Chapter 4

# Areas for Decision: Trade, Technology, and Employment

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Having laid out each step of the fiber/fabric/end use production chain in chapter 3, this chapter will examine the role of textiles and apparel as a competitor in world markets and as a player in the U.S. economy. First, the chapter reviews global reactions to the increasingly international textile and apparel industry, outlines how the U.S. public and private sectors have responded to changing conditions at home and abroad, and addresses how the U.S. consumer has been affected by these changes. Next, the chapter looks at recent developments in the research and development of new products and production techniques used by U.S. textile and apparel firms, and assesses the importance of capital investment to the future of the domestic industry. The chapter concludes with a discussion of the past, present, and potential future effects of trade and technology on those who work to produce textiles and apparel.

## DECLINING TRADE BALANCES SHAKE TEXTILE AND APPAREL MARKETS

Declining trade balances, perhaps more than any other single economic or technological issue, have been responsible for upheaval in the textile and apparel industry. The experience of this industry is part of an unfortunate recent trend in the trade performance of the U.S. economy. In 1986, the U.S. trade deficit was $170 billion, and deficits were seen in virtually every manufacturing industry. The United States has become a debtor nation for the first time since World War I.

Textiles and apparel had a negative trade balance in 1986 of $21.1 billion (see table 9). Approximately half of the value of apparel purchased in the United States is foreign-made, in contrast to two-fifths in 1984 and one-fifth in 1976.[1] In terms of volume, textile imports into the United States have grown by an average of nearly 15 percent per year since 1980, while the U.S. textile market has grown by only 1 percent per year. In addition, since 1985 imports have begun to penetrate new areas of the textile industry, including raw yarn and unfinished fabric, as well as household goods like draperies, sheets, and towels.[2]

The origins of imports are diverse. The countries of the Far East—and increasingly China—have become major producers, and are penetrating the U.S. market. By 1985, import penetration in textiles had reached 33 percent, in apparel it had grown to 48 percent, and for industrial products and home furnishings it stood at 16 percent—increases of 100 to 500 percent over a decade earlier (see tables 10, 11, and 12).

The impact of current levels of import penetration on the economy in general, as well as on the textile industry in particular, is devastating. It is estimated that every billion yards of fabric and apparel imported represents 100,000 lost job opportunities to U.S. workers. Imports, therefore, may account for well over one million lost job opportunities, not to speak of the additional million lost through "ripple" effects.

The major trends affecting textile and apparel trade are:

- the emergence of a global marketplace for textiles and apparel,
- the growing protectionism of other nations,
- an "overly strong" dollar, and
- significantly lower wages and working conditions abroad.

[1] "America's Textile Industry: Holding Its Salvation in Its Own Hands," *The Economist*, Apr 5, 1986, p. 79

[2] W.E. Schmidt, "Textiles Defends Its Last Bastion," The *New York* Times, June 23, 1985, p. 4F

## Table 9.—U.S. Textile and Apparel Trade

| | Textiles | | | Apparel | | | Textiles and apparel | | |
|---|---|---|---|---|---|---|---|---|---|
| | Imports | Exports | Trade balance | Imports | Exports | Trade balance | Imports | Exports | Trade balance |
| | F.A.S. values[a] | | | | | | | | |
| 1970 | 1,135 | 603 | – 532 | 1,267 | 200 | –1,067 | 2,402 | 803 | –1,599 |
| 1971 | 1,392 | 632 | – 760 | 1,521 | 204 | –1,317 | 2,913 | 836 | –2,077 |
| 1972 | 1,526 | 799 | – 747 | 1,883 | 240 | –1,643 | 3,409 | 1,019 | –2,390 |
| 1973 | 1,568 | 1,225 | – 343 | 2,168 | 278 | –1,890 | 3,736 | 1,503 | –2,333 |
| | C.I.F. values[b] | | | | | | | | |
| 1974, | 1,752 | 1,795 | + 43 | 2,517 | 400 | –2,117 | 4,269 | 2,195 | –2,074 |
| 1975 | 1,336 | 1,625 | + 289 | 2,826 | 403 | –2,423 | 4,162 | 2,028 | –2,134 |
| 1976 | 1,791 | 1,970 | + 179 | 3,938 | 510 | –3,428 | 5,729 | 2,480 | –3,249 |
| 1977 | 1,939 | 1,959 | + 20 | 4,493 | 608 | –3,885 | 6,432 | 2,567 | –3,865 |
| 1978. | 2,400 | 2,225 | – 175 | 6,108 | 677 | –5,431 | 8,508 | 2,902 | –5,606 |
| 1979. | 2,399 | 3,189 | + 790 | 6,291 | 931 | –5,360 | 8,690 | 4,120 | –4,570 |
| 1980 | 2,676 | 3,632 | + 956 | 6,849 | 1,202 | –5,647 | 9,525 | 4,834 | –4,691 |
| 1981 | 3,250 | 3,619 | + 369 | 8,008 | 1,232 | –6,776 | 11,258 | 4,851 | –6,407 |
| 1982 | 3,000 | 2,784 | – 216 | 8,703 | 953 | –7,750 | 11,703 | 3,737 | –7,966 |
| 1983 | 3,460 | 2,368 | –1,092 | 10,292 | 818 | –9,474 | 13,752 | 3,168 | –10,585 |
| 1984 | 4,874 | 2,382 | –2,492 | 14,513 | 807 | –13,706 | 19,387 | 3,189 | –16,198 |
| 1985: | 5,274 | 2,366 | –2,908 | 16,056 | 755 | –15,301 | 21,330 | 3,121 | –18,209 |
| 1986: | 6,151 | 2,570 | –3.581 | 18.554 | 899 | –17,655 | 24,705 | 3,469 | –21,136 |

[a]F.A.S Free Alongside
[b]C.I.F.: Carriage Insurance Freight

SOURCE: U.S Department of Commerce, FT.135, FT-140, SITC Classification 65 &84. Data are in millions of dollars

## Table 10.—The U.S. Textile Market

| | Imports[a] | U.S. market (million SYE) | U.S. fabrics | Import share of market ?/0 |
|---|---|---|---|---|
| 1973 | 29,613 | 5,124 | 24,489 | 17.3 |
| 1974 | 28,234 | 4,411 | 23,823 | 15.6 |
| 1975 | 27,036 | 3,829 | 23,207 | 14,2 |
| 1976 | 29,103 | 3,987 | 23,116 | 171 |
| 1977 | 30,364 | 3,976 | 24,374 | 16,4 |
| 1978, | 31,033 | 5,738 | 23,295 | 18,5 |
| 1979 | 30,431 | 4,639 | 25,792 | 15,2 |
| 1980 | 29,018 | 4,884 | 24,134 | 16,8 |
| 1981 | 28,866 | 5,776 | 23,090 | 20.0 |
| 1982 | 28,282 | 5,934 | 22,348 | 21.0 |
| 1983 | 30,537 | 7,706 | 22,831 | 25.2 |
| 1984 | 31,963 | 10,146 | 21,817 | 31.7 |
| 1985 | 32,652 | 10,831 | 21,821 | 33.2 |
| 1986 | | 12.698 | — | — |

[a]Imports include finished goods fabrics and yarn of cotton wool and manmade fibers only

SOURCE American Textile Manufacturers Institute

## Table 11 .—U.S. Apparel and Apparel Fabric Market

| | Imports[a] | U.S. market (million SYE) | U.S. fabrics | Import share of market % |
|---|---|---|---|---|
| 1973 | 15,557 | 4,313 | 11,244 | 27.7 |
| 1974 | 14,851 | 3,735 | 11,116 | 25.2 |
| 1975 | 14,363 | 3,351 | 11,012 | 23,3 |
| 1976 | 15,345 | 4,318 | 11,027 | 28.1 |
| 1977 | 16,044 | 4,270 | 11,774 | 266 |
| 1978, | 16,215 | 4,953 | 11,262 | 30.6 |
| 1979 | 15,627 | 3,988 | 11,639 | 25.5 |
| 1980 | 15,244 | 4,243 | 11,001 | 27,8 |
| 1981 | 15,405 | 4,976 | 10,429 | 32.3 |
| 1982, | 15,619 | 5,061 | 10,558 | 32.4 |
| 1983 | 16,341 | 6,139 | 10,148 | 37.9 |
| 1984 | 17,019 | 7,959 | 9,060 | 468 |
| 1985 | 17,334 | 8,322 | 9,012 | 480 |
| 1986, | — | 9,595 | — | — |

[a]Imports include apparel and apparel fabrics and yarn of cotton wool and manmade fibers only

SOURCE : American Textile Manufacturers Institute

**Table 12.—U.S. Industrial and Homefurnishings Market**

| | U.S. market (million SYE) | Imports[a] | U S fabrics | Import share of market % |
|---|---|---|---|---|
| 1973 | 14,056 | 811 | 13,245 | 5 8 |
| 1974 | 13,383 | 676 | 12,707 | 51 |
| 1975 | 12,673 | 476 | 12,197 | 3 8 |
| 1976 | 13,758 | 699 | 13,089 | 4 9 |
| 1977 | 14,306 | 706 | 13,600 | 4 9 |
| 1978 | 14,818 | 785 | 14,033 | 5 3 |
| 1979 | 14,804 | 651 | 14,153 | 4 4 |
| 1980 | 13,774 | 642 | 13,132 | 4 7 |
| 1981 | 13,461 | 800 | 12,661 | 5.9 |
| 1982 | 12,663 | 874 | 11,789 | 6.9 |
| 1983 | 14,196 | 1,513 | 12.683 | 10.7 |
| 1984 | 14,944 | 2,186 | 12,758 | 146 |
| 1985 | 15,318 | 2,510 | 12,808 | 164 |
| 1986 | — | 3,103 | — | |

[a]Imports include finished goods and nonapparel fabrics of cotton wool and manmade fibers only

SOURCE American Textile Manufacturers Institute

## *The Emergence of a Global Textile Industry*

The world population consumes more than 65 billion pounds of textile products per year, and consumption is currently growing annually by 1.7 billion pounds, or 750,000 metric tons.[3] Comparison of growth rates across regions of the world shows that textile growth within developing economies and planned economies has been faster in recent years than growth within older, more developed market economies. Virtually every nation in the world has at least a rudimentary textile industry—in order to serve its domestic market, provide jobs, and earn foreign exchange.[4]

The textile industry occupies a unique position in world trade and economic development. Because of the labor intensity of the industry and the low wage rates of developing nations, many countries view the industry as an initial rung on the ladder of industrialization. The industry is commonly viewed as one that, because of its labor intensity, can progressively displace the textile industries of more advanced nations. But as each developing country's own wage levels rise, developed industries will be displaced by producers in nations further "down the ladder" of industrializations As a result, the governments of many developing nations promote the textile industry as part of an export strategy. In some cases, this has led to an overexpansion of capacity and a major export push in the 1980s, characterized by depressed prices and widespread use of import protection, export subsidies, dumping, and even quota fraud and smuggling.

