Plant Location Factors and the Community

Throughout this district, local civic leaders are organized for the purpose of promoting industrial growth in their communities. This desire for more industry is not peculiar to the people of this district. It exists in most regions in the country and stems basically from a desire to raise the income level of the people in the region or community. In addition there usually are local conditions that play an important part. For example, in communities that are predominantly agricultural in character there is a strong feeling that when most of the income originates solely in agricultural pursuits, the community's economic structure is out of balance—and is particularly vulnerable to the ups and downs of the business cycle. Hence the efforts to attract new industries into the community.

Some areas have come to be single-industry towns and additional manufacturing plants are wanted in order to offset the risks inherent in a policy of "putting all the eggs in one basket." The presence of industries previously attracted to a community sometimes gives rise to problems and the need to correct these problems may develop pressure for more industry. These situations may have stemmed from changes in the economic or social pattern or may reflect previously unrecognized, lopsided growth in the community's industrial structure. For example, there are towns where there is a surplus of male workers and more than enough job opportunities for female workers. This may have resulted from deliberate past policy of seeking industry to employ women to provide better balance and then the reduction or elimination of some lines where men were employed, or from technological changes leading to replacement of men with women workers, or from lack of recognition that the new industries located call for female rather than male workers.

Similarly, the demand for more industry may reflect an awareness of the potentialities of nearby undeveloped natural resources, and here again this may stem in turn from changes in technology or consumer habits.

The fact that communities want to grow, industrially, is matched to some extent by the desire of many industries to decentralize their operations. How many such companies there are, no one knows. However, the evidence points toward the fact that the number is substantial. For example, of 148 large manufacturing companies surveyed by the National Industrial Conference Board, 28 percent have a definite policy of decentralization. An additional 32 percent of the companies reported that they are decentralized but not as a result of specific policy decisions. In other words, there is a market for desirable plant sites, and the activities of local civic groups are directed toward supplying the market.

The effectiveness of such efforts does not always lend itself to precise measurement. How much of
the new capital invested in this district since the end of the war is traceable directly to the promotional activities of local groups is difficult to say. Some of the companies were located here as a direct consequence of promotional work done by state or local agencies.

In some cases, however, a tentative decision to locate here may have been arrived at independently by executives of the companies involved, based on their own knowledge of a specific community. In such instances, the promotional activities of local groups would perhaps be restricted to providing whatever information was needed to supplement the preliminary investigations already completed by the companies. In other words, while the efforts of local development groups are not always the determining factor in the initial phases of the problem, their activities are important in helping management arrive at a final choice.

To point out this fact is not to deprecate the value of such groups. As a matter of fact, the ability to provide management with essential information and assistance regarding a town's resources is of great value and should be an integral part of the program of any community development committee. What it does suggest is the often unrecognized or ignored fact that when a company selects an industrial plant site, it usually does so only after careful analysis of a great many factors—including a number of considerations not always evaluated properly by the community itself.

Plant locations are not selected on a hit or miss basis. As one observer puts it, plant sites are not selected by throwing darts at a map. The final choice is largely the result of a practical analysis that tells management where raw materials can be assembled, processed and, in the form of finished products, delivered to the ultimate consumer at the optimum profit to the company's stockholders. Consequently, any locational advantage or disadvantage a specific area may have, which may influence the probable return on the proposed capital investment, automatically becomes an important consideration to management in determining the choice of a site.

There is a genuine need for a broader comprehension and evaluation of the factors that cause executives to build a plant in Town A after bypassing Town B. Some community development groups may not have a clear understanding of what is attractive to industry. By the same token, some groups may not be aware of what an industry considers unattractive in a community, or of the influence that the presence of negative qualities may have on the decisions of businessmen who are in the market for a plant location.

These factors are known to the technicians as plant location factors. Some are of a general nature and apply to any company, regardless of the type of operation involved. These are referred to as primary factors and tend to delineate the general area in which a new plant might be operated profitably. Included are the availability of an adequate supply of raw materials, labor, power, and fuel; the availability of transportation facilities; and the nearness of a site to the present or potential markets for products to be manufactured.

In more cases than not, more than one area can qualify as a potential factory site as long as the selection is based solely on the primary factors. Once the potential sites are selected, the weeding-out process begins. This is a process of evaluating the relative desirability of each community until, by elimination, the final choice is made. It is during this elimination process that the individual communities, as social and economic organisms, are put under the microscope and subjected to careful analysis. And it is at this stage that the so-called secondary location factors become important.

These factors are, in general, the characteristics peculiar to a given community. They are the qualities that make one town more desirable, from management's viewpoint, than another town. They include the availability of desirable land area of sufficient size to accommodate the prospective new plant. (Under present day conditions, the site also must be large enough to provide parking areas for employees' automobiles.) They include the availability of adequate housing facilities; community recreation and health facilities; good schools; community services such as police and fire protection, transportation facilities, and other public utilities. A good civic financial status and a favorable tax structure are important to business management. In addition there are intangibles that influence the final selection of a new location. They can be summarized under the general classification of an acceptable attitude toward a new industry and its employees, and a generally favorable social and cultural atmosphere in the community.

