

# A New Approach to REDUCING Truckload Freight Costs

by Thomas A. Moore

## DISCOVERING A HIDDEN WAY TO CUT COSTS



Everyone knows that freight costs are the biggest supply chain expense of all, and everyone knows that these costs have become harder to manage lately. Transportation rates have increased significantly due to higher oil and insurance costs, coupled with the shortage of qualified truck drivers. Here is a strategy for reducing truckload freight costs that has proven successful for companies like Procter & Gamble.

## DOING MORE WITH LESS



Historically, the lower rates were achieved by negotiation, reducing carrier costs by eliminating things like load-wait times, and electronic communication of loads. Many companies believe that they have already gained as much as can be from these.

A survey of five companies representing about \$1 billion in US truckload freight showed they had almost uniformly adopted drop lots, electronic tendering, and transportation management systems (TMS) for optimizing carrier selections.

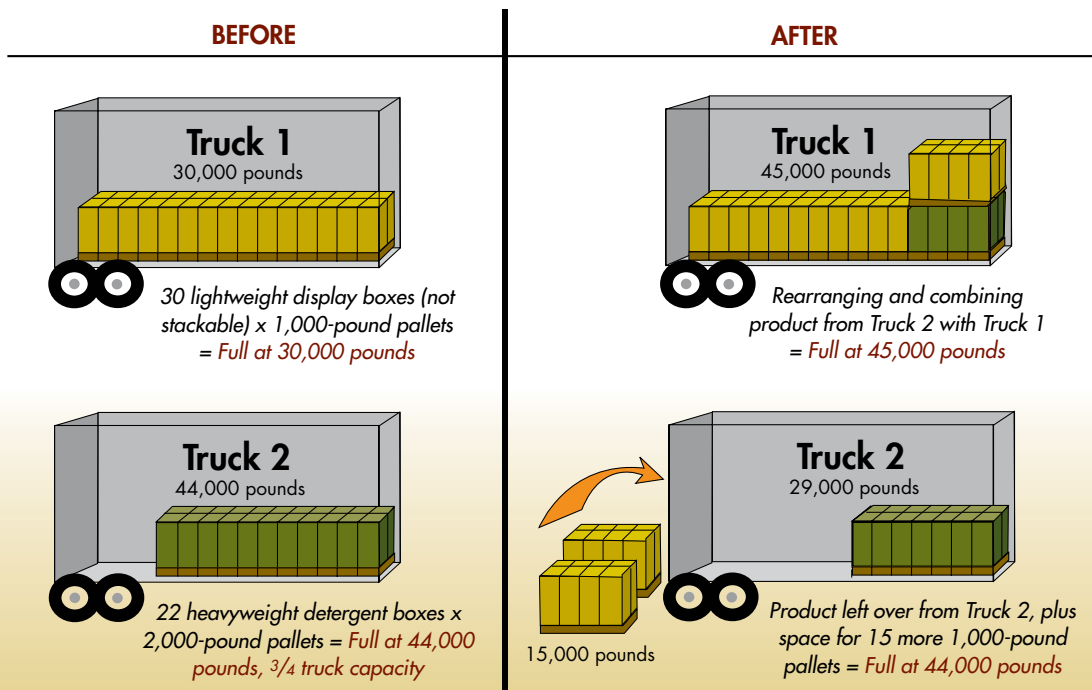
With these opportunities “tapped out,” major companies are looking to impact their freight bills in other ways—ways that, while obvious, are by no means easy. They are looking to increase the shipment size on full-truckload movements.

## BUT OUR TRUCKS ARE FULL!

It sounds simple: fill up the truck. Most people will say, “We already fill up our trucks.” One of the first steps to cutting costs is to convince you that the trucks are not truly full.

It is difficult to admit that the trucks are not full. It is time to look at load size with a different frame of reference.

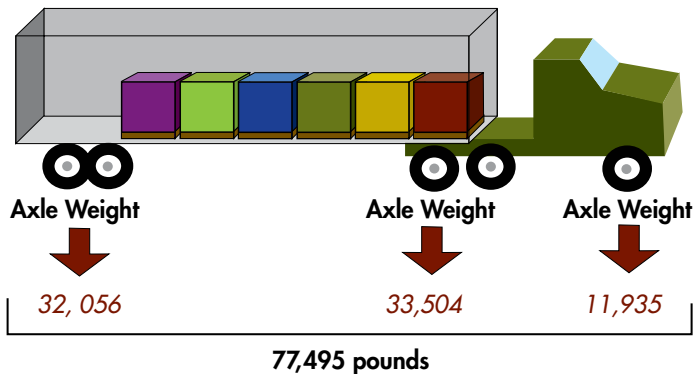
➔ **What is a full truck?** Is it 40,000 pounds, 30 floor positions, or 2,400 cubic feet? Take a look at this example. Two trucks are going to the same destination. Both are “full” by traditional measures, but by shuffling the contents, significant payload capacity can be freed up. (For simplicity, we will talk about the weight constraint in this article, but we could equally talk about all three—cube, weight, or floor spots.)



