Blue Hose Manufacturing Company

Authors:

Jo Lowell Moone, Georgia Southern University

J. Horrison McCrow and Noyon Arson, State University of West Georgia

Published in The Journal of Accounting Case Research, Vol. 5, No. 2, 2000.

Introduction

Blue Hose Manufacturing Company was founded in 1957 in Clinton, South Carolina by Fred Chapman, just home from a stint in the military. Before enlisting, Chapman had worked five years in a local yarn and weave plant. With financial support from his father and two uncles and second hand machinery, Chapman entered the woven fabric industry.

By the end of 1996, the company was generating annual sales of $80 million. Although a relatively small, regional concern, Blue Hose was well known for its innovative fabric blends and designs and for its aggressive marketing. The firm had a line of 39 woven fabric products falling into three categories - industrial, fine goods, and outerwear. Fred's three sons, Norm, Sam, and Foard, were the principal officers of the firm. Norm was the company's president, Sam was chief financial officer, and Foard was in charge of operations.

Company Overview

A traditional strength of Blue Hose had been its research and design department. Fred Chapman recognized early on the importance of fabric research. Nationally recognized, this component of the business had generated ten patents for equipment (loom) modifications and fabric pattern designs during the past five years. However, research personnel, associated staff, and facilities constituted only a small percentage of total operating costs.

Blue Hose's relatively small sales force served customers in a five-state, southeastern calling area. Sales of woven fabric were by contract exclusively. All sales representatives had spent considerable time in research and design and the production side of the business. Customer loyalty was always thought to be the key to rising sales and earnings. However, sales over the past three years had been flat. Earnings during the same time period had declined dramatically.

Blue Hose had historically priced its products in the mid-range for woven fabrics. Standard costs for materials and conversion plus a predetermined amount per yard of fabric for upstream and downstream activities formed a starting point for price negotiations. Management had always believed that an innovative, superior product, fairly priced, would keep the machines running. When a potential order was received or developed, details were sent to research and design for fabric specification, blend, and design review and to production for equipment set-up and scheduling purposes. Yarn suppliers were also notified for bid purposes and potential delivery dates. Customer contract signings were attended by representatives from sales, research and design, and production.

The company had a fairly traditional budgeting system. Annual budgets were prepared by all organizational managers. Resources were allocated to organizational units based on their forecasted budgetary needs. Line managers prepared their budgets from forecasts of yards of woven fabric to be produced. Service or support managers used a variety of forecasting criteria in their budgetary procedures but tended to resort to incremental budgeting for the most part.

Managerial evaluation for all but production and grading managers consisted of gauging the relative dollar difference between budgeted (allocated) resources and actual dollar expenditures. Production and grading managers were evaluated on trends for dollar-denominated rate and efficiency variances. Output from the variance system was also used to alert production and grading management to significant cost deviations (± 5% of standard cost allowed). A volume variance, considered to be a measure of the recovery of fixed production costs, was reported to higher management. Overall company performance was evaluated using financial measures such as return on investment.

The Weaving Operation

Blue Hose weaving operations were housed in a three-storey, double-winged, building. The facility housed three thousand weaving machines, five hundred in each wing. In each wing, looms were aligned in twenty functional alleys, twenty-five looms per alley. Two thousand of the weaving machines were state-of-the art shuttleless looms. The remaining one thousand machines, occupying the third floor, were of various ages and vintages. However, all looms were capable of producing any product in the company's inventory. Blue Hose was currently operating at about 70 percent of productive capacity.

Blue Hose bought warped yarn, its only direct material, on large metal spools called yarn beams. Suppliers processed cotton and cotton blends and synthetic fibers through an eight-step manufacturing process which culminated in the transfer' of processed yarn to beams for shipment to Blue Hose. Beam prices for processed yarn might vary by as much as thirty-five percent between suppliers. Prices were negotiated taking into account both quoted prices and the firms' production schedules. Because some vendors were more reliable than others, Blue Hose had frequently found itself paying a higher price for yarn deliveries to insure coordination between material delivery and its production schedule.

