



# Measuring Logistics Performance

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## Methodology

- Over 480 logistics and supply chain professionals participated in the study that was conducted over the Web during the month of February 2004
- Email list was provided by DC Velocity
- Over 50% of the respondents had a title of Senior Vice President
- A complete demographic breakdown is at the end of this report
- Findings of these efforts will be published in DC Velocity



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## The View of Logistics Is Changing

Management Team	Viewing Logistics as Cost Center	Viewing as Profit / Revenue Center	Viewing as Service Center	Viewing as Strategic Component
CEO / CFO/ COO	25.2%	19.1%	15.9%	39.7%
Business unit management	16.7%	19.8%	27.1%	36.5%
Mid level management	22.4%	15.0%	34.5%	28.1%

Source: Manrodt, Holcomb and CGE&Y, 2003

## A View Of Logistics / Supply Chain From The "Top"

- The higher you are in the organization, the more likely you are to "view" logistics/supply chain as a strategic component
- In terms of operations, this strategy would be realized primarily through service
- The results indicate that mid-level management is very much in tune with the top-level perspective as indicated by the proportion of respondents in this category that indicated that logistics/supply chain was viewed as a service center

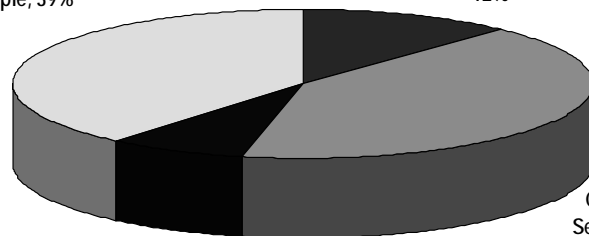
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## Firms Adopting Customer Service As Core Strategy

Mix: Be all things to all people, 39%

Cost Leadership, 12%



Customer Service, 41%

Product / market innovation, 8%

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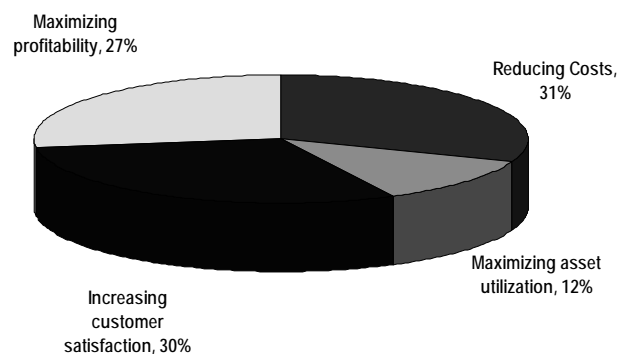
## Strategic Change In Direction....

- After several years of intense focus on the bottom line, firms are shifting their emphasis to customer service
- Less emphasis is being placed on cost reductions as was the case in 2002 and 2003
- Cost hasn't been forgotten, however, as a significant percentage of companies are pursuing the difficult path of "being all things to all people"

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## Major Objective of Firms Still Cost Focused



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## Alignment Of Strategy And Objectives

- As in previous years, most firms are not aligned in terms of strategy and objectives
- Companies are simultaneously attempting to increase customer satisfaction and reduce costs
- While attainable, this is very difficult to execute without a significant technological infrastructure

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## Responsibility by Organizational Function

*Department That Has Primary Responsibility for the Function*

<i>Function</i>	<i>Supply Chain / Logistics</i>	<i>Operations/ Manufacturing</i>	<i>Finance</i>	<i>Sales / Marketing</i>	<i>Other</i>
Customer Service	27.1%	22.9%	--	<b>37.5%</b>	12.5%
Procurement / Sourcing	31.3	<b>39.6</b>	8.3	10.4	10.5
Production Planning	19.1	<b>57.4</b>	2.1	10.6	10.6
Inventory Accounting / Control	23.4	27.7	<b>46.8</b>	2.1	--
Inventory Management / Planning	29.8	<b>44.7</b>	14.9	4.3	6.4
Inbound Transportation	<b>62.5</b>	22.9	2.1	6.3	6.3
Outbound Transportation	<b>57.4</b>	29.8	2.1	6.4	4.3
Warehousing	<b>52.1</b>	33.3	2.1	6.3	6.3
Demand Forecasting	<b>31.3</b>	25.0	2.1	<b>31.3</b>	10.5
Transportation Planning	<b>66.0</b>	25.5	--	4.3	4.3
Logistics Network Design / Strategy	<b>66.7</b>	18.8	2.1	4.2	8.3

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For each function, the department with the greatest control bolded



## Movement and Storage Still Logistics' Primary Responsibility

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- When it comes to transportation planning and operations (both inbound and outbound), logistics is clearly in the "driver's seat"
- Unfortunately this cannot be said for two of the most important logistics functions – inventory management and customer service – which are not the primary responsibility of this area
  - However, both areas are more likely to be managed by supply chain / logistics than five years ago
- Surprisingly, logistics and sales/marketing are almost equally involved in demand forecasting



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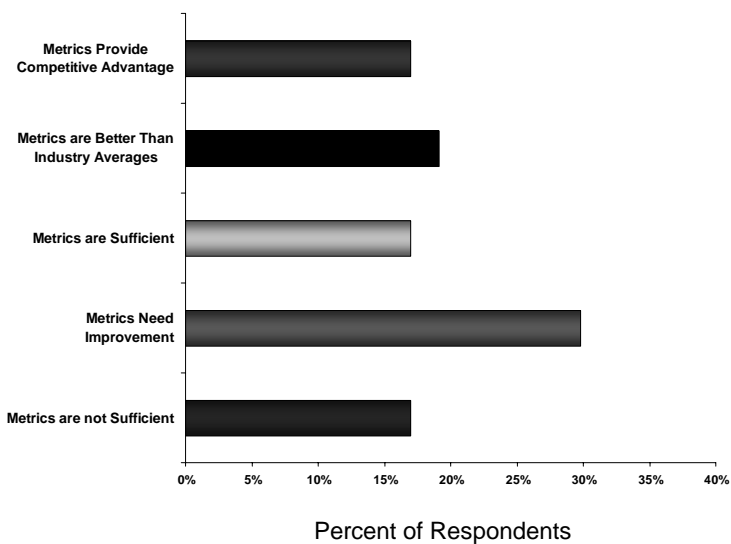
## Sufficiency of the Metrics

