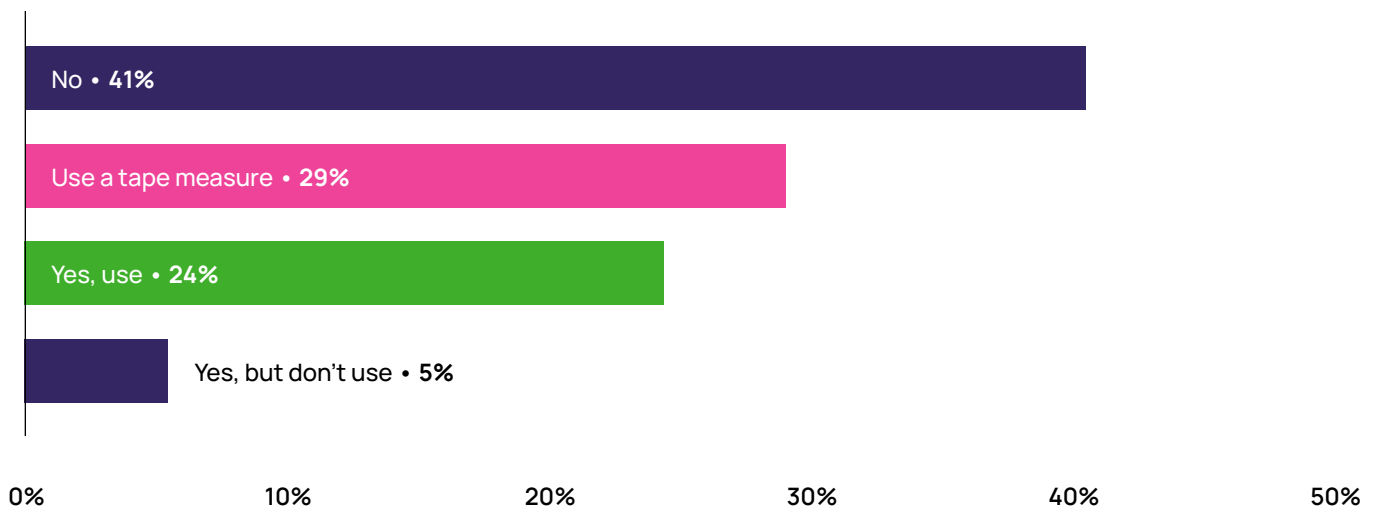
The slim majority of respondents (57%) do not engage in ship-from-store operations. A significant minority of folks (43%), however, do perform these operations on a regular basis.

# Shippers Rely on Old School Dimensioning Techniques

In order to create an efficient cartonization process, shippers need accurate SKU data including dimensions and item weights. While traditional dimensioning methods tend to involve a significant amount of manual labor, modern solutions – like those offered by Cubiscan – are more accurate and easier to use.

When FreightWaves asked shippers about their own dimensioning systems, however, it became clear that these technologies are being wildly underutilized.

## Do you have a dimensioning system?



Many respondents (41%) do not have any kind of dimensioning system in place. At the same time, almost one-third (29%) continue to rely on old school methods like using a tape measure.

This means that 70% of companies either do not have a dimensioning system to speak of or rely on manual methods for dimensioning.

