



March 2016

**Produce Industry Procurement Study Results, Part IV:
Transportation**

Kristen Park

Dyson School of Applied Economics and Management, Cornell University

INTRODUCTION

The role of buyers and category managers has become fundamental to the success of supermarket companies. In a world where fresh produce is procured globally year round and where food safety and sustainability are becoming paramount concerns, produce procurement has become a complex arena where supply chain coordination and transparency are vital but not easily achieved.

This is the third in a series of four *Smart Marketing* articles describing the results of a study that describes changes in produce procurement offices. It provides the produce industry with current information on buying office practices so they can improve overall supply chain performance. The full report by Edward McLaughlin, Kristen Park, and Rod Hawkes can be found at:

<http://publications.dyson.cornell.edu/outreach/extensionpdf/2015/Cornell-Dyson-eb1510.pdf>

This study would not have been possible without the support of and input from United Fresh Produce Association and its retail board.

SITUATION

With California producing almost 50 percent of the fruit, nuts, and vegetables consumed in the U.S. (California Department of Food and Agriculture), transporting those products across the U.S. to many of the consumption areas is critical but costly, and transportation costs are rising rapidly. The vast majority of fresh fruits and vegetables is moved from production areas to markets in refrigerated trucks. Since 2002, the volume of fresh produce moved on trucks climbed 16.9 percent from 27.8 to 32.5 million tons (table 1).

Table 1. Reported Fruit and Vegetable Truck Rates and Tons Shipped

	Tons shipped by refrigerated truck	Rates per truck, CA to NY
	<i>1,000 tons</i>	<i>\$ per truck</i>
2009	31,147	5,049
2010	31,454	6,283
2011	31,863	6,672
2012	31,890	6,865
2013	31,629	7,235
2014	32,468	7,091

Source: USDA-Agricultural Marketing Service. *Agricultural Refrigerated Truck Quarterly*, various issues.

Produce shipment volumes peak during the second quarter of each year with truck rates generally peaking in second and third quarters (USDA-Agricultural Marketing Service). During the peak months, the cost of trucking from production fields on the West Coast to major consumption markets on the East Coast is sometimes more than the value of the produce in the truck.

Over the five year period from 2009 to 2012, long haul trucking rates from California to New York increased roughly 40.4 percent, from \$5,049 in 2009 to \$7,090 in 2014 (table 1).

Despite recent expansions of refrigerated rail service, refrigerated trucks remain the dominant mode of transport. And in the long term, despite the recent drop in oil prices, truck and driver availability continue to be major constraints for the trucking industry. Transportation costs are likely to continue to increase, thus pressuring retailers to raise produce prices to cover their increasing costs and maintain profitability. Consequently, retailers report seeking lower costs from suppliers to offset higher transportation cost, pressuring the entire supply chain, including growers, to be more efficient.

STUDY FINDINGS

The estimated average cost of transportation for retailers/grocery wholesalers was over 26 percent of their cost of goods sold. In other words, approximately one-quarter of a retailer's cost of purchasing fresh fruits and vegetables is for transportation. Such estimates do not include the local transport between the retail distribution center and the stores. For some commodities and at peak times of the season, this percentage can be much higher.

Produce wholesalers reported transportation costs approximately 19 percent of cost of goods sold. Although this study did not examine wholesaler transportation, this difference in costs may be because wholesalers can more easily engage their own outgoing delivery trucks for backhauls from local suppliers. They may also do more business with local or regional producers and suppliers.