## How Good Are the Metrics?

- The next section presents the findings across seventeen functional areas and the metrics used to measure performance in these areas
- Respondents were asked if the metrics for the respective functional area were sufficient, in need of improvement, or provided a competitive advantage

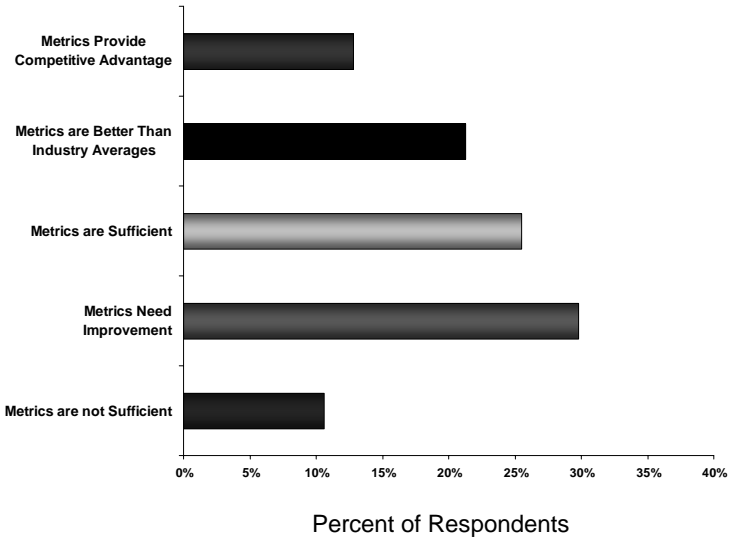
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## Metrics Sufficiency – Customer Service



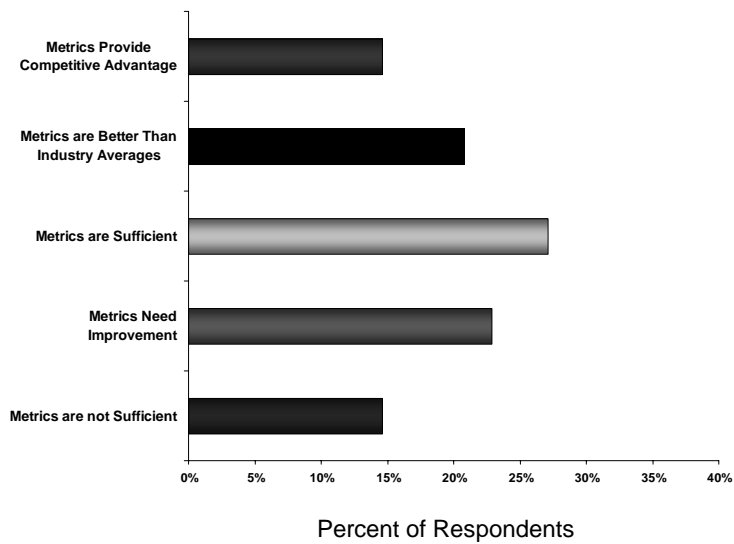
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## Metrics Sufficiency – Order Entry



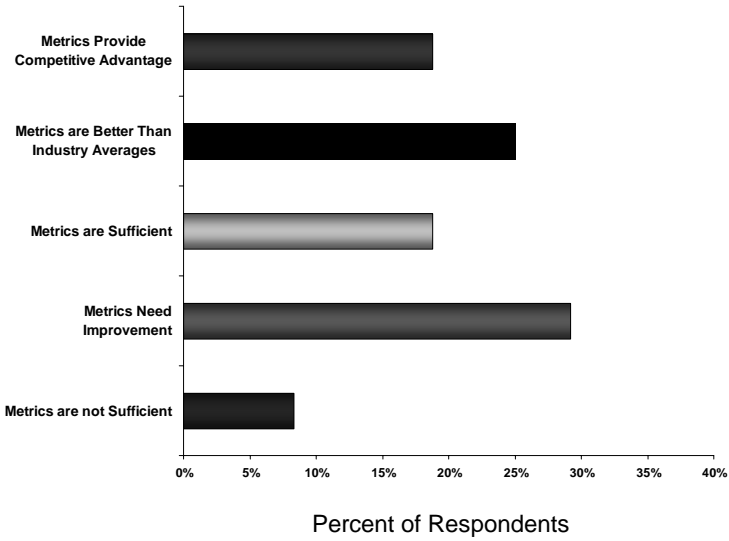
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## Metrics Sufficiency – Order Processing



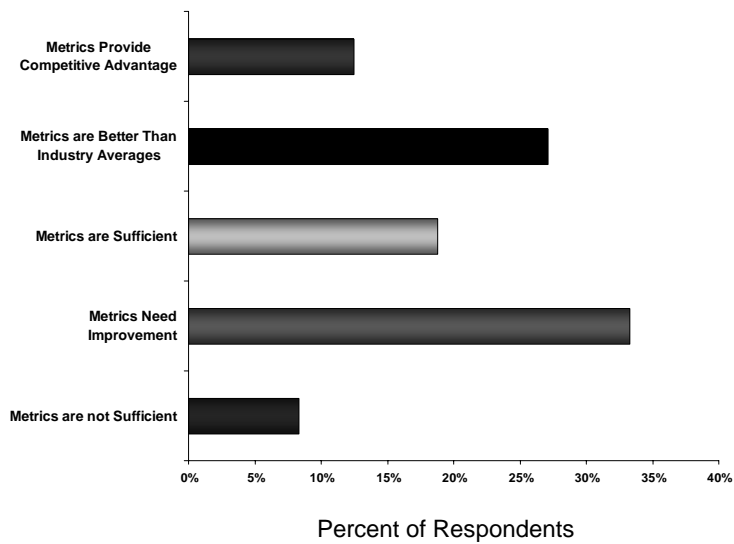
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## Metrics Sufficiency – Order Fulfillment



