

ECONOMIC DEVELOPMENT FOR A BIPOLAR INDUSTRY

The Case of Apparel Manufacturing in San Francisco

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The apparel manufacturing industry in San Francisco has experienced considerable growth since the late 1980s, due to the increasing organizational flexibility of the industry, the influx of Asian immigrants, and the availability of an industrial district adjacent to the CBD. However, the continued growth of the industry is in jeopardy because of NAFTA, the minimum wage increases, and new competition for space in the industrial district from multimedia and residential uses. Economic development efforts are currently attempting to facilitate a transition to higher value-added manufacture, using modular production. This article argues that more traditional supply-side initiatives to reduce land, labor, and capital costs may be necessary first to preserve the industry.

Recent years have seen the emergence of a new conceptual framework for local economic development, that of "endogenous" (Teitz 1994) or "demand-side" (Eisinger 1988) development. Where traditional supply-side economic development theory advocates creating a favorable business climate by establishing an advantageous price structure for the costs of the factors of production, the endogenous development concept sees growth as stemming from the ability of innovative firms to produce new commodities, use new technology, or open up new markets (Eisinger 1988). In practice, supply-side business attraction policies have not disappeared (Loveridge 1996), but clearly cities are increasingly adopting policies which target innovative firms (Reese and Fasenfest 1996; Porter 1995).

This focus on innovation has created a policy bias towards firms, at the expense of the existing urban labor pool. Where more traditional economic development policies, such as tax abatements or industrial development bonds, generally provide assistance to a variety of firms, employing workers from a broad

spectrum of labor market segments, policies which target innovation focus on a specific type of firm, usually in high-technology or non-traditional manufacturing sectors. Such a firm-based strategy simply assumes that support for innovative firms will translate into increased job opportunities for workers with appropriate qualifications, without questioning who exactly benefits. It ignores the issues of insufficient information, labor market segmentation, and discrimination which will effectively exclude many residents in the local labor market area from reaping the benefits of growth (Ranney and Betancur 1992). Furthermore, innovative firms, such as those in the multimedia industry, may have an occupational structure which precludes participation by an urban labor force increasingly deficient in job skills and education (Kasarda 1990).

This article looks at endogenous economic development in practice, using the case of apparel manufacturing in San Francisco. A broad coalition of apparel industry representatives and government agencies has united behind an endogenous development policy, Garment 2000, which seeks to aid firms in a shift to higher value-added apparel production. The focus of Garment 2000 is on *workforce development*, by increasing the skill levels and productivity of the existing low-skilled workforce, and *workplace development*, by increasing the productivity of local firms interested in the transition to higher value-added. Garment 2000 is considered a model economic development program by the U.S. Department of Labor, one of its major sponsors, and is popular among San Francisco's high-end apparel manufacturers. Yet, as a long-term strategy, it neglects to address the immediate threat to the survival of the majority of local apparel firms, which produce for the mass market i.e., the advent of NAFTA and an imminent increase in the California minimum wage. These two supra-local factors are widely expected to result in the loss of thousands of local low-skilled jobs in apparel manufacturing. In addition, manufacturers are increasingly threatened by the competition for land in San Francisco's premier industrial district, South of Market, which is coveted by new multimedia firms and luxury residential developments.

The question to be explored herein is whether San Francisco might be better served by a broad-based approach, which addresses both the high-end and mass market segments of its apparel manufacturing sector. It is suggested that the policy of support for firms adopting innovative production strategies would be well complemented by a supply-side policy creating an

advantageous price structure which serves different firm types. Only if the industry maintains its diverse structure can it achieve the economies of scale that created the apparel cluster in the first place. Such a policy would have to create a locational advantage for San Francisco apparel manufacturers enticed by offshore production, by reducing land, labor, and capital costs. Thus, it would bridge endogenous and supply-side economic development policies.

Keeping the apparel manufacturing industry in the local area is critical for three reasons: the dearth of low-skilled jobs in San Francisco, the continued prevalence of ethnic divisions of labor, and the spatial mismatch problem for minority women. The San Francisco economy has not only lost a large share of its low-skilled sector to distant suburbs, but is also experiencing real wage declines in the low-skilled service jobs which remain (Barbour 1997). This relative shortage of low-skilled jobs becomes critical in an era of widespread political opposition to increases in most forms of public assistance for low-income residents experiencing employment difficulties.

Secondly, the local apparel industry is dominated by Asian immigrants: in essence, Asian (predominantly Chinese) workers formed a migration chain to San Francisco as they became embedded in labor market niches in apparel manufacturing, and, to a lesser extent, restaurants and tourist retail outlets. While ethnic labor market niches provide social capital by giving specific groups privileged access to jobs, as employers increasingly hire within the same group to facilitate training and workforce stability, they also constitute a boundary to mobility between industry segments (Waldinger 1996).

Finally, as employment in most manufacturing sectors leaves the inner city, job accessibility for minorities becomes an issue: travel times increase, as well as inner-city unemployment rates, which results in a spatial mismatch (Kain 1968). The apparel manufacturing industry largely employs minority women, and research has shown that spatial mismatch tends to be a particular problem for minority women, who experience longer commute times even when controlling for income, occupation, and industry of employment (McLafferty and Preston 1991; McLafferty and Preston 1992; Preston, McLafferty and Hamilton 1993; Chapple and Weinberger 1997).

This article utilizes a variety of data sources and research methods. Secondary source data on employment, establishments, and labor force characteristics was compiled

from the California Employment Development Department database, the 5 percent Public Use Microdata Sample from the 1990 U.S. Census, and Census of Manufactures from 1987 and 1992. A comprehensive database of apparel manufacturing businesses in the city was developed from a variety of sources, including industry association directories, telephone directories, the San Francisco Tax Collector's database, and the Dun & Bradstreet business database. To provide information on the buildings occupied by industry firms, this database was linked with the San Francisco Tax Assessor's database. In addition, semi-structured, in-depth interviews were conducted with approximately 20 firms and major industry figures involved in job training, industry associations, or regulatory agencies. The firms interviewed were selected to represent the broad cross-section of San Francisco apparel firms, including small vertical manufacturers producing for the high-end sector, large budget-line manufacturers, and contractors both small and large, informal and unionized.