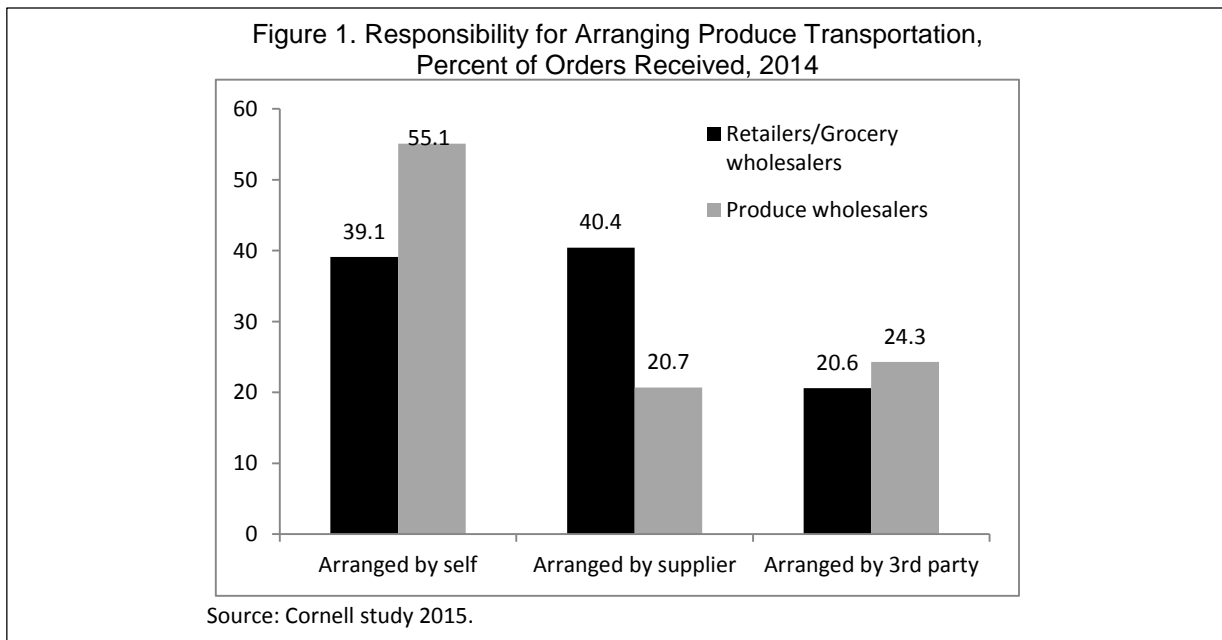
As mentioned earlier, one of the major reasons cited for rising transportation costs is the scarcity of drivers and trucks. With fewer young people entering the trucking industry, the pool of truck drivers is aging and is shrinking as older drivers retire. The recovering U.S. economy and rebound in construction has attracted many former and potential drivers to higher

construction wages. At the same time, regulations for driver hours and other trucking inputs have increased the truck rates per mile. With fewer drivers available than needed, especially during peak summer months, drivers have more leverage in terms of route and driving distance preferences. The result is that fewer drivers are willing to take on cross country deliveries, forcing shippers to break up cross country deliveries into shorter legs that are driven by different drivers.

In addition to the driver shortage, factors that are contributing to increased transportation costs include:

- Rising imports – 20 percent of vegetables, 50 percent of fruit are now imported, with longer travel distances and usually higher transport costs
- Demand for 52 week availability – correlated with the increase in imports, 52 week a year demand requires sourcing product from wherever available whenever available and not relying on seasonal offerings from within the region
- Fuel costs – development across the globe has increased fuel demand only held in check recently by greater oil supplies.

Buyers have three options for arranging transportation. They can arrange for trucks themselves, rely on their suppliers to arrange transportation, or use a third-party logistics provider. In 2014, retailers/grocery wholesalers arranged about 40 percent of transportation themselves and relied on their suppliers for another 40 percent (figure 1). Third-party providers arranged transportation about 20 percent of the time.



Produce wholesalers arrange more of their transportation than do supermarket companies: about 55 percent of their transportation is self-arranged. They rely on suppliers for 21 percent

and third party logistics providers for 24 percent of produce transportation.

IMPLICATIONS

The difficulties finding trucks and drivers for long hauls go beyond higher transportation costs. Shippers report more drop shipments and transfers needed to get product across the country due to regulations limiting hours of driving time for drivers. These increase the likelihood of slower deliveries and interruptions in the cold chain required to maintain product quality.

These transportation issues also impact how shippers themselves organize their transportation or logistics departments. Conversations with shippers' reveal their reactions to range from adding in-house logistics departments and controlling transportation as a competitive advantage to outsourcing all logistics to third-party provider in order to remain focused on their core business.

“Smart Marketing” is a marketing newsletter for extension publication in local newsletters and for placement in local media. It reviews elements critical to successful marketing in the food and agricultural industry. *Please cite or acknowledge when using this material.* Past articles are available at <http://agribusiness.dyson.cornell.edu/SmartMarketing/index.html>.