

# Behind the Sunbelt's Growth:

The Sunbelt's growth is not so much a result of entire firms moving from North to South as it is a function of "decentralization." Manufacturing, in particular, seems to be seeking out not only southern locations, but also smaller cities and non-urban areas.

The economy of the Southeast has been growing more rapidly than the national economy for several decades. The Southwest and the West have also grown considerably, while the Northeast and the Midwest have experienced a marked slowdown in their growth. Many commentators have discussed this pattern in the context of a Sunbelt-Frostbelt dichotomy, but this is not entirely accurate. The slow growth has been mainly in the populous industrial states of the manufacturing belt from New York westward to Illinois, but this slowdown has not affected other areas of the North such as the Plains states. The recent experience of New England has been much better than that of the neighboring Middle Atlantic states.

The most notable characteristic of the differing growth of regions has been the shift away from large metropolitan and small cities. Even in the Sunbelt, growth has been proportionately greater outside the largest cities than within them.

The sector of the economy which has been leading this change is manufacturing. While services, finance, real estate, transportation, trade and construction employment mostly serve their local markets, manufacturing tends to be more oriented to the national market, and manufacturers have been far more footloose throughout our history.

The current trend is for a decentralizing and spreading-out of industry. The more rapid growth of the Southeast is being influenced by the new location decisions of manufacturers. From 1960 to 1980, total employment in the Southeast grew 56 percent more than that for the U. S. as a whole; service employment grew only 33 percent faster in the Southeast, while manufacturing employment grew 208 percent faster. It is important to note that these are growth rates relative to the U. S. average. Manufacturing employment as a percentage of the labor force has declined in the Southeast and in the nation. But whereas other sectors such as construction, trade and services grow in parallel fashion in every region, manufacturing growth rates are widely divergent, with a pronounced shift out of the traditional manufacturing belt and toward the South and West.

This development raises two questions. One is whether the Southeast's gain has been at the expense of the North, in the sense that some plants have been relocated from the North to the Southeast or that new plants have been built in the Southeast which in the past would have been built in the North. The second question is concerned with the benefits of industry location in the Southeast. What factors have made this region so attractive? This article will review some of the ideas and evidence surrounding these questions.

From 1970 to 1981, total employment grew in every state. Yet manufacturing employment declined in some areas, primarily in the manufacturing belt from New York to Illinois, which together lost over 1.1 million jobs. The Southeast gained significantly compared to the total gain of about 5 percent. (Chart 1).

In order to say whether this marked shift in manufacturing represents a movement from one region to another or a process of growth or shrinkage which is independent within regions,

# Industrial Decentralization

we need information on the experience of individual firms. The only comprehensive source of this information is David Birch, **The Job Generation Process**. Birch reports on the expansion, contraction, birth, death and migration patterns of individual establishments from Dun and Bradstreet's files on nearly all business establishments. Establishments are classified as independent (single establishment), headquarters or branch, and parent or subsidiary. The employment experience of individual facilities was charted from 1969 to 1976.

It is clear from the Birch study that entire firms are not moving from the North to the South. Even the states with declining industrial bases lost only about one-tenth of one percent of their employment per year from out-migration of firms. The other popular conception of job movement is that firms are closing plants in the North in order to open new ones in the South. This is also contradicted by Birch's findings. The declining states had either the same or a lower rate of closures than the fast-growing states. It is the

excess of the rate of births of new firms that determines the difference between the fast and slow growth areas.

