

# **A Study of Backorder Costs For Non-Store Retailers**

**Prepared for:**

**FedEx<sup>®</sup> Services**

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# **A Study of Backorder Costs**

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## 1. Introduction

This report addresses backorders - a major challenge facing non-store retailers. It is designed to help FedEx better understand the Direct Marketing Industry. FedEx has developed the Customer Value Assessment (CVA) model to help identify areas where companies can obtain financial benefits through more efficient use of FedEx services. When dealing with non-store retailers FedEx has a need to modify this model to include the impact of backorders.

Most Non-Store Retailers purchase merchandise based on a forecast of demand. Forecast errors, unexpected demand, delays in ordering, manufacturing or shipping can cause items to be unavailable or “backordered.” A key industry measure of customer service is initial order fill rate or the percentage of customer orders shipped complete. Backorders are a major cost to non-store retailers and directly impact bottom line profits. Helping to understand these costs and identifying FedEx services to reduce backorders can be a major value to non-store retailers.

F. Curtis Barry and Company has completed a review of the components and cost structure of backorders in the Direct to Customer industry. The findings of the research and review are presented in the following report.

**All information presented in this report is to be considered “Confidential and Proprietary” and is to be treated as defined in the Mutual Non-Disclosure Agreement with Federal Express.**

## 2. Objectives

The study consists of two parts. Part I is the analysis of the cost components typically found in the cost of processing a backorder while Part II presents actual backorder cost data gathered from representative catalog companies along with segmented cost per backorder analyses. The data is developed from FCB&CO’s proprietary database of industry benchmarks gathered through its ShareGroup meeting process.

### Part I: Identify Backorder Drivers

The first part of this study is to identify those factors that drive backorder costs. The actual deliverable will be a formula to quantify backorder costs based on about 6-10 specified inputs with “default” values. Drivers include Call Center costs; fulfillment costs; packaging costs; B/O notification; shipping costs; and, other costs.

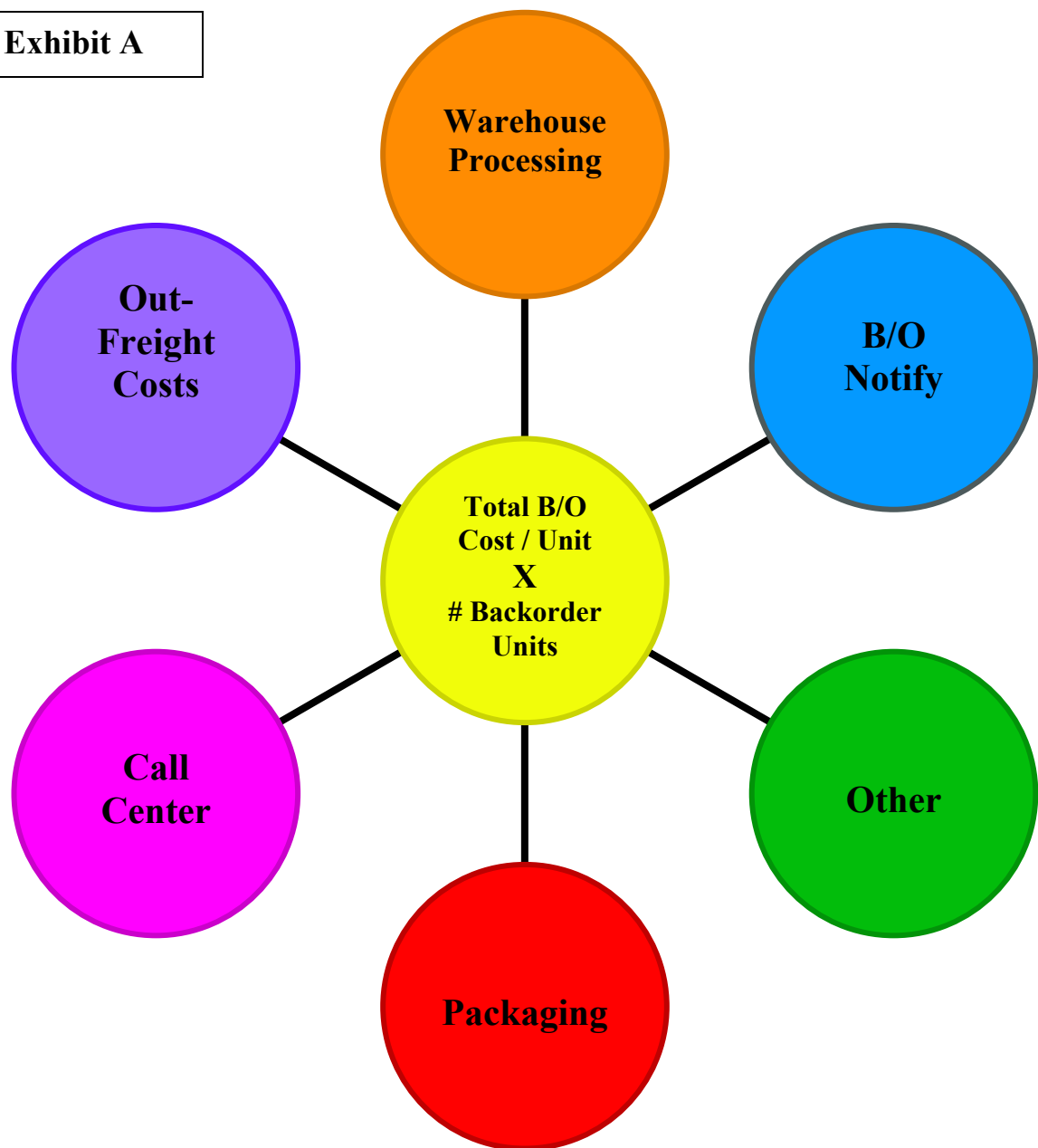
### Part II: Proprietary Study of Backorder Costs