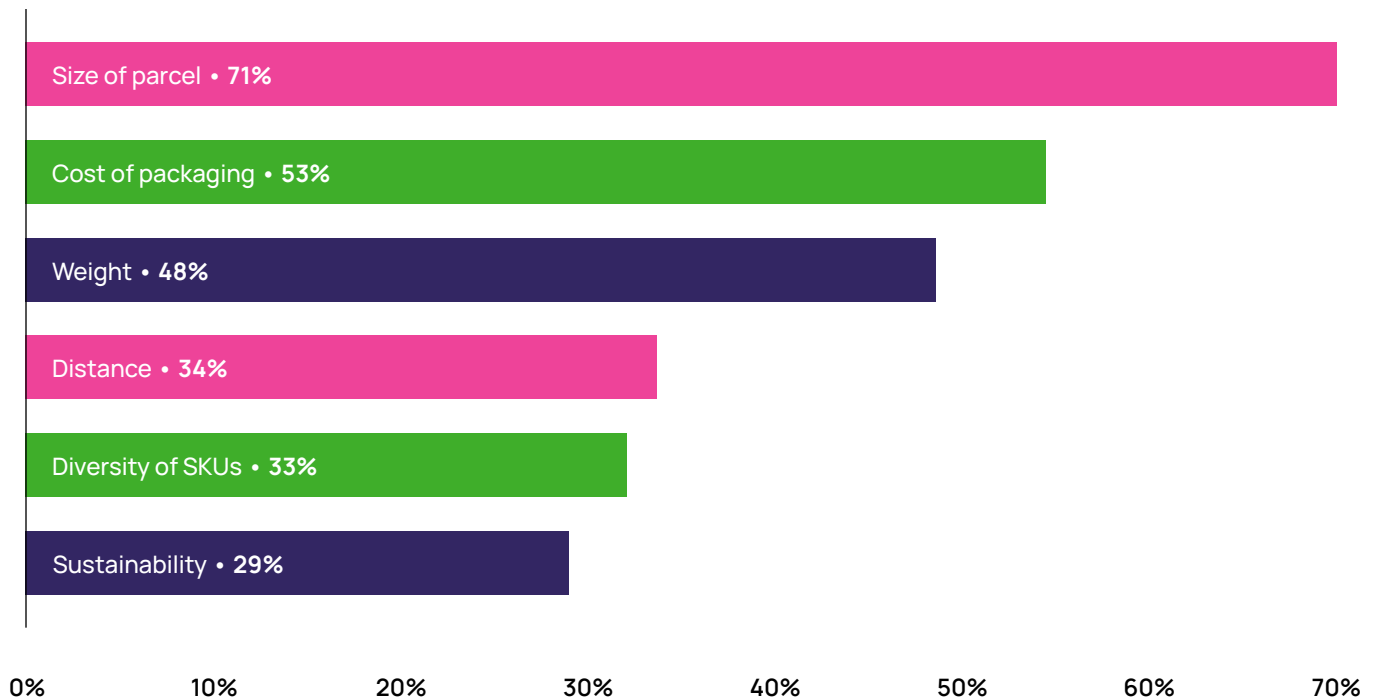
Among the minority of respondents that do have access to a more modern dimensioning system, 24% said they

use it on a regular basis. Only a small minority (5%) of surveyed shippers said they have a dimensioning system but do not use it.

These results point to the fact that most shippers have not adopted modern technologies to better facilitate their dimensioning processes. Those that have, however, tend to be pleased with the solutions based on utilization rate.

FreightWaves also asked shippers about the factors they consider when selecting a box for their items in order to gain a more nuanced understanding of the most common approaches to packing.

## What factors do you consider when selecting a box for items? Please select all that apply.



When selecting a box for packing items, the size of the parcel is the most considered factor by far. In fact, 71% of respondents said they prioritize parcel size when choosing a box.

This result highlights the fact that most companies still believe that fitting the most items in the smallest possible container is the best way to do cartonization.

While the cost of packaging (53%) and the weight of the package (48%) also proved to be significant considerations for survey respondents, consideration for these factors paled in comparison to size.

This cartonization strategy is popular for a reason. It is how most warehouse management systems solve the problem, and it seems like the best way to save money – on the surface at least.

One of the biggest issues with this approach is that it fails to understand how items actually fit inside the box, therefore making it difficult to identify situations where cost savings are available by choosing a different size or splitting packages into multiple shipments based on carrier incentives.

# Current Cartonization Processes Promote Inefficiencies

Increased efficiency and cost savings go hand-in-hand. When any one process is inefficient, the entire supply chain can feel the effects.

FreightWaves asked shippers to rate their current packaging process, and the results made it clear that most respondents are not operating at maximum efficiency.

## How efficient do you believe your packaging process is?

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62% (average score on a scale from 0-100%)

Surveyed shippers admitted that their packaging processes have room for improvement. The average score came in at just over 62% on a scale from 0-100%.

This score indicates that most surveyed companies believe their packaging processes to be moderately efficient.

