ShipBob

Distributed Inventory

How using multiple fulfillment centers can reduce transit times and shipping costs

Introduction

> **ShipBob having multiple locations was also huge for us. Keeping our inventory in Chicago and Los Angeles has brought cost savings since we ship from the locations that are closest to the customer.**
>
> **Courtney Lee,**
> Founder of
> Prymal

Because of industry giants like Amazon, online shoppers today expect affordable 2-day, next-day, or even same-day shipping on their orders.

The good news? Big box retailers aren't the only ones who can pull off 2-day shipping anymore. Independent brands can now offer the same service and compete on shipping speed and cost without managing any warehouses themselves by using a distributed inventory strategy.

By leveraging a 3PL that has a network of strategically placed fulfillment centers, you can store inventory in locations that reduce your average shipping costs and transit times.

In this guide, we'll dive deep into how this distributed inventory strategy is made possible for small to midsize ecommerce companies.

TABLE OF CONTENTS

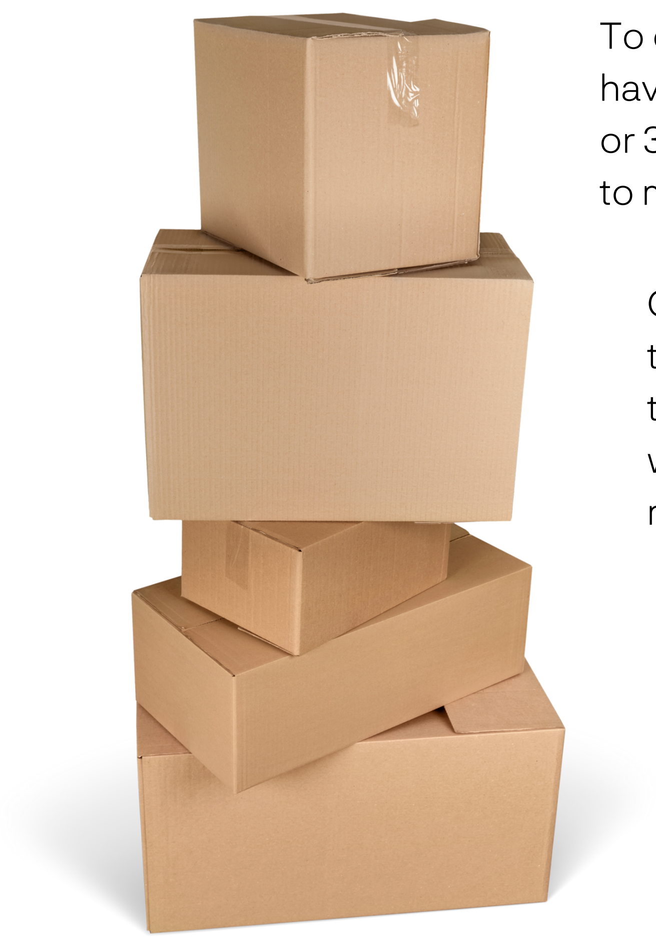
Page #	Chapter Title
4	Defining Distributed Inventory
6	Understanding Shipping Zones
12	Distributing Inventory to Multiple Fulfillment Centers
16	Determining Fulfillment Center Locations
21	Weighing the Pros and Cons of Distributed Inventory
27	Scaling Globally
30	Following the Data Over Time
33	Conclusion

1 Defining Distributed Inventory

Distributed inventory is an order fulfillment strategy, where inventory is physically stored in more than one warehouse to be closer to more customers, so as to shorten the distance and time it takes orders to ship.

In a distributed inventory model, a business divides its inventory among multiple strategically located warehouses or fulfillment centers (based on where their customers live), storing a portion of their inventory in each one.

This way, when an order comes in, that order can be picked, packed, and shipped from the fulfillment center closest to the order's destination — which reduces the shipping distance, transit time, and shipping cost of that order.



To distribute inventory this way, most merchants have to partner with a third-party logistics provider, or 3PL, as it is not cost-effective for a single business to manage one (or more) fulfillment centers.

Outsourcing fulfillment is less time-consuming than self-fulfillment, and prevents you from having to invest in the resources, infrastructure (lease a warehouse or buy land), equipment, team, and materials needed to run a fulfillment center.

But while a 3PL's fulfillment network can make the distributed inventory strategy possible for your business, you will still need to understand the mechanics behind it to determine if it makes sense for your business.

We now save a lot of money and ship faster based on distributed inventory. So far, we are shipping out of two of ShipBob’s fulfillment centers. We use the ShipBob locations that optimize and reduce the distance traveled to get our products into our customers’ hands faster.

When shipping glass bottles, especially in the winter, the longer the transit time, the more likely it is to break. We see that our customers are getting their packages safer, with fewer frozen bottles exploding.

Lindsay Louise
Manager at Synchro

SYNCHRO

Understanding Shipping Zones

Shipping zones are the geographical areas that carriers ship to, spanning from Zone 1 to Zone 8 for domestic shipments in the contiguous United States, measured in groupings of zip codes.

Shipping zones are important because the zone you are shipping to hugely impacts both the speed of delivery and the cost of shipping.

So in order to develop an optimized shipping strategy, you'll first need to understand how to calculate where shipping zones are, as well as how different zones affect delivery speed and cost.

Shipping Zones: The Basics

- **The location from which an order is shipped is the point of origin, and is always located in Zone 1.**
- **The address an order is shipped to is the destination zone.**
- **The destination zone number will depend on how far it is from the point of origin, with Zone 8 being the farthest away.**

? How do I calculate my shipping zones?

Zones are dynamically calculated based on where your package is shipped from. This could mean that two different points of origin that are shipping to the same destination address can be shipping to completely different zones.

Say, for example, that you ship orders out of Boston, Massachusetts. If you shipped an order from your warehouse in Boston to a customer in San Francisco, California, you would be shipping to Zone 8, because there is a large distance between San Francisco and Boston.

Now let's say you're shipping from Dallas, Texas instead of Boston, Massachusetts. If you shipped an order to that exact same customer in San Francisco, California, you would now be shipping to Zone 4 or 5, because Dallas is much closer geographically to San Francisco than Boston is.

Want to determine shipping zones for your orders?

USPS Domestic Zone Chart

Navigate to the tab "Get Zone for ZIP Code Pair." Enter the origin zip code and the destination zip code, and you will get the shipping zone of the shipment's destination.

UPS Zones and Rates

(for the 48 contiguous states) Enter your zip code of origin and download zone charts to Excel.

? How do shipping zones affect cost?

Shipping carriers use zones to calculate rates for certain services. Some services use a flat rate, letting you pay the same price regardless of the destination (as long as it's within the United States).