The second part is to benchmark backorder costs at large, medium and small catalogs. F. Curtis Barry & Company (FCB&CO) has conducted proprietary studies of backorder costs with 40 participating companies.

### 3. Backorder Cost Drivers

Exhibit A below defines the cost elements typically included in the calculation of the cost to process a backorder.

**Exhibit A**



**Call Center** – Experience with calculating the cost of processing a backorder includes at least one additional call to the call center to inquire of order status or provide instructions as to the disposition of the backordered item. In many instances, multiple calls are required. A conservative estimate based on actual experience is that one additional call is required. The cost of this call is made up of labor, line charges, and overhead. Based on data gathered in our database, the average cost for call center activities to process a three-minute call is \$3.94. Even in the best-managed catalogs, “Where is my backorder?” ranks among the top customer inquiries and complaints. Additional cost detail is shown below:

<b>Cost Category</b>	<b>\$ Cost</b>
Direct Labor (TSR-\$10/hr; CSR - \$11.10/hr)	\$1.74
Indirect Labor	\$0.16
Management/Supervision	\$0.35
Telephone Expense	\$0.96
Occupancy	\$0.41
Training, Recruitment, Incentives	\$0.32
<b>Total</b>	<b>\$3.94</b>

**Freight Cost** – Based on actual shipping cost data gathered through client studies, we are using an average outbound freight cost of \$5.43 as the incremental freight cost incurred to ship a backorder separate from the original order. The average unit per order in the industry is approximately 2 units per order. We are assuming that a backorder is made up of a single line or unit shipment. Processing and shipping great numbers of backorders strip a company of shipping and handling income and cause operations to absorb non-budgeted costs.

**Packaging Materials** – The cost of packaging and shipping materials is \$.49 based on an average of many hundreds of companies. This would include corrugated, shipping envelopes and any cushioning materials required. This cost is incurred as an additional cost due to the assumed second shipment of the backordered item.

**Warehouse Processing Costs** – The cost to process the backorder considers the backorder as another warehouse order. As such, costs including direct labor, indirect labor, and Occupancy costs are included in the warehouse processing costs. Based on data gathered from our benchmark database, the cost to process a one-line order is \$2.68. This reflects a 25% efficiency gain caused by being able to batch pick and process groups of backordered items together to gain picking and packing efficiencies. Additional cost detail is shown below:

<b>Cost Category</b>	<b>\$ Cost</b>
Direct Labor (avg \$9.90/hr)	\$1.75
Indirect Labor	\$0.84
Occupancy	\$0.99
<b>Total Cost / Order</b>	<b>\$3.58</b>
<b>Total Cost / Backorder</b> (Assumes 25% productivity gain)	<b>\$2.68</b>

**Backorder Notification Costs** – FTC requirements for a backorder notification consists of the cost elements for postage, prep and processing time, and form cost. Our studies indicate that this cost element adds \$.74 to the cost of a backorder.

**OTHER COSTS** - In addition to those costs listed above that are measurable and able to be quantified, there are several other factors that can add to the total cost of a backorder that are more qualitative in nature. Some of them are described below.

**Cancellations** – FCB&Co research indicates that 90% of cancelled orders are due to backorders. The lost margin on a cancelled order averages 50% that translates to \$50 on an average order of \$100. This loss in gross margin can be allocated to the number of backorders incurred during the year.

**Lost goodwill and future sales** – The impact on a customer who has to experience a backorder is one that is constantly debated. The consensus is that backorders rank as one of the top reasons, next to price, returns convenience, and service that cause customers to stop buying from a company. The value of those lost sales is calculated in different ways by each company.

**Lost cost of initial customer acquisition** – The added cost of losing a customer is the initial cost of acquiring that customer in the first place. Included would be costs to print and mail catalogs, rental of lists, maintenance of WEB sites, customer service, etc. In a low response business, the acquisition cost of a new customer ranges between \$8 and \$15.

**Lost rental income** – Many companies generate significant income through the rental of their house file of customer names. With the loss of customers through dissatisfaction with the backorder process, this income is reduced. Lost list rental income amounts to \$100/1,000 names rented.

