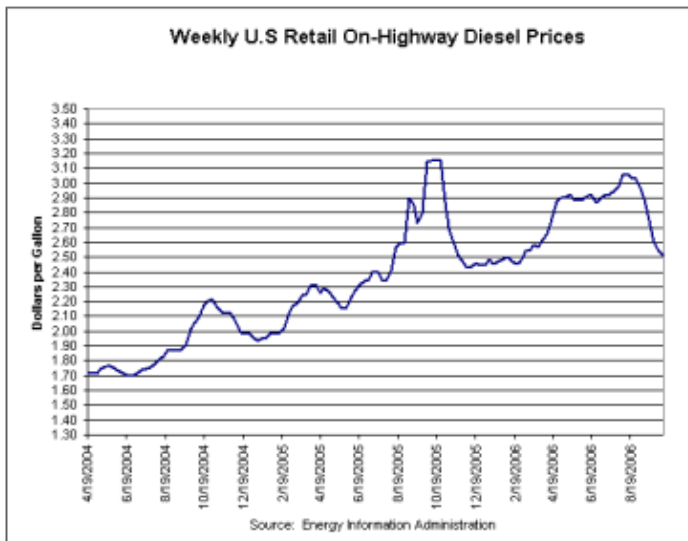


Ship or Not To Ship

Lowering the Logistics Costs of Electronics Recycling

Logistics costs in the supply chain have inescapable implications for the recycling of end-of-life technology assets. Organizations either pay directly for pick-up and delivery to recycling plants, or incur hidden, internal costs of moving materials in the form of higher recycling charges. Depending upon the location and types of equipment involved, logistics can represent upwards of 75% of the total cost of electronics recycling. This percentage has increased in recent years and exerted upward pressure on recycling costs. The recent trend is attributable to three main factors: 1) rising fuel costs, 2) labor shortages in the transportation industry, and 3) a corresponding increase in labor costs as a result of the labor shortage. In this article, we examine each of these underlying factors and offer a potential strategy for mitigating the impact of rising logistics costs.

Rising Fuel Costs:



As we have all experienced at the fuel pump, fuel costs have increased dramatically in recent years. Not surprisingly, the rise in diesel fuel costs has had a dramatic impact on the transportation industry. According to *Donald Broughton*, a transportation analyst with A.G Edwards, the cost of transportation

increases approximately one cent per mile for each 5-6 cent rise in the price per gallon of diesel fuel.

In addition, the *Owner Operator Independent Drivers Association* has concluded that, based on current fuel prices, "...most truckers need to be charging right around 28 cents per loaded mile *on top* of all other base charges for hauling the load." As seen in the following chart, the trucking industry has attempted to offset the rise in its costs by imposing fuel surcharges:

Recommended Fuel Surcharges—2006

Period Beginning	Price Per Gallon (US Domestic)	Fuel Surcharge		
		LTL	TL	Heavy TL
18-Sep	285.7	12.2	28.8	32.3
11-Sep	296.7	13.1	30.7	34.5
4-Sep	302.7	13.6	32	35.9
28-Aug	303.3	13.7	32.1	36
21-Aug	306.5	13.9	32.8	36.8
14-Aug	305.5	14.1	33.2	37.2
7-Aug	298	13.6	31.9	35.8
31-Jul	294.6	13.3	31.3	35.1
24-Jul	292.6	13.2	30.9	34.7

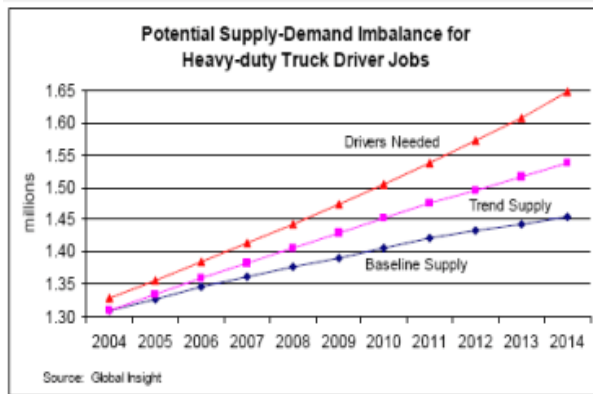
Source: North American Trade Council



In addition to rising fuel prices, there are two other related factors underlying the increase in transportation costs:

Labor Shortages

As illustrated in the following chart, the demand for drivers significantly exceeds supply in the trucking industry.

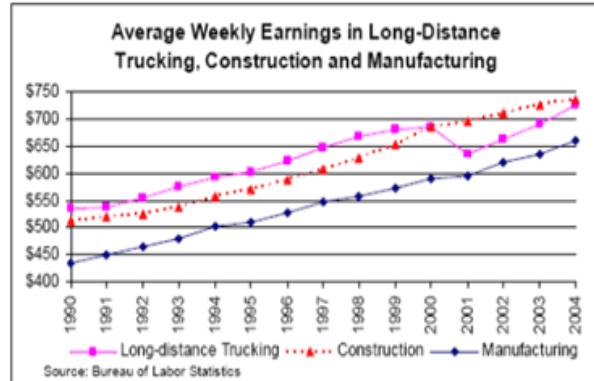


This imbalance is the result of an aging workforce, with over 20% of drivers currently over 50 years of age. This shortage will be further exacerbated over time, as the rate growth in the labor force is forecast to



Rising Labor Costs

At the same time that the supply of new drivers is slowing down, demand is growing. The result has been a fairly steady increase in wages over the past fifteen years:



Based upon current trends, analysts estimate that wages will need to increase by more than 10% in order to attract enough drivers to meet future industry needs.

An Alternative Approach

One highly effective strategy for mitigating the impact of rising logistics costs is to ship the equipment to multiple regional recycling facilities for processing as opposed to a single location. Since transportation costs are directly correlated to the distance shipped, the savings can be substantial. In the following example, we compare the costs of shipping various amounts of equipment located in Phoenix, AZ, Portland, OR, and Atlanta, to local regional “hubs” for recycling vs. sending all of the equipment to a single central facility in Chicago, IL:



Pick-Up Location:

Rates into Central Plant:

Rates into Local Plants:

Chicago, IL (60185)

Phoenix, Arizona

Phoenix, AZ

1 pallet / 800 lbs.	\$381.00	\$162.00
Truckload / 40,000 lbs.	\$2,280.00	\$300.00

Portland, OR

Portland, OR

1 pallet / 800 lbs.	\$411.78	\$144.00
Truckload / 40,000 lbs.	\$2,340.00	\$330.00

Atlanta, GA

Columbia, SC

1 pallet / 800 lbs.	\$300.00	\$174.31
Truckload / 40,000 lbs.	\$930.00	\$420.00

Total Cost:

1 pallet / 800 lbs.	\$1,092.78	\$480.31
Truckload / 40,000 lbs.	\$5,550.00	\$1,050.00

Total Savings:

1 pallet / 800 lbs.	\$612.47	56.0%
Truckload / 40,000 lbs.	\$4,500.00	81.1%

As demonstrated above, the cost savings of shipping to nearby processing facilities are significant, and grow at an even greater proportion as the amount and weight of the equipment increases. Please note that the rates quoted represent modestly discounted prices for illustration purposes. It is important to be aware that recyclers may subsidize artificially low logistics charges by raising other service fees.

Conclusion

With the increasing costs of fuel and associated labor issues, it is important to focus on recycling solutions that lower the cost of logistics. Both single and multi-location organizations can benefit from partnering with asset retirement firms who possess in-house logistics expertise and a nationwide network of equipment processing facilities.

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