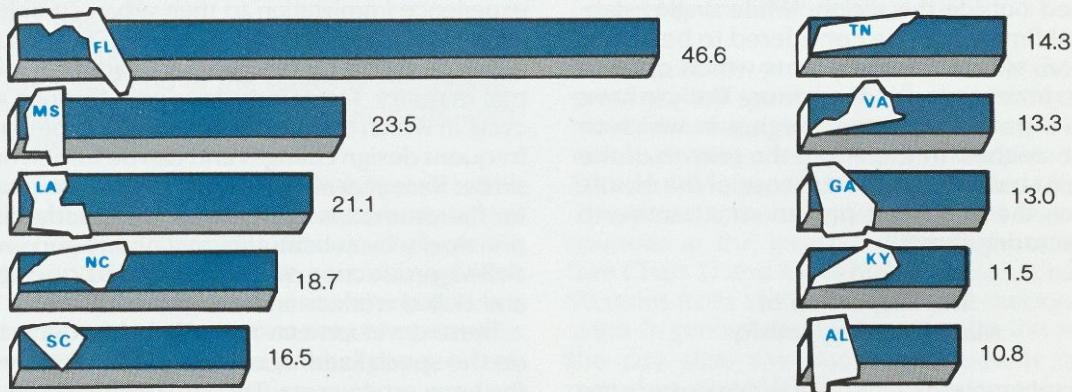
These results have been interpreted by some to mean that states should look to the process of new firm formation in order to generate faster growth. However, the case of manufacturing growth in the Southeast is somewhat atypical. A large proportion of Southeast manufacturing employment is in branch plants operated by firms headquartered outside the region. Birch reports the distribution of net new employment for the entire South from 1969 to 1976 ownership status as follows:

#### *Net Employment Growth in Manufacturing*

Independent	14.0 percent
Headquarters/Branch	66.1 percent
Parent/Subsidiary	19.9 percent

About 86 percent of new manufacturing jobs in the South from 1969 to 1976 were generated in multi-establishment firms. The question that

**Chart 1. Manufacturing Employment**  
(Percent Increase, 1970-1981)



Source: Bureau of Census, **Employment and Earnings**, 1970 and 1971.

# "Most of the manufacturing employment gains in the South"

**Table 1**

Percent Distribution of Manufacturing Net Employment Change in the South Due to Differential Treatment of Branches and Subsidiaries by Headquarters and Parents.

Location of Headquarters	Percent of Branch Employment Change	Location of Parent	Percent of Subsidiary Employment Change
Northeast	31%	Northeast	46
North Central	41	North Central	54
South	16	South	-18
West	13	West	18
	100		100

Source: David Birch, *The Job Generation Process*, MIT Program on Neighborhood and Regional Change, Cambridge, Mass., 1979.

remains, then, is how many of these jobs were the result of location and expansion decisions made outside the region? The closest we can come to an answer is the distribution of branch and subsidiary employment gains by location of headquarters and parent, respectively (Table 1).

Seventy-two percent of branch employment growth from 1969 to 1976 was in plants owned by firms in the Northeast and North Central, and 86 percent was in plants owned outside the South. Subsidiaries owned by parents in the South actually decreased employment over the period, so that all of the employment growth in subsidiaries came in firms owned outside the South.

Most of the manufacturing employment gains in the Southeast have occurred in firms headquartered outside the region. While single-establishment firms might be considered to be generated from within a region, firms which operate facilities in several regions are more likely to have chosen a particular state or region in which to locate branches. In this sense the growth of the Southeast has been at the expense of the North. Why has the Southeast proven so attractive to manufacturing firms?

## The Dispersion of Manufacturing Activity

The rapid growth of manufacturing outside the old manufacturing belt represents the reversal of

a long trend toward the concentration of industry which dates from the beginning of the Industrial Revolution. Much of the industry grew up in large urban concentrations whose growth paralleled that of the economy. The major reason for these urban-industrial concentrations is that related industries such as fabricated metal, industrial machinery and transportation equipment enjoyed greater efficiency through the sharing of similar labor force skills and other resources and through savings in transportation and communication costs. Wages, rents, taxes and many other costs were higher in these industrial centers, but these were offset by the higher productivity resulting from the inter-industry linkages.

However, the evidence is growing that a turning point has been passed. The long trend of population and employment concentration has been reversed both in the United States and in many other developed countries. Many nations which experienced net immigration to their major industrial complexes since the beginning of economic development have recently seen a switch to net out-migration in favor of less densely populated regions.

In general, the countries which industrialized first have decentralized first. The group which is experiencing out-migration includes—besides the United States—France, West Germany, Belgium, Denmark and Holland. Countries where immigration to urban centers has ceased are Japan, the United Kingdom, Italy, Sweden, Spain and Canada. Countries still in the process of industrializing, such as South Korea and Taiwan, continue to experience immigration to their urban complexes.

The forces behind this dispersion of manufacturing come under the general heading of industrial maturity. Many industries pass through a life cycle in which the product no longer experiences frequent design changes and can be turned out in similar form year after year. The production process for the product is also refined and standardized, principally by substituting machinery and lower-skilled production workers for hand operations and skilled workers and designers.