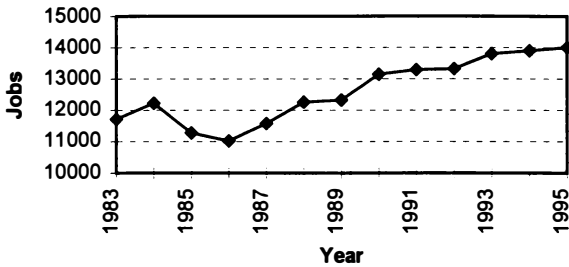
The article begins by providing an overview of the recent trends in the apparel industry, looking at how changes in apparel retailing, the structure of the industry, the availability of local space, and migration patterns resulted in new growth beginning in the late 1980s. It then examines the key issues currently confronting the industry – NAFTA, the state minimum wage increase, labor conditions, and the availability of industrial space. The article concludes with a discussion of the efficacy of the current economic development policy for apparel manufacturers and offers alternative approaches.

The Growth of Apparel Manufacturing in San Francisco

The apparel manufacturing sector in San Francisco has experienced substantial growth, particularly since the late 1980s: the location quotient for apparel employment (compared with the U.S.) increased from 1.39 in 1988 to 1.95 in 1994, and it currently constitutes three percent of all San Francisco employment. However, employment in the sector has increased faster than the number of firms, indicating a shift in the structure of the industry towards larger firms. Overall, as shown in Figures 1 and 2, the number of firms has increased ten percent (from 381 in 1983 to 414 in 1994), while employment increased 14 percent (from 11,710 in 1983 to 13,999 in 1995). While the number of firms has actually declined from a peak of 463 in 1990, the number of medium to large establishments

Figure 1

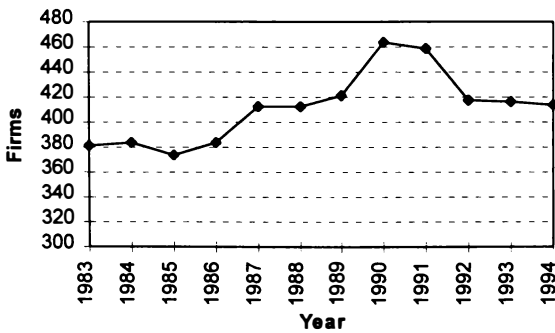
Employment in Apparel Manufacturing, San Francisco



Source: California Employment Development Department.

Figure 2

Apparel Manufacturing Firms, San Francisco



Source: County Business Patterns.

(with more than 50 employees) has increased by almost 50 percent, from 40 to 59.

The shift towards larger firms has been accompanied by a substantial shift in the type of manufacturing: the percent of San Francisco apparel firms manufacturing women's and girls' apparel has risen from 57 percent in 1981 to 76 percent in 1994. This shift resulted from both the decline of traditional apparel sectors in San Francisco, such as uniform manufacturing and furriers, and the increasing concentration of women's and girls' wear manufacturers in the city.

The growth of apparel manufacturing has occurred primarily within the South of Market, the industrial district adjacent to the CBD. Overall, the number of apparel firms and employees in South of Market almost doubled from 1983 to 1994, while the steepest decline was registered in Chinatown (Figures 3 and 4). This occurred largely because of the availability of expansion space in these industrial districts; the more successful garment factories have outgrown their space in Chinatown, typically above small storefronts. At present, 50 percent of all firms, and 73 percent of large firms (with more than 50 employees), are in the South of Market area.

Causal Factors Behind Growth in Apparel

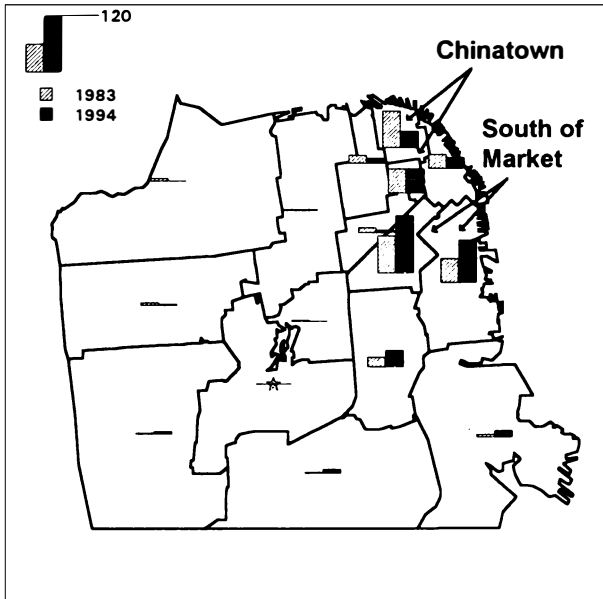
The dramatic growth in apparel manufacturing stems from several key changes: the reorganization of the retail sector; the transformation of the structure of the industry; the in-migration of Asian (particularly Chinese) entrepreneurs and workers; and the availability of low-cost industrial space adjacent to San Francisco's downtown transportation hub.

Reorganization of the Retail Sector

The apparel industry functions as a "buyer-driven commodity chain" (Appelbaum and Gereffi 1994). In essence, the retail end of the business – and the consumer's bottom line – determines prices. As such, clothing prices have remained flat in real dollars, while costs have risen. This has led to an increasing concern with inventory control: retailers revamp their entire inventory in a matter of weeks, rather than months, resulting in a need for quicker delivery and smaller orders. This has meant a new niche for small, competitive, domestic manufacturers and contractors.

Figure 3

Location of Apparel Firms in San Francisco, 1983 and 1994

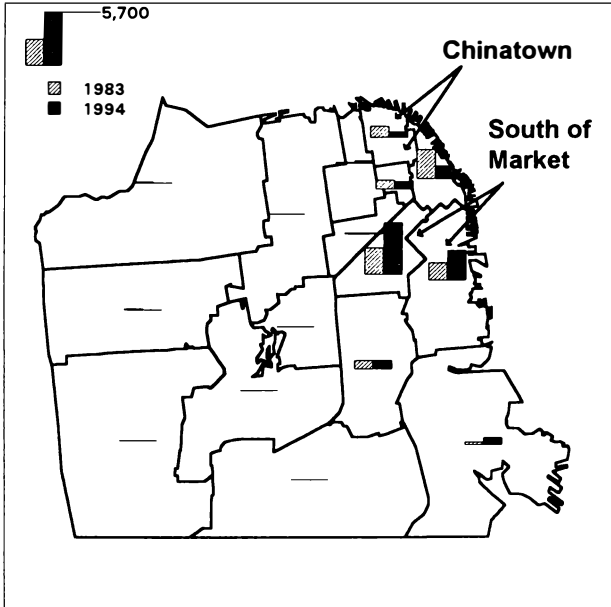


Source: County Business Patterns; California Employment Development Dept.; and San Francisco Planning Dept.

