Supply Chain Digest recently conducted a survey of its readers on logistics costs. This was a self-selected poll – opportunities to take the brief survey were posted on several issues of the Supply Chain Digest newsletter and the web site.

In total, 247 usable responses were obtained, from a wide range of industries.

Highlights of the survey results include the following:

**Primary Method of Measuring Logistics Costs**

40% of respondents said their primary measure of logistics costs is as a percent of sales. This compares with 25% who said the primary measure was in absolute cost, 16% who said it was cost by some unit of weight (hundred weight, kilograms, etc.), 11% who said it was cost per some unit measure (case, unit), and 8% who said they used “activity-based costing” as the primary measure.

As one reader commented: "The mistake of using % of sales as one’s only meaningful metric will become very obvious during the deflationary portion of the cycle. The escalation of absolute costs can hide in the euphoria of top line growth only to surface as a huge swing in % increase when the market and the associated top line falls, even if the absolute cost remains relatively stable. However; all too often as budget conscious managers we are willing to take the win and the associated credit without acknowledging the windfall aspects of the cycle."

About 25% of respondents indicated through comments that in practice they look at logistics costs multiple ways – we simply asked for the primary measure. Another respondent commented: "We use several of these measures, but exclude items that are out of our control, such as the cost of benefits.” We suspect most companies look at this from several directions.
What is Included in Logistics Cost Measures?

100% of respondents included warehouse/distribution costs and 98% outbound transportation costs in calculating costs of logistics (a handful said customers paid for all outbound freight).

55% included inbound transportation costs, while 45% did not. 29% included reverse logistics/returns costs, and perhaps surprisingly, only 32% of respondents included inventory carrying costs as part of total logistics costs. 21% included customer service costs, which are generally included when various pundits look at total logistics costs. There was a slight vertical orientation here, with customer service more likely to be included in the consumer packaged goods, food/beverage, 3PL and chemical segments, and uncommon in retail (as makes sense), wholesale distribution, and tech, to cite a few.

Among manufacturers, about one-third said they included “manufacturing logistics costs,” but we did not well define the term. It was meant to include costs into and out of production, as well as material storage and handling costs in the plant. What makes this aspect hard is that it’s hard to know who really is a manufacturer these days – a lot of companies which used to be are now sourcing overseas. But several respondents in comments wanted to make clear that plant transfer costs were included in logistics costs.

Other costs cited not in our specific list (just a handful at most each) included: import/export costs, freight audit expense, and packaging costs.

Logistics Costs Up or Down in the Past Year?

The results broke out this way, by the way companies measure logistics costs:

Absolute costs:

- 74% said logistics costs were up
- 26% said logistics costs were down
As a percent of sales:

- 62% said costs were up
- 38% said costs were down

Logically, this was perhaps the most industry-specific area we measured, as product price is often the key driver of this metric. Virtually 100% of food and beverage and wholesale distributors, for example, said their logistics costs as a percent of sales were higher in 2005. Conversely, a high percentage of respondents in the chemical and the 3PL industries said their costs as a percent of sales declined. The chemicals one makes sense, as prices in general rose heavily in that sector. The 3PL one is less clear – see more comment under the 3PL break out section.

Cost Per Weight or Unit:

- 71% said costs were up
- 29% said costs were down.

Noted one respondent: "How can anyone say logistics costs are going down when the cost of diesel has risen almost $1 a gallon in the past year. The cost of rail has increased 7-10% across the board and the major air carriers have implemented fuel surcharges. There is no way!"

**Performance by Industry**

We also looked at how logistics costs were measured and performance by industry in 2005.

In general, logistics costs were up regardless how the company measured logistics and the industry. However, certain industry did perform better than others, especially in the “logistics costs as a % of sales” metric.

For example, only 1 out of 7 wholesales distributors in our survey said they reduced logistics costs as a percent of sales, and none out of the 8 respondents in the food and beverage industry reduced costs using the same metric. Conversely, 4 out of the 5 chemical companies that used logistics costs as a percent of sales as the primary metric reduce logistics costs. This was due to the strong sales price increases the chemical industry was able to achieve during the year, which reduces logistics costs as a percent even if they rose in absolute terms.

Industries broken out below are as follows:

- Apparel
- Automotive
- Chemicals
- Consumer durables
- Consumer packaged goods
- Consumer goods - other
- Food/beverage
- Furniture/Home furnishings
- High tech
The results by industry are as follows:

**Apparel Industry Logistics Costs**

Among the 9 apparel industry respondents, few were able to decrease costs along their primary measure, and none of the companies using cost per unit/weight were able to do so.

![Apparel Industry Logistics Cost Performance](image)

**Automotive Industry Logistics Costs**

Interestingly, none of our 11 respondents from the automotive industry, which were primarily suppliers to the OEMs, used cost per weight or unit as their primary measure.