These developments make firms less dependent on the specialized labor force and other firms in the large urban areas. They can reduce their cost of production by locating in smaller cities or rural

## have occurred in firms headquartered outside the region."

areas where construction costs, wages, and taxes are lower. In addition, most industries today have a wider range of products, individual products are more complex, and more stages of processing are required. This encourages large firms to create individual plants specializing in particular products, processes or components. These plants are sited in cities or regions suited to their particular resource needs.

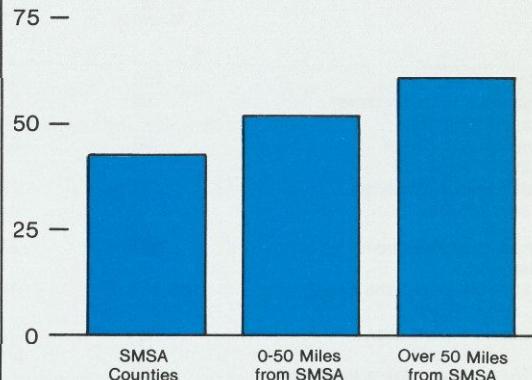
The Southeast has benefited from the maturing of products and production processes since the end of the nineteenth century. The textile industry saw much of its most labor-intensive production move from New England to the South Atlantic between 1880 and 1920 after the development of automatic machinery in spinning and weaving replaced many skilled workers. Similar factors facilitated the southward movement of chemicals, paper, rubber and furniture. Today many multi-plant firms in a wide variety of industries are finding the Southeast a favorable location for producing some of their products or components of products.

In a study of new plants built by Fortune 500 firms during the 1970s, Roger Schmenner identified the characteristics of Sunbelt plants which distinguished them from Frostbelt plants. In declining order of significance, Sunbelt plants were found to be:

- non-union
- not independent (that is, Sunbelt plants are more often single-function facilities rather than producing the complete product)
- purchasing more inputs from other company plants
- not engaged in product innovation
- using more raw materials (that is, they are at the lower end of the stages of processing)
- more capital-intensive (that is, more automated)

This and other studies suggest that it is the relatively standardized production processes which are moving out of the older industrial areas, while research and design, engineering and management tend to remain behind. This division of production is most noticeable in the broad field of electronics and related equipment. New product development and highly-skilled production such as medical electronics and scientific equipment is located in

**Chart 2. Manufacturing Employment Change 1959-1969**



Source: Table 2.

the Northeast and California. Plants outside the manufacturing belt produce high volume components and sub-assemblies, while low-skill labor-intensive parts such as circuit boards are made in low-wage, underdeveloped countries.

Foreign competition must be mentioned as a contributing factor to the accelerated movement of industry in the United States. The share of foreign trade in the economy has doubled in the last 10 years, and many more industries now find themselves competing in world market. In autos, rubber, textiles, shoes and consumer electronics, lower foreign wage rates have sent domestic producers searching for lower-cost locations for mass-produced goods. The result has been a more rapid growth of industry in the Southeast, Southwest, Plains states and in general away from large, high-cost metropolitan areas.

This pattern can be seen in Table 2, which presents the growth of all employment and manufacturing employment in the South by size of urban area and distance from the nearest Standard Metropolitan Statistical Area (SMSA). The manufacturing growth rate was highest for counties at the greatest distance from SMSAs (see Chart 2) and it was higher for counties up to 50 miles from SMSAs than for the metropolitan areas. In general, the rule seems to be, the smaller the city size, the higher the growth rate of manufacturing. While both total employment and manufacturing employment grew by 49

**Table 2**  
 The Extent of Rural Industrialization in Thirteen Southern States:  
 Total Nonfarm Employment and Manufacturing Employment Changes of  
 Southern Counties, 1959-1969, by Distance from the Nearest  
 SMSA and by Size of Largest City