The carriers break down which services are zoned and which are not. In most cases, for services that are zoned, the greater the zone number you're shipping to, the greater the shipping cost will be.

In the example below, you can see that shipping a 20 lb. box to a higher zone, like Zone 8, is far more expensive than shipping it to a lower zone such as Zone 3.

Example pricing for 20 lb. 4 x 9 x 12 in. box	ZONE							
	1	2	3	4	5	6	7	8
Cost	**$16.13**	**$16.51**	**$18.88**	**$22.38**	**$23.71**	**$30.35**	**$32.70**	**$61.69**
Increase from Zone 1	$0	$0.38	$2.75	$6.25	$7.58	$14.22	$16.57	$45.56

To learn more about how ShipBob uses shipment weight to calculate shipping costs in tandem with zones, click here.

? How do shipping zones affect delivery speed?

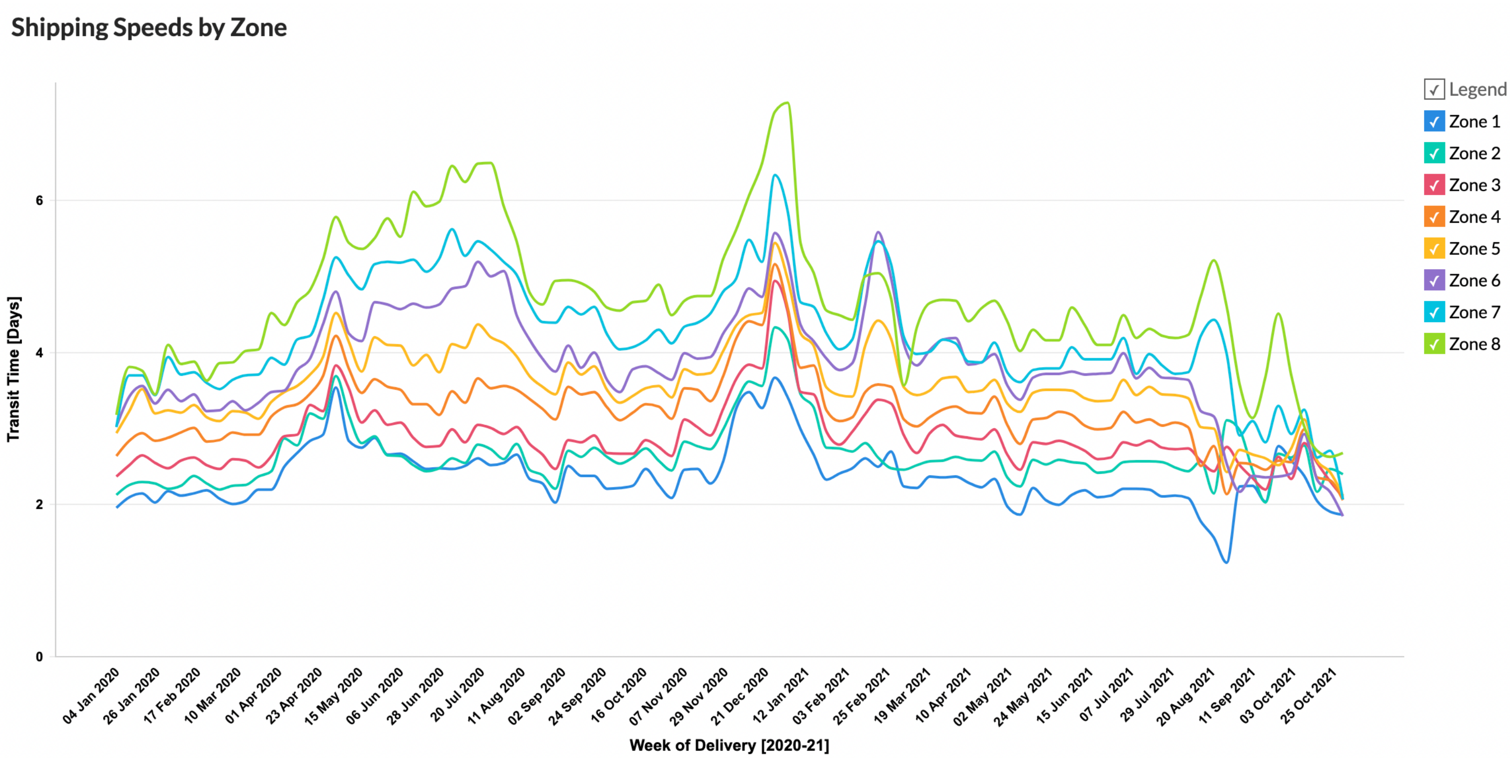
If a package is shipped a smaller-numbered zone, it will almost always arrive more quickly than a package sent to a higher-numbered zone. Higher-zone packages can take a week or more to arrive on a customer's doorstep, without factoring in seasonal delays and supply chain congestion.

For example, the zone data below is based on ShipBob's standard ground transit times (across all carriers) from click-to-delivery (i.e., when a customer places an order to when it is delivered to the shipping destination), broken out by shipping zones across the United States.

The top line (light green) represents the average Zone 8 shipment over time. Unsurprisingly, it is consistently the slowest zone to ship to, ranging from just over 3 days to 7.27 days at the very end of peak season 2020, just before 2021).

The bottom line (dark blue) represents the average Zone 1 shipment over time. The average for this more 'local' delivery ranged from 1.86 days to 3.66 days at the height of the 2020 holiday season.

As one can see, even the slowest shipment to Zone 1 (3 days) is equivalent to the absolute fastest shipment to Zone 8 .