The weaving process began when a single yarn beam was engaged or connected to each weaving machine. The setup process also included machine gear and reed modifications, which were a function of the style and design of fabric to be woven. A reed, similar to a hair comb, might have up to six thousand "teeth" or openings. "Beaming a loom" was a complex process that included drawing or tying the five to six thousand strands or ends or yarn on a beam through the teeth of a modified reed. Suppliers sometimes struggled with yarn alignment as ends were transferred to yarn beams (warping a beam). Specified strength of individual yarn ends (five to six thousand per beam) was often a problem.

Weave operations were basically conducted six days a week on three eight-hour shifts. Seasoned, veteran machine operators (weavers) and loom technicians (maintenance personnel), by virtue of seniority and expertise, worked the day shift. Less seasoned personnel worked on the swing and graveyard shifts. Weaver pay consisted of a small salary plus incentive pay based on the amount of fabric woven during a shift. Maintenance personnel drew salaries. As older employees retired, Blue Hose had experienced dependability problems with many of the younger replacements, particularly on the second and third shifts. These shifts often had workers with varying technical skills filling in as replacements or operated less than fully staffed. If a weaver was absent and no replacement could be found, looms were shut down by shift supervision.

The number of looms assigned to weavers depended on their relative skill in conducting specified weaving operations. The average loom set assigned a weaver and a loom technician was forty looms. Employees did not exit training until they had acquired expertise adequate enough to handle at least thirty-two machines. Looms were stopped electronically only if a drawn end of yarn broke. Production clocks, installed on each loom, were used to measure output. Loom maintenance personnel (fixers) were charged with regular preventive maintenance and repairing machine breakdowns. Since loom maintenance was a time-consuming and expensive process, fixers generally inspected only about twenty-five percent of assigned looms on a period basis. Looms failing maintenance inspection were "red-flagged" (shut down) so that line supervisors could easily see the status of the various production lines. In most cases, fixers were also expert weavers.

Also housed in the weaving facility was the inspection/grading department. Operators manning grading frames classified fabric as first quality, seconds, or scrap. Grading was based on the number and type of defects per twenty yards of fabric. Although there are over one hundred commonly identified defects in woven fabric, most textile manufacturers categorize them as points and majors. Points are defects, which can be repaired without causing the fabric to lose its first quality rating while fabric with majors must be sold as seconds or scrap. Fortunately, the current market price for seconds is five percent above the

company's unit variable manufacturing costs. After grading, fabric is rolled onto 64-inch disposable cylinders and moved to a finished goods storage area. Customers pick up their orders at loading docks in the rear of the weaving facility.

The Meeting

In February 1997, company president Norm Chapman called a meeting with his two brothers. "Guys," Norm said, "I've spent all day reviewing last period's results. Frankly, I think we are self-destructing! Look at these results. Sales are flat. Our margins are under pressure from both revenue and cost sides. Look at this. Return on assets is less than ONE percent! It's ridiculous." Norm paused to let that last statistic sink in. "Unfortunately, there's more. Production cost to sales is at an all-time high. And so are our off-quality costs. Sales reports customer complaints relating to either poor quality or late delivery for over thirty percent of production orders. Of course, I guess I shouldn't be surprised given that our cycle times and throughput times have never been higher. Some of our customers are delaying their payments in retaliation."

In a feeble attempt at humor, Foard Chapman, V.P. of Operations, shrugged his shoulders and offered weakly, "Well, maybe we need a new program." Norm's reaction was swift: "The last thing we need around here is another program!" he virtually shouted. "We've tried program after program. Our employees are sick of programs. We've had programs to increase productivity, to cut costs, to improve quality, to enhance customer service, you name it. I've heard the shop talk: 'Here we go again. Management has another hair-brained idea. But don't worry; things will be back just like they were before you know it. This will blow over just like all the others.' I'm sick of it. What can be so ha[d about balancing efficiency and quality?"

Sam Chapman, the CFO, nodded approvingly, "I think you're right. We need to take action but we don't need to initiate some new temporary program or campaign. We need a long-term solution, not another band-aid. I've been thinking. What about my friend, Gene Poindexter, the management consultant? He's a well-known expert in woven fabrics and he has an excellent reputation for helping firms make turnarounds. Why don't we get him in here to help us out?" The other brothers nodded affirmatively. Mr. Poindexter was contacted, and after a brief negotiation, accepted the assignment.

