

***Logistics and Transportation
12th Annual Survey of
Issues and Trends***

2003 Survey Results

***Georgia Southern University
University of Tennessee***

&

Cap Gemini Ernst & Young U.S. LLC

Introduction

We are pleased to present the findings of the 2003 Logistics and Transportation Annual Survey of Issues and Trends. Our hope is that this data will provide useful information regarding current trends, and assist you in better managing your organization.

A few comments regarding the data and methodology are worth noting here:

- The mail survey was conducted in the Spring of 2003.
- There were 188 participants in this year's study.
- This year's respondents controlled approximately \$25.1 billion in transportation expenditures.
- Since some questions have more than one response, not all percentages will add to one hundred.
- Not all respondents answered all of the questions.
- Where appropriate the mean, the median and the mode are provided in the report. The mean is the average of all of the responses, while the median is the midpoint (50% above and 50% below) for a specific response to a question. The mode is the single most frequent response.
- This report is divided into five sections: Customer Management, Technology and Process Management, Order Fulfillment, Metrics and Demographics.

To those of you who participated in this research, we would like to again thank you for taking time out of your busy schedule and assisting us in this effort. We hope you find this information helpful in managing and improving your supply chains.

A special thanks to Troy Innis, MBA student - GSU, for his assistance in producing this report.

Sincerely,



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Assistant Professor
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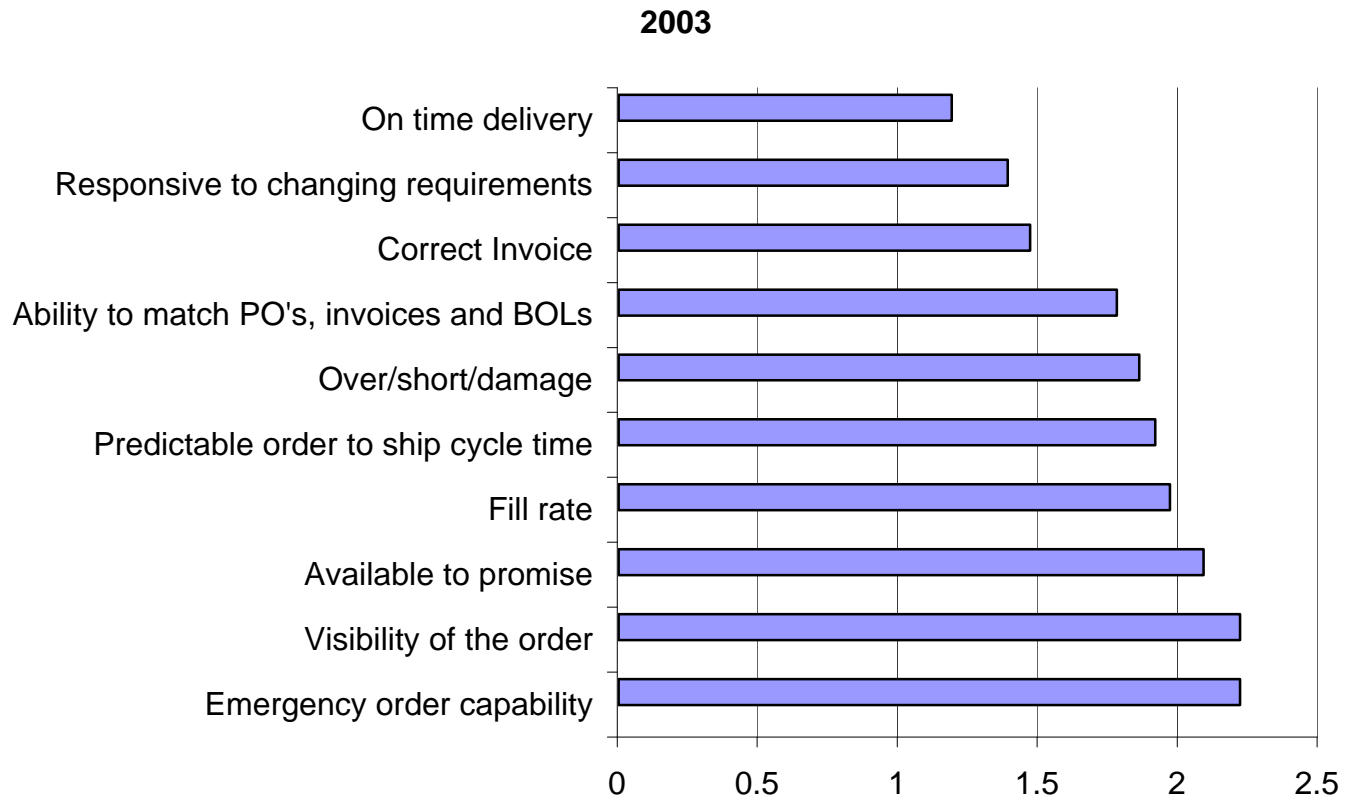
Cap Gemini Ernst Young U.S. LLC

2003 Logistics Transportation Survey of Issues and Trends

How important are the following attributes to your customers ?

	<u>Mean</u>
Emergency order capability	2.22
Visibility of the order	2.22
Available to promise	2.09
Fill rate	1.97
Predictable order to ship cycle time	1.917
Over/short/damage	1.86
Ability to match PO's, invoices and BOLs	1.78
Correct Invoice	1.47
Responsive to changing requirements	1.39
On time delivery	1.19

1= Very important, 7= Not important



Strategies employed to increase customer profitability

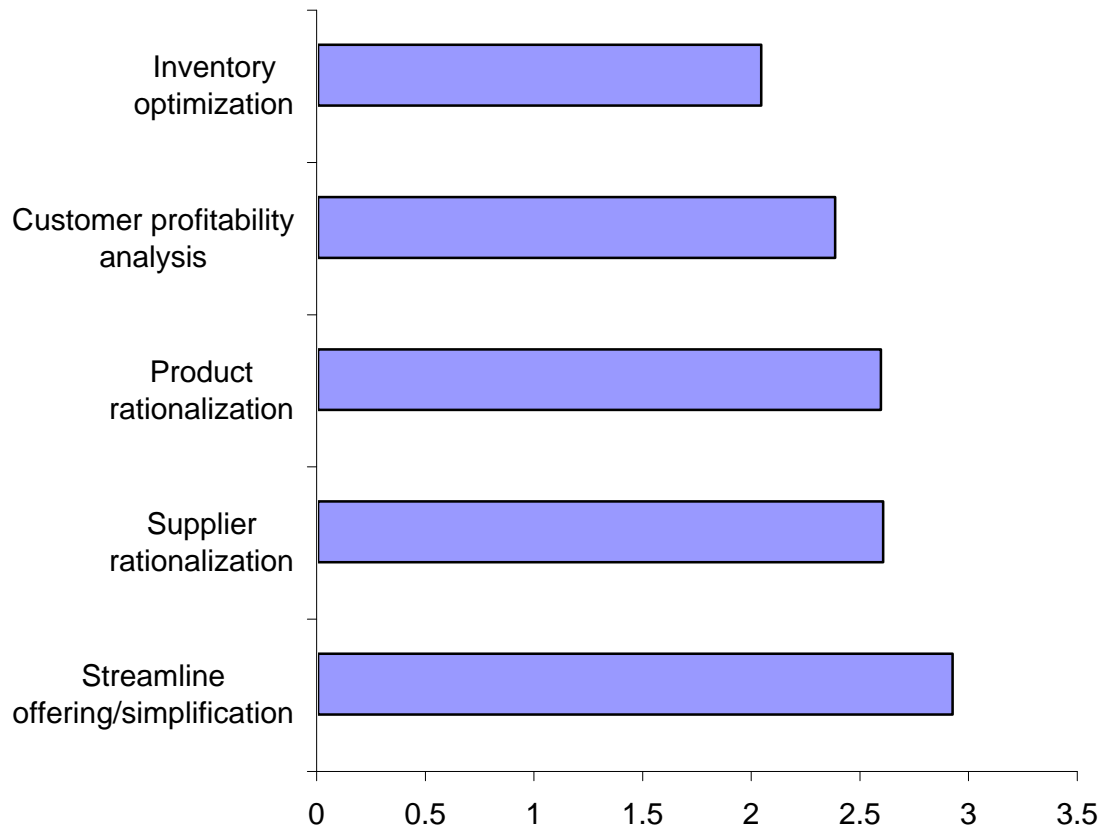
Attribute	Use
Adjusted frequency of replenishment	84
Customer segmentation strategy	62
Utilized a customer relationship management system	62
Utilized a transportation management system	79
Reduced transportation costs	127
Differential customer service levels	48
Rationalization of product offering	56
Improved forecast accuracy	62
Using CPFR	17
Utilized a warehouse management system	72
Reduced warehousing costs	79
Cost plus / gain sharing contract with 3PL	25
Collaborative planning with trading partners	51
Reduced order to ship cycle time	87
Reconfigured supply chain or logistics network	71
Implemented a VMI - type program	48
Reduced inventory	91
Six Sigma	28

How important are the following in evaluating and managing the costs associated with serving your customers?

	<u>Mean</u>
Streamline offering/simplification	2.92
Supplier rationalization	2.6
Product rationalization	2.59
Customer profitability analysis	2.38
Inventory optimization	2.04

1= Very important, 7= Not important

2003

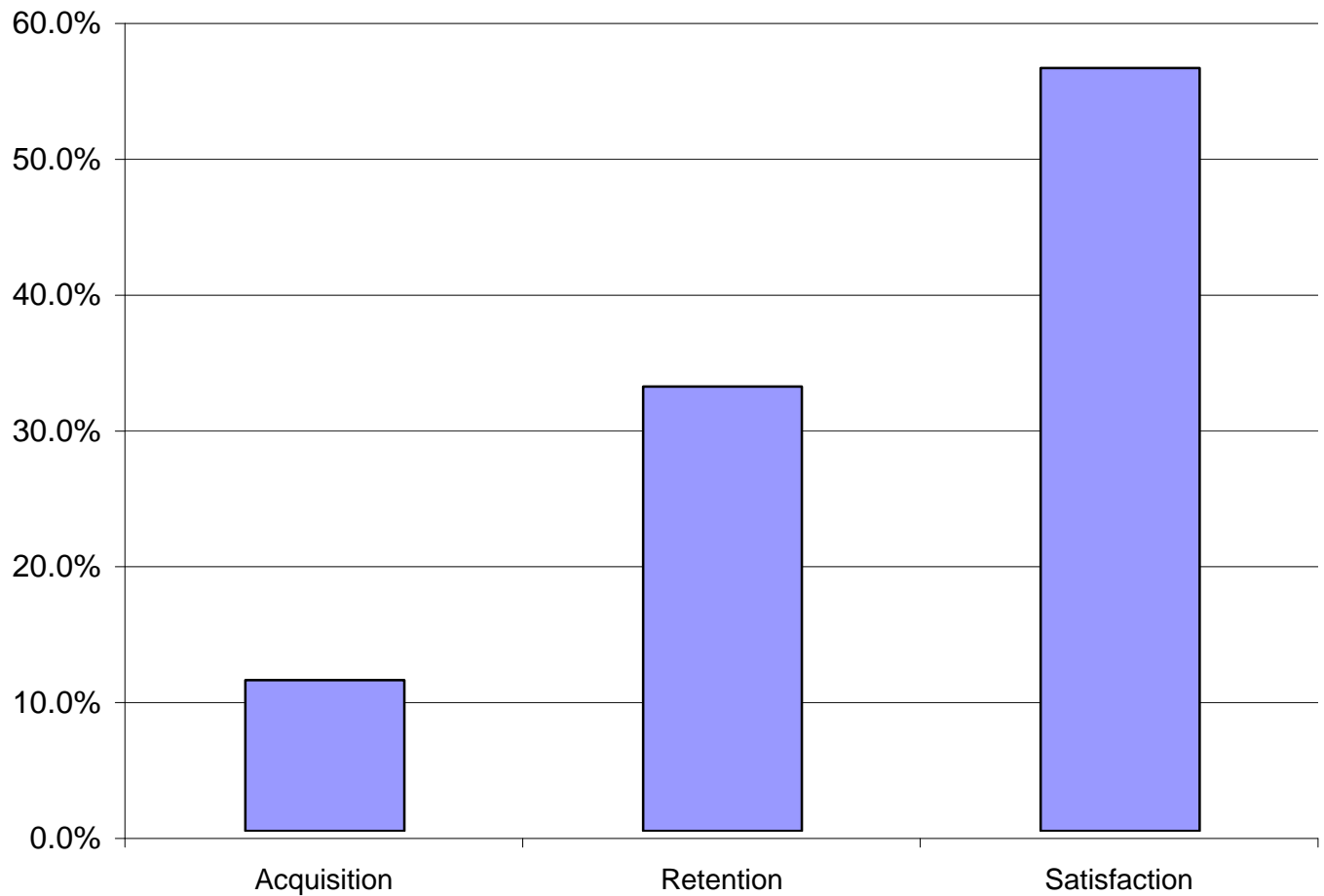


Available to promise

Improvements Have Led to Measureable Results in Customer:

	<u>2003</u>
Acquisition	11.1%
Retention	32.7%
Satisfaction	56.2%
Total	100%

2003

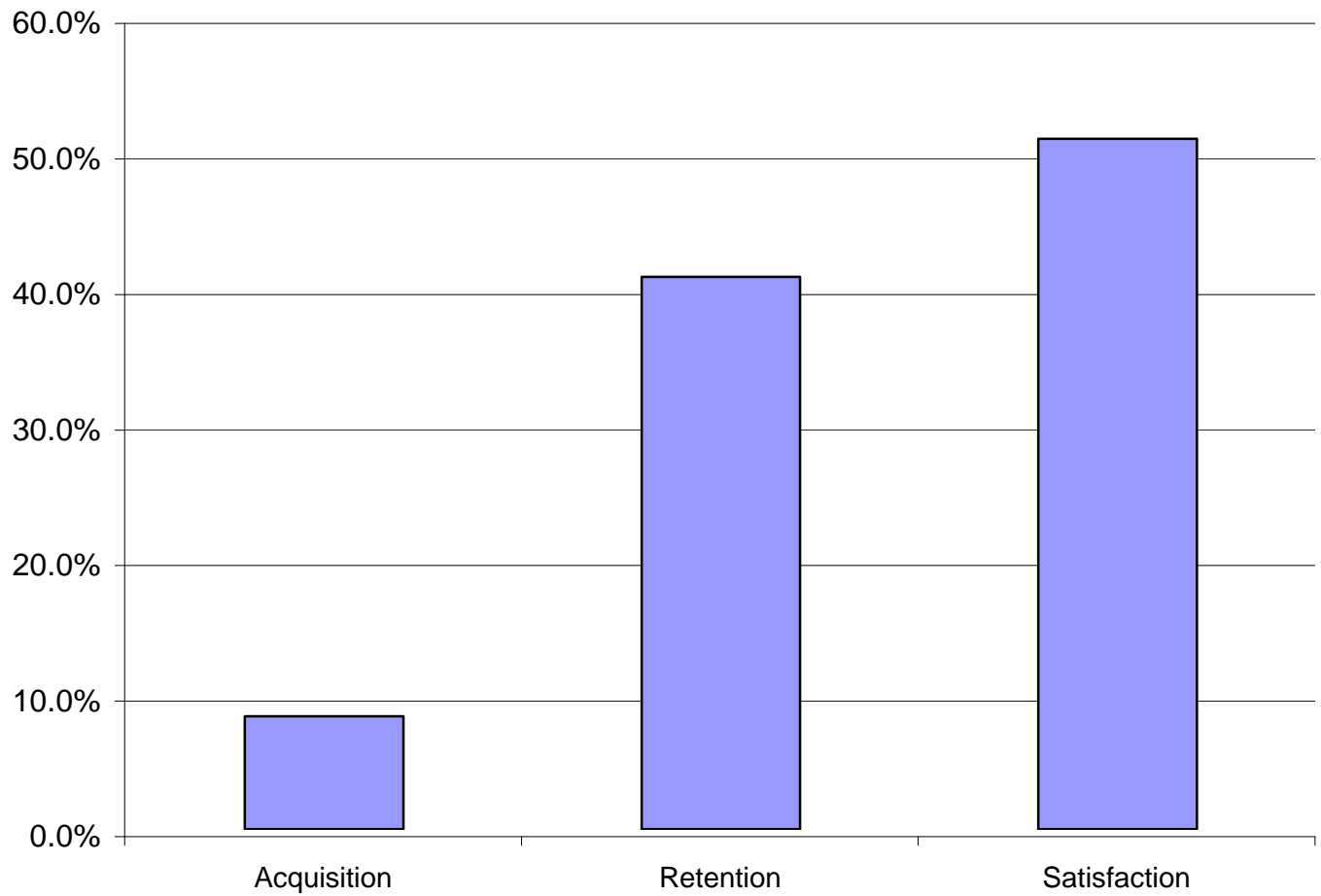


On time delivery

Improvements Have Led to Measureable Results in Customer:

	<u>2003</u>
Acquisition	8.3%
Retention	40.7%
Satisfaction	50.9%
Total	100%

2003

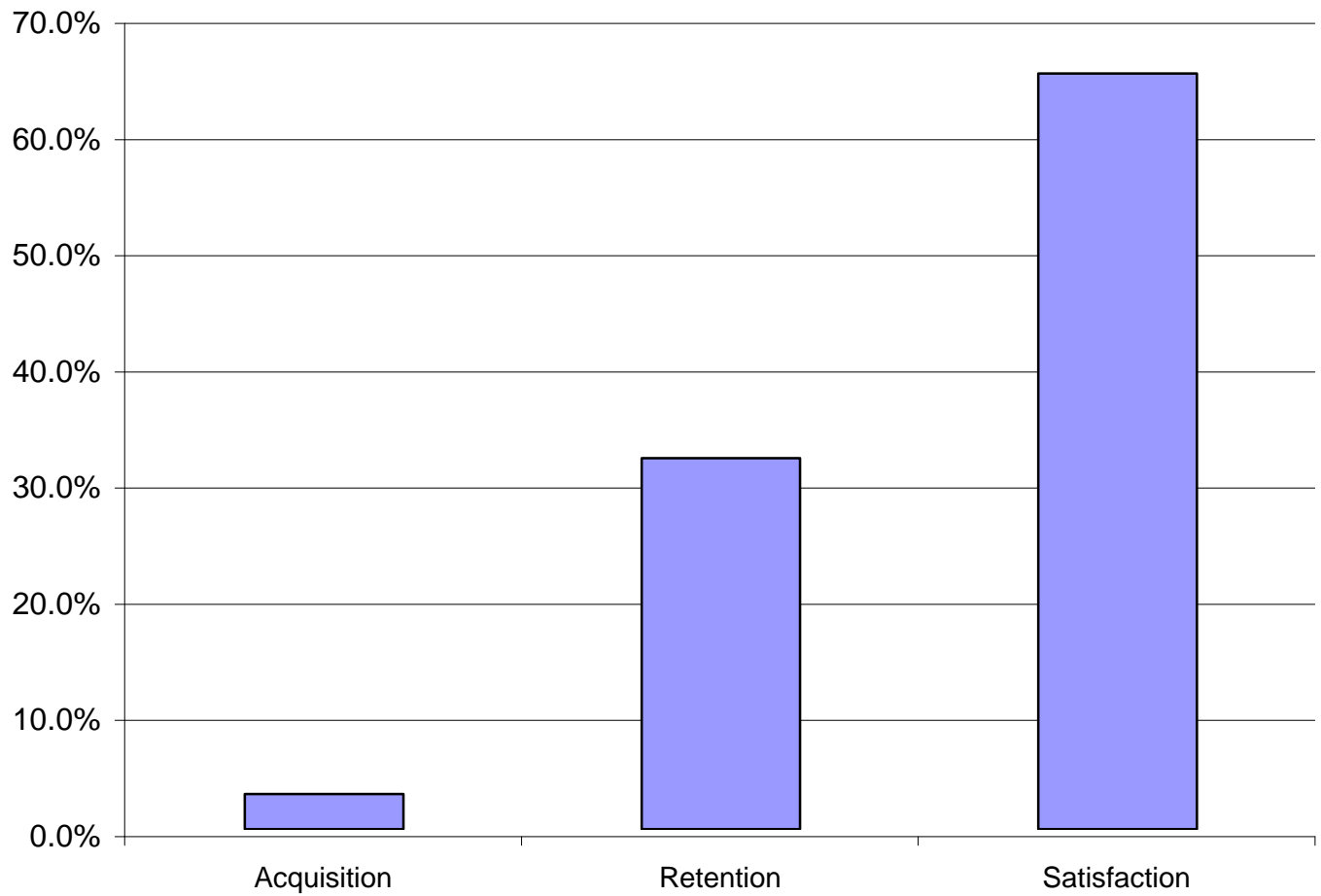


Correct invoice

Improvements Have Led to Measureable Results in Customer:

	<u>2003</u>
Acquisition	3.0%
Retention	31.9%
Satisfaction	65.1%
Total	100%

2003

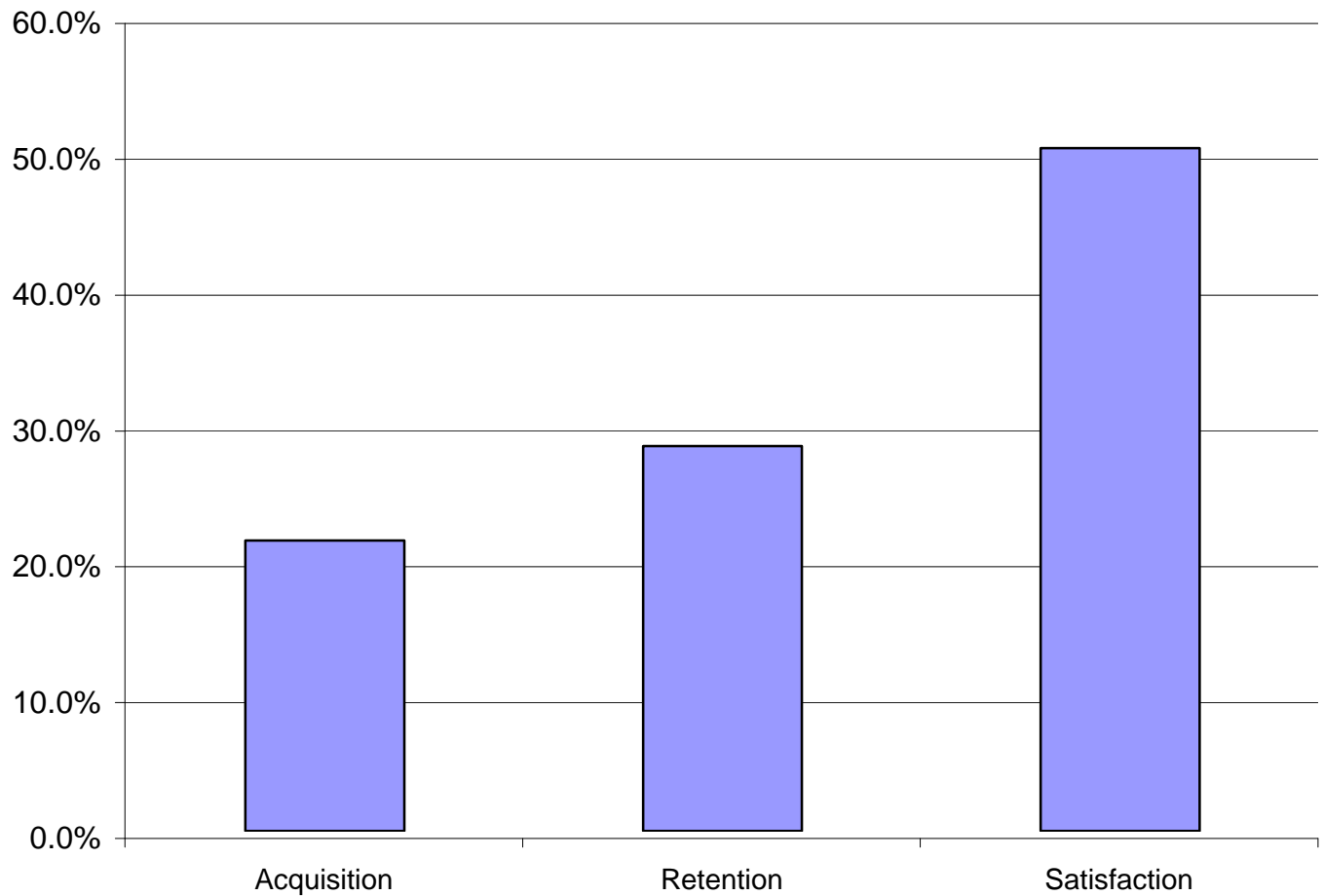


Emergency Order capability

Improvements Have Led to Measureable Results in Customer:

	<u>2003</u>
Acquisition	21.4%
Retention	28.3%
Satisfaction	50.3%
Total	100%

2003

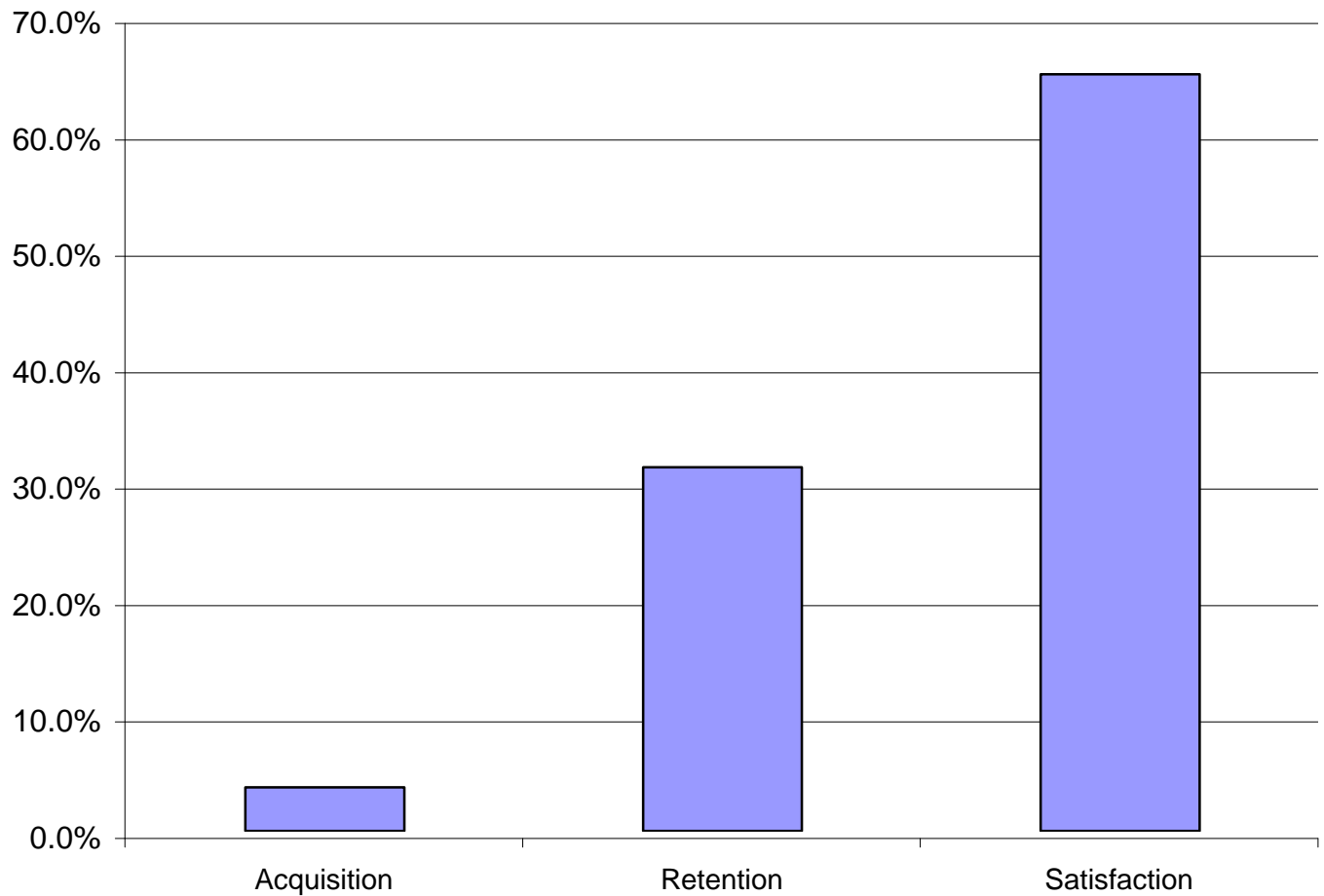


Over / short / damage

Improvements Have Led to Measureable Results in Customer:

	<u>2003</u>
Acquisition	3.8%
Retention	31.3%
Satisfaction	65.0%
Total	100%

2003

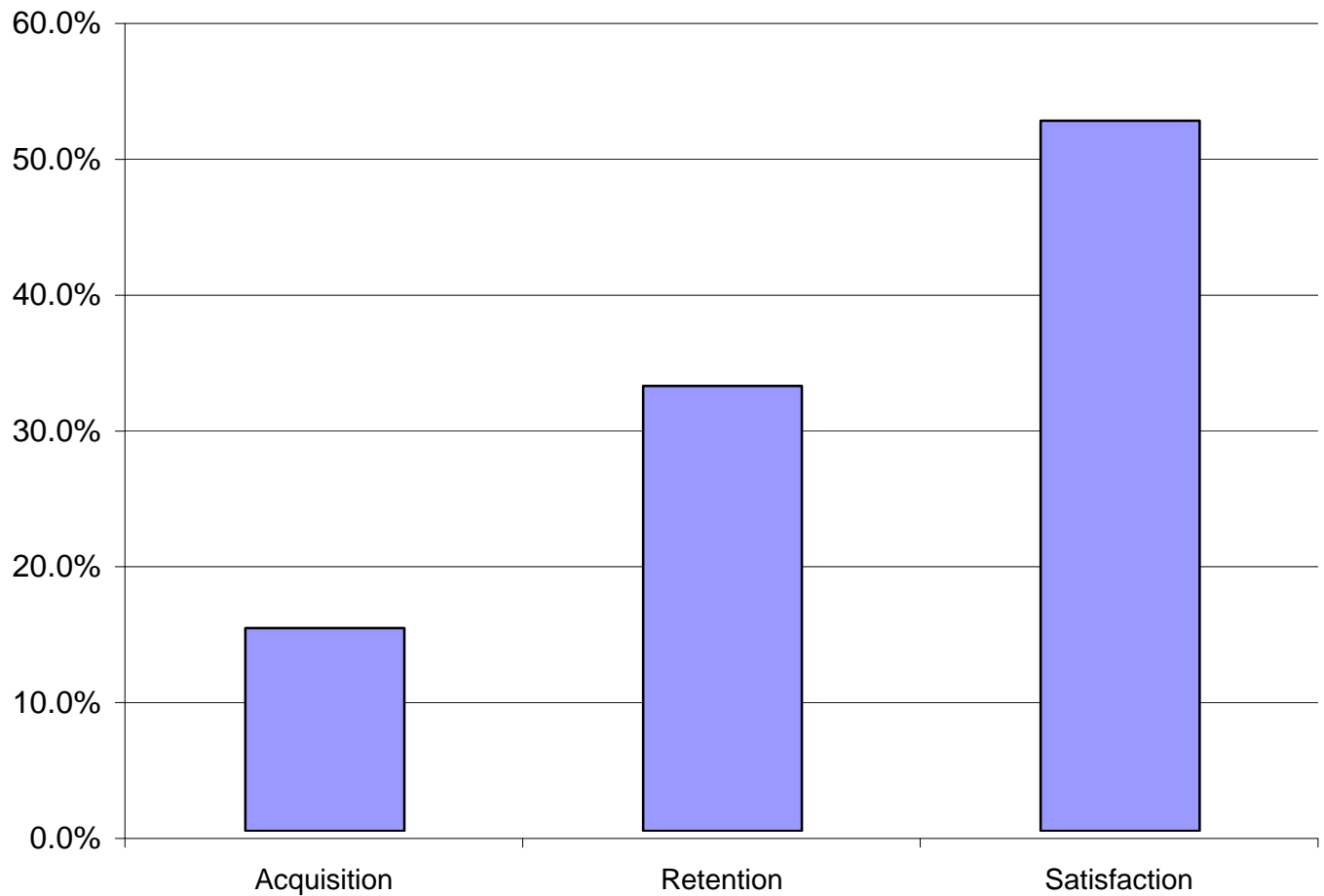


Predictable order to ship cycle time

Improvements Have Led to Measureable Results in Customer:

	<u>2003</u>
Acquisition	14.9%
Retention	32.8%
Satisfaction	52.3%
Total	100%

2003

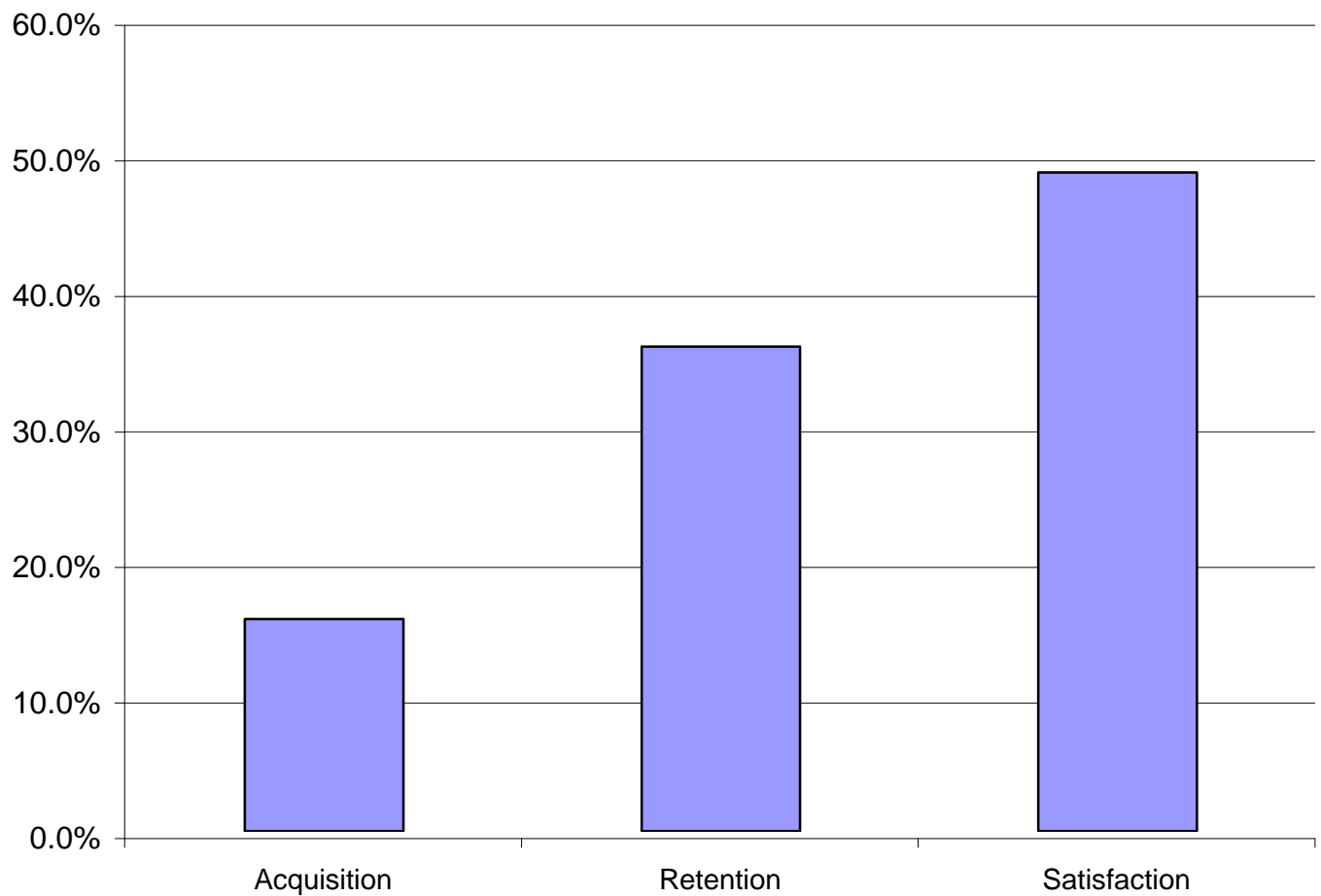


Responsive to changing requirements

Improvements Have Led to Measureable Results in Customer:

	<u>2003</u>
Acquisition	15.6%
Retention	35.8%
Satisfaction	48.6%
Total	100%

2003

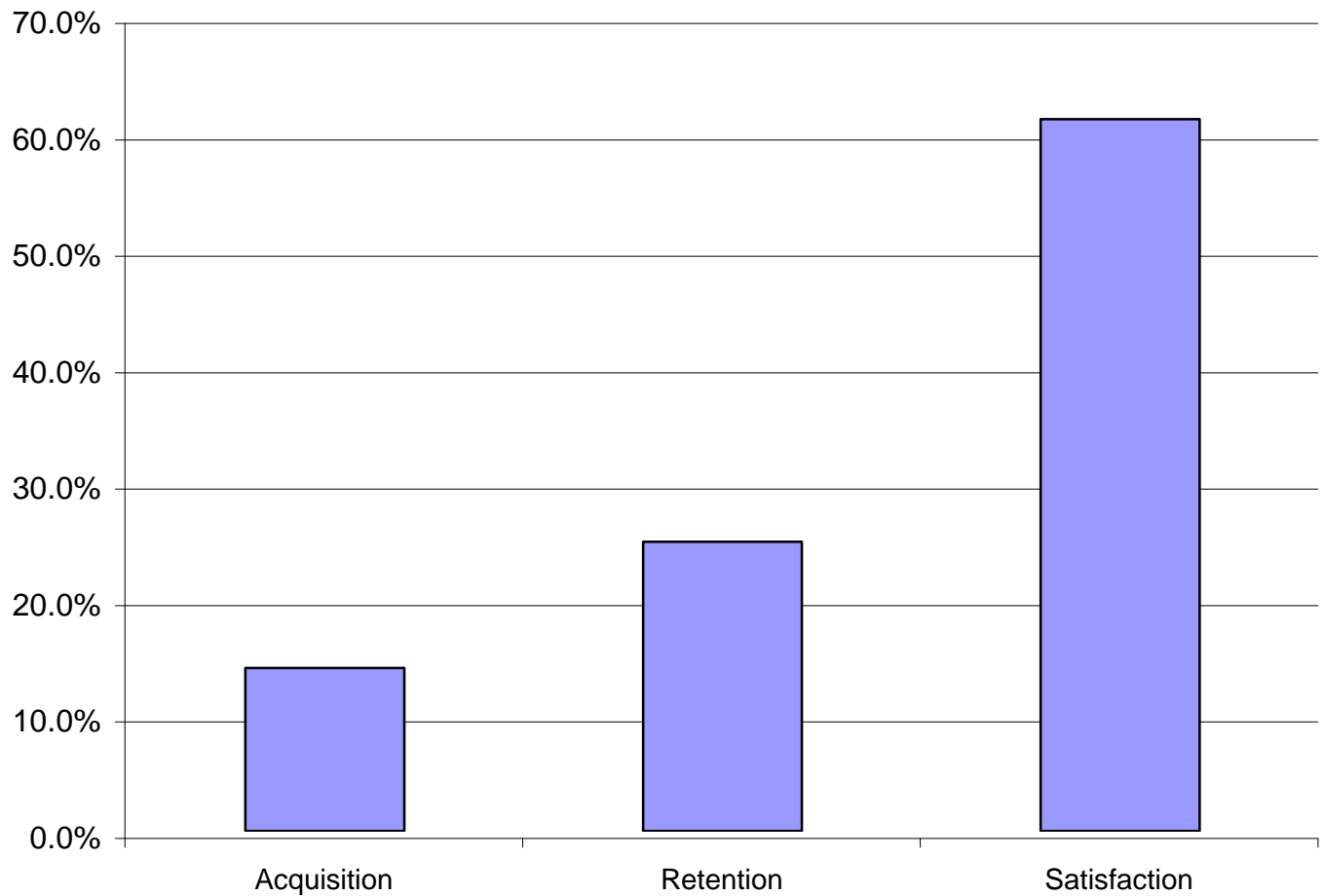


Visibility of the order

Improvements Have Led to Measureable Results in Customer:

	<u>2003</u>
Acquisition	14.0%
Retention	24.8%
Satisfaction	61.1%
Total	100%

2003

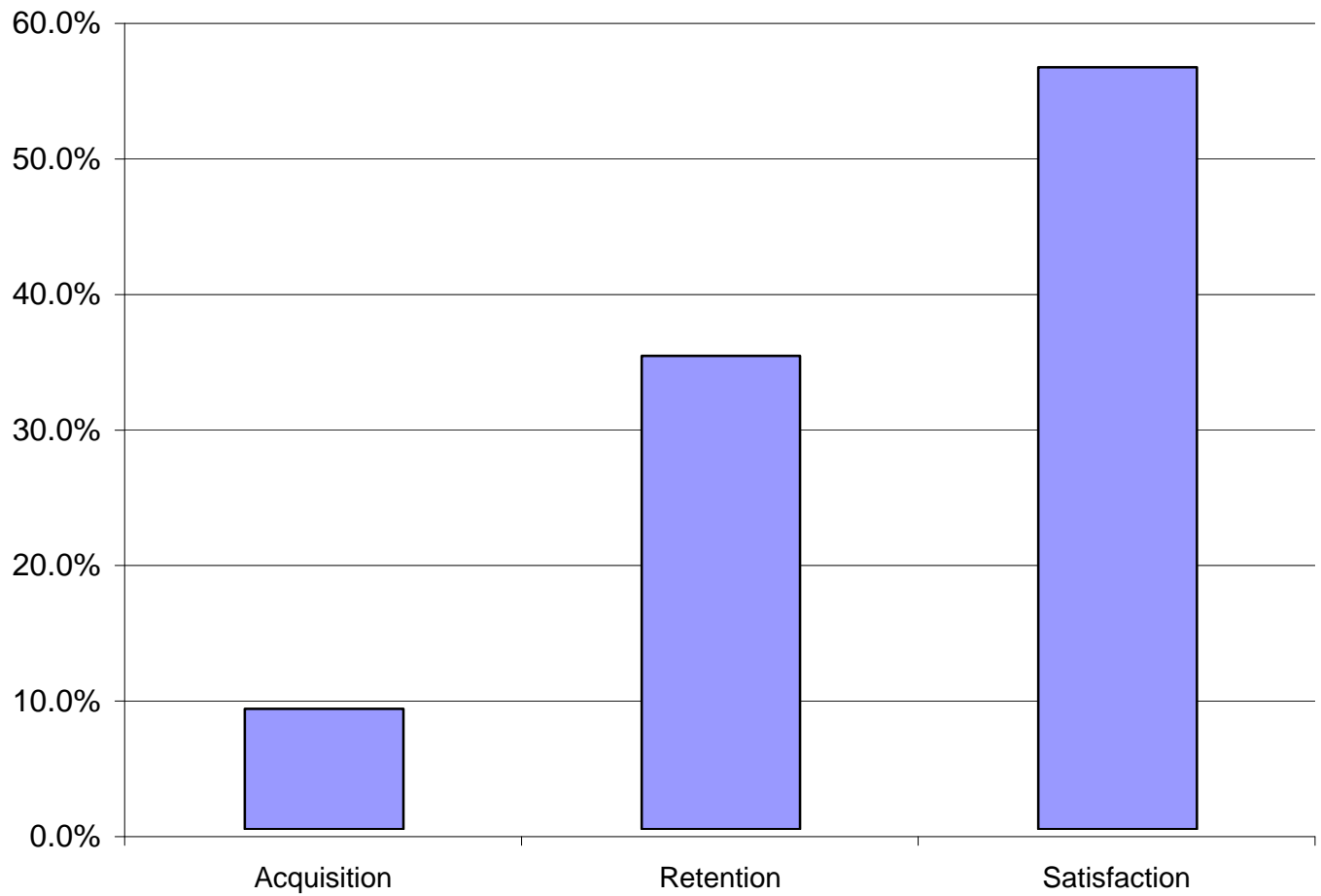


Fill Rate

Improvements Have Led to Measureable Results in Customer:

	<u>2003</u>
Acquisition	8.9%
Retention	34.9%
Satisfaction	56.2%
Total	100%

2003

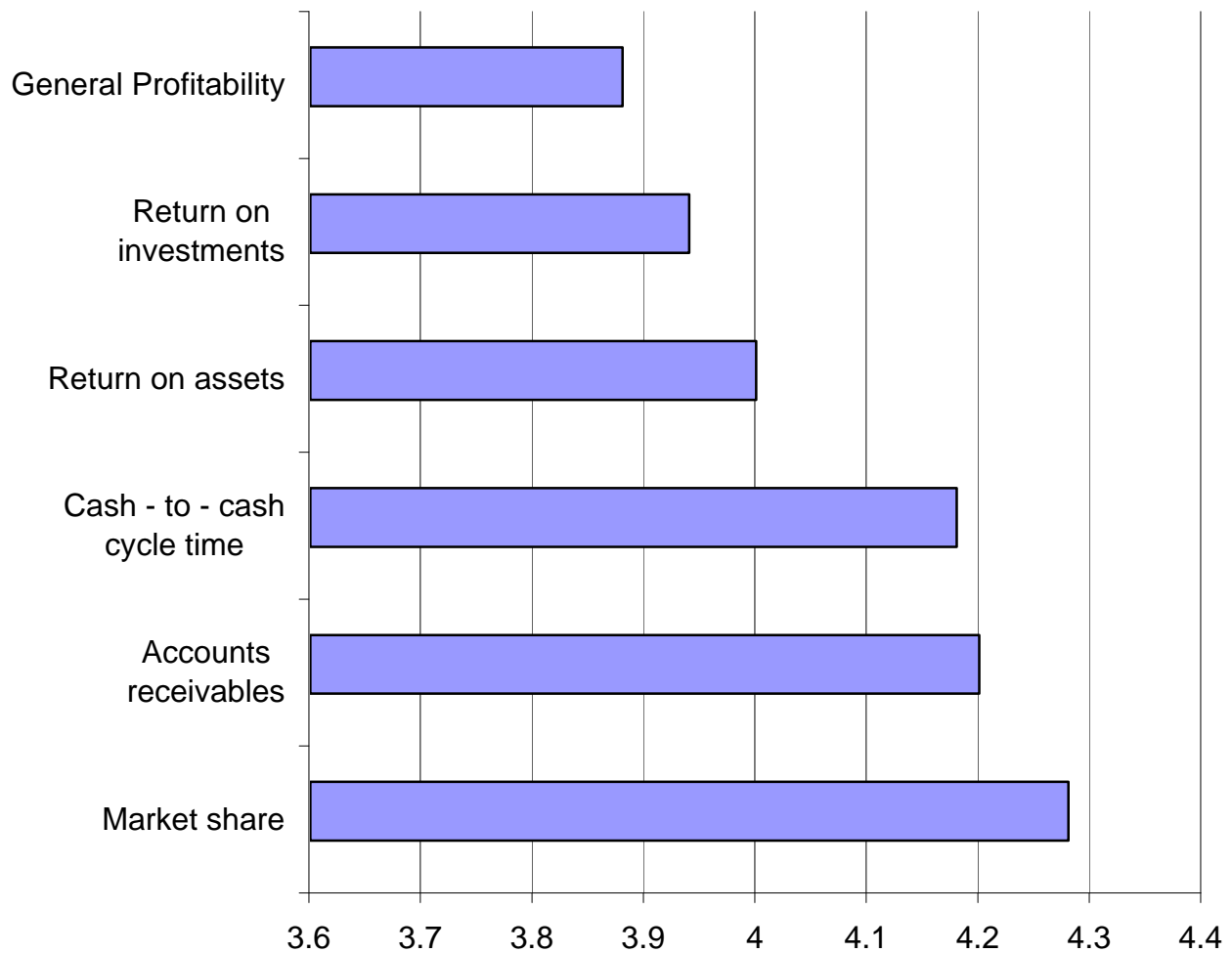


Business unit's performance over the last year

	<u>Mean</u>
Market share	4.28
Accounts receivables	4.2
Cash - to - cash cycle ti	4.18
Return on assets	4
Return on investments	3.94
General Profitability	3.88

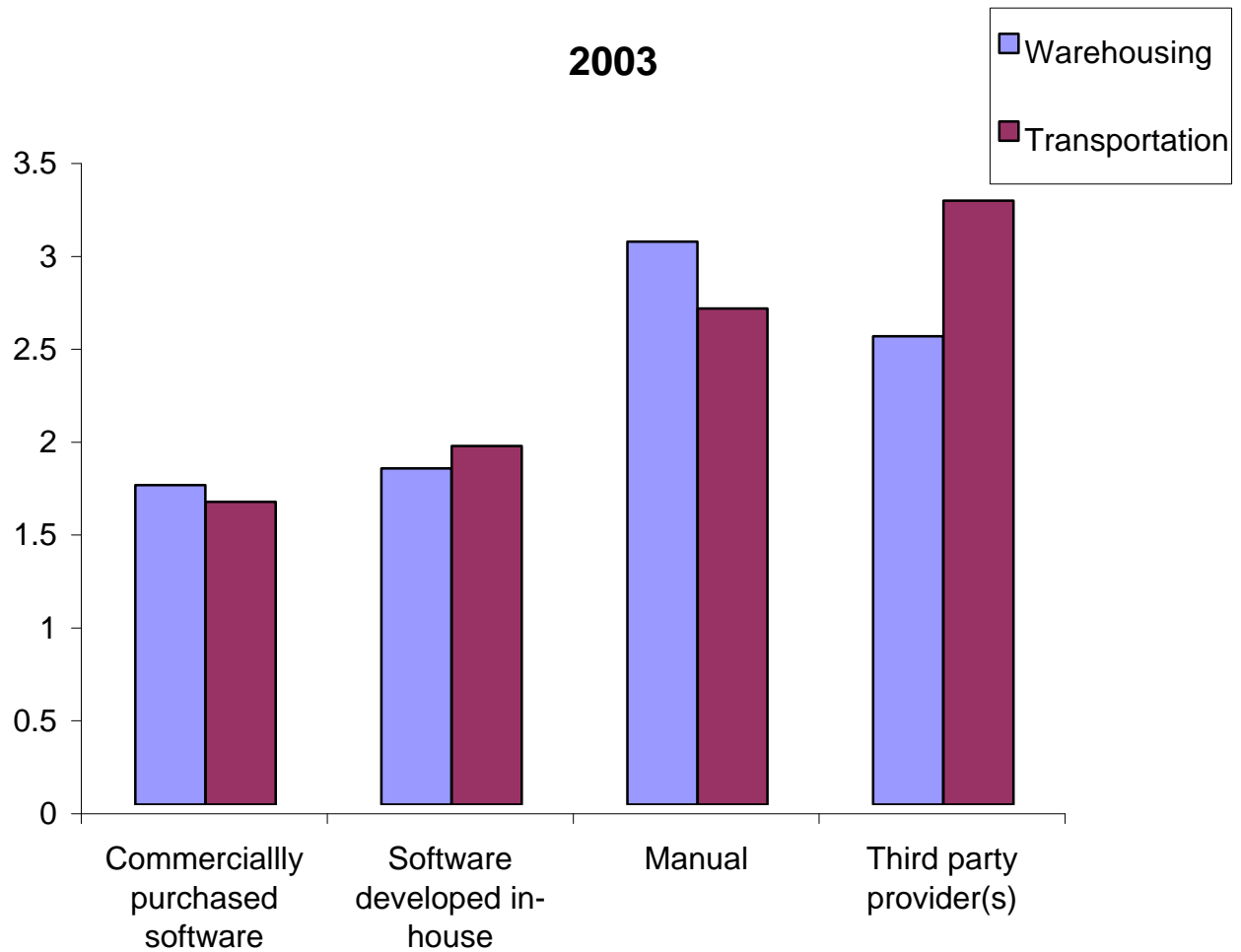
1= Much Worse, 4= On target, 7= Much Better

2003



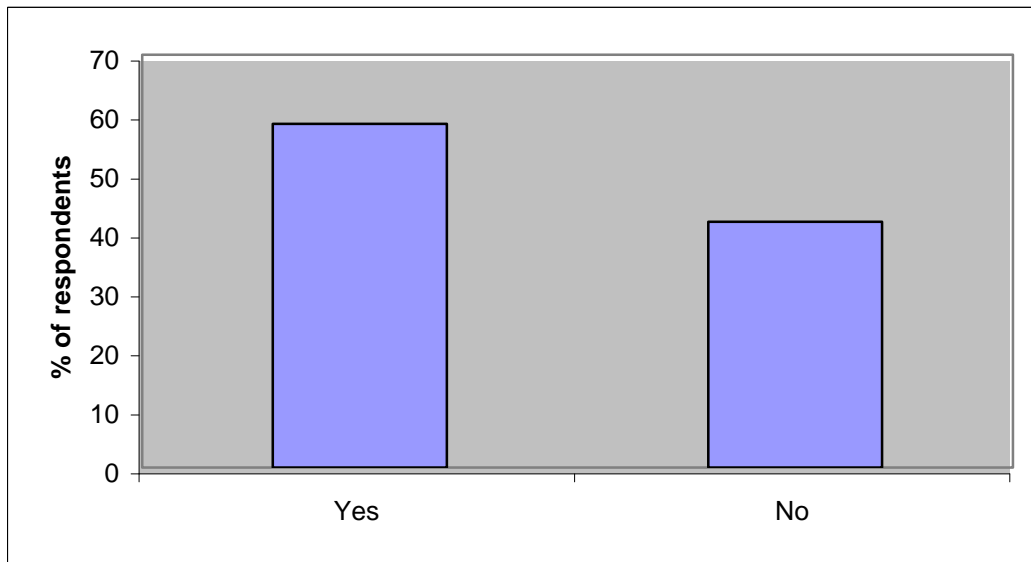
Number of different tools used to manage the following:

	Warehousing	Transportation
Commercially purchased software	1.72	1.63
Software developed in-house	1.81	1.93
Manual	3.03	2.67
Third party provider(s)	2.52	3.25



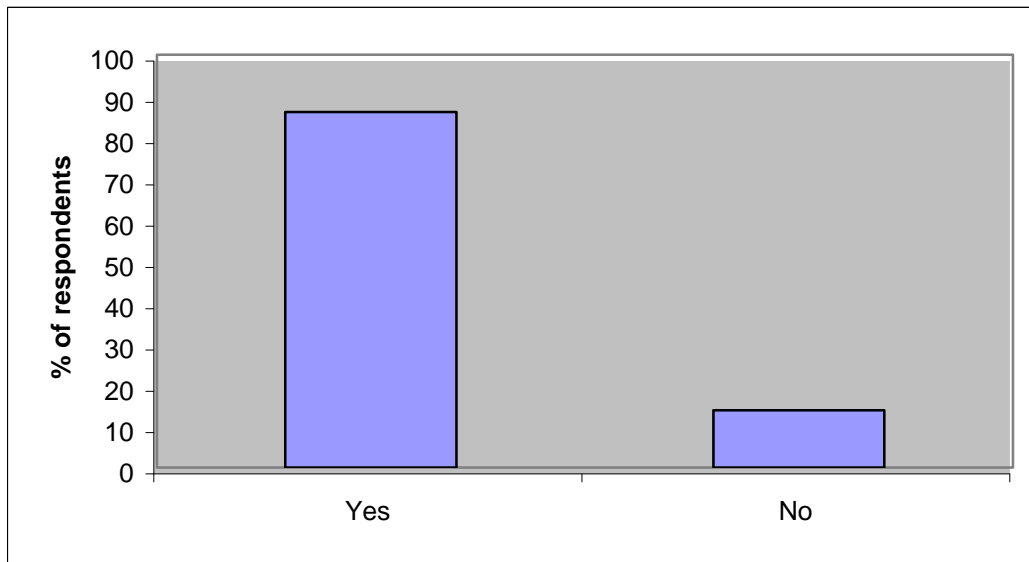
Does firm have a formal technology strategy?

