

URBAN AND NON-URBAN ASPECTS OF MANUFACTURING IN ILLINOIS

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Manufacturing in Illinois is overwhelmingly an urban activity. Despite the establishment of some new industries in rural areas during the Second World War, the number of urban production workers declined only slightly—from 90% of total production workers in 1939 to 88% in 1947. Also, manufacturing in Illinois is primarily an activity of the northern, more urbanized, portion of the state. Since neither urbanization nor manufacturing is completely confined to northern Illinois, or evenly distributed within any section of the state, all parts of Illinois show considerable county-by-county variation in the proportion of non-urban to total production workers. Even non-urban manufacturing is centered in the northeastern quarter of the state, since the highly urbanized and industrialized counties—particularly Cook—also have a disproportionately high percentage of the state's total non-urban employment.

CENTERS OF MANUFACTURING

The centers of total manufacturing (Fig. 1), including both urban and non-urban production workers, give evidence of the importance and the consistency of the pull of Cook County by their locations in the northeastern portion of the state and by their almost complete lack of movement between 1939 and 1951.

Not only is manufacturing in Illinois primarily an urban activity, but also it is primarily an activity of Cook County and the Chicago area. Data of the departments of Commerce and Health, Education, and Welfare indicate that in all three of the base years (1939, 1947, and 1951) Cook County alone accounted for 66% of the state's production workers. This dominance of a single county so affects the analysis of the total manufacturing pattern that the relative positions of other sections of the state in that pattern cannot be adequately visualized. In a very real sense, the inclusion of Cook County in the centers of manufacturing compares other counties, not with the state as a whole, but with Cook County almost alone.

A more revealing analysis is, therefore, obtained from the center of total manufacturing when Cook County is excluded (Fig. 1). Even without the northern attraction of this one dominant county, the strong influence of the northern one-third of the state is seen. The absence of the eastern pull of Chicago is indicated by the location of the center, without Cook, very close to the north-south axis of the state. Excluding Cook County the centers of total manufacturing are, for all three years, as tightly clustered as are the inclusive total centers. The distribution of manufacturing activity throughout the state, then, has

workers in Illinois. Excluding Cook County, there was very little difference between the urban and total centers—again emphasizing the importance of the urbanized northern one-third of the state and the dominantly urban nature of Illinois' manufacturing.

The centers of non-urban manufacturing for the whole state in both 1939 and 1947 lay very close to both the urban and total centers, excluding Cook County. This spatial correlation indicates that Cook County's attraction on the total center is much reduced when only non-urban manufacturing locations are considered. Yet, that dominantly urban area did have a significant amount of non-urban manufacturing, and its importance as a focus of non-urban industry increased between 1939 and 1947; the movement to the west of the non-urban center of manufacturing excluding Cook County suggests that county's increasing degree of importance even in this type of manufacturing, while the decided movement northeastward of the total non-urban center suggests that Cook County's rural establishments increased in number or size disproportionately to those in the rest of the state between 1939 and 1947. Since the relative influence of Cook County on both the total and urban centers remained virtually static through the years considered, but became increasingly important in non-urban manufacturing, it may be suggested that deconcentration—*i.e.*, "ruralization"—of industry, at least prior to 1947, was largely confined to the immediate vicinity of Chicago. The non-urban center of manufacturing without Cook moved due

west, not due north as was the case in other centers of manufacturing.

The locations of these centers of manufacturing, based upon the number of manufacturing production workers in Illinois, serve to summarize the relative importance of the various sections of the state in both urban and non-urban manufacturing patterns. The locations of centers do not, however, indicate the importance of different manufacturing sites within a single county; nor do they suggest the relative positions of individual counties in total, urban, or non-urban manufacturing activities. Two additional sets of maps—one showing the percentage of the various counties' production workers who were non-urban, and one indicating the percentage of the state's non-urban production workers located within any one county—clarify these points.

