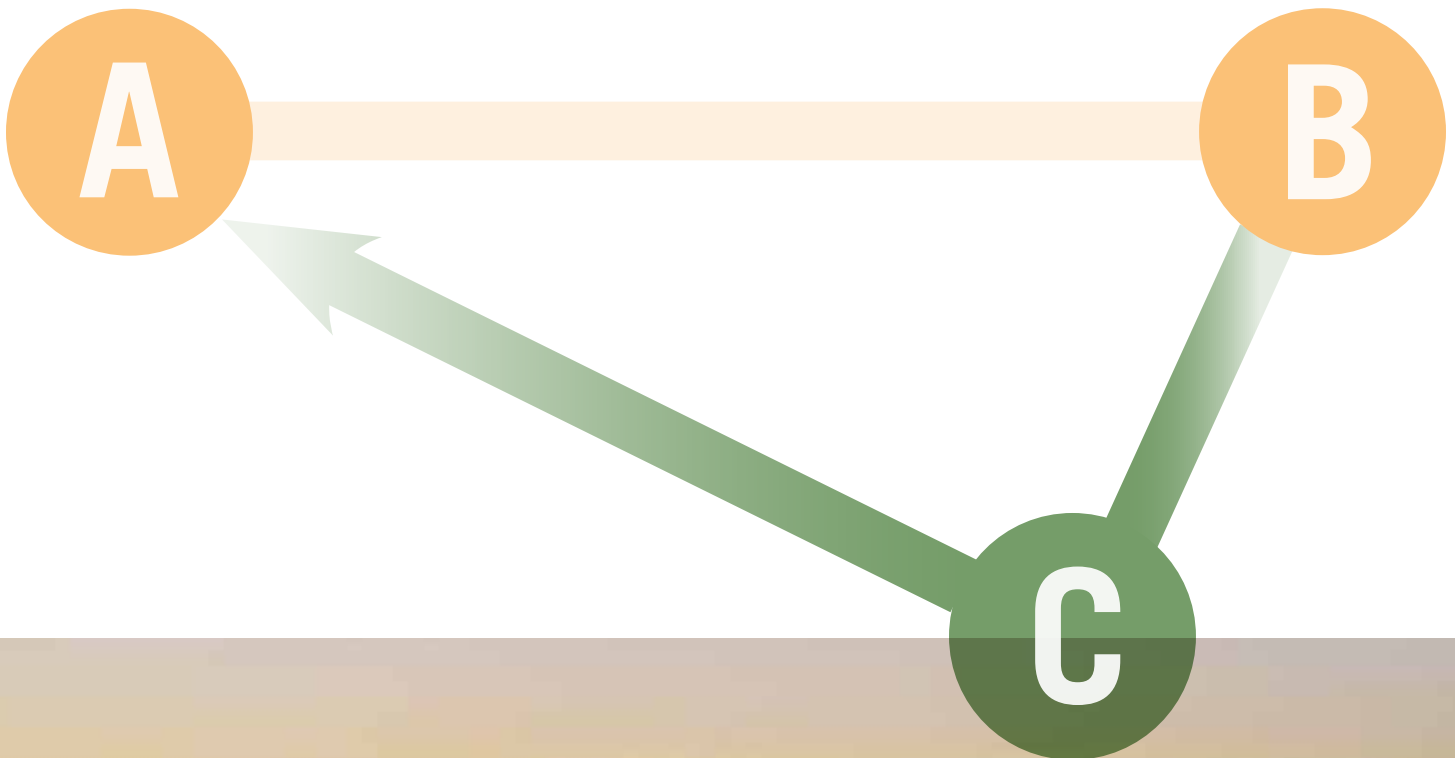


# The ABCs of Trihaul Routing

Using spot freight to add a  
higher paying third leg to your routes



**Trihaul routing can be an easy, effective way to increase your margins on every round trip.**

- Increase your rates per mile
- Minimize deadhead miles
- Optimize your driver's time
- Turn low paying backhauls into higher paying trihauls

Many fleets and owner-operators turn to the spot freight market when they need a backhaul, sometimes taking a lower rate just to bring the truck home. Obviously, this reduces the overall profitability of a round trip.