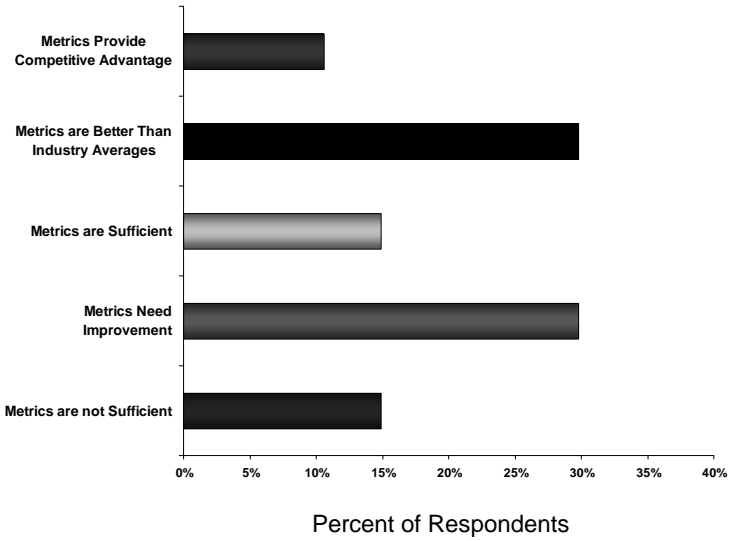
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## Metrics Sufficiency – Procurement / Sourcing



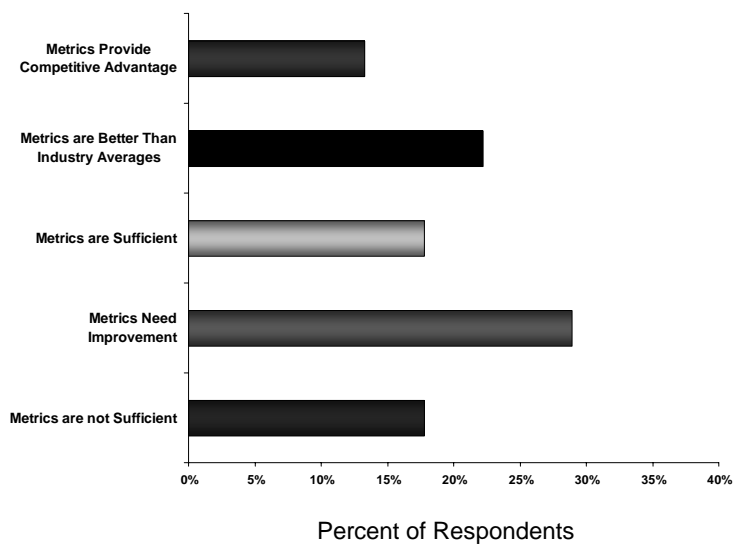
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## Metrics Sufficiency – Purchasing



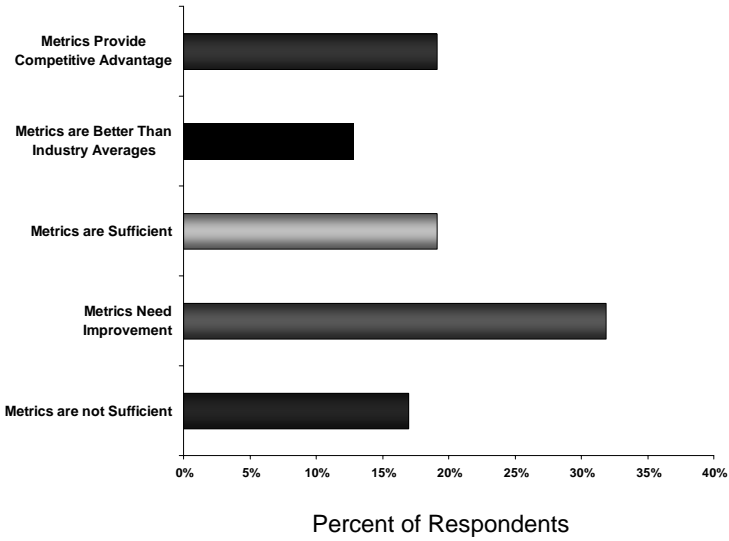
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## Metrics Sufficiency – Production Planning



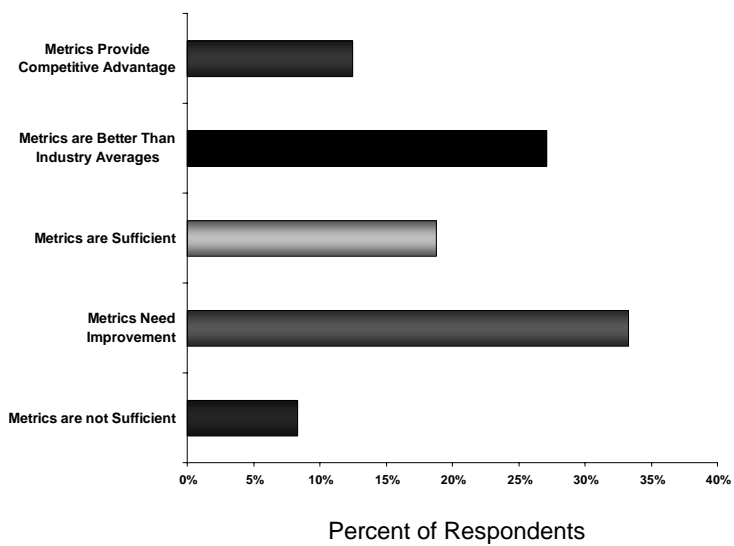
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## Metrics Sufficiency – Third Party Operations