CHARACTERISTICS OF INDIVIDUAL COUNTIES

The data on Figures 2 and 3, and their implied urban counterparts, indicate the relative significance of urban and non-urban manufacturing locations within the 102 counties of Illinois. In neither Figure 2 (1939) nor Figure 3 (1947) is there a readily discernible pattern. There is no one section of the state which uniformly displays a high (more than 30%) proportion of its production workers employed at non-urban locations. Rather, there is a wide scattering of such largely non-urban manufacturing counties in both the urbanized north and the primarily rural south. In fact, in 1939, the largest clustering of "high non-urban" counties lay along the east-

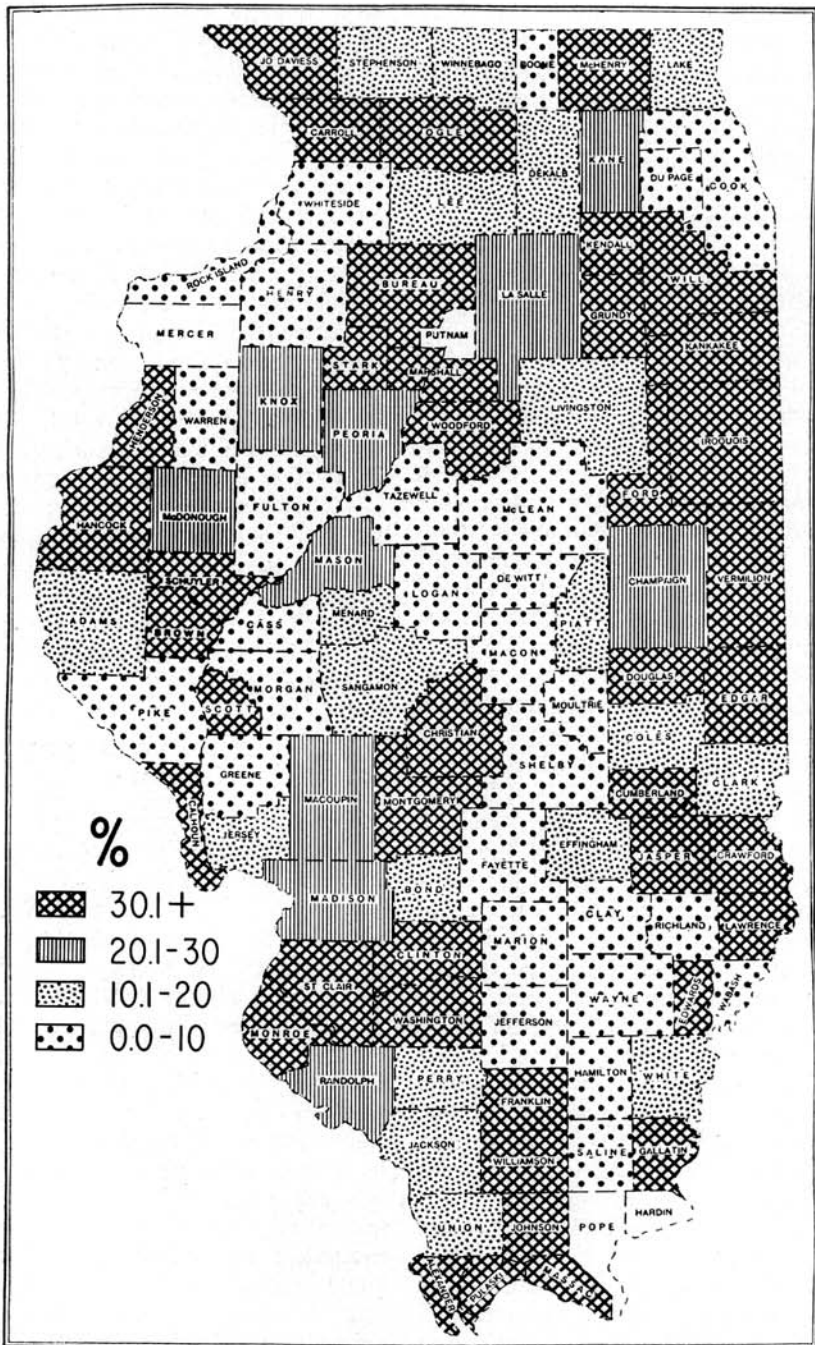


FIG. 2.—Percent of county's production workers non-urban, 1939.