A New Beginning

Gene Poindexter started work in March 1997. After six weeks of review with customers, suppliers, and employees, he called the brothers together for the first time. Poindexter began, "Gentlemen, I think Blue Hose is a great company with a bright future. Products and innovations are excellent. The intentions of management and workers are good. I am confident that with a little bit of fine tuning your financials will show dramatic improvement." Having braced themselves for the worst, the Chapman brothers breathed a collective sigh of relief.

Poindexter continued, "First of all, let me address the issue you specifically asked me to examine during my review. That is whether or not your manufacturing operations need to undergo a major re-engineering effort. I don't think so. Your standard operating procedures are sound and, for the most part, quite adequate. As you can see, I have only a few recommendations in my report related to re-engineering. With your permission, I would like to proceed as follows.

Today, let's discuss my recommendations for fine tuning your operation. Then we'll schedule a second meeting to discuss what I believe is your real problem. Norm Chapman shot an anxious look across the table toward his brothers as he nodded his approval. Poindexter proceeded to discuss his fine tuning recommendations in detail. Below is a summary of the changes the firm made as a result of the first meeting with the consultant.

Operational Fine Tuning

The plan that was agreed upon by Poindexter and the Chapman brothers contained elements relating to suppliers, employees, manufacturing activities, and product cost accounting. Several recommendations concerned the implementation of a just-in-time system.

Currently Blue Hose balances price and delivery dates between twenty-five different suppliers. It was decided to negotiate long-term contracts with only three suppliers in the future. Quality of raw materials will be insured by suppliers. If necessary, Blue Hose audit teams will be assigned to supplier mills for yarn testing and oversight of yarn transfer to loom beams. Deliveries will be guaranteed and will revolve around Blue Hose set-up and production schedules. Yarn prices, given specifications and blends, will center around supplier standard variable costs plus an eighty percent markup. This will normally reflect an average price in the yarn industry. This form of yarn pricing should fit well with Blue Hose current pricing strategy and ultimately firm profitability.

Staffing, schedules, and employee compensation were considered adequate for only the day shift. A form of flexible scheduling will be introduced for "after-hours" manufacturing. A survey of second and third shift personnel by Poindexter indicated employees on those shifts are willing to work double shifts every other night. It was decided that second shift personnel, "the lean and mean shift," will work Monday, Wednesday, and Friday and third shift personnel, "the late nighters shift," will work Tuesday, Thursday, and Saturday. The two shifts will switch schedules on alternate weeks. The brothers also agreed to grant premiums for workers on the two after-hours shifts. Finally, there are plans to develop a small replacement pool of workers (generally weavers) for all shifts.

To underscore the company's commitment to continuous improvement, training will take on a much greater role in the future. All employees will receive periodic training according to a schedule to be developed by production and human resources management. This training is in addition to any as-needed training requested by supervision. As skills improve,- workers will be empowered to make critical decisions for themselves. For example, weavers will be trained to inspect their own work so that quality inspectors will no longer be needed. Weavers will be responsible for continuously inspecting and monitoring the fabric as it is being woven. When defective fabric is discovered, the weaver will be authorized to stop production.

A long-time concern of production management has been loom set-up time. Foard Chapman hopes that timely yarn delivery, additional training, and effective production scheduling will enable the set-up teams to provide timely and defect-free set-ups. (In the textile industry, set-ups are commonly referred to as style changes.) The brothers agreed to provide financial incentives to set-up teams for on-time and quality work.

Given the fixed positioning of looms (layouts), and the fact that a single operation (weaving) takes place, cloth production will centre around manufacturing blocks of forty looms. One weaver and one loom technician will continue to be assigned to each loom block. Weavers will be responsible for machine run time while fixers will be responsible for repair and maintenance. Blue Hose will also try to foster a team approach between weaver and fixer via cross-training. Weavers will be trained to make minor repairs and fixers will assist weavers when more than five machines stop running for whatever reason.

Due to the fact that most manufacturing costs can be readily traced to particular jobs, the CFO, upon Poindexter's recommendation, has decided to adopt a job order costing system. The system will track materials (yarn), labour (weavers, loom technicians, and graders), and set-up costs directly by job or customer order. Other operational costs (material handling, janitors, supervision, utilities, and depreciation) for production and other grading cost (utilities, supervision, and depreciation) will be analyzed, classified, and collected by relationships between cost drivers and activities. Such costs will then be applied to jobs based on the actual consumption of defined cost drivers (activity-based allocation). Although no yarn or finished goods inventory is now or will be carried, substantial amounts of work in process will remain at year end. Job order costing will allow for easy inventory valuation. Backflush costing was not considered appropriate under the above circumstances.