The retail sector has consolidated into essentially five mega-retailers (Wal-Mart, Kmart, Sears, J.C. Penney, and the Federated Department Stores), which increasingly assert control over production in order to cut these costs. In addition, the large vertical retailers, such as The Gap, which command a growing share of the market, tend to control production entirely in-house. This buyer-driven commodity chain results in the shift of production to offshore garment manufacturers in low-cost locations, typically in the Pacific Rim but increasingly in Mexico, the Caribbean, and Central or Latin America. Even domestic manufacturers and contractors are increasingly turning to

Figure 4

Location of Apparel Employment in San Francisco, 1983 and 1994



Source: County Business Patterns; California Employment Development Dept.

offshore production themselves in order to cut their own costs and remain competitive.

Despite the increase in offshore production, U.S. apparel manufacturing continues to play a critical role in the process. The competitive advantage of domestic production is in its ability to fill orders in a timely fashion, its "quick response," which is driven by its proximity to markets. Retailers may depend on offshore producers to fulfill the initial order for a product, but if market demand for the product is high, they turn to local manufacturers to furnish the additional volume needed.

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For instance, an apparel manufacturer sourcing from China typically orders two-thirds of what is expected to sell and allows six to eight weeks for delivery. For the last third, the manufacturer waits to monitor demand. If it materializes, domestic producers are best equipped to step in at short notice. Domestic producers may be required to turn around a product in as little as two to three weeks; in contrast, minimum turnaround offshore is four to eight weeks at best, and typically several months.

San Francisco apparel manufacturers occupy two different niches: traditional large-scale production for the mass market and high value-added production for the upper-end market. Both sectors have established markets with nationally known retailers. San Francisco's budget-line producers manufacture garments for Sears, Target, Mervyn's, J.C. Penney, among others. San Francisco's high-end manufacturers sell to Neiman Marcus, Saks, Bergdorf Goodman, Barney's, Macy's, Nordstrom's, and a vast array of specialty stores in the region, country, and overseas.

Though their products differ, these industry sectors share the pressure to shorten response time, as do domestic producers nationwide. San Francisco provides not only proximity to markets, but also an established network of experienced contractors and workers able to fulfill orders on short notice. Perhaps best equipped for quick response are San Francisco's vertical manufacturers, who control the entire production process and have optimum ability in terms of space and capital to keep a large inventory of fabrics at hand. But contractors also compete to fulfill retail calendar needs, when budget-line manufacturers are unable to meet their orders at their offshore facilities.

Structure of the Industry

The local apparel industry is comprised of networks of manufacturers, contractors, wholesalers, subcontractors, and suppliers, who produce for a variety of local and national retailers. This network is spatially contingent: manufacturers cluster in an industrial district next to the CBD not only because of the superior transportation access, but also because of the significant positive externalities they derive from locating in close proximity to each other, since they share the local labor force, material inputs, and specialized knowledge. In many regards, apparel manufacturing is a classic example of flexible

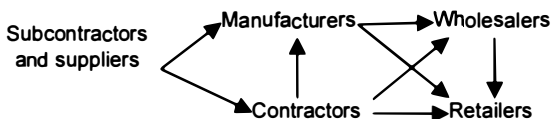
specialization (Scott 1988a, 1988b): it is marked by flexibility and responsiveness in the use of labor, inputs, and interfirm relations. Yet, unlike other industries, apparel manufacturing has always relied on geographic clustering to provide access to labor and inputs; flexible specialization has merely increased the complexity of the relationships among producers. Moreover, for apparel manufacturing, the use of flexible processes is not necessarily coincident with increased innovation: few of San Francisco's apparel producers are noteworthy for developing new production processes or products. Rather, just as in New York City (Sassen-Koob 1983), flexible processes, fueled by immigrant labor, continue the tradition of labor-intensive — and low-wage — batch production.

The flexible structure of the industry has facilitated its growth in four key ways: it enables the rise of contracting networks; it permits the transfer of knowledge between producers; it allows firms to share labor; and it creates economies of scale.

Rise of Contracting

The apparel industry is comprised of a complex network of manufacturers, contractors, subcontractors, suppliers, and retailers. While the production process may take many different forms, it typically works as follows (Figure 5). First, the manufacturer designs a product and produces a sample for retailers. The retailers determine the market demand for a product and order it in volume from the manufacturer. The manufacturer then produces the product in-house or, more often, contracts out for production. This out-sourcing may consist of minor assistance from subcontractors who specialize in some aspect of the process such as cutting or pleating, or production of the entire garment by one or more contractors. Wholesalers or distributors often come between manufacturers or contractors and retailers; however, manufacturers may also function as wholesalers.

Figure 5



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The principal change in this industry structure is the relationship between contractors and manufacturers. Contractors have always played a role in apparel manufacturing, by supplying specialized skills and supplemental labor when required. Yet as manufacturers increasingly move their production facilities offshore and downsize their domestic operations, they look to contractors to provide them the flexibility to deal with sudden changes in demand. By using contracting networks, manufacturers gain three competitive advantages: they externalize their labor force, so that they no longer have to manage recruitment, training, and maintenance of their workers; they externalize their capital costs, for equipment and, increasingly, fabric as well; and they shield manufacturers from liability to labor laws. Moreover, with a pool of local contracting firms competing against each other for business, manufacturers can more readily find a low bidder for an order (Loucky et al. 1994). The larger contractors have responded to this pressure by resorting to private label manufacturing, which allows them to cut the manufacturer out of the process entirely by producing directly for major retail or catalog labels.

The most important players in the San Francisco apparel production network are the large manufacturers, who generally produce sportswear and women's wear for the mass market, but are diversifying in order to remain competitive. These manufacturers, including firms such as Byer California, Fritzi, Koret, Esprit, and Jessica McClintock, constitute perhaps five percent of all apparel manufacturing establishments in San Francisco, but control the vast majority of production in the city because of their reliance on local contractors. They typically employ 200 to 500 workers in-house, and may contract out as much as half of their volume to San Francisco contractors. Also of note, but less intricately connected with the San Francisco apparel manufacturers, are the vertical retail giants which maintain corporate headquarters in San Francisco: Levi Strauss and The Gap. These companies manufacture only for themselves, and concentrate production offshore; they do not use San Francisco contractors, and even in-house production of samples is increasingly limited.

Manufacturers of high value-added men's and women's wear constitute an increasingly vital segment of the manufacturing sector in San Francisco. These companies, which typically employ 30 to 100 employees, comprise five to ten percent of all local manufacturing firms. Approximately half of these high-end

producers are vertical manufacturers, who design and produce entirely in-house. The remainder offshore most of their production, typically to China or other East Asian countries.