In the past, the U.S. textile industry has been relatively insulated from the more dynamic international market. This situation is likely to change, because future growth in demand for apparel and other textile fabrics is expected to be largely outside the United States. United Nations projections are that the world population will grow by 850 million people between 1985 and 1995—when 75 percent will live in developing nations, 20 percent in those with centrally planned economies, and 5 percent in industrialized nations.

Textile industries throughout the world are highly competitive. There are few important economies of scale, only modest product differentiation, relatively small capital requirements compared to other manufacturing sectors, and no significant technological or resource-based barriers to entry. As a result, there is a minimum amount of seller market power. Coupled with the continued labor intensity of production, the more industrialized and high wage countries have great difficulties in gaining comparative advantage. These observations recently led scholars from several U. S., British, and Japanese universities to conclude:

> Almost without exception, textile industries in OECD countries have negligible output growth, rising production costs, and declining employment. On the other hand, several developing countries with a relative abundance of labor have small but rapidly growing textile industries.[6]

The textile and apparel industry complex has plainly become a global enterprise. The industries in developed nations are disadvantaged by comparatively stagnant domestic markets, as well as high la-

[3]B Toyne, et al , *The Global Textile Industry* (London George Allen & Unwin, 1 984), P 68

[4]Ibid,, pp 50, 70.

[5]Thomas Howell, et al., "The Textile and Apparel Trade Crisis," study prepared for the Fiber, Fabric, and Apparel Coalition for Trade, August 1985, p I

[6]Toyne, et al , op.cit , p 1 IO.

bor costs. Advanced equipment is available in international markets.[7]

The U.S. textile market is, by and large, mature and saturated. This is especially true for standardized, nonspecialty items. Most analysts agree that to have a strong future, the U.S. textile industry must focus on identifying competitive niches—especially for nonstandardized items—and aggressive marketing strategies at home and abroad. Many also argue that growing protectionism abroad must be matched by U.S. protection of its domestic industry.

The apparel trade deficit has reached a critical level; in 1986 it was nearly $18 billion and growing (again see table 9). The real value of imports in the decade from 1975 to 1984 increased by over 240 percent, from $5.5 billion to $18.7 billion. At the same time, domestic production increased by less than 16 percent, meaning that an industry which had only 25 percent of its domestic consumption served by imports in 1975 had imports accounting for half of all consumption in 1984.[8] Nearly 30 percent of all cotton fiber poundage used by Americans for apparel and textiles is imported. For synthetic garments and fabrics the situation is less severe, with under 7 percent of all manmade fiber poundage consumed in the United States coming from imports. Domestic exports of apparel have expanded since the mid-1970s, but still vary greatly with respect to fashion trends and the value of the dollar.

Important in any analysis of apparel trade deficits is to distinguish between imports coming from actual foreign companies, products assembled abroad by U.S. firms, products manufactured by U.S. firms in joint venture with foreign firms, and products made by subcontractors catering to the orders of large U.S. retailers. The role of Item 807 products in increasing the apparel trade deficit also requires analysis.[9]

[7]Ibid.

[8]International Ladies' Garment Workers' Union Research Department, based on data from the US. Bureau of the Census, the U.S. Department of Agriculture, the U.S. Bureau of Labor Statistics, and the Textile Economic Bureau, 1986.

[9]Item 807 of the Tariff Schedules of the United States (TSUS) stipulates that if a product made of U.S. materials is manufactured abroad and then "reimported" into the United States, a tariff is to be paid on only the value added to that product during overseas production (see box B).

## The Export Market

**While** the key to domestic marketing is to recognize the growth areas within an overall static market, the key to international marketing is to increase export sophistication, recognize the areas in which U.S. technological comparative advantage exists, and adjust to the growing trade regulations that limit market entry. It is markets overseas that will experience the most future growth.

Even though growth is primarily in developing nations, the opportunities for expanded export marketing may exist primarily among other developed countries.[10] To meet this reality, it is argued that companies should seek out international multilingual marketeers to spearhead export drives. U.S. companies currently lack marketing staffs that are schooled in the trading knowledge and cultural affinity necessary to work effectively in a foreign environment of currency exchange and red tape.

Some see substantial opportunities, at least for some products, in the developing world as well. According to Du Pent Vice President David Barnes, for fibers and fiber products the export opportunities are broader than the already industrialized world:

> The world market is three times the size of the present United States market and still growing . . .
>
> Consumption of fiber products ranges around the world from about five pounds per person in the developing countries to more than a dozen times that in this country today. This not only suggests the breadth of growth opportunities but the diversity of markets we will have to serve if we want to be competitive on world levels.
>
> American exports are competitive today because of the scale efficiency, higher capacity utilization, and higher productivity of American fiber and fabric producers as well as the downstream industries. These fundamental advantages will persist even when such temporary advantages as currency relationships and differing oil prices disappear or diminish over time.
>
> Our industry is learning how to export to Europe the Far East and the developing countries. The U.S. has more than 20 percent of the world's textile capacity but has historically enjoyed only about 7 per-

[10]Jack C. Werner, "A Time to Lead: A Challenge and Opportunity for the U.S. Textile Industry," speech to annual meeting of the Board of Trustees of the Institute of Textile Technology, Charlottesville, VA, May 2, 1984, pp. 17-18.

cent of the export business. I believe we're going to move steadily towards a better balance.[11]

Barnes goes on to say that such progress in expanding exports is necessary to encourage higher levels of capital investment and to support the continuation of innovative research and development (R&D) activities needed to keep U.S. goods at the top of the competitive heap. '2

The current U.S. export market for textiles and their end uses is quite small. Changes in worldwide trade barriers for textiles will be essential if markets are to open up for U.S. export. That event is the most critical. But technological and quality advantages, as well as substantially more aggressive overseas marketing—perhaps through overseas production facilities—are also necessary preconditions.

## Trade Regulations and Protectionism

**The Response of Developing Nations.—De**veloping nations want the growing textile and apparel markets within their countries for themselves. A major response is to protect their own domestic markets with a variety of trade and marketing regulations. A 1984 survey of 21 major developing countries by the Secretariat of the General Agreement on Trade and Tariffs (GATT) found that average tariffs through the early 1980s ranged from 25 to 75 percent.[13]

In many individual instances, however, tariffs are much higher than these averages. In Brazil, for example, duties of up to 205 percent of c.i.f. value—"carriage insurance freight" value, which includes shipping and insurance costs—are imposed on imports of woven fabrics; on those of manmade fiber; woven apparel, and accessories; and on a number of other products. On top of this duty, Brazil places a variety of taxes and charges that further increase the cost to importers. The GATT Secretariat also reported that in addition to tariffs, the majority of these nations maintained quantitative restrictions on imports, ranging from quotas to outright import prohibitions.

In general, restrictions are more stringent in downstream sectors of the industry, with apparel imports much more heavily protected by nontariff measures than textiles. The emphasis is on downstream sectors, since protection of the upstream and midstream sectors potentially creates competitive disadvantages for downstream apparel producers by raising the price of their inputs. Many developing nations have circumvented this problem by rebating duties paid on upstream imports used to produce export commodities, or by establishing "export process zones" in which fiber and fabric needed to produce export commodities are imported duty free.

A severe challenge faces U.S. producers of textile products as they search for niches in the global textile market, because import restrictions have proliferated so extensively in recent years. Besides tariffs, restrictive activities include embargoes, quotas, licensing requirements, prior authorization rules, and border taxes.

*Self-Imposed* Barriers. -Many countries ban textile imports altogether. Bolivia prohibits the importation of 19 categories of textile products, among which are carpets and blankets; cotton outerwear for men and boys; cotton outerwear for women, girls, and infants; men's and boys' underwear; underwear for women, girls, and infants; and continuous acrylic fiber yarns.[14] Egypt bans the importation of woven fabrics of eight categories of textile products, among which are carded or combed cotton; bed, table, and kitchen linens; and raw flax.[15] Afghanistan bans the importation of handbags, cotton yarn, rugs of artificial fibers and wool, turban cloth of silk, and traveling blankets and rugs.[16]

The Korean Federation of Textile Industry stated in 1981 that many developing countries "are gradually eliminating themselves as textile markets."[17] In 1983, the Textile Minister of Sri Lanka announced a total ban on textile imports, stating: "Now we do not need foreign competition any more."[18]

[11] David Barnes, Vice President, Textile Fibers Department, E.I du pent de Nemours & Co., Inc., *Textile Industry Outlook*, Apr 25, 1980, p 6.
[12] Ibid , p 7
[13] Howell, et al , op cit., p 29
[14] U.S Department of commerce, International Trade Administration, Office of Textiles and Apparel, "Foreign Regulations Affecting U.S. Textile/Apparel Exports, " April 1986, p 20
[15] Ibid , p 78
[16] Ibid., p. 1
[17] Korean Federation of Textile industry, *Textile Industry in Korea* 198(J/81, p 18.
[18] Howell, et al . op ('It., p 30

In other nations, textiles are taxed at prohibitive rates. In Burma, for example, items such as ready-made wool clothes, silk cloth, and artificial silk are taxable at 60 percent; jute carpet is taxable at 50 percent; and lace synthetic textiles, textiles made of combed cotton, imitation leather, and noncotton blankets are all taxable at 40 percent.[19]

South Korea maintains a strict system of import controls with a "Negative List. " Imports, which must receive prior approval of an appropriate ministry, are allowed on a controlled basis, and only if they are for prompt use to manufacture goods that will be sold in the export market.

