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I Introduction: The Apparel Industry and North American Economic Integration

The economic and social consequences of international trade agreements have become a major area of inquiry in development studies in recent years. As evidenced by the energetic protests surrounding the Seattle meeting of the World Trade Organization (WTO) in December 1999 and the controversy about China's admission to the WTO, such agreements have also become a focus of political conflict in both the developed and developing countries. At issue are questions of job gains and job losses in different regions, prices paid by consumers, acceptable standards for wages and working conditions in transnational manufacturing industries, and the quality of the environment. All these concerns have arisen with regard to the North American Free Trade Agreement (NAFTA) and can be addressed through an examination of changes in the dynamics of the apparel industry in the post-NAFTA period.¹ In this book, we examine the evolution of the apparel industry in North America in order to address some of these questions as they pertain to North America, with an eye toward the broader implications of our findings. We also consider the countries

of the Caribbean Basin and Central America, whose textile and apparel goods are now allowed to enter the U.S. market on the same basis as those from Canada and Mexico (Odessey 2000).

Globalization and Regionalization of the Apparel Industry

As Michael Mortimore notes in Chapter 14, the apparel industry has served as a crucial stepping-stone in the economic development of all the advanced industrialized nations and it has also been an important engine of growth for the successful newly industrializing economies of East Asia. Apparel manufacturing is traditionally one of the largest sources of industrial employment for most countries. In addition, apparel is a quintessential global industry. It exemplifies, more than any other industry, the process by which firms have relocated their labor-intensive manufacturing operations from high-wage regions in the advanced industrialized countries to low-cost production sites in industrializing nations.

Traditional low-tech forms of production are linked with advanced communications and information technologies in a complex post-modern web of design, manufacturing, marketing, and distribution.

The internationalization of garment manufacturing began earlier and has extended further than that of any other industry. Since the 1960s, the newly industrializing economies, led by East Asia and followed more recently by Latin America, have seen a massive increase in export-oriented production (Appelbaum, Smith, and Christerson 1994; Bonacich et al. 1994; Christerson and Appelbaum 1995; Gereffi 1994, 1999; Mittelhauser 1996, 1997; Murray 1995). World apparel exports grew from a modest \$3 billion in 1965, with developing countries accounting for just 14 percent of the total, to \$119 billion in 1991, with developing countries supplying 59 percent (Murray 1995). The U.S. market was the recipient of the largest share (around one-third) of apparel exported by the newly industrializing economies (Murray 1995), and U.S. apparel imports grew from just \$1 billion in 1970 to nearly \$22 billion by 1990 (Bonacich and Waller 1994, 24). By 1998 the world market for apparel exports was valued at \$200 billion, and U.S. apparel imports represented more than one-quarter (\$54 billion) of the world total (see Tables 2.1 and 2.2 in Chapter 2).

By 1995 imported garments accounted for over half of apparel purchases in the United States (Mittelhauser 1996). More than any other industry, apparel manufacturing has exemplified the emergence of a new international division of labor, as the rise in Third World imports has been accompanied by massive declines in employment in advanced industrial countries such as the United States. Table 1.1 documents the resulting employment shifts in the North American apparel industry. U.S. apparel employment peaked at around 1.4 million workers in 1974. By 1990

around a third of those jobs had either disappeared or been transferred to overseas production sites (Bonacich and Waller 1994; Mittelhauser 1996, 1997; Murray 1995), and this trend of increasing import penetration coupled with massive job loss continued through the end of the twentieth century. By 1998 garment employment in the United States had fallen to just over 750,000 workers (American Apparel Manufacturers Association 1999), while garment imports had risen to nearly \$50 billion, more than double their 1990 level (U.S. Department of Commerce 1999).

Canadian apparel employment has been more uneven throughout this period. The Canadian industry suffered its greatest decline in the late 1980s, following the implementation of the Canadian-U.S. Free Trade Agreement. The industry has since rebounded under NAFTA, with apparel employment in Canada increasing from 82,800 in 1994 to 93,700 in 2000 (see Table 1.1).

Whereas the Northeast Asian economies once dominated developing-country apparel exports to the United States, since the mid-1980s the countries of the Caribbean Basin and Mexico have risen to prominence. In 1990 the Northeast Asian economies (China, Hong Kong, Taiwan, South Korea, and Macao) exported a total value of \$13.7 billion worth of garments to the United States, accounting for more than half of total U.S. imports. By 2000, however, these economies' share of total U.S. garment imports declined to less than 30 percent. Meanwhile, garment exports from Central America,² the Caribbean, and Mexico skyrocketed from \$2.7 billion in 1990 to over \$18.4 billion in 2000, accounting for nearly 30 percent of U.S. total apparel imports. Particularly dramatic was Mexico's rise to become the top-ranked garment exporter to the United States at the end of the century, as its exports grew from just \$709 million in 1990 to over \$8.7 billion in 2000 (see Table 2.2 in Chapter 2).

TABLE 1.1. Employment in the North American Apparel Industry, 1985–2000 (thousands of workers)

	1985	1988	1991	1994	1995	1996	1997	1998	1999	2000
Canada	89.9	95.8	64.3	82.8	85.5	89.9	87.4	91.9	91.1	93.7
United States	1,120.4	1,085.1	1,106.0	974.0	935.8	867.7	823.6	765.8	690.1	633.2
Mexico ^a	146.8	196.4	221.3	231.3	263.2	395.6	454.9	761.9	607.0	557.0

Sources: Statistics Canada, *Employment, Earnings and Hours*; U.S. Bureau of Labor Statistics; INEGI, *Censos Económicos*.

^aMexico's figures in this table include maquiladora and non-maquiladora apparel employment. The 1999 and 2000 employment figures are estimates based on data from the Camara Nacional de la Industria del Vestido and *Apparel Industry Magazine*, respectively.

The movement of garment production to the Caribbean Basin and Mexico has been promoted by U.S. government policies, including:

- provisions of the U.S. tariff code that have encouraged the growth of production in maquiladoras, which are plants that assemble U.S.-made components that are then exported back into the United States, with tariff paid only on the value added in the exporting country;
- the Caribbean Basin Initiative (CBI), which gave preferential access to U.S. markets to the countries of Central America and the Caribbean beginning in the 1980s;
- the progressive lifting, since the late 1980s, of U.S. quotas limiting apparel imports from developing countries; and, most recently,
- the North American Free Trade Agreement, which, together with the 1994–95 peso devaluation, has cemented Mexico's position as “the low-cost manufacturing center of North America” (Martin 1995).