These secondary factors are the "plus" characteristics that progressive business management wants to find in the community in which a long-term capital investment is contemplated. They are in addition to the primary factors that must be present. They apply to Eighth District communities as well as to those in other areas.

It should be noted that to a large extent many
of these factors are perhaps more directly applicable to the establishment of large plants, or branch plant operations, than to small or locally-owned plants. Industry in this district typically is relatively small-scale and owned by local people. Many of these plants were located in a particular community principally because the owner happened to live in that community. In such instances, the influence of many of these factors would be considerably less than in the case of large companies that were planning the operation of a branch plant.

**RAW MATERIALS IN THE EIGHTH DISTRICT**

The Eighth District contains a wide range of raw materials that are important to industrial operations. Raw food products and other agricultural commodities such as cotton are of major importance. Included also are timber, lead, zinc, copper, iron, bauxite, fluor spar, and other minerals. Clay deposits are found in many parts of the district and extensive limestone deposits are located here. Petroleum and coal are produced in the district and are significant not only as raw materials for manufactured products but also as major sources of fuel. These and other raw materials in the district are important to present processors and in many instances are capable of further development.

A number of the new manufacturing plants established in the area in recent years were located here in large part because of these raw materials. It should be noted that one factor alone—for example the availability of raw materials—seldom is the sole determinant in the choice of a plant site. However, a single factor often is a dominant prerequisite, and its absence from a specific site will preclude the possibility that that site will be selected.

Raw materials have a direct bearing on the location of a plant, but the effect varies depending on the type of operation involved. It is generally true that if raw materials are perishable or bulky or have a high degree of weight loss in processing, the initial step in the manufacturing process is carried on close to the raw material source. This is evident in the location of dairy products plants. Milk is subject to both a high rate of perishability and a high weight loss. Consequently, such plants must be near the source of supply. In various parts of the district, new manufacturing plants of this type have been constructed since the end of the war. The development of the dairy farming industry in northwest Arkansas, for example, led to the selection of that area by the Avoset Company which in 1946 built a plant at a reported cost of $750,000. The growth of this type of industry in southwest Missouri also is important. At Lebanon and Monett, the Missouri Farmers' Association is building milk processing plants that will add considerably to the already established capacity in that area.

The timber resources of the district, particularly in the southern portion of this region, constitute a major source of raw materials for the development of new industry. Not only is timber available but in the southern part of the district it grows rapidly. Thus a sustained yield is possible in a relatively short time span. These qualities add to the attractiveness of this region in terms of further industrial development. The recent growth of the timber processing industry in the district has been described in detail in previous Review articles and will not be repeated here. As a factor in plant location, the district's timber resources are of primary significance and in few communities have they been exploited to their maximum potentialities.

Minerals found in this area also have been major influences in the choice of sites for new plants. An outstanding example is the new $3 million plant established by the Minnesota Mining and Manufacturing Company in Little Rock. The availability of high quality syenite deposits large enough to maintain operations for a period of many years was a principal factor in the selection of this location. From this mineral is manufactured roofing granules—200,000 tons a year, which would be enough to weatherproof the roofs of 600,000 houses.

**INFLUENCE OF MARKETS**

The influence of markets, both present and potential, for products to be manufactured in a new plant is of major importance in the selection of a site. Some studies indicate that this factor probably is more important and exerts a greater influence on the final decision of management in the selection of a plant location than any other single consideration. The National Industrial Conference Board survey, which was referred to previously, indicates that proximity to markets was the most frequent reason given for decentralization of operations in these companies.

Similarly, according to a study sponsored by the National Planning Association, the desire to participate in the expanding southern market was a principal factor in causing management, in 88 northern companies, to locate new plants in the South.

The greater attractiveness of the southern market now as compared with pre-World War II is
evidenced by the increase in income levels in that region during recent years. In 1947, total income received by individuals in the eleven southeastern states was 184 per cent larger than in 1940. Income not only increased but the gain was larger than that in the nation as a whole; total United States income increased 150 per cent in that period. Although per capita income increased less than total income, the gain of 174 per cent in these states was larger than the 130 per cent increase nationally.

Wartime industrial expansion, increased government payments and higher prices for farm products played an important part in the income advances of southern states during this period. These same influences had a significant effect on income received by individuals in the district states. In the aggregate and on a per capita basis, income in each of the district states was larger in 1947 than in 1940. Except in Illinois and Missouri, the gains in total income were larger than that for the entire nation, and on a per capita basis only Illinois failed to keep pace with the nation. This growth in income has been an important consideration in the location of market-oriented plants.

The market area involved may range upwards from a wholly local market to a regional, national or foreign market. As the size of the market area expands, the problems associated with the selection of a plant site increase. Thus, a new plant, intended to tap a largely restricted, local market, probably is less concerned with transportation costs, for example, than a plant intended to serve a regional market covering a number of states.