Taiwan virtually bans apparel imports, and strictly limits imports of textile fiber. But it does allow imports of textiles if they are for prompt use in the manufacturing of goods sold in the export market.

Colombia maintains restrictions amounting to a de facto ban on most textile and apparel imports. The government requires the granting of import licenses for about 65 percent of its textile and apparel tariff categories. As of early 1985, no licenses were being granted. Surcharges are imposed on those products whose importation is allowed in order to finance a 6.5 percent textile export incentive for Colombian products.

*Government Subsidies.* —Beyond import restrictions, foreign trade is also influenced by the substantial government subsidies that many nations provide their textile industries. A principal source of capital for the South Korean textile industry during its years of rapid growth, for example, was the preferential allocation of credit by government-dominated banks at below-market interest rates. The wide range of export subsidies and incentives given by the Korean government to its textile exporters was estimated by the World Bank to have a subsidy value of 27 percent in 1972.[20] In addition, Korea has frequently been charged by other countries with dumping their textile products[21]—a charge which the Koreans have even occasionally acknowledged themselves. Dumping, however, is by no means unique to South Korea.

Taiwan offers its textile exporters financial benefits, including tax breaks. Between 1974 and 1979 alone, the Taiwanese Government provided $300 million in loans to textile producers, enabling them to "modernize their equipment and improve product quality."[22] Most of Taiwan's textile and apparel mills have been located in three special export processing zones, where manufacturers can import duty-free production equipment as well as intermediate goods and raw materials used for production of exports—a system that enables the nation to protect its upstream and midstream home industries without jeopardizing its downstream manufactured goods.

Hong Kong also utilizes a customs free zone, and thus takes advantage of the large stocks of upstream and midstream textile products available on the international market. Its strategy is to concentrate production on the downstream apparel end of the industry.

In 1979, China decided to promote textiles as a leading economic priority .23 As a result of this decision, the Chinese textile industry received special loans from the central government; greater allocations of resources from the provinces, municipalities, and autonomous regions; and was given priority with respect to raw materials, transport, and electric power. New textile facilities are concentrated in special economic zones and receive special tax and regulatory treatment, designed to encourage foreign investment and the manufacture of exports.[24]

Also significant in China is a government export-stimulus program designed to manipulate the exchange rate, and an allocation of foreign exchange earnings to enterprises engaged in exports. This involved the implementation of a dual exchange rate system, designed to discourage imports and stimulate exports between 1981 and the beginning of 1985. While the official exchange rate was 2.0 renmibi (RMB) to the dollar, enterprises remitting dollars earned in foreign trade to the Bank received 2.8 RMB per dollar, and were required to pay 2.8 RMB for dollars used in purchasing imports.[25] The policy

[19] Ibid.

[20] World Bank, *Industrial Policy and Development in Korea,* Staff paper No. 236, 1975, cited in Howell, et al., op. cit., p. 50.

[21] *Japan Economic Journal*, Apr. 26, 1983, and *JTN*, November 1984, cited in Howell, et al., op. cit., p. 53.

[22] *Free China Weekly*, Oct. 7, 1979, cited in **Howell, et d.,** op.cit., p.55.

[23] 1 bid., p, 64,

[24] 1 bid., p. 69.

[25] Ibid., pp. 75-77.

has been described officially by the Chinese in the following ways:

> The internal settlement rate is used only to subsidize exports and it cannot be called an exchange rate. It is a means of subsidizing our export industry .. .26
>
> China intends to use the profits it makes on imports to subsidize exporting enterprises mak[ing] a loss.[27]

Other nations with emerging export markets in textiles are also using import restrictions and export subsidies to promote their textile industries. Among them is Thailand, which combines stringent import protection with liberal grants of export subsidies.

The Indonesian Government utilizes an export incentive system to pay compensatory money to exporters. Imports of cloth with batik motifs, sarongs, and cambric made with cotton yarn are banned altogether; imports of cotton weaving yarn are restricted to specified approved importers or government agencies; and all imports are subject to surcharges ranging as high as 200 percent.[28] The value of the Indonesian export subsidy on textiles was between 16 and 43 percent as of 1978.[29] In addition, a 1978 devaluation of the national currency had a dramatically positive impact on Indonesian textile trade.

In Pakistan, where more than half of the country's total industrial employment is engaged in textiles and apparel, the government made its foreign exchange reserves available to finance acquisition of foreign production equipment; these imports were exempt from customs duty. In addition, the government encouraged domestic banks to provide loans to producers, which could finance the acquisition of domestically made textile machinery. Tax incentives were provided for the installation of modern production equipment.[30]

In the Philippines, government import protection involves quantitative restrictions and a high nominal tariff level—a 100 percent tariff on garment imports. At the same time, it permits duty-free import of textiles used to produce clothing for export. Garment producers are eligible for investment incentives. With the help of the World Bank, the government in 1979 launched a major program to expand and modernize textile production. The Central Bank of the Philippines provided credit at below-market interest rates to finance the production of textile goods for export.[31] Of eight sample textile firms, the value of investment incentives to textile producers was between 2.9 and 10.6 percent of total sales.

Although allowing their textile industries to escape from the economic realities of competition has increased the foreign exchange standing of some developing countries, clearly improving prospects for industrial employment at home, the effects of such restrictions and subsidies have not been completely positive. Industries being created and expanding under heavy government protection have in many countries grown beyond their capacity to sell their products. Nations have incurred substantial foreign exchange debts to pay for modernized plant and equipment. And some have argued that high levels of protection have been responsible for a de-emphasis on efforts to improve efficiency and productivity.

**Response of Japan and the European Economic Community.**—Another part of the explanation for the unprecedented penetration of textile imports into the United States has to do with the response of the European Economic Community (EEC) and Japan to the emergence of a global textile market and increased competition, especially from developing nations. The EEC restricts imports pursuant to bilateral agreements negotiated under the Multi-Fiber Agreement (MFA) (see box A). Since 1983, restrictions by the EEC have become significantly stronger. Japan restricts imports more informally—by placing pressure on the distribution network, and by concluding a variety of non-MFA bilateral restraint agreements. Internally, Japan has implemented significant restraints on competition in order to prevent a "shakeout" of producing firms, as has the EEC with synthetic fiber production. In addition, EEC governments have provided significant amounts of financial aid to their textile and apparel producers.

In the United States, import restrictions pursuant to MFA have been used, but the system is viewed

[26]Wei Yunming in *Far Eastern Economic Review*, Dec. 25, 1981, cited in Howell, et al., op. cit., p. 77.
[27]Xinhua, reported on Dec. 16, 1980, Item No. 121518, cited in Howell, et al., op. cit., p. 77.
[28]Ibid., p. 91.
[29]Ajia Keizai Kenkyujo, *Hatsuten-tojo-Koku no Seni Sangyo*, 1980, cited in Howell, et al., op. cit., p. 89.
[30]Ibid., pp. 94-96.
[31]Ibid.,pp. 101-1 OS

### Box A.—The Evolution of the Multi-Fiber Arrangement*

In 1974, the Multi-Fiber Arrangement (MFA) was adopted to provide guidelines for the regulation of textile and apparel quotas; MFA's provisions have since been revised three times. MFA replaced several earlier programs designed to limit U.S. textile imports, which are described below.

The United States placed limited quotas on Japanese cotton textiles in 1956. However, other nations in the Pacific Rim soon entered the U.S. market, prompting a U.S. effort at multilateral action: the Short-Term Agreement Regarding International Trade in Cotton Textiles, established in 1961. This agreement allowed for the limitation of specific import categories, in order to protect domestic industries against undue disruption.

The following year saw the implementation of the Long-Term Agreement (LTA), which replaced the 1961 effort. LTA allowed for the negotiation of temporary bilateral agreements if U.S. markets were disrupted significantly, through a rapid increase in imports of a specific product, prices that were well below those for similar domestic goods, or potential or actual damage to U.S. manufacturers.

Under LTA's purview, the United States negotiated 30 bilateral agreements between 1961 and 1972. However, LTA did not cover imports of synthetic materials, which grew tenfold during the 1960s. A more comprehensive agreement was needed to regulate this burgeoning sector of textile and apparel production.

That agreement would come in 1974, with the introduction of MFA.** The United States had already negotiated several bilateral agreements with Pacific Rim nations concerning synthtic fibers. MFA, officially known as the Arrangement Regarding International Trade in Textiles, established guidelines by which developed countries could control imports of textiles and apparel made of wool, cotton, or synthetic fiber; subsequent revisions—the last was in 1986—have added silk, linen, and ramie to the list. All told, 35 bilateral agreements have been made by the United States in accord with MFA's provisions.

The Multi-Fiber Arrangement is designed o provide U.S. firms with the time to adapt to changing economic conditions lbrought about by the growth of imports;its language does not indicate that it should be used as a ttool for industrial revitalization .MFA calls for trade ıgreements that are designed to be temporary, focusing on a specific product from an individual country that has caused or threatened disruption of the U.S. market. MFA also allows for flexible quotas; for example, exporting nations can rearrange quota levels from different years or product categories. However, the three revisions of MFA have given more power to the importing nation in setting rigid quotas.

*This information is drawn from U.S. Congress, Congressional Budget Office, *Has Trade Protection Revitalized Domestic Industries?* (Washington, DC, November 1986), pp. 21-23.

**For the text of MFA, see International Trade Commission, *The Multifiber Arrangement, 1980-1984*, app. A.

as quite lax (see discussion below). Available evidence suggests that the EEC's adoption of a more restrictive regime under the MFA as of 1983, coupled with Japan's continuing restrictions, has had the effect of channeling developing nation textile exports into the U.S. market.

Since the implementation of new EEC restrictions in 1983, for example, many of the major suppliers, such as Taiwan, Korea, and Indonesia, have experienced a significant drop in export volume to the EEC, and a dramatic rise in the volume shipped to the United States. Whereas U.S. imports per capita for the textile sector from developing nations between 1980 and 1984 rose from $5.09 to $10,11, EEC imports declined from $11.82 to $8.30. The apparel sector changes *were* even more dramatic. In the United States, the per-capita value of imports from developing nations more than doubled, from $25,56 to $56.63; in the EEC, it declined from $22.38 to $18.47 (see table 13).