Yes	58.3
No	41.7



Is formal technology strategy linked to overall business strategy?

Yes	86.1
No	13.9



Do you have the following capabilities?

Attributes

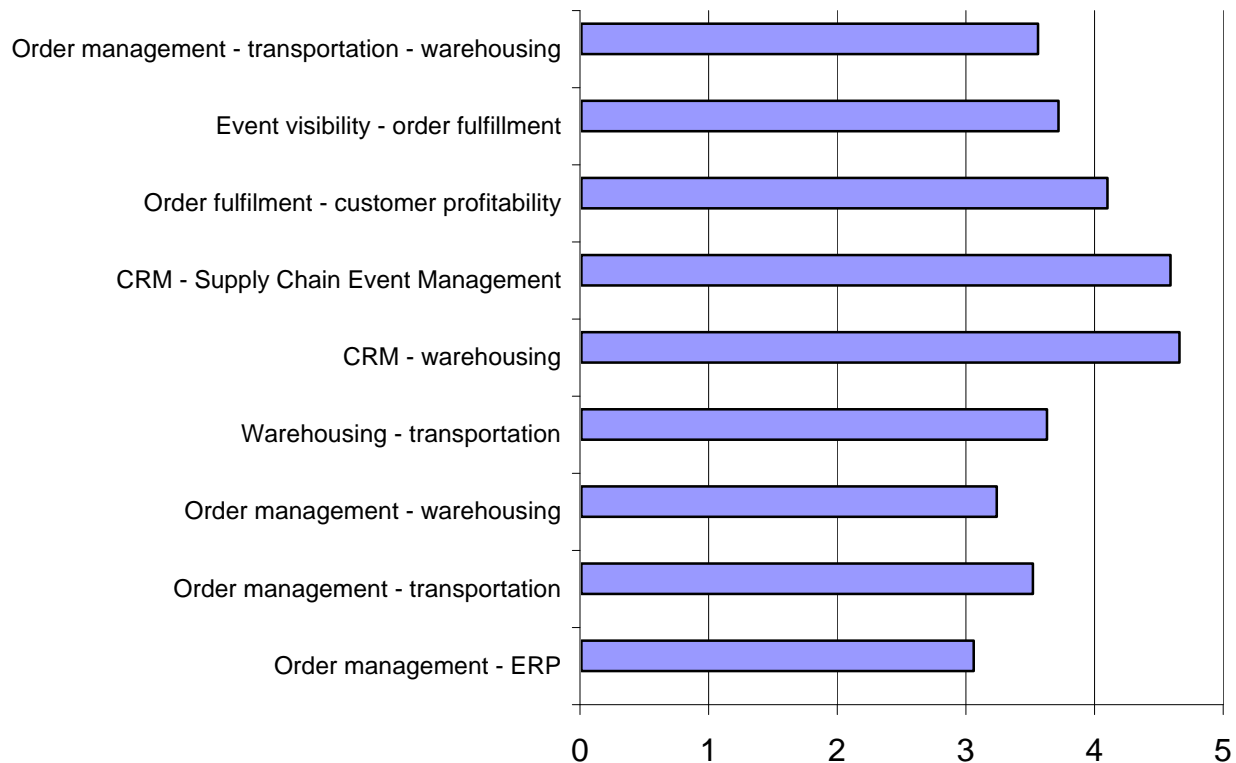
Tracking inbound shipments	102
Alerts to late or delayed shipments	80
Appointment scheduling	86
Domestic visibility of orders	97
Internal visibility of orders	114
Global visibility of orders	57
Consolidation of orders	83
Carrier selection	117
24 hour customs notification	64
Divergence of shipments	33
Routing and scheduling optimization	91
Electronic tendering of shipments	62
In-transit merges	22
Continuous moves	44
Rating/contract management	88
Tracking outbound shipments	124
Vendor compliance	84

How well integrated are these various processes?

	Mean
Order management - ERP	3.05
Order management - transportation	3.51
Order management - warehousing	3.23
Warehousing - transportation	3.62
CRM - warehousing	4.65
CRM - Supply Chain Event Management	4.58
Order fulfillment - customer profitability	4.09
Event visibility - order fulfillment	3.71
Order management - transportation - warehousing	3.55

1= Very integrated, 4= Neutral, 7= Not very integrated

2003

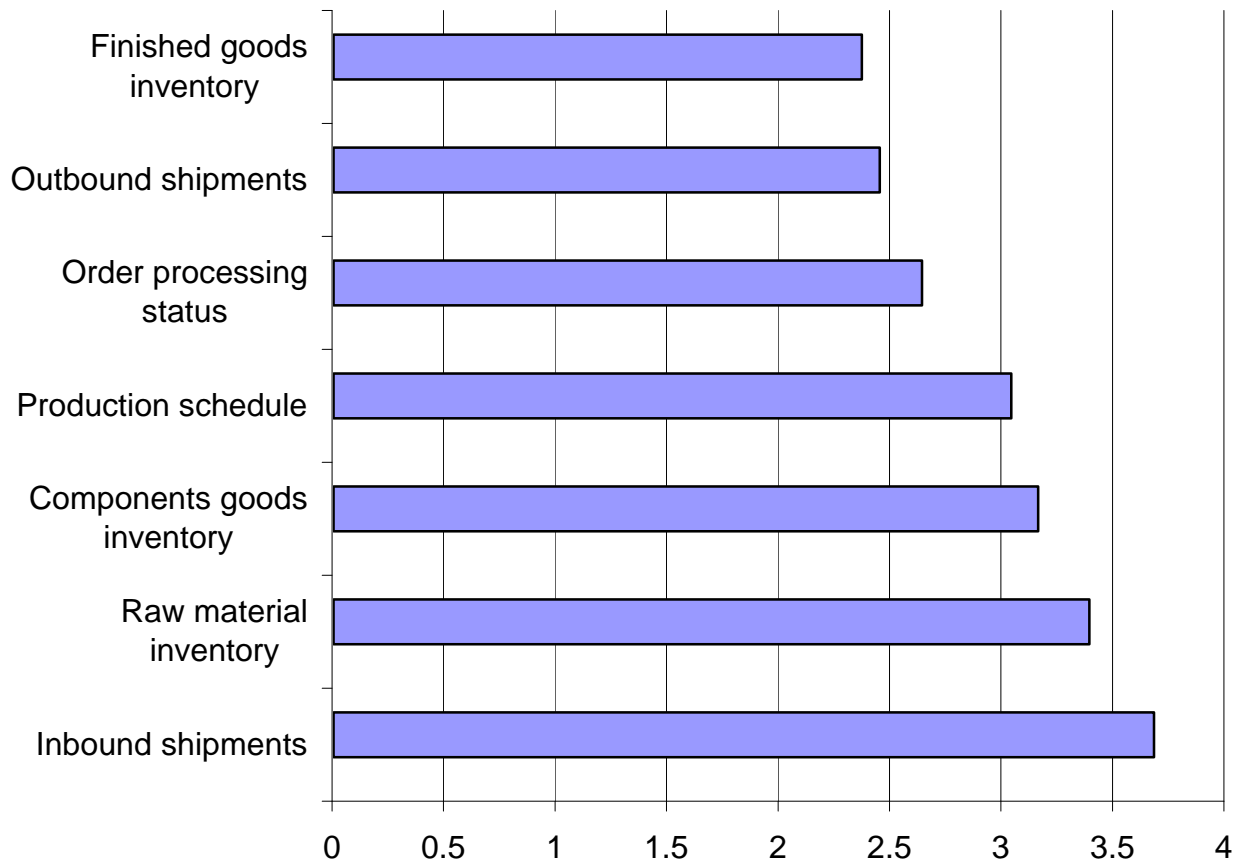


How visible is the information in the following areas?

	Mean
Inbound shipments	3.68
Raw material inventory	3.39
Components goods invent	3.16
Production schedule	3.04
Order processing status	2.64
Outbound shipments	2.45
Finished goods inventory	2.37

1= Very visible, 7= Not visible

2003



What are the three most important logistics issues facing your organization in the coming year?

Attributes

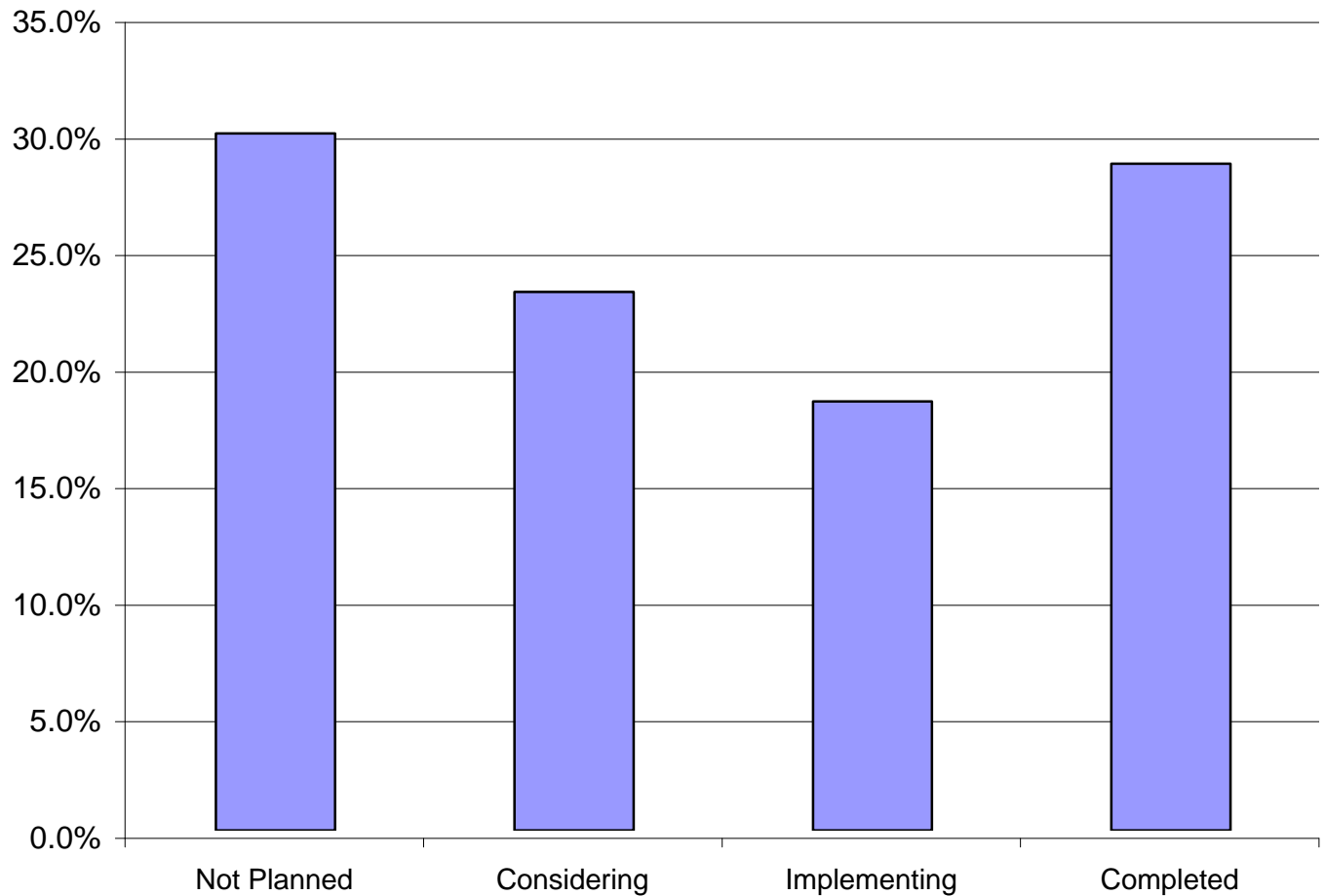
Order to ship cycle time reduction	34
Cost control/cost reduction	96
Improving customer service processes	45
Logistics measurement within the company	42
Changing organizational structure	31
Information technology utilization / optimization	52
Logistics support for global market expansion	17
Quality improvement	17
Outsourcing	14
Strategic alliances with customers / suppliers	30
Logistics measurement between company and customers / suppliers	14
Expanding distribution into new channels / markets	19
Integrating with Internet-based customer ordering systems	6
Leadership development	17

ERP

Implementation

	<u>2003</u>
Not Planned	29.9%
Considering	23.1%
Implementing	18.4%
Completed	<u>28.6%</u>
Total	100%

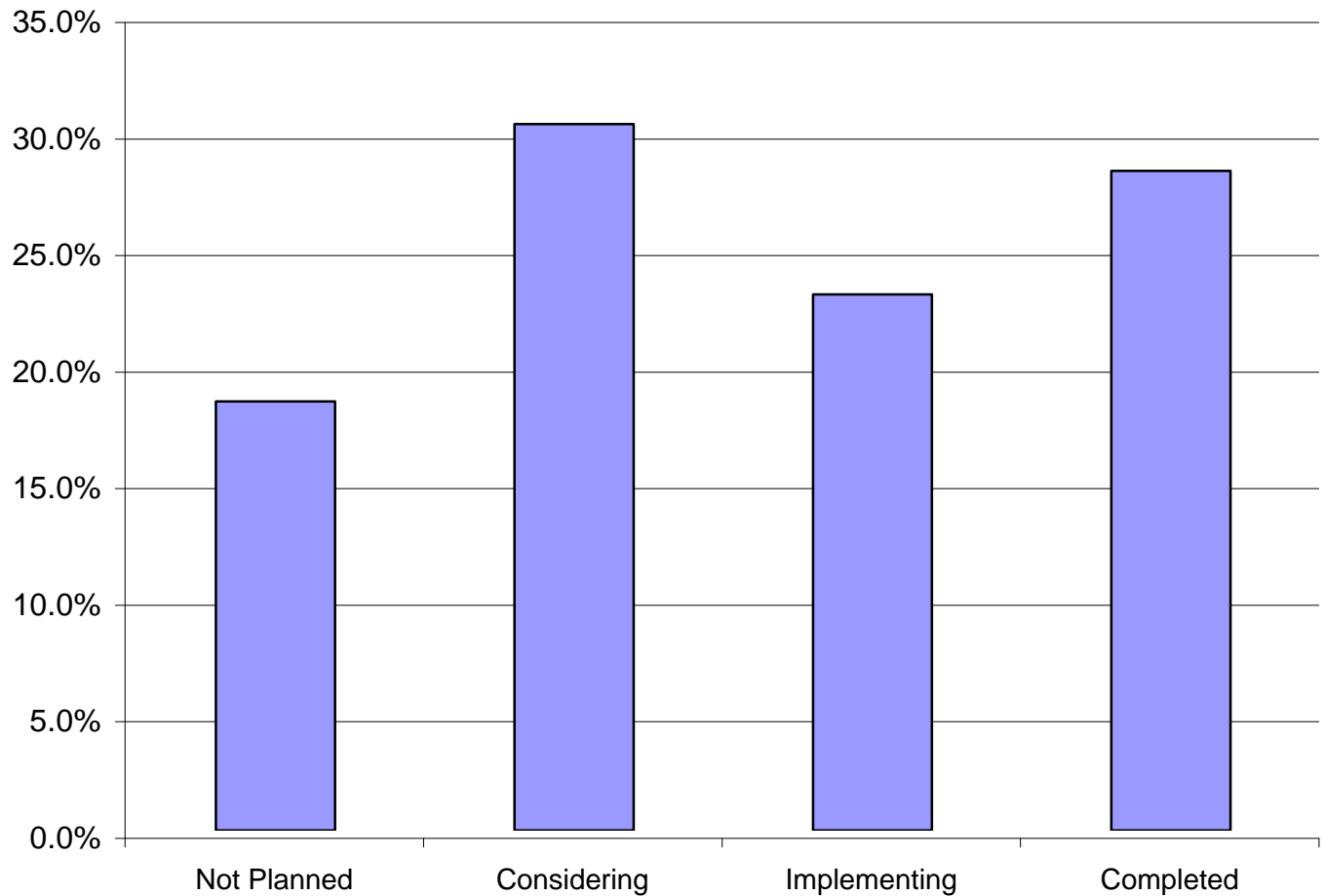
2003



**Transportation Management System
Implementation**

	<u>2003</u>
Not Planned	18.4%
Considering	30.3%
Implementing	23.0%
Completed	28.3%
Total	100%