These policy changes have substantially altered the conditions that confront garment manufacturers who wish to produce for the U.S. market. Particularly dramatic has been the effect of NAFTA on Mexico's garment production for export. In 1994, the first year that NAFTA was in effect, 412 maquiladoras employed 82,500 workers sewing garments (Figure 1.1). By December 2000 there were more

than 286,000 workers sewing garments in 1,119 maquiladoras in Mexico.³ The number of maquiladora workers fell in 2001 to 276,700, though the number of maquiladora plants dedicated to apparel production increased to 1,125. Despite this dip in employment, the number of workers employed in apparel maquiladoras in 2001 was more than three times greater than in 1994 (INEGI 2001). The expansion of the maquiladora sector is evidence of Mexico's impressive NAFTA-era export dynamism in the apparel industry. Although exports from the Caribbean Basin countries have also been strong in recent years, these economies were disadvantaged by the region's exclusion from NAFTA. The passage of the Trade and Development Act of 2000 by the U.S. Congress extends a weak version of NAFTA parity to the region, but it is too early to tell what impact it will have in increasing the CBI's export dynamism relative to Mexico.

In addition to the quantitative boom in Mexico's apparel exports in the post-NAFTA period, production in this economic sector is undergoing a qualitative transformation. Beside the growth of maquiladora sewing operations Mexico has witnessed the emergence of cutting, laundering, and finishing operations, as these parts of the production process are moved south of the U.S. border to various sites that are undertaking “full-package” production. This upgrading of Mexico's productive capacity has, in turn, attracted a number of

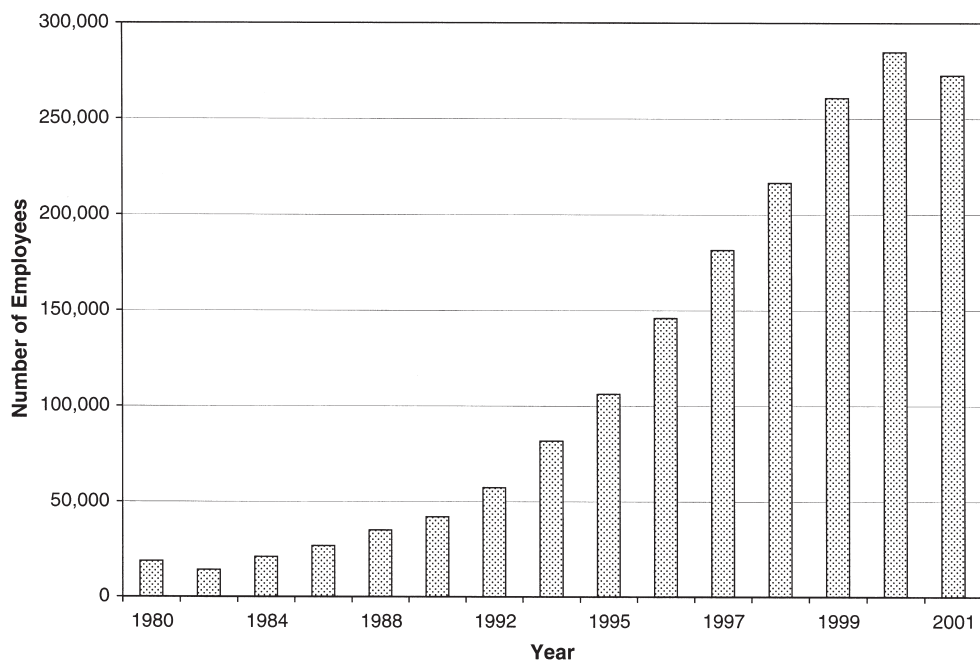


FIGURE 1.1. Employment in Mexico's Apparel Maquiladoras, 1980–2001

Source: INEGI, "Banco de información económica," data available at <<http://www.inegi.gob.mx>>.

large textile producers, including Burlington Industries and Cone Mills, which alone or in concert with Mexican firms have opened plants in Mexico's interior for the production of fabrics.

With regard to product segments, Mexico is not only gaining in standardized apparel but also making inroads in the fashion sector that has traditionally been dominated by Asian firms. The emphasis is, nevertheless, still on men's sport-fashion apparel (e.g., designer jeans) rather than women's apparel (although some women's brands are being produced in Mexico for labels such as Donna Karan, DKNY, and the Limited). As a consequence, Mexico's apparel exports to the United States remain dominated by such mass-produced, standardized garments as men's trousers and shirts, women's trousers, and brassieres (U.S. Department of Commerce 1999; Gereffi 2000).

Most studies indicate that the overall impact of NAFTA on employment and wages in the United States has been quite small; implementation of the agreement, however, has contributed greatly to the elimination of direct production jobs in apparel manufacturing. Although the apparel industry accounted for just 7.3 percent of all manual jobs in U.S. manufacturing in 1998, 30 percent of the NAFTA-induced job losses documented by the U.S. Department of Labor between 1994 and 1999 were accounted for by apparel workers whose plants moved to Mexico or laid off workers in response to surging imports. Overall, apparel employment in the United States declined by 14 percent from 1993 to 1997, with the bulk of this loss occurring in states such as Tennessee and the Carolinas that, like Mexico, specialized in the mass production of standardized garments (Spener and Capps 2001).

As mass-production jobs in the industry were lost, the leading garment districts in New York City and especially Los Angeles retained jobs not only in design but also in direct production by relying on immigrant workers to sew small-batch, high-fashion garments. Indeed, although overall U.S. apparel employment declined precipitously in the 1990s, the net number of immigrant workers engaged in sewing and other direct-production tasks actually grew from 265,000 in 1990 to 296,000 by 1999, an increase of more than 10 percent. As native U.S. employees lost their apparel jobs or found better work in other fields, the immigrants' share of direct-production apparel jobs rose dramatically, from around one-quarter of the total U.S. garment workforce in 1990 to nearly one-half by 1999 (Spener and Capps 2001; see also Chapters 3 and 4 in this volume, by Florence Palpacuer and Judi Kessler, respectively).

The principal reason for the growth of immigrant employment in the U.S. apparel industry during the 1990s was Los Angeles' prominence as the leading garment district in the United States. There employment in the industry grew throughout the decade, while it declined nearly everywhere else. In 1990 more than 90 percent of Los Angeles garment workers were foreign born, the majority being Mexican, even though Mexicans made up just 9 percent of all garment workers nationwide. By the end of the decade, however, 20 percent of all garment workers in the United States were Mexican immigrants, with most of these working in Los Angeles. Thus we see that Mexico has come to play a doubly important role in the production of garments for the U.S. market, with more than 280,000 Mexicans working in apparel maquiladoras south of the border and another 128,000 sewing, cutting, and finishing garments north of it (Spener and Capps 2001).

