

## **TRENDS IN RETAIL COTTON USE IN THE U.S. MARKET**

**Kim Kitchings, Kalyani Deshpande and Melissa Bastos**

**Cotton Incorporated**

**Cary, NC**

### **Abstract**

Retail sales of apparel account for the largest end use of cotton, followed by home textile products and industrial products. The analysis of consumer purchase data for the U.S. market shows that cotton is the dominant fiber in several key categories of men's and women's apparel. The emergence of cotton blend products and the growth of synthetic fibers are discussed along with the estimates of bales gained or lost in the retail market during the past year. Consumer attitudinal research results also are presented to demonstrate the trend in retail direction for several important cotton products such as denim and wrinkle-resistant clothing.

### **Introduction**

In the United States, more than 18.3 million bales of cotton were produced in 2003, of which 6.5 million were consumed domestically at the mill level and 13.8 million were exported. According to Fiber Economics Bureau, the major end uses for cotton include apparel, home fabrics, carpet, industrial uses - items such as linens for hotels and hospitals, rope, tents, and canvas bags - and nonwovens, including products like diapers and facial wipes. Apparel represents the largest end use for cotton, making up 52% of all finished products (Figure 1).

### **Discussion**

Cotton's impact on the retail market can be measured by its production in bales as well cotton share. One bale of cotton can be manufactured into any of the following; 215 pairs of jeans, 249 bed sheets, 690 terry bath towels, 765 men's dress shirts or 2,100 pairs of boxer shorts (Figure 2). Furthermore, cotton's share of the current retail market is 77% and hypothetically if cotton were to gain a one percentage point increase in market share for the apparel items tracked by Cotton Incorporated, this would equate to an approximate increase of 65,300 bales of cotton consumed at retail in the U.S. Based on the estimates of product production per bale, this could potentially imply an average unit sales increase of approximately 50 million dress shirts which would be a considerable boost for retailers and cotton.

Cotton Incorporated conducts analysis of data provided by STS Market Research from AccuPanel, a research study that tracks purchases of men's and women's tops, bottoms, and sweat apparel (Figure 3). There are a total of 12,000 panelists ages 13 and older who fill out diaries each month via either the Internet or through the postal service. Each panelist provides information on what they purchase, where they purchase it, how much they paid, as well as the fiber content and other key information such as size and style characteristics. These data are projected to represent the U.S. population.

Since 100% cotton apparel represents 56.5% of total apparel units purchased in the first nine months of 2004, an assessment of the total apparel market is a necessary foundation for understanding cotton's performance. Sales of apparel increased by 4.1% on a unit basis and 3.5% on a dollar basis during the first nine months of 2004 compared to the same period in 2003 (Figure 4). Leading categories for apparel sales were jeans, slacks, shorts, skirts and dresses, while sales declined for athletic apparel and sweaters (Figures 5 and 6).

Most of the leading retailers of unit sales for apparel in 2004 remained consistent with 2003. The department store sector was the only channel to have a change in the major players (Table 1). Dillard's, Macy's and Belk represent the largest share of purchases by consumers shopping at this channel in 2004 while the order in 2003 was Macy's, Dillard's, and Nordstrom (which moved to fourth position for 2004). By rank order, JCPenney, Kohl's and Sears continue to be the leaders in the chain store channel and, not surprisingly, Wal-Mart is persistent in dominating the mass merchant channel. Target and Kmart are the second and third, respectively, choices for apparel purchases even though Kmart has a wider geographic coverage due to an extra 191 stores. Kmart has approximately 1,504 stores in the U.S. compared to Target's 1,313 stores; however, those additional outlets were not adequate in boosting Kmart's apparel business over Target's.

Over the past several years, the change in sales of 100% cotton apparel has paralleled change in total apparel sales. Sales of all apparel increased year-over-year by 4.1%, while sales of 100% cotton apparel grew by 3.0%, likewise sales in 2003 compared to 2002 increased by 2.8% for total apparel and 2.6% for cotton apparel (Figure 7).

