

# Technological Trends Affecting the Manufacturing Sector of New York City

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For almost half a century, manufacturing has been declining in New York City. In 1950, there were about 1 million manufacturing jobs in New York City; in June 1994, there were 286,000 manufacturing jobs in the city. During the past two decades, from 1974 to 1994, manufacturing jobs in the city declined by more than 50 percent.

The loss of manufacturing jobs has created a widespread sense that manufacturing in New York City has no future, that the decline is unstoppable and "largely inevitable and foreordained" (Fitch 1993, p. 107). Even the optimistic report of the Commission on the Year 2000, *New York Ascendant*, predicted "an ongoing decline in manufacturing," though it recognized that high-value manufacturing could compete in New York City and that "the city should make every effort to support the manufacturing that can be successful here" (Commission on the Year 2000 1987, pp. 30-1).

Despite the substantial losses in manufacturing over the past two decades, manufacturing is still a vital—though diminished—part of New York City's economy. Within the context of a massive decline in manufacturing jobs, there has been a remarkable change in the structure and character of manufacturing activities in New York City that warrants serious attention by researchers and policymakers.

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The manufacturing sector—because it is dispersed throughout neighborhoods in all five boroughs and predominantly consists of small businesses—is not well situated to act as a strong presence in the city's most prominent civic and business organizations. As a result, leaders of the city's business community often inadvertently overlook the needs of manufacturing firms in their lobbying and advocacy activities.

The factors that have contributed to the outmigration of manufacturing firms from New York City are frequently cited, such as high taxes, inadequate rail infrastructure, union work rules, excessive regulation, unskilled labor, and crime. But remarkably little attention is given to the forces that have allowed manufacturing firms to remain, expand, and even start up in New York City. Recent technological and market trends have helped trigger the growth of small-scale manufacturing firms in New York City.

Three forces are crucial to the future of manufacturing in New York City:

*First, technological change has undermined traditional economies of scale and is favoring small firms that adopt innovations and invest in advanced computer and telecommunications systems.*

In the post-World War II environment, the advent of the mass assembly factory—which required large amounts of horizontal space—forced many firms to leave the loft factories of the Bronx, Brooklyn, and Manhattan for suburban sites in New Jersey, on Long Island, and in

other states. While many plants still produce large batches of standardized products, there has been a "shift of the production system in the direction of a complex of smaller, specialized plants focusing on small batch outputs and able to move rapidly in and out of particular market niches" (Scott and Storper 1990, p. 10). Productivity is no longer associated with the size of the production run.

Furthermore, computer-based systems used for the design, control, and tracking of production processes have often reduced the amount of physical space required for manufacturing operations, making it possible to locate manufacturing within the confines of urban factories and warehouse buildings.

The advantage of specialization is apparent to a Brooklyn-based manufacturer of specialty glass who said, "We are small and very versatile. We're able to turn a job around in two-and-a-half to three weeks. We're quicker basically because we handle smaller, more specialized jobs than most of our competitors." In the food industry, a firm that produces specialty hors d'oeuvres and desserts has acquired space once used for meat cutting, storage, and refrigeration in Manhattan's Fourteenth-Street meat market district. In both cases, specialty manufacturing firms that serve niche markets are occupying space that initially had been built for warehouse and production activities. The new productivity of small manufacturing firms and the availability of cheap industrial space have allowed specialty manufacturing to take hold in New York City.

*Second, the need to respond to rapid changes in consumer preferences and the renewed emphasis on customer service have made geographic proximity an asset.*

As fashions change more rapidly—in both men's and women's apparel—manufacturers who can respond quickly to fashion trends and deliver goods on short deadlines can have a competitive advantage. New York City has two distinct advantages for quick manufacturing: it provides designers with a constant flow of ideas and information about fashion trends that can be integrated into their products, and it provides retailers and manufacturers with access to manufacturers who can deliver goods without encountering lags stemming from uncertain transportation.

Designer ties are made by several firms in New York

City because of the need to produce a new line of ties quickly to serve four different fashion seasons. While the use of electronic data interchange systems allows manufacturing firms outside New York City to be in close contact with New York-based designers and retailers, the easy access to local manufacturers allows designers to adapt their product lines quickly to changes in fashion and market preferences.

*Third, the movement of service-based firms into manufacturing is increasing as New York City service sector firms—with an understanding of market trends and technical capability—expand their markets by moving into manufacturing activities.*

Services have always been a source of manufacturing activity. In addition, the distinction between services and goods is increasingly blurred as firms give more attention to design and development than to production. While most economists have traditionally argued that manufacturing creates the need for services, others have pointed out that the "manufacturing economy and the service economy are intimately interdependent" (Scott and Paul 1989, p. 64).

In recent years, several New York City-based service firms have moved into manufacturing activities as they have acquired greater knowledge of consumer preferences or invested in new manufacturing equipment to expand their market, or as a way to ensure a high level of quality for the services that remain their core business.

In the food-processing sector, a firm that once was a distributor of spices gradually shifted its activities so that it now prepares and packages specialty foods in addition to distributing its products. A local retail chain of photo supply and processing stores recognized the advances in new imaging technology, acquired an industrial loft building, and equipped it with advanced imaging and computer equipment for the production of compact discs and other graphics.

In view of the importance of manufacturing to entry-level workers and to outer-borough economic activity, manufacturing should be treated as an important element of the economic development policies of New York City. Moreover, the influx of immigrants into New York City over the past twenty-five years has strengthened the city's manufacturing work force. Immigrants have brought

skills in design and production as well as entrepreneurial energy that have helped revitalize small-scale manufacturing activities through the city. There is a future for manufacturing high-value goods in New York, but that future is quite different from the city's industrial past. Skilled

immigrants, the use of advanced technologies in production processes, and the capability of responding rapidly to global markets are valuable assets that can and should reinforce the manufacturing sector in New York City.

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