**Incremental inbound freight cost for expedited receipts** – Some companies, in the interest of maintaining good customer relations, will expedite the receipt of backordered items to facilitate their shipment. The cost of these expedited shipments can approach \$2 – 3 per item.

**Expedited outbound freight** – Some companies spend additional freight dollars to deliver backorders with expedited delivery options. This can add \$8 to \$15 per backorder shipment.

**Lost Demand** – One cost of a backorder comes when a customer decides not to order if the item is not in stock. Some companies with sophisticated systems track this lost or phantom demand. Those who do track this metric find that in many cases a significant number of orders and subsequent lost sales occur. Some clients report a phantom demand of 5% to 30% lift in best selling products.

## Formula for Calculating Backorder Costs

Backorder Cost Driver	Fully Loaded Default \$Cost
Call Center +	\$3.94
Out Freight +	\$5.43
Packaging Supplies +	\$0.49
Warehousing Processing +	\$2.68
Backorder Notification +	\$0.74
Other Costs +	???
Total Cost/ backorder Unit =	\$13.28 Range (\$11-\$15)

Backorder costs above are derived from FCB&Co client studies and a proprietary database of benchmark metrics. Although we are presenting absolute values, in actuality, the numbers fall in a range of values. A review of the data suggests a total range from about \$11-\$15.

For example, an average company processing 1 million orders per year with a 20% backorder rate would experience 200,000 backorders during the year. At a cost of \$13.28 per back order, the total increased cost due to backorders is approximately \$2,656,000. With this volume of orders and potential increased cost due to processing backorders, it is easy to see why this issue ranks at the top of many catalog companies.

These costs are pervasive and are absorbed by many departments from merchandising, to customer service, to operations. Hidden costs associated with merchandising include the time buyers spend following up with vendors, communicating with customer service and management personnel, and expediting problem shipments. These costs are indirect (lost productivity) and direct (long distance phone charges).

Late deliveries and severe backorders significantly reduce revenue per catalog for highly profitable re-mails. We have seen the effect of backorders depress response rates for re-mails by one-third. Few customers would purchase a second time if their first order weren't complete? For fashion products, returns increase when backorders reach long periods of time since direct commerce is an instant gratification business.

## **4. Industry Studies**

Part II of the report includes data developed from FCB&CO's proprietary database of operations metrics. It represents actual data gathered from catalog/multi-channel businesses. Each company calculates their own cost of backorders in their companies. Some variance occurs due to differences in definition. By looking at 40 observations some conclusions can be drawn with a strong feeling of reliability. Our method of cost calculation in Part I of the report fully loads the cost while many companies choose to omit some of the cost elements. FCB&CO clients who study their backorder costs in detail fall in the range of the costs listed in Part I.

Average Backorder Costs					
PRODUCT TYPE	MARKET SEGMENT	PRODUCT PROFILE (WEIGHT)	SALES VOLUME \$(MILLION)	INITIAL ORDER FILL RATE %	COST PER BACKORDERED ITEM
ALL	ALL	ALL	ALL	ALL	\$8.55
APPAREL					\$7.29
HARDGOODS					\$8.89
MIXED					\$10.63
	BASIC APPAREL				\$7.68
	FASHION				\$7.09
	GIFTS				\$8.08
	HOME				\$10.54
	OTHER				\$8.93
		HEAVY			\$10.35
		LIGHT			\$7.86
			Below 50		\$8.79
			50-99		\$7.79
			100+		\$9.41
				60-69	\$7.67
				70-79	\$8.15
				80-89	\$9.27
				90+	\$8.94
<b>SOURCE: FCB&amp;CO</b>					

The tables of data and the average cost of each segment are attached at the end of the report and labeled **BACKORDER COST ANALYSIS**.

The data is shown on the following page headings:

- All
- By Market Segment
- By Product Type
- By Product Weight
- By Sales Volume
- By Initial Fill Rate

Each page represents segmentation and sortation by the factor in the heading of the report. Our research has shown that the cost of backorders in a company is influenced by many variables and characteristics. These segmentations reflect some of the key variables that can affect the cost of backorders.

The key measure of customer service is the initial order fill rate (the percent of customers orders shipped complete in less than three days). Here are some examples of above average catalog performance: 70% to 80% for fashion apparel; 80% to 90% for re-orderable apparel; 85% to 95% for gifts and housewares; 95% to 98% for business supplies.



## **5. Summary**

Backorders cost non-store retailers about \$11-\$15 per unit, directly impact bottom line profits and rank among the top challenges facing most catalog companies. We have identified 6-10 factors that drive backorder costs. Drivers include Call Center costs; fulfillment costs; packaging costs; B/O notification; shipping costs; and, other costs. Some of these costs are measurable and some are more qualitative in nature. Understanding these costs and identifying FedEx services to reduce backorders can be a major value to non-store retailers. In many cases it is better to expedite inventory to avoid backorders than incur the high cost of backorders.