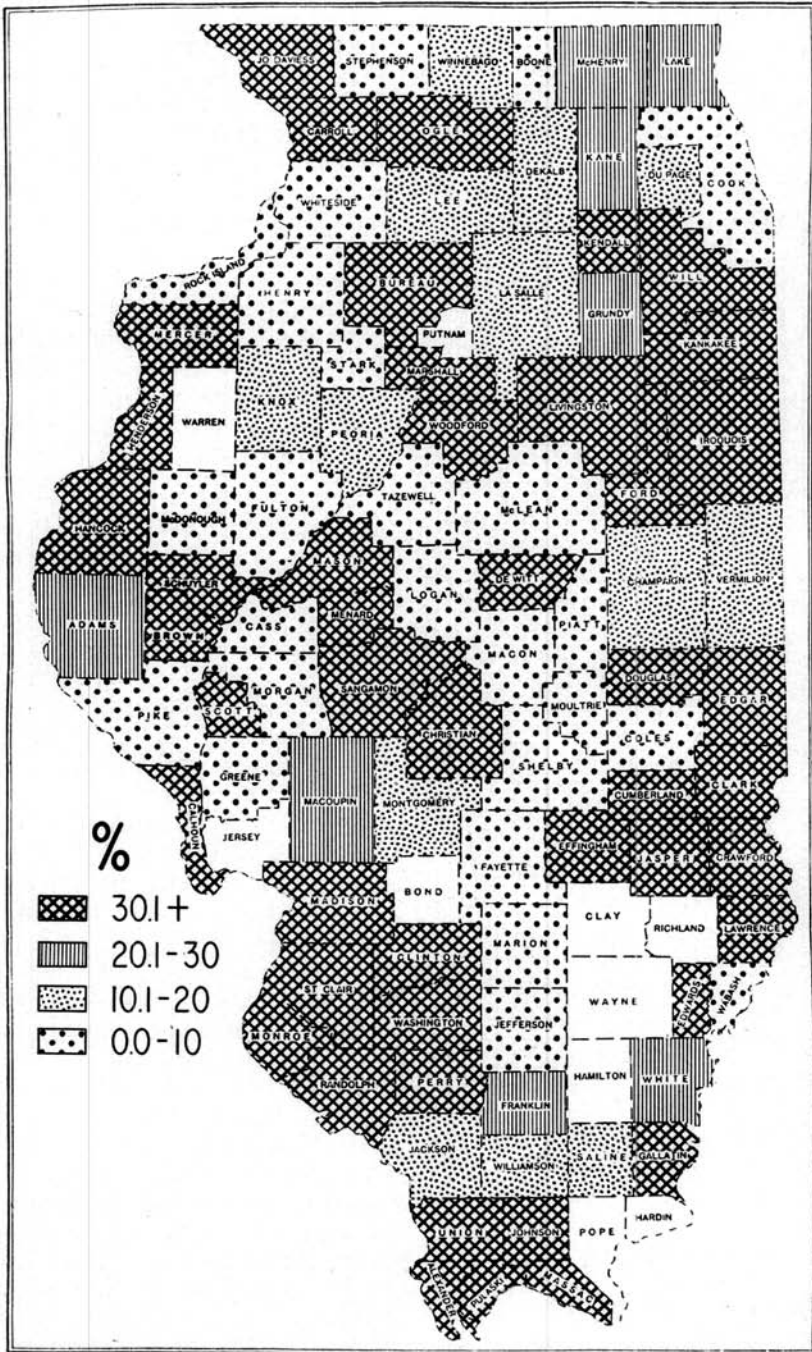


FIG. 3.—Percent of county's production workers non-urban, 1947.