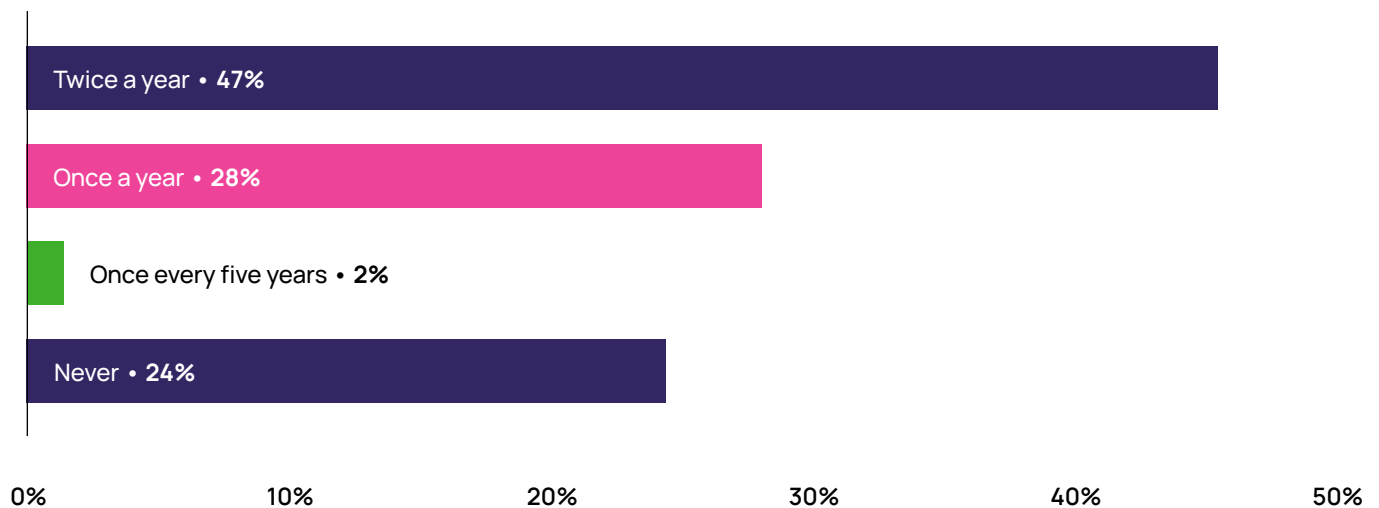
The best way for shippers to improve is by integrating automated dimensioning along with cartonization

solutions – **like those offered by Paccurate** – into their process. Modern, tech-driven solutions offer an edge over traditional methods and drive efficiency gains that are impossible to achieve otherwise.

To understand exactly how much their companies would benefit from these solutions, shippers must first understand where they stand right now. Audits are the best way to get a full picture of a shipper's current parcel shipping situation.

## How often do you audit your parcel shipping for overcharges and inefficiencies??

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Almost half of respondents (47%) audit their parcel shipping for overcharges and inefficiencies twice per year, indicating that a significant minority of shippers are taking a fairly proactive approach to cost management.

Another 28% of respondents undertake these types of audits on an annual basis. While this allows more room for inefficiencies to go unchecked, it does ensure these companies have a basic understanding of what is happening with their parcel shipping.

A significant percentage of surveyed shippers (24%), however, said they never conduct audits. For these

companies, inefficiencies are likely to go unnoticed and unaddressed for years. This can have a significant operational impact on these businesses and lead to skyrocketing levels of wasted cash.

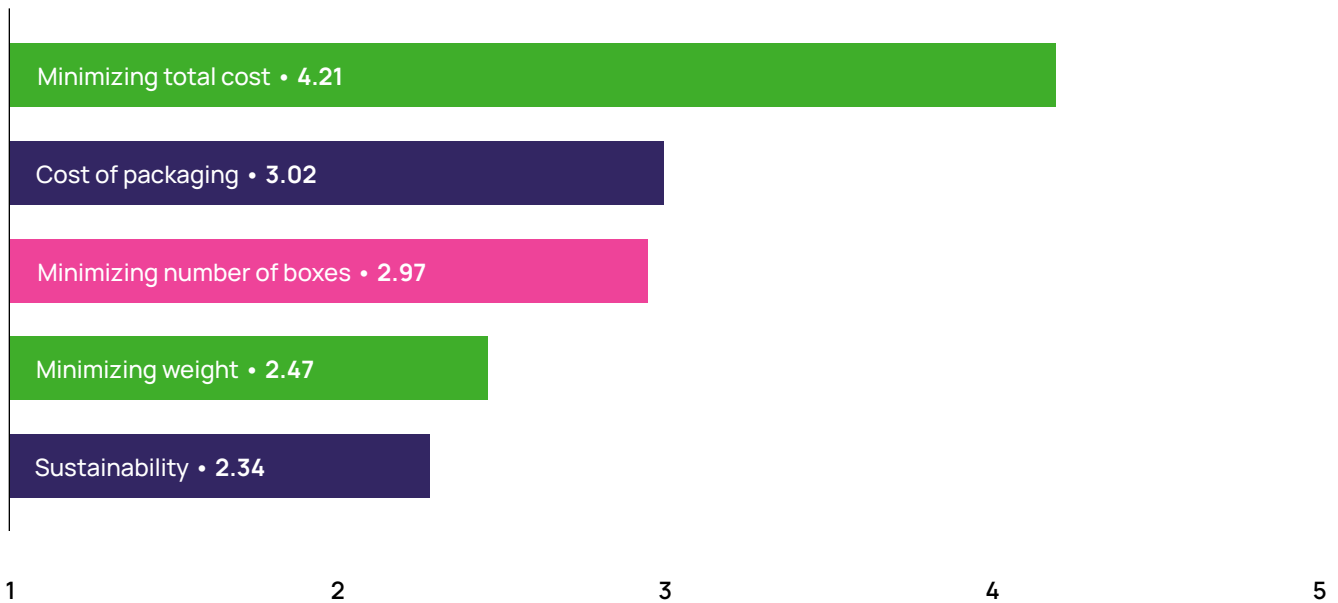
This indicates that a large percentage of shippers would benefit from a greater awareness of their current parcel shipping situation. Once these companies understand the inefficiencies they are facing, they can better select solutions to solve them.