But today, loads are abundant and the spot market rate exceeds the contract rate on many lanes.

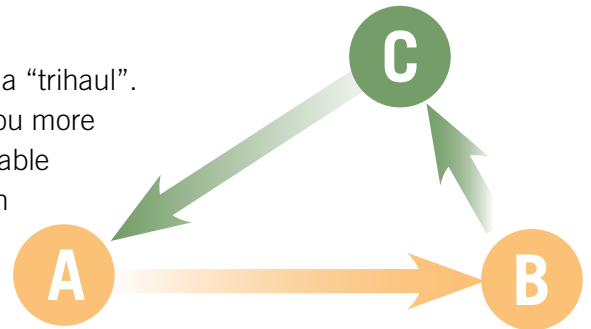
In other words, back hauls no longer equal cheap freight.



In fact, by settling for a straight round trip between Points A and B, you may be missing an opportunity to improve loaded miles by adding Point C – a higher paying third leg.

This leg is what we refer to as a “trihaul”.

Adding a trihaul guarantees you more loaded miles. The most profitable trihauls take advantage of high volume lanes, greatly increasing the average rate per mile.



The obvious question is: If trihaul routing is so much more profitable, why isn't everyone doing it?

Until recently only large companies with rate analysts working with dispatch teams had the experience and back office personnel to do the necessary research. However, with the advent of Truckload Rate Index, technology has enabled smaller companies to have the equivalent of rate analysts on their desktops or mobile computers.

## What Does it Take to do Trihaul Routing?

- A quick understanding of supply and demand: i.e., more loads plus fewer trucks in a lane should mean higher rates
- An accurate rating tool covering the lanes you want to investigate
- A bit of math and a spreadsheet program
- Cooperative drivers

With that in mind, let's get started.

## Headhaul, Backhaul...Trihaul

On a traditional headhaul/backhaul route, the headhaul takes you from point A to point B and is the highest paying segment.

Generally speaking, higher rates result from shippers and/or brokers who need to move a large amount of freight at a time and place where relatively fewer trucks are available to carry it.

A low rate emerges when there are comparatively fewer loads. Carriers who need to re-position trucks to cover high-paying jobs may accept lower rates for the return trip. Consequently, in a traditional headhaul/backhaul route, the backhaul, or return home, usually pays less – often much less.

## Five Easy Trihaul Steps, Tips and Tricks

Here's how it works: You already have a load from Point A to Point B – let's say it's a weekly van load from Chicago to Dallas. You need a backhaul to Chicago, to re-position your truck in time for the next outbound trip, but that lane doesn't pay much. This is a great opportunity to experiment with trihaul routing. Why? Because almost any trihaul route will offer a better rate than a straight back haul.

Here are five steps to increasing your revenue, using TransCore's Truckload Rate Index and a spreadsheet program. This exercise should take you about an hour.

### 1. Define a Radius for Your Search



Look up mileage and rates from the Dallas metro area to major metro areas that are between 250 and 1,000 miles away. Eliminate cities that are less than 250 miles from Chicago. Now look up the rates from each of those 53 cities to Chicago, using the bulk rate feature of Truck Load Rate Index – Spot Market Rates.

Sort and analyze them to find the best fit. This includes a route that enables your driver to remain compliant with Hours of Service (HOS) rules and any contractual limitations.

