TABLE 2.—THE RATIOS OF MORE EFFICIENT TO LESS EFFICIENT PLANTS AND TO AVERAGE PLANTS IN VALUE ADDED PER PRODUCTION WORKER MAN-HOUR, 1958

Industry sector	Ratios of—	
	More efficient to less efficient plants [1]	More efficient to average plants [1]
Weaving mills, cotton	2.4	1.5
Weaving mills, synthetics	2.9	1.7
Weaving finishing mills, wool	2.7	1.6
Narrow fabric mills	2.2	1.4
Hosiery mills	3.0	1.6
Knit outerwear mills	4.4	2.4
Knit fabric mills	3.4	1.3
Finishing plants, cotton	2.4	1.7
Tufted carpets and rugs	3.1	1.8
Yarn mills, excluding wool	2.0	1.0

[1] Plants in each industry sector were ranked by the ratio of payrolls to value added. The plants in the lowest quartile of this ranking were considered the "more efficient," those in the highest quartile, the "less efficient." Value added is used as the measure of output or the net contribution of the manufacturing process in the industry. No adjustment is made for product mix, degree of integration, or other variations among plants.

Source: U.S. Department of Commerce, Business and Defense Services Administration, U.S. Industrial Outlook, 1967.

Study of hypothetical or model plants designed by engineers also provides an indication of the industry's potential "efficiency". Comparisons of such model mills [9] over time trace the progress made in developing technological improvements, without reference to the extent of their actual application in the industry.

Output per man-hour in a model cotton-print-cloth mill of 1910 was 3.1 pounds; in 1935 it was 4.6 pounds. By 1956, it had risen to 10.5 pounds, and by 1966, to 14.6 pounds. The average annual rate of technological progress was 1.6 percent between 1910 and 1935, 4.1 percent between 1935 and 1956, and 3.4 percent between 1956 and 1966. Although model cotton-print-cloth mill's performance cannot be taken as representative of the industry, it is nevertheless a useful indicator of the technological progress in the broadwoven sector.

The "productivity" potential can be derived from a comparison of the level in the model print-cloth mill in 1966 of 14.6 pounds per man-hour, and the actual level of production in such mills which was estimated by industry experts to average about 10 pounds per man-hour. The 46-percent gap between the average and the model plant may be taken to represent the approximate potential growth that might occur of all plant and machinery were replaced by the most modern equipment.

More realistically, should it take the average mill 10 years to attain the level of the model mill, the average annual rate of increase in the print-cloth industry would be about 4 percent from 1966 to 1976. Should the catching-up period be less than 10 years, because of a continuation of today's high investment or extensive closing of less efficient mills, the rate would exceed 4 percent a year.

LITTLE PROMISE FOR EMPLOYMENT

Following its 1948 peak of 1,332,000, textile employment began the sharpest long-term decline in its history. By 1963, the year of its postwar low, employment had fallen 33.5 percent, or 2.7 annually.

Although production increased in the early 1960's, employment did not develop commensurately. At first, the additional man-hours required were made up by lengthening the workweek. But as production continued sharply upward in the mid-1960's, both employment and man-hours rose significantly. From 1963 to 1966, employment moved up at the average annual rate of 2.8 percent—the first postwar employment increase of more than 1 year's duration. Overall, an average of about 960,000 employees were working in the textile industry in 1966—about 370,000 fewer than in 1948, a decline of 27.8 percent.

Available monthly data for 1967 indicate some reduction in employment associated with a cutback in production. But sizable decreases in overtime and total weekly hours appeared to be cushioning the employment decline.

[9] See "Mechanical Changes in the Cotton Textile Industry, 1910 to 1936," *Monthly Labor Review,* August 1937, pp. 316–341; and "The Modern Print Cloth Mill, A Survey," *The Whitin Review,* June 1957, December 1961. See also American Textile Machinery Association. "The Modern Print Cloth Mill, Ten-Year Comparison," February 28, 1967.