Apparel Production in the Era of NAFTA: The Dynamics of Interfirm Networks

The purpose of this book is to document the ways in which firms in the textile-apparel complex have responded to the changed trade environment in terms of new production and marketing strategies and, in turn, to consider the implications for job creation and retention, wages, and working conditions in various regions in Mexico, the United States, Central America, and the Caribbean. Given the rapid pace of change in the geography of production in recent years, there is a great deal of room for new documentation and analysis in the academic literature on the organization of the industry. This is in itself an important task, given that the textile-apparel complex has, until recently, been the largest U.S. manufacturing sector in terms of employment and also has come to play a substantial role in the Mexican, Central American, and Caribbean economies. With this collection of essays we are able, at a minimum, to provide a useful service to readers by updating the extant literature on the global apparel industry (e.g., Bonacich et al. 1994; see also chapters on apparel in diverse edited volumes, such as Gereffi and Korzeniewicz 1994; Gereffi and Kaplinsky 2001).

Nevertheless, this book does much more than update earlier works. The emergence of an integrated North American regional economy in the latter half of the 1990s constitutes a qualitative change in the dynamics of the apparel industry that requires new forms of analysis. While a great deal can be gained by simply studying the effects of national trade policies and exchange rates on the geography of production, such an approach fails to explain the important shifts that are occurring within countries as well as the socioeconomic consequences of such subnational or local transformations. Contributors to this book

address the new regional dynamics of production in the apparel industry by taking a firm-centered approach that focuses on the ways in which interfirm networks are creating new textile-apparel supply chains in a more interdependent and complex North American production and trade landscape. This firm-centered approach has several advantages.

First, this approach allows us to identify the “lead firms” in the textile and apparel commodity chain and to document the evolution of the strategies and organizational behaviors they adopt in response to changes in the regulatory regime for international trade. Often these lead firms are not themselves garment manufacturers but rather are to be found in the retail, design, or textiles and fiber segments of the supply chain. Thus we are able to demonstrate how apparel producers are dynamically linked to other strategic actors in the textile-apparel complex. In addition, by focusing on the behavior of lead firms in vertically structured interfirm networks, we can trace the actual mechanisms through which the geography of apparel production is changing, accounting for spatial shifts in regional employment, the upgrading or downgrading of productive technologies, job quality, and so forth.

Second, the network approach allows us to examine the extent to which cooperative ties exist among small- to medium-scale firms that participate in cross-border networks in particular locales in the United States and Mexico. This permits us to talk about the emergence or renewal of industrial districts in the United States and Mexico and whether such districts are following the “high road” to development exemplified by the famous “Third Italy” case of Emilia-Romagna.⁴ Thus, a network perspective provides a unique opportunity to link multiple levels of analysis: from the strategic decision making of lead firms, to the modes of insertion into the apparel commodity chain of small-scale garment enterprises, to the dynam-

ics of local industrial districts, to an investigation into the wages and working conditions prevalent among peripheral contractors.

Third, an interfirm network perspective allows us to demonstrate how a variety of subnational regions in Mexico and the United States are dynamically linked with one another across the national boundary dividing the two countries (e.g., El Paso, Texas, and Torreón, Coahuila; Los Angeles and Tehuacán, Puebla; San Francisco, California, and Aguascalientes). In this regard, our edited collection complements the publication of new monographs on the industry, such as Edna Bonacich and Richard Appelbaum’s *Behind the Label: Inequality in the Los Angeles Apparel Industry* (2000), that center on a single production locale rather than on the web of relations among multiple sites.

Fourth, the network perspective integrates a variety of research methodologies, ranging from strategic interviews with key personnel of lead firms in order to trace transborder production chains, to plant surveys, analysis of official trade and employment data, and the examination of published records and data from the textile-apparel firms themselves.

The Contexts in Which Networks Operate

Focusing our attention on interfirm networks in the garment industry gives us considerable analytical leverage. In concert with one another, firms make a series of decisions that shape the textile-apparel commodity chain: where different aspects of the design–production–marketing–distribution process take place; how each aspect is organized and managed; and what types of workers are hired, under what sorts of conditions, at what pay levels, and with how much opportunity for upward mobility.

Nevertheless, it is important to bear in mind that firms are not the only actors in the apparel commodity chain that determine its evolution. Rather, they contend with other collective or institutional participants that influence not only production decisions but also the relevant economic and social outcomes. These participants include national, state, and local governments, supranational regulatory agencies (e.g., the NAFTA Secretariat and the World Trade Organization), labor unions, nongovernmental advocacy groups, banks, local entrepreneurial elites, advertising and media companies, households, and transnational migrant communities. Thus, although we grant analytical primacy to the role of different types of interfirm networks in determining the evolution of the textile-garment chain and the generation of wealth at different points along it, we recognize that the socioeconomic consequences of this process are embedded in a multilayered institutional setting that incorporates a variety of other factors as well.

In this regard, it is instructive to contemplate the interaction between firm strategies and macroeconomic and macropolitical contexts, that is, the dynamic relation between private firms and nation-states. These contexts play a powerful role in determining what strategies are pursued at a given point in an industry's development and in limiting the benefits and costs to a particular region that result from changes in firm strategies. For example, it is clear that changes in the macro context—in the form of NAFTA and a severely devalued peso—have led brand-name apparel firms vigorously to pursue opportunities to manufacture garments in Mexico, such as mass-produced men's and boys' trousers. The structural advantages of Mexico as a production site include:

- the relatively low cost and high productivity of its labor force;
- the existence of a Mexican entrepreneurial class within the industry that is capable of undertaking assembly and in some cases also full-package production;
- the generally acceptable quality of its transportation, utilities, and communications infrastructure, especially in comparison to other developing nations;
- its physical proximity to the United States (which keeps transportation costs from wiping out other cost savings); and
- its preferential tariff and quota treatment under NAFTA.

At the same time, the varying structural conditions that firms encounter *within* Mexico influence their strategic decisions with regard to production. For example, we see that the possibilities for expansion of garment production on Mexico's northern border are limited by the saturation of the labor and commercial real estate markets with auto-parts and electronics maquiladoras. This has made production at the border relatively more expensive than elsewhere in Mexico, encouraging a shift toward interior production locations. Although the majority of maquiladora employees continue to work in plants located along Mexico's northern border—79 percent in 1998—this proportion has declined from 93 percent in 1988 (Buitelaar and Padilla Pérez 2000). At present, the rate of growth in the maquiladora sector is higher in the interior of Mexico than along the border, and this is particularly true for apparel plants.