Among the recent additions to the district’s industrial economy are several large plants that are principally market-oriented producers. One is the Westinghouse Electric Company plant in Little Rock. First of three reasons given by the company for the selections of this site was that production is intended for the southwest area. From this plant, essentially an assembly plant, electric lamps (bulbs) will be shipped to Dallas, Oklahoma City and St. Louis. In addition to the market factor, and illustrative of the interplay of forces involved in locating new plants, the decision in this case also rested on the availability of an ample supply of natural gas and a good supply of labor. The General Electric Company’s electric lamp plant in Memphis is primarily a market-oriented establishment, the location of which was influenced by a large extent by the nearness to the expanding southern market. International Harvester Company’s Louisville, Memphis and Evansville plants are examples of new industrial operations in the district in which the proximity to markets was an important factor in determining the location of the plant. At Memphis this company’s new $20 million establishment manufactures cotton pickers and automatic hay balers largely for the southern market. The Louisville plant, which is housed in a surplus war plant bought by the company, manufactures small-sized farm tractors especially designed for the small acreage farms of the South. Farm machinery, historically, has been produced near the consuming market due to the relative cost of shipping materials or component parts as compared with transportation charges on the heavy finished product. At the Evansville plant, which also is housed in a surplus war plant, the company manufactures refrigerators, milk coolers, and cotton picker drums. The latter item is shipped to Memphis to be assembled on the cotton picker. In each of these operations, the choice of a location also was influenced by other factors although markets were of primary importance.

LABOR FACTOR IN PLANT LOCATION

The labor factor is one of the most complex problems faced by management in evaluating potential plant sites. It is also, perhaps, the most confusing and this applies to both management and local civic groups.

An attractive labor supply is one that is adequate, numerically, to meet the requirements of a prospective employer. In addition, available workers should have a fair degree of skills, or the demonstrated capacity to acquire and retain skills when given adequate training. Permanence and stability of the labor supply are highly desirable characteristics.

These qualities are not typical of so-called “cheap labor.” But they are the qualities that management, in the majority of cases, finds attractive. There is considerable evidence that progressive companies are influenced less by a difference in prevailing wage rates, than they are by the relative quality of labor that is available in competing communities. As was noted earlier, a plant location, in the last analysis is selected on a dollar and cent basis. A low prevailing wage rate in a given community may offer a company a short run competitive advantage. However, experience often has shown that in the long run, such rates tend to move upward. In addition, the quality of labor obtained under such conditions, coupled with typically high turnover rates, often results in relatively high-cost labor in the end.
Similarly, there is considerable evidence that management, of the type the average community hopes to attract, is not in search of a location that will enable them to hide out from union organization. Many companies that have established branch plants in the South, for example, are organized in their northern plants and fully anticipate union organization in their southern plants. Thus, the community that attempts to sell industry its locational advantages may well be hurting its chances for success by advertising an anti-union attitude if such exists in the community.

The Eighth District has a surplus labor supply in most parts of the area, as pointed out in the August issue of the Review. In recent years a number of new plants that are largely labor-oriented have been built in this district. Again it should be pointed out that while a given plant may be located in large part on the basis of a single factor, such a choice would be exceptional. Thus, while some plants that have come into the district are principally labor-oriented, other considerations also are involved.

One example of this type of plant is the new shoe manufacturing plants constructed in the area. In Arkansas, for example, at least twelve new shoe factories are in operation whereas in 1939 there were none. These plants, and those elsewhere in the district, are located largely in small towns. The operations require chiefly unskilled or semi-skilled labor and more than 50 per cent of the workers are women. Apparel manufacturing plants also are located principally on the basis of availability of labor and a number of these have been established in the district.

POWER AND FUEL AS LOCATIONAL FACTORS

The availability of electric power is a prerequisite for most industrial operations and the direction in which technological developments appear to be moving points toward a steadily increasing dependence of industry upon this factor. The industrial demand for electric power has increased considerably since the prewar years and in many parts of the country today accounts for a considerable part of the severe strain on generating capacity.

There was a period in the nation's development when electric power was not available in all areas. Under such conditions some communities were at a definite competitive disadvantage with respect to industrial development. However, the extension of distribution lines over wide areas, and technical progress in the electric power industry, have virtually eliminated this problem. Almost every community has electric power—and few communities are at a locational disadvantage solely because power lines are not available. The limiting factor at the present, and one that may cause one town to be selected over its competitors, is the availability of excess generating capacity.

Power requirements vary among industries and while one operation, with a large demand, may find a town unsuited on the basis of the amount of power available, another industry may well select that area for its plant.

The importance of this factor is illustrated by the decision of two large manufacturing companies—Penn Salt Company and the Pittsburgh Metallurgical Company—to locate plants in an area near Crystal Lake, Kentucky. Their operations require a large amount of power which is available from TVA's plant at Gilbertsville. The presence of coal and fluorspar mines in nearby areas to supply primary raw materials were other important reasons for management's choice.

