The most controversial issues in the city’s land use planning regard the future of the vast underutilized areas still zoned for industrial purposes. As housing developers scour the city for marketable, unencumbered sites and planners ponder where Manhattan can accommodate future commercial growth, large sections of the city remain off-limits to most types of new development because of its manufacturing zoning.

For several decades proposals to rezone manufacturing districts to allow other uses have run aground of opposition from border communities that prefer the tranquility of the status quo and from industrial preservationists who believe the city must retain a diversified, blue-collar job base. The decline of the city’s industrial sector has thus far defied all efforts to arrest it, however, and there is an increasing consensus that the city’s economic evolution has made strict segregation of residential, commercial and manufacturing uses obsolete.

A potentially significant precedent may be set by the Chelsea rezoning now moving through the ULURP. In that zoning action, which arose through a 197-a community-based planning process, the Department of City Planning has agreed to tighten protections for the historic, residential core of the neighborhood in exchange for a remapping of a former manufacturing district to commercial and residential uses.

In many ways the Chelsea remapping merely validates the encroachment of commercial and residential uses that has already occurred into the area. Maintenance of the manufacturing designation has impeded new development more than it has deterred the adaptation of uses. But there are many more areas of the city, especially on the west side of Manhattan and along the Brooklyn/Queens waterfront, where a similar transition is happening. The rezoning of those areas for commercial and residential use is likely to occur in piecemeal fashion and will surely rekindle concerns about the city’s economic transition.

Labors Lost

In Manufacturing Decline and the Land Use Debate (CHPC, 1994), we documented the demise of the city’s manufacturing base. The study showed that New York’s loss of some 500,000 manufacturing jobs since the 1950s was typical, in proportional terms, of large US cities. The study concluded that neither the city’s manufacturing mix nor its land use policies made it particularly prone to losing manufacturing firms and their associated jobs, and offered little optimism for a reversal of the trend.

Since that study was published the city has continued to lose jobs in the manufacturing sector, although at a slower rate. According to the New York State Department of Labor (DOL), manufacturing employment declined from 274,200 in February 1994 to 255,400 in February 1999. A pattern typical of the entire post-war period has been continued during the most recent regional business cycle; during recessions, the city loses manufacturing employment at a rapid rate, while during upswings the rate of decline slows.

While DOL data are current but highly aggregated, the Department of Commerce provides extremely detailed data on the city’s employment trends through 1996. Those data show a comparable downward trend and reinforce several of the observations made in CHPC’s 1994 study.

One important conclusion that emerges from analysis of detailed industry data is that much of the city’s manufacturing decline has come in areas that provide few blue-collar jobs to begin with. Because “manufacturing” employment is defined by the DOL and most other sources according to the outdated Standard Industrial Classification (SIC), it can be misleading to equate manufacturing employment with industrial, blue-collar jobs. When the proper adjustments are made, the story is in some ways even more alarming.

The printing and publishing industry, for example, has traditionally been one of the city’s largest employers. However, relatively little of its employment consists of blue-collar workers with high-school educations or less. Over three quarters of the industry’s employees are engaged in white-collar occupations, such as writing, editing and advertising. The industry’s manufacturing classification under the SIC codes is largely a relic of an earlier era when newspaper and book publishing were capital-intensive, low value-added activities. Today, the “soft costs” of those activities are much larger and publishing is the core of an “information industry.”

During the ten years ending in 1996 the city lost over 33,000 jobs in the printing and publishing industry, nearly one third of its total. The steepest declines were in the newspaper
business, in which about 5,000 jobs were lost, and in commercial printing, where 11,000 jobs—nearly half the total—disappeared. Another 2,600 jobs were lost in printing trade services such as typesetting and platemaking. While national employment in newspapers and printing trade services also declined, the drop was not nearly so steep, and the number of jobs in commercial printing expanded by about 8 percent during that period. Those segments of the industry traditionally provided the greatest number of job opportunities for skilled and semi-skilled blue collar workers.

While the segments of the industry that are the most “knowledge intensive” appeared to have fared best, New York’s historical dominance continues to wane. Employment in the city’s book publishing industry dropped by about one-quarter to 12,000 while it grew nationally by about 23,000. Consequently, the city’s share of national employment in the book publishing trade fell from about 14 percent in 1986 to about 9 percent in 1996. New York’s dominance in magazine publishing has been more persistent, with employment only declining from 28,100 to 25,600 during the period. The city’s share of the nation’s employment in the field fell from 26 percent to 22 percent.

The city’s share of most employment categories can be expected to trend downward over time as national population growth occurs largely in other regions of the country. Nevertheless, the performance of its printing and publishing industry reveals a number of important trends in the evolution of the city’s economy. It appears that the segments of the industry that are the most “industrial” have been contracting rapidly while those that are most knowledge intensive have fared better. Even so, the city clearly faces greater competition than ever before in fields it had previously dominated.