As a consequence, in some interior locations of the Mexican garment industry (e.g., Monterrey, Guadalajara, and Torreón) we see established domestic producers shifting to the export market on an original equipment manufacture (OEM) basis, that is, manufacturing ready-made garments for branded U.S. customers, or selling to new foreign retail chains in the Mexican market (see Chapters 9, 10, and 11 in this

book; see also Bair 2001). In other interior locations (e.g., the rural municipalities near Gómez Palacio, Durango), we see garment production undertaken on a “green field” basis, tapping heretofore unutilized labor reserves, especially those constituted by young women in smaller towns and rural areas. We also find variation in the types of garments that dominate production in different regions. In general terms, the “new” production centers concentrate on mass-produced men’s and boys’ garments, such as blue jeans, while the types of garments made in regions that are experiencing a shift from domestic- to export-oriented production depend more on the preexisting infrastructure that has served the Mexican market.

Shifts in the geography of apparel production within Mexico, with sites in southern and central Mexico growing rapidly, are driven by the combination of push and pull factors alluded to above. The push factors, as noted, are high turnover and increasing wages on the border, which have led many leading U.S. firms to relocate production and sourcing operations to the interior. State governments, seeking to attract foreign investment and create jobs, offer various incentives to these firms in order to pull them to particular locations that are often green-field (i.e., new and potentially “fertile”) sites with respect to apparel production. Another pull factor is the existence in several parts of Mexico of national firms that are looking for maquiladora orders either to replace or to supplement production for a stagnant domestic market.

While in the past Mexico’s apparel production for export was limited to assembly, NAFTA has prompted a substantial flow of additional capabilities to Mexico, including textile production, cutting, trimming, laundering, and distribution. The growth in non-assembly production activities has been especially pronounced in interior regions. In addition, the post-NAFTA period has wit-

nessed the emergence of a number of “full-package” production networks linking the United States and Mexico. Such full-package manufacturing in Mexico has a number of advantages, including local “backward” linkages,⁵ technology transfer, and skill upgrading at the direct-production, technician, and managerial levels, as high-status, brand-name companies contract to local producers that can meet exacting standards for quality, timely delivery, and cost. These local producers may be U.S.-owned, Mexican-owned, or joint ventures. Meeting such standards typically involves the use of state-of-the-art technologies and forms of work organization that, in turn, require a trained, disciplined, and stable workforce.

The ability to fill full-package orders for U.S. buyers gives Mexican firms a competitive edge vis-à-vis their maquiladora competitors in Central America and the Caribbean. The transition to full package may also benefit Mexican workers in the form of better working conditions and perhaps even higher wages than those of their peers with jobs in “low-road” maquiladoras and smaller producers that are more technologically and organizationally backward.

Nevertheless, the macro context in which even such “elite,” high-productivity garment networks operate can place strong limits on the benefits accruing to Mexican workers. Thus, while the expansion of garment production for the world market has generated considerable employment in Mexico in recent years and has led to productivity growth in some regions of the country, workers’ incomes may not rise concomitantly if their purchasing power is reduced by currency devaluations or government attempts to keep exports competitive by deliberately limiting wage growth. Indeed, research by Harley Shaiken (1990) into technologically advanced, export-oriented plants in Mexico in the automobile, consumer electron-

ics, and computer industries demonstrates that such an outcome for the garment industry is not out of the question.⁶ In this regard, it is important to bear in mind that firms in the garment industry do not set the average wage levels in most of the local labor markets in which they operate, that is, they are “price takers” with respect to wages. The wages they pay may be relatively high in local labor markets but may still be insufficient to lift workers above the subsistence level. At the same time, macroeconomic factors that depress worker wages give transnational firms an incentive to shift production to low-wage regions.

Evaluation of the impact of NAFTA on Mexican development must also take account of changes that have occurred in the country’s political and economic landscape since the mid-1980s. Mexico transformed itself from one of the world’s most closed economies to one of the most open in little more than a decade. Its modernizing agenda, dramatically accelerated by President Carlos Salinas de Gortari (1988–94), placed a high priority on increasing labor flexibility and making Mexico an attractive site for foreign direct investment. In effect, this has meant falling real wages for most Mexican workers and a serious decline in the influence of the once-powerful (if never democratic) unions that for decades provided important support to the country’s ruling party, the Partido Revolucionario Institucional (PRI). The analytical approach taken in this collection focuses attention precisely on this sort of interplay between the macroeconomic and political landscape, local environments of specific production sites, and interfirm networks connecting national and foreign companies and their workers.

While the firm-focused approach taken here means that this book contains only a few chapters that analyze developments within the North American garment workforce, it suggests a network-oriented path for other ana-

lysts who wish to explore these developments. Similar to the way in which networked firms devise production strategies in response to structural factors, workers and their communities participate in networks that help organize their labor market participation. This can be seen most clearly in the existence of transnational migrant networks that link communities of garment workers and their families across national boundaries.

Mexican workers participating in migrant networks that transcend the U.S.–Mexico border face strategic decisions in a way similar to those of networked firms in the garment industry. Both confront a North American landscape altered by increased economic integration between Mexico and the United States and a transformed legal framework that regulates their activities. Mexican workers enmeshed in social networks in certain regions in Mexico may find it attractive to remain in Mexico in order to pursue employment opportunities with the dynamic export-oriented firms that are coming to dominate Mexico’s manufacturing sector. Workers in different social settings in other regions may find it attractive to migrate to the United States in order to pursue productive opportunities there. With regard to the North American garment industry, Mexican laborers are crucial to subsidizing its development whether they work in El Paso, Los Angeles, Torreón, or Puebla. The relative benefits they derive from employment as garment workers depend on the types of firms they work for, their productivity, the effort they put forth as individuals, the degree to which they are represented by strong and responsible unions, and the national macroeconomic context, as well as on social and cultural factors inherent to the communities in which they live and work.