### Headhaul, A to B

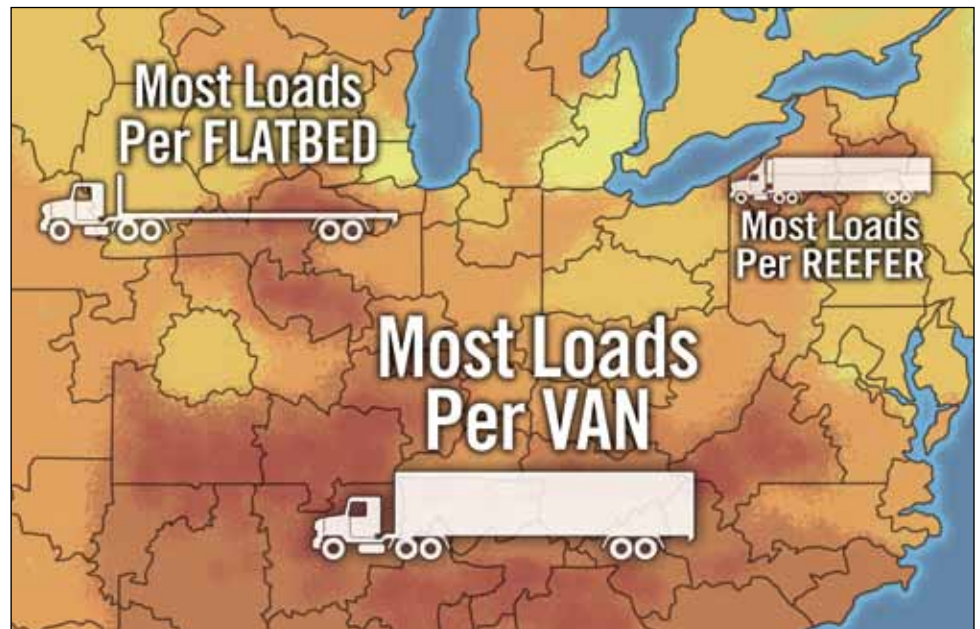


### Backhaul, B to A

For most lane pairs – e.g., Chicago-Topeka – the headhaul is usually the same. But in some lane pairs, say Atlanta and Charlotte, or for reefers, Atlanta and Dallas, the direction of the headhaul may vary with seasonal and regional trends in freight volume.



Check Hot Market Maps to understand the supply and demand for truckload freight services in your region, at a glance. Hot Market Maps reflect current market activity and give you an idea of the actual supply and demand in any part of the United States and Canada. These numbers reflect the national averages for June, 2011.



## 2. Identify Top-Performing Lane Pairs

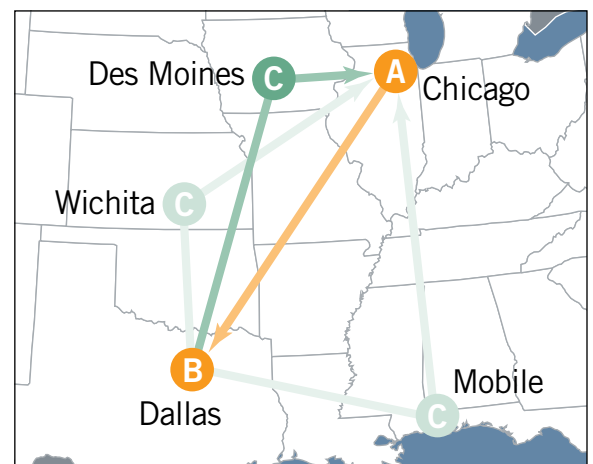
Set up a spreadsheet so that the paired lanes and rates are displayed side-by-side. Compute the total miles, rate per mile, total revenues, and estimated days or hours, to accommodate your schedule and the driver's hours of service. Then sort the trihaul routes and compare to the straight backhaul.

At the end of June, all of the potential trihaul routes yielded a higher total revenue than a straight backhaul to Chicago, and 49 of the 53 cities yielded a higher average rate per mile, too. The exceptions were Lexington, Huntington, Louisville and Cincinnati.

## 3. Prioritize Your Selections

You now have 49 potential choices for your "Point C" and you need to prioritize.