Coal deposits, as indicated in the two operations mentioned above, have been important factors influencing the location of plants in the Eighth District. Coal is produced in the district portions of each of the district states except in Mississippi and Tennessee. Approximately 19 per cent of the nation's output of bituminous coal comes from these mines and no point in the district is more than 200 miles from a coal producing area.

Natural gas as a fuel and source of power also has been significant in the location of plants in this area. This was one of the three reasons given for the decision of Westinghouse Electric and Manufacturing Company to put its plant in Little Rock. In other portions of Arkansas as well, the availability of natural gas has aided in the development of industry.

THE INFLUENCE OF TRANSPORTATION FACILITIES

The selection of a plant location is influenced not only by the presence of good transportation facilities but also by the costs of using those facilities. Hence, at a given site and for a specific industrial operation, this factor is closely related to the nearness of raw materials and to the distance to the present or potential market.

As noted, where raw materials are heavy and freight costs high, plants tend to be drawn to areas near the source of supply. Or, where transportation costs involved in shipping component parts are
lower than the cost of moving the finished product to market, plants tend to be located near the ultimate market.

The availability of more than one form of transportation also may be an important consideration. For example, a network of highways may be essential for the collection of raw milk from the producers, but rail facilities may be required in the shipment of the cheese or other processed product to markets.

Approximately 10 per cent of the nation's railroad mileage is in this district. The inland waterways system cuts through a major portion of the region and is an important inducement to companies whose operations involve bulk shipments of either raw materials or finished products. In addition, there is a network of highways covering the district. Air transportation facilities are growing steadily, in the principal cities as well as in a large number of smaller towns.

The availability of transportation facilities seldom is the sole determining factor in the location of a plant. It is essential, of course, and usually is important in relation to markets and/or raw materials. For example, the distribution plants built in St. Louis and Memphis by the Marquette Cement Manufacturing Company. From its cement manufacturing plant in Cape Girardeau, the company ships cement by barge to these distribution points where it is stored, packed and delivered to the market. Sugar and petroleum companies also have utilized the waterways to ship from production points to storage points along the river. Also, as cited earlier, the availability of transportation facilities with respect to the company's market areas was influential in the selection of three district sites by International Harvester Company.

SECONDARY FACTORS

There are few industrial plants that are located solely on the basis of the primary factors involved. It is a rare case where one site, and only one, can be utilized by a company. Generally, several potential sites are equally attractive, on a strictly economic basis, so far as raw materials, labor supply and the other basic factors are concerned. Thus, the final choice rests upon those factors in combination with the secondary factors.

There are differences between communities in terms of the physical sites available. The availability of land has become increasingly important as the trend toward single-story plants has developed. In many industries (and for many operations) industrial engineers favor this type of structure as being more efficient, and hence less costly in terms of unit product costs, than the multi-story plant. However, such structures require more land area than is needed for multi-story buildings. In most of the established urban areas, sufficient land area is difficult to find without moving into suburban areas. As a result, many plants tend to favor smaller and less populated towns as plant sites.

The availability of sufficient and suitable housing facilities for employees is of particular importance. The lack of them often results in a negative decision by management—despite a town's other advantages. Progressive management also is interested in the ratio of homeowners to total residents in a community because it indicates stability on the part of the people in the community and suggests the probability of a stable labor force. Other secondary factors—community services, schools, health facilities and the like—all are important to management in a forward-looking company.

The interests of management in such conditions are not necessarily based on a social consciousness or on a philanthropic spirit. Many companies have found through experience that if its employees and the company itself are integral parts, but only parts, of the environment in which they function the relationship is reflected in the operations of the plant.

The fact that a community has good schools is important to industry if for no other reason than that it is reflected in the quality of labor available to the company. Similarly, where medical and health facilities generally are adequate, management can reasonably expect this to be reflected in the efficiency of the labor force. Other factors such as recreation facilities, libraries and the like all have an effect, even though it may be indirect, on the efficiency with which people work and hence on the operations of the plant. In other words, progressive management is justified in looking for these qualities in a town because they have an influence on the profitability of a capital investment.

CHANGING CHARACTER OF LOCATION REQUIREMENTS

The relative importance of many of these requirements, both primary and secondary, not only varies among industries but also is subject to change over a period of time. Technological developments may make it possible to locate plants in an area which formerly was unacceptable. The fact that during the war, many workers in southern states and in rural sections of this district gained experience and skills in manufacturing operations has
had a favorable influence on the postwar decisions of management to locate plants in this region. Similarly, the growth of market potentialities in the area has provided an answer to a principal prewar objection to locating market-oriented plants in the South.

A recent development which may, in the long run, exert considerable influence on plant location problems, is the abandonment of the basing point pricing system by steel producers and the substitution of an f.o.b. mill pricing system. Precisely what effect this may have on the growth of industry in this district is not clear. The direct effect, of course, would be expected to be greater in the metal working industries than in industrial operations based on the processing of farm products. However, considerable clarification of the pricing requirements of the court's decision is necessary before even a tentative evaluation of the impact can be arrived at.