Part II of this report included data developed from FCB&CO's proprietary database. The data showed backorder costs ranging from a low of \$3 to a high of \$15. Sales ranged from \$7 million to \$900 million. Initial order fill rates were 60% - 97%.

Our focus in this report has been on the increased expenses caused by backorders. However, it should be pointed out that the damage to customer relationships could be equal to or more costly than the increased expenses.

**BACKORDER COST ANALYSIS**  
**PREPARED BY F. CURTIS BARRY & COMPANY**  
**All**

PRODUCT TYPE	MARKET SEGMENT	PRODUCT PROFILE (WEIGHT)	SALES VOLUME \$(MILLION)	COST PER BACKORDERED ITEM	INITIAL ORDER FILL RATE %	CANCEL RATE %	FINAL FILL RATE %
APPAREL	FASHION	LIGHT	40	\$3.00	84	6	94
APPAREL	BASIC	LIGHT	58	\$3.10	NA	3.5	96.5
APPAREL	BASIC	LIGHT	60	\$5.00	76	3.7	96.3
HARDGOODS	HOBBYIST	HEAVY	52	\$5.00	94	0.25	99.8
APPAREL	GIFTS	LIGHT	100	\$5.20	74	2.2	97.8
HARDGOODS	OFFICE	LIGHT	65	\$5.65	95	1.5	98.5
APPAREL	FASHION	LIGHT	35	\$6.50	60	7.5	92.5
APPAREL	BASIC	LIGHT	12	\$7.00	82	13	87
HARDGOODS	HEALTH	LIGHT	92	\$7.12	97	NA	NA
HARDGOODS	GIFTS	LIGHT	45	\$7.50	NA	5	95
APPAREL	FASHION	LIGHT	450	\$7.50	65	4	96
HARDGOODS	HEALTH	LIGHT	92	\$7.52	97	1	99
APPAREL	FASHION	LIGHT	35	\$7.66	68	6.5	93.5
HARDGOODS	HOME	LIGHT	80	\$8.00	90	3	97
MIXED	OUTDOORS	LIGHT	210	\$8.00	95	6	94
MIXED	GIFTS	LIGHT	19	\$8.00	90	4	96
HARDGOODS	GIFTS	LIGHT	7	\$8.00	91	2	98
APPAREL	FASHION	LIGHT	100	\$8.00	70	11	89
HARDGOODS	GIFTS	HEAVY	90	\$8.00	89	0.6	99.4
HARDGOODS	GIFTS	HEAVY	10	\$8.00	75	NA	NA
APPAREL	FASHION	LIGHT	100	\$8.00	70	7	93
HARDGOODS	HOME	LIGHT	65	\$8.00	91	3.5	96.5
HARDGOODS	JEWELRY	LIGHT	80	\$8.53	80	9	91
HARDGOODS	JEWELRY	LIGHT	60	\$8.53	83	3	97
HARDGOODS	GIFTS	HEAVY	90	\$9.00	88	2	98
MIXED	FASHION	LIGHT	45	\$9.00	70	5.6	94.4
HARDGOODS	GIFTS	LIGHT	38	\$9.00	69	9	91
HARDGOODS	PET	HEAVY	46	\$9.27	95	1	99
APPAREL	BASIC	LIGHT	15	\$10.00	85	5	95
APPAREL	BASIC	LIGHT	60	\$10.00	78	3.7	96.3
HARDGOODS	GIFTS	LIGHT	38	\$10.00	75	7.2	92.8
APPAREL	HOME	LIGHT	80	\$10.17	70	3.8	96.2
APPAREL	BASIC	LIGHT	31	\$11.00	87	18	82
HARDGOODS	HOME	HEAVY	113	\$11.00	89	2	98
HARDGOODS	HOME	HEAVY	120	\$11.00	89	1	99
HARDGOODS	HOME	HEAVY	130	\$11.00	89	1.5	98.5
HARDGOODS	HOME	HEAVY	28	\$12.00	90	10	90
MIXED	HOME	LIGHT	70	\$13.18	80	3	97
HARDGOODS	HOBBYIST	HEAVY	19	\$14.68	93	2.2	97.8
MIXED	OUTDOORS	HEAVY	900	\$15.00	90	6	94
<b>AVERAGE</b>				<b>\$8.55</b>			