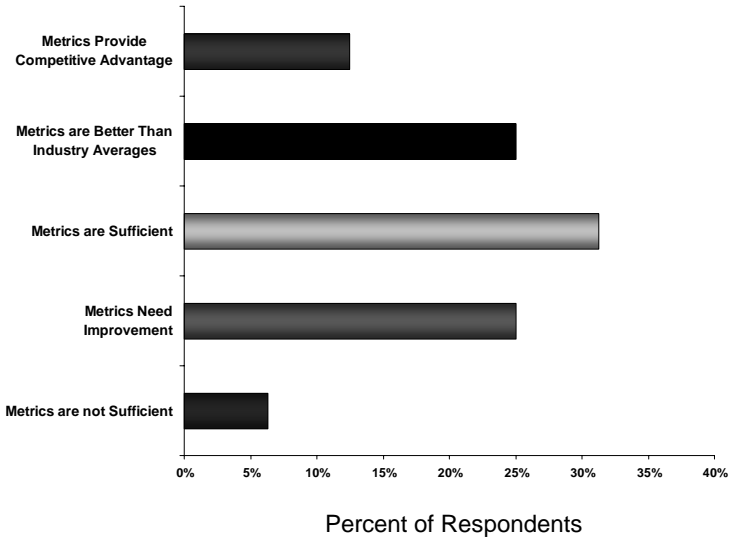
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## Metrics Sufficiency – Inventory Accounting / Control



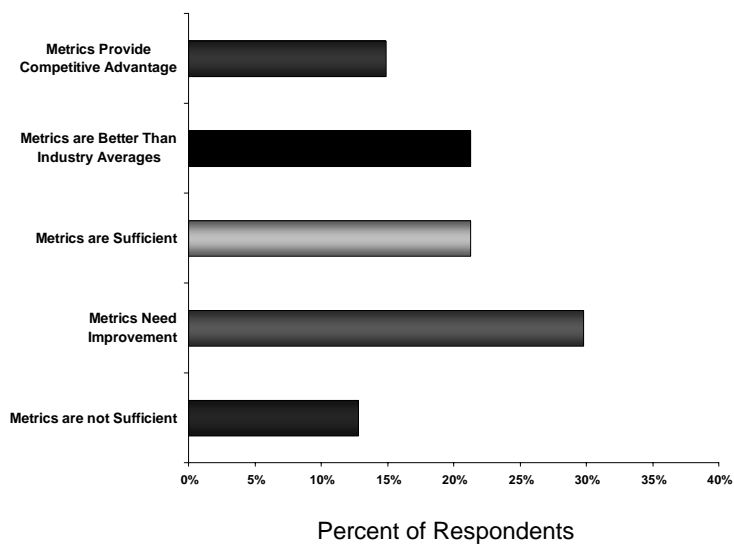
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## Metrics Sufficiency – Inventory Management / Planning



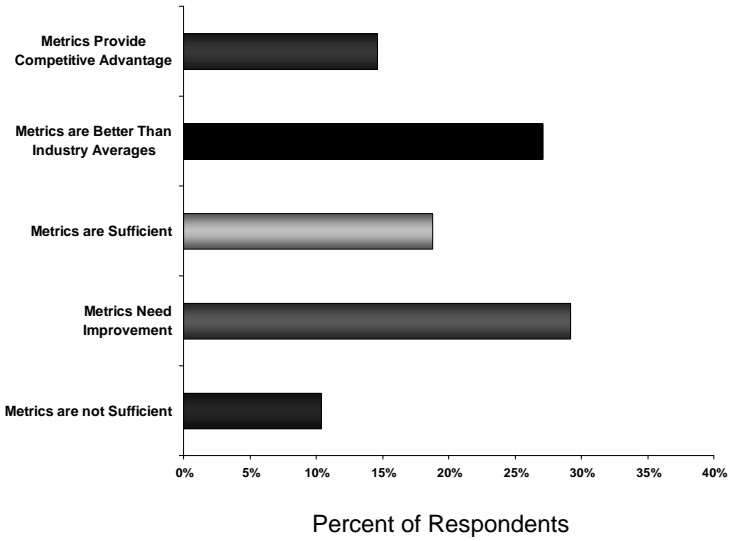
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## Metrics Sufficiency – Inbound Transportation



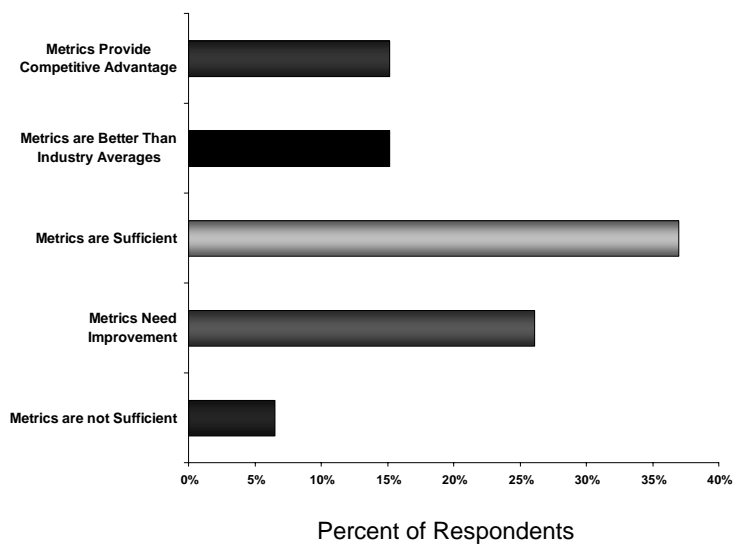
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## Metrics Sufficiency – Outbound Transportation