	Number of Counties	Total Nonfarm Employment 1959	Total Nonfarm Employment Change 1959-1969		Manufacturing Employment 1959	Manufacturing Employment Change 1959-1969	
			Number	Per Cent		Number	Per cent
SMSA counties: total	153	5,660,076	2,811,677	49.7	1,604,903	701,916	43.7
Population of SMSA more than 1,000,000	23	1,384,134	965,325	69.7	340,123	221,338	65.1
Population of SMSA 250,000-999,999	63	2,996,093	1,270,317	42.4	897,999	335,210	37.3
Population of SMSA less than 250,000	67	1,279,849	576,035	45.0	366,781	145,368	39.6
Counties 0-50 miles from SMSA: total	595	2,050,630	989,771	48.3	963,604	505,508	52.5
Main city population more than 10,000	127	1,190,025	579,051	48.7	558,786	286,617	51.3
Main city population 2,500-9,999	287	717,530	344,467	48.0	344,060	182,501	53.0
Main city population less than 2,500	181	143,075	66,253	46.3	60,758	36,390	59.9
Counties Over 50 Miles From SMSA: Total	553	1,379,489	674,345	48.9	505,585	308,972	61.1
Main city population more than 10,000	85	630,248	296,225	47.0	230,469	113,034	49.1
Main city population 2,500-9,999	244	582,561	291,506	50.0	214,662	148,738	69.3
Main city population less than 2,500	224	166,680	86,614	52.0	60,454	47,200	78.1

<sup>a</sup>Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Tennessee, Alabama, Georgia, Florida, South Carolina, North Carolina, Virginia, Kentucky.

Source, Thomas Till, "The Extent of Industrialization in Southern Non-Metro Labor Markets in the 1960's," *Journal of Regional Science*, Vol. 13, No. 3, 1973.

percent over this period for the South as a whole, manufacturing growth was below total growth in the SMSA counties and above total growth in the non-SMSA counties. Manufacturing seems to be seeking out not only southern locations for its facilities, but it is growing at a disproportionate rate in small cities and non-urban areas.

### What Factors Have Made the Southeast So Attractive?

The primary attraction that a region can offer is lower production costs. However, a region needs more than low labor costs to attract industry. Also important are the availability of efficient labor, access to national distribution, and establishment of a favorable business climate. An additional

factor that will enhance a region's relative attractiveness is the agglomeration of firms within an industry, or among related supplying and purchasing firms. This concentration of industry increases the productivity of each firm and encourages more firms to follow. So the initial attractions of labor cost and other factors eventually draw enough industry that firms begin to come because of the other firms that are present as well as for the region's natural advantages.

### Cost of Labor

The Southeast has generally been acknowledged as a low labor cost region. A study by Lynn Browne demonstrated that this cost differential applies to all industries in the Southeast and is not simply due to the predominance of low wage

**Table 3**  
**Growth Rates in Manufacturing Hourly Earnings\***  
(annual percentage rates of change)

	Northeast			North Central		South			West	
	U.S.	New Eng.	Mid-Atl.	East Nor. Cent.	West Nor. Cent.	So. Atl.	East So. Cent.	West So. Cent.	Mtn.	Pac.
1960-70	4.0%	4.3%	4.0%	4.1%	4.2%	4.4%	4.2%	4.1%	3.4%	3.9%
1970-75	7.4	6.8	7.6	8.1	7.4	7.4	7.5	7.6	6.9	6.7
1960-75	5.2	5.2	5.2	5.4	5.3	5.4	5.3	5.2	4.5	4.8

Source: Lynn Browne, "How Different are Regional Wages?" **New England Economic Review**, Jan.-Feb., 1978, p. 42.

\*Geographical divisions in this article are based on U.S. Census regions.

**Table 4**  
Estimated Rates of Growth in Average Earnings Standardized for Industry Mix

(For each region, hourly earnings by industry are averaged with each industry figure weighted according to that industry's relative importance nationally.)

	NE	MA	ENC	WNC	SA	ESC	WSC	MT	PAC
1960-70	4.3%	3.9%	4.0%	4.2%	4.2%	3.9%	4.1%	3.5%	3.8%
1970-75	6.8	7.4	7.8	7.3	7.3	7.3	7.5	6.6	7.0
1960-75	5.2	5.1	5.3	5.2	5.2	5.0	5.2	4.5	4.9

Source: Lynn Browne, "How Different are Regional Wages?" **New England Economic Review**, Jan.-Feb., 1978, p. 42.

industries. In the study, Browne identifies the wage differential among the regions of the country by standardizing the industrial make up, or mix within each region's economy. This standardization removes the regional and industrial biases that arise from geographic specialization and differences among industrial wage rates. After standardizing for industrial mix, the South Atlantic and East South Central states still have the lowest industrial wages in the nation.