You might not necessarily want to pursue the highest-paying lane. Why not? In our example, the highest paying lanes were from Dallas to Jacksonville FL, Albany GA, Mobile AL and San Antonio TX. Jacksonville may be too



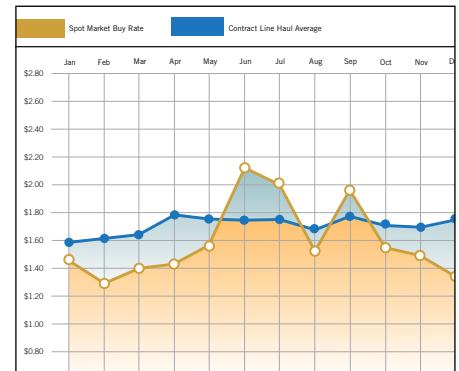
far for your schedule. Mobile looks good. San Antonio might also be a good choice, even though the first leg takes you in the “wrong” direction. If you are short on time, consider Little Rock, Wichita, Tulsa, Omaha or Des Moines. These are not the highest-paying choices, but they can still increase your return-trip revenue by 30% - 40%.

#### 4. Find Loads To and From Your Top City Choices

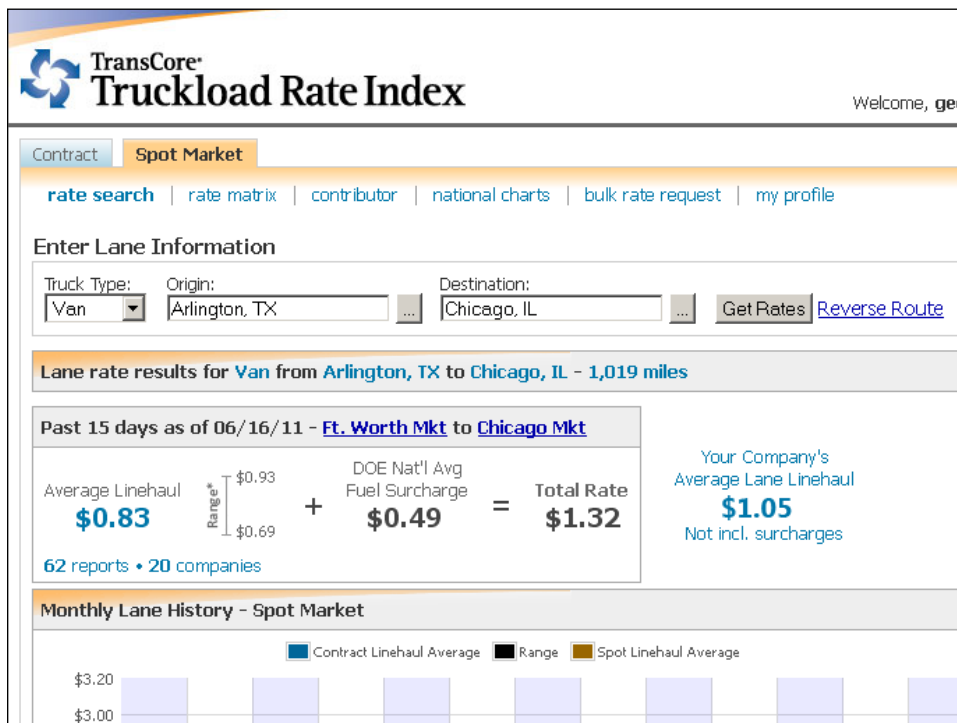
Now search for loads, starting with your top five or six cities. You will want two loads to cover the return trip for each trihaul route. Check your load board and talk to brokers, then compare the rates they offer to the rates on your spreadsheet. (Don't forget the fuel surcharge!) When you get two loads to cover your return trip, and they add up to more money than you would make on a straight backhaul, you have a new trihaul route.