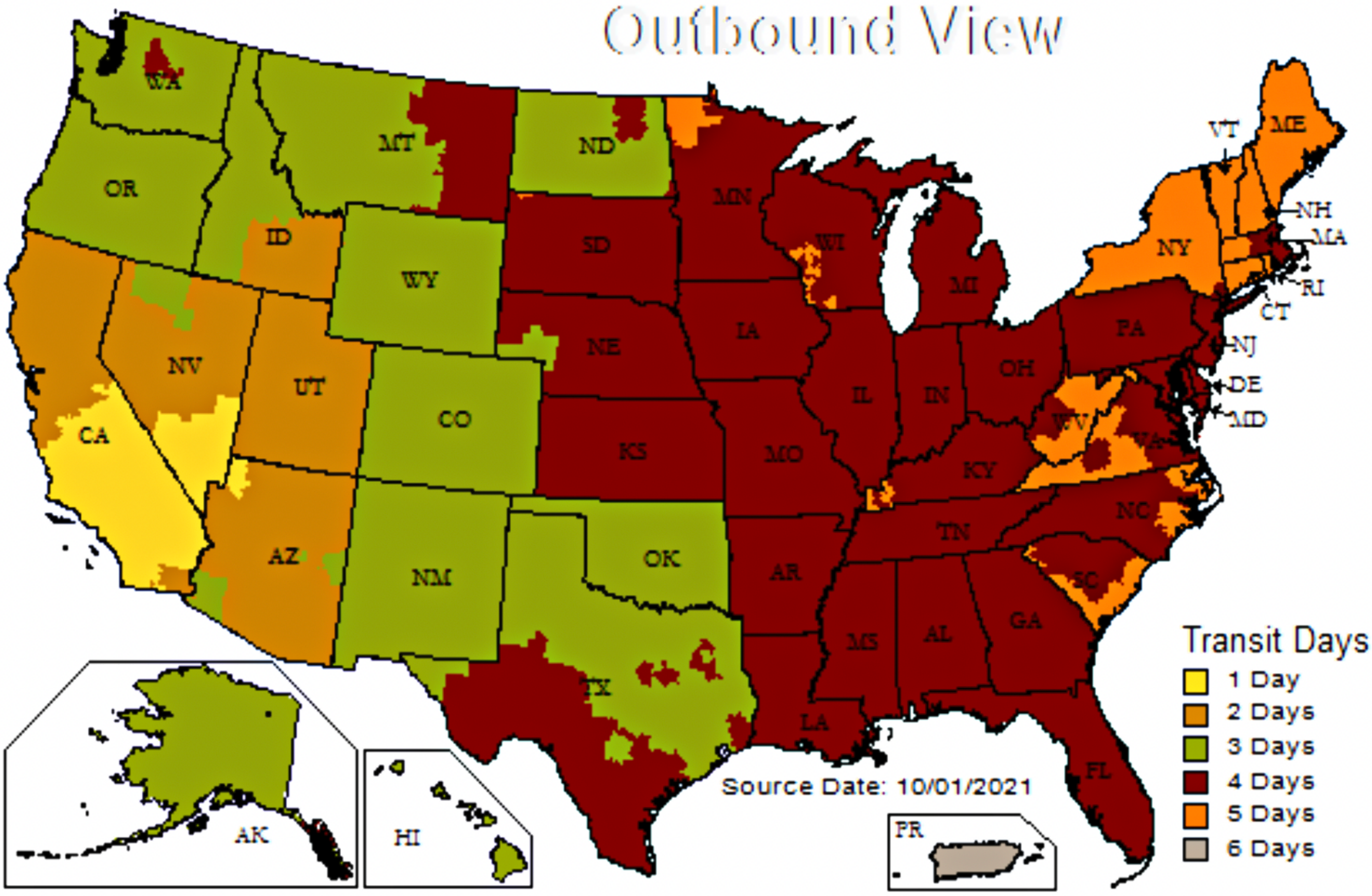


Image Source: UPS

The problem is that the majority of customers today believe the maximum acceptable amount of time to wait for their order is only [4.5 days.] If all of your inventory is fulfilled from one location (for example, out of Moreno Valley, California, as seen in the map above), it can take 5 days to deliver an order to a customer in New York — and that's without any delays.

To better meet customers' expectations around speedy and affordable deliveries, small ecommerce businesses need to adjust their fulfillment strategy based on the shipping zone map for their business.

At the very least, store inventory in the fulfillment center location that is optimal for the majority of your customers, before splitting inventory across additional fulfillment centers. This help you improve efficiency by reducing distance and time in transit for more of your shipments.

We had a fulfillment partner in Massachusetts that could serve the Northeast reasonably well and made sense during our first couple of years before sales really took off.

As we started to hit that first inflection point of growth, it became apparent we needed to look for a 3PL that could help us expand geographically in the US and also drive down shipping costs and expenses.

We started to look around for other fulfillment companies, I created a scorecard to compare prospects. We evaluated many 3PL options for several months. We need to deliver quickly and inexpensively.

Since switching to ShipBob from our previous 3PL, our fulfillment cost on comparable orders went down by 25%.

Michael Peters

VP of Ecommerce Operations at TB12

3 Distributing Inventory to Multiple Fulfillment Centers

Now that we've covered how shipping zones work, you might guess that where you fulfill orders matters a great deal in meeting customer expectations for fast shipping.

Shipping your items from a single fulfillment center greatly benefits the customers who live near there.

But if your customers don't all reside in a single geographic region, using one fulfillment center can make it nearly impossible to efficiently reach the majority of people who buy from you.

To secure faster shipping and cut shipping costs, the distance between customer and product needs to be shortened.

So, since your customers aren't moving any closer to you, ecommerce businesses must bring and store their product closer to more of their customers.

Distributing Inventory Makes Sense If...

- ✓ Order volume is high
- ✓ Your products are large or heavy
- ✓ AOV is high
- ✓ Margins are large

If the money you'll save offsets the extra transportation and storage costs, you're good to go!

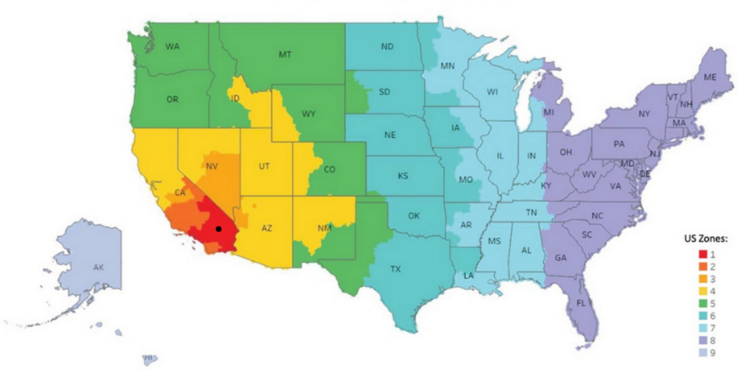
Depending on where your customers are, businesses can utilize fulfillment centers in different regions of the country, and distribute a portion of their inventory among those warehouses.

With multiple fulfillment centers stocked with your inventory across the U.S., orders from one region can be picked, packed, and shipped from the warehouse closest to their destination.

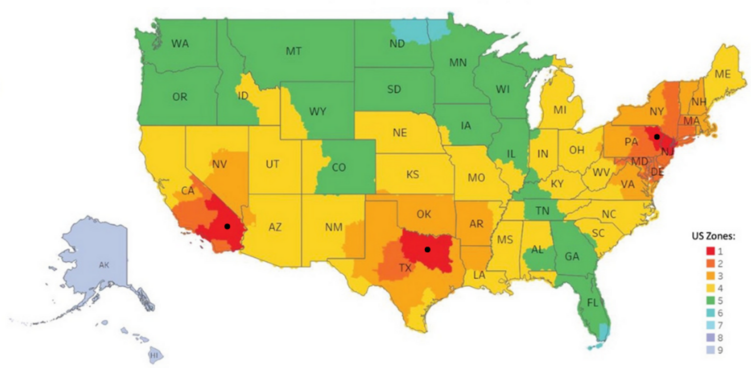
To demonstrate how distributing inventory between multiple warehouses shortens shipping times and saves money, the maps below compare the use of one fulfillment center in the continental United States with three fulfillment centers.