**BACKORDER COST ANALYSIS**  
**PREPARED BY F. CURTIS BARRY & COMPANY**  
**BY Market Segment**

PRODUCT TYPE	MARKET SEGMENT	PRODUCT PROFILE (WEIGHT)	SALES VOLUME \$(MILLION)	COST PER BACKORDERED ITEM	INITIAL ORDER FILL RATE %	CANCEL RATE %	FINAL FILL RATE %
APPAREL	BASIC	LIGHT	31	\$11.00	87	18	82
APPAREL	BASIC	LIGHT	60	\$5.00	76	3.7	96.3
APPAREL	BASIC	LIGHT	12	\$7.00	82	13	87
APPAREL	BASIC	LIGHT	58	\$3.10	NA	3.5	96.5
APPAREL	BASIC	LIGHT	15	\$10.00	85	5	95
APPAREL	BASIC	LIGHT	60	\$10.00	78	3.7	96.3
	<b>BASIC APPAREL</b>			<b>\$7.68</b>			
APPAREL	FASHION	LIGHT	35	\$7.66	68	6.5	93.5
APPAREL	FASHION	LIGHT	40	\$3.00	84	6	94
APPAREL	FASHION	LIGHT	100	\$8.00	70	11	89
APPAREL	FASHION	LIGHT	450	\$7.50	65	4	96
APPAREL	FASHION	LIGHT	35	\$6.50	60	7.5	92.5
APPAREL	FASHION	LIGHT	100	\$8.00	70	7	93
MIXED	FASHION	LIGHT	45	\$9.00	70	5.6	94.4
	<b>FASHION</b>			<b>\$7.09</b>			
APPAREL	GIFTS	LIGHT	100	\$5.20	74	2.2	97.8
HARDGOODS	GIFTS	LIGHT	45	\$7.50	NA	5	95
HARDGOODS	GIFTS	LIGHT	7	\$8.00	91	2	98
HARDGOODS	GIFTS	HEAVY	90	\$9.00	88	2	98
HARDGOODS	GIFTS	HEAVY	90	\$8.00	89	0.6	99.4
HARDGOODS	GIFTS	LIGHT	38	\$9.00	69	9	91
HARDGOODS	GIFTS	HEAVY	10	\$8.00	75	NA	NA
HARDGOODS	GIFTS	LIGHT	38	\$10.00	75	7.2	92.8
MIXED	GIFTS	LIGHT	19	\$8.00	90	4	96
	<b>GIFTS</b>			<b>\$8.08</b>			
APPAREL	HOME	LIGHT	80	\$10.17	70	3.8	96.2
HARDGOODS	HOME	LIGHT	80	\$8.00	90	3	97
HARDGOODS	HOME	HEAVY	113	\$11.00	89	2	98
HARDGOODS	HOME	HEAVY	120	\$11.00	89	1	99
HARDGOODS	HOME	HEAVY	130	\$11.00	89	1.5	98.5
HARDGOODS	HOME	LIGHT	65	\$8.00	91	3.5	96.5
HARDGOODS	HOME	HEAVY	28	\$12.00	90	10	90
MIXED	HOME	LIGHT	70	\$13.18	80	3	97
	<b>HOME</b>			<b>\$10.54</b>			
HARDGOODS	HEALTH	LIGHT	92	\$7.52	97	1	99
HARDGOODS	HEALTH	LIGHT	92	\$7.12	97	NA	NA
HARDGOODS	HOBBYIST	HEAVY	52	\$5.00	94	0.25	99.8
HARDGOODS	HOBBYIST	HEAVY	19	\$14.68	93	2.2	97.8
HARDGOODS	JEWELRY	LIGHT	80	\$8.53	80	9	91
HARDGOODS	JEWELRY	LIGHT	60	\$8.53	83	3	97
HARDGOODS	OFFICE	LIGHT	65	\$5.65	95	1.5	98.5
MIXED	OUTDOORS	LIGHT	210	\$8.00	95	6	94
MIXED	OUTDOORS	HEAVY	900	\$15.00	90	6	94
HARDGOODS	PET	HEAVY	46	\$9.27	95	1	99
	<b>OTHER</b>			<b>\$8.93</b>			