Within this “social economy” framework seemingly peculiar outcomes may arise. Workers employed in Mexico as sewing machine

operators in progressive, state-of-the-art apparel firms may enjoy wages and benefits that are substantially higher than those offered by other types of firms in their communities. They may gain new skills and find opportunities for occupational advancement. Their incomes, while perhaps not sufficient to support an entire family, may contribute to sustaining low-income multi-earner households. Mexicans working for garment producers in Los Angeles might find themselves in similar circumstances. By contrast, especially if they are undocumented, they may work for sub-standard U.S. wages, receive no benefits, have little chance for occupational advancement, and toil in sweatshop conditions.⁷

In spite of the considerable disadvantages experienced by Mexican workers relative to U.S. natives in Los Angeles, national macro-economic factors allow Mexicans working there to earn wages up to ten times higher than those earned by compatriots laboring in the garment industry in Mexico. Just as this national income gap influences firm strategies in the North American garment industry, so too it influences Mexican worker strategies. Thus, Mexican women who lose their jobs sewing jeans in El Paso are unlikely to move home to Torreón in order to continue plying their trade. But by the same token, their nieces, who in earlier times might have migrated to the border to work in the industry, may be less likely to move to El Paso to join other kin and friends there. Undocumented Mexicans in Los Angeles may tolerate wages and working and living conditions that are abysmal by U.S. standards but that allow them to remit a substantial portion of their dollar income home to family members in their communities of origin. Some of these family members may labor in the same industry and may even use the remitted dollars to set up their own garment shops as subcontractors.⁸

The Chapters in This Book

Given that this collection directs its attention to the “new geography” of the North American apparel industry, we have chosen a geographic order of presentation of its chapters. But before introducing the individual chapters and highlighting their contributions, we ask readers to bear two points in mind. First, for the purposes of description and analysis we have deliberately chosen a broad definition of North America. Hence we include chapters dealing with apparel production not only in the United States and Mexico but also in Central America and the Caribbean. As noted above, by the early 1990s the Central American countries and certain Caribbean Basin economies such as the Dominican Republic had become major exporters of garments to the U.S. market. After the implementation of NAFTA, the Caribbean Basin region lost market share relative to Mexico, although its exports to the United States continued to grow rapidly. Now that the Trade and Development Act of 2000 grants Caribbean Basin countries U.S. market access on more favorable terms, they are in a better position to compete with Mexico, and the Caribbean Basin economies are even more thoroughly integrated into the development of the North American regional apparel market. For these reasons, we have included two chapters (by Michael Mortimore and Dale Mathews) focusing on apparel production in Central America and the Caribbean Basin.

This book does not, however, contain chapters focused on the textile-apparel complex in Canada, in spite of that country’s participation in NAFTA. In terms of North American regional trade, Canada occupies a relatively minor niche in the apparel industry, specializing in a small number of products such as men’s and women’s wool suits. It is a more important exporter of textile products, but for the most part these are not destined for apparel

production, instead being used in household and automotive upholstery. Like the United States, although on a much smaller scale, Canada has seen employment declines in both textiles and apparel owing to competition from Asian and Mexican imports. For these reasons, we have not included individual chapters dedicated to the Canadian experience.

The second point we ask readers to remember is that, although the chapters are organized by the geography of the principal production sites they examine, the fact that contributors have taken a firm-centered, network-oriented analytical approach means that most chapters relate developments in the industry to more than one place in the North American region. For example, Judi Kessler's discussion of the Los Angeles garment district also considers its relationship to emerging Mexican production sites in Puebla and Cuernavaca, while Florence Palpacuer's chapter on New York perforce relates developments there to those in Los Angeles, its principal geographic competitor in the United States. Similarly, David Spener's and Robine van Dooren's chapters on El Paso take into account the emergence of Torreón as a rival to the Texas city's claim to be the "blue jeans capital of the world," while Gary Gereffi, Martha Martínez, and Jennifer Bair discuss Torreón's relationship with textile and garment producers in the U.S. Southeast. Thus the reader of any given chapter in this book will learn not only about apparel production in the principal site described therein but also about how and why production there relates to clothing production and consumption elsewhere in the region.

Part I: Analytical Overview

In addition to this introductory chapter, Part I includes a chapter by Jennifer Bair and Gary Gereffi that describes the emergence of full-

package production networks in Mexico that link new types of U.S. "lead firms" with a range of Mexican partners, including textile, fiber, and apparel companies. Chapter 2 begins with a review of the evolution of the global apparel industry since the 1970s. The authors then discuss the types of data necessary for a firm-level network analysis, including trade and production statistics, strategic interviews with lead companies, and on-site fieldwork. Research conducted by the authors over several years reveals that firms are developing strategies to respond both to the changing institutional environments created by trade regimes such as NAFTA and to their own concerns about profitability and control in increasingly global commodity chains. In addition, the authors discuss how the developmental implications of "full-package" networks differ from those associated with the maquiladora or assembly model of production.

Part II: The Apparel Industry in the United States

The initial two chapters in this part of the book address contemporary developments in New York and Los Angeles, the two largest garment districts in the United States in terms of employment and cities that are also among the world's most important fashion design centers. In Chapter 3, Florence Palpacuer analyzes how the structure of the New York garment industry has evolved under the impact of globalization by focusing on its main industrial niche, the fashion-oriented segment of the women's wear industry, and on the subcontracting networks through which production in this segment is organized. Globalization is here associated with two major trends: (1) the development of international subcontracting networks that link garment firms in New York City to foreign producers in a variety of countries; and (2) the

entry of Asian and Hispanic immigrants, which has produced significant diversification in the social and ethnic composition of the New York garment industry.

Palpacuer finds that the majority of New York garment firms are still small, but a few have grown significantly by adopting new competitive strategies in marketing, product design, and production management. Most New York garment firms use local subcontractors for garment manufacturing, but the largest have developed transnational production networks in which local producers account for only a small portion of productive activities. Although ethnic ties remain an important channel for entry into the New York garment industry, Palpacuer finds, subcontracting networks have developed across ethnic communities, creating new patterns of social and industrial segmentation in the local industry.

In Chapter 4, Judi Kessler focuses on the evolution of Los Angeles as a major center for garment production and on the changes that have occurred there since 1994. She presents evidence that although NAFTA has helped promote Southern California as a center for apparel services for North America, it has also pulled segments of the apparel commodity chain from Los Angeles to Mexico. In particular, she highlights a survey of Los Angeles apparel manufacturers that she conducted in 1997 and 1998, in which half the respondents reported that they sourced at least some of their production in Mexico—up from just 15 percent of the same respondents surveyed in 1992. The vast majority of respondents in 1997–98 maintained that NAFTA was a primary reason for shifting production to Mexico, more important than the 1994–95 peso devaluation that lowered Mexican labor costs.