#### 5. Repeat Successful Trihaul Routes and Develop New Ones

Build on your successes and develop a list of trihaul routes that complement your regular contract hauls and lanes. You may even want to position some of your assets to take advantage of seasonal trihaul opportunities in different markets or regions.



*Know your rates: a year-long history of prevailing rates in your lane can help you to plan and negotiate the best rates now.*



Low-paying backhauls, like the one from Dallas to Chicago, can be replaced profitably with trihaul routes.





**“Best” West example - 2 headhauls + 1 backhauls: Fayetteville-Sparks-San Jose**

A side trip in the “wrong” direction, from Sparks to San Jose, adds a short, profitable leg and positions your truck for a better rate back on the way home to Arkansas.

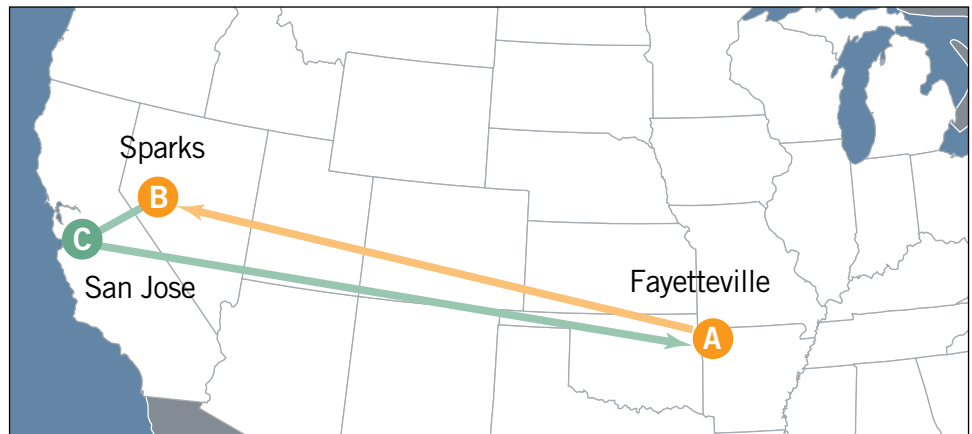
**Trihaul Routing Bottom line:**  
**Adds \$2,028 (68%) to the round trip.**

## Examples of Money-Making Trihaul Routes

The following are examples of trihaul routing for dry vans, and one for re-refrigerated (“reefer”) vans, based on contract and spot market rates\* from TransCore Truckload Rate Index on June 27, 2011. These examples are used to illustrate the advantages of trihaul routing for this report. Your rates and mileage may vary.

### Western Trihaul: Fayetteville-Sparks-San Jose

We’ve found that it is easier to find profitable trihaul routes in the Midwest, but you can construct them in other regions, as well. Sometimes a short, high-priced leg in the “wrong” direction can position your truck for a stronger rate on the return trip. Another example, cited in Step 3, would be a trihaul from Dallas to Chicago, via San Antonio.



#### Fayetteville-Sparks-San Jose

| Point-to-Point Lane         | Miles | Rate   | Line Haul | Fuel \$0.49 | Total Pay |
|-----------------------------|-------|--------|-----------|-------------|-----------|
| Fayetteville to Sparks      | 1811  | \$1.33 | \$2,409   | \$887       | \$3,296   |
| Sparks to Fayetteville      | 1811  | \$1.16 | \$2,101   | \$887       | \$2,988   |
| Sparks to San Jose          | 255   | \$1.69 | \$431     | \$125       | \$556     |
| San Jose to Fayetteville    | 1931  | \$1.82 | \$3,514   | \$946       | \$4,461   |
| <b>Trihaul vs. Backhaul</b> | 375   | \$1.80 | \$1,845   | \$184       | \$2,028   |
| <b>Percentage Increase</b>  | 21%   | 56%    | 88%       | 21%         | 68%       |

\* Spot market rates are the rates paid by freight brokers and 3PLs to the carrier. The fuel surcharge is displayed separately from the base rate, which reflects line haul only. The “total pay” column is calculated as the line haul rate plus the fuel surcharge, multiplied by the distance in miles. The “total pay” does not include any accessorial fees.