Shipping zone coverage by fulfillment center location

1 fulfillment center



3 fulfillment centers



The legend shows the color of each shipping zone, with dark red representing the closest and cheapest zone to ship to.

As the zones increase, the colors shift to orange and yellow, and onto cooler colors, with each color representing a sequentially higher shipping zone. The black dots represent fulfillment center locations.

When using one fulfillment center (e.g., in Moreno Valley, California, as seen on the map to the left), we see one tiny region of the country is red and orange, yet far more is blue and purple. If you're shipping to any of the purple regions, the shipping time and rates will be higher, since it will go to Zone 8.

When using three fulfillment centers (in Moreno Valley, California; Dallas, Texas; and Bethlehem, Pennsylvania, as seen on the map to the right), there are many more warm-colored areas, meaning that you will be able to ship more quickly and cheaply to a greater portion of the country.

We've also practically eliminated Zones 7 and 8, and left only a few spots in Zone 6. This means that, as long as all three fulfillment centers are running, you will cut multiple days off of shipping time for many areas, and almost never have to pay the highest-zones shipping rates.

In the scenario with three fulfillment centers, a business owner would see shipping cost savings immediately.

For example, if we look at the cost chart below, eliminating the highest shipping zones by adding a fulfillment center on the East Coast instantly reduces the cost of shipping a 20 lb. package to North Carolina from $61.69 to $22.38 — about $40 in savings on that shipment alone.

Example pricing for 20 lb. 4 x 9 x 12 in. box	ZONE							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Cost	**$16.13**	**$16.51**	**$18.88**	**$22.38**	**$23.71**	**$30.35**	**$32.70**	**$61.69**
Increase from Zone 1	$0	$0.38	$2.75	$6.25	$7.58	$14.22	$16.57	$45.56

These savings only exponentiate as your annual shipments increase: if, for example, you're shipping 1,000 of these 20 lb. shipments per year and 50 of them go to North Carolina, that amounts to $1,965.50 in savings a year.

Using multiple fulfillment centers can help you offer 2-day shipping via ground in more regions, instead of relying on expensive air shipping, and dramatically decrease the average shipping cost per order with the addition of each fulfillment center.

> ShipBob has fulfillment centers all over the US so we're not limited to shipping from one location. Even though we're located on the East Coast, it's actually more advantageous for us to ship from elsewhere.
>
> After analyzing our order history, we chose to store inventory in ShipBob's centrally-located Dallas fulfillment center to efficiently reach the majority of where our orders are shipped to: the midwest, south, and east coast.
>
> The Dallas location serves us well because shipping rates from there are decent across the US. If we kept shipping only from New York, it would be expensive to ship to the west coast.

Ryan Casas
COO of iloveplum

4 Determining Fulfillment Center Locations

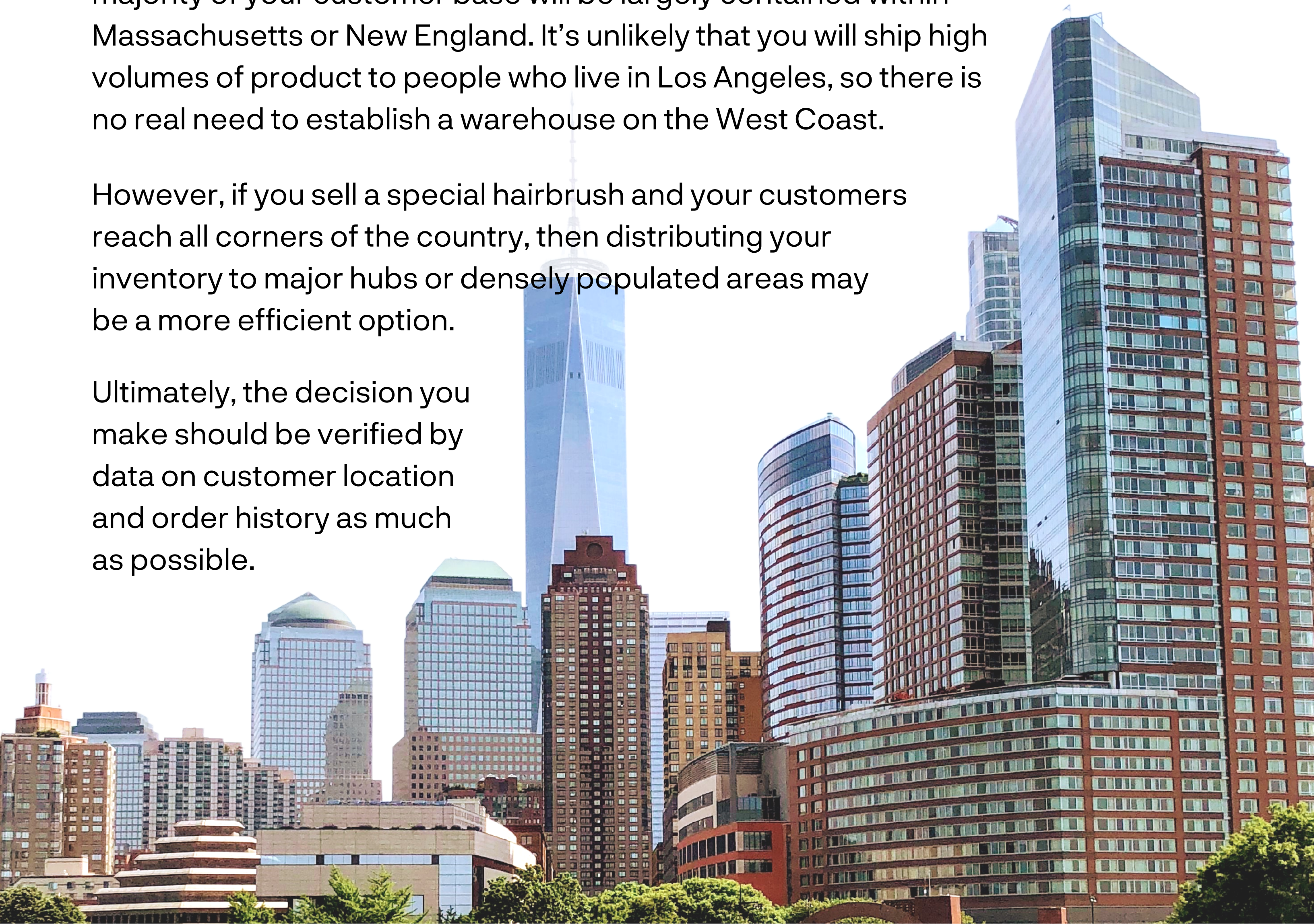
When determining your optimal fulfillment centers geographically, it ultimately comes down to where your customers are and where your (or your potential) 3PL's fulfillment center locations are.