WhiIe Japan and the EEC had a positive net trade balance between 1980 and 1984 in the textile sector, the United States—which began positively in 1980—developed a sharply negative net balance. In the apparel sector, while all three experienced a negative net trade balance, only the U.S. experienced a sharp deterioration in its balance. Japan maintained roughly the same percentage of overall im-

**Table 13.—U.S. and EEC Imports From Developing Countries Dollars Per Capita, 1980-84**

| | Textiles | | Clothing | |
|---|---|---|---|---|
| | EEC | Us. | EEC | U.S. |
| 1980 | $11.82 | $5.09 | $22.38 | $25.56 |
| 1981 | 8.55 | 5.83 | 20.98 | 29.19 |
| 1982 | 7.95 | 4.99 | 19.25 | 30.73 |
| 1983 | 7.86 | 5.97 | 17.55 | 35.61 |
| 1984 | 8.30 | 10.11 | 18.47 | 56.63 |

SOURCE *The Textile and Apparel* Trade Crisis, based on international Monetary Fund data

ports from developing nations between 1980 and 1984. During the same period, however the EEC countries imported a lower percentage of textiles and apparel from the developing world, while the United States imported a sharply higher percentage (see table 14)

### *U.S. Response*

The impact of significant import protection and export subsidies on the textile industries of developing countries has been severe. Domestic production has been threatened through increased competition within home markets, and increased restrictions and competition in international markets. Not surprisingly, textile companies in industrialized nations, as well as the governments of those nations, have responded to the threats that they face from noneconomic competition in textile trade.

### Factors Behind Varying Costs

**Differences in Wages. -Employees** of U.S. textile and apparel firms pay substantially higher wages than firms in Asia and Latin America, although industry wages are among the lowest in U.S. manufacturing. At $6.71 per hour in 1985, a full-time U.S. textile mill products worker earned just under $14,000 per year; in contrast, his/her average hourly earnings were more than 33 times higher than a comparable Chinese worker earning 20 cents per hour. At $5.73 per hour in 1985, a full-time U.S. apparel worker earned just under $12,000 per year, but that was approximately 28 times more than the comparable Chinese worker earning 20 cents per hour.

Although direct wage comparisons between a centrally planned economy and the U.S. economy are clearly inexact, the fact remains that labor costs for U.S. textile and apparel enterprises—indeed, for enterprises from the entire developed world—are higher than those for firms operating in developing countries, This is accentuated by differences in benefits and working conditions, largely a function of the fact that many developing nations lack standards that protect against long hours, long weeks, safety, and health hazards. Some even use child labor. According to the International Ladies' Garment Workers' Union (ILGWU), in 1984, "labor compensation in the developing and newly industrialized countries ranged from 2 to 25 percent of the U.S."[32]

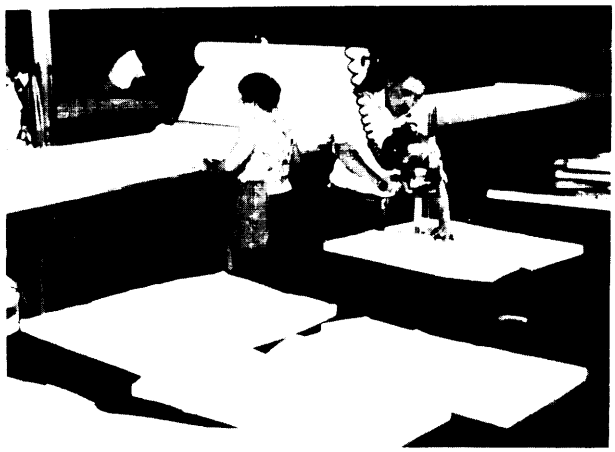
Some U.S. companies attempt to lower their labor input costs by establishing production facilities overseas. Especially in the apparel industry, where labor intensity continues to be very high, production and/or assembly overseas may provide some economic advantages for individual companies. In fact, such a strategy is encouraged through U.S. public policy by the "807" rule, which places a tariff not on all textile and apparel imports, but only on the value added by specific operations performed outside the United States—in other words, a U.S. firm can send fabric to a low cost production facility overseas, substantially reducing input costs. However, there are risks associated with such movement. Po-

[32]Letter from Dr. James Parrott, Assistant to General Secretary-Treasurer Jay Mazur, International Ladies' Garment Workers' Union, to OTA, Mar, 31, 1986, p. 4.

**Table 14.– Percent Share of Exports of Textiles and Clothing From Developing Countries by Major Developed Country Markets, 1980-84**

| | EEC | U.S. | Japan | EEC | U.S. | Japan | EEC | U.S. | Japan |
|---|---|---|---|---|---|---|---|---|---|
| 1980 | 26.80/o | 9.90/0 | 6.4°/0 | 40.1% | 40.0% | 5.8% | 34.1% | 26.7% | *6.4%* |
| 1981 | 18.2 | 10.5 | 5.9 | 33.9 | 39.9 | 6.7 | 27.1 | 27,2 | 6.4 |
| 1982 | 18.4 | 9.9 | 32.2 | 43.9 | 7.0 | 26.4 | 29.6 | 6.7 | |
| 1983 | 16.8 | 11.0 | 4.9 | 27.8 | 48.5 | 5.1 | 23.1 | 32.5 | 5.0 |
| 1984 | 14.8 | 15.5 | 5.6 | 23.4 | 61.8 | 5.8 | 19.8 | 42.5 | 5.7 |

SOURCE The Textile *and Apparel Trade Crisis,* based on data from GATT





This cutting and shipping facility is located in Hialeah, FL. Cut goods are delivered to two plants in Costa Rica for sewing, and then reimported to the United States.

litical instability in many low wage countries can make production unreliable.

**Exchange Rate** Fluctuations. -During 1983 and 1984, the dollar rose in value more than 30 percent against the currencies of other industrial countries. This appreciation, according to many analysts, was no different than a 30 percent tax on exports and a resulting 30 percent cost advantage for imports.[33] The 1983-84 appreciation came on top of an appreciation of equal magnitude in the previous 3-year period. Weighing the currency average of the 20 nations with whom we most heavily trade in textiles suggests that the value of the textile dollar in the second quarter of 1986 was almost another 30 percent above 1984; of course, the recent decline in the dollar's value against other currencies has since helped to reconcile this difference.

However, while the appreciation of the dollar clearly exacerbated the textile trade problems of the early and mid-1980s, many experts are quick to emphasize that massive shifts in worldwide textile trade patterns are the result of other factors as well, For example, whereas imports from the Dominican Republic and Haiti increased by 40 and 28 percent, respectively, between 1981 and 1984, the exchange rate did not change at all. Large increases in import penetration by other major textile supplying countries are also recorded, despite far less substantial changes in bilateral exchange rates. According to an analyst at ILGWU, the dollar's rise did contribute to sizable percentage import increases from a number of nations in the EEC, but EEC countries accounted for only 2.2 percent of all apparel imports in 1984.[34]

## Policy Reactions

At the government level, the United States, the EEC, and Japan have all acted to limit the growth of imports from developing nations. But while the United States has taken a number of steps to protect its domestic enterprises, U.S. markets are much more open than those in Europe and Japan. A study by European economists concluded that:

> While all governments adopted protectionistic policies for their textile mill products industries during the 1960s and 1970s, the United States government seemed to be the only one that did not couple this policy with one of the other policy types. Instead, it preferred to let internal, partially protected market forces bring about adjustment. It persistently opposed the concept of direct government intervention of the types undertaken by its counterparts in Europe and in the Asia Pacific Region .35

As a result, the United States is absorbing a large share of the world's textile and apparel exports, at the expense of its domestic industry. Moreover, a trade imbalance has resulted from the fact that U.S. exports of textile and apparel are not significant. At the peak of apparel exports in 1980, for example, they did not amount to more than 3 percent of domestic apparel production.

**U.S. Enforcement of Existing Trade Laws.—Ineffective administration of the Multi-Fiber Arrangement (MFA) is one reason given for the unprecedented surges in imports and harm to the domestic textile and apparel industry. Despite the existence of the MFA, which contemplated a 6 percent annual growth rate for imports, imports (in terms of square yard equivalents) grew 30 percent in 1983 and 32 percent in 1984, before falling to 7 percent in 1985; 1986 growth rose again, however, to over 17 percent. Legislation before Congress to require more**

[33] AFL-CIO, "30th Anniversary Report of the AFL-CIO Executive Council, 16th Convention," Oct. 28, 1985, p. 156.

[34] Letter from Dr. James Parrott, Op. cit , P. 3.

[35] Toyne, et al., pp. 178-179

## Box B.-Trade Regulations That Affect Textiles and Apparel

Currently, the United States can call upon one of several trade policy tools that help U.S. industries compete in world markets, in the United States, and against the unfair trade practices of other countries. In addition to multilateral negotiations through the Guaranteed Agreement on Trade and Tariffs (GATT) and bilateral action through the Multi-Fiber Arrangement (see box A), two sections of the Trade Act of 1974 and one classification item from the Tariff Schedules of the United States (TSUS), have been applied to trade of textiles and apparel:

*Section 201 of the Trade Act of 1974*

This section, commonly referred to as the "Escape Clause," is invoked when a U.S. industry has been or feels threatened by competition from imports of a particular product into the United States. An investigative board of the International Trade Commission is established to verify the industry's claim. Unless the commission finds the industry's claim to be unsubstantiated, the President then has the option to implement import relief measures in a nondiscriminatory manner—in other words, the President cannot single out specific countries against which to take action. He may only take action against all imports of a product, since Section 201 is designed to help U.S. industries against all other competitors in a given product field. If the President does not act on the domestic industry's behalf, Congress may do so through a joint resolution enacted within 90 days of the President's decision.

*Section 301 of the Trade Act of 1974*

This section deals with the unfair trade practices of other countries that affect U.S. industries. Since other U.S. regulations have been created to address the problem of illegal "dumping" of exports into the U.S. market, and to respond to excessive subsidies of exports to the United States by foreign governments, most petitions now filed under Section 301 relate to an alleged unfair practice in a third-country market. If U.S. apparel exports to the EEC, for example, are restricted by a competitor country's apparel exports that have been subsidized by the the competitor's government, then the apparel industry can petition the U.S. Special Trade Representative to recommend that action be taken against the competitor. The President may attempt to negotiate the elimination of the unfair practice; should this fail, he may then impose retaliatory measures against the competitor. In contrast to Section 201, which is **product-specific, Section 301** is country-specific. However, it is important to note that Section 301 is designed to eliminate an unfair practice, not to begin a trade war.