Sales of cotton-dominant (51% to 99% cotton) apparel have been the catalyst for increasing bale usage in the U.S. retail market. Sales of cotton-dominant apparel increased 11.9% in 2004 compared to 2003 and 9.9% in 2003 compared to 2002. Although sales of cotton-dominant clothing have grown at a minimum of three times the rate of all other apparel as well as 100% cotton apparel, the overall effect has been an increase in cotton consumption and cotton's share at the retail level.

In order to measure cotton's presence in apparel, cotton's share is calculated based on a combined weight factor that incorporates all of the cotton present in apparel purchases, whether it is 1% or 100%, and divides that number by the total weight of all fibers in a product. This share has been trending upward since the 1970's and in 2004 reached 77.0% of all apparel purchased, based on categories tracked by AccuPanel. By category, jeans have the highest cotton share: 97.7% followed by knit shirts and shorts, 86.0% and 81.4% respectively (Table 2). One of the weakest categories for cotton's share is skirts and dresses at 47%; however, share is up 2.8 percentage points from this time last year. Similar to total apparel sales, cotton bale usage increased in 6 out of the 7 categories tracked by AccuPanel, with the largest market being in jeans, an increase of 10.7% over 2003 to reach an estimated 1.5 million bale equivalents for consumers over the age of 13.

### **Cotton's Competition**

Traditionally, fibers other than cotton were viewed as cotton's competition and 100% cotton was viewed as the primary choice for apparel. Although this may still be the case, there are more blends in the marketplace today than there were four years ago. In 2001, 75% of all apparel products purchased contained only one fiber but by 2004, that number dropped significantly by 4 percentage points to 71% (Table 3). Blends of two fibers have become increasingly popular and have the potential to compete for cotton's market share. However, the growth in blended apparel has been dominated by two fibers, cotton and Lycra™/spandex (Table 4). According to these data, sales of 100% cotton and cotton dominant apparel increased in five of the six categories while sales of 100% synthetic increased in only 2 of the categories. The one fiber to have growth in all categories was Lycra/spandex, albeit their share of market is just 15% compared to cotton's 77%.

### **Cotton's Consumer Connection**

Denim apparel accounted for 39% of cotton bale consumption at the retail level based on data from AccuPanel, thus making denim clothing the most important apparel category for cotton (Figure 8). Of denim apparel, jeans represent 69% of unit sales and historically have sustained the denim market in turbulent years. For the first nine months of 2004, denim jean sales are up 12.5% in units and 14.7% in dollars, while sales for all other denim apparel are declining (Figure 9). Although mass merchants and specialty stores tend to sell the highest volume of denim jeans, 25.8% and 24.0% respectively, chain stores and department stores have had the highest rate of growth year-over-year (Table 5).

Jeans were one of only two (slacks) categories in which the average price paid increased year-over year. The average price increased by 1.4% for jeans and by 2.1% for slacks. Jeans typically sell for \$6.51 more than other denim apparel and \$5.96 more than all other products. One of the primary reasons average prices for jeans have increased is the advent of premium priced denim jeans. Premium priced denim jeans are defined as jeans that cost more than \$70 a pair, which is three times the reported average price paid by consumers (Table 6). According to data from Cotton Incorporated's Lifestyle Monitor™, 10% of consumers between the ages of 16 and 19 and 12% between the ages of 20 and 24 are willing to pay more than \$70 for a pair of jeans. These numbers are up significantly from 2% in 1998. In addition, consumers that can find a "good fitting pair of jeans" will pay between \$15 and \$20 more than their current average price; suggesting that there is still room for average prices to escalate if acceptable fits are developed.

Research at Cotton Incorporated has indicated that consumers are searching for products with added-value. Added-value to the consumer may come in many ways, but the most recent introduction has been in finishes for cotton apparel. In the past year, finishes like stain resistance and anti-microbial have been combined with wrinkle resistance to add value to products—specifically cotton products. Retailers view these latest finish innovations and "bundles" as the newest way to add value in order to attract consumers.