An additional factor that may well come into the picture is the extent to which the selection of plant sites in the future will be determined by national security requirements. The physical relocation of existing industries, moving plants from areas of concentration and dispersing them in the hinterland, is not contemplated. However, it has been suggested that industry give considerable attention to the security problem when potential sites for new branch factories are being evaluated. This may become increasingly important as long as international relations continue in their current uneasy state. During World War II the geographical dispersion of war plants was relatively small. However, there appears to be more reason for carrying such dispersion farther now than in the last war.

WHAT CAN THE COMMUNITY DO?

Most of the preceding discussion has dealt with plant location factors from the point of view of the more progressive managements. Many requirements that such companies expect a community to meet in order to qualify as a location for their plants are not as yet typical of the requirements of industrial management generally. They are typical, however, of companies that are likely to be a real asset to a community over many years, and not merely a source of a payroll only during boom times. Thus, communities that are interested in growing industrially, rather than in spurring, might well gear their promotional activities to the requirements of the best companies rather than the average.

As the first step in planning for a sound industrial growth, a community should make an honest appraisal of the advantages and of the disadvantages it has relative to other communities. An actual inventory should be made of the features it has that might be attractive to industry. Such an inventory should not overlook the weak points. Even if civic leaders ignore them, management will not. Once such an inventory is made, the people in a community should choose the general directions along which they want to develop and the type of industrial development best suited to their community. For example, it may be impractical to attempt to promote the establishment of heavy industries if all the surrounding area is agricultural. A more logical decision in such a case would be to encourage the development of industries that could process the agricultural products of the adjacent farms, thereby tying the industrial growth to the essential character of the community.

Once these decisions have been made the representatives of a community are in a position to consult with companies interested in plant locations. In some cases such consultations may result from direct contacts. In other cases they may come through the state development commissions. Most states have such commissions whose function is to aid in the development of their respective states. These organizations are staffed to provide a number of services for local groups, and they welcome the opportunity to do so. It should be noted, however, that many state development organizations believe that when a local group takes the initiative and plans for its own future, rather than waiting for a state or other agency to direct industrial development into a community, the results are more satisfactory and tend to provide more lasting benefits to the community.

The local groups can do a great deal to influence the extent to which they grow industrially. Often it may require courage to face realities and to recognize shortcomings. It may require courage sufficient to turn down an opportunity to obtain a new plant—if such a plant is not likely to be a permanent asset to the community. It may require the expenditure of time and effort to obtain the type of company that will be of long term value to the community. Even if it requires all these things, the cost is small if the final choice is correct.

Weldon A. Stein
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Survey of Current Conditions

The significance of the decline in average wholesale commodity prices from mid-September through mid-October is subject to some of the same qualifying explanations that applied to the sharp drop that occurred in January and February this year. The recent decline, like the one earlier, was concentrated in the prices of farm and food products. Average wholesale prices of other commodities held steady but in some specific groups (fuel and lighting materials, metals and metal products, building materials and house furnishings) continued to advance to new peaks. A second similarity is that in each case average food prices paid by consumers were not affected to the same degree that prices of raw farm products or even wholesale prices of food products declined.

A substantial part of the recent drop in average wholesale prices of farm and food products, as measured by the BLS index, reflects the slump in livestock, poultry, meat, and grain prices. This is significant in view of what is regarded by many observers as the temporary nature of the decline in the prices of two of these items—livestock and meat. The livestock population at the present time is small. For many months we have been depleting this capital resource in order to meet consumption requirements. Many months more will be required to rebuild it. Thus, while some meat prices participated in the recent decline, the outlook for a continuation at the present lower level is not good.

The direction of the movement of prices paid for nonfarm and nonfood products throughout the year to date can be related in large part to the sustained high level of demand for goods—the willingness of consumers to pay the prices. It is true that there are some items for which demand, at current prices, has declined, and that the list of such items may be longer than it was six months ago. However, the high level of total retail sales offers little evidence of a general consumer unwillingness to buy.

To a large extent, the maintenance of consumer purchases at current levels reflects the upward trend in total income received by individuals, which, in August, was at the all-time record level of $215 billion on a seasonally adjusted annual basis. In less than six months, annual income has increased about $9.5 billion, mostly reflecting the impact of third round wage increases. With income at these levels, and consumers' demand for goods still largely unsatisfied, there is little reason for surprise at the strength in prices of non-agricultural commodities generally. Higher costs resulting from wage increases, higher raw material prices and increased freight rates, have been passed on to the consumer in many cases, with little or no protest resulting. It should be noted, however, that while some groups of prices have continued upward, the rate of increase has tended to decline in recent weeks. Other groups of prices have tended to level off. It appears likely that this sort of slowly rising trend may continue to characterize the movement of prices in the near-term future.

EMPLOYMENT

Total employment in both the Eighth District and the nation decreased between August and September, but was still considerably higher than a year ago. As was expected, nonagricultural employment was lower in September than in August. This followed the normal seasonal pattern resulting from the return to school of large numbers of summer workers. The number of people actually at work at their jobs was somewhat higher in September than in August, however, because of the traditional August vacation period.

