

2010: LTL Base Rate Analysis

by

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Purpose of Study

Ever since the Motor Carrier Act of 1980, freight carriers have had the freedom to set their own pricing. Prior to that, the industry was tightly regulated and pricing was controlled by the Interstate Commerce Commission and rates were equal for everyone. In the early years, carriers made few and subtle changes. However, in the 30 years since de-regulation the base rates that each carrier charges now vary quite dramatically.

Shortly after de-regulation, carriers started offering small discounts, especially if a shipper would provide more than one shipment on any given day. The logic was that multiple shipments being tendered allowed the carrier to operate more efficiently and could offer a small incentive. That practice ultimately led to today's unimaginable discounting and annual general rate increases that dramatically outpace inflation. It's a vicious circle. Carriers generally increase their base rates an average of 5-7% each year, which results in shippers annually negotiating increased discounts to try and offset the carrier increases. And, most importantly, general rate increases by carriers are not across the board increases. Rather, they increase certain zip codes, weight breaks, commodity classifications and accessorial charges, and then calculate the "average" increase impact. The financial impact is different for each shipper.

Given the complexity of LTL pricing in a deregulated environment, carriers essentially convey pricing as discounts off their base rates (tariff). Shippers must resort to rating disks, the carrier's web-site, or a transportation management system (TMS) to decipher the actual cost of a shipment. Many shippers simply don't know the actual cost of shipping until they receive the freight bill. For many, there is a perception that base rates are about the same, so all a shipper has to do is understand which discount is better. Many shippers think that an 80% discount with one carrier is less costly than a 78% discount with another. Nothing could be further from the truth. Sometimes it is and sometimes it isn't.

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Methodology

We researched the base rates of 9 national (or mostly national coverage) carriers. We then compiled 14 lanes, at random, using small towns and large cities as origin and destination points. We used towns in various geographies but were certain to include both regional and trans-continental lanes. We included east and west lanes as well as north and south lanes.



Carriers generally increase their base rates an average of 5-7% each year.

The financial impact of these general rate increases is different for each shipper.

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In order to keep the data workable, we sampled shipments in the following weight and commodity classification categories:

Shipment Weight Categories
100 pounds
500 pounds
1000 pounds
2000 pounds
5000 pounds

Commodity Classifications
Class 50
Class 70
Class 100
Class 150

The criteria and lanes used resulted in 280 shipments being rated without discounts to compare the carrier’s base rates against one another to determine variance.

Shipment Base Rate Cost Comparison

Below are a few specific examples of rating shipments and comparing the high cost rate to the low cost rate (non-discounted).

Example 1:

1,000 pound, class 70 shipment from Shiner, TX to Bismarck, ND
High Cost Base Rate = \$2,146.70 (Carrier H)
Low Cost Base Rate = \$1,480.90 (Carrier I)
Variance \$665.80 or 45%

Example 2:

1,000 pound, class 50 shipment from Columbus, OH to Itasca, IL (Chicago)
High Cost Base Rate = \$488.10 (Carrier G)
Low Cost Base Rate = \$388.50 (Carrier B)
Variance \$99.60 or 25.6%

Example 3:

2,000 pound, class 100 shipment from Hickory, NC to Blacksburg, VA
High Cost Base Rate = \$1,180.60 (Carrier E)
Low Cost Base Rate = \$801.60 (Carrier B)
Variance \$379.00 or 47.3%

When discounts are applied, the percentage variance would be the same.

Commodity Classifications

We evaluated several of the criteria to test the variances. For example, we evaluated the variance on each commodity classification. However, there didn’t seem to be any stark difference across commodity classifications.



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Class	Cost Variance Low to High
50	34.2%
70	37.2%
100	36.5%
150	35.6%

Weight Categories

We tested the variance by weight category and did find that the variance fluctuated somewhat based on weight category. Shipments rated in the 500 and 1000 pound rate breaks had less variance than minimum charge and heavier shipments.

Weight (lbs.)	Cost Variance Low to High
100	41.5%
500	24.2%
1,000	29.1%
2,000	38.7%
5,000	38.1%

Directionality

We tested the lanes to see if pricing was the same in both directions on the same origin/destination pairs. Of the lanes tested, pricing in four of the lanes was not identical in both directions and varied between 2.00% and 5.7%.