However, the question for the cotton industry is, "Are these products benefiting the sales of cotton apparel?" Based on consumer sentiment, the answer appears to be "Yes." More than half of consumers have purchased products labeled with a wrinkle-resistant finish (Figure 10). While purchases of products with other finishes such as water

repellency, stain resistance and anti-microbial are much lower, more than 9 out of 10 consumers indicate they were satisfied with the product they purchased and that they would purchase another garment with a performance finish (Table 7).

Among the garments purchased with at least a wrinkle-resistant finish, more than half are 100% cotton. All-cotton apparel with a wrinkle-resistant finish tends to garner a price premium over 100% cotton clothing without a wrinkle-resistant finish (Table 8). In 1995, 100% cotton wrinkle-resistant shirts had a price premium of \$2.18 over 100% cotton non-wrinkle-resistant shirts and men's wrinkle-resistant 100% cotton slacks had a premium of \$3.12 over non-wrinkle-resistant 100% cotton slacks. The premium paid for wrinkle-resistant shirting actually increased in 2004 over the 1995 numbers, most likely due to higher demand and marketing of these products. The premium paid for wrinkle-resistant slacks, however, has declined since 1995 —yet it is important to note that consumers are paying an average of \$1.52 more for these slacks. The most plausible cause of the decline in the premium paid for slacks is the entrance of more brands into the marketplace.

### **Summary**

The primary end use for a bale of cotton is apparel and cotton's market share in this category has reached 77% in the first nine months of 2004. Although cotton's competition continues to grow in the form of new fiber introductions, cotton's presence in the apparel market has benefited from blends of cotton and Lycra/spandex. Total bale usage for cotton is up 4.7% year-over-year and continues to expand in traditional markets such as denim jeans and in products with innovative finishes.

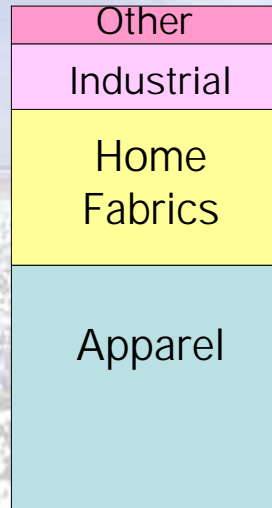
### **References**

Cotton Incorporated's Lifestyle Monitor™ 1998 to 2004. Consumer attitudinal data. Reporting by telephone surveys. More than 100 questions are asked of consumers' ages 16 to 70 regarding their shopping and fashion behaviors. Bellomy Research conducts the Monitor research and is located in Winston-Salem, North Carolina.

AccuPanel 2001- 2004. Consumer panel data. Reporting via mail and Internet surveys. Data are compiled and projected to represent the purchasing behavior of the entire U.S. population for ages 13 and above. STS Market Research administers the research and is located in Cambridge, Massachusetts.

Fiber Economics Bureau. *Fiber Organon*. October 2004.