In conducting in-depth interviews with managers of Los Angeles firms that sourced production to Mexico, Kessler found that the

interior states of Guanajuato, Puebla, Tlaxcala, and Jalisco, as well as the greater Mexico City region, figured most prominently as new production states. Many of the managers stated that a principal reason for sourcing production to Mexico was to avoid the burden of complying with state and federal labor regulations governing production in Los Angeles. At the same time, Kessler found that many small manufacturers lack the “global reach” to relocate production to Mexico or other offshore sites and continue to exploit a vulnerable immigrant workforce, many of whose members are undocumented Mexicans. Should employment of direct-production workers in Los Angeles remain constant or grow in the future, it will likely be in this small-scale, immigrant-dominated sector.

As both Palpacuer and Kessler note in their chapters, many immigrant workers in the New York and Los Angeles garment districts toil in substandard conditions. In Chapter 5, Robert Ross takes up the issue of sweatshop employment in the U.S. apparel industry. He examines a variety of statistical and historical records to measure the extent of sweatshop exploitation during the evolution of the U.S. apparel industry in the twentieth century. Adopting the U.S. General Accounting Office’s definition of a “sweatshop” as “a business that regularly violates both wage or child labor and safety or health laws,” Ross estimates that in 1998 around 60 percent of the eight hundred thousand garment workers in the United States labored in sweatshops.

Based on his examination of historical records, including documents and statements from officials of the International Ladies Garment Workers Union (ILGWU); studies conducted by independent scholars; and an examination of the conditions of Puerto Rican workers in New York City’s garment industry in the 1950s, Ross concludes that sweatshop

employment, which had been endemic early in the century, had declined to a marginal level by the 1960s. He then describes the four significant factors in the resurgence in sweatshop employment in the apparel industry since the late 1960s: the declining capacity of the state to enforce labor law; the increasing market power of retailers through concentration of sales; the competitive pressure brought about by massive imports from low-wage export platforms; and the availability of a large pool of vulnerable immigrant labor.

In Chapter 6, the final chapter in Part II of this book, Edna Bonacich shows how organized labor is confronting global production in the apparel industry. The shift to global outsourcing in the last decades of the twentieth century led to huge losses in membership in the two leading unions in the U.S. apparel sector: the ILGWU and the Amalgamated Clothing and Textile Workers Union (ACTWU). When the ILGWU and ACTWU merged in 1995 to form UNITE (the Union of Needletrades, Industrial, and Textile Employees), a new chapter in the U.S. labor movement was launched. Bonacich describes how each of these three unions (ILGWU, ACTWU, and UNITE) responded to the challenges of globalization, with an emphasis on the key limitation of labor's strategy in the North American apparel industry: its reluctance to try to link domestic organizing of apparel production workers with organizing efforts directed at garment workers in developing countries. The chapter ends with a discussion of new strategies by labor that include linking solidarity initiatives associated with the "anti-sweatshop movement," a strategic ally of the North American labor movement, to real organizing in offshore production locations.

Part III: The U.S.-Mexico Border Region

The apparel industry was an important employer in the border region long before the maquiladora system and NAFTA were implemented. In many ways, the border region was the first place where, prior to Mexico's unilateral trade opening of the 1980s and its subsequent entry into NAFTA, North American economic integration occurred, in the form of export-oriented assembly on the Mexican side coupled with commercial distribution of industrial and consumer goods and large-scale employment of Mexican nationals in agriculture, manufacturing, and services on the U.S. side. Business organizations in the region were strong proponents of NAFTA, and the border was seen as a harbinger of the economic benefits that U.S.-Mexican free trade could bring (see Spener 1995). Ironically, the border region has been hard hit by NAFTA-related dislocations, especially in the apparel industry. Three chapters in this book address themselves to developments in the border region.

In Chapter 7, David Spener describes how bilateral trade regulations negotiated under the auspices of the Multifiber Arrangement (MFA)⁹ promoted the development of El Paso as a low-cost producer of denim apparel in the United States and how subsequent liberalization of the regime encouraged firms to relocate cutting, sewing, and finishing operations to sites in Mexico. Spener pays special attention to the case of Levi Strauss, El Paso's largest private employer, which has laid off nearly three thousand employees in El Paso since the implementation of NAFTA began. He argues that while NAFTA was not the proximate cause of the company's plant shutdowns in El Paso, the trade agreement favored its greatly increased reliance on a network of overseas contractors, especially in Mexico. The new

NAFTA trade regime has also negatively affected smaller subcontractor firms in El Paso, whose activities (such as cutting and laundering of denim garments) were formerly protected from Mexican competition. Spener concludes his analysis by highlighting the challenges created for the El Paso community by job loss in its principal industry. The apparel sector had traditionally provided employment for large numbers of Mexican immigrant women, whose lack of education and English-language ability makes them especially difficult to retrain for jobs in other industries.

In Chapter 8, Robine van Dooren also directs attention to the El Paso case, but she focuses on the lack of cross-border linkages between the Texas city's garment district and apparel production in Ciudad Juárez, El Paso's "twin" city across the border and the home to Mexico's largest concentration of maquiladoras. From her examination of a survey of sixty companies in this binational metropolitan area, van Dooren concludes that very little complementarity exists between the two cities' industries, largely because of their differing product specializations—El Paso focuses on blue jeans production, whereas Ciudad Juárez makes a much wider variety of garments, ranging from women's wear to uniforms, with very little emphasis on jeans. In the free-trade environment, low-cost production in Juárez is favored in the short run, while the production of standardized garments in El Paso is seriously threatened by competition not from Juárez but rather from cities in the Mexican interior, such as Torreón/Gómez Palacio, Aguascalientes, and Puebla. In the long run, however, Juárez may experience a decline in garment production due to a tight labor market brought on by large-scale maquiladora production in electronics and auto parts. This tight labor market and high real estate costs make Juárez an increasingly unattractive site for garment production relative to other Mexican locales.

In Chapter 9, Jorge Carrillo, Alfredo Hualde, and Araceli Almaraz compare the different experiences with free trade of the apparel sectors of Monterrey, in the state of Nuevo León, and Ciudad Juárez. Specifically, the authors identify the different types of interfirm networks that have arisen in each city. In Monterrey these include traditional assembly, OEM (or full-package production, as it is better known in the apparel industry), and original brand-name manufacture (OBM) networks, in which local firms have moved beyond OEM production for foreign buyers to establishing their own brand names that they market themselves. Ciudad Juárez has two distinct forms of international subcontracting networks, one that features significant backward linkages to the local market and one with no such linkages. In examining the international competitiveness of firms participating in each type of network, the authors conclude that, contrary to the predictions of development theory, firms participating in networks without local backward linkages tend to be more flexibly competitive in the new free-trade environment, while locally linked firms tend to suffer from a number of disadvantages, including technological and organizational limitations and a lack of forward linkages to the international market.