Despite the relatively lower rates, wages in the South are growing faster than the national average (see Table 3). However, there is little evidence that the South's relative wage position is changing. The unadjusted wages have grown more rapidly than average. Yet when wages are standardized for industrial mix it becomes apparent that the increase is primarily due to a shift toward higher

wage industries, rather than faster growing wages. This is evident because the adjusted wages for the South are equal or below the national average. Only if the adjusted wages were greater than the national average could it be concluded that the South was losing its relative low wage position (see Table 4).

In addition to wages, total labor costs are also lower in the South. Workmen's compensation and unemployment insurance are lower in the South than elsewhere; eligibility restrictions and benefit levels are also less. Combined with lower levels of insured unemployment over the last 30 years, these contribute to lower employment taxes in southern states.

In order to take full advantage of the relatively lower labor cost, business must also employ laborers who are equally as productive as the

TABLE 5

Comparison of Average Hourly Earnings in Manufacturing Unadjusted and Standardized for Cost of Living Differences — 1975

	U.S.	Northeast		North Central		South			West	
		NE	MAT	ENC	WNC	SAT	ESC	WSC	MTN	PAC
Unadjusted Earnings	\$4.81	\$4.42	\$4.98	\$5.60	\$4.92	\$3.95	\$4.07	\$4.45	\$4.70	\$5.31
Standardized for cost of Living	4.81	4.03	4.73	5.54	5.07	4.11	4.47	4.94	4.95	5.09

Source: Lynn Browne, "How Different are Regional Wages?" *New England Economic Review*, Jan.-Feb., 1978, p. 43.

national average. Without at least equal productivity, the reduction in output could offset the wage advantage and potentially make production more expensive than in other regions. However, studies indicate that southern workers are equally, if not more, productive than northern workers. So lower labor cost does translate into lower production cost.

### Cost of Living

Over and above the benefits derived from the region's low wages, southern businesses receive a surprisingly large real wage cost advantage (see Table 5). Before adjustments for cost of living, southern wages are between 7 percent and 18 percent below average. After adjusting for cost of living, the wages are between 15 percent below and 3 percent above average. This represents a 3 to 10 percent improvement in purchasing power which businesses receive as a windfall. In addition, even though industry pays lower wages, the workers receive a relative cost of living bonus that brings them close to the national average.

The lower real cost has two advantages for industry. It not only enables the payment of lower nominal wages, but it also reduces the costs of materials purchased from local markets. Local prices for products and especially services will be relatively lower due to the local labor cost component. The production cost saving from lower locally purchased goods and services has not been measured, but it is potentially quite important.