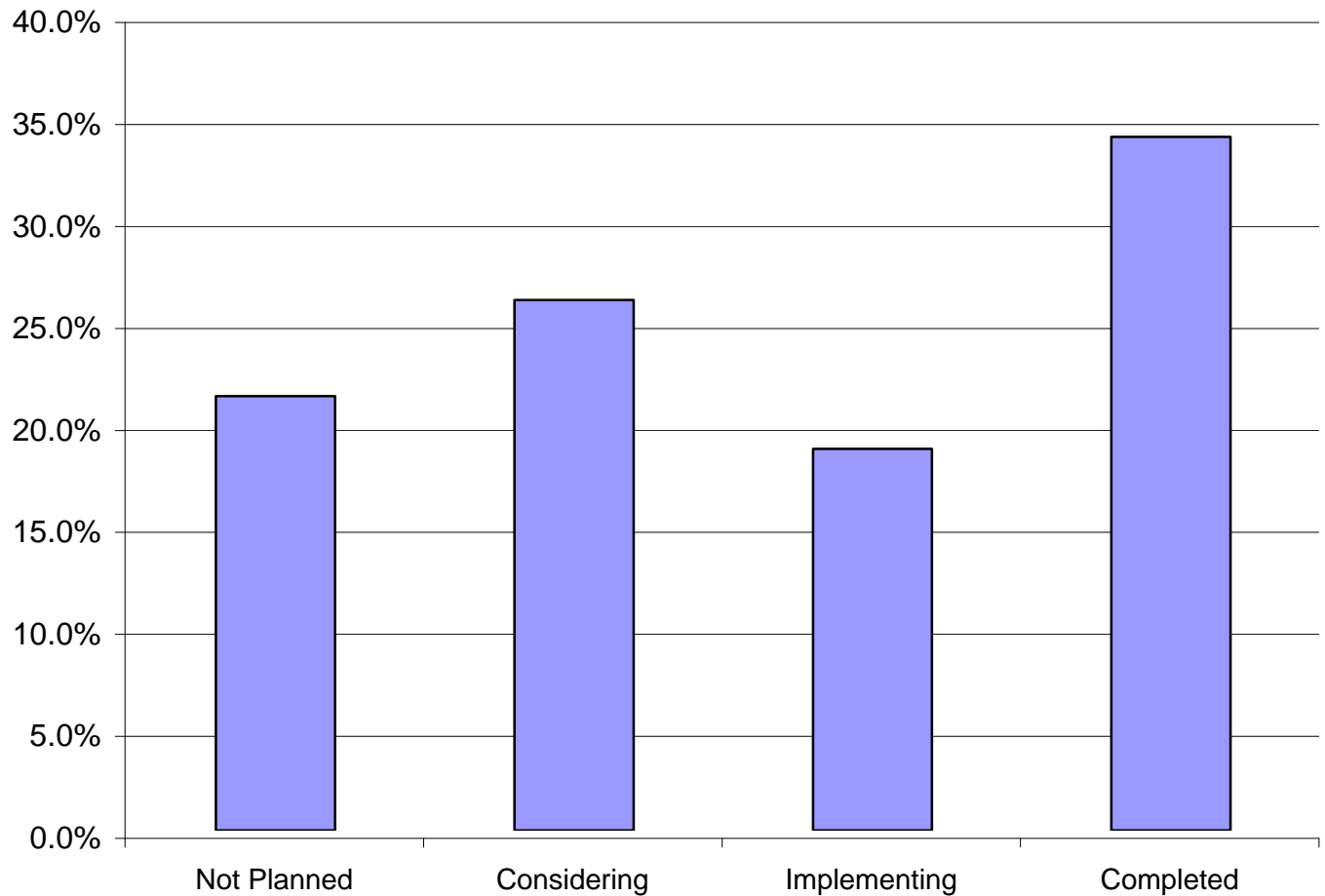
2003



**Warehouse Management System
Implementation**

	<u>2003</u>
Not Planned	21.3%
Considering	26.0%
Implementing	18.7%
Completed	34.0%
Total	100%

2003

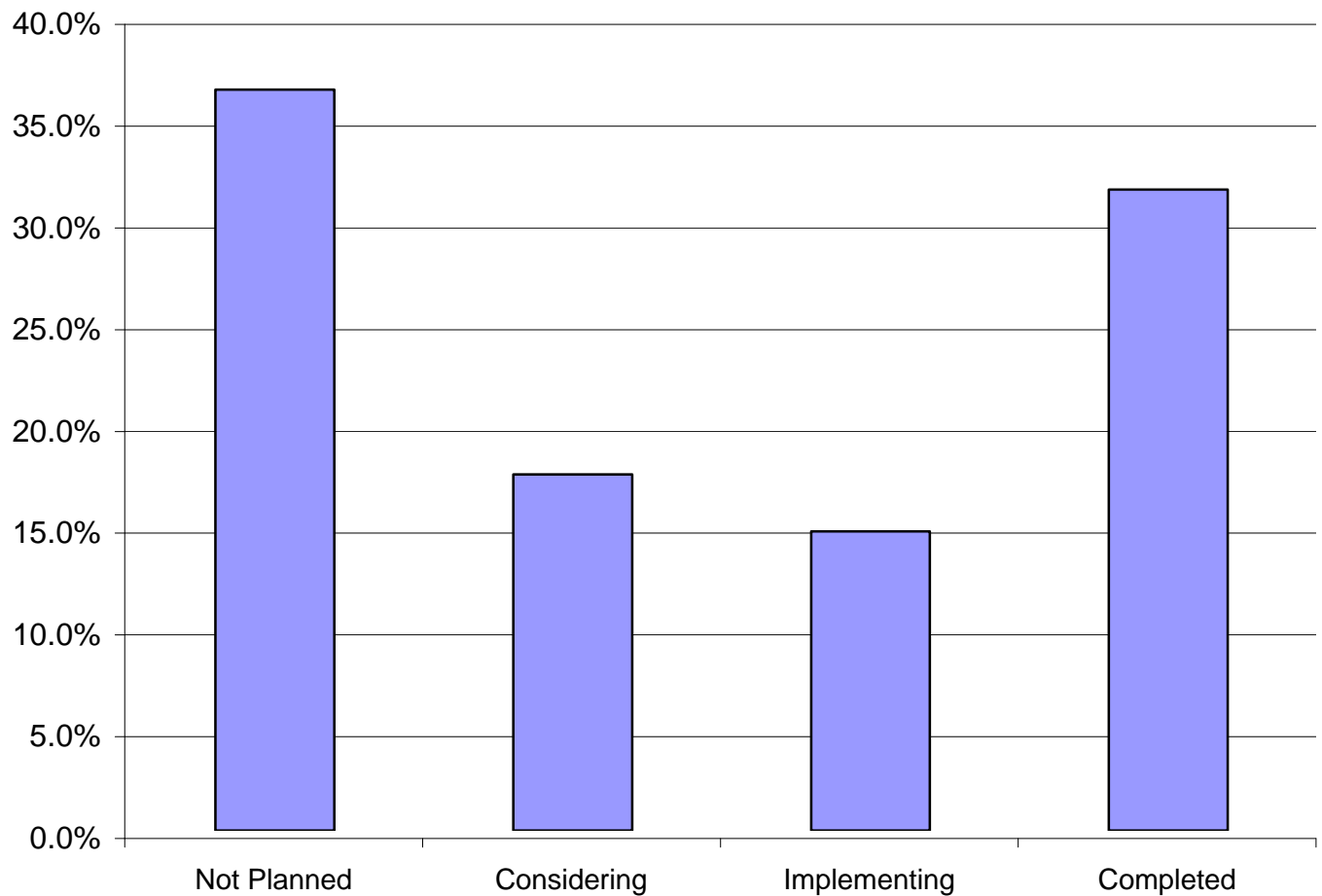


MRP / DRP System

Implementation

	<u>2003</u>
Not Planned	36.4%
Considering	17.5%
Implementing	14.7%
Completed	31.5%
Total	100%

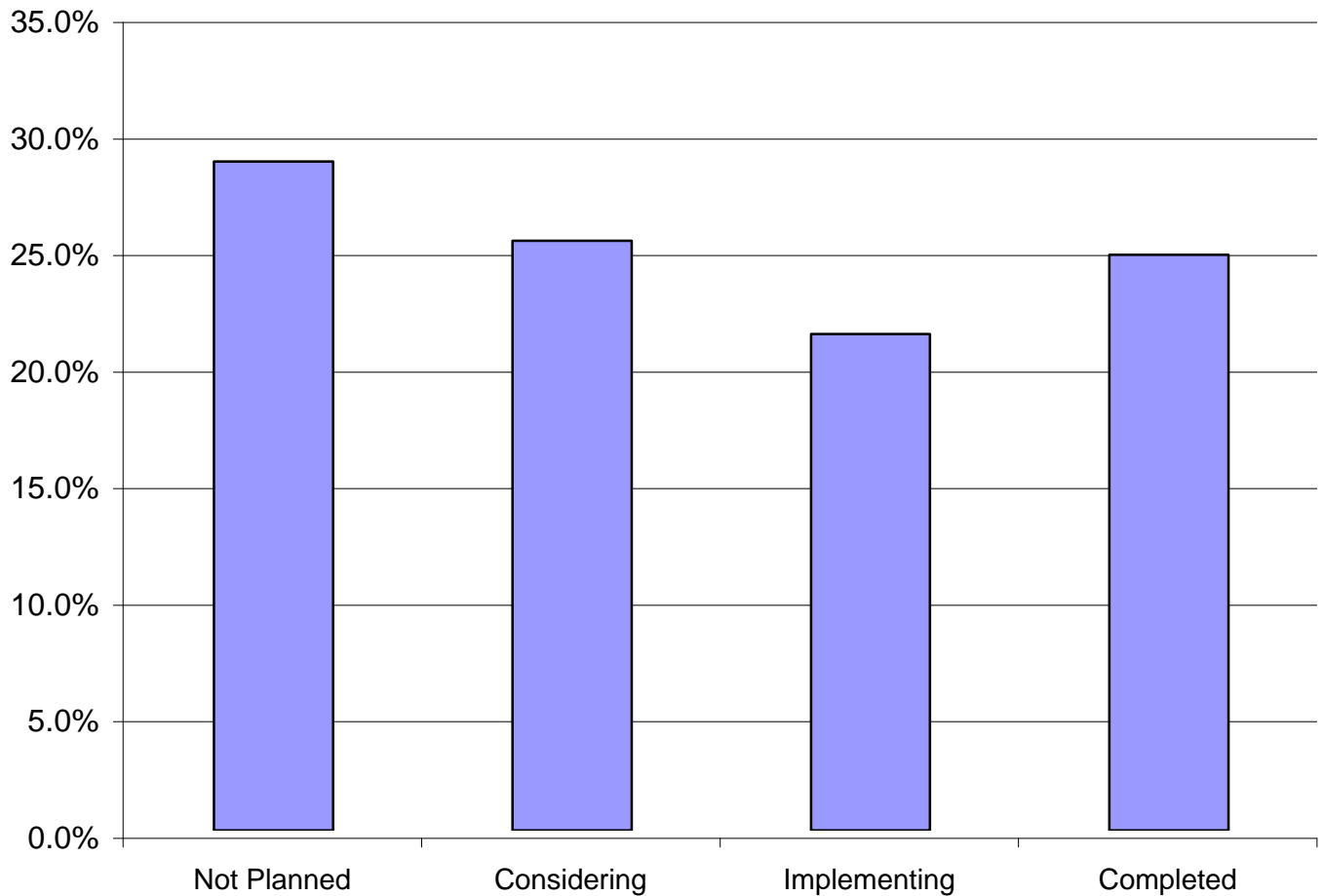
2003



Advanced Planning and Scheduling
Implementation

	<u>2003</u>
Not Planned	28.7%
Considering	25.3%
Implementing	21.3%
Completed	24.7%
Total	<u>100%</u>

2003

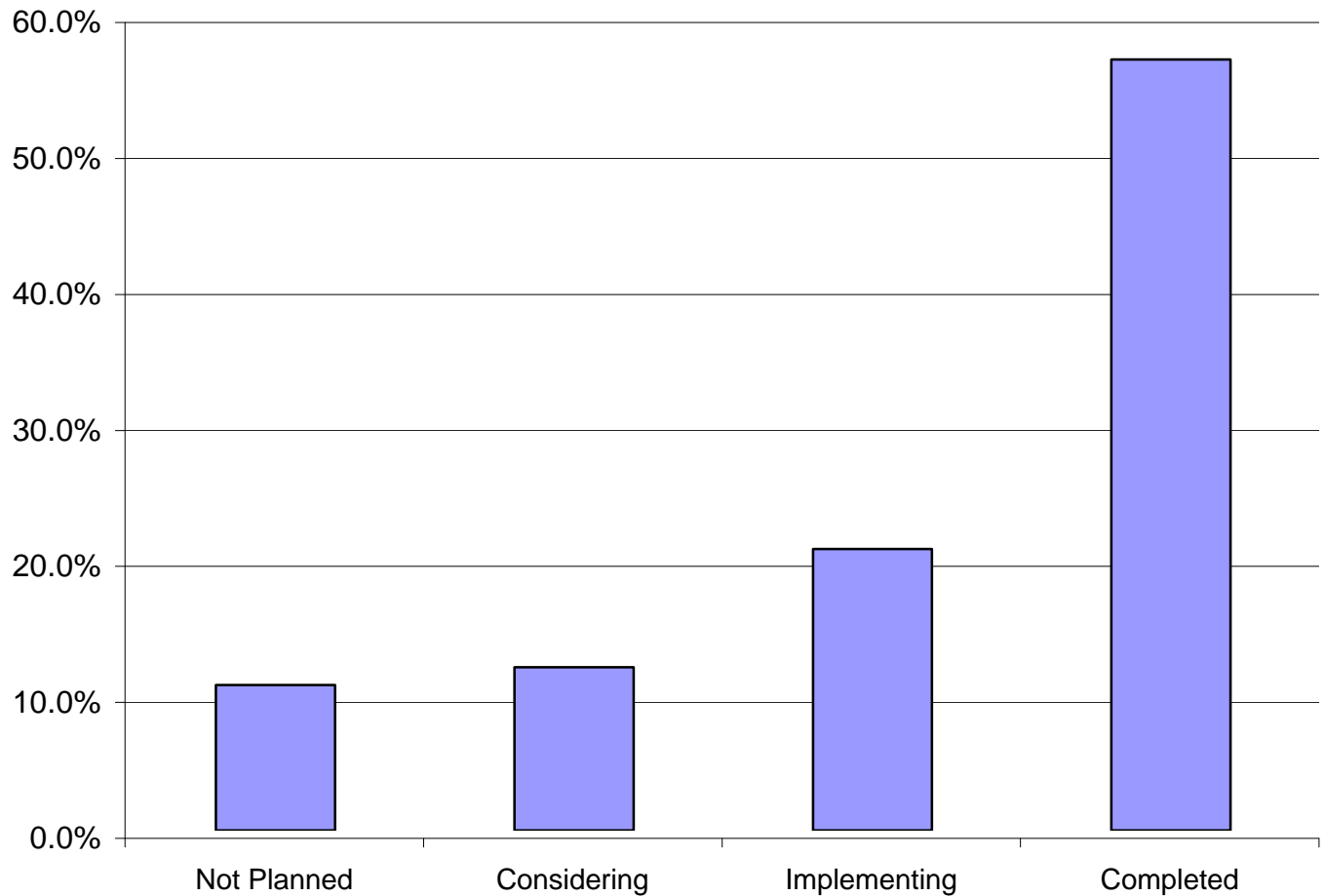


EDI

Implementation

	<u>2003</u>
Not Planned	10.7%
Considering	12.0%
Implementing	20.7%
Completed	<u>56.7%</u>
Total	100%