## Northeast Trihaul: Chicago-Philadelphia-Columbus

When you are hauling from a market that produces freight to a city that is primarily a consumer market, you may have trouble finding a decent rate for the return trip. If outbound freight is cheap from that city, look for a short haul to another city with greater demand. Even if both legs are backhauls, you might find a higher rate on at least one than you would on a straight return.



**“Better” van example - 1 headhaul + 2 backhauls: Chicago-Philadelphia-Columbus**

Chicago to Philadelphia is a strong head-haul lane, and the return rate is usually low. When leaving Philly, look for a load to Columbus, and minimize mileage at the low outbound rates. Columbus to Chicago is also a backhaul lane, but it usually pays better than Philly to Chicago.

**Trihaul Routing Bottom Line:**  
**Adds \$290 (36%) to the round trip.**

### Chicago-Philadelphia-Columbus

| Point-to-Point Lane         | Miles | Rate   | Line Haul | Fuel \$0.49 | Total Pay |
|-----------------------------|-------|--------|-----------|-------------|-----------|
| Chicago to Philadelphia     | 768   | \$1.94 | \$1,490   | \$377       | \$1,867   |
| Philadelphia to Chicago     | 768   | \$0.56 | \$430     | \$377       | \$807     |
| Philadelphia to Columbus    | 469   | \$0.74 | \$347     | \$230       | \$577     |
| Columbus to Chicago         | 363   | \$0.94 | \$341     | \$178       | \$519     |
| <b>Trihaul vs. Backhaul</b> | 64    | \$0.83 | \$258     | \$31        | \$289     |
| <b>Percentage Increase</b>  | 8%    | 48%    | 60%       | 8%          | 36%       |





**“Good” VAN example - 2 headhauls + 1 backhaul: Dallas-Chicago-Kansas City**

When you haul from Dallas to Chicago, look for loads that take you home via Kansas City. The extra leg adds 175 miles to your trip, and both legs of the trihaul pay more than the straight headhaul rate to Dallas.

**Trihaul Routing Bottom Line:**  
**Adds \$410 (24%) to the round trip.**

### Midwest Trihaul: Dallas-Chicago-Kansas City

You may have a recurring load for the backhaul or low-paying segment, which leaves you with an opportunity to maximize the miles for the higher-paying portion of the trip. Remembering Step 1, look for a triangle that adds at least 250 miles, compared to the straight round trip. You will boost your total number of paid miles even when the rate is not substantially better than the original headhaul.



| Dallas-Chicago-Kansas City  |       |        |           |             |           |
|-----------------------------|-------|--------|-----------|-------------|-----------|
| Point-to-Point Lane         | Miles | Rate   | Line Haul | Fuel \$0.49 | Total Pay |
| Dallas to Chicago           | 925   | \$0.81 | \$749     | \$453       | \$1,203   |
| Chicago to Dallas           | 925   | \$1.38 | \$1,277   | \$435       | \$1,730   |
| Chicago to Kansas City      | 539   | \$1.43 | \$771     | \$264       | \$1,035   |
| Kansas City to Dallas       | 561   | \$1.48 | \$830     | \$275       | \$1,105   |
| <b>Trihaul vs. Headhaul</b> | 175   | \$1.46 | \$325     | \$86        | \$410     |
| <b>Percentage Increase</b>  | 19%   | 5%     | 25%       | 19%         | 24%       |



Produce Season Reefer Trihaul: Chicago-Atlanta-Dallas

When constructing trihaul routing for refrigerated (“reefer”) vans, pay close attention to seasonal and regional trends in produce and other perishable goods. This sounds elementary, but head haul directions and rates are very dynamic in this segment, and the triangle that is profitable now can lose money next month.