One-fourth were able to decrease logistics costs as a percent of sales. In general, auto OEMs kept a lid on prices, but there may be some categories where raw material costs pushed up sales prices, impact logistics costs as a percent of sales favorably.
Chemicals Industry Logistics Costs

The chemicals industry had by far the best performance among all industries in terms of cost as a percent of sales – 80% of respondents that used this measure reported costs were lower in 2005, driven by strong sales price increases. However, only 33% of respondents who used cost per weight/unit were able to reduce costs.

Consumer Durables Industry Logistics Costs

Consumer durables (appliances, electronics, etc.) showed better than average performance in terms of logistics costs improvements, though we had only 8 total responses from this segment.
Still one-third to one-half the respondents under each of the primary cost measures said they were able to reduce logistics costs in that metric in 2005.

**Consumer Durabables Industry - Logistics Cost Performance 2005 by Primary Measure**

<table>
<thead>
<tr>
<th>% of Respondents Higher/Lower, 8 Total Respondents</th>
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<tbody>
<tr>
<td>Absolute cost measure</td>
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<tr>
<td>As % of sales</td>
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<td>Cost per weight/unit/activity</td>
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**Consumer Packaged Goods Industry Logistics Costs**

Similar to the related category of food and beverage (see below), very few consumer packaged goods companies were able to reduce logistics costs in 2005 regardless of which metric was their primary driver. None of respondents (15 across all primary measures) was able to reduce absolute costs or cost per weight/unit, and only 1 out of 9 which measured primarily by percent of sales was able to reduce costs.

**Consumer Packaged Goods Industry - Logistics Cost Performance 2005 by Primary Measure**

<table>
<thead>
<tr>
<th>% of Respondents Higher/Lower, 15 Total Respondents</th>
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</thead>
<tbody>
<tr>
<td>Absolute cost measure</td>
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<tr>
<td>As % of sales</td>
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<td>Cost per weight/unit/activity</td>
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Other Consumer Goods Companies Logistics Costs

We had 13 total respondents in other types of consumer goods companies, representing such segments as toys, cosmetics and entertainment.

Several companies in this group were able to reduce logistics costs, but the relatively small number in this segment size combined with its “catch-all” nature makes it hard to draw conclusions.

Food/Beverage Industry Logistics Costs

Very few food and beverage industry companies were able to reduce logistics costs in 2005 regardless of how they were measured. This segment had a strong number of total respondents – 21 – and of the 8 whose primary measure was cost as a percent of sales, none was able to reduce costs in 2005. Just a couple using absolute logistics costs or logistics costs by unit or weight were able to do so.

In a letter to Supply Chain Digest, Joe Lombardo of food manufacturer Nestle wrote regarding some other logistics benchmark data, as this one, showing some companies were reducing logistics costs: "Are logistics costs falling as a percent of sales because of sales price increases? Some manufacturers seem to have limited pricing power due to energy and commodities price increases."

Food, beverage and consumer packaged goods segments, along with wholesale distribution, seemed to have the least pricing power in 2005 while transportation and other logistics costs rose.
**Food/Beverage Industry - Logistics Cost Performance 2005 by Primary Measure**

% of Respondents Higher/Lower, 21 Total Respondents

- **Absolute cost measure**: 11% down, 89% up, 17% higher
- **As % of sales**: 0% down, 100% up
- **Cost per weight/unit/activity**: 83% up

**Furniture/Home Furnishings Industry Logistics Costs**

We had only four respondents in this segment. None were able to reduce logistics costs in 2005 regardless of measurement primarily used. Pricing pressure for domestic manufacturers from furniture built in China and elsewhere probably contributed to the result, or logistics costs may have increased from moving to offshore versus domestic sources.

**Furniture/Home Furnishings Industry - Logistics Cost Performance 2005 by Primary Measure**

% of Respondents Higher/Lower, 4 Total Respondents

- **Absolute cost measure**: 0% down, 100% up
- **As % of sales**: 0% down, 100% up
- **Cost per weight/unit/activity**: 0% down, 100% up
High Tech Industry Logistics Costs

This category, which had 17 total respondents, surprised us a little, because many technology companies face higher logistics costs as a percent of sales due to the fact that selling prices per unit in this segment tend to fall consistently, rather than rise. In fact, in the past, with high prices, many tech companies didn’t focus that strongly on logistics costs - service and on-time delivery were the bigger issues.

However, as the cost of PCs and other gear has dropped substantially, logistics costs have made a more noticeable line-item as a cost percentage in the total company budget, and many tech companies are looking hard at reducing logistics costs. Perhaps it is this focus that led to 40% of our respondents which use logistics cost as a percent of sales as the primary measure, and 40% who use cost per weight or unit as the primary measure, to report lower logistics costs in 2005 in our survey.