ern margin of the state and straddled any such north-south division line. Noteworthy on Figure 2 are the rather different positions of the main urban counties of the state. Cook County (Chicago) with 4.0% of its production workers non-urban; Rock Island (Rock Island and Moline), 0.5%; and Tazewell (East Peoria and Pekin), 3.9%, have very low proportions of production workers non-urban. Winnebago (Rockford) (12.6%), Sangamon (Springfield) (17.6%), and Peoria (Peoria) (24.8%) occupy middle positions while St. Clair (East St. Louis) (49.2%) was very high in proportion of production workers non-urban in 1939. Apparently, a large manufacturing city is, of itself, no guarantee that a county's manufacturing workers will be primarily urban. This lack of accordance was accentuated during the Second World War.

In 1947, as can be seen from Figure 3, there was an increase in the number of counties with more than 30% of their workers non-urban, suggesting an increase in industrial deconcentration throughout the state. Counties with large cities generally reflected that increased "ruralization". Cook County in 1947 had 4.8% (up from 4.0) of its total production workers non-urban, and Winnebago increased to 17.1% (up from 12.6). St. Clair and Sangamon counties significantly increased their proportions of non-urban workers. Rock Island remained unchanged and only Peoria and Tazewell counties decreased.

DOMINANT INDUSTRIAL COUNTIES

These county patterns of the per-

centage of workers non-urban do not furnish evidence to explain the northeastern location of the non-urban center of manufacturing. Nor could the data be expected to provide such an explanation, since they are descriptive only of the counties' internal arrangement of workers. On the other hand, Figures 4, 5, and 6—more closely related to the center of manufacturing analysis—do illustrate the reasons for the northeastward pull of the non-urban center of production and display the position of the respective counties in the state's total industrial picture.

In 1939 (Fig. 4) there were only two clusters of counties which had more than 3.6% of all the state's non-urban production workers. The more important of these clusters was in the northeast—in Cook County and the Chicago metropolitan area, with LaSalle County almost adjacent. The three metropolitan district counties (Cook, Kane, and Will) contained 35% of the entire state's non-urban production workers. Cook County alone had 25%. This cluster accounts for the strong northeast pull of the non-urban center of manufacturing in 1939. This concentration in the northeast completely outweighed any claim to non-urban industrial dominance that Figure 2 may have implied for the southern two-thirds or the eastern tier of counties of the state. The only other block of counties having a significant share of the state's non-urban workers includes Madison and St. Clair in the East St. Louis area. Thus, the pattern of relative importance of counties in Illinois' total non-urban manufacturing picture, shown on Figure 4, suggests that

many of the counties which seemed important in their percentage of non-urban workers to total workers were not at all significant as industrialized counties.

In 1947 (Fig. 5) much the same picture of concentration of the state's non-urban production workers in a very few counties was again evident. The Chicago metropolitan area again dominated and now included Lake County. Cook County increased its share of the state's non-urban workers from 25 to 28%, while Will County declined though it still remained in the top group. LaSalle, outside of the metropolitan area, fell from the group of highest concentration between 1939 and 1947, but two of the major urbanized counties (Winnebago and Sangamon) experienced a considerable proportionate increase of non-urban workers. In other urban areas, both Peoria and Tazewell counties dropped, while in the East St. Louis district St. Clair County increased and Madison decreased in their shares of Illinois' non-urban workers. A comparison of Figure 5 with Figure 6, which shows the location of major industrialized counties of the state, indicates that by 1947 the developing pattern seemed to be that the major industrialized and urbanized counties accounted for an increasing share of the state's total non-urban workers; only the Peoria and Rock Island areas and LaSalle County were exceptions.

The data presented thus far in this study have all been based upon "production workers" and so take no account of the locations of *establishments*. Although these latter are not discussed in detail here, the pat-

terns for the percentage of the counties' establishments that were non-urban and the percentage of the state's non-urban establishments in each county are almost identical to the patterns of distribution of production workers already displayed. Whichever set of data is employed, apparently, the basic pattern of county characteristics is unaltered, and all data indicate the manufacturing dominance of the primarily urban, rather than rural, counties of the state.