*Classification Item 807 of the Tariff Schedules of the United States (TSUS)*

Item 807 mandates that a tariff be placed on a product that is manufactured overseas with U.S.-made material. The tariff applies only to that part of a product's value that is added outside the United States, and the rate to be paid accords with whatever rate is normally paid upon importation of the product. A U.S. company, for example, may elect to take advantage of low-cost foreign labor costs and send U.S.-produced fiber to another country for manufacture, only to reimport the fiber in the form of a finished shirt. Countering the cost advantage, however, is the fact that political instability in low wage nations can place a great deal of risk on a decision to manufacture products abroad.

vigorous enforcement of the MFA was opposed by the Reagan Administration.[36] In the MFA protocol signed in Geneva on July 31, 1986, "none of the improvements sought by the industry are in the new agreement except for coverage of additional fibers."[37]

Senator John Danforth (R, MO) blames many problems on the Administration "refusing to enforce laws already on the books"[38] (see box B). One example of the lack of enforcement was cited by Senator Ernest Hollings (D,SC):

> We have a bilateral agreement with Thailand. In 1984 and 1985 Thailand overshipped apparel to the tune of almost 30 million square yard equivalents. This overshipment was not discovered by the Department of Commerce until August of 1985, at which time, Thailand had shipped in [to the United States] apparel for 1985 already filling 82 percent of their 1985 *quota.* According to the office of our chief tex-

[36] AFL-CIO, "The National Economy and Trade. AFL-CIO Policy Recommendations for 1986, " October 1985, pp 26-27.

[37] American Textile Manufacturers Institute, *Textile Highlights*, September 1986, p. iv

[38] Clyde Farnsworth, "Watchdog of U.S. Trade, *New York Times Magazine,* Sept. 14, 1986, p. 88

tile negotiator, Ambassador Carlisle, "Frankly, the system did not work . . . It was inadequate. " That is an understatement. After discovering illegal massive shipments in mid-August, apparel shipments from Thailand were finally embargoed on October 8th. Negotiations with the Thais were begun. These negotiations are now completed and I understand from Ambassador Carlisle's office that the embargo will be lifted one month prematurely on December lst. This will enable the U.S. importers to get their goods out of embargo in time for the Christmas season. The embargo will be lifted even though the Thais overshipped in 1984 and are probably going to be over their quota in 1985.

Further, the overshipments for 1984 and 1985 will not be charged against Thailand's 1986 quota.[39]

President Reagan made the following two pledges to the textile community as he vetoed HR-1562, the congressional effort to protect the apparel, textile, copper, and shoe industries:

I am directing Secretary of the Treasury Baker, as Chairman Pro Tempore of the Economic Policy Council, to investigate the import levels of textiles and apparel to determine if these imports have exceeded those limits agreed upon in international negotiations. I have directed that he report back to me within 60 days and recommend changes in existing administrative and enforcement procedures, if necessary . . .

Also, I am directing the Office of the United States Trade Representative to most aggressively renegotiate the Multi-Fiber Arrangement (MFA) on terms no less favorable than present. Our trading partners must be put on notice that we will not allow unfair trading practices to continue.[40]

Nonetheless, many examples of poor enforcement have been cited by critics of existing procedures:

- Even though the Treasury Department had requested additional customs personnel to be posted abroad to stop textile fraud, the State Department refused to authorize the additional agents. Currently, only about 2 percent of what comes into the United States is actually inspected by customs officials. This is despite the fact that customs agents usually earn two to three times their salary in tariffs collected.[41]
- Even though the textile industry has filed a series of countervailing duty cases against several countries, the Administration negotiated agreements to suspend most of those duties,
- There have been many charges of dumping of textiles against foreign nations. The producers of nylon impression fabric, for example, have long been concerned that imported impression fabric from Japan has been and is being dumped in the United States.[42]
- Transshipments to evade quotas abound. According to testimony received by the House Government Operations Committee, garments that come into the United States under the 807 agreement often involve fraudulent transshipments. In review of U.S.-Canada free trade negotiations, the House Committee on Ways and Means in 1986 invited written comments, Many of these comments expressed fear of Canada becoming a "pass through" point for the Far East if a free-trade arrangement were negotiated.[43]

  There has been some experience in the past with Canada being a transshipment point for textile products from the developing world. After the 1978 antidumping duty order, Nissei Sangyo of Japan apparently began transshipping broad woven nylon impression fabric through Canada.[44] The executive director of the Neckwear Association of America expressed his industry's concern with a free-trade agreement:

  > . . . our industry is very concerned about the potential of transshipments through Canada. Because of the low unit value of neckwear, especially from the Far East, the elimination of duties will make transshipment through Canada particularly attractive. We are not sanguine about enforcement as Customs is not able to cope with its present responsibilities.[45]

The executive director of the Work Glove Manufacturers Association also argued against a free-trade agreement, saying that:

[39] Statement of Senator Ernest Hollings on Thailand, Nov. 13, 1985.
[40] Veto message of President Ronald Reagan, HR-1562, Dec. 17, 1986.
[41] George Wino, Chief Economist, American Textile Manufacturers Institute, interview of Nov. 18, 1986.
[42] Statement of Bomont Industries, Inc., cited in "Written Comments on Proposed U.S.-Canada Free Trade Agreement, " Subcommittee on Trade, Committee on Ways and Means, U.S. House of Representatives, April 1986.
[43] " Written Comments on United States-Canada Free Trade Negotiations, " op. cit., p. 346.
[44] Statement of Bomont Industries, Inc., op. cit., p. 69.
[45] "In Opposition to Proposed U.S.-Canada Free Trade Agreement," Statement of Gerald Andersen, Executive Director, Neckwear Association of America, cited in "Written Comments on United States-Canada Free Trade Negotiations," op. cit., p. 215.

Such an arrangement could not only take advantage of duty-free access to the U.S. market, but permit the circumvention of quota arrangements as well. The U.S. Customs Service already has its hands full with its regular import monitoring programs. Recent personnel cutbacks will make it impossible for Customs to guard effectively against transshipments.[46]

- The House Commerce Committee published an investigative report on textile fraud in April of 1985, and found widespread quota violation and evasion. Examples included shipments of young men's sportswear from Hong Kong, China, and the Philippines for nearly 5 years by means of false documents; 1,700 dozen pairs of Taiwanese jeans falsely claimed as having been manufactured in South Africa; a Taiwanese importer sewing shirts and skirts together and entering almost 10,000 dozen of them as dresses, which had a lower duty rate and a larger quota. The importer admitted the items were separated after entry and sold as shirts and skirts.

**Recent Legislative Proposals.-The relative "openness"** of U.S. markets has become a point of extensive controversy. In 1986, Congress passed legislation designed to shield the industry from imports, but the Reagan Administration vetoed this bill (HR-1562). The administration argued the economic advantages of market equilibration and the consumer advantages of lower cost textiles and apparel. Senator Danforth, former chairman of the Senate Finance Committee's trade subcommittee, argued that other countries should either reduce their barriers to trade or face equivalent restrictions. He would use the $360 billion annual American market for both a carrot and a stick.[47]

The 100th Congress is likely to vote on another textile import bill, which has been introduced by Senators Hollings and Strom Thurmond (R, SC); Representative Butler Derrick (D, SC) has introduced the same bill in the house. This legislation (S-549 and HR-1154) calls for a general import ceiling, which is designed to limit import growth to the growth of the U.S. domestic market. The bill's sponsors contend that they have addressed several of the problems cited by opponents of the bill vetoed by the President:

- quotas would be set against imports from all countries, rather than against those from the developing world only;
- upper limits against specific countries would not be mandatory, but the President would have the authority to set individual quotas within the overall amount;
- quotas would not require rollbacks of foreign shipments; and
- foreign suppliers would be compensated for lost sales.[48]

## Private Sector Reactions

**An Increase in Capital Investment. -Chapter 3 indicated that** U.S. producers have invested heavily in more advanced production equipment, enabling them to offset the lower wage levels of developing nations.[49] Some of the more labor-intensive aspects of apparel production have been moved offshore. Similar developments are occurring in the EEC and Japan. In all three geographic markets, fiber and fabric producers are establishing vertical links with downstream apparel producers. In the United States, textile mill product manufacturers reinvested between 80 and 85 percent of their retained cash flow between 1975 and 1985, spending an average of $1.4 billion per year on new plant and equipment. This average rose to $1.8 billion between 1984 and 1986.[50]

U.S. firms have invested in such innovations as robotics, computer control systems, and shuttleless looms in order to improve productivity. Reflecting these investments, U.S. textile mill producers' productivity levels increased at more than twice the level of all U.S. manufacturing industries in the decade from 1975 to 1985—5.6 percent v. 2.4 percent per year. Productivity levels in the United States were also substantially higher than in nations overseas in 1981. Increased productivity, however, has been accompanied by decreased profitability; as a result,

[46] "In Opposition to the Proposed U, S.-Canada Free Trade Agreement, " Statement of Craig Schulz, Executive Director, Work Glove Manufacturers Association, Chicago, cited in "Written Comments on United States-Canada Free Trade Negotiations," op. cit., p 344.
[47] Clyde Farnsworth, op.cit.
[48] " Compromise Textile Bill Being Readied," *The Washington Post*, Feb. 13, 1987, p. F1
[49] This paragraph is based largely on Howell, et al., op. cit., pp. 1 f17'-110 and 172-173.
[50] *Textile Highlights*, op. cit., p. 2 1.

marketing strategy in this area becomes fused with technological development and capital investment.