## Figure 1 : End Uses of Cotton Consumption



Source: Fiber Economic Bureau



## Figure 2: 1 Bale of Cotton Can Make:



215 Pairs of Jeans

249 Bed Sheets

690 Terry Bath  
Towels

765 Men's Dress  
Shirts

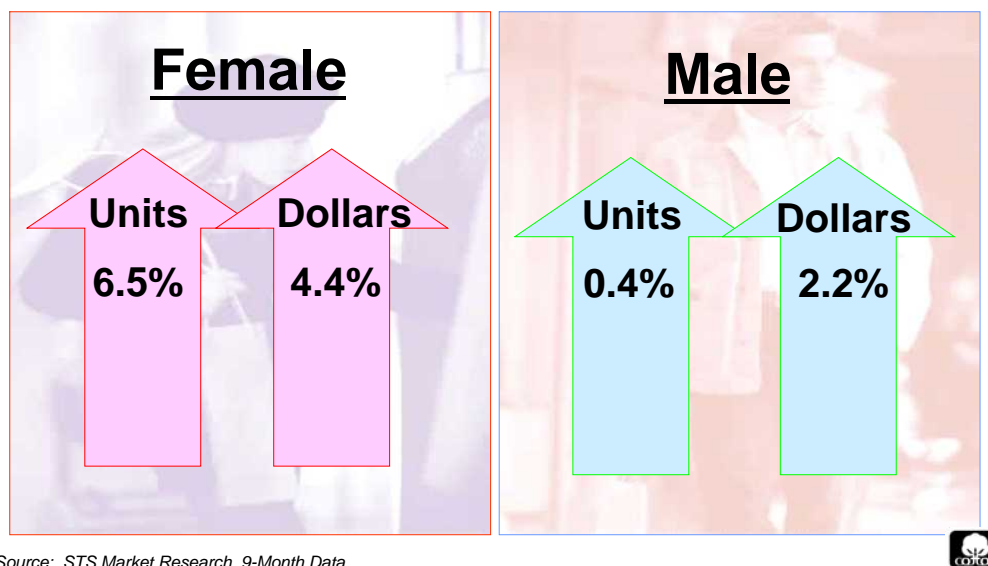
2,100 Pairs of  
Boxer Shorts

Source: STS and American Shoppers Panel














Figure 3: AccuPanel<sup>®</sup> STS Market Research

Tracking Consumer Purchases in the Retail Market

Figure 4: 2004 Retail Sales  
Major Categories Compared to a Year Ago

Source: STS Market Research, 9-Month Data.










## Figure 5: Retail Sales by Product Categories

		<i><b>Female</b></i>	<i><b>Male</b></i>
	Jeans	 8.3%	 14.5%
	Shirts	 10.3%	 0.2%
	Skirts / Dresses	 3.2%	
	Slacks	 13.3%	 -1.1%

Source: STS Market Research, 9-Month Data.



## Figure 6: Retail Sales by Product Categories

		<i><b>Female</b></i>	<i><b>Male</b></i>
	Shorts	 -0.2%	 4.0%
	Sweat Apparel	 -11.6%	 -22.7%
	Sweaters	 -0.6%	 -20.8%

Source: STS Market Research, 9-Month Data.





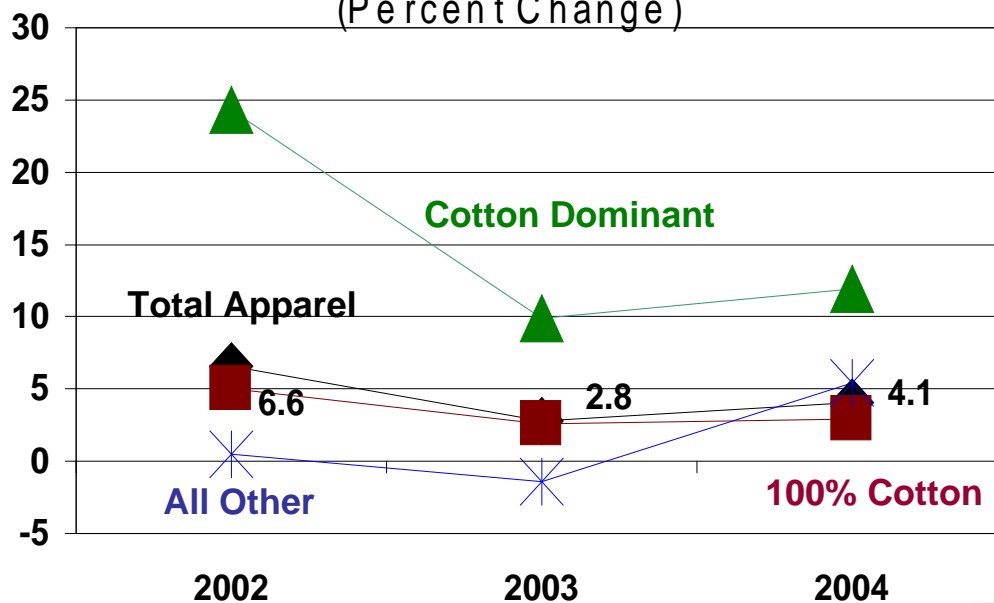
Table 1: Leaders in Sales of Apparel  
(Based on unit sales for 9 months, 2004)