Paper/Building Products Industries Logistics Costs

We had only six respondents in this segment, none of which was able to reduce logistics costs in 2005 regardless of which measure was used. This segment has traditionally had high logistics cost versus sales due to a relatively low value-to-weight ratio – it could be companies in this industry did not have much pricing power either in 2005.
Pharmaceutical/Medical Products Industry Logistics Costs

Pharmaceutical and medical products companies are on the other end of the spectrum from paper and building products, with a very high value-to-weight ratio. In general, compared to other segments, they have traditionally been more focused on service, "cold chain" management, regulatory compliance and supply chain security than pure logistics costs, but SCDigest research has shown companies in these sectors are focusing more heavily on supply chain management generally and logistics cost specifically than in the past.

This may be reflected in our survey, where one-third of those who primary measure was cost as a percent of sales were able to reduce logistics costs, and another third which were able to reduce total logistics costs in absolute terms.
Retail Industry Logistics Costs

We were interested to find than none of our 28 total retail industry respondents (including both traditional retail and consumer direct) used absolute logistics costs as the primary measure, the only segment in our survey population to have that distinction.

About half of the retailers in the survey used costs as a percent of sales as the primary metric, and about half used cost per unit/case. Retailers, with their generally thin margins and distribution intensity, have always been among the most focused of any segment on logistics cost metrics. A number of retailers each year set goals to specifically reduce logistics costs as a percent of sales.

30% of our retail respondents that used logistics costs as a percent of sales we able to reduce those costs in 2005, and 33% of those using cost per unit/case were able to do so.

Wholesale Distribution Industry Logistics Costs

The wholesale distribution industry is facing multiple challenges, from margin pressure to manufacturer attempts to “cut out the middleman.”

Logistics costs are adding to that pressure. We had 32 total respondents, and just 14% of those that used logistics costs as a percent of sales were able to reduce those costs in 2005. On the positive front, 30% of those measuring in cost per weight or unit were able to reduce 2005 logistics costs by that metric.
Wholesale Distribution Industry - Logistics Cost Performance 2005 by Primary Measure
% of Respondents Higher/Lower, 32 Total Respondents

3PL Industry Logistics Costs

We had 17 total 3PL respondents, across several sub-segments of the industry. In general, 3PLs provided the strongest cost-reduction performance of any segment in our survey; however, it’s hard to fully analyze the results, as it’s not clear from what perspective the question was answered (their costs, their clients’ costs, etc.). There may also be some bias in the 3PL data, as it would be in the industries’ interest to show costs declining.

On the other hand, since logistics is what a 3PL does, and many have strong continuous improvement type programs, it certainly could be this group is in fact at the top of the cost improvement curve.
Other Industry Logistics Costs

We had 42 respondents who categorized themselves as “other,” or which came from industry segments that we had just a few respondents for. As a result, it is hard to draw many real conclusions. We did, as expected, find that the few respondents in things like metals and other commodities were in general very strong in reducing logistics costs as a percent of sales due to rising sales prices in 2005.

Level of Cost Increase/Decrease

The level of cost increases/decreases by measure varied so wildly that it is hard to put the data to good use – we believe an average of the responses, for example, would really not provide much insight. We do offer some basic observations that might be useful.

The logistics cost measure probably best suited to comparisons is cost per unit or weight, as these are not directly effected at all by change in a company’s sale prices, and are much less subject to volume impacts of course than absolute logistics costs. There certainly can be some volume impact, as higher volumes can better leverage certain fixed costs or generate opportunities for greater efficiencies, while lower volumes may have an opposite effect.

Many studies have found, for example, that on average large companies have a lower cost of logistics by unit/weight and as a percent of sales within a specific industry segment than do smaller companies. And as always, there can be confounding factors. One respondent, for example, noted their cost per case measures where negatively impacted by packaging changes that reduced the
average number of cases per pallet. That increased the cost per case when doing pallet moves, for example.

In looking at the companies that measured costs first by unit, weight or some similar measure, of the 83% of respondents who had costs go up in 2005, increases range from a low of 0.05% (retail industry company) to a high of 12% (food industry company). The average was a 4.6% increase in cost per unit/weight among this group.

Conversely, those able to decrease logistics costs per unit/weight had relatively small gains. The highest percent decrease was 5% (retail) and the average was 1.7%.

**Summing it Up**

In general, Supply Chain Digest’s Logistics Cost Survey strongly supports the view that 2005 was a challenging year for most companies in terms of logistics costs, as transportation costs in particular rose heavily, and customer service pressures also continued to rise.

The exception were found largely in those companies with look at logistics costs first as a percent of sales, and then were in industries that had strong pricing power in 2005. Those tended to be in the chemicals, metals and other commodity markets.

It was interesting to see the diversity of ways in which companies measure logistics costs, both in terms of primary measures used and what cost elements are included in those measures. Items like inventory carrying costs and customer service, which are often included in macro or academic studies of logistics costs, were in fact used by a distinct minority of our respondents.

Given the increasingly dynamic nature of both business strategies and the current cost environment, it is clear we need as an industry to continue to refine cost metrics in a way that makes them useful in the face of these changes in determining performance.

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