Another potentially misleading quirk of the SIC is its inclusion of administrative and headquarters offices of manufacturing firms in its classification of manufacturing employment. The 1994 CHPC report showed that New York’s manufacturing employment has long been comprised disproportionately of white-collar employees performing administrative functions. Moreover, since the 1950s the city has been losing those administrative employees and, unlike most other metropolitan areas, New York’s industrial firms have tended to relocate headquarters out of the region entirely rather than to nearby suburbs. That trend has not abated. In 1986 there were 57,600 employees working in “administrative and auxiliary” facilities of manufacturing companies in the city, but this total fell to 31,500 by 1996. Evidently, as the city’s goods-producing factories have rapidly relocated to other areas of the country they have pulled the administrative offices of those firms with them. This trend suggests that New York’s continued leadership as a command-and-control center for industrial corporations is by no means assured.

Once the primarily white-collar segments and functions of manufacturing industries are accounted for, the city’s true manufacturing base appears to have shrunken even more than might be thought. When printing and publishing and administrative facilities are subtracted, the city’s job base in traditional manufacturing activities totaled only 160,000 in 1996.

Apparel and other textiles is still the largest manufacturing industry in the city. This traditional manufacturing sector provided about 67,000 jobs in 1996, but the number had declined by nearly 43,000 during the previous ten years. In fabricated metals products, once one of the city’s leading industries, employment fell by nearly 43,000 during the previous ten years. In textile mill products, once one of the city’s leading industries, employment fell by nearly 43,000 during the previous ten years.

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Full Circle
As recently as 1958, employment in manufacturing establishments (broadly defined) comprised more than 25 percent of the

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**Changes in NYC’s Manufacturing Employment**

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<tr>
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**Citizens Housing and Planning Council**

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city’s jobs. By 1996, manufacturing jobs represented less than 8 percent of the city’s employment base. Is there any reason to believe we have hit bottom and that the city’s manufacturing sector will stabilize or revive?

Some analysts have held out hope that high-tech manufacturing will ultimately replace the commodity production that once characterized the city’s economy. However, there is as yet very little evidence to support such optimism. There are two SIC categories which contain many of the products usually associated with high-tech manufacturing, including computers and communications equipment. Employment in these two industries plunged citywide during the 1986-96 period, falling by 63 percent to 12,000. Moreover, the zip code encompassing the much-publicized “Silicon Alley” lost about 8,300 of its 14,200 manufacturing employees during roughly the same period of time. While the computer software and other computer services businesses are growing, there is no evidence of significant high-tech manufacturing job creation taking place within the city.

Another hope for the future of manufacturing in New York is based on “flexible production.” This notion argues that dense, expensive cities like New York are economically unsuited to large-scale mass-production manufacturing, but provide certain advantages to smaller, boutique-type manufacturers who benefit from a close proximity to firms engaged in cutting-edge marketing, engineering and design activities. The data indicate that there may be something to this argument, but whether such advantages are enough to offset the diseconomies of a city location, or are enough to make a material difference on the economic scale of New York, is questionable.

In the apparel industry, for example, the segment that is most dependent on the latest trends in marketing and design includes blouses, shirts, suits, coats and other fashion-oriented apparel for women. This is the largest segment of New York’s apparel industry, and it is the segment that has displayed the most resilience in recent years. City employment in firms manufacturing such garments fell from 50,800 in 1986 to 43,300 in 1996, a decline of only 15 percent. The city actually increased its share of the nation’s employment in the field. Employment in all other segments of the city’s garment industry fell by 60 percent during the same period of time.

A bottoming out of the city’s manufacturing decline may also be reached when its few remaining manufacturing firms are producing goods intended for the local business market; manufacturing, in effect, as a service industry to the service industries. A recent example of this trend can be found in Long Island City, where several new tenants are moving into facilities formerly occupied by Swingline, the manufacturer of the familiar staplers and other office products for the national market. The new tenants include an information management company and an envelope and legal supplies manufacturer.

In a sense the city’s economy has come full circle over the course of the past two centuries. At the beginning of the 19th century, New York rivaled Philadelphia as the preeminent city in North America with an economy based on foreign trade and finance. During the industrial phase of the nation’s history, New York became its leading manufacturing center. Now, at the dawn of the 21st century, little remains of its industrial economy and New York is once again a commercial city.

Manufacturing Belt
There has been a long-running debate about the causes of the city’s manufacturing decline. High labor costs, transportation bottlenecks, tax policies and the evolution of production techniques toward horizontal, continuous-flow processes have all been cited. Some have argued, however, that land-use competition has accelerated the demise and that New York’s industrial economy could be preserved if it were insulated from competition with other land uses through zoning regulations.

Data on the spatial distribution of the city’s manufacturing do not support the argument that land use competition is driving it away. Between 1986 and 1996, manufacturing employment (excluding printing and publishing and administrative facilities) declined by 47 percent in Manhattan and Brooklyn, by 42 percent in the Bronx, and by 40 percent in Queens. If land use competition was driving the decline, the outer boroughs, where industrial rental costs are $5 to $10 per square foot, would be benefiting from firms relocating out of Manhattan, where costs are typically $15 to $20 per square foot.