<i>Department</i>	<i>Chain</i>	<i>Mass</i>
Dillard's		
		
		

Source: STS Market Research



Figure 7: Unit Sales of Cotton Apparel  
Minimum Sales of Other Apparel  
(Percent Change)



Source: STS Market Research



**Table 2: How Does Share Translate to Bales? (9-Month Data for 2004)**

<b>Total Apparel (weight basis)</b>	<b>Cotton's Share</b>	<b>Bales</b>	<b>% Change YOY in Bales</b>
Jeans	97.7	1,497,727	10.7
Knit Shirts	86.0	954,432	5.5
Shorts	81.4	327,883	0.7
Sweat Apparel	69.1	239,896	-18.5
Slacks	67.8	686,188	5.7
Woven Shirts	65.2	327,249	8.3
Skirts/Dresses	47.0	263,700	7.2

Source: STS Market Research



**Table 3: Cotton's Competition**  
**% of Market**

(Unit Basis)	1 Fiber	2 Fibers	3+ Fibers
2004	71.4	24.3	2.3
2001	75.3	20.4	1.9

**% Change in Market**

(Unit Basis)	First Fiber		Second Fiber	
	Cotton	Other	Cotton	Other
2001 to 2004	18.9	3.6	0.5	48.9

Source: STS Market Research; 9-Months Data 2004





Table 4: Cotton's Competition

(Year-Over-Year % Change)	100% Cotton	60%-99% Cotton	100% Synthetic	Lycra/Spandex
<b>Total</b>	2.9%	11.9%	-2.9%	1.2%
<b>Jeans</b>	8.8%	18.8%	*	19.4%
<b>Skirts/Dresses</b>	3.4%	29.6%	-6.4%	34.5%
<b>Slacks</b>	3.3%	19.5%	1.8%	22.3%
<b>Knit/Woven Shirts</b>	6.0%	8.2%	-2.5%	26.1%
<b>Sweat Apparel</b>	-17.8%	-7.9%	-11.5%	3.7%
<b>Shorts</b>	-1.8%	22.9%	6.3%	16.9%