**BACKORDER COST ANALYSIS**  
**PREPARED BY F. CURTIS BARRY & COMPANY**  
**BY Product Type**

PRODUCT TYPE	MARKET SEGMENT	PRODUCT PROFILE (WEIGHT)	SALES VOLUME \$(MILLION)	COST PER BACKORDERED ITEM	INITIAL ORDER FILL RATE %	CANCEL RATE %	FINAL FILL RATE %
APPAREL	FASHION	LIGHT	35	\$7.66	68	6.5	93.5
APPAREL	BASIC	LIGHT	31	\$11.00	87	18	82
APPAREL	BASIC	LIGHT	60	\$5.00	76	3.7	96.3
APPAREL	FASHION	LIGHT	40	\$3.00	84	6	94
APPAREL	BASIC	LIGHT	12	\$7.00	82	13	87
APPAREL	FASHION	LIGHT	100	\$8.00	70	11	89
APPAREL	BASIC	LIGHT	58	\$3.10	NA	3.5	96.5
APPAREL	BASIC	LIGHT	15	\$10.00	85	5	95
APPAREL	FASHION	LIGHT	450	\$7.50	65	4	96
APPAREL	FASHION	LIGHT	35	\$6.50	60	7.5	92.5
APPAREL	FASHION	LIGHT	100	\$8.00	70	7	93
APPAREL	BASIC	LIGHT	60	\$10.00	78	3.7	96.3
APPAREL	HOME	LIGHT	80	\$10.17	70	3.8	96.2
APPAREL	GIFTS	LIGHT	100	\$5.20	74	2.2	97.8
APPAREL				<b>\$7.29</b>			
HARDGOODS	HOME	LIGHT	80	\$8.00	90	3	97
HARDGOODS	GIFTS	LIGHT	45	\$7.50	NA	5	95
HARDGOODS	HOME	HEAVY	113	\$11.00	89	2	98
HARDGOODS	GIFTS	LIGHT	7	\$8.00	91	2	98
HARDGOODS	GIFTS	HEAVY	90	\$9.00	88	2	98
HARDGOODS	GIFTS	HEAVY	90	\$8.00	89	0.6	99.4
HARDGOODS	GIFTS	LIGHT	38	\$9.00	69	9	91
HARDGOODS	HIBBYIST	HEAVY	52	\$5.00	94	0.25	99.7
HARDGOODS	HOME	HEAVY	120	\$11.00	89	1	99
HARDGOODS	HOBBYIST	HEAVY	19	\$14.68	93	2.2	97.8
HARDGOODS	PET	HEAVY	46	\$9.27	95	1	99
HARDGOODS	JEWELRY	LIGHT	80	\$8.53	80	9	91
HARDGOODS	HEALTH	LIGHT	92	\$7.52	97	1	99
HARDGOODS	GIFTS	HEAVY	10	\$8.00	75	NA	NA
HARDGOODS	OFFICE	LIGHT	65	\$5.65	95	1.5	98.5
HARDGOODS	HOME	HEAVY	130	\$11.00	89	1.5	98.5
HARDGOODS	GIFTS	LIGHT	38	\$10.00	75	7.2	92.8
HARDGOODS	HEALTH	LIGHT	92	\$7.12	97	NA	NA
HARDGOODS	JEWELRY	LIGHT	60	\$8.53	83	3	97
HARDGOODS	HOME	LIGHT	65	\$8.00	91	3.5	96.5
HARDGOODS	HOME	HEAVY	28	\$12.00	90	10	90
HARDGOODS				<b>\$8.89</b>			
MIXED	OUTDOORS	LIGHT	210	\$8.00	95	6	94
MIXED	OUTDOORS	HEAVY	900	\$15.00	90	6	94
MIXED	GIFTS	LIGHT	19	\$8.00	90	4	96
MIXED	FASHION	LIGHT	45	\$9.00	70	5.6	94.4
MIXED	HOME	LIGHT	70	\$13.18	80	3	97
MIXED				<b>\$10.63</b>			

F CURTIS BARRY & COMPANY  
MARCH 2004

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**BACKORDER COST ANALYSIS**  
**PREPARED BY F. CURTIS BARRY & COMPANY**  
**BY Product Weight**

PRODUCT TYPE	MARKET SEGMENT	PRODUCT PROFILE (WEIGHT)	SALES VOLUME \$(MILLION)	COST PER BACKORDERED ITEM	INITIAL ORDER FILL RATE %	CANCEL RATE %	FINAL FILL RATE %
MIXED	OUTDOORS	HEAVY	900	\$15.00	90	6	94
HARDGOODS	HOME	HEAVY	113	\$11.00	89	2	98
HARDGOODS	GIFTS	HEAVY	90	\$9.00	88	2	98
HARDGOODS	GIFTS	HEAVY	90	\$8.00	89	0.6	99.4
HARDGOODS	HOBBYIST	HEAVY	52	\$5.00	94	0.25	99.8
HARDGOODS	HOME	HEAVY	120	\$11.00	89	1	99
HARDGOODS	HOBBYIST	HEAVY	19	\$14.68	93	2.2	97.8
HARDGOODS	PET	HEAVY	46	\$9.27	95	1	99
HARDGOODS	GIFTS	HEAVY	10	\$8.00	75	NA	NA
HARDGOODS	HOME	HEAVY	130	\$11.00	89	1.5	98.5
HARDGOODS	HOME	HEAVY	28	\$12.00	90	10	90
<b>AVERAGE</b>		HEAVY		<b>\$10.35</b>			
APPAREL	FASHION	LIGHT	35	\$7.66	68	6.5	93.5
APPAREL	BASIC	LIGHT	31	\$11.00	87	18	82
APPAREL	BASIC	LIGHT	60	\$5.00	76	3.7	96.3
APPAREL	FASHION	LIGHT	40	\$3.00	84	6	94
APPAREL	BASIC	LIGHT	12	\$7.00	82	13	87
HARDGOODS	HOME	LIGHT	80	\$8.00	90	3	97
HARDGOODS	GIFTS	LIGHT	45	\$7.50	NA	5	95
MIXED	OUTDOORS	LIGHT	210	\$8.00	95	6	94
MIXED	GIFTS	LIGHT	19	\$8.00	90	4	96
HARDGOODS	GIFTS	LIGHT	7	\$8.00	91	2	98
APPAREL	FASHION	LIGHT	100	\$8.00	70	11	89
APPAREL	BASIC	LIGHT	58	\$3.10	NA	3.5	96.5
MIXED	FASHION	LIGHT	45	\$9.00	70	5.6	94.4
APPAREL	BASIC	LIGHT	15	\$10.00	85	5	95
HARDGOODS	GIFTS	LIGHT	38	\$9.00	69	9	91
MIXED	HOME	LIGHT	70	\$13.18	80	3	97
HARDGOODS	JEWELRY	LIGHT	80	\$8.53	80	9	91
HARDGOODS	HEALTH	LIGHT	92	\$7.52	97	1	99
APPAREL	FASHION	LIGHT	450	\$7.50	65	4	96
APPAREL	FASHION	LIGHT	35	\$6.50	60	7.5	92.5
APPAREL	FASHION	LIGHT	100	\$8.00	70	7	93
APPAREL	BASIC	LIGHT	60	\$10.00	78	3.7	96.3
HARDGOODS	OFFICE	LIGHT	65	\$5.65	95	1.5	98.5
HARDGOODS	GIFTS	LIGHT	38	\$10.00	75	7.2	92.8
HARDGOODS	HEALTH	LIGHT	92	\$7.12	97	NA	NA
HARDGOODS	JEWELRY	LIGHT	60	\$8.53	83	3	97
HARDGOODS	HOME	LIGHT	65	\$8.00	91	3.5	96.5
APPAREL	HOME	LIGHT	80	\$10.17	70	3.8	96.2
APPAREL	GIFTS	LIGHT	100	\$5.20	74	2.2	97.8
<b>AVERAGE</b>		LIGHT		<b>\$7.86</b>			