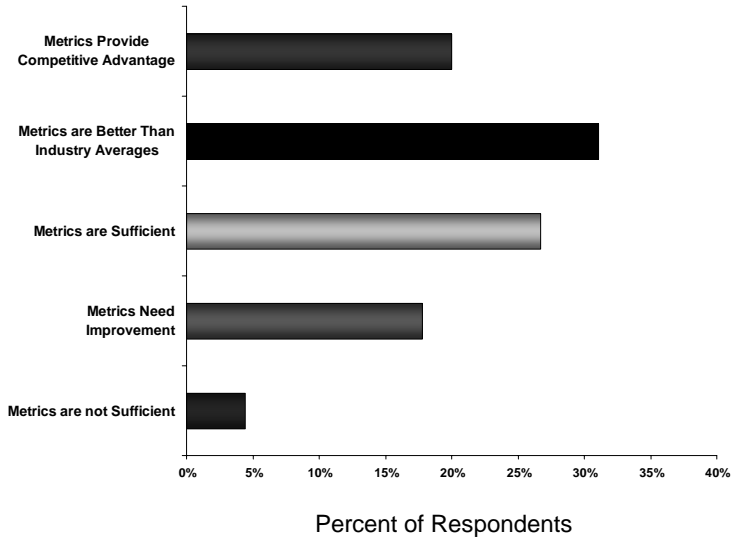
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## Metrics Sufficiency – Intra-company Transportation



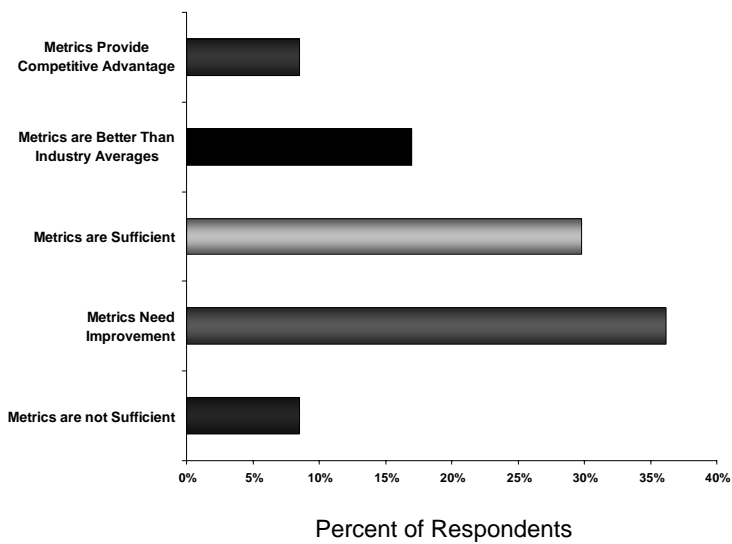
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## Metrics Sufficiency – Warehousing



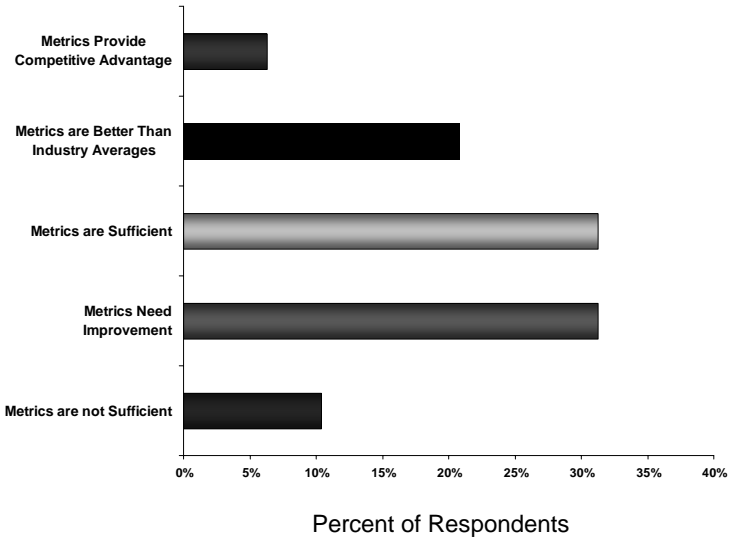
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## Metrics Sufficiency – Demand Forecasting



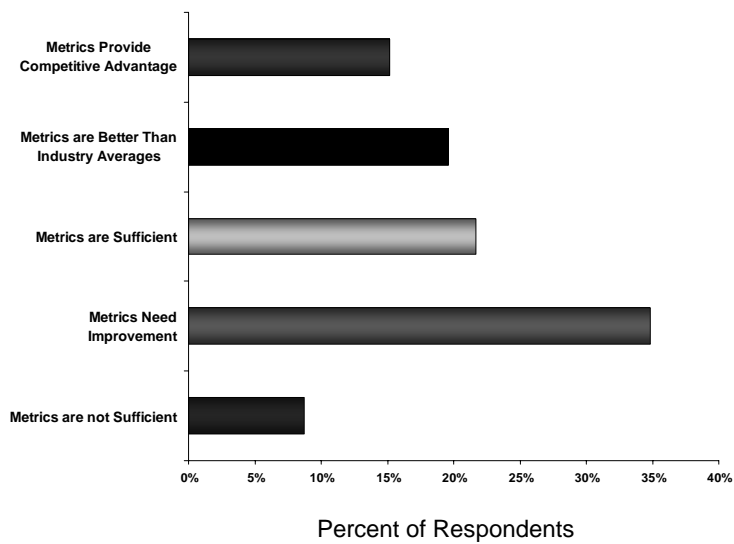
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## Metrics Sufficiency – Transportation Planning



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## Metrics Sufficiency – Logistics Network Design / Strategy



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## Metrics Sufficiency

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- **Metrics are sufficient**
  - The state of metrics in **purchasing** is up for debate. Respondents are equally split in saying that the metrics in this area are and are not sufficient (14.9%). Approximately a third of all firms have sufficient metrics in place for intra-company transportation and inventory control
- **Metrics are better than industry average**
  - There is only one logistics/supply chain area where firms surpass industry averages - **warehousing**
- **Metrics provide competitive advantage**
  - Currently there are no metrics that differentiate the firm from its competition. Clearly a lot of work remains in developing and implementing metrics in logistics and supply chain management that will create this advantage