It is evident from Figures 4 and 5 that industry had not, up to 1947, moved out into the rural counties of Illinois. The previously industrialized and non-urban areas in general lost, rather than gained, in relative numbers of production workers. The close spatial association of the total centers of production in 1939, 1947, and 1951 indicates that that situation remained unchanged at least through the Korean conflict which also included the Federal government's active program of encouragement of industrial dispersal. Nonetheless, for the state as a whole, there were 70.7% more non-urban workers in 1947 than in 1939; in the same period total production workers for the state increased by only 61.5%. Therefore, Illinois' manufacturing during that eight-year period, including the Second World War, had become slightly less urbanized.

Since the majority of the counties had in 1939, and retained in 1947, only a very small percentage of the state's non-urban workers, it becomes apparent that Illinois' overall gain in non-urban production workers was largely concentrated in those urbanized counties which in

1947 contained the largest numbers of non-urban workers and which were in 1947 the most highly industrialized (Fig. 6).

The expansion of non-urban manufacturing in the principal industrial counties is summarized in Table 1 (based on Bureau of the Census statistics for 1939 and 1947). As indicated by data in the table, in 1947 those counties which were highly industrialized also contained a high proportion of the state's non-urban production workers. Any increase in the relative importance of non-urban manufacturing in these counties would, therefore, account for most of the increase in non-urban industrial activity in the state as a whole. Five of the six industrialized counties included in the first half of Table 1 had a top ranking in 1947 in percentage of Illinois' non-urban production workers (Fig. 5). Only one of the six (Lake) was not a central city county (granting the equivalence of central city status to East St. Louis, St. Clair County), and all six had an increase in non-urban workers that was greater than their increase in total production workers. These counties, then, are those in which "deconcentration" of industry was most important in Illinois between 1939 and 1947 and most affected the over-all state pattern of increasing non-urbanization of manufacturing.

Only three of the six industrialized counties in the second half of Table 1 had high ranking in non-urban production workers in 1947 (Fig. 5); only one (Peoria) was a central city county, and all had a percentage increase in non-urban workers which was less than their

TABLE 1.—Industrialized Counties: Percentage Change in Total and Non-Urban Production Workers, 1939 to 1947.¹

County	Production workers	
	Total percentage change	Non-urban percentage change
Sangamon ²	+123.8	+397.7
Lake ²	+ 94.4	+185.5
Winnebago ²	+ 64.3	+123.3
Cook ²	+ 60.9	+ 93.2
St. Clair ²	+ 62.1	+ 91.6
Rock Island.....	+ 55.4	+ 60.9
Madison ²	+ 62.0	+ 47.4
Kane ²	+ 57.6	+ 46.1
Tazewell.....	+ 97.8	+ 43.8
Will ²	+ 47.8	+ 21.7
Peoria.....	+ 64.8	+ 3.9
LaSalle.....	+ 65.6	- 32.7

¹ Those counties having 1.0% or more of the state's production workers in 1947. Cf. Fig. 6.

² Had more than 3.6% of the state's non-urban production workers, 1947. Cf. Fig. 5.

increase in total production workers. These counties, then, did not contribute to the state pattern of slight increase in non-urban manufacturing between 1939 and 1947.

SUMMARY

Manufacturing remained a predominantly urban activity in Illinois, at least through 1947, despite the greater than average percentage increase in the number of non-urban workers in a few highly industrialized counties. Since urban production workers accounted for 90% in 1939 and 88% in 1947 of all production workers, the northeastern locations of the centers of manufacturing are understandable as the result of the attraction northward by the most urbanized section of the state and northeastward by the most ur-

banized and industrialized county. That same general directional pull is still encountered when only non-urban production workers are considered. Although the urbanized and industrialized counties of the north and northeast have relatively low percentages of their total workers in non-urban manufacturing, they contain the major share of the state's total non-urban production workers.

ACKNOWLEDGMENT

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