San Francisco has approximately 330 contractors and subcontractors, comprising over 80 percent of all apparel manufacturing firms. The vast majority of these contractors rely on the local large manufacturers for their business. However, a large number produce garments for national retailers or mail-order companies. With the exception of a few firms that produce high-quality sportswear or women's wear, the contractors tend to produce relatively low-end garments for the mass market. While the high-end local manufacturers tend to avoid local contractors, the mass market local manufacturers value their San Francisco contractor base, particularly in comparison to Los Angeles: they have long-term relationships with particular contractors, appreciate the high rate of local compliance with labor laws, and value the relatively low level of crime in San Francisco.

Contractors compete for the low-end quick response niche by maintaining a flexible labor force, which they lay off and rehire according to seasonal demand shifts, and keeping a supply of the necessary raw materials in-house. Historically, the end customer (the retailer or manufacturer) purchased the fabric and notions for the contractor. But as time pressure has increased, contractors have increasingly assumed a greater share of the risk, by purchasing supplies directly. Because of these new capital costs for contractors, as well as their position at the bottom rung of the commodity chain, they are increasingly sensitive to labor and land costs.

Transfer of Knowledge

Another factor behind the growth of apparel manufacturing is the ability to share industry expertise through formal institutions and informal connections. This type of knowledge transfer results directly from the increased flexibility of the industry; it was far less common when the industry consisted mostly of large vertical manufacturers. For instance, in 1995, a diverse group of industry players, including the City College of San Francisco, the U.S. Department of Labor, the San Francisco Mayor's Office, the Union of Needletrades Industrial and Textile Employees (UNITE), the San Francisco Fashion Industries, and an array of local manufacturers and contractors, formed Garment 2000, an industrial revitalization and workforce development effort. Garment 2000's main mission is to diffuse

knowledge about engineering technologies and modular production processes. Despite the initial resistance of some firms to modular processes because of the perceived time and expense – in terms of training time and capital costs – it would take to convert, some of San Francisco's larger manufacturers and contractors have begun to experiment with modular production in recent months.

Knowledge about production processes is also transmitted through informal means. The long-term working relationships among contractors, and between manufacturers and contractors, have created an atmosphere in which it is common to share knowledge about many complex aspects of the business, from compliance with labor laws, to financing, to engineering techniques such as the use of specification sheets and time-study. Many contracting firms are spin-offs of other firms, and many are connected by kinship networks.

Labor Force and Recruiting

The availability of an experienced labor force has also facilitated these changes in the structure of the industry. When large manufacturers shift operations offshore or go out of business entirely, their skilled labor force is quickly absorbed by start-ups and expanding firms. Contracting firms are also extremely volatile – from 1993 to 1996, 120 San Francisco contractors went out of business while 96 started up new companies – and their workers constantly move from employer to employer.¹ This movement is facilitated by the extensive kinship and social networks in the industry; the vast majority of hiring in the apparel manufacturing industry occurs by word-of-mouth, as workers let their friends know about job openings as they come up. This informal recruitment strategy results in ethnic closure in the industry: recruitment generally takes place among the social contacts of distinct ethnic groups, whether Chinese, Vietnamese, or Latina. According to one production manager: "When I want to hire a new worker, I go to my ladies and ask them to find someone who can sew as well as they do. That's the quickest way to find someone you know can do the job." In addition, some recruitment occurs via ethnic newspapers, and the trade association, the San Francisco Fashion Industries, provides employment services particularly for administrative workers.

External Economies of Scale

The flexible structure of the industry is also made possible by the external economies of scale gained by locating in the San

Francisco industrial district, South of Market. Located in close proximity to the apparel industry cluster are approximately 20 suppliers, who provide thread, zippers, fabric, and sewing machines, as well as some 20 subcontractors, specializing in more complex aspects of the production process, such as pleating, smocking, biasing, embroidering, grading or marking. For many local manufacturers, these businesses are critical to their survival: several firms interviewed voiced concerns over the recent loss of specialized subcontractors. As one upper-end manufacturer pointed out, "There's infrastructure here in South of Market -- there are three places for machines within one or two blocks. That's how I can keep my machines running all the time."

Another scale economy offered by the district is the growing number of retail outlets opened by both upper-end and budget-line manufacturers, which attract a critical mass of shoppers. Both these retail spaces and the industrial loft buildings occupied by manufacturers have been outfitted especially to meet the needs of the industry, and it is not uncommon to find a retail or industrial space recently vacated by one apparel business shortly reoccupied by another.

Immigration

Another key factor in the growth of apparel manufacturing is Asian immigration. Asian immigrants dominate local contracting, but are rare among manufacturers: by 1996, almost 90 percent of local apparel contractors, but only one percent of local manufacturing firm owners, were of Asian descent. The vast majority (90 percent) of these Asian contractors are of Chinese descent, and most of the remaining are from Vietnam or the Philippines. According to the 1990 census, 56 percent of workers in San Francisco apparel manufacturing sector are of Chinese descent; however, this proportion has likely increased in subsequent years. A look at legal immigration to San Francisco shows that 127,000 Asian immigrants arrived in San Francisco between 1984 and 1994, and more than half of these arrived since 1990. In total, San Francisco's Asian population has increased from 206,000 in 1990 to 238,000 in 1995, with a net migration (excluding births) of almost 23,000.

Location

Without the availability of industrial space in San Francisco, it is unlikely that the expansion of apparel manufacturing would have occurred so readily. As noted previously, South of Market has experienced a net gain of 78 firms since 1983, while Chinatown has a net loss of 42 firms. South of Market tends to attract larger firms: 50 percent of South of Market firms have 20 or more employees, while only 13 percent of apparel firms in other areas employ more than 20 workers. The labor-intensive nature of the firms locating in South of Market leads to a reliance on its extensive public transportation network: half of all apparel workers travel to work via local bus, streetcar, or subway. Firms which have relocated outside of Chinatown or South of Market, particularly in the Bayview/Hunter's Point area, report difficulties in attracting labor because of the problems with public transportation access.

The shift of firms into South of Market was made possible by the exodus of other manufacturers in the 1980s. Between 1983 and 1994, South of Market experienced a net loss of 30 industrial machinery/computer equipment manufacturers; 18 food processing plants; 10 manufacturers of fabricated metals; 13 printing and publishing establishments; and miscellaneous other manufacturers. This left a large amount of industrial space vacant in the district, at a time when industrial buildings were essentially unmarketable: the industrial land market remained flat until 1993, when the number of industrial sales almost doubled. The preference of apparel manufacturers is for multi-story buildings – which provide the light critical for intricate apparel piece-work – with large floor-plates. Over 60 percent of these buildings citywide are located in South of Market. That many of the landlords are Asian undoubtedly aided the growth of contracting in the area: at least 30 percent of all apparel manufacturing firms are in buildings owned by Asians.