To justify expanding into a new region, there must be a large enough customer base that would benefit from it, and fulfillment center locations to support it — otherwise, you might not realize enough ROI or cost-savings to cover the extra expense.

For example, if you sell gear for a sports team in Boston, the majority of your customer base will be largely contained within Massachusetts or New England. It's unlikely that you will ship high volumes of product to people who live in Los Angeles, so there is no real need to establish a warehouse on the West Coast.

However, if you sell a special hairbrush and your customers reach all corners of the country, then distributing your inventory to major hubs or densely populated areas may be a more efficient option.

Ultimately, the decision you make should be verified by data on customer location and order history as much as possible.



Regardless of whether you're servicing customers in one region or in multiple, you'll also want to make sure that any fulfillment centers you utilize are located in or near urban hubs.

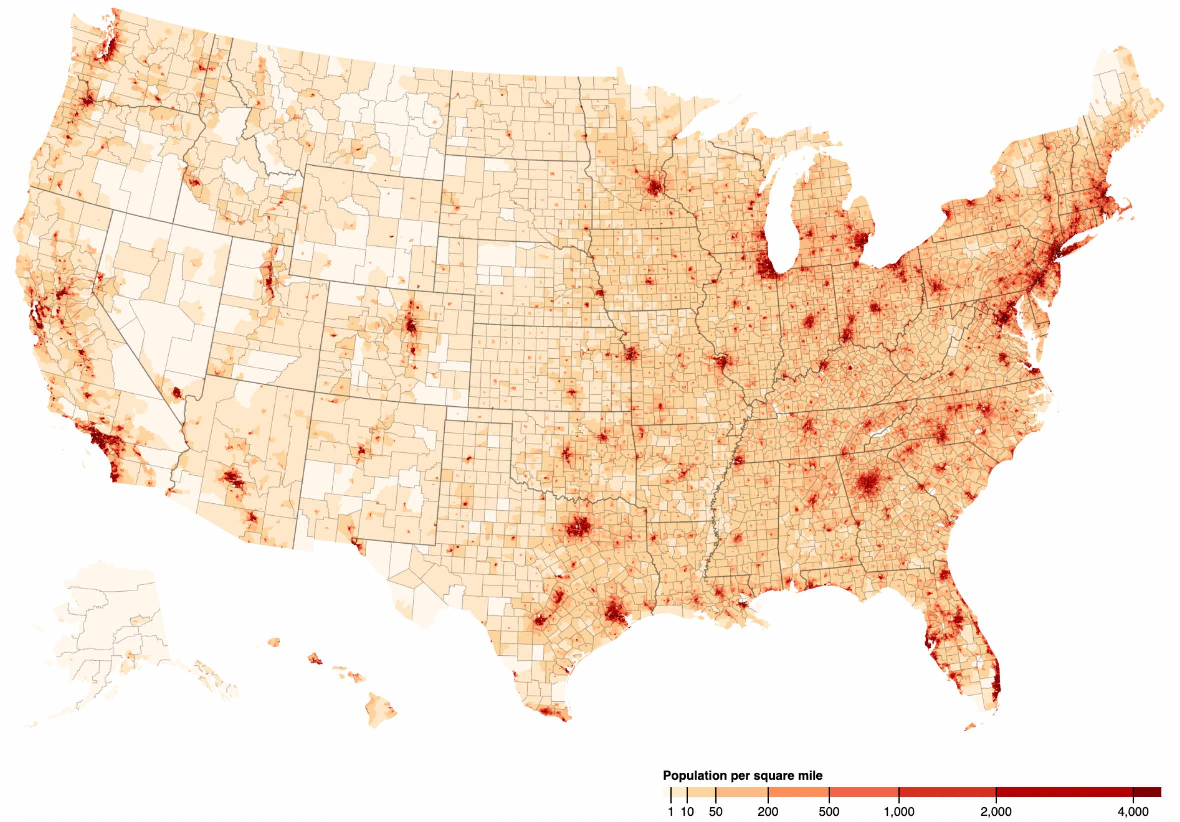
As you can see from the population chart below, densely populated urban areas hold larger pockets of the general population, meaning that most of that region's ecommerce orders are likely to originate from those areas (unless the product is highly regional).

Largest U.S. Cities by Population

2021 Metro Area Rankings

Rank	City Name	Population
1	New York City	18,823,000
2	Los Angeles	12,459,000
3	Chicago	8,877,000
4	Houston	6,491,000
5	Dallas-Fort Worth	6,397,000
6	Miami	6,167,000
7	Atlanta	5,911,000
8	Philadelphia	5,734,000
9	Washington DC	5,378,000
10	Phoenix	4,584,000
11	Boston	4,315,000
12	Detroit	3,530,000
13	Seattle	3,461,000

Instead of fulfilling orders from a remote or sparsely populated area that's close to very few people, fulfilling orders from an easily accessible urban location makes faster, cheaper shipping possible for a far greater proportion of customers in a particular region.



A fulfillment center in any of the top cities listed above would be positioned to easily reach millions of people. The US map above provides a visual of those areas — the redder the area, the greater the population per square mile, while the lighter areas are more barren.

As you can see, highly populated regions are present throughout the continental US. That's why having fulfillment centers in different regions — particularly in regions where multiple hubs are clustered together, such as the northeast — can help you reach various areas with a high population density.

A good 3PL with an expansive network should be able to help you determine your optimal location(s) among their fulfillment centers based on your past customers' zip codes.

It should be fairly easy for self-fulfillers to export data on optimal locations, shipping zones, and order history from your ecommerce platform, just to get an idea of whether it's time to partner with a 3PL for distributed inventory.

If you don't yet work with a 3PL, you'll want to select one that can support your business in its current growth stage. Small businesses (e.g., under 500 orders/month) getting started in one region will want a 3PL with geographically diverse fulfillment center locations, so that you can always move around — but for larger brands who may consider using more than one fulfillment center off the bat, ask the 3PLs you are evaluating if they can run a report for you.