**BACKORDER COST ANALYSIS**  
**PREPARED BY F. CURTIS BARRY & COMPANY**  
**BY Sales Volume**

PRODUCT TYPE	MARKET SEGMENT	PRODUCT PROFILE (WEIGHT)	SALES VOLUME \$(MILLION)	COST PER BACKORDERED ITEM	INITIAL ORDER FILL RATE %	CANCEL RATE %	FINAL FILL RATE %
HARDGOODS	GIFTS	LIGHT	7	\$8.00	91	2	98
HARDGOODS	GIFTS	HEAVY	10	\$8.00	75	NA	NA
APPAREL	BASIC	LIGHT	12	\$7.00	82	13	87
APPAREL	BASIC	LIGHT	15	\$10.00	85	5	95
MIXED	GIFTS	LIGHT	19	\$8.00	90	4	96
HARDGOODS	HOBBYIST	HEAVY	19	\$14.68	93	2.2	97.8
HARDGOODS	HOME	HEAVY	28	\$12.00	90	10	90
APPAREL	BASIC	LIGHT	31	\$11.00	87	18	82
APPAREL	FASHION	LIGHT	35	\$7.66	68	6.5	93.5
APPAREL	FASHION	LIGHT	35	\$6.50	60	7.5	92.5
HARDGOODS	GIFTS	LIGHT	38	\$9.00	69	9	91
HARDGOODS	GIFTS	LIGHT	38	\$10.00	75	7.2	92.8
APPAREL	FASHION	LIGHT	40	\$3.00	84	6	94
HARDGOODS	GIFTS	LIGHT	45	\$7.50	NA	5	95
MIXED	FASHION	LIGHT	45	\$9.00	70	5.6	94.4
HARDGOODS	PET	HEAVY	46	\$9.27	95	1	99
<b>AVERAGE</b>			Below 50	\$8.79			
HARDGOODS	HOBBYIST	HEAVY	52	\$5.00	94	0.25	99.8
APPAREL	BASIC	LIGHT	58	\$3.10	NA	3.5	96.5
APPAREL	BASIC	LIGHT	60	\$5.00	76	3.7	96.3
APPAREL	BASIC	LIGHT	60	\$10.00	78	3.7	96.3
HARDGOODS	JEWELRY	LIGHT	60	\$8.53	83	3	97
HARDGOODS	OFFICE	LIGHT	65	\$5.65	95	1.5	98.5
HARDGOODS	HOME	LIGHT	65	\$8.00	91	3.5	96.5
MIXED	HOME	LIGHT	70	\$13.18	80	3	97
HARDGOODS	HOME	LIGHT	80	\$8.00	90	3	97
HARDGOODS	JEWELRY	LIGHT	80	\$8.53	80	9	91
APPAREL	HOME	LIGHT	80	\$10.17	70	3.8	96.2
HARDGOODS	GIFTS	HEAVY	90	\$9.00	88	2	98
HARDGOODS	GIFTS	HEAVY	90	\$8.00	89	0.6	99.4
HARDGOODS	HEALTH	LIGHT	92	\$7.52	97	1	99
HARDGOODS	HEALTH	LIGHT	92	\$7.12	97	NA	NA
<b>AVERAGE</b>			50-99	\$7.79			
APPAREL	FASHION	LIGHT	100	\$8.00	70	11	89
APPAREL	FASHION	LIGHT	100	\$8.00	70	7	93
APPAREL	GIFTS	LIGHT	100	\$5.20	74	2.2	97.8
HARDGOODS	HOME	HEAVY	113	\$11.00	89	2	98
HARDGOODS	HOME	HEAVY	120	\$11.00	89	1	99
HARDGOODS	HOME	HEAVY	130	\$11.00	89	1.5	98.5
MIXED	OUTDOORS	LIGHT	210	\$8.00	95	6	94
APPAREL	FASHION	LIGHT	450	\$7.50	65	4	96
MIXED	OUTDOORS	HEAVY	900	\$15.00	90	6	94
<b>AVERAGE</b>			100+	\$9.41			