The **"Buy American" Program.-The industry has worked actively to make U.S. consumers more aware of U.S.-made goods. This is largely being done through** the "Crafted With Pride in U. S. A." campaign. Labels and tickets are displayed prominently on U. S.-made apparel, and there is an extensive advertising campaign. Such major retailers as Wal-Mart and J.C. Penney are featuring U.S. products.[51]

The Crafted With Pride in U.S.A. Council has nearly 400 members, Their statement of purpose is simple and direct:

> The Crafted With Pride in U.S.A. Council is a committed force of United States cotton growers, labor organizations, fabric distributes, and manufacturers of manmade fibers, fabric, apparel, and home fashions, whose mission is to convince consumers, retailers, and apparel manufacturers of the value of purchasing and promoting U.S.-made products.[52]

Surveys by Roper Reports have consistently found a "Made in the U. S. A." label to be regarded as "superior or fairly good" by 93 to 95 percent of those queried. Gallup polls show that Americans regard U.S.-made clothing to be "as good or better than overseas" by 75 percent of Americans.[53]

Since 1984, manufacturers have been required by law to label domestically-made products with the words "Made in the U. S. A." To persuade consumers to look for those labels before making a purchase, Council members pledged $40 million in advertising over a 3-year period, They engaged such stars as Bob Hope, Diahann Carroll, Sally Struthers, O.J. Simpson, Lynda Carter, and Sammy Davis, Jr., to appear on television commercials on their behalf.

Encouraging news about the Crafted With Pride program came from a spring 1986 experiment by Hanover House Industries, a national catalog house. Two versions of a catalog were mailed to consumers. Four million catalogs were sent in all, In one version, 56 specific items carried a special "Made in the U. S. A." logo. Sales returns from consumers receiving this catalog were 10 percent greater than the identical catalog without the "Made in the U. S. A." logo.[54]

The Auburn University Apparel Sourcing Fair of February 1986 is just one example of efforts underway to promote domestic apparel products. This, the Nation's first sourcing fair, brought State manufacturers and retailers together from Alabama and surrounding States. Participating retailers repeatedly stated that they were looking for partners, in the form of manufacturers who could fit their products within the structure of retail lines, and of contractors who could take on more of the burden of production by supplying the complete package.[55]

### *Trade and the U.S. Consumer*

Competitive advantage of textile and apparel exports stems primarily from lower wages in exporting nations, which reduce production costs in both material manufacture and assembly. But even though it may cost producers only one-fifth as much to make their goods abroad, the U.S. consumer may not necessarily enjoy a similar reduction in price. There is often a large disparity between production cost and the selling price in the United States, with much of the difference ending up in the hands of foreign and domestic shippers, wholesalers, and retailers.[56]

The extent to which consumers benefit from inexpensive imports is obviously a controversial issue, one that is difficult to resolve given the lack of appropriate data. However, figure 15 suggests that changes in domestic apparel prices are not closely correlated with changes in import prices; this can work both for and against the interests of consumers. The price of imports appears to have increased much more sharply than average domestic sales prices from 1977 to 1982, and has roughly followed domestic prices since then. Presumably, three factors cause the increase in import prices:

1. a shift in mix, not captured properly in the deflator series that compute price indices;
2. real increases in production prices abroad, due to rising wages and other factors; and

[51] Bruce Stokes, "Getting Competitive," *National Journal*, June 7, 1986, p. 1365,

[52] American Textile Manufacturers Institute, advertisement in *Time* Magazine, September 1986.

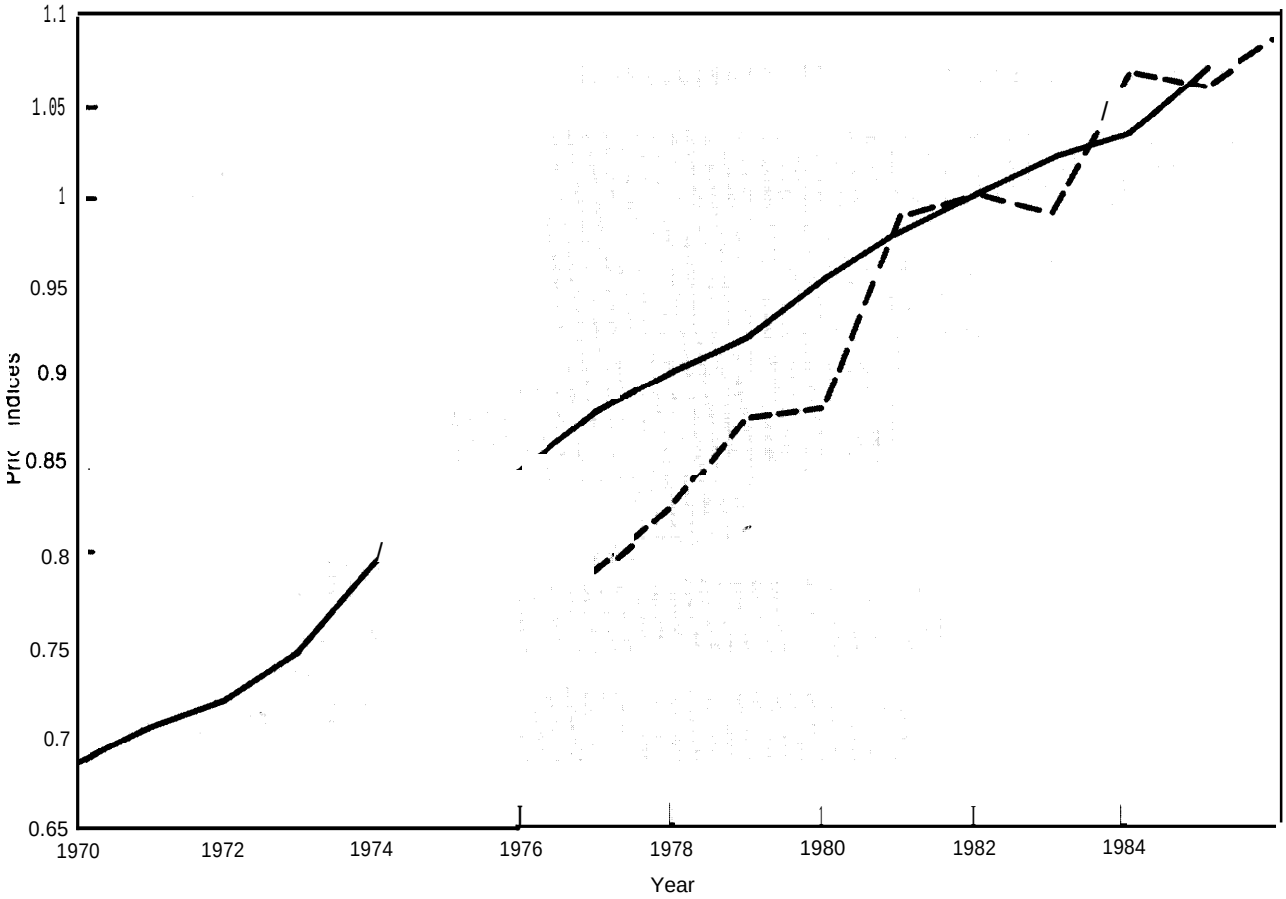
[53] 1 bid

[54] Ibid.

[55] Joyce Santora, "Retailers Reasses Domestic Sourcing," *Bobbin Magazine,* April 1986, p. 63,

[56] Murray Finley, president, Amalgamated Clothing and Textile Workers' Union, cited in AFL-C1O News, Nov. 23, 1985, p. 1.

**Figure 15.—Price Indices for Clothing (1982=1)**




— Domestic purchases --- Imports

SOURCE Office of Technology Assessment, 1987; based on data provided by the U S Department of Commerce and U S Department of Labor

3. shifts in the way markups are captured here and abroad.

The Fiber, Fabric & Apparel Coalition has used Commerce Department figures to show that many imported blouses, shorts, and shirts actually cost more than their U.S.-produced counterparts.[57] John Meinert, president of the Clothing Manufacturers Association, testified in 1985 before a subcommittee of the House Ways and Means Committee about the financial advantages of clothing imports benefiting retailers, not consumers. He told the subcommittee:

> It is no secret that a big attraction of cheaper imported goods is the exceptional mark-up available to be taken by retailers. It is argued that such low-base pricing is passed on to American consumers through lower prices. That argument has been demonstrated incorrect. The high margins available on these imported goods are used to benefit those who import them, as the differential is retained by the importer-seller. The American consumer does not receive lower prices, and we know this to be true from our information about companies which compete in our retail markets.[58]

In addition, some have charged that in those cases where the consumer does benefit from a lower price

[57] *AFL-CIO* News, Nov. *23,* 1985, p.1.

[58] Testimony of John Meinert regarding HR-1 562, "The Textile and Apparel Trade Enforcement Act of 1985," Subcommittee on Trade, Committee on Ways and Means, US. House of Representatives, July 15, 1985, p. 2.

on imported apparel, it is often the result of misleading "discount" prices. Some retailers may mark up the price of their imported garments to match the price of a similar U.S. garment, only to immediately discount the initially advertised cost. In this way, the retailer can still make a profit far above that which would be earned from sale of the U.S. garment, while gaining the added marketing advantage brought by advertising a discount.

When Allied Stores president Thomas Macioce was asked by Women Wear Daily whether retailers are really buying markups when they purchase imports, his response was: "Sure, we are indeed buying better markup, but that's our job. We would be delighted to buy only American-made goods if we could make the same type of markup."[59]

A study by the Amalgamated Clothing and Textile Workers' Union (ACTWU)[60] found three foreign-made shirts, from Taiwan, Guyana, and Colombia, with the same $18 price tag as an identical U.S.-made shirt. Similarly, a comparison of the costs of men's long-sleeve broadcloth shirts found the following. The wholesale cost of the U.S.-made shirt was $6.50, and a 100 percent retailer mark-up yielded a $13 retail price. The cost of the same shirt made in Korea was $4.25, including labor, shipping, and tariffs; a 206 percent markup was added to this shirt, or $8.75, so that the Korean shirt sold for $13 as well. For every imported shirt sold at the retail price, the retailer made an additional $2.25. On an annual basis, ACTWU found that the retailer imported 250,000 dozen shirts, for a total additional profit of $6.75 million. A study by the International Ladies' Garment Workers' Union indicates that "markups on imported garments typically range from 200 to 400 percent."[61]

It is important to note that many U.S. retailers dispute this analysis strongly. They argue that markups on inexpensive imports are not nearly large enough to deny the U.S. consumer the benefits of low-cost imported apparel.

[59] Testimony of Sol Chaikin, President, International Ladies' Garment Workers' Union, Subcommittee on International Trade, Committee on Finance, U.S. Senate, July 15, 1985, p. 13.
[60] *AFL-CIO News*, Oct. 5, 1985, p. 1.
[61] Letter from Dr. James Parrott to OTA, op. cit., p. 5.