ShipBob, for example, can run a TNT (time in transit) analysis based on weights, dims, and zip codes contained in order history. Once you're a ShipBob customer, you get access to analytics tools like our Ideal Distribution Tool that will show you the ideal distribution of your inventory (which changes over time and as you grow) across our dozens of fulfillment centers.

We just expanded into ShipBob's Pennsylvania facility and are also using ShipBob's flagship fulfillment center in Moreno Valley, California. Storing inventory in different regions is key to reducing costs and transit times.

From expanding into a second ShipBob fulfillment center, we are excited to be able to offer 65% of our customers with 2-day shipping via ground, up from 32%...Soon, this will be 100%. Not only is this better for our customers but we also gain a 13% savings to our bottom line.

Pablo Gabatto
Manager at Ample Foods

We offer free shipping on orders over $25. Because our products are low-cost, it's also important that shipping costs are low.

We started in ShipBob's east coast fulfillment center, which was local for us. We have since moved to a more central fulfillment center location in Chicago to improve transit times and shipping costs.

Manuel de la Cruz
CEO of Boie

BOIE USA

5 Weighing the Pros and Cons of Distributed Inventory

Distributing inventory won't be cost-effective for everyone from the start. While a distributed inventory model has many benefits, it is not right for every business.

When weighing your options, the most important factor to consider is whether or not the costs of transporting finished goods to another location and storing them there is offset by the cost-savings you gain after eliminating the higher shipping zones.

To calculate this, you'll want to use the following equation:

Total Cost =
(Orders x Average Ship Cost) + Distribution Cost + Holding Cost

First, run this equation once under the assumption that you will use only one fulfillment center.

Using the data from the example to the right, the equation would look like this:

Variables	1 FC	2 FC
Orders	1,000	1,000
Avg. Shipping Cost per Order	$9.00	$8.48
Distribution Cost	$400	$800
Holding Cost	$120	$240

Total Cost = (1,000 orders x $9.00) + $400 + $120

Total Cost = $9,000 + $400 + $120

Total Cost = $9,520

Next, run the equation a second time, factoring in any additional fulfillment centers and making sure to adjust your average shipping cost to reflect the minimization or elimination of higher zones.

Using the data for 2 fulfillment centers from the same example, the second equation would be:

Total Cost = (1,000 orders x $8.48) + $800 + $240

Note that while the Distribution Cost and Holding Cost have doubled after adding a second fulfillment center, average shipping cost has decreased because the second fulfillment center shortens shipping distances.

If we run the second equation, we find that Total Cost is also $9,520:

Total Cost = (1,000 orders x $8.48) + $800 + $240

Total Cost = $8,480 + $800 + $240

Total Cost = $9,520

When you run the calculations for your business, if the total cost for multiple fulfillment centers is less than that of one fulfillment center, then distributing inventory is probably a good idea.

If total costs for both scenarios are equal, as in the example above, you should still seriously consider distributing inventory. Even with consistent costs, your customers will be receiving quicker shipping at less cost to them.

With the exception of subscription orders) can increase customer satisfaction, lower cart abandonment rate, and foster brand loyalty through a positive experience.

That being said, it is absolutely crucial that you keep enough stock on hand at each fulfillment center to be able to meet customer demand in that area. If you do not, you will be forced to ship from a different, more geographically distant fulfillment center that does have the SKU(s) in stock, which will spike your shipping costs once again and eat into your ROI.

If you're still on the fence, here are other signs that a distributed inventory approach is best for your business:

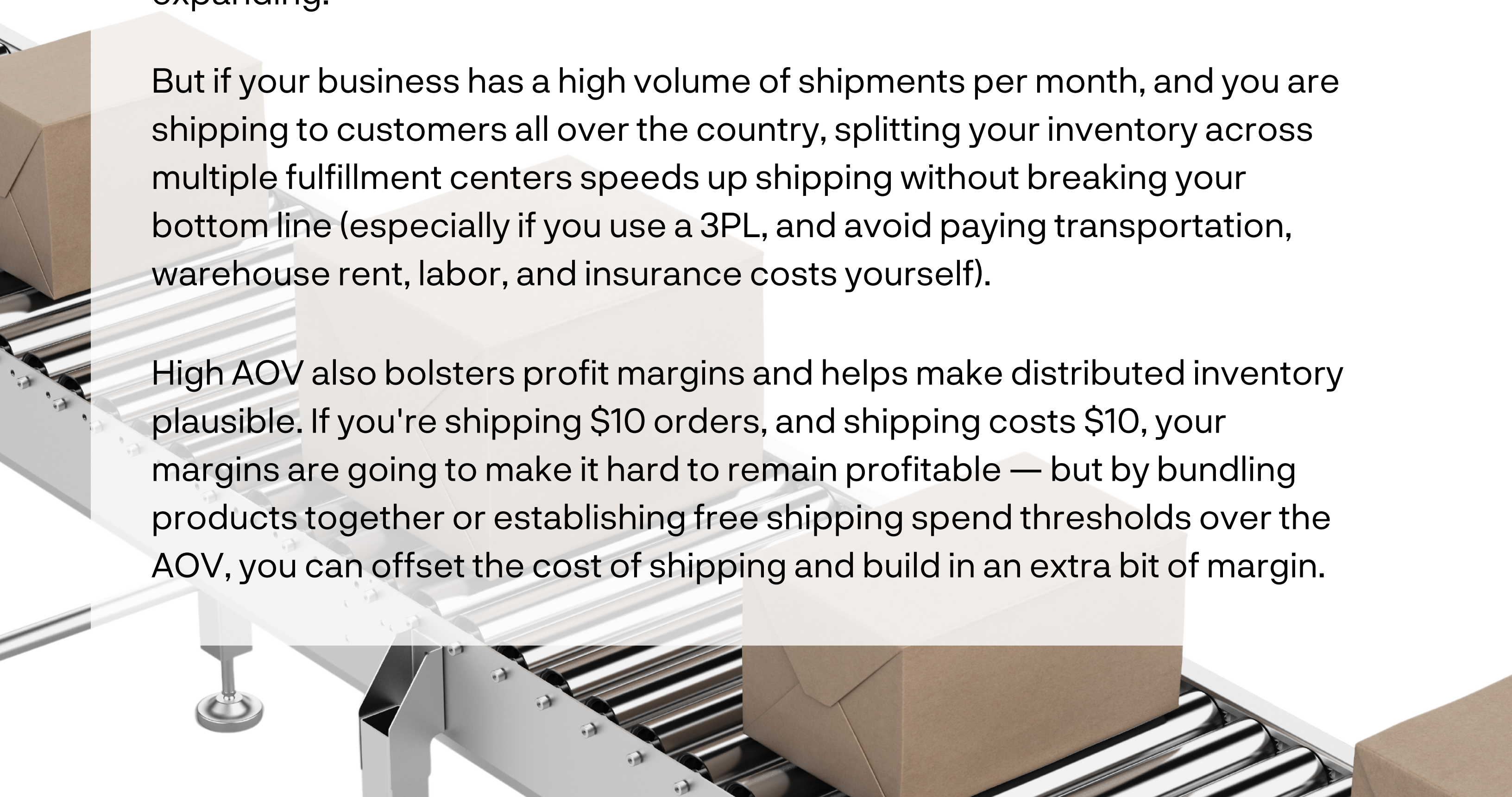
1 Dispersed Customers + High Order Volume

If order volume is high but you customers are in one region, you can probably already ship to them cost-effectively without another fulfillment center.