An increase in harvesting activities resulted in a seasonal gain in agricultural employment between August and September. The increase was not large enough, however, to offset the decrease in nonagricultural activities. A heavy demand for workers to pick cotton in southern sections of
the district at relatively high wages attracted many workers from the service, construction, and some of the lower paying manufacturing industries.

Despite the over-all decline in employment between August and September, unemployment in the district actually decreased slightly since many workers left the labor force. Unemployment continues to be lower than a year ago, with practically all of the decrease from last year occurring among World War II veterans. Unemployment among veterans, however, is still proportionately higher than among nonveteran men of the same age group. The unemployment rate is also higher among women than among men and higher among nonwhites than among whites.

Although over-all employment figures for the nation show this to be generally a period of full employment and minimum unemployment, this condition is by no means uniform all over the country. A report by the Federal Security Agency shows that of 138 major labor market areas in the country, 22 have substantial labor surpluses, while 35 are classed as areas of tight labor supply. The remainder of the areas are in between these two extreme classifications, with most of them inclining toward the tight side. Of the district cities, St. Louis, Louisville, Evansville, and Memphis are rated as areas of slight surplus, while Little Rock is considered a moderate surplus area.

Employment in the St. Louis labor market area reached a new all-time peak in September. Employment increased about 2,500 between July and September, with the major increases in the construction, trade, and manufacturing industries. Small increases occurred in Government and in finance, insurance and real estate. Employment in the mining, public utilities, and service industries dropped slightly. In the manufacturing industries, employment increases occurred in primary and fabricated metals and in nonelectrical machinery between July and September. The food, leather, and electrical machinery industries had small declines in employment over the two-month period.

Unemployment in the St. Louis area was approximately 20 per cent lower in September than in July due to the employment increases and the return to school of those seeking summer work. About one-half of the total unemployed consisted of women.

During the past year, St. Louis employment has shown a net gain of about 11,000. Manufacturing industries accounted for over half of this increase. Wholesale and retail trade, public utilities, and finance, insurance, and real estate were the other major industries whose employment was higher in September, 1948, than in September, 1947. Of the 21 groups in the manufacturing industry, 11 increased in employment, 6 decreased in employment, and the remainder showed no change during the year.

The decrease in nonagricultural employment in this district between August and September is not believed to be indicative of any general downward trend. The increase in employment which is expected during the next few months should more than compensate for this decline. The increases forecast for the manufacturing and trade industries are much larger than the decreases forecast for the construction and public utilities industries.

INDUSTRY

Industrial activity in the Eighth District in September remained at the high level of last month. Manufacturing operations were scheduled at a slightly higher rate, but taking into account a shorter work month, aggregate output probably was relatively unchanged. On a daily average basis, production in such basic lines as coal, oil, and steel was up from August, and industrial power consumption also was higher. Construction activity continued at a high rate, and dollar value of new authorizations was considerably larger than last month. Basic lumber operations were slightly lower than in August.

Total electric power consumed by industries in the major district cities in September fell slightly...
below the August peak, although there was a small increase on a daily average basis. Compared with last month, aggregate consumption was down 2 per cent, but was 15 per cent higher than a year ago. A 10 per cent increase over August in consumption in Little Rock was offset by decreases in the remaining cities varying from 1 per cent in Louisville to 34 per cent in Pine Bluff.

Manufacturing—Over-all manufacturing operations in the district were at a slightly higher level than in August. Output was up somewhat in the manufacture of chemicals, food and food products, iron and steel products, machinery, stone, clay and glass products, textiles, whiskey, and in the meat packing industry. A lower rate was indicated in the automobile, electrical products, lumber, metals and metal products, rubber and transportation equipment industries.

Steel—Operations in the basic steel industry in the St. Louis area in September were scheduled at 83 per cent of capacity. This compares with 68 per cent in August and with 63 per cent in the comparable month last year. September operations were at the highest rate of any postwar month. In the third quarter, the industry operated at an average of 72 per cent of capacity or somewhat higher than the 64 per cent in the comparable quarter of last year. However, operations averaged below those in the second quarter which stand as the postwar high.

Lumber—Basic lumber producers operated at a slightly lower level in September than in August, although many mills were still producing at near-capacity levels. Weather conditions continued to be favorable for logging operations. Reports indicate that, in order to avoid further inventory increases, mills in some sections were gearing production to the number of logs which can be sawn in a 40-hour week. Adequacy of labor has been a problem, particularly in the smaller mills, because of the relatively high wages offered seasonal workers by farmers for cotton picking.

Reporting southern hardwood producers averaged 99 per cent of capacity, a 4 per cent drop from August, but 5 per cent above a year ago. The average weekly production of southern pine operation was about 2 per cent less than in both August this year and September of last year.

Whiskey—Twenty-seven distilleries were operating in Kentucky at the end of September as compared with 19 last month and 38 a year ago. The whiskey situation has changed little in the past few months. Stocks remain high and production is proceeding cautiously. Demand has increased some during past weeks and further increases are anticipated.