The Future of Apparel Manufacturing in San Francisco

Despite the growth of apparel manufacturing in the early 1990s, most local firms are pessimistic about the future of the industry. While many of the upper-end firms are thriving, the budget-line manufacturers and contractors in particular are experiencing pressures brought about by NAFTA, the minimum wage increase, the federal and state crackdown on labor conditions, and the competition for industrial space in the South of Market. The consensus among industry players seems to be

that these issues will add up to the loss of several thousand jobs in the next couple of years. Job loss is expected to be concentrated among low-skilled workers, potentially devastating to a San Francisco economy which is already experiencing a dearth of low-skilled jobs.

NAFTA

Apparel manufacturers began locating production facilities overseas, particularly in the Asian Pacific Rim countries, in the 1950s and 1960s. But with the passage of the NAFTA treaty in 1994, manufacturers are increasingly attracted to Mexico. As tariffs and quotas on apparel produced in Mexico have been eased or removed altogether, Mexico has gained a competitive advantage over some of its principal competitors in the Asian Pacific Rim. Its proximity to the U.S. makes it a feasible location for either the entire production process or even just the most basic production segments, the garment cutting, sewing, and assembly.

NAFTA has created a new locational dynamic for San Francisco manufacturers and contractors. Mexico attracts San Francisco's large-scale manufacturers of apparel for the mass market, particularly in women's wear, in part because NAFTA lifts restrictions on imports of women's wear from Mexico, but also because of the particularly intensive competition in the women's wear sector (Appelbaum and Gereffi 1994), and because women's wear for the mass market requires labor-intensive manufacturing. Apparel manufacturers are particularly sensitive to differences in labor costs because of the labor-intensive nature of the process and the difficulty of cutting costs elsewhere in the process. With wage rates at as little as \$.68 per hour in Mexico (versus a minimum of \$5.15 in the U.S.), manufacturers are increasingly drawn to contractors there, at least for the manufacture of simpler garments. According to one San Francisco contractor, to make a pair of jeans under a private label here, the labor cost alone is \$8.95. The total cost of the product, labor and fabric, if made in Mexico is \$7.85, and in China is \$9.60, for a slightly higher quality pair of jeans. But with duty and quota added on in China, and freight costs substantially higher, Mexico wins out.

Despite the attraction of Mexico, few manufacturers or contractors are simply shifting their operations there. Preliminary reaction to the opportunities in Mexico has been cautious, as business owners wait to see how successful the new apparel

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plants are. Many are nervous about the inexperience of Mexican apparel workers, or even simply the anticipated cultural and language differences. Some have already given up on their Mexico facilities because of experiences with low quality and late delivery; Mexico cannot yet fulfill the quick response imperative. The hesitancy of the San Francisco industry to shift to Mexico is reflected in data from the NAFTA Trade Adjustment Assistance Program (NAFTA-TAA), which provides assistance to workers who are displaced by production shifts to Mexico. NAFTA-TAA figures indicate that San Francisco lost only a few hundred jobs to Mexico in the first six months of 1997. In fact, California is experiencing a disproportionately low share of the NAFTA-TAA certifications: with over ten percent of U.S. employment in apparel manufacturing, it has only two percent of the displaced workers. The bulk of NAFTA apparel manufacturing displacement actually is occurring in the Southeast.

Because of these considerations, the most prevalent response to NAFTA among San Francisco industry players has been not to shift operations to Mexico but to open up secondary production facilities there, while maintaining a U.S. home base for operations such as sample cutting and finishing. While most intend to keep their home base in San Francisco, due to family and cultural ties, some find it more efficient to manage their Mexico facilities from Los Angeles or San Diego.

Another response, especially among larger manufacturers, is to establish a geographic triangle of production: design and sample production in San Francisco, garment cutting and assembly in China, and finishing in Mexico – thereby avoiding the quota on Asian piece goods. This alternative is particularly attractive to Asian-American-owned firms which have ties to apparel factories in China and Hong Kong but wish to realize the cost-benefits of a Mexico location.

California Minimum Wage

The minimum wage in California is scheduled to increase to \$5.75 in March, 1998, because of a voter referendum approved in the fall of 1996. Interviews revealed that this planned increase is the predominant concern of the San Francisco apparel industry at this time. A minimum wage increase affects not just the workers receiving the minimum, but their immediate superiors as well, whose wages will increase proportionately. Thus, the contractors who rely on an entirely low-wage, low-

skill workforce will experience as much as a 12 percent increase in their payroll expenses (which are generally about 25 percent of all expenses). With profit margins reportedly as low as three to five percent on sales, this one-time wage hike could put many out of business.

As a result, the shift to Mexico production has intensified since the increase was announced. Nearly all firms and industry players interviewed believe that the new minimum wage will result in as many as half of San Francisco contractors closing their doors. This is undoubtedly an exaggerated small business fear; it is generally accepted among orthodox economists that a ten percent increase in the minimum wage will result in a twelve percent decrease in employment, and a growing body of literature suggests that the effects of a wage increase on employment are negligible or even positive (Bernstein and Schmitt 1997; Card and Krueger 1994; Card 1992). In any case, it is clear that most want to stay in San Francisco and will try to cut costs elsewhere to stay in business. This means an increased sensitivity to rent prices, as well as fixed costs such as equipment and fabric.

Labor Conditions

The last few years have seen an increase in the public awareness of the labor conditions in the apparel manufacturing industry overseas and in the U.S. In San Francisco, a crackdown on contractor "sweatshop" abuses by the federal Department of Labor attracted media attention and resulted in a citywide cleanup in 1994. Typical violations found under the "hot goods" law included minimum and overtime wage violations and, to a lesser extent, use of child labor.

Subsequently, compliance with labor laws has increased from 61 percent to 80 percent (as compared with 45 percent in Los Angeles). At present, the San Francisco apparel industry is considered the "poster child" of the U.S. Department of Labor, and the crackdown is ongoing. (Commented one contractor: "They just keep coming. I think the guy, he has to make his quota. Maybe he gets paid by the violation.") The increase in compliance is due in no small part to the development of a Master Agreement between the Department of Labor, the union, and participating manufacturers and contractors. The Master Agreement created a venue for accountability between manufacturers and contractors and made the highly informal process of contracting out for garment manufacture much more

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formal, by codifying wage and training standards for contractors, as well as contractual responsibilities for manufacturers. Whether or not manufacturers participate in the Agreement, they are increasingly sensitive to federal regulations, because of the potential for fines and negative media exposure. Thus, most local manufacturers will not contract out to shops with violations, and some even hire their own staff of compliance inspectors to ensure that their contractors are obeying regulations.