The Real Problem

The Chapman brothers anxiously awaited Gene Poindexter's second presentation of his findings. Each brother had his own ideas about what exactly was the company's real problem. Poindexter opened the meeting, "Gentlemen, Blue Hose Manufacturing Company is sort of like a ship floating aimlessly in the water. The company is well built. It is solid with no leaks. Yet it can't get to where it wants to go because it lacks a rudder. The rudder that Blue Hose is missing is an integrated financial control system. If we can find a way to link manufacturing performance to overall financial performance, I believe we can provide just the rudder this company needs to get it moving in the right direction."

Poindexter spent the next several hours describing how to create an integrated financial control system. Poindexter stated that it didn't make much sense to set sail without knowing the destination, or worse yet, without telling the crew where the ship was headed. Thus, the first task was to develop a vision statement and business objectives for the company. Customer satisfaction and long-term profitability were quickly agreed upon by the brothers as the firm's overall business objectives. The brothers worked hard to create a short vision statement that captured the essence of what they wanted Blue Hose to represent. Since the company has had historically close ties to its customers, the Chapmans decided that the vision statement had to reflect their customers' expectations for the company. Given this objective, the following vision statement was finally agreed upon: "Blue Hose: On-Time Weaving Excellence."

The second thing Poindexter asked the management team to do was identify the firm's critical success factors. These are factors that are so important to the company that their absence would cause the company to fail. It didn't take the brothers nearly as long to agree on their firm's critical success factors. Here is what Norm Chapman had to say about the customer satisfaction objective: "Customer satisfaction. That's easy. When you face the kind of global competitive pressures we face in our industry, you had better keep your customers happy. It's a whole lot cheaper to keep an existing customer than to find a new one. Customers tell us over and over that three factors are of utmost importance to them: fabric quality, on-time performance, and cost.

Foard broke in, "That's right. But the problem is, we don't measure many of the activities that make an impact on these things, these so-called critical success factors. That's what I've been complaining about. For example, with regard to quality, we should compute defect rates. We should measure yield and off-quality production costs. With regard to on-time performance, we should be looking at set-up times, cycle times, and throughput times. With regard to costs, there are lots of measures we could use in addition to traditional measures like variable costs per unit, or fixed costs, and the infamous dollar-based input price and efficiency variances. I've been reading some of the 'theory of constraints' literature. Perhaps we could even adopt some of its measures such as throughput to inventory or throughput to operating expense ratios."

"Good, Foard, you're catching on fast." Poindexter responded. "That's exactly the point I wanted to make next. We have to translate the company's vision and business objectives into a framework that encourages and leads employees to take the actions necessary for Blue Hose to realize its vision." Poindexter recommended that every aspect of the firm's manufacturing process be measured. Seeing the puzzled look on Norm Chapman's face, the consultant elaborated, "Believe me, gentlemen, this approach will work. More supervision is not an effective long-term solution to getting people to do what they're supposed to do. One reason your previous programs failed is that they did not provide a permanent mechanism for continuous improvement. When you stopped talking about the program's initiative, your employees assumed that the program was over and that they could return to their old ways of doing things. On the other hand, if you develop performance measures which focus attention on activities that support the firm's critical success factors, and if those measures are tied to the company's reward system, you will provide the focus, the sense of direction, the rudder, if you will, that is missing right now. I assure you this approach will produce permanent' changes in behavior. As we say in the business, 'what gets measured, gets done.' Gentlemen, our next step is to develop a fully integrated, top to bottom, set of performance measurements."

Seeing that he had made his point, Poindexter continued. In developing performance measures he cautioned the management team to follow two guidelines. First, the measures must be tied to organizational level since information needs vary by level. For example, the performance measures developed at the lowest

organizational levels should be primarily operational in nature. It is often difficult for employees at this level to appreciate how their assigned activities impact financial measures such as return on investment or earnings per share. These employees need information on quantity of inputs, labour and machine time used, quantity and quality of outputs, and the efficiency with which they perform their assigned activities ..