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## Metrics Sufficiency

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- **Where metrics are not sufficient**
  - Across the various function responsibilities, the majority of firms have metrics that are adequate at a very basic level. The most problematic functional areas in terms of capable metrics are production planning, 3rd party operations, and customer service
- **Where metrics need improvement**
  - With the exception of warehousing, the firm needs to invest an appreciable amount of time and effort in improving the metrics for the other logistics/supply chain functional responsibilities. Most notable of which are demand forecasting and logistics network design / strategy

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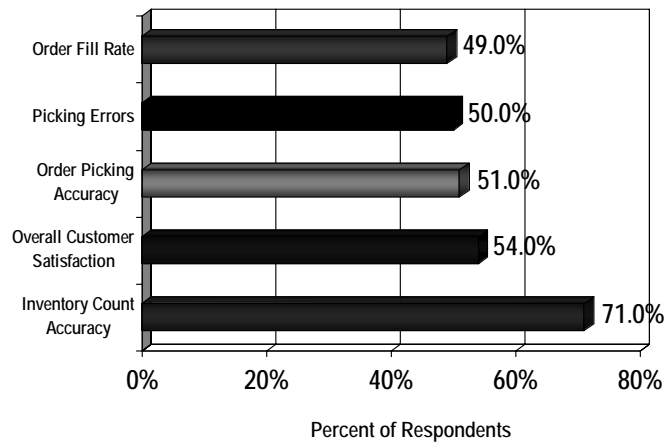
## Metrics In Use

### What Metrics Are Currently Being Used?

- The following data indicate what metrics the study participants are using to measure performance
- Please note that the data represent respondents who use the metrics
- Using each of the metrics is not the same as rating them as being important

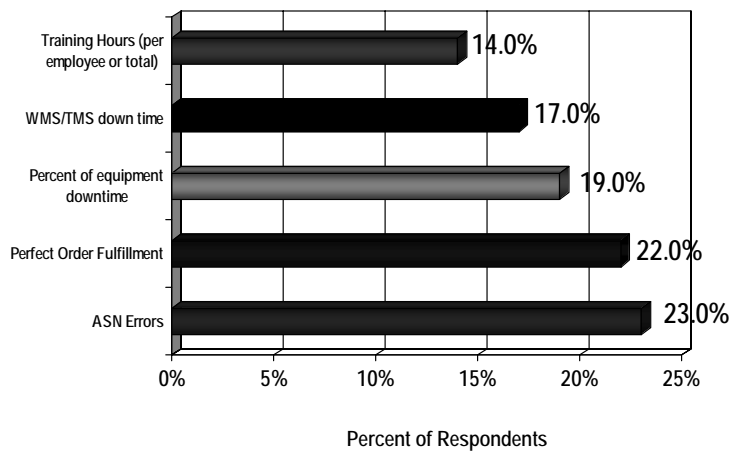


## Most Frequently Used Quality Metrics



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## Least Used Quality Metrics



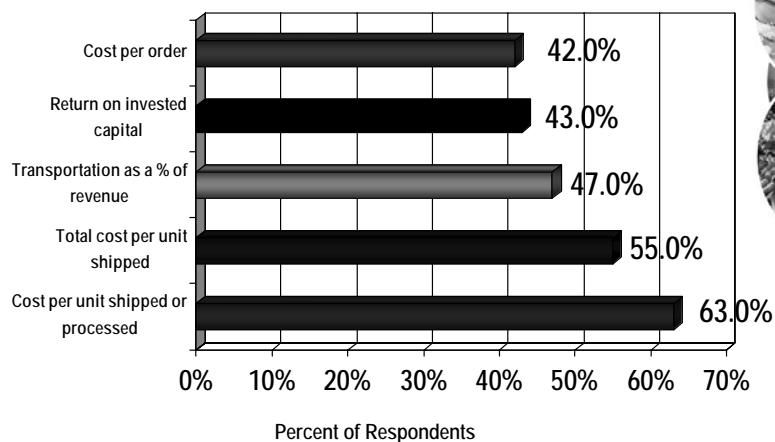
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## Quality Metrics

- Quality appears to be a two-dimensional measure for most firms comprising both internal and external components
- Internally, the most commonly used metric is inventory count accuracy. This is in stark contrast with the second most commonly used quality measure – overall customer satisfaction
- Perfect order completion does not seem to be a commonplace metric for most companies

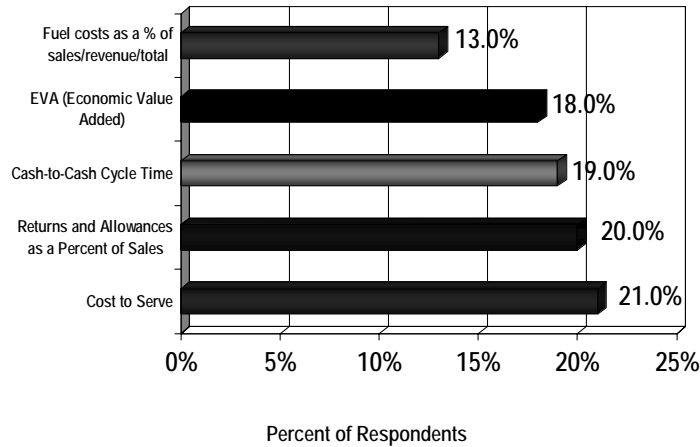
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## Most Frequently Used Cost & Financial Metrics



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## Least Used Cost & Financial Metrics