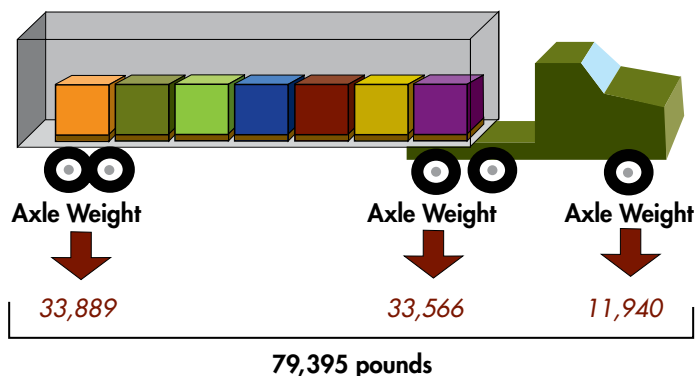
→ **What is the capacity of a truck?** Most companies have some rules of thumb that have been modified over the years. Unfortunately, sometimes the changes in planned truck capacity have been knee-jerk reactions to overweight loads. To illustrate the variance among companies, here is a sample of the five companies mentioned on the previous page, and their maximum weights on refrigerated/frozen shipments.

<u>Company</u>	<u>Maximum Weight</u>
A, B	44,500 pounds
C	45,000 pounds
D	44,000 pounds
E	43,500 pounds

Strangely, there is a significant overlap in their carrier bases. Could you add another case, layer, or unit load to this truck? Here is an actual example: 1,900-pound pallets of the same product, loaded to 43,200 pounds.



But when another pallet is added and the load reshuffled, you get:



**Gain = 4%**

The gain is 4%, but it is harder to load, and that is a significant issue at the dock. Small changes in pallet placement can make the axles illegal. This is the second task—provide systems support to take the guesswork out of loading so the shipment is legal and damage-free every time.

There is example after example, but the story line is the same. With strong systems support, it is possible to increase shipment size. To increase shipment size, more product is needed, and where this additional product comes from depends on the situation. For intra-company shipments or vendor-managed inventory (VMI) shipments where there is a “pool” of demand to grab from, this is somewhat straightforward: to pull “filler” from demand that is planned to ship the next day, although it is necessary to convince the inventory-control staff that the impact of pulling an item forward to fill out a load is minimal in relation to the freight savings.

## WHAT HAPPENS WHEN CUSTOMERS WRITE THEIR OWN ORDERS?

The biggest challenge to increasing shipment size is getting customers to increase their order size to fill out the trucks. Traditionally, customers “electronic data interchange” (EDI) their orders to the supplier, and, based on some formula to get “best pricing,” create truckloads. How can these shipments be changed to fill out a load? It’s tough. It depends on the customers’ circumstances.

If they are cross docking, there may be minimal opportunity, whereas if they are going into a warehouse, there may be a good opportunity. Could the “Green Revolution” provide a valuable driver to increase efficiency? For a commodities buyer, how much of an impact can be had by adding high-volume items to a load? Will one more pallet of a high-volume, extremely popular laundry soap like Tide create a big inventory problem for Wal-Mart or Target? Let’s wait and see how this one plays out. In the interim, there is a significant opportunity in the intra-company and VMI shipments.



## A PROGRAM FOR SAVING ON TRUCKLOAD TRANSPORTATION EXPENSES

The multi-step program for increasing shipment size:

- 1. DEMONSTRATE THAT THE TRUCKS ARE NOT FULL.** Simple examples work great.
- 2. CALCULATE THE SIZE OF THE OPPORTUNITY.** Savings vary, but most companies can save between 4% and 10%. Procter & Gamble, long recognized as a leader in logistics efficiency, estimated that it received a 7% improvement! When you show the size of the opportunity, management quickly makes increasing load size a priority.
- 3. UPGRADE LOAD-BUILDER TECHNOLOGY.** In some cases, it is possible to increase load size by “force.” Pushing the limits, in a scientific way, is easy when you can create standard loading patterns. These standard patterns soon fall apart when there are mixed loads with differing pallet weights or pallet heights. For inter-facility and VMI loads, the load builder (normally in the DRP or Enterprise software), which does most of the work, is uniformly of limited intelligence. It doesn’t understand all the important aspects of trailer axle constraints, axle positions that vary by state, and what can and cannot double stack.  
  
In short, these need to be refined with sophisticated optimization that also provides the people in the warehouse all the information they need to build pallets and ship loads. The right tool at the planning level can also provide the needed execution-level support.
- 4. ESTABLISH CARRIER CAPABILITIES.** To know what a full load is, a load builder needs some rules. Will the trailer be 48 feet or 53 feet? Will a day cab pull the shipment? The transportation group needs to provide meaningful guidelines and be cognizant of the fact that a low-priced carrier that will only haul 43,500 pounds may be more expensive than a carrier with a 45,000-pound capacity.
- 5. PROVIDE EXECUTION SUPPORT.** There is no sense in designing the “best” load if “Joe” at the loading dock can’t put it on the trailer in a way that is legal and damage-free. “Joe” needs help. And that help needs to be explicit information about where to place the pallets on each load.

The approach to saving money on freight costs is clear: start with intra-company shipments, and progressively expand to VMI and customer shipments. As the progression takes place, count the savings—and join the companies that have already discovered a previously “hidden way” to dramatically reduce their freight bill. █



*Thomas Moore is a CSCMP member and the Managing Partner of Warehouse Optimization LLC in Franklin, Tennessee.*

This article appeared in the Council of Supply Chain Management Professional’s newsletter, *Supply Chain Comment*, Volume 41, July/Aug. 2007. *Supply Chain Comment* is published six times a year by CSCMP.