Production in August totaled 4.8 million tax gallons higher than in August, 1947, but was 1 million gallons less than in July of this year. August output was the lowest since January when voluntary grain allocations were in effect.

Meat Packing—Meat packing operations in the St. Louis area in September showed signs of seasonal recovery from the August slump. September slaughter amounted to 353,000 animals, a 14 per cent gain over August. Stock runs in the first part of October were up considerably. Most of the increase in slaughter in September is attributable to a 33 per cent rise in hog killings which had been at a two-year low in August. Slaughter of cattle increased 4 per cent, but sheep and calf-killings were both off 3 per cent. Total September slaughter was 21 per cent lower than that of a year ago, with considerable declines registered in slaughter of all animals.

Shoe Production—District shoe production in August totaled 8.5 million pairs, according to preliminary estimates. This was 28 per cent higher than July output and 6 per cent above August, 1947 production. Estimated United States production in August was up 25 per cent over July. The August report does not reflect the recent curtailment of production in some plants in Missouri and Illinois. At the end of September, operations in 10 plants manufacturing men's shoes were reduced from a five-day to a four-day week.

Petroleum and Coal—Daily average crude oil output in the district in September was estimated at 312,000 barrels, 2 per cent above last month's average and the highest level since June of last year. Most of the increase resulted from an an 11 per cent gain in output in Indiana. Illinois wells flowed at an average of only 1 per cent more than in August, and output in Arkansas and Kentucky remained at the same level as in the previous month. On a year-to-year basis, Indiana again led the district states in amount of increase with a gain of 35. per cent over September last year. Illinois wells produced 4 per cent more than a year ago.

Coal mining operations in the district in September dropped slightly below the August level in total output, but on a daily average basis production was up 1 per cent. Both aggregate and daily average production was lower than a year ago. An estimated 9.3 million tons were mined compared with 9.6 million tons in August and 9.8
million tons in September, 1947. Increases over last month of 8 per cent in Arkansas and 2 per cent in Indiana were offset by a 12 per cent decline in output in western Kentucky and slight decreases in Illinois and Missouri. Coal mine production in all district states except Missouri showed a decline when compared with production a year ago.

Construction—Dollar value of building permits awarded in the district cities in September recovered seasonally from the August low and rose to the highest total since March, a gain of 41 per cent. However, September permits totaled 4 per cent less than a year ago. Dollar value of new construction permits was 48 per cent higher than in August and new residential permits were 21 per cent above the August total. On-site activity remained at about the same high level as in August.

The value of permits for new construction and repairs totaled $10.3 million as compared with $7.3 million in August and $10.6 million a year ago. In St. Louis, the dollar value of permits was 124 per cent above the August total. This was due chiefly to an unusually large number of authorizations for new warehouses and to a substantial gain in the value of residential permits, of which $800,000 was for a new 145-family apartment project. Smaller gains over August were registered in the other reporting cities, with the exception of Little Rock where the total value of permits declined from August. As compared with September, 1947, increases of 40 per cent and 31 per cent, respectively, in Louisville and St. Louis were offset by decreases in authorizations in Little Rock, Evansville and Memphis.

Permits issued for new construction in the district cities totaled $9.2 million, compared with $6.2 million in August and $8.5 million in September, 1947. Month-to-month gains were registered in all reporting cities. New residential awards accounted for $3.7 million or 41 per cent of all new construction awards. However, this is the lowest ratio since September, 1947. Mixed trends characterized new residential permits in September. The value of permits in St. Louis totaled more than 2.3 times higher than in August and 3.3 times larger than in September last year. In other cities the trend from August to September varied from a 57 per cent rise in Evansville to a 23 per cent decline in Memphis. Compared with last year, totals were down in all cities except St. Louis.

In terms of dwelling units authorized, permits were issued for more than 600 units in the district cities, a substantial gain over last month. Most of the increase occurred in St. Louis, however, where the number was influenced by the apartment project. Authorizations in Evansville were slightly ahead of last month, whereas in Memphis and Little Rock fewer units were added, and Louisville remained about the same.

TRADE

During September, the dollar volume of sales at Eighth District reporting retail stores gained seasonally from the previous month but, with the exception of sales at department stores, volume was little changed from September, 1947. The relatively poor showing in comparison with 1947 probably is due in large part to the impetus given retail sales last year by the cashing of veterans' terminal leave bonds. Reimposition of credit controls in September this year temporarily brought sales to a stand-still in many durable goods lines. However, trade reports indicate that the virtual cessation of buying immediately after the controls became effective was due more to a lack of consumer knowledge of credit regulations rather than a lack of ability to meet credit requirements.

At reporting department stores, September sales showed a seasonal gain of 15 per cent from August and were 8 per cent greater than in September, 1947. Of the reporting trade lines, department stores' dollar volume in the month probably was the least affected by the revival of credit controls.