At this point in the discussion, Foard Chapman exclaimed, "Yes, that's what I was talking about earlier! Performance measurements without dollar signs! I love it! I've been complaining for years that my people don't understand those dollar-based standard cost variances we've been giving them. But they certainly understand things excess hours worked, defective outputs, or yards of scrap. I've always said that we ought to be controlling activities, not dollars."

Sam Chapman, a real advocate of dollar-based standard cost price and efficiency variances, spoke up: "Foard I don't think you understand the value of measurements expressed in financial terms. How can we measure the economic contribution of our activities? Can we pay our bills with a measure of physical attributes?" Foard replied, "Sam, if non-financial performance measures will help me better identify trouble or help me make better decisions, then maybe I can make an economic contribution that will get your attention!" Sensing an argument was brewing, Poindexter interrupted the two brothers, "I appreciate the passion of your convictions, gentlemen. In the past, some of our greatest concerns centred around the management of input prices and efficiency. However, if we design, measure, and control activities properly, the desired dollar impact will follow."

Poindexter then continued noting that as you move up in the organizational hierarchy, financial measures would take on increasing importance especially at the top of the organization. Top management would indeed be interested in financial measures such as profit margins, return on assets, stock price, and earnings per share. One particularly interesting thing Poindexter pointed out about the information needs of top management vis-a-vis those of supervisory management was that in many instances top management would prefer timely and relevant information over precise information. "It's better to be approximately right than precisely wrong," he said.

The second guideline Poindexter discussed concerned the frequency of the measures and their span of control. He noted that employees at the lowest organizational levels need frequent feedback on their performance (for example, daily, or even continuous) so that they will know exactly how well they are doing and where opportunities may exist for improvement. On the other hand, performance measures at the top of the organization might be provided on a weekly, monthly, or even quarterly basis. Further, the higher the organization level, the more aggregate the measures would become. Finally, Poindexter pointed out that the performance measures should reflect the user's span of control. For example, measures for a supervisor would tend to be specific and narrowly focused on his or her area of responsibility. Conversely, a department manager's performance measures would reflect the performance of all of the supervisors in that department.

Poindexter then stressed the importance of ensuring that measures at one organizational level dovetail or support measures at the next level. Ultimately, the entire set of measures must be linked to corporate objectives at the top of the organization (e.g., high customer satisfaction). Quoting a management accounting researcher, Poindexter said, "All manufacturing measures at all organizational levels should be linked to ensure constancy of purpose among organizational levels and to point to cause and effect relationships so all employees can attack problems that cause poor performance and continue practices that cause good performance."

Poindexter concluded, "Let me offer this final piece of advice. We must develop performance measures which address different perspectives of the business such as customers, internal business operations, organizational innovation and learning, and traditional financial objectives. This is called the balanced scorecard approach." The consultant spent the next hour discussing the balanced scorecard.

The customer perspective, Poindexter explained, requires the firm to view its operations from the eyes of its customers. Most customers tend to be concerned with quality, service, and cost. Depending upon the product, some customers are also concerned with lead times and delivery performance. The internal business perspective is also tied to customers in that this perspective requires the firm to identify the activities that are critical to achieving high customer satisfaction. Such activities typically involve productivity, throughput, employee skills and cost control. Throughput time measures the time from order receipt to customer pickup.

The innovation and learning perspective requires the firm to assess its ability to innovate, to introduce new products, and to improve existing processes. For example, many firms use percent of sales from new products as an indication of their ability to bring new products to market. Also included in this category are measures that assess the firm's improvements in its existing processes. These measures often involve set-up times, cycle times and down times. Cycle time measures the time between when an order is dropped (re-leased to production) and its transfer to finished goods.

The fourth perspective, the financial perspective, is the view with which most managers are most familiar and comfortable. Included in this category are measures related to profitability (e.g., profit margins), leverage and growth (e.g., market share), and shareholder value (e.g., return on assets).

Upon completing his explanation of the balanced scorecard, Poindexter handed each brother a stack of paper, and with much enthusiasm said, "Well, enough talk, let's get started! Now we're ready to begin determining our performance measures. During the course of this engagement I've collected a lot of data about your firm's operations." Poindexter handed each brother a copy of the data provided in Table 1 and continued. "We should be able to identify a wide variety of performance measures from this information. This data is currently reported or potentially reportable by your existing management control system."

First, the consultant had the top management team identify potential performance measures to assess Blue Hose performance from each of the four perspectives included in the balanced scorecard. The managers were told specifically not to worry at this time about organizational level or the frequency with which the measures should be reported.