Source: STS Market Research; 9-Months Data 2004 \*Sample size too small



Figure 8: Purchases of Denim Apparel Represented 39% of Cotton Bale Sales



Source: STS Market Research

Figure 9: Estimated Retail Sales Compared to a Year Ago

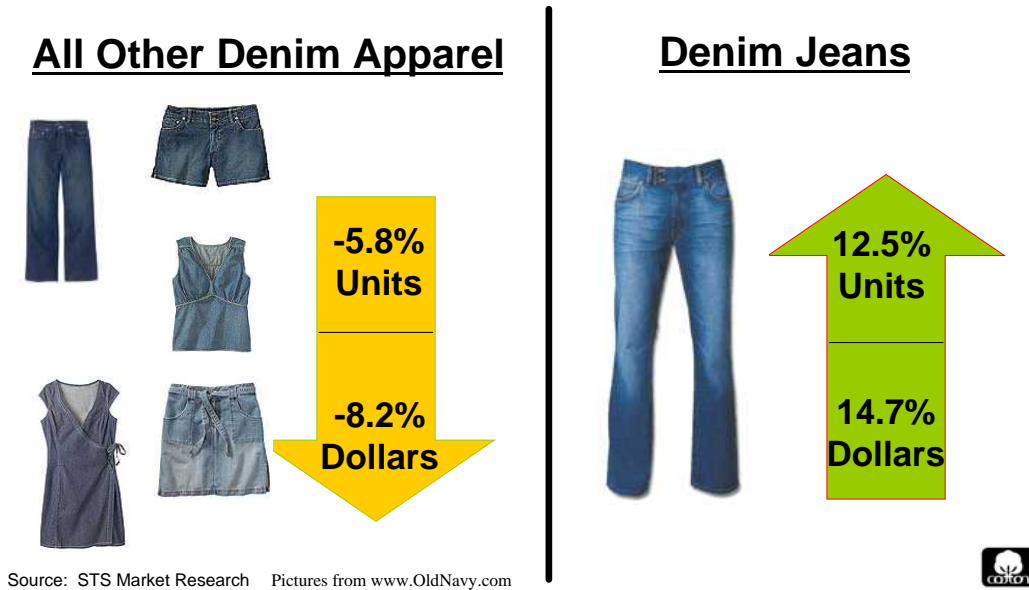


Table 5: Jeans Versus Other Denim  
Two Different Markets

	Year-over-Year % Change		Average Price (\$)	
	Jeans	Other Denim	Jeans	Other Denim
Total	12.5	-5.8	23.75	17.24
Department	18.8	-6.0	31.49	20.57
Specialty	10.0	-2.7	28.53	20.36
Chains	26.6	-8.2	23.78	17.83
Mass	7.1	-6.1	16.59	12.53
All Other	8.3	-6.2	23.36	18.31

Source: STS Market Research



Table 6: Percent of Consumers Who Are Willing to Pay \$70 or More for a Good-fitting Pair of Jeans

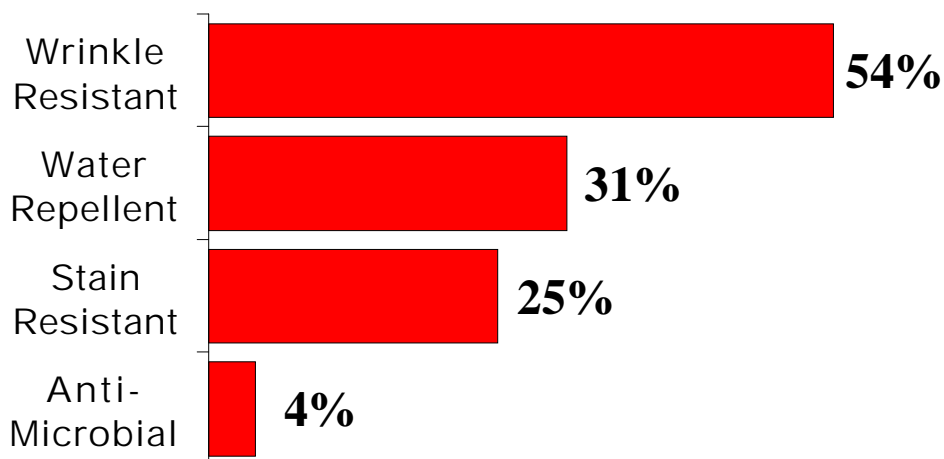
	16-19	20-24	25-34	35-44	45-55
<b>2004</b>	<b>Significant Changes from 1998</b>				
Total	10%	12%	7%	3%	2%
Male	10%	9%	5%	3%	1%
Female	11%	14%	8%	2%	3%
<b>Average Price Willing to Pay*</b>					
Total	\$38.81	\$40.16	\$35.96	\$33.37	\$30.19
Male	39.34	39.96	35.49	31.28	28.90
Female	38.39	40.27	36.28	34.80	31.02

Source: Cotton Incorporated's Lifestyle Monitor™



Figure 10: Have Consumers Purchased Performance/Functional Finishes?

Those Answering 'Yes'



Source: Cotton Incorporated's Lifestyle Monitor™



**Table 7: The Majority of Consumers Say They Would Purchase Another Garment with Performance Finish**

Type of Finish	“YES” They Would Purchase Again
Wrinkle Resistant	96%
Water Repellent	94%
Stain Resistance	93%

Source: Cotton Incorporated's Lifestyle Monitor™



**Table 8: Tracking the Average Premium Paid for Wrinkle-Resistant 100% Cotton Apparel vs. 100% Cotton Apparel**

Year	Shirts	Men's Slacks
1995	\$2.18	\$3.12
1999	\$2.00	\$2.09
2004	\$3.58	\$1.52

Sources: STS Market Research and American Shoppers Panel