2003

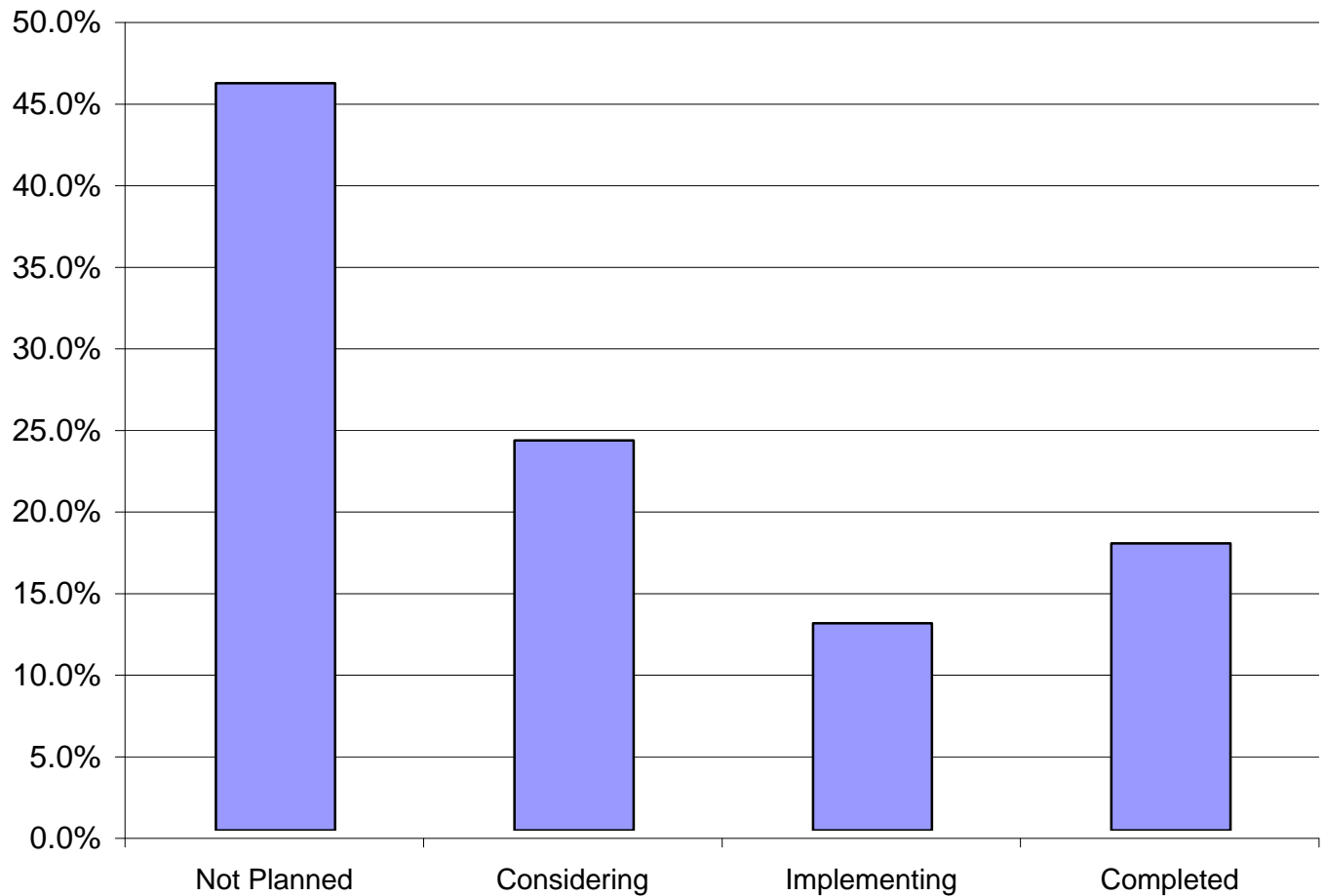


Distributive order management

Implementation

	<u>2003</u>
Not Planned	45.8%
Considering	23.9%
Implementing	12.7%
Completed	17.6%
Total	<u>100%</u>

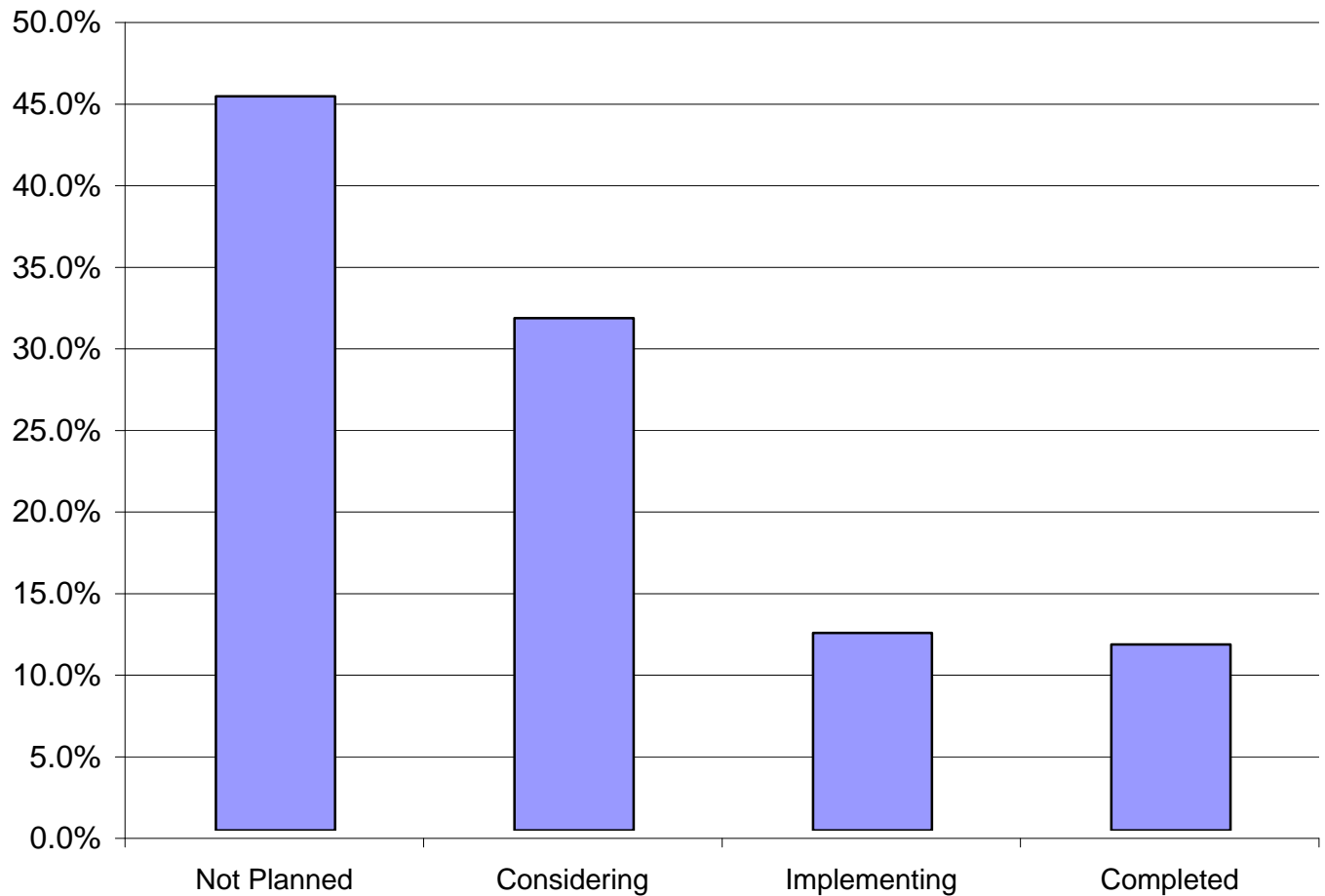
2003



CRM System
Implementation

	<u>2003</u>
Not Planned	45.0%
Considering	31.4%
Implementing	12.1%
Completed	11.4%
Total	<u>100%</u>

2003

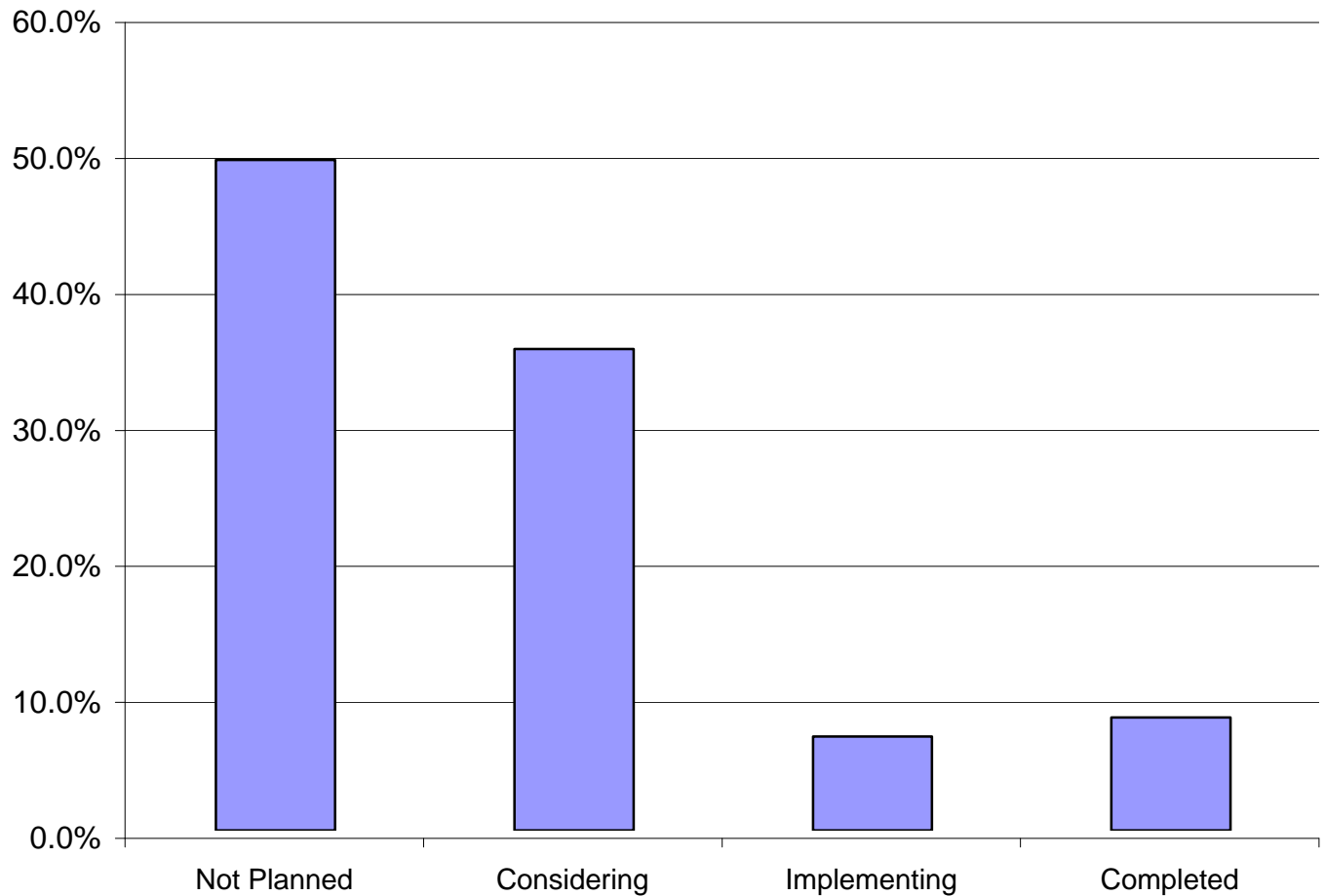


RFID

Implementation

	<u>2003</u>
Not Planned	49.3%
Considering	35.4%
Implementing	6.9%
Completed	<u>8.3%</u>
Total	100%

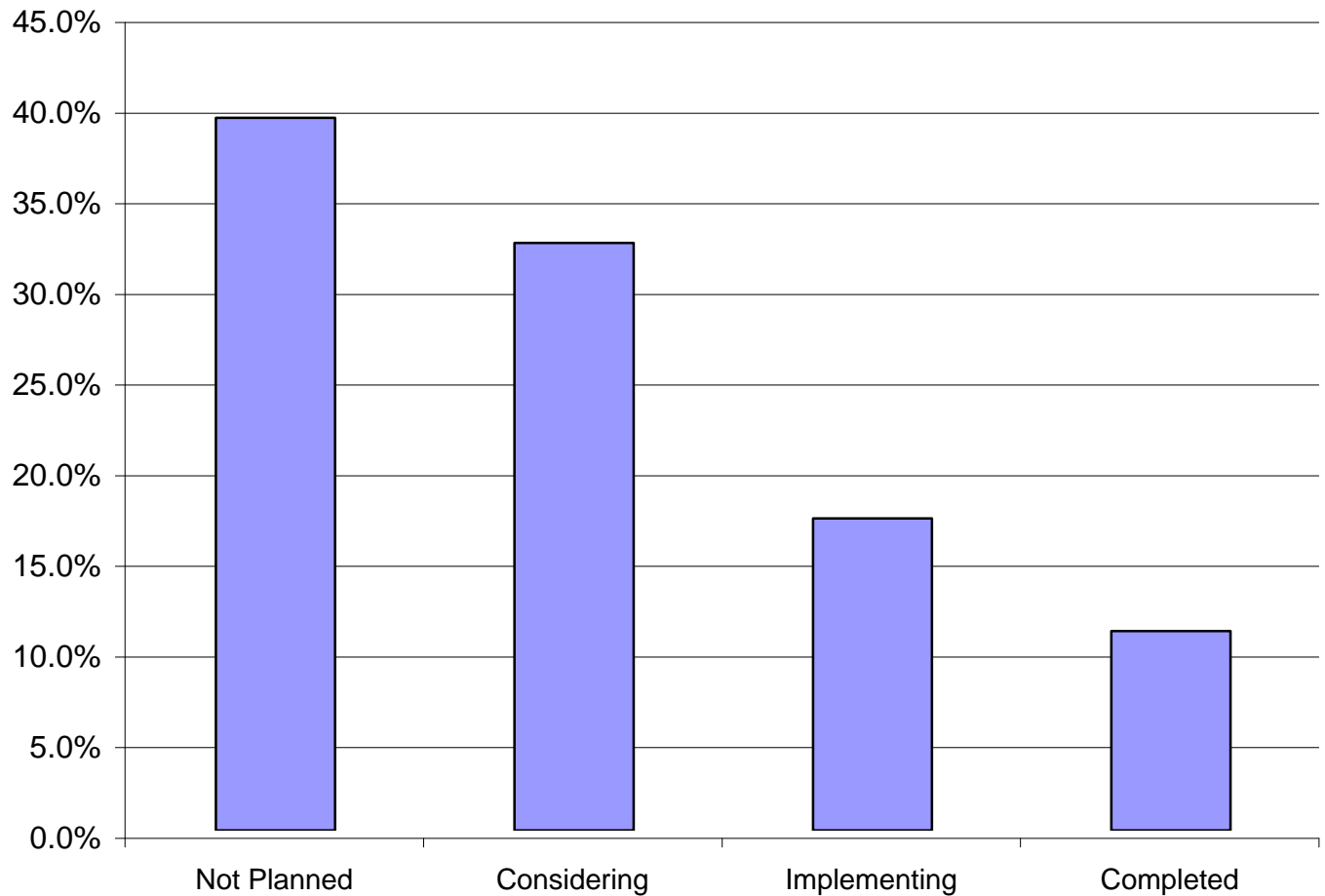
2003



Supply Chain Event Management
Implementation

	<u>2003</u>
Not Planned	39.3%
Considering	32.4%
Implementing	17.2%
Completed	11.0%
Total	<u>100%</u>

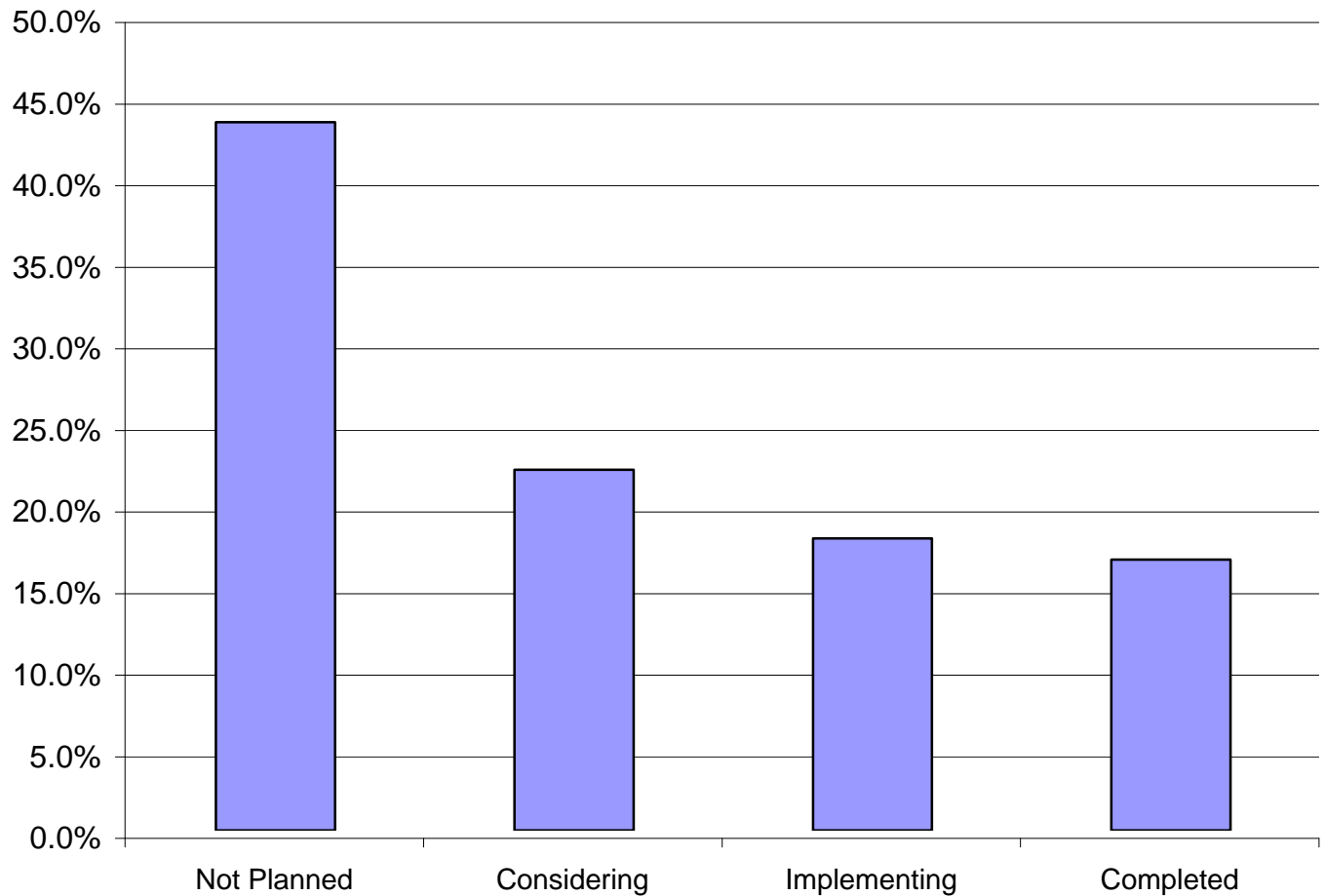
2003



Six Sigma
Implementation

	<u>2003</u>
Not Planned	43.4%
Considering	22.1%
Implementing	17.9%
Completed	16.6%
Total	<u>100%</u>

2003



Has Six Sigma been applied to the following areas?