Next, the managers were asked to identify critical success factors for each business objective. The consultant then guided them in identifying appropriate performance measures to assess each factor. He also reminded them of the importance of recognizing that information needs varied by organization level. He suggested, "Why don't we start at the lowest organizational level first. Remember, performance measures at this level should be primarily operational. As we move up the organization chart, we'll include fewer operational measures and more financial measures." The three brothers and the consultant proceeded to study Table 1 discussing each data item in terms of linkage to critical success factors, performance perspective, organization level, and frequency with which the item should be reported.

TABLE 1: Blue Hose Performance Data (Note: Dollar Amounts in thousands)

PERFORMANCE DATA	Current Period	Previous Period	Two Periods Prior	Three Periods Prior
Accounts: Number Lost	4	3	2	2
Accounts: Total Number	71	73	70	68
Assets: Total	$1,500	$1,750	$1,610	$1,600
Cost of goods sold	$3,850	$3,570	$3,450	$3,601
Cost of Off-Quality Production	$288	$207	$179	$116
Costs: Total	$5,484	$5,213	$4,935	$5,305
Customer Complaints: Number Received	12	8	7	6
Customer Inquires: Number Received Including Complaints	24	23	22	24
Cycle Time in Days (Average)	16	15	14	3
Debt: Total	$480	$438	$386	$352
Direct Material (Yarn): Cost of Defective Yarn Received	$113	$102	$90	$84
Direct Material (Yarn): Cost of Yarn Purchased and Used	$1,617	$1,464	$1,380	$1,404
Direct Material: Std Yarn Input Allowed for Actual Output Achieved	$1,540	$1,400	$1,325	$1,350
Fixed Costs: Total	$1,100	$1,100	$1,100	$1,100
Interest Expense	$14.00	$13.50	$13.00	$1250
Inventory	$375	$438	$403	$400
Looms Failing Inspection (Red Flagged)	50	45	30	23
Looms Inspected	750	750	750	750
Machine Downtime in Minutes	14,688,000	1,232,000	10,368,000	8,640,000
Machine Setup Time in Minutes	8,640	6,496	5,400	4,320
Machine Time Available in Minutes	86,400,000	6,400,000	86,400,000	86,400,000
Manufacturing Costs: Total	$3,850	$3,570	$3,450	$3,601
Non-Direct Material Manufacturing Costs	$2,233	$2,106	$2,070	$2,197
Number of Department Employees (equal number of weavers and fixers)	276	254	240	240
Number of Days Late Shipments were Late (Average)	5	4	53	
Operating Income	$16.50	$36.75	$65.00	$69.88
Orders Cycled	37	33	31	30
Orders Cycled on Time	30	24	26	18
Orders Due	38	33	32	30
Orders Due $	$6,700	$6,600	$6,560	$6,750
Orders Per Customer Contact	0.13	0.12	0.11	0.09
Orders Shipped	36	31	31	28
Orders Shipped Complete	36	31	30	2
Orders Shipped On Time	26	23	24	19
Qualified Weavers on Duty	118	116	115	18
Response Time to Customer Complaints in Days (Average)	1.1	1.4	2.2	3.5
Response Time to Potential Customer Inquiries in Days (Average)	0.5	0.7	0.9	1.4
Sales From New Products	$660	$578	$500	538
Sales Lost Due to Poor Quality or Late Delivery Reputation (Estimate)	$675	$630	$600	$600
Sales: Company (Orders Shipped $)	$5,500	$5,250	$5,000	$5,375

Sales: Industry	$78,575	$65,625	$62,500	$63,250
Set-Ups Performed	36	29	27	24
Standard Manufacturing Costs for Actual Output	$3,581	$3,427	$3,519	$3,961
Throughput Time in Days (Average)	21	18	17	16
Throughput (Sales Purchased Yarn Cost)	$3,883	$3,786	$3,620	$3,971
Training Costs	$166	$186	$209	$203
Variable Costs: Total	$4,384	$4,113	$3,835	$4,205
Weighted Average Number of Common Shares Outstanding	100	100	100	100
Yards of Fabric Milled: Defective (Points and Majors)	29,700	48,375	56,700	83,025
Yards of Fabric Milled: Total	990,000	967,500	945,000	922,500