## THE ADEQUACY OF DOMESTIC INNOVATION AND CAPITAL INVESTMENT

### *Research and Development*

While improved R&D efforts alone will not ensure a healthy domestic industry, they are clearly necessary, There are indications that U.S. efforts in R&D related to textiles and apparel may not be adequate, given the high social returns that could be enjoyed from a healthy domestic industry. Even more important than the development of new inventions, however, is the creation of an economic and management environment that allows American entrepreneurs to make money from investment in innovation. This requires capital and, in many cases, more patience in waiting for returns than has been typical of U.S. investors operating under existing macroeconomic policy.

It is ironic that while many U.S. economic problems have resulted from an inability of U.S. investors to capitalize on the benefits of innovations developed in the United States—most of the basic inventions behind semiconductors were developed in the United States, for example, yet it is the Japanese who seem to be succeeding in turning these inventions into profits—in the textile and apparel industries the reverse may be happening. Much of the technology that has made the U.S. textile industry among the most productive in the world has been purchased overseas.

Large companies do carry out some of their own R&D, especially the chemical companies that produce synthetic fibers. But in an industry that to date is still made up largely of small, family-owned companies, it is difficult to amass the capital for major technological research. Most of the R&D for textile equipment is done by the equipment manufacturers, but little in the way of major innovation has come in recent years. The electronics and other related industries are, of course, engaged in R&D related to computers and electronics, that can be adapted to the textile and apparel industry.

Even though the new surge in investment in plant and equipment preceded the flood of imports, it is the decade-long explosion of textile and apparel imports into the United States that has served as the greatest impetus for restructuring. Many look toward promoting U.S. technological developments as a major response to the threat of those imports. All agree that at a minimum, the United States must keep pace with technological developments that are constantly occurring throughout global markets.

R&D is critically needed to improve technology, but also to make strides in organizational structure, marketing, and public policy. As the chemical industry becomes increasingly aligned with the textile industry, some segments—most notably fibers—have experienced greater R&D efforts. The U.S. chemical industry has long understood the need for aggressive R&D efforts, accounting for 9 percent of U.S. manufacturing shipments but approximately 15 percent of all industrial R&D and 35 percent of all research funded by industry.[62] Du Pent chairman E.G. Jefferson credits this level of R&D with assisting the chemical industry in achieving a $9 billion trade surplus and generating 36 percent of world chemical sales in 1983.[63] Fiber research at Du Pent has given way to process technology advances, responsible for more than doubling productivity in manmade fibers during the past decade.[64]

Rapid technology transfer around the world is a simple fact of life. It takes the form of exported products, industrial processes, and the skills needed to apply technical ideas. Driving costs down through investment in nonproprietary technology cannot prevent long-term, continued growth of imports.[65] But many argue that it can provide an important short-run technological and competitive edge.

There is evidence that the pace of technological diffusion is increasing. Technological innovations are themselves a major contributor to the trend. On-line international data networks allow global access to current information in some areas, while new telecommunications increasingly permit tighter global integration of production and even R&D. More generally, declining communications and transportation costs have contributed to an increase in the knowledge and skill base outside the United States, a development visible in the rapid growth of trained engineers, financial experts, and managers in developing nations. The result is a more competitive economic environment, in which the life cycle of any product has been dramatically shortened.

### *Capital Investment: An Economic Necessity*

Textile executives realize that their companies must modernize if they are to survive. But with machinery turnover and the period of renewal of machinery growing more rapid from year to year, demand for capital investment funds can be staggering. The degree of technological change in the industry requires constant investments to keep up with competition. Some of the larger textile firms, like Burlington Industries, have been investing as much as 85 percent of their cash flow in new machinery.[66] The U.S. textile industry has spent $1 billion or more a year on machinery for two decades, and is the most productive in the world.[67]

One of the costs of the scale of investment needed for new technology may be the increasing concentration of the industry, as only large and financially strong corporations may deem themselves able to absorb the costs. In weaving, for example, the 10 largest companies in the United States account for 85 percent of all purchases in new machinery. It is unclear if weaker firms are able to afford the constant renewal process demanded by rapidly changing technology. While substantial capital investments are essential to achieving a competitive edge in productivity, clearly relating these investments to short-run profitability is often difficult. An example of this was explained by a Du Pent Vice-President in the following way:

> Our Cooper River plant near Charleston, S. C., is our newest, largest and most productive facility for the manufacture of polyester staple and filament. It

[62] Remarks of E G Jefferson, Chairman, Du Pent, at the 40th Anniversary of the Society of Fiber Science and Technology, Tokyo, May 11, 1984, p 5

[63] Ibid

[64] Ibid , p 6

[65] Peter Harding, Kurt Salmon Associates, Inc , "Quick Response in the Soft Goods Pipeline, " synopsis of speech given at the Knitted Textile Association Retail Relations Workshop, Dec 6, 1985, p. 1,

[66] W.E. Schmidt, op. cit.

[67] Fiber, Fabric & Apparel Coalition for Trade, "Fiber, Textile and Apparel Imports: Myths and Realities, " Mar 14, 1985,

started up in 1976. The mid-1980s cost to duplicate this large modern facility will be almost double our original mid-1970s investment. We're talking about hundreds of millions of dollars. A return of 15 percent would be the minimum required to invest in such a plant in this decade. Prices for polyester will need to rise more than cost escalation to make reinvestment in polyester staple an attractive business opportunity for us in 1985.

Clearly, that's a formidable challenge when prices are not even at the point of meeting our past cost increases. [68]

Investment requirements in the industry are by no means spread evenly among sectors. The traditional apparel sectors have only 14 percent of the overall fixed assets of the industry. The weaving, knitting, and yarn sectors, on the other hand, have 55 percent of the overall fixed assets. Within fabric production, cotton fabric manufacture requires the highest fixed assets.

While there appears to be a commitment to modernization, the degree of investment depends largely on the current economic situation. Purchases of shuttleless looms and ring spindle frames fluctuate heavily with the economic climate. This, however, has not been true with open-end spinning machines. And while U.S. firms are investing substantially, the ratio of new technology to older technology is still rather small, and some industry experts question the long-term commitment of manufacturers to make the necessary investments.

Due to a high gross value of fixed assets as well as a high turnover of machinery, the weaving segments of the textile industry alone account for 29 percent of total yearly expenditures on new plant and equipment. Apparel firms spend much less on new equipment, largely because there have historically been few technologies designed to increase the productivity of apparel manufacturing. As chapters 2 and 3 indicated, however, this situation may change rapidly in the near future, through the adoption of Quick Response technologies; U.S. apparel firms may soon have to make significant new investments in production equipment in order to remain competitive in world markets.

MD. K, Barnes, Vice president, Textile Fibers Department, Du pent, "The Fibers Outlook," report to American Apparel Manufacturers Association Seminar, New York, Dec 10, 1980, p. 9.

## IMPLICATIONS FOR THE TEXTILE AND APPAREL LABOR FORCE

Advancing technology and the internationalization of production are revolutionizing employment in the U.S. textile and apparel industry. The total number of jobs continues to decline, while new jobs are frequently created in unconventional categories.

The textile industry throughout U.S. history has been, and in the 1980s continues to be, a major industrial employer. The U.S. textile industry complex —consisting of fiber, textile, and apparel production— is the Nation's largest nondurable goods manufacturer, and employs one in every nine manufacturing workers, or just under 2 million in 1985. Apparel is the largest employer, with 1.1 million employees. Textile mill products follow with 700,000 workers. In the fiber industry, man-made fiber production employs 64,000 individuals. The textile machinery industry, a durable goods sector, employs 18,000.

With 2 million people employed in all 50 States, and 1983 wages totaling nearly $25 billion—$1 1.1 billion for textile wages, and $13.6 billion for wages in the apparel sector—major changes in the number and types of textile jobs affect more than just specific individuals and companies. Many workers live in communities in which a textile plant is the only major local employer; job losses in these areas affect both States and localities, since both suffer from the depletion of economic activity and the loss of tax revenue caused by high unemployment. Clearly, such effects may propagate through the U.S. economy as well.

### *Employment Changes Within the Industry*

#### Sectoral Shifts

In apparel, labor-intensive operations still predominate in the industry, and job declines are largely due to import penetration. The apparel sector em-

ploys 48 percent of the total industry, and has the lowest wages—27 percent lower than manufacturing as a whole, and 13 percent lower than those employed in textile mill products manufacture. It also has the greatest percentage of women employees of all manufacturing sectors, 81 percent. In addition, apparel has the largest percentage of production employees to total employees, 82 to 84 percent v. 70 percent for all manufacturing. Apparel is also the sector of the industry where job loss is most severe, especially low wage production jobs filled by substantial numbers of women and minorities.

In textile mill products, automation and adoption of new, capital-intensive technology have significantly reduced the number of jobs available. Indeed, there are many examples of modernization eliminating jobs. Since 1978, when Burlington began its modernization program, it has reduced its work force by at least 10,000. Stevens has spent more than $480 million on its capital program since 1978, and, like Burlington, has trimmed 10,000 people from its payroll.

But modernization does not always lead to job loss—especially if new plant and equipment can be used to expand markets. When Burlington replaced 700 Draper fly shuttle looms in its Shannon, Georgia, plant with approximately 450 Ruti air-jet looms in 1979, none of the 1,300 employees there were laid off, even though production speeds increased two- to three-fold. At the Burlington weaving plant in Vinton, Virginia, when a $25 million modernization program in 1981 converted operations to shuttleless weaving, the 600-employee work force was fully maintained.[69]

Within the textile mill products sector, the distribution of employment varies considerably among production processes. The weaving sectors, for example, account for 16 percent of all employees in the total textile industry. Knitting and hosiery account for 10 percent of industry-wide employment, the yarn industries 5.5 percent, and the carpet industries 2.4 percent. All other sectors employ less than 2 percent; 2 percent, however, still represents 50,000 jobs.

The only industry sector claiming new job creation was retail trade, which gained nearly 250,000 jobs between 1970 and 1985. This was largely due to the sharp rise in personal spending on apparel after 1970, which necessitated more activity at the retail end of the industry. However, a gain in retail jobs in the service sector of the economy may not help stop the erosion of the U.S. industrial base, especially when an increasing share of what U.S. consumers purchase has been manufactured overseas.