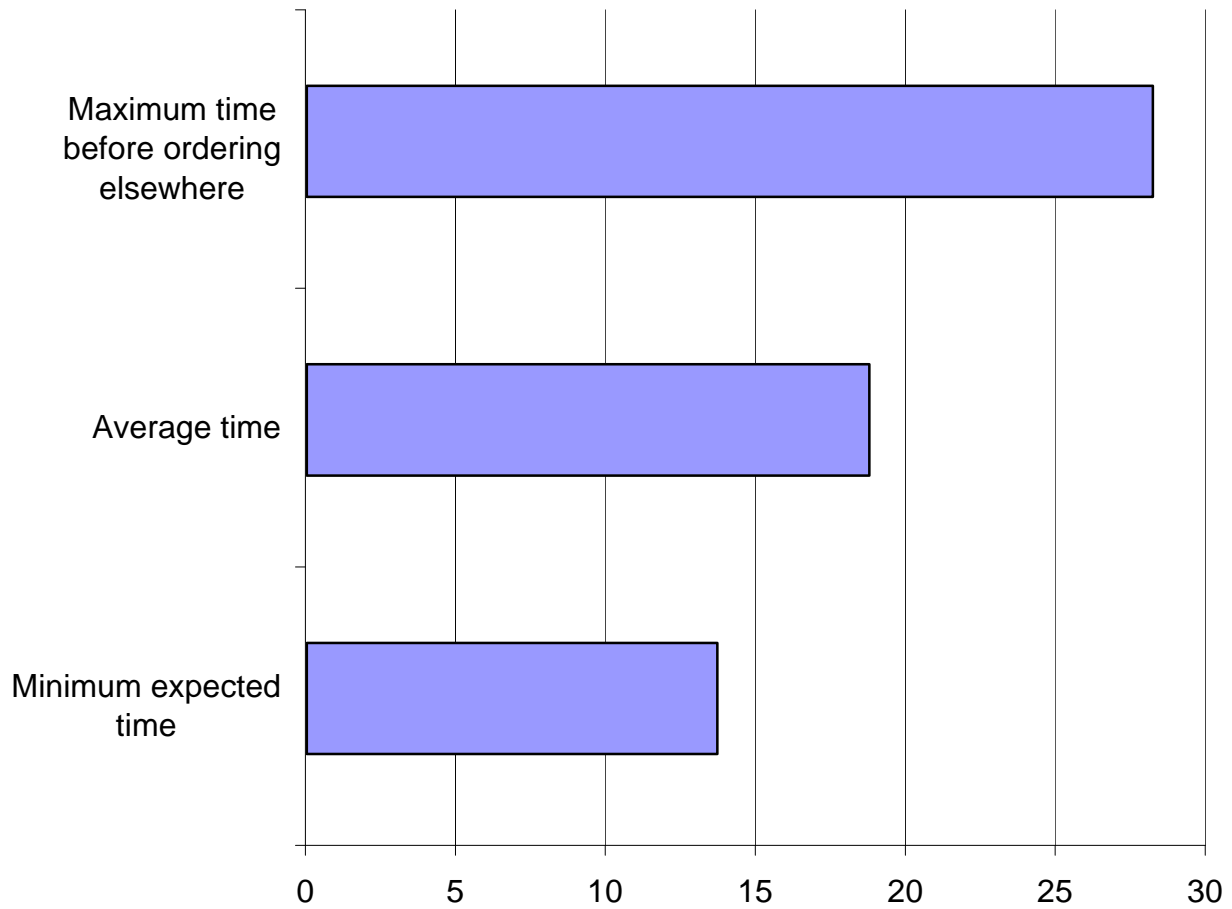
Area

Manufacturing	39
Transportation	24
Customer management	25
Forecasting	16
Warehousing	25
Order management	23

Time it takes to acquire raw materials or goods

	<u>Mean days</u>
Minimum expected time	13.69
Average time	18.76
Maximum time before ordering elsewhere	28.21

2003

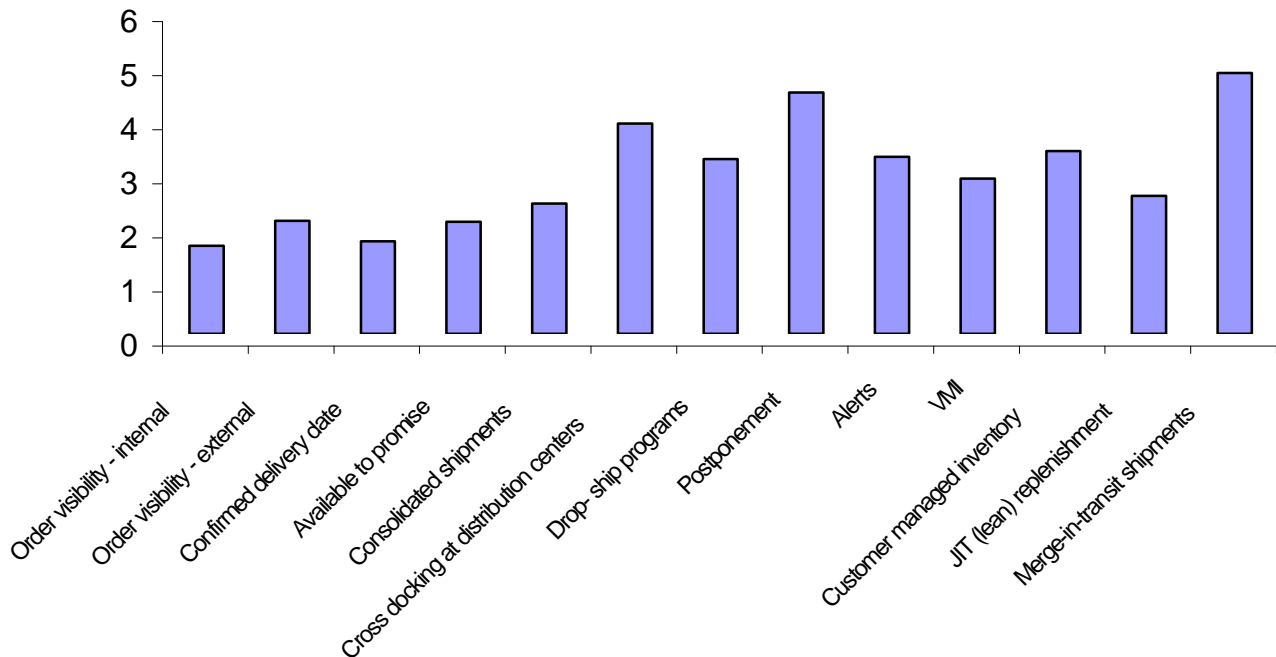


Emphasis placed on each as it relates to distributors

Distribution integration	Mean
Order visibility - internal	1.63
Order visibility - external	2.09
Confirmed delivery date	1.71
Available to promise	2.07
Consolidated shipments	2.41
Cross docking at distribution centers	3.89
Drop- ship programs	3.23
Postponement	4.46
Alerts	3.27
VMI	2.87
Customer managed inventory	3.38
JIT (lean) replenishment	2.55
Merge-in-transit shipments	4.82

1=Very Important, 7= Not Important

2003



Where do your inventory and accounts receivables stand?

	2003	2002	2001
Inventory turns (finished goods only)	20.7	18.6	10.5
Days' worth of sales in inventory (finished goods only)	35.4	42.6	46.7
Days' worth of sales outstanding (accounts receivable)	37.9	41.6	40.3

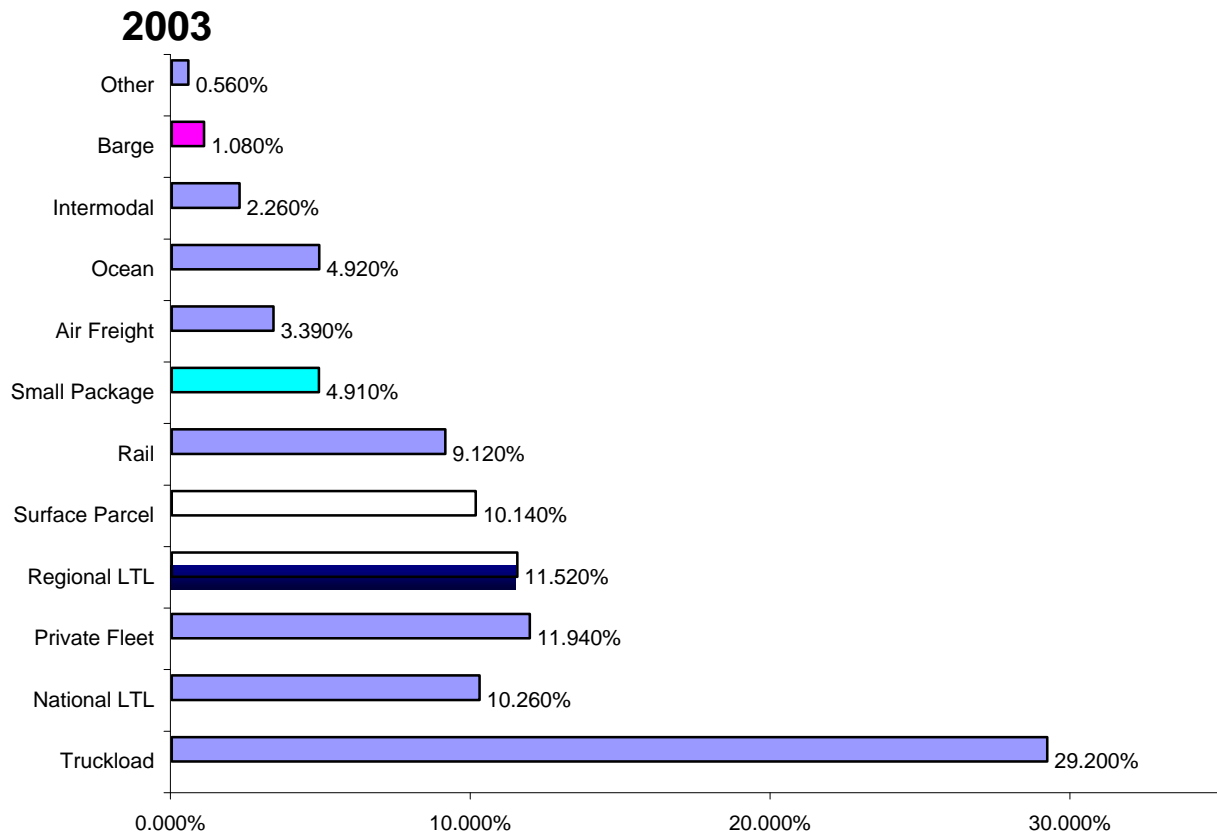
Approximate days' supply on hand (finished goods only) in each of the stops / nodes in the supply chain:

	Number of Facilities	Days' Supply on Hand		
		Average	Minimum	Maximum
Manufacturing	9.05	10.53	7.63	22.94
Central warehouse	1.92	15.41	9.75	30.53
Regional warehouse	19.46	31.9	17.9	42.07
Retail	5625.75	6.67	6.87	13.33
Amount your customer has on hand	N/A	26.38	10.14	65.86

Percent of Domestic Transportation by Mode

Overall total transportation costs

	Mean	
	2003	2002
Truckload	29.200%	31.2%
National LTL	10.260%	10.0%
Private Fleet	11.940%	14.2%
Regional LTL	11.520%	11.8%
Surface Parcel	10.140%	8.0%
Rail	9.120%	5.9%
Small Package	4.910%	4.3%
Air Freight	3.390%	2.9%
Ocean	4.920%	6.2%
Intermodal	2.260%	2.3%
Barge	1.080%	2.0%
Other	0.560%	1.2%
Total	99.30%	100.0%



***The level of performance of the
best in the industry***

Attribute	Below Average	Average	Above Average
Fill rate	7.1	49.5	43.4
On time delivery	7.5	37.7	54.7
Over / short / damage	12.5	45.8	41.7
Cycle time (order lead time)	15.9	54.5	29.5
Responsive to changing requirements	9.9	46.2	44
Emergency order capability	3.6	45.2	51.2
Correct invoice	5.1	61.5	33.3
Perfect order	9.9	53.5	36.6
Availability to promise	10.4	57.1	32.5
Visibility of the order - inbound	27.8	54.4	17.7
Visibility of the order - outbound	14.1	54.1	31.8
Lines filled/lines ordered	6.1	48.5	45.5
Cases shipped/cases ordered	3.7	50	46.3
Dollars shipped/dollars ordered	3.5	54.4	42.1
Shipments that result in some form of a customer complaint	61.7	36.2	2.1
Orders that result in a back order	15.4	52.3	32.3

Level of Performance By Various Providers

2003					
Measure	TL	National LTL	Regional LTL	Rail	Express Package
Billing error rate	2.4%	3.0%	2.2%	4.9%	2.5%
Equipment availability	93.5%	98.0%	98.2%	90.6%	96.9%
On-time delivery ratio	96.8%	94.3%	96.2%	84.1%	96.2%
Freight loss and damage	1.0%	1.5%	1.5%	1.2%	0.8%
Turndown ratio	5.2%	0.9%	0.1%	1.5%	0.2%

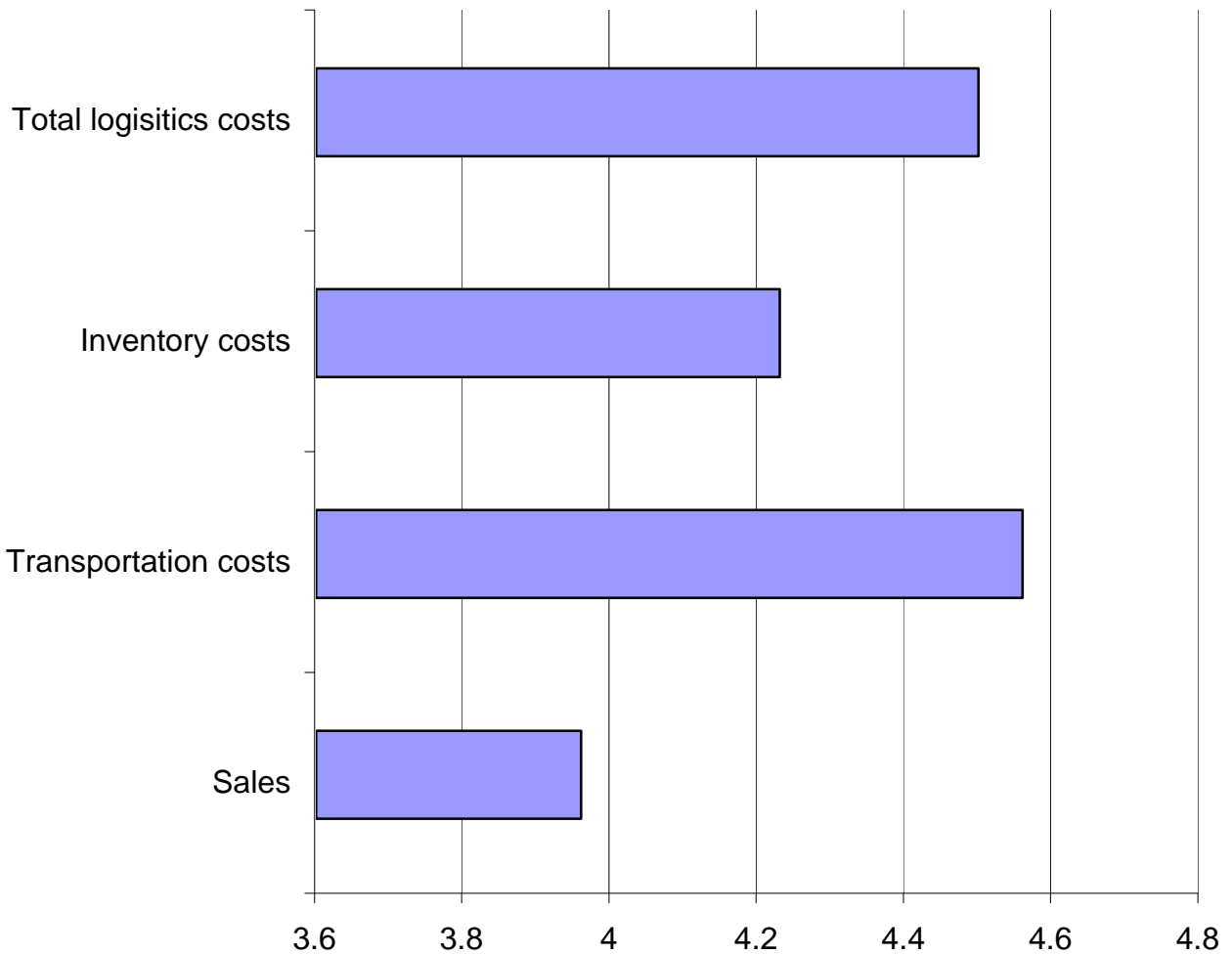
2002				
Measure	TL	National LTL	Regional LTL	Rail
Billing error rate	3.4%	5.5%	4.5%	5.2%
Equipment availability	94.7%	97.4%	98.3%	85.5%
On-time delivery ratio	95.6%	92.6%	95.2%	83.4%
Freight loss and damage	1.1%	2.0%	1.9%	1.5%
Turndown ratio	3.8%	1.0%	1.0%	1.0%

How did firm's actual performance compare to budgeted performance?