Inversely, if your customers are all over the country but order volume is low, your marginal profit on orders will probably be too small to offset the cost of expanding.

But if your business has a high volume of shipments per month, and you are shipping to customers all over the country, splitting your inventory across multiple fulfillment centers speeds up shipping without breaking your bottom line (especially if you use a 3PL, and avoid paying transportation, warehouse rent, labor, and insurance costs yourself).

High AOV also bolsters profit margins and helps make distributed inventory plausible. If you're shipping $10 orders, and shipping costs $10, your margins are going to make it hard to remain profitable — but by bundling products together or establishing free shipping spend thresholds over the AOV, you can offset the cost of shipping and build in an extra bit of margin.



2 Heavier or larger products

The heavier your products, the more cost-savings you will see in shipping by using the distributed inventory approach. The dimensional weight** of your shipments naturally affects shipping costs, but increasing the zone number only increases the price even further — much more so than small or lightweight orders.

In the following example, one can see how both dimensional weight and destination zone impact shipping cost. With the exception of orders under 1 lb. (which can typically ship for a flat price across the entire country regardless of the zone they are shipped to), the higher the zone number you're shipping to, the higher the shipping cost will be.

But because the 3 lb. package is heavier than the 1 lb. package, those shipments cost even more — and the higher the zone, the greater the increase.

Zones and Rates Example

*USPS Priority Retail Rates

Shipping Zones

Pounds	1 & 2	3	4	5	6	7	8	9
1	$6.70	$7.15	$7.30	$7.45	$7.60	$7.85	$8.45	$10.60
2	$7.25	$7.70	$8.75	$9.85	$10.65	$11.80	$12.90	$16.85
3	$7.90	$8.85	$10.15	$11.75	$13.35	$14.65	$17.30	$22.55

If your shipments have high dimensional weight, you will have greater marginal cost-savings from eliminating high shipping zones than merchants with lighter shipments would, so distributing inventory would be beneficial.

** Shipping carriers use this pricing technique to estimate weight calculated from the length, width, and height of a package, using the longest point on each side. The shipping cost will be based on whichever number is greater: the actual weight of the package, or its calculated dimensional weight.

3 Your products are essential and need backups (or can't ship via air)

Splitting inventory across warehouses can help you be prepared in the event that your orders can't leave a particular fulfillment center (such as in the case of extreme weather events, seasonal blockages, or a building closure).

If your products are essential or life-saving, relying on only one fulfillment center could potentially be detrimental to the customer — whereas distributing inventory means that you will always have a source of backup stock for the customers who need it most.

Additionally, there are some limitations to shipping HAZMAT products or dangerous goods (stemming from nail polish and hand sanitizer, to batteries and perfume), making ground shipping the only option. When you can't ship via air, your shipping speeds can suffer. Distributing inventory is a way to get products to customers faster.

> We sell flammable goods that need to be shipped via ground, so ShipBob has been a great ally as they have fulfillment centers all over the US, facilitating a 2-3 day delivery time for any customer in the US.
>
> This is helpful especially when weather challenges happen; being able to have different locations to ship from allows for a more seamless supply chain.

Andrea Lisbona
Founder & CEO of Touchland

touchland

Pillows are difficult to store and expensive to ship because of dimensional weight. Even though they are lightweight, they are big, so you pay for the space they take up on a delivery truck. And the farther away the shipping destination is, the more expensive it is to ship them.

Running an Austin-based company, it's convenient to use ShipBob's Dallas fulfillment center. Using my order history, I can understand which ShipBob warehouse I should use next and leverage their locations all over the US as Doris Sleep continues to expand.

Tracey Wallace
Founder of Doris Sleep

6 Scaling Globally

The elevated version of domestic distributed inventory is expanding into new countries as well. However, every country handles shipping zones differently, and expanding into any country will bring unique challenges.

Australia, for example, is very large geographically, but 70% of the population is on the East Coast — so merchants might have to establish a second fulfillment center for the West Coast as well. The UK has far less geographical surface area than Australia or the US, so one fulfillment center might do the trick.

For any expansion, there will be new information requirements that you must meet (such as EORI registration numbers in the EU), which can make the transition complicated.

> When I found out ShipBob was expanding into both Canada and Europe, I knew we wanted to expand our physical footprint with them. This would offer us the ability to reduce taxes and tariffs that come with international shipping. Now, Canadian-based orders will see a large reduction in shipping costs.

Nikolai Paloni
Co-Founder of
Ombraz Sunglasses

OMBRAZ SUNGLASSES

Regardless of which countries you target, one mistake more mature brands end up regretting is using separate 3PLs in each country they scale into, and having different logins to different systems, support teams, SLAs, processes, and other inconsistencies when managing separate 3PL partners. This only renders the expansion process more complicated, and leads to headaches later on.

So, depending on your growth plans, you might want to choose a 3PL that not only ships internationally but also offers fulfillment locations in different countries.

Shipping internationally can be expensive and transit times are significantly slower — not to mention that dealing with taxes and import duties every time you ship a single order to an end customer can be a headache.

Partnering with a 3PL that offers both domestic and international fulfillment capabilities can solve many of the common challenges of international shipping.

Instead of shipping every order across borders, you can bulk ship inventory to an international location so orders can be shipped within the country (or, for example, within the EU, where 27 member countries can reap the benefits of open borders for trade).

This process makes it much easier to expand globally while reducing the international shipping risks and costs.

Best of all, you can manage inventory and orders that are being fulfilled across the globe from the same dashboard as your domestic shipments, working with the same support team, and having a simplified, consistent experience.

ShipBob even offers support articles containing checklists to help walk our customers through expanding fulfillment internationally through ShipBob's network.

ShipBob has multiple fulfillment centers in the US, one in Canada, one in the EU, and one in the UK.

All locations filter back into one centralized warehouse management system, so everything is under the ShipBob umbrella.

By distributing our inventory across these countries and regions, all of our customers are able to get their orders much faster while paying reasonable domestic shipping rates.