In addition, these jobs provide substantially lower average wages than textile manufacturing jobs—themselves low-paying by U.S. industrial standards, although not by international standards for textile and apparel workers. Average 1985 hourly earnings in apparel retail trade were $5.29, in contrast to $5.73 for apparel manufacturing, $6.71 for textile mill products manufacturing, and $7.98 for textile machinery manufacturing. In the newer manmade fiber industry, however, wage rates were significantly higher, with average hourly wages at $11.37.70 These compare to an average hourly rate in 1980 for all manufacturing of $8.55.

### Job Movement to Overseas Production Facilities

Much employment has been lost as textile companies transfer some of their production overseas.

[69] *Textile Week*, Aug. 10, 1981, p 6

[70] U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, March 1986, pp. 91-93



This apparel manufacturing facility, located in Barbados and used by U.S. firms under the 807 role, employs a low wage workforce. The lower labor costs that a U.S. firm pays to these workers often influence the choice to move labor-intensive tasks offshore.

While such activities may deplete a region's economic base and tax revenue due to the loss of jobs, some analysts claim that this is balanced by the fact that overall corporate costs are minimized when labor-intensive tasks, such as sewing, are performed in low labor cost countries. However, as the level of technology and the capital intensity of production grows, wage rates may decrease in importance. The education of the people at the machines and in the control rooms may gain increasing priority,

It is important to note that the United States is not alone in suffering employment losses in the textile and apparel industry. Job loss has occurred throughout the developed world—for example, 53 percent in the Netherlands and 37 percent in the United Kingdom within the last decade. At the same time, employment in developing nations is gaining significantly—l 11 percent in South Korea and 194 percent in Mauritius, for example.[71]

### *Impact on Individuals and Families*

The textile industry is an important employer of women and minorities. While manufacturing overall had an employment profile that was 32 percent female in 1980, it was 51 percent for the textile industry, Whereas minorities held 11 percent of manufacturing jobs overall in 1980, they represented 20 percent of textile manufacturing employment.

The industry is also a major employer of immigrants, and immigrants feel dependent on these jobs. For example, in testimony before the Congressional Textile Caucus, one Chinese member of the ILGWU said that except for the garment shops, there were almost no places outside Chinatown where a non-English speaking immigrant could find work in New York City.[72]

In may cases, there may be little or no severance pay to displaced workers. Because of the low level of wages, it is unlikely that a displaced individual has much in the way of savings.

The damage that job loss brings to individuals and families can be significant; problems are exacerbated for two main reasons. First of all, many of the workers affected are minorities, women, and/or those with little education and few other job skills. Second, they often live in areas that are highly dependent on textile and apparel employment. Displacement may mean not only the uprooting of individuals and families, but of whole communities and regions as well.

### *Impact on Communities and Regions of the Country*

The geographical distribution of textile employment makes the industry, both as an employer and as a tax-paying resident, critical to several regions of the United States. As of 1980, 46 percent of U.S. textile employees were in the Southeast, and 17 percent in the Midwest; the latter were predominantly agricultural workers involved with cotton and wool fibers. North Carolina houses over 250,000 textile jobs, more than any other State. South Carolina, New York, and Texas each have between 200,000 and 250,000 people employed. Georgia and Pennsylvania rely on the textile industry to supply between 150,000 and 200,000 jobs. And there are between 100,000 and 150,000 textile jobs in Alabama, California, Tennessee, and Mississippi (see figure 16).

Jobs are divided about half and half between small towns and metropolitan areas. In South Carolina, for example, approximately 60 percent of all textile and apparel jobs are in places with fewer than 2,500 people. But textile and apparel businesses are also significant employers in New York, Philadelphia, Los Angeles, and Miami.

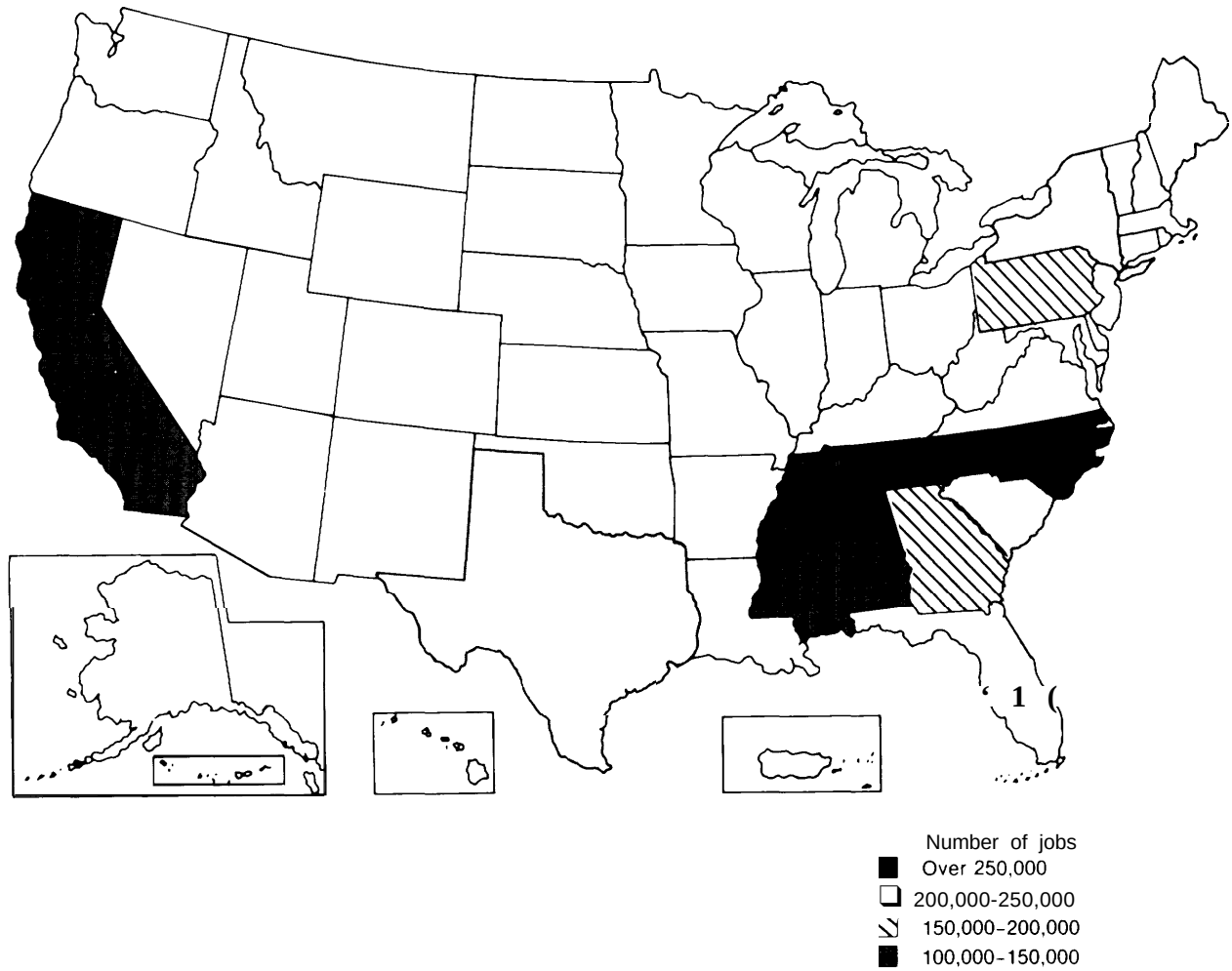
It is conservatively estimated that for every U.S. textile worker who loses a job, another American worker is also put out of work (see tables in the executive summary). These connections are particularly vivid when entire communities are affected by loss of a major plant.

Indeed, in geographic areas where textile employment is particularly concentrated, such as the Southeast, plant closings and job loss can mean economic devastation to an entire town or region, The decline in employment has been the greatest in North Carolina, South Carolina, New York, and Pennsylvania. The region of the country most directly affected is the Southeast-North Carolina, South Carolina, Geor-

[71] International Labor Organization, "Social and Labor Practices of Multinational Enterprises in the Textile Clothing and Footwear Industries," cited in *Daily Labor Report,* Bureau of National Affairs, Jan. 3, 1985, p. A-6,

[72] *AFL-CIO* News, Sept. 21, 1985, p. 5.

**Figure 16.— The Geographic Distribution of Textile Employment by State**




SOURCE Off Ice of Technology Assessment, 1987

gia, Tennessee, Alabama, Florida, Kentucky, and Mississippi–where 33,400 jobs were lost in 1985, bringing textile employment 17 percent below its 1951 level. According to the Bureau of Labor Statistics, 32.2 percent of the region's total manufacturing employment in 1951 was in the textile industry. By 1985, it had shrunk to only 13.5 percent.[73]

An example of economic devastation to a small textile town is Ware Shoals, South Carolina—a town built by Riegel Textile Corp. nearly 80 years ago, and now the location of a closed textile plant. Ware Shoals has a skilled work force, an abundant water supply, an adequate waste treatment facility, and nearly 1 million square feet of manufacturing space under one roof. The town has access to rail and major highways, and to airports in Greenville and Greenwood.

Ware Shoals also has severe unemployment mortgage foreclosures, town emigration, empty stores, and an eroding tax base. Sixty percent of its businesses are gone, including all of its clothing stores. More than 50 percent of the town's property taxes were lost by the exodus of Riegel alone, not to speak of wiping out the lion's share of business license taxes. Younger people are moving out, leaving be-

[73]U.S. Department of Labor, Bureau of Labor Statistics, cited in AFL-CIO News, July 19, 1986, p. 3.

hind an elderly population that faces a severe cutback in public services due to the town's eroded tax base. Beyond the tragedy of Ware Shoals is the fact that this is not an uncommon occurrence:

> The story of what happened in Ware Shoals is fairly typical of what has occurred in many communities where textile manufacturers have closed plants over the past four years. Invariably, the closing of a plant is followed by an exodus of small businesses and a virtual collapse of local economies.[74]

[74] Rudolph A. Pyatt, Jr., "Factory's Shutdown Tears Fabric of Small Company Town," *The Washington Post,* Oct. 14, 1985, pp. 1, *26-27.*