	<u>Mean</u>
Sales	3.96
Transportation costs	4.56
Inventory costs	4.23
Total logistics costs	4.5

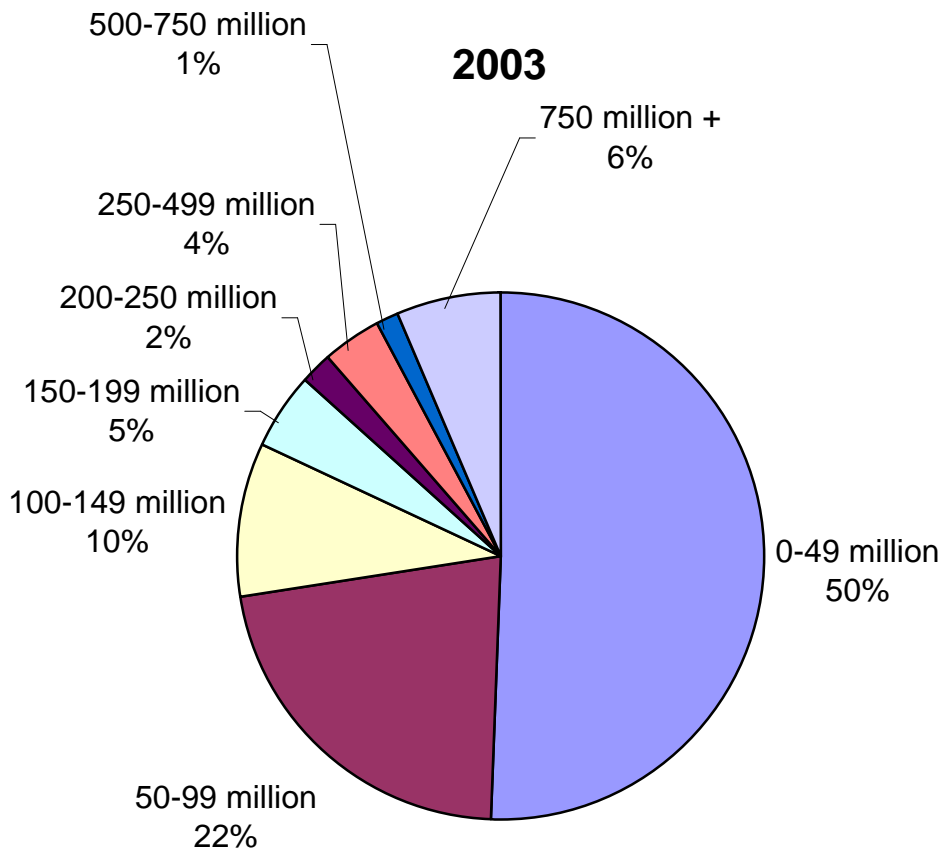
1= Much worse, 4= On target, 7= Much better

2003



Total spent on domestic transportation:

Dollar amount	Percent of Respondents
0-49 million	50.6
50-99 million	21.8
100-149 million	9.6
150-199 million	4.5
200-250 million	1.9
250-499 million	3.8
500-750 million	1.3
750 million +	6.4
Total	100%

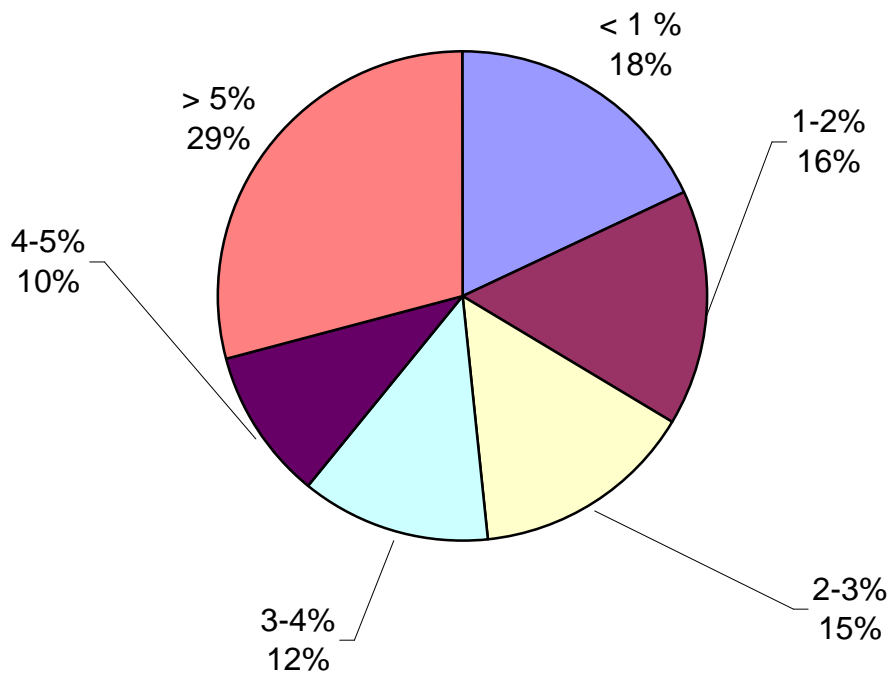


Total spent on transportation:
 As a percent of cost of goods sold

Dollar amount

	<u>2003</u>
< 1 %	18
1-2%	15.7
2-3%	14.6
3-4%	12.4
4-5%	10.1
> 5%	<u>29.2</u>
Total	100%

2003

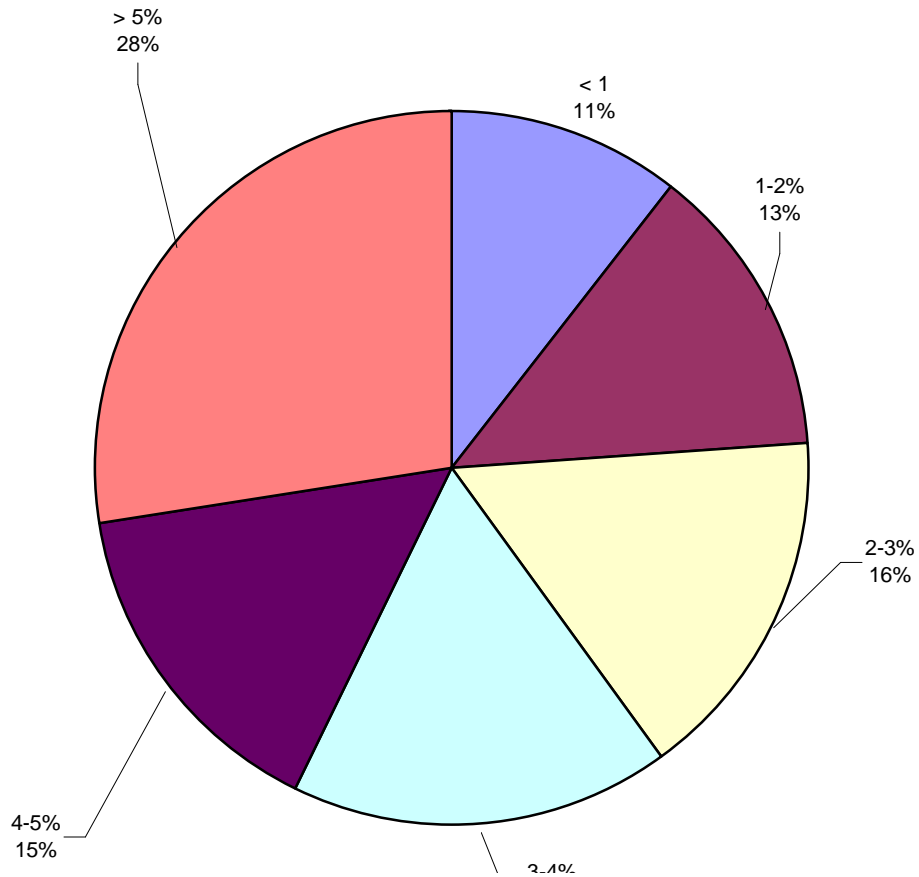


Total spent on transportation:
 As a percent of Sales

Dollar amount

	2003
< 1	10.5
1-2%	13.3
2-3%	16.2
3-4%	17.1
4-5%	15.2
> 5%	27.6
Total	100%

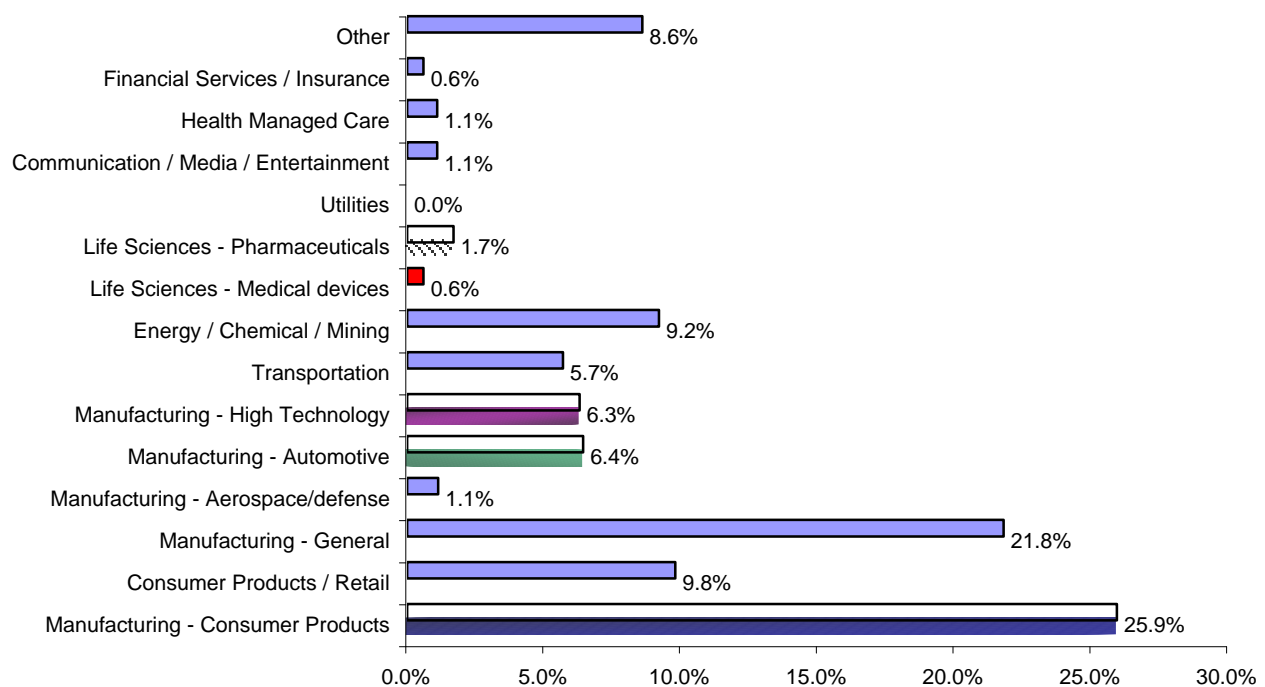
2003



Total Annual Sales of the Organization		
	2003	2002
< \$250 million	17.8%	24.0%
\$250 - \$500 million	12.6%	13.0%
\$500 - \$1 billion	17.8%	13.0%
\$1 - \$2 billion	16.7%	12.0%
\$2 - \$3 billion	8.6%	10.0%
\$3 - \$5 billion	7.5%	6.0%
\$5 - \$9 billion	4.6%	5.0%
> \$9 billion	14.4%	17.0%
Total	100.0%	100.0%

Primary Business of Firms

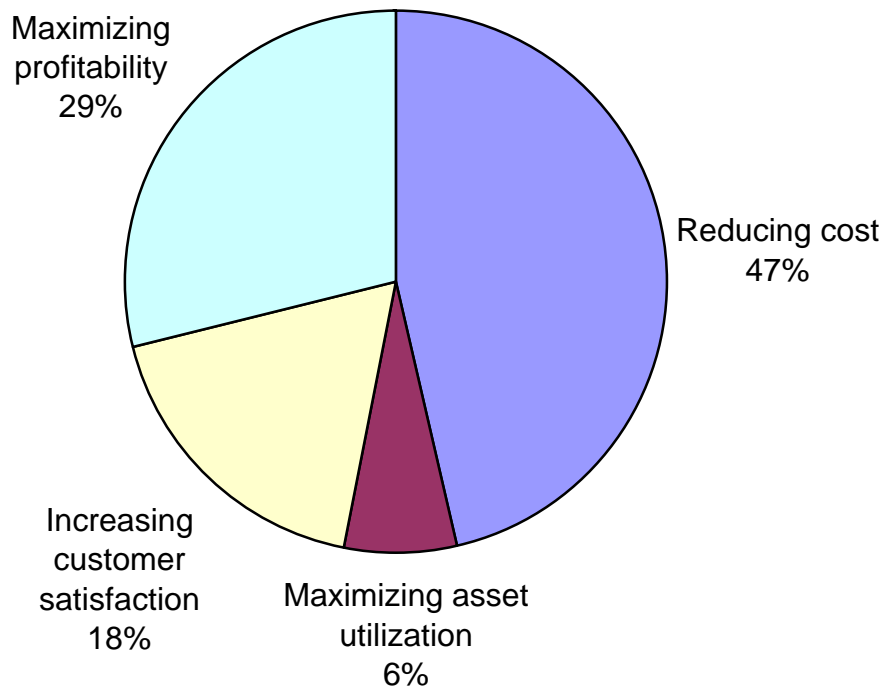
	2003	2002
Manufacturing - Consumer Products	25.9%	17.5%
Consumer Products / Retail	9.8%	15.7%
Manufacturing - General	21.8%	15.7%
Manufacturing - Aerospace/defense	1.1%	16.0%
Manufacturing - Automotive	6.4%	
Manufacturing - High Technology	6.3%	8.9%
Transportation	5.7%	8.0%
Energy / Chemical / Mining	9.2%	7.4%
Life Sciences - Medical devices	0.6%	
Life Sciences - Pharmaceuticals	1.7%	3.1%
Utilities	0.0%	
Communication / Media / Entertainment	1.1%	2.2%
Health Managed Care	1.1%	
Financial Services / Insurance	0.6%	1.5%
Other	8.6%	4.0%
Total	100.0%	100.0%



Primary goals and objectives for the past year

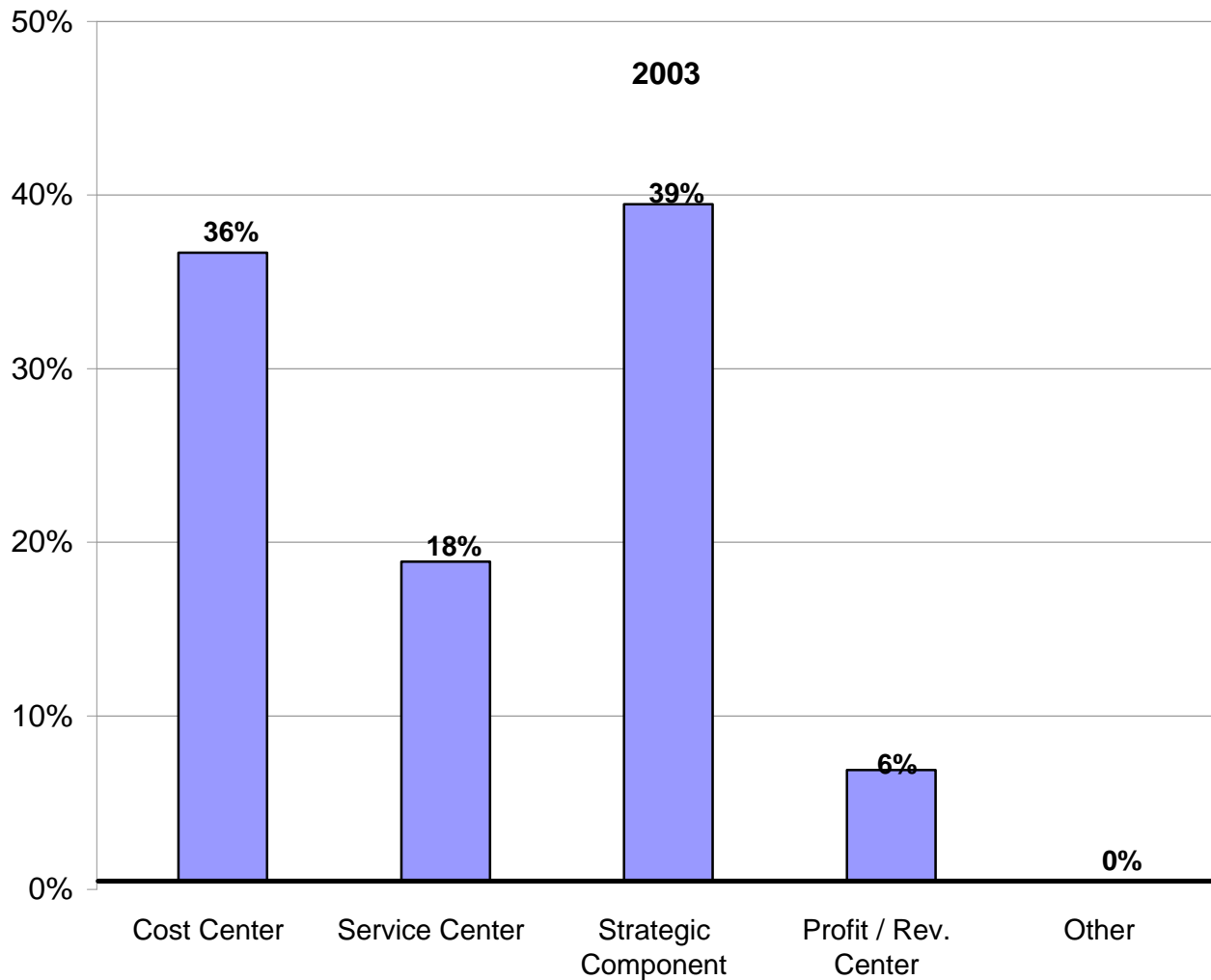
	2003
Reducing cost	47
Maximizing asset utilization	7
Increasing customer satisfaction	18
Maximizing profitability	29
Total	100%

2003



Organizational View of Logistics / Supply Chain Management

	2003	2002
Cost Center	36%	52%
Service Center	18%	15%
Strategic Component	39%	25%
Profit / Rev. Center	6%	6%
Other	0%	2%
Total	100%	100%



Best Description of Overall Strategy of Division

	<u>2003</u>
Leadership through customer service	29.9
Leadership through product/market innovation	16.6
Be all things to all people	30.6
Low cost leader	22.9
Total	100%