Part IV: Interior Mexico

Mexico's rise to prominence as an apparel exporter has resulted from the rapid expansion of production in its interior, far from the traditional sites of maquiladora assembly on the border with the United States. Three chapters in this part examine the export-oriented apparel sector in the Mexican interior, while a fourth addresses the evolution of the domestic retail market for apparel. Together, these chapters outline the challenges and opportunities

facing the Mexican apparel industry in the free-trade period. Mexican producers have confronted the double challenge of the penetration of Asian imports and the shrinking of the domestic apparel market caused, respectively, by the country's entry into the General Agreement on Tariffs and Trade (GATT) in the 1980s and by the drastic devaluation of the peso in the mid-1990s. As a consequence, many Mexican producers have had to shift to producing for the U.S. market in order to survive. For the most part, this has meant working as subcontractors for U.S.-based manufacturers and retailers or for larger Mexican producers, an opportunity that has been enhanced by both NAFTA and the devalued peso.

Nowhere in Mexico has the rise of apparel production for export been more dramatic than in Torreón, Coahuila, which by the end of the twentieth century had replaced El Paso as the "blue jeans capital of the world." In Chapter 10, Gary Gereffi, Martha Martínez, and Jennifer Bair detail the rapid rise of Torreón as an exporter and discuss its potential as a model for surpassing the traditional *maquiladora* form of production in the apparel sector. They describe how Torreón's blue jeans firms have transformed themselves in just a few years from producers for the domestic market, to *maquiladora* exporters, and then to full-package exporters working as partners with U.S. "lead firms," for whom they manufacture on an OEM basis. In this process, apparel employment has mushroomed in the area, from just twelve thousand jobs in 1993 to seventy-five thousand by 2000. In addition, Torreón's rise as a jeans exporter has attracted U.S. textile producers to the region, leading to the opening of new denim mills close to local producers.

Although the authors establish that Torreón has moved well beyond the traditional *maquiladora* model, with positive consequences that include improved wages and conditions for workers, skill upgrading, and the deepening of

local backward linkages, firms there do not have the institutional support associated with a traditional "industrial district," and no firm has been able to move into the most profitable activities in the apparel chain, namely, design and marketing. The authors also question the extent to which Torreón's experience is replicable in other Mexican locales that do not share some of the city's strategic advantages, including close proximity and easy transport to the U.S. border, the existence of an apparel-manufacturing tradition prior to NAFTA, and a class of local entrepreneurs able to upgrade their factory operations.

In Chapter 11, Enrique Dussel Peters, Clemente Ruiz Durán, and Michael Piore elaborate further on how Mexican apparel producers can upgrade their operations by partnering with foreign firms. They note that trade liberalization in Mexico has created a split between a relatively small set of companies with current technology and manufacturing methods that are able to compete in a global market, on the one hand, and a larger group of firms catering to domestic demand that have been negatively affected by the opening of markets, on the other hand. Firms that have made a successful transition to exporting have relied heavily on their relationships with foreign firms placing orders in Mexico. The authors examine the learning process that accompanied these successful transitions and argue that the type of investment required of both foreign and Mexican manufacturers limits the likelihood that these tutelage relationships will prove common enough to upgrade the Mexican apparel industry on a wide scale. The chapter concludes with a set of policy recommendations for a "bootstrapping strategy" that can extend to a broader range of companies the benefits created by one-on-one relationships between foreign and national firms.

In Chapter 12, Ulrik Vangstrup examines the experiences of domestic knitwear manufacturers

in the central and western states of Guanajuato, Hidalgo, México, Michoacán, and Jalisco that have recently begun exporting. He focuses on the potential benefits provided to these primarily small and medium-sized enterprises as a result of their location in industrial clusters. Drawing on industrial-districts and collective-efficiency literature, Vangstrup asks if the *empresas integradoras* (“integrative firms”) and credit unions that emerged in the early 1990s, during Mexico’s most intense period of economic reform, have encouraged Mexican entrepreneurs to export. Contrary to the emphasis that the industrial-districts literature has placed on the importance of *inner-cluster* dynamics for small and medium-sized enterprises, the rich case studies presented in this chapter reveal that *external links* to global commodity chains have been critical in allowing companies to initiate successful export programs. Specifically, contacts with foreign (and especially U.S.) buyers were found to be more important than the advantages provided by membership in a producer association or location in a cluster. Vangstrup concludes with recommendations for increasing the efficacy of the producer associations, noting the potential competitiveness of Mexican knitwear manufacturers in the global market.

In Chapter 13, Jorge Mendoza, Fernando Pozos Ponce, and David Spener describe the evolving structure of the Mexican retail market for apparel in terms of the growing importance of large-scale discount chains and department stores and the persistence of informal distribution channels. In reviewing trends in Mexican clothing imports and consumption in the 1980s and 1990s, the authors present a typology of enterprises engaged in the retail sale of clothing in Mexico and describe the market segment served by each type, as well as trends in the overall market share of each. In addition, they undertake a case study of informal distribution channels for imported cloth-

ing in Guadalajara that link Mexican entrepreneurs, workers, and consumers of modest means with manufacturers and brokers of U.S.- and Asian-made clothing located in the Los Angeles garment district. In their conclusions, the authors argue that the emergence of Mexico in the early 1990s as a consumer market for U.S.- and Asian-made apparel was theoretically significant, as buyer-driven commodity chains came full circle, with First World firms bringing their Third World-produced goods to an emerging market that was itself located in the Third World.

Part V: Central America and the Caribbean

We have included Central America and the Caribbean in our examination of the “North American” apparel industry because these regions are significant exporters to the United States and have enjoyed preferential access to the U.S. market under the Caribbean Basin Initiative and Item 9802 of the U.S. tariff code. The two chapters in Part V analyze the challenges facing apparel producers and national governments in the Caribbean Basin region as their special advantages for exporting to the United States were being eroded by NAFTA in the latter half of the 1990s. Now that a version of NAFTA parity has finally been granted to the Caribbean Basin countries, it remains to be seen how the region’s exporters will fare relative to Mexico and Asia.