Despite the climate of strict enforcement in San Francisco, some contractors undoubtedly continue to take advantage of their low-wage labor force. While this research did not focus on labor conditions, and no workers were interviewed, interviews yielded secondhand reports of abuses. For instance, one small manufacturer reported being shown several factory spaces for rent to apparel contractors with ceilings too low to stand up. Several contractors suggested that it is not uncommon (among other firms) to compensate workers in cash. This allows employers to pay below minimum wage, while their unreported workers draw unemployment or other public assistance on the side.

A look at the wage structure of the industry shows that for low-skilled jobs it is among the lowest paying of all industries in the city, but compensation for higher-skilled occupations tends to be much higher. (It should be noted that less than one percent of San Francisco apparel manufacturing firms are unionized.) Overall, the average wage among apparel manufacturers is \$8.70 per hour (according to the California Employment Development Department). For low-skilled jobs such as cutting, sewing, pressing, or finishing, contractors commonly pay piece-rate, with a minimum guarantee (of minimum wage). However, larger contractors typically pay higher wages, typically seven to eight dollars an hour, with some benefits, and many manufacturers pay ten dollars or more an hour and include a variety of benefits such as health and dental insurance, pension plans, paid vacations, and clothing allowances. The salary range for high-skilled workers tends to be much higher, such as up to \$15/hour for marking, \$30/hour for computerized grading, \$30/hour for designing, \$40/hour for pattern-making (according to a survey by the San Francisco Fashion Industries).

Despite the low wages and compensation for the majority of workers, jobs in apparel manufacturing play an important role in

the San Francisco workforce and the economy as a whole. All of the firms interviewed reported high stability and little turnover in their core labor force, although seasonal changes in demand result in the shift of some workers among firms. Demand is apparently high among workers for overtime work. Jobs are typically full-time and year-round: only 20 percent of all workers worked less than 40 hours per week, and only 25 percent worked fewer than 40 weeks per year. Wages are generally increasing, particularly for higher-skilled occupations, because of a shortage of high-skilled labor. In particular for the employees of the Asian contractors, who tend to be older women (the average age of apparel workers is 42, and 74 percent of all apparel workers are female), jobs in the apparel industry are considered less strenuous and more prestigious than alternative low-skilled occupations in the restaurant or hotel industries (which also tend to pay less). Because of their family responsibilities, they appreciate the flexibility that the industry offers. According to one of the largest contractors in the city: "It is ironic, because most of the Chinese women left the home country for the reasons that the jobs are going back — there are no labor standards, the pay is terrible, the hours are bad. But now the jobs are going there and the women are staying here. And the jobs that *are* here, they're grateful for them. They're considered good jobs."

Apparel industry jobs are important to the San Francisco economy because of the scarcity of low-skilled jobs in the city (defined as requiring a high school education or less) and the potential difficulty of retraining and rehiring apparel workers. Overall, only 18 percent of jobs in San Francisco are low-skilled, as compared with 32 percent in the Bay Area as a whole. This translates into a high ratio of job seekers to new jobs: there are eight job seekers for every job opening in San Francisco (California Budget Project 1997). The apparel manufacturing sector provides 8,400 low-skilled jobs and is San Francisco's largest employer of low-skilled workers, with the exception of the retail sector. Since 77 percent of workers in apparel manufacturing live in the city (as compared to 55 percent of all San Francisco workers), they are particularly dependent on public transportation to get to work, and would likely find it difficult to commute to apparel jobs elsewhere in the region. They would also face formidable obstacles in seeking new jobs in San Francisco: in addition to the job scarcity, they lack the necessary language skills. Only 24 percent of San Francisco's apparel workers were born in the U.S., and 50 percent speak

English not well or not at all. Thus, the loss of jobs in apparel manufacturing would undoubtedly result in a substantial increase in public assistance, through county general assistance and welfare programs, and state unemployment programs.²

Availability of Industrial Space

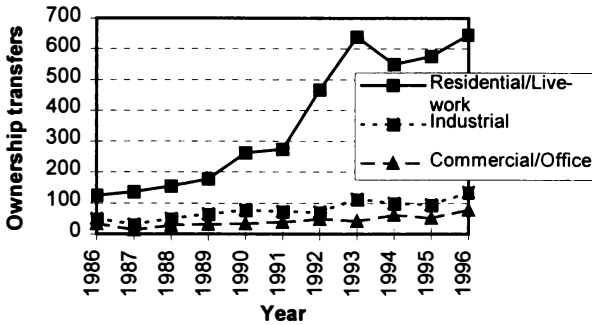
In recent years, the South of Market industrial district has become the prime location for small firms specializing in the multimedia industry or business services. With little conventional office space in the area, these firms tend to occupy converted multi-story industry buildings. Building conversions also accommodate new residential units, which are often built as live-work spaces to conform to the zoning code, but essentially function only as residences. In addition, South of Market has experienced a surge of new residential and live-work development, often on the site of demolished industrial buildings.

As these new users are able to pay rents of up to \$2.00 per square foot for converted industrial space, they easily outbid industrial users, accustomed to paying approximately \$.50 per square foot (South of Market Foundation 1997). Several apparel manufacturing businesses (with approximately 400 jobs) have been displaced by the conversion of their factory space to office use, and with the vacancy rate for industrial space at less than five percent, businesses report increasing difficulty in finding expansion space (*ibid.*). The increase in land rent presents a particular difficulty in view of the rising labor costs: in order to stay in San Francisco, firms are looking for other areas to cut costs, such as land and fabric. South of Market's increase in popularity occurred largely after the influx of apparel manufacturers was well-established. As shown in Figure 6, buildings began changing hands at a faster rate after 1993.³ However, the sales of residential properties vastly outnumber those of industrial buildings, and the sales of industrial properties have generally remained flat.

A look at the relative land values of industrial, residential/live-work, and commercial/office property shows readily why industrial land uses have difficulty in outbidding other uses for space. Figure 7 shows the average land value of each parcel in the districts, standardized by building square feet. Industrial land value averages approximately \$30 per square foot of building space, approximately half as much as the value of land under residential and live-work buildings (all differences are

Figure 6

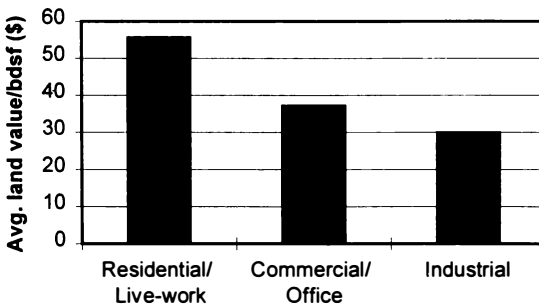
Transfers of Ownership, South of Market Property



Source: San Francisco Tax Assessor 1997.