“Better” Reefer example - 1 balanced haul + 1 headhaul + 1 backhaul:  
**Chicago-Atlanta-Dallas**

The best round-trip rate per mile for reefers is between Atlanta and Dallas, where the usual headhaul direction is westbound but has reversed this Spring. The Chicago-Atlanta-Dallas triangle supplements the backhaul with a long, high-priced Atlanta-to-Dallas leg that pays better than the outbound headhaul, more than doubling revenue for the round trip.

**Trihaul Routing Bottom Line:**  
**Adds \$1,858 (154%) to the round trip.**

| Chicago-Atlanta-Dallas      |       |        |           |             |           |
|-----------------------------|-------|--------|-----------|-------------|-----------|
| Point-to-Point Lane         | Miles | Rate   | Line Haul | Fuel \$0.49 | Total Pay |
| Chicago to Atlanta          | 755   | \$1.48 | \$1,117   | \$385       | \$1,502   |
| Atlanta to Chicago          | 755   | \$1.09 | \$823     | \$385       | \$1,208   |
| Atlanta to Dallas           | 806   | \$1.62 | \$1,306   | \$411       | \$1,717   |
| Dallas to Chicago           | 985   | \$0.86 | \$847     | \$502       | \$1,349   |
| <b>Trihaul vs. Backhaul</b> | 1036  | \$1.20 | \$1,330   | \$528       | \$1,858   |
| <b>Percentage Increase</b>  | 137%  | 10%    | 162%      | 137%        | 154%      |



## Set Realistic Daily Mileage Goals for Your Trihaul Routes

In each 14-hour shift on duty, the driver may spend no more than 11 hours behind the wheel. If loading takes 2.5 hours and the distance is 500 miles at an average speed of 50 MPH (taking into account any stops for refueling, meals or traffic delays) the driver will budget 10 hours for driving. That leaves him only 1.5 hours for unloading on the same day.

If pressed for time, the driver may need to pull into a truck stop and wait until the next duty cycle to deliver. That means he will start his next shift by unloading cargo, travelling to his next loading point and re-loading the truck. By the time he is ready for the next leg of the trip, he won't have time left in the new shift to travel a full 500 miles. It's better to plan for no more than 450 miles per day or 2,250 miles per week, and to set your budget, bids and customer expectations accordingly.

Most drivers consider 450 miles a good day's work. If driver pay is \$0.50 cents per mile, a 450-mile day yields \$225 per day or \$1,125 per week. In 50 weeks, the driver earns \$56,250 plus any additional compensation for stops, loading and unloading, detention, or other fees. Some owner-operators in long haul service do manage to average close to 620 miles per day. How do they do it? Speed limits as high as 70 MPH in Western states, when averaged into a long haul, enable them to boost total driving distance to 1,850 miles within three days.



## Trihaul Routing Benefits Brokers as Well as Carriers

Brokers can plan trihaul routes for their carriers. If you're a broker, trihaul routing gives you more trucks to offer to your shipper customers. Suppose you are loading a truck from Miami to Jacksonville, and then you load the same truck from Jacksonville to Dallas. You just doubled your productivity without having to take the time to find another truck. That's always a good thing, but it's incredibly important at a time when you have lots of freight to move, and trucks are increasingly hard to find.

Plus, when you load that carrier's truck back-to-back at a good rate per mile, you will help the carrier to make more money. A small carrier may not have the personnel or resources to plan these routes internally, so you will be providing a valuable service that he can't get anywhere else. Naturally, the carrier will think of you next time he has an empty truck, giving you access to more trucks that meet your customers' needs.



For more information about trihaul routing and the Smart Tools you can use to build the most profitable routes, contact a professional sales representative today. **Call 800.252.7793** or visit [TransCoreFreightSolutions.com](http://TransCoreFreightSolutions.com)

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