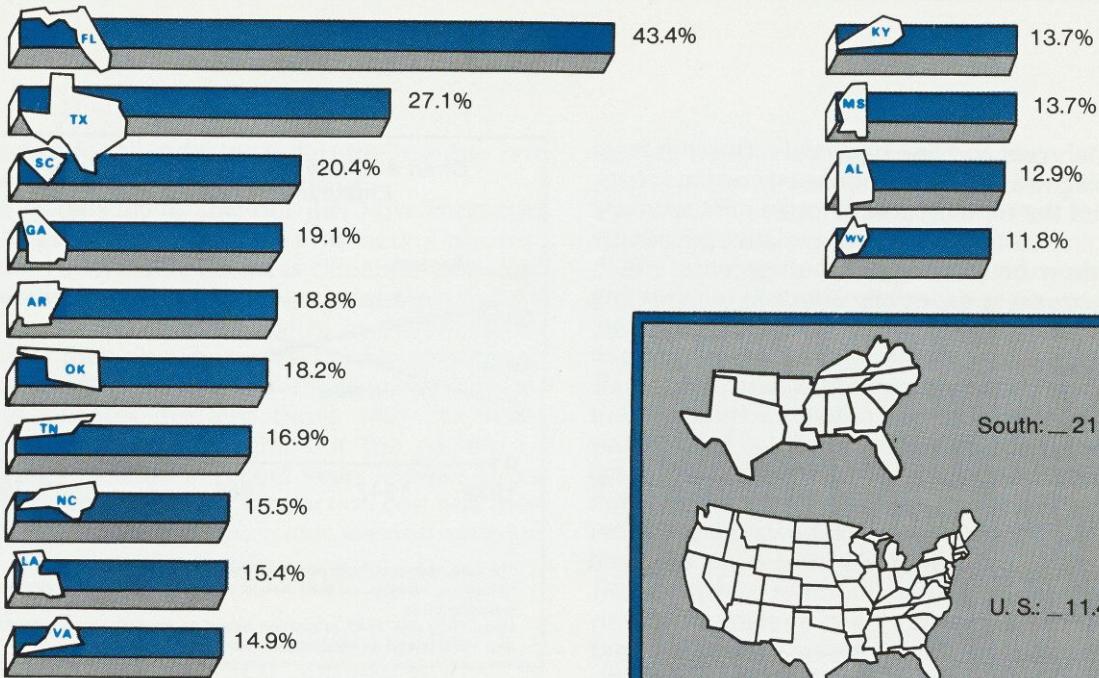
### Labor Supply

In addition to labor cost factors, businesses are concerned with the availability of labor when they consider new sites. With an inadequate supply of labor, business would be unable to sustain the advantage of the relatively low wages. The excess demand would tend to bid the wages higher, and thus, reduce the relative advantage. However, population increase in each southern state exceeds the national average, and as an aggregate exceeds the national average by 10 percentage points (see Chart 3).

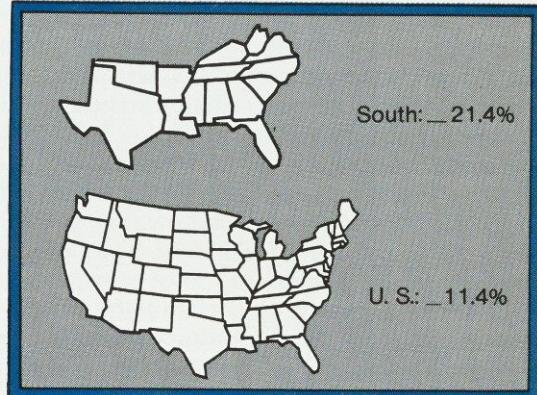
Included in the population increase is the resurgence of migration from other regions. Lynn Browne<sup>1</sup> has analyzed the migration trends from 1958 to 1977 in her 1979 study, "The Shifting Patterns of Regional Migration."

Since the 1950s, three discernible trends have affected labor supply in the South. First, from 1957 to 1967 there was an out-migration from the rural East and West to South Central. The exodus was primarily attributable to the poor economic conditions of the 1950s and early 1960s. The late sixties comprise the second period, a transition period when the South Atlantic attracted a large share of the migration from the Mid-Atlantic and East North Central. The seventies

<sup>1</sup>Lynn Browne, "The Shifting Pattern of Regional Migration." *New England Economic Review*, November-December 1979, pp. 17-32.

**Chart 3. Population (Percent Increase 1979-1980)**

Source: Census Bureau.



are the third period, during which there has been a large out-migration from the industrial belt. The southern regions attracted the largest share and are expected to continue attracting a large share into the 1980s.

With the combination of the natural birth rate and the net migration trend, the Southeast provides an expanding labor pool that exceeds the average national growth rate. Availability of such a labor pool provides insurance that an ample supply will be available as business activity expands in the South.

In the previous section, we argued that the Southeast is the lowest production cost region. Along with the wage benefit, the region also provides real purchasing power savings and has an available supply of workers who are as productive as northern workers. However, these factors have been present in the Southeast during past decades. Businesses could have taken advantage of these regional benefits before, but few did. Why are businesses presently responding to the regional advantages of the Southeast?

### Transportation Factors

Decreased transportation costs, increased speed, and increased accessibility have all contributed to the ability of businesses to locate in the lowest production cost areas. With these transportation economies, the relative importance of transportation has been decreasing when compared with total costs. This has induced firms to become more sensitive to changes in other production costs and more flexible in relocating to regions that provide such cost advantages. Without the transportation economies, movement or expansion of production facilities would be hampered by the relative cost of transporting to and from established markets.