Despite the continuous decline in manufacturing activity, zoning in New York City reflects land-use priorities that are decades old. According to a recent study by the Department of City Planning, the amount of land zoned for manufacturing has declined by only 5 percent over the last 20 years.

Approximately 10 percent of the land area in New York City is zoned for manufacturing uses. Industrial land is concentrated in several areas – notably Long Island City in Queens; the Brooklyn waterfront including Greenpoint, Williamsburg, Red Hook, and Sunset Park; and large sections of west midtown and downtown Manhattan.

While large industrial zoning districts remain, the decline of manufacturing and spread of residences has forever altered many former industrial neighborhoods. The prototypical case is Soho. While still zoned for light manufacturing, loft conversions beginning in the 1960s changed the neighborhood dramatically. Most early conversions were illegal, but beginning in the early 1980s the city and state passed a number of laws aimed at legalizing and regulating conversions and at bringing loft apartments up to housing maintenance code standards.

At about the same time, amendments to the zoning code also began to reflect an acceptance of the conversion of manufacturing lofts to residential use. Applicable to large sections of Manhattan, Brooklyn, and Queens, the regulations created minimum standards for the conversion of manufacturing buildings. Additionally, in manufacturing and commercial zones with an M suffix (e.g. M1-5M, C6-4M), the zoning resolution requires building owners to preserve a portion of the total floor area for manufacturing or commercial uses: up to one third for
Another tool that the Planning Commission has devised is a new mixed-use zone. So far mapped only in small sections of the Bronx and Brooklyn, the new zones do not require preservation of any uses and put relatively few restrictions on where residential and manufacturing uses can coexist.

The redevelopment of industrial land for residential and commercial uses still faces a major impediment at the waterfront. In the early 1990s new zoning text was adopted to encourage waterfront development. It established special bulk, public access, visual corridor, pier, and floating structure requirements for waterfront areas. Because of the huge potential costs of the necessary environmental review, as well as of the delicate community politics, few such zones have been mapped. One successful remapping was done along the Queens waterfront in Flushing in 1998, but others, including that proposed for Red Hook, Brooklyn, foundered amid neighborhood discord. City Planning has developed several planning documents, including a coastal management plan and a 197-a plan, that outline its goals for waterfront rezoning.

**Upward Mobility**

Since overall employment in the city has been growing even as the manufacturing sector continues its decline, the most persuasive argument for a vigorous industrial preservation program is concern about a jobs/skills mismatch.

The premise of the “skills mismatch” argument is that the emergence of a structurally underemployed “urban underclass” is due to the loss of blue-collar industrial jobs in major cities. Such jobs, reputedly better-paying and more compatible with the skills possessed by less educated workers (especially males) were traditionally the route through which urban immigrants entered the American middle-class. More recent generations of immigrants, as well as many African-American migrants from the rural South, arrived in northern cities just as those jobs were evaporating. The service sector jobs that have replaced them either require high levels of education or, at the lower skills levels, pay too poorly to provide upward mobility.

The skills mismatch argument has much truth in it but also, in the stylized form presented above, glosses over many historical and regional particularities. For example, as already discussed, New York’s “industrial” economy was always weighted toward white-collar, administrative functions. Furthermore, the city’s manufacturing sector was never characterized by heavy industrial firms offering lucrative, unionized blue-collar jobs as was the case in Chicago, Detroit and other cities of the Midwestern manufacturing belt.

By 1996 only 14 percent of employed New Yorkers who did not have at least a high school education worked in the manufacturing sector. Of those, nearly half work in the apparel industry. More New Yorker’s without a high school degree work in retail (18 percent) and more than twice as many work in the service sector (31 percent). Obviously, less-educated, unemployed New Yorkers would have more job opportunities if more manufacturing jobs were available, but it is not clear that manufacturing job growth would be more favorable for them than job creation in other sectors.

The average less-educated worker in the city’s manufacturing sector earned a weekly wage of $342 in 1996, compared to an average in all industries of $401. The lowest paying industry for non-diplomaed workers is apparel, where they earned an average of $305 per week. Among non-manufacturing industries, less-educated workers in the retail sector earn the least, at $317 per week.

In general, the city’s FIRE (finance, insurance and real estate) and service industries (including medical, personal and business services) create fewer positions for non-diplomaed workers per 1,000 new jobs created than do other sectors of the economy, but those jobs that are created are relatively well paying. The average non-diplomaed worker in the FIRE industries earned, for example, $493 per week. Less-educated workers in the business services industry ($585) and in the health care services industries ($425) also earned more than the average. The more educated the worker, of course, the greater the pay differential between the financial and service industries and manufacturing occupations.

Since only the last vestiges of the city’s manufacturing base remain, and those jobs do not pay less-educated workers particularly well, it is difficult to see why manufacturing activities should continue to occupy a protected status within our zoning and land use regulations. The interests of all economic classes would be best served if the city carefully evaluated its economic advantages and tailored its land use, development and educational priorities accordingly.