Figure 7

Average Land Value per Building Square Foot

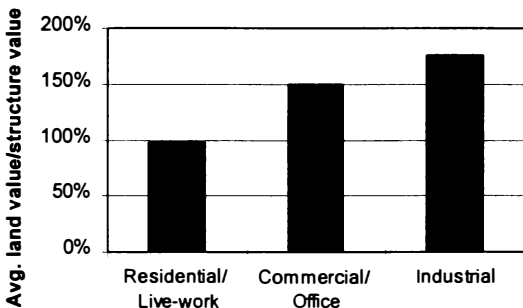


Source: San Francisco Tax Assessor 1997.

significant at $\alpha = .05$). Figure 8 examines the ratio of average land value to average structure value, showing that the land under industrial buildings is worth considerably more than the structure that sits on the site, while residential buildings tend to be worth as much as their land (again, all differences are significant at $\alpha = .05$). The high ratio of land value to structure value, as well as the relatively low value of industrial land, indicates a high potential for demolition and land use change, where zoning permits.

Figure 8

Ratio of Land Value to Structure Value

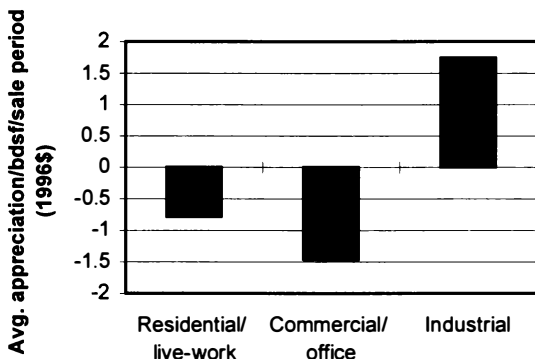


Source: San Francisco Tax Assessor 1997.

Appreciation of properties has varied widely across areas and use types. Figure 9 looks at average changes in sale price in 1996 dollars, standardized by building square feet, over the period between sales (which varies among properties), for buildings sold between 1991 and 1996.⁴ South of Market has experienced considerable appreciation in industrial property, a reflection of its value for conversion, and some depreciation of residential and commercial/office property, a reflection of the inflated property values and overbuilding in the 1980s real estate boom (all differences are significant at $\alpha = .05$).

Figure 9

*Average Appreciation per Building
Square Foot Over Period Between Sales*



Source: San Francisco Tax Assessor. 1997

Overall, this indicates high potential for land use change in the South of Market industrial district, because of the high value of the land underneath industrial property and the marked appreciation in industrial property values. Because most manufacturers hold long-term leases, only a few manufacturers have been displaced so far. However, as leases expire, industrial buildings will likely be converted to uses which can pay higher rents. Thus, pressures on land costs can be expected to increase substantially in the next couple of years.

Economic Development Policy

Garment 2000 is the principal local economic development effort for apparel manufacturers. Garment 2000 has three missions: 1) workforce development, training individual workers; 2) workplace development, improving the productivity of companies; and 3) deployment of new technologies in the manufacturing process. Garment 2000 provided training to more than 800 individuals in 50 companies in its first year alone, in basic skills such as stitching, adjusting needles, and repairing sewing machines, as well as modular production and

productivity training programs, focusing on speed and quality of output. Interviews revealed tremendous respect for the training and services offered by Garment 2000. However, many are unable to take advantage of its services because of the logistical and financial difficulties of sending employees to the program during the working day.

The biggest challenge for Garment 2000 has been persuading local manufacturers and contractors to adopt modular production. If quick response and increased value-added for relatively small batches of garments is to be the domestic niche for apparel manufacturing, the traditional labor-intensive, assembly-line production process may prove unwieldy. Industry experts argue that only by relying on modular production will manufacturers be able to put out small runs of a diverse array of styles quickly enough to compete with offshore producers.

Modular production entails a reorganization of the assembly-line style of production into teams, typically of seven or more workers, who produce one garment at a time from start to finish. Where the traditional "cut-and-bundle" system might take a week to move an order of 100 pairs of pants through the assembly line, one modular team might finish 25 pairs of pants in a day. Teams set their own work schedules and weekly production goals, and each member is trained to operate all the different machines. Because workers stand while they move from machine to machine, the process eliminates health problems associated with sitting. Thus, modular production permits quicker response, by eliminating bottlenecks in the process (as when one person does all the zippers and the next does the buttons); it results in a higher quality product, since more time is spent per garment; and it provides substantial benefits for individual workers in both the ergonomic nature of the work and the increased sense of responsibility.

Despite positive reports of increased productivity from firms in the region which have converted to modular, only two San Francisco firms have successfully incorporated modular production techniques. Some firms are reluctant to adopt modular processes because of the perceived time and expense – in terms of training time and capital costs – it would take to convert. Others suggest that their workforce would resist for cultural reasons, such as the entrepreneurialism of Hong Kong workers, who do not want to be penalized for another's slowness. Even if these difficulties were overcome, some argue that modular production works only for those firms which

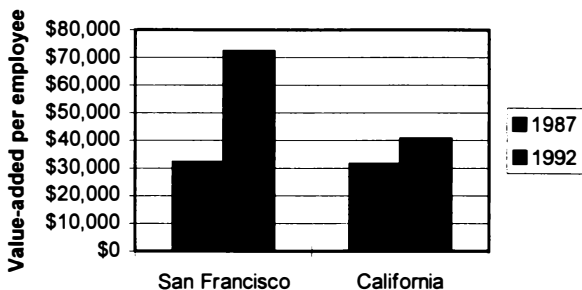
produce small runs of a high-quality nonstandardized product that is designed in-house – while the vast majority of San Francisco's manufacturers produce for the mass market. The very nature of local contracting makes a transition to high value-added manufacture difficult. Lacking engineering expertise, contractors compete on the basis of price, not quality; unable to cost products effectively, they turn over rapidly. With such instability in the business, as well as inexperience at high quality work, contractors are ill-equipped to make the transition.