From a historical perspective, the primary mode of transportation for commerce has changed from water (inland and oceanic) to rail, and then to highways and air. Each step in the transition has increased the flexibility of transport and has produced economies that have changed the structure of transportation costs. The resulting economies can be divided into the effects on

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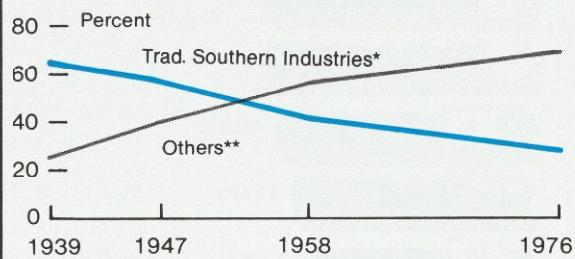
terminal costs and line haul costs. The shift from rail to highways, while it increased line haul costs, reduced the terminal cost. Despite rail's relatively lower line costs, trucking has a relative advantage with short hauls and partial shipments, which makes trucking especially effective for shipping higher value to weight products. Furthermore, trucking's added flexibility enables it to reach virtually all domestic markets faster than rail. Rail's relative advantage remains in the shipment of lower value to weight products such as raw materials. It is the combination of the structural changes in the transportation costs and the shift from predominance in lower value to higher value to weight products that have elevated trucking to the primary mode of transportation.

The development of the interstate highway system enhanced the Southeast's ability to attract industry. The highway system has provided access to national markets at competitive costs, which has enabled southeastern businesses to produce in a region with lower costs while maintaining distribution to the national markets they serve. Local highways in the Southeast have also been improved. This improves accessibility to regional labor and product markets. With the improvements in local roads and the increase in personal automobile ownership, the radius within which business can attract workers and source supplies for rural plants has dramatically increased. This allows business to take advantage of the lower production cost of a rural location without restricting access to local labor and supplies.

## Concentration of Industry

The complex network of trade between businesses results in a magnified growth effect as industry begins to locate in a region. Textile producers have been in the Southeast for many decades, but it was not until they reached a critical level of concentration that textile machinery makers and chemical firms tied to the textile industry found it advantageous to locate near their customers. More recently, the furniture industry has drawn the makers of machinery, leather and textiles into its orbit. Electronics is another industry with many small component-makers which are attracted by each other's

**Chart 4. Share of U. S. Manufacturing Employment 1939-1976**



\*Textiles, tobacco, food, paper, lumber

\*\*Plastics, leather, primary metals, electrical equipment, instruments, miscellaneous

Note: 1939 and 1947 proportion based on production workers; 1958 and 1976 based on total employment.

Source: *Census of Manufacturing*, 1939, 1947, 1958, and 1976.

presence in clusters such as those in Florida, Georgia and North Carolina.

The result of all this clustering of related firms is that a new advantage for the Southeast has been created. In the past, the low production cost in the region was offset by its distance from the major industrial areas as well as consumer markets of the North. But industrial location surveys today find, somewhat surprisingly, that the Southeast is beginning to reach the level of industry concentration necessary to give it all the attractions of the North, in addition to having lower costs.

## Business Climate

An important yet highly elusive factor in industry location decisions comes under the broad heading of business climate. This term is used to compare states on such characteristics as labor legislation (primarily right-to-work laws), business taxes, political attitude toward industrial development (which may be highly subjective) and the general regulatory posture of the state. Indexes of business climate are compiled regularly and in industrial location surveys this factor ranks in the

## dvantage for the Southeast has been created."

top five for all industry and as the number one consideration for some industries.

It is difficult to sort out just how important business climate actually is in attracting industry. Would a favorable business climate in one state ever induce a company to locate a plant there if production cost and distance to markets were greater than elsewhere? It is hard to answer this question because the states with favorable business climates are also those with the other advantages being sought. But the pattern of industry location in recent years appears to be oriented more toward production cost and markets than toward business climate. And northern

states which have attempted to improve their image with business have not been notably successful in attracting industry due to their higher cost structure.

The Southeast's advantage is that many attractive features have come together in recent years. The lower cost structure has always been present, but it has been joined by favorable developments in transportation and communication, by the decrease in transport cost sensitivity of many products and by the maturing industrial technology which can make effective use of the labor and other resources of the Southeast.

—John Hekman  
and Alan Smith