Wes Brown
Head of Operations
at Black Claw LLC

7 Following the Data Over Time

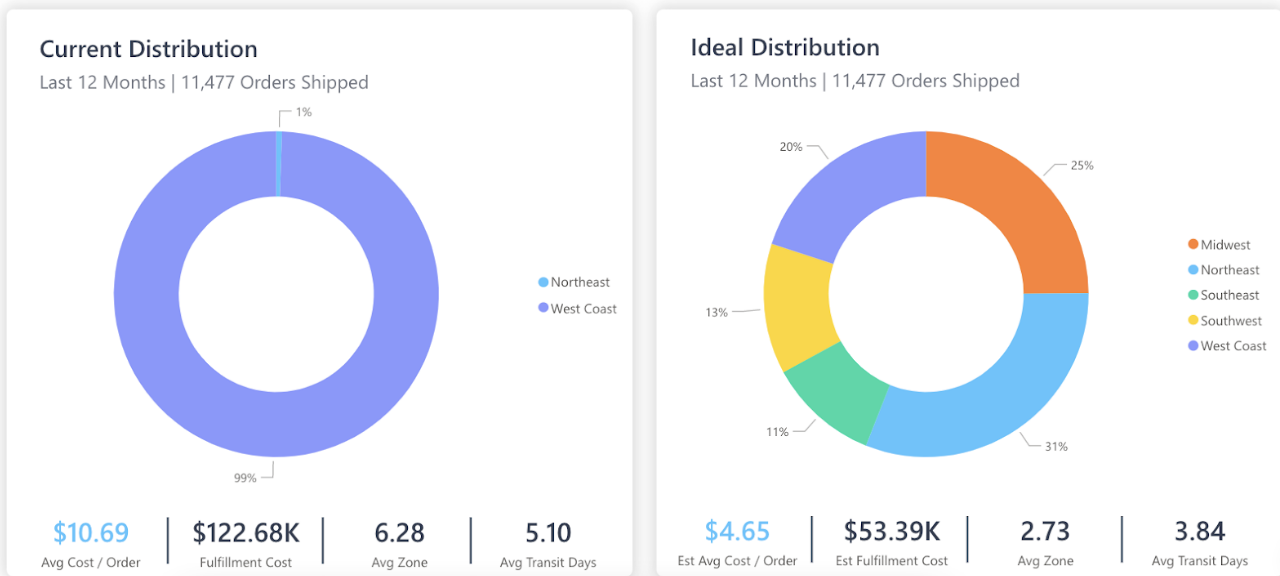
Historical sales data is the secret sauce that makes the distributed inventory model optimized and more profitable.

By tracking which products sell where and when over time, you will be able to make informed decisions about where to place your fulfillment centers, as well as how much inventory to store in each location in order to meet customer demand without over- or under-stocking.

To use this data to your advantage, you'll need a 3PL that has the foresight and tech stack to follow your critical data over time.

If you partner with ShipBob for fulfillment, our free proprietary technology and analytics software uses your historical order data to display your current shipping speeds and costs, and compare those to what they would be if you used different fulfillment centers in ShipBob's network.

In the example of our analytics dashboard below, a merchant is storing inventory and shipping orders exclusively out of our West Coast fulfillment center. This location is great for local customers, but the average shipping zone is on the high side at 6.28 (as seen on the chart to the left).



Now we're at two fulfillment centers, and being able to have the analytics and see how everything is working together has been extremely helpful for me on the operations end.

Dana Varrone,
Director of Operations
Organic Olivia

According to this dashboard's current vs. ideal distribution analysis, if the merchant instead stored inventory in additional locations across several regions in the US, the average shipping zone would be reduced to 2.73 (as seen on the chart to the right).

Instead of 100% of orders being fulfilled out of the West Coast location, only 20% would be, as the remaining 80% of orders would be fulfilled from the other locations that are closer to the end customer.

Additionally, the average fulfillment or shipping cost would go from $8.43 per order to $8.13 per order. While $0.30 may not sound like a lot, for a merchant with an average order volume of 5,000 orders per month, that is an extra $1,500 they are saving monthly, or $18,000 annually. And if they continue to grow, that number will only go up.

With this tool, you can visualize your ideal inventory distribution and toggle between different locations to see which make the most sense for your business. 3PLs like ShipBob are also adding new fulfillment centers each month, and the one city, state, or country you really wanted might be next! So when going through the WRO process, you can simply choose a new location to send your next batches of inventory to in place of the old one.

> We have access to live inventory management, knowing exactly how many units we have in Texas vs. Chicago vs. New York.
>
> It not only helps with our overall process in managing and making sure our inventory levels are balanced but also for tax purposes at the end of the year. ShipBob made that entire process very simplified for our accountants and us.

Matt Dryfhout
Founder & CEO of
BAKblade

Conclusion

Distributed inventory is a strategic investment for ecommerce businesses, with both immediate and long-term benefits — but doing it right almost always requires a truly phenomenal 3PL partner.

Offering 2-day shipping has become the norm, and making your customers wait can be costly. To be competitive, ecommerce merchants must find the right balance of affordability and speed for their shipments.

Distributing inventory is one of the most cost-effective means of securing quicker, less expensive shipping; but with limited resources, small businesses often struggle to implement distributed inventory on their own.

Utilizing a 3PL's fulfillment centers in different regions of the country (that you can even grow into over time), ecommerce merchants can immediately begin fulfilling and shipping orders from multiple strategic locations. This helps you improve efficiency by reducing distance and time in transit, and also helps you meet customer expectations around quick and affordable deliveries.

In this way, with a distributed inventory model and the right 3PL, even a small ecommerce business can cut costs, increase customer retention, and begin their journey to scaling operations nationally, internationally, and globally.

ShipBob

About ShipBob

ShipBob is a tech-enabled 3PL that offers simple, fast, and affordable fulfillment for thousands of ecommerce businesses. With deep logistics expertise, integrated technology, built-in data and analytics, best-in-class support, easy-to-understand pricing, and a network of fulfillment centers across the globe (with new locations continuously underway), ShipBob lets you split inventory across our network to reduce shipping costs and transit times. We even have a plan for startups here.

Visit ShipBob.com to learn more or to request a pricing quote.

> We are growing really fast and won't slow down anytime soon. With ShipBob, we have the option to use more of their warehouses to further reduce shipping costs.
>
> Because ShipBob has a lot of people to handle our orders and additional warehouses we can expand into, we can scale up with ease as we continue to grow quickly. If we ran our own warehouse, it would be much harder to hire people and we'd inevitably outgrow the space.

Oded Harth
CEO & Co-Founder of MDacne

MDacne