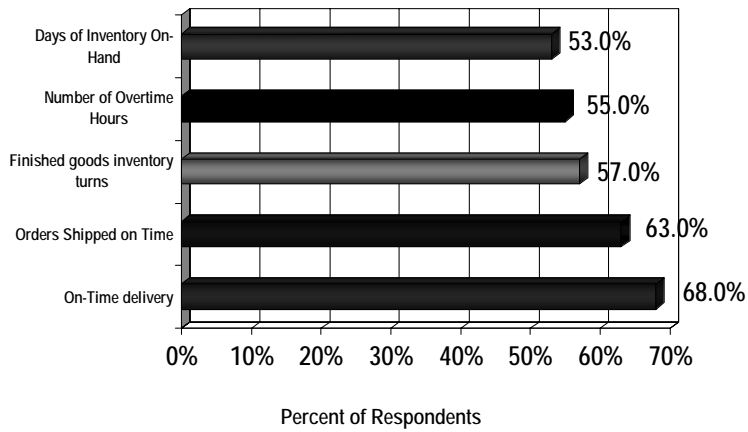
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## Cost and Financial Metrics

- While a lot of articles have focused on the "cash-to-cash cycle time," when it comes to cost most firms are measuring this aspect of doing business at the lowest level possible
- Two measures stand out as the primary way in which the firm determines how well it does in this area – cost per unit shipped or processed and total cost per unit shipped
- The lack of formal measurement for the cash-to-cash cycle time and cost to serve may also be a function of how difficult it is to capture the data that is needed for these metrics

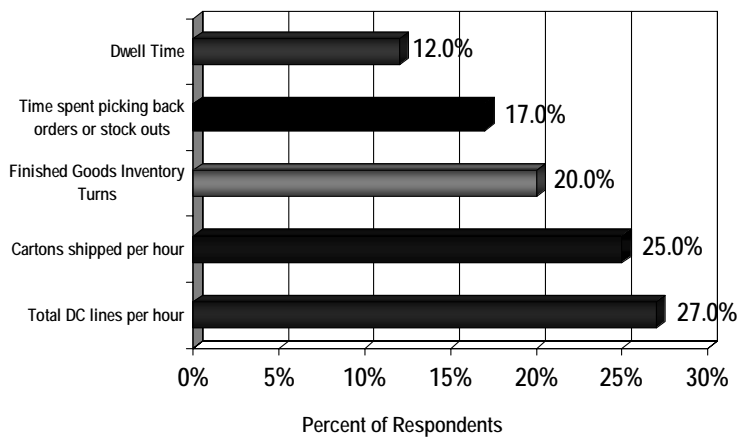
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## Most Frequently Used Time Based Metrics



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## Least Used Time Based Metrics



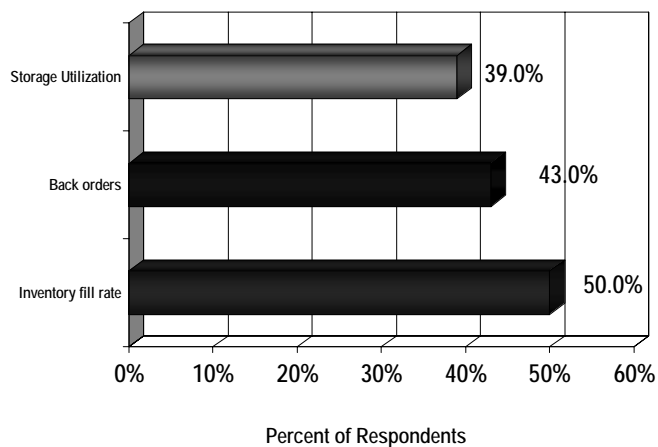
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## Time Based Metrics

- More than any other group of metrics, time appears to be the most important element that the firm measures
- On-time delivery and percent of orders shipped on time are the most commonly used metrics in this area
- As shown in the next chart, firms also understand the time dimension when it comes to inventory. Both finished goods inventory turns and days of inventory on-hand are the top measures used by most companies

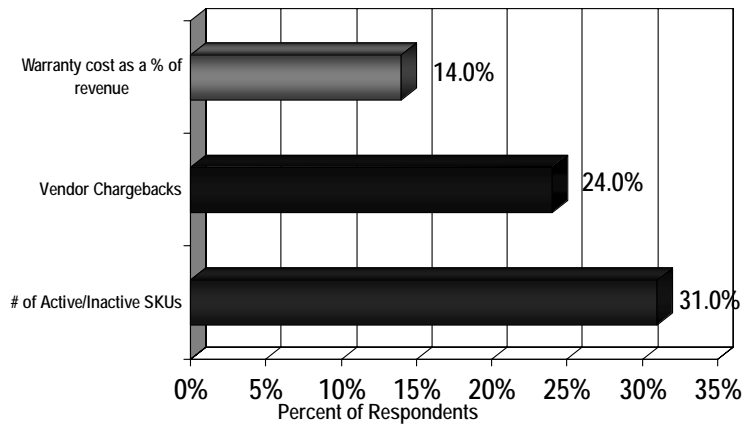
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## Most Frequently Used "Other" Metrics



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## Least Used "Other" Metrics



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## Other Metrics

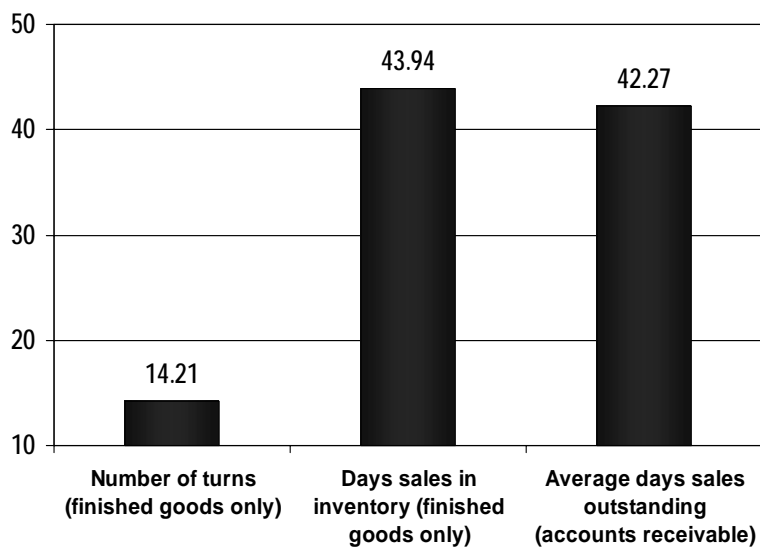
- Although they are classified as "Other Metrics," inventory fill rate and back orders cut across all the categories – quality, cost, and time
- These two metrics are used more often than the top cost measures indicating their importance to the firm and its customers