Example:

- Long Beach to Atlanta was 2.0% lower than Atlanta to Long Beach
- Seattle to Long Beach was 5.7% lower than Long Beach to Seattle

Pricing variances were inconsistent by lane. Variances were as low as 17% and high as 41% when comparing carrier base rates on lanes in both directions.

Example:

- Bismarck, ND to Monroe, LA = 17% variance from low cost carrier base rates to high cost
- Monroe, LA to Bismarck, ND = 41% variance from low cost carrier base rates to high cost

Market Size

We tested the size of the markets to determine if there was a significant difference. Market size does not appear to impact the magnitude of variances.

Example:

- Small market to small market = 47.3% variance from high cost carrier base rates to low cost
- Large market to large market = 46.7% variance from high cost carrier base rates to low cost

Distribution

We evaluated each carrier for the frequency of being either the high cost or low cost carrier. We wanted to verify that one carrier didn't dominate being the high cost or low cost base rate carrier. The results:



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Carrier	Occurrences of Lowest Rate	Occurrences of Highest Rate
Carrier A	137	8
Carrier B	52	0
Carrier C	25	0
Carrier D	0	24
Carrier E	22	50
Carrier F	0	11
Carrier G	2	43
Carrier H	0	38
Carrier I	42	106

Total Cost Variance Between Carriers

We took the total cost of each of the 280 shipments and ranked the carriers based on the overall sample. We then compared all nine carriers rating all 280 shipments and summing the total costs to determine the overall variance between carriers. Those carriers and variances are listed below:

Carrier	Total Price Compared to Base
Carrier A	0.00%
Carrier B	3.00%
Carrier C	5.40%
Carrier D	8.10%
Carrier E	8.90%
Carrier F	9.10%
Carrier G	11.40%
Carrier H	11.90%
Carrier I	18.00%

We have elected not to reveal the actual names of the carriers used but instead will name them Carrier A through Carrier I. However, these carriers are typically national in scope and market leaders.

Results

The overall average variance between high cost carrier base rates and low cost carrier base rates on a per shipment basis was 36%. The mean was 31.6% and the range was from 9.3% to 123.4% when comparing non-discounted base rates for the same shipment among 9 national carrier rates.

Summary

Based on our research and analysis, **we have concluded that it is impossible to make the lowest cost routing decision based on discount percentage alone.** Furthermore, shippers using a single core carrier, or its base rates, will not necessarily result in the lowest possible shipping costs. Discounts are misleading. In the example below, Carrier H would have to offer a 79.3% discount just to match the net dollars of Carrier I

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offering a 70% discount. That means Carrier H has the most leeway in playing the “discount game”.

Example:

1,000 pound, class 70 shipment from Shiner, TX to Bismarck, ND
High Cost Base Rate = \$2,146.70 (Carrier H) 79.3% discount = \$444.37
Low Cost Base Rate = \$1,480.90 (Carrier I) 70.0% discount = \$444.27
Variance \$665.80 or 45%

Based on an average variance of 36% between the low cost carrier base rates and the high cost carrier base rates, shippers with a \$100,000 LTL budget are likely spending as much as \$36,000 more than they should by not optimizing routing decisions based on base rates.

In order to optimize shipping, shippers need to have tools at their disposal. First and foremost shippers need to have knowledge of base rates when negotiating with carriers. Shippers need to know how each carrier compares to one another and use that knowledge in negotiations. Shippers might want to engage a consulting company or an audit firm who can provide such analysis. Once the pricing agreements or contracts are in place, shippers need a tool to help tactically choose the very best carrier for each shipment. If you have an abundance of spare time, you can access the web-site of each carrier to determine the net dollar cost of each shipment and choose the one that best meets your need. A more efficient solution would be to employ software with least cost routing capabilities that display all your options on a single screen, allowing you to choose the one that provides the best overall value.

Conclusion

There is a substantial amount of money at stake for the educated and well-equipped. For those that aren't, “caveat emptor” (buyer beware).

- LTL carrier base rates vary by up to 36% on average
- Some base rates vary by 123%
- Discounts cannot be compared unless off a common base rate
- Analysis and tools are necessary if a shipper is trying to minimize shipping costs

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