F CURTIS BARRY & COMPANY  
MARCH 2004

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**BACKORDER COST ANALYSIS**  
**PREPARED BY F. CURTIS BARRY & COMPANY**  
**BY Initial Fill Rate**

PRODUCT TYPE	MARKET SEGMENT	PRODUCT PROFILE (WEIGHT)	SALES VOLUME \$(MILLION)	COST PER BACKORDERED ITEM	INITIAL ORDER FILL RATE %	CANCEL RATE %	FINAL FILL RATE %
APPAREL	FASHION	LIGHT	35	\$6.50	60	7.5	92.5
APPAREL	FASHION	LIGHT	450	\$7.50	65	4	96
APPAREL	FASHION	LIGHT	35	\$7.66	68	6.5	93.5
HARDGOODS	GIFTS	LIGHT	38	\$9.00	69	9	91
<b>AVERAGE</b>				<b>\$7.67</b>	<b>60-69</b>		
APPAREL	FASHION	LIGHT	100	\$8.00	70	11	89
MIXED	FASHION	LIGHT	45	\$9.00	70	5.6	94.4
APPAREL	FASHION	LIGHT	100	\$8.00	70	7	93
APPAREL	HOME	LIGHT	80	\$10.17	70	3.8	96.2
APPAREL	GIFTS	LIGHT	100	\$5.20	74	2.2	97.8
HARDGOODS	GIFTS	HEAVY	10	\$8.00	75	NA	NA
HARDGOODS	GIFTS	LIGHT	38	\$10.00	75	7.2	92.8
APPAREL	BASIC	LIGHT	60	\$5.00	76	3.7	96.3
APPAREL	BASIC	LIGHT	60	\$10.00	78	3.7	96.3
<b>AVERAGE</b>				<b>\$8.15</b>	<b>70-79</b>		
MIXED	HOME	LIGHT	70	\$13.18	80	3	97
HARDGOODS	JEWELRY	LIGHT	80	\$8.53	80	9	91
APPAREL	BASIC	LIGHT	12	\$7.00	82	13	87
HARDGOODS	JEWELRY	LIGHT	60	\$8.53	83	3	97
APPAREL	FASHION	LIGHT	40	\$3.00	84	6	94
APPAREL	BASIC	LIGHT	15	\$10.00	85	5	95
APPAREL	BASIC	LIGHT	31	\$11.00	87	18	82
HARDGOODS	GIFTS	HEAVY	90	\$9.00	88	2	98
HARDGOODS	HOME	HEAVY	113	\$11.00	89	2	98
HARDGOODS	GIFTS	HEAVY	90	\$8.00	89	0.6	99.4
HARDGOODS	HOME	HEAVY	120	\$11.00	89	1	99
HARDGOODS	HOME	HEAVY	130	\$11.00	89	1.5	98.5
<b>AVERAGE</b>				<b>\$9.27</b>	<b>80-89</b>		
HARDGOODS	HOME	LIGHT	80	\$8.00	90	3	97
MIXED	OUTDOORS	HEAVY	900	\$15.00	90	6	94
MIXED	GIFTS	LIGHT	19	\$8.00	90	4	96
HARDGOODS	HOME	HEAVY	28	\$12.00	90	10	90
HARDGOODS	GIFTS	LIGHT	7	\$8.00	91	2	98
HARDGOODS	HOME	LIGHT	65	\$8.00	91	3.5	96.5
HARDGOODS	HOBBYIST	HEAVY	19	\$14.68	93	2.2	97.8
HARDGOODS	HOBBYIST	HEAVY	52	\$5.00	94	0.25	99.8
MIXED	OUTDOORS	LIGHT	210	\$8.00	95	6	94
HARDGOODS	PET	HEAVY	46	\$9.27	95	1	99
HARDGOODS	OFFICE	LIGHT	65	\$5.65	95	1.5	98.5
HARDGOODS	HEALTH	LIGHT	92	\$7.52	97	1	99
HARDGOODS	HEALTH	LIGHT	92	\$7.12	97	NA	NA
<b>AVERAGE</b>				<b>\$8.94</b>	<b>90+</b>		