It is clear the majority of shippers have not yet adopted modern dimensioning and cartonization solutions. To understand if shippers are satisfied with their old school methods, FreightWaves asked survey respondents to rank several different factors by order of importance for their cartonization processes.

Respondents scored each factor on a scale of one to five, where a higher number indicates higher importance.

Please rank the following in order of importance for your cartonization process.



"Minimizing total cost" scored a 4.21, coming in as the most important factor by far.

This is interesting to consider in light of surveyed shippers' previous answers, which revealed a tendency to approach cartonization with the goal of keeping the size

of the carton as full and small as possible.

These answers, when taken together, indicate that many shippers desire cost savings in their packaging operations but do not know how to access them.

FreightWaves also asked shippers to rate various aspects of their current cartonization tools using the same five-point scale.

On a scale of 1-5, how do you rate the following aspects of your current cartonization tool (where 1 is poor and 5 is excellent)?



Among the rated aspects, accuracy received the highest weighted average score of 3.25. This factor was trailed closely by all the others – ease of use, efficiency, and cost-effectiveness.

It is worth noting that satisfaction with the cost-effectiveness of their current tools ranked lowest (3.12)

despite total cost coming in as the most important cartonization factor.

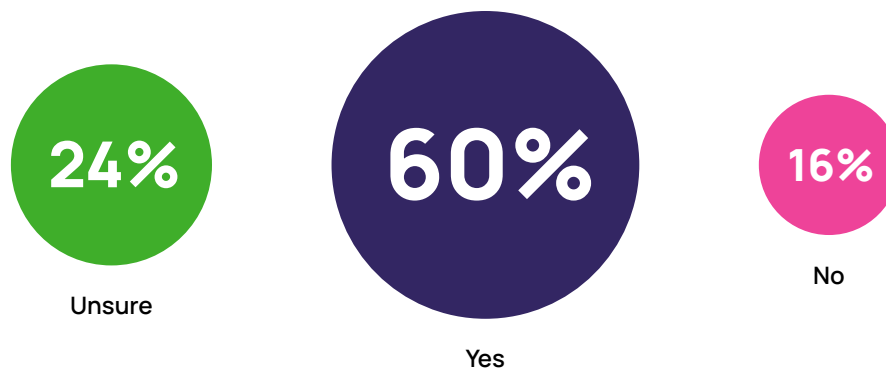
With each score coming in between 3.12 and 3.25, it is clear that respondents more or less feel that every aspect of their current cartonization tool is just alright – neither wowing them nor causing despair.

# Understanding the Intersection of Rates and Cartonization

For shippers, another aspect of optimizing their parcel fulfillment operations is understanding how negotiated shipping rates could incentivize them to consolidate or split orders. This level of nuance is often overlooked in the packing process, especially when shippers are focused on fitting as many items into a box as possible.

Do you understand how your negotiated shipping rates incentivize you to consolidate or split orders?

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The majority of survey respondents (60%) understand how their negotiated shipping rates incentivize order consolidation or splitting, but a noteworthy 24% are unsure about the incentives. Another 16% explicitly stated that they do not understand these incentives at all.

Paccurate champions cartonization that incorporates rate cards to determine the best way to pack an order for the lowest possible cost. This means not just selecting the smallest size box for all of the items, but understanding how carriers incentivize packing with respect to the service type and delivery destination.

These results point to an area of needed education for shippers.

# Unlock Cost Savings With Modern Solutions

Shippers are constantly looking for ways to optimize their operations, and they desire cost savings throughout their organizations. The packing step is no exception to this rule. Many shippers, however, are not informed about the modern, tech-driven solutions available.

Cubiscan and Paccurate have developed tools aimed at optimizing the packing process, allowing shippers to approach this part of their businesses in a smart, cost-informed way.

## Contact Us



To learn more, visit the Cubiscan website at [www.cubiscan.com](http://www.cubiscan.com).



To learn more, visit the Paccurate website at [www.paccurate.io](http://www.paccurate.io).