Michael Mortimore discusses in Chapter 14 how apparel production served as an engine of growth and development for all the world’s advanced national economies in earlier stages of their industrial development. He notes that the apparel industry has been an important stepping-stone for developed countries and several of their Asian challengers to promote industrialization and to generate significant exports

to the international market. Nonetheless, he questions whether the apparel industry can serve such a function for the small countries of Central America and the Caribbean today. Reviewing relevant trade statistics and taking Costa Rica as a case study, Mortimore concludes that over the long run apparel production is unlikely to produce positive developmental outcomes for the region. This is so because only low-value-added assembly operations take place in the Caribbean Basin; producers are not competitive with their Asian counterparts without preferential access to the U.S. market; no significant backward linkages into local economies are being developed; and little tax revenue is being generated that could be invested by governments in other important development projects. In addition, because of the small size of their domestic markets and the lack of local textile suppliers, no national firms are capable of moving beyond maquila-style subcontracting and into full-package production, as has been occurring in some Mexican locations. Although the Caribbean and Central American countries' disadvantage vis-à-vis Mexico has been reduced by the awarding of "NAFTA parity" for their garment exports, they still face the threat posed by the termination of the MFA in 2005.

Dale Mathews finds that Mortimore's concerns also apply to the Dominican Republic, where the export-oriented apparel industry has been a leading source of employment since the Caribbean Basin Initiative was implemented in the 1980s. In Chapter 15, Mathews describes how the competitiveness of the Dominican Republic's assembly industry is threatened by two recent trends: the liberalization of the global apparel trade regime, as represented by the phaseout of the Multifiber Arrangement and the establishment of the World Trade Organization, and the emergence of Mexico as the Caribbean's main competitor for the U.S. apparel market since the passage

of NAFTA. He argues that the costs of trade diversion from the Caribbean to Mexico are particularly high for the Dominican Republic, although it is not yet clear if the U.S. Trade and Development Act of 2000, which helps level the playing field between the Caribbean Basin countries and Mexico, will slow or reverse this trend. Much like the contribution from David Spener in Chapter 7, this chapter underscores how changes in trade regimes can dramatically reshape a country's competitiveness in the global apparel industry. For the relatively homogeneous and less-industrialized economies characteristic of the Caribbean Basin, these changes can mean not only job losses but also the need to rethink a national development strategy dependent on the vitality of export processing zones.

Part VI: Conclusion

The relationship of apparel production and uneven development between and within nations is revisited in Chapter 16. Mexico's meteoric rise to the number-one spot among apparel exporters to the United States is emblematic of the costs and benefits associated with the export-oriented development model that the country has followed since the mid-1980s. The last two decades have witnessed a profound transformation not just of Mexico's economy but also of the political and social relationships underlying its peculiar brand of postrevolutionary, authoritarian corporatism (Middlebrook 1995). This corporatist model has become increasingly less tenable, especially since the abandonment of the import-substitution industrialization strategy in the early 1980s, the subsequent liberalization and industrial restructuring of the economy, and the onset of a new era of electoral democracy in Mexico. What is emerging in its place is still unclear, but the extent to which

Mexico's shift in development strategy will produce positive outcomes for Mexican firms and workers will depend to a significant degree on the organization and performance of inter-firm networks that link capital and labor on both sides of the border.

Notes

1. Throughout the book we use the terms *apparel industry* or *garment industry* to refer to the production of clothing and *textile industry* to refer to the production of fibers and fabric. When we wish to emphasize the links between these two related industries, we speak of the "textile-apparel complex."

2. Guatemala, Honduras, El Salvador, and Costa Rica.

3. This includes only those workers who are directly employed in a plant registered as a maquiladora. Because much maquiladora production is carried out by subcontractors in small and medium-sized firms working for registered maquiladoras, these data underestimate the number of both firms and workers involved in export-oriented apparel production, although it is difficult to know to what extent.

4. Since the 1984 publication of *The Second Industrial Divide* by Michael Piore and Charles Sabel, much has been written about the renewed potential for local "districts" of small- to medium-scale enterprises to lead regional economic development (Saxenian 1994; Sengenberger 1993; Storper and Scott 1990). Inspired by Piore and Sabel's description of the successful example of the Emilia-Romagna region of Italy, where an industrial renaissance occurred as the result of the organization of small-scale metalworking, ceramic, apparel, and furniture firms into flexible production networks, analysts have constructed a variety of industrial-district models that are based on a number of common elements, including (1) highly skilled, well-compensated employees working in a craft tradition; (2) small-batch production facilitated by computer-assisted, multitask tools and cross-trained workers; (3) intense local social networks that link workers

and managers across enterprises in the district; (4) competitive cooperation, such that small firms routinely compete for orders from the same set of clients but then collaborate with one another as partners when a given work order exceeds a single firm's immediate capacity; and (5) local and regional government policies that support districts' institutional infrastructure.

5. Industrial commodities are manufactured, marketed, and distributed by producers and sellers linked to one another in a chainlike fashion. Thus, for any set of companies located at a particular point along a supply chain, *backward linkages* refers to the source of needed inputs for their stage of the production-marketing-distribution process. Locating multiple segments in a supply chain within the same community or geographic region can be especially beneficial to local economic development because these businesses create ancillary employment opportunities for other firms in the community, in addition to diversifying the community's productive infrastructure.

6. To take one example, Shaiken found that a plant run by one of the U.S. Big Three auto manufacturers was as productive as any of the company's plants located in the United States. Labor disputes arose in the plant in the late 1980s when workers claimed that productivity gains associated with specialized training for many of its workers were not accompanied by proportional raises in wages (Shaiken 1990). Indeed, Shaiken (1990, 49–50) reports that in April 1989 workers at the top of the plant's pay scale were earning around \$2.20 per hour (entry-level workers earned just \$1.00 per hour). At the same time, the average hourly wage for all manual workers in the U.S. automobile industry was \$13.58 per hour (calculation made by the authors of this chapter using the 5 Percent Public Use Microdata Sample of the 1990 U.S. Census of Population and Housing).

7. In Los Angeles, 57 percent of garment workers in 1990 were Mexican born and earned an average hourly wage of \$5.11, compared to \$7.43 per hour for U.S. natives (calculation made by authors using 5 Percent Public Use Microdata Sample of the 1990 U.S. Census of Population and Housing). See Chapter 5 by Robert Ross on the rise of sweatshop conditions in the Los Angeles garment district.

8. Research on Mexican migrant communities shows that this possibility is not at all far-fetched. See Massey et al. (1987), Massey (1998), and Massey and Parrado (1998).

9. From 1974 to 1994, international trade in textiles and apparel was governed by the Multifiber Arrangement, a framework for bilateral agreements or unilateral actions established within the General Agreement on Tariffs and Trade. The MFA established quotas for limiting textile and apparel imports into countries whose domestic industries were threatened by rapidly increasing imports. In 1995 the MFA was superseded by the WTO's Agreement on Textiles and Clothing (ATC). A more detailed explanation of the history of the MFA and its replacement by the ATC can be found on the WTO Web site at <<http://www.wto.org>>.

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