Manufacturers familiar with the high value-added garment sector suggest that San Francisco lacks the image of a high fashion city, as compared with New York and Los Angeles: they point to the difficulty of establishing relationships with their European suppliers and customers. San Francisco not only lacks the fashion image, but the experience as well: high-end manufacturers report extreme difficulty in finding contractors to perform work such as couture and evening dresses. Moreover, business in the high value-added sector is risky at best: established designers have networks of marketing, real estate, and advertising that are difficult for start-ups to compete with, and the market itself is extremely limited. According to a manufacturer of high-quality apparel: "In the 1970s, they said that nobody got fired for buying IBM. Now, Donna Karan and Ralph Lauren have the same security — there's no risk in buying them. But we are hurt by these big lines because we don't have the volume to get in 40 doors at Saks Fifth Avenue."

At the same time, location in San Francisco presents a number of advantages to high-quality manufacturers. Some have cultivated valuable relationships with large local retailers, such as Macy's or Saks Fifth Avenue, which translate into a national presence. Others develop their marketing image around a casual, sophisticated San Francisco look. Some report that their San Francisco location is popular with their clients, since the company representatives like to visit. For the firms specializing in the manufacture of high-quality apparel, a New York or Los Angeles location seems to make more sense, as those cities are associated more with fashion trends in the industry. Yet these business owners enjoy living in San Francisco or nearby, or feel loyalty to their San Francisco workforce. One San Francisco vertical manufacturer even uses wool from the sheep on his farm in Sonoma County for the production of high quality sweaters.

Figure 10

*Value-added per Employee in Apparel Manufacturing,
San Francisco and California*



Source: Census of Economic Activity 1987 and 1992.

San Francisco's apparel industry has actually undergone a transformation towards higher value-added in recent years. In 1987, value-added per employee was \$32,000, as compared with \$31,000 in California as a whole (Figure 10). By 1992, value-added per employee had reached \$72,000, while California as a whole lagged at \$41,000. While this change suggests that some contractors are filling orders for manufacturers of higher quality apparel, much of it is due to the influx of small high-end manufacturers which still constitute only a small share of the overall industry. Moreover, as these manufacturers grow, they tend to relocate their production facilities offshore.

Garment 2000 is not the only economic development arm advocating a transition to higher value-added production. There is substantial support in local government for a San Francisco fashion industry. For instance, several members of the Board of Supervisors have advocated creating a "Made in San Francisco" label as a marketing device to associate local products with the city's desirable image. Yet there is little interest in keeping the low-wage, low-skill segment of the apparel industry in the city – especially if it interferes with new multimedia business in the South of Market. For instance, one local manufacturer recently applied for an SBA loan through the San Francisco government

to help expand in a new location and was told that there are enough garment manufacturers in the city already. In contrast, the governor of Mississippi wrote to the company offering a \$1 million grant to relocate there.

Conclusion

The consensus among the industry representatives interviewed was that thousands of jobs will be lost in the near future, perhaps as many as 6,000 jobs, mostly from local contract shops. Data on unemployment among San Francisco residents employed in the apparel industry reveals that there were 2,500 valid applications for unemployment from May 1996 through May 1997. However, many of these workers were likely absorbed by other contractors, or laid off due to seasonal patterns. Whether or not the projected loss materializes will not be clear until after the California minimum wage increases in March, 1998.

The question of whether the future of apparel manufacturing in San Francisco lies in higher value-added production may be moot if the majority of firms depart. At this point, the policy focus may need to shift from "endogenous" productivity enhancement to more basic supply-side intervention to preserve the industry. Only with a stable future in San Francisco can apparel manufacturers look to restructuring their production processes to fill the domestic quick response niche. This calls for a simple, bread-and-butter approach, of reducing land, labor, and capital costs for manufacturers. Many of the contractors for the budget-line manufacturers will likely lose their business to overseas, but with stable industrial rents, job training subsidies, and finance capital for fabric, the larger firms may be able to continue competing with Mexico and China. As they become more stable, they may be able to attract orders from the high value-added sector, which currently tends to expand offshore. If the future indeed lies in larger firms in both the mass market and high value-added sectors, the availability of industrial buildings with large floor-plates becomes critical. To preserve such spaces in the South of Market industrial district, the city might best create an industrial protection zone which prohibits new development in this area. In addition, to counteract the downward pressure on wages that is likely to occur as many contractors go out of business, the city might also consider subsidizing labor costs either directly or indirectly by providing transportation assistance or access to medical benefits.

The rationale for this policy approach is twofold: the entire industry will suffer if it loses the external economies of scale which attracted it in the first place, and the city cannot afford to lose more low-skilled jobs. The growth of the industry in the 1980s occurred in large part because of the industrial district of San Francisco, with its industrial spaces tailored toward apparel manufacturing and concentration of specialized subcontractors and suppliers. Without the critical mass of demand from both low-end and upper-tier manufacturers and contractors, these economies will disappear; industrial spaces will be sold and converted to office and residential use, and the subcontractors and suppliers will move away. Without the network of contractors nearby to meet the demands of manufacturers on short notice, they too will shift operations to larger apparel production centers. If the labor force migrates to other centers as well, manufacturers will lose their flexibility, their ability to respond to seasonal shifts in demand.

The loss of thousands of low-skilled jobs in apparel manufacturing would be disastrous for the San Francisco economy, which offers fewer and fewer job opportunities for its low-skilled residents. While work in the apparel industry is undoubtedly strenuous, remuneration for most remains above that available in "hamburger-flipping" jobs. Moreover, even when jobs are available in the low-wage service sectors, such as retail and restaurants, the transition would be difficult for the predominantly middle-aged, female, Asian, non-English-speaking apparel workforce.

Apparel manufacturing grew rapidly in the late 1980s and early 1990s despite the movement of the rest of San Francisco towards a bipolar service economy. With the rapid transformation of international trade and the globalization of production, the future of domestic apparel manufacturing is precarious in the long-term. However, in the short term, domestic production continues to claim a niche in quick response, and NAFTA seems to be having a stronger effect on apparel manufacturing in southeastern regions than in California. Thus, timely policy intervention may at least ease the effects of the transformation in one small city.

¹ Calculated by the author using the San Francisco Tax Controller's database. This is not uncommon in today's apparel industry: Loucky et al. (1994) report that up to 1/3 of Los Angeles contractors go out of business each year.

² It should be noted that a substantial number of apparel workers are already receiving public assistance in some form, from food stamps to SSI to unemployment compensation (legal or illegal). Thus, not all displaced workers will increase public assistance expenditures. Moreover, the amount of increase depends on the type of program available, whether or not, for instance, retraining and literacy programs geared toward Cantonese speakers are available.

³ Ownership (deed) transfers are used here instead of sales as a more accurate reflection of change of ownership, which may not involve cash transactions.

⁴ It should be noted that some of the variation may be explained by inconsistently reported sale prices, as for instance more than one building may be reported in a purchase. However, such differences should be consistent across use types, so the relationships should be relatively accurate.

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