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## Inventory Management & Conclusions

Level of investment in finished goods inventory  
& Accounts receivable averages



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## Make-to-Cash Cycle Time

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The trend of improvements in inventory turns, days' worth of sales in inventory and sales outstanding, that were realized from 2001 to 2003 are no longer evident in 2004. In fact, inventory turns dropped 31% this year as compared to 2003

The decline in inventory turns is also reflected in days' worth of sales outstanding, which reported a 24% increase in finished goods being held by companies



## Conclusions

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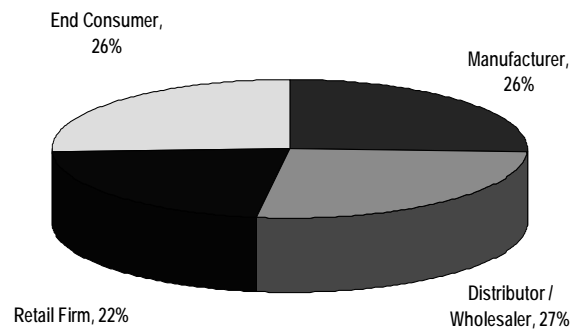
- Firms continue to struggle with having the “right” metrics to measure performance
  - Increased use of metrics; however, often not chosen to support goals or strategy
  - Most common metrics are operational with much less use of financial and value types of measures
- Even with room for improvement, there is much good news in metrics usage
  - Increases in both the number used and the types of metrics used by most respondents
  - Some consideration to both the importance and effects of metrics by respondents



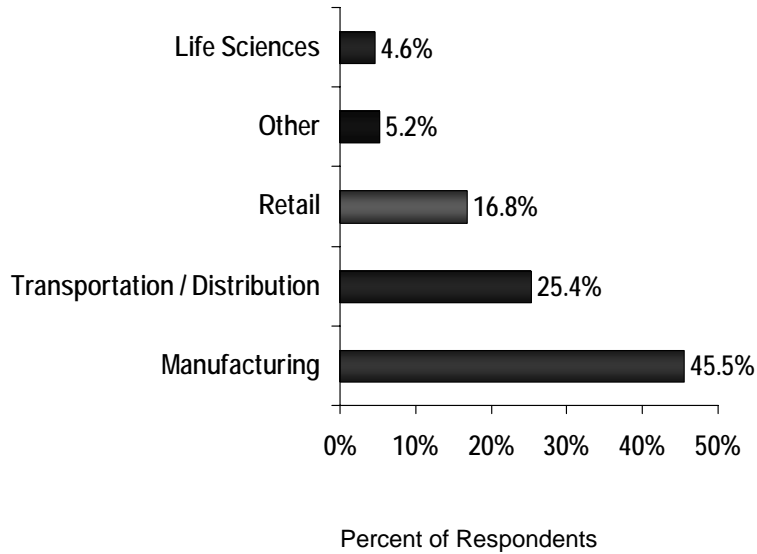


# Demographics

## Respondents Represented in All Stages of the Supply Chain

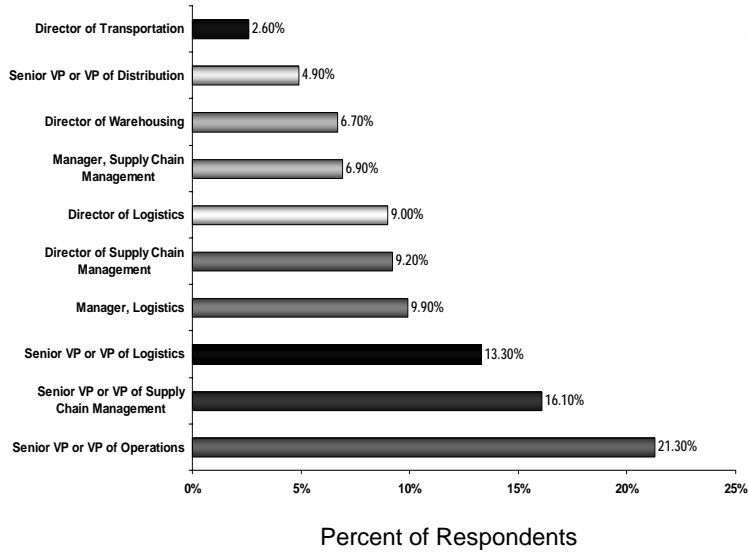


## Participants in the Study



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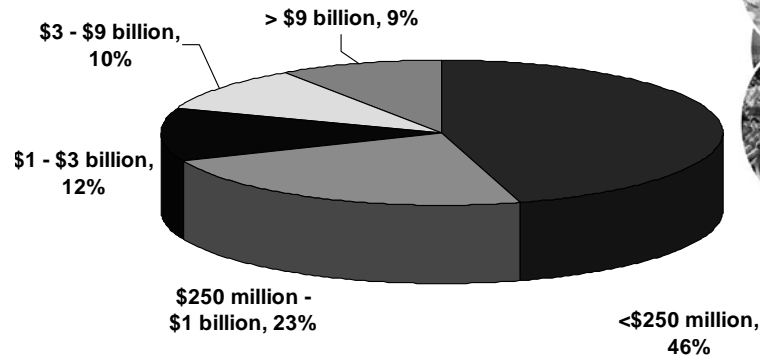
## Senior Logistics Position



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## The Majority Of Firms Participating In This Study Have Total Annual Sales Of Less Than \$1 Billion

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## Additional Information

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