CONSTRUCTION

<table>
<thead>
<tr>
<th>BUILDING PERMITS</th>
<th>Month of September</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New Construction</td>
</tr>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Evansville</td>
<td>80</td>
</tr>
<tr>
<td>Little Rock</td>
<td>69</td>
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<tr>
<td>St. Louis</td>
<td>202</td>
</tr>
<tr>
<td>Memphis</td>
<td>53</td>
</tr>
<tr>
<td>St. Louis Totals</td>
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WHOLESAILING

<table>
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<tr>
<th>Lines of Commodities</th>
<th>Net Sales</th>
<th>Stocks</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Sept., 1948 compared with Aug., 1948</td>
<td>Sept., 1947 compared with Sept., 1947</td>
</tr>
<tr>
<td>Automotive Supplies</td>
<td>-1%</td>
<td>+1%</td>
</tr>
<tr>
<td>Drugs and Chemicals</td>
<td>+9</td>
<td>+6</td>
</tr>
<tr>
<td>Groceries</td>
<td>+10</td>
<td>-4</td>
</tr>
<tr>
<td>Hardware</td>
<td>+1</td>
<td>-12</td>
</tr>
<tr>
<td>Tobacco and its Products</td>
<td>+6</td>
<td>+2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>+4</td>
<td>+6</td>
</tr>
<tr>
<td><strong>Total all lines</strong></td>
<td>+2%</td>
<td>+5%</td>
</tr>
<tr>
<td>*Preliminary</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Includes certain items not listed above.</strong></td>
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On a seasonally adjusted basis, daily average sales at reporting district department stores reached a new peak of 362 per cent of the 1935-39 average. The previous high of 355 per cent occurred in July, 1948. On the basis of preliminary reports for October, the year-to-date gain of 10 per cent in comparison with last year will probably be maintained in the month.

In those St. Louis department stores reporting by departments, larger-than-store average gains were reported in women's ready-to-wear apparel, small wares, housefurnishings and basement store divisions. In basement stores, sales increases again were larger, percentage-wise, than in comparable divisions of the main stores.

At the end of September, the value of inventories at department stores was 6 per cent higher than on August 31 and was 21 per cent greater than on September 30, 1947. The adjusted index of inventories was 302 per cent of the 1935-39 base period as compared to 292 per cent for August and 246 per cent in September, 1947.

Dollar sales during September at both women's specialty and men's wear stores gained substantially over the volume in August but were smaller than in September, 1947. The value of inventories on September 30 at both types of stores showed little change from August 31 but were considerably larger than on September 30, 1947.

Furniture store sales in September were 3 per cent higher than in August and were 4 per cent more than in September, 1947. The less-than-seasonal gain over August and the slight increase from the previous year apparently resulted largely from consumer uncertainty over the requirements of the reimposed credit regulations. Trade reports indicate that buying was brisk in all lines prior to September 20 but declined substantially after that date. Furniture store executives anticipate little difficulty in maintaining volume as soon as consumers become familiar with the new credit term requirements. In dollar value, inventories at the end of September were slightly larger than on August 31 and were 21 per cent higher than on September 30, 1947.

BANKING AND FINANCE

Weekly Reporting Member Bank Data—Total loans at the district’s 34 reporting banks increased $28 million in the four weeks to October 13, 1948. Business and agricultural loans accounted for $25 million of the increase, real estate loans for $2 million and “other” loans (largely consumer credit loans) $4½ million. Loans on securities declined
$3 1/2 million. The changes in loan totals were not uniform at the six reporting centers in the district during this period. In real estate loans, five reporting centers show gains but the Memphis banks were off slightly. In the "other" loan classification, four centers report an expansion in volume while Evansville and East St. Louis banks remained unchanged. The business and agricultural loan category, which includes 60 per cent of all loans, shows a more mixed situation. The amounts outstanding in St. Louis and Louisville banks decreased; in Evansville and Little Rock there were moderate increases; in Memphis there was a $31 million gain, while in East St. Louis there was no change. In the corresponding period in 1947 all centers reported gains, which in Memphis amounted to $38 million.

Investments in U. S. Government securities rose $6 million in the four weeks, entirely as a result of a $41 million addition to holdings at St. Louis banks. All other reporting centers reduced their holdings of Governments during the period. Portfolios were shortened further during the month as bond and note holdings were reduced and investments in bills and certificates of indebtedness were strengthened.

Adjusted demand deposits continued their irregular sideward movement, holding slightly above mid-October, 1947.

All Member Bank Data—Loan expansion continues at the nonweekly reporting member banks, according to the information available at the end of September. At these banks the holdings of U. S. Government securities were reduced $24 million from the preceding month. The securities sold provided about two-thirds of the additional reserves required, the remainder being provided in part from previously existing excess reserve balances and in part by withdrawals of balances with other banks.

AGRICULTURE

Realization of earlier record breaking estimates of crop production in 1948 was practically assured as a result of favorable weather during September. Current estimates indicate crop production 8 per cent higher than the previous record production of 1946. The prospective corn crop of 3,568 million bushels as of October 1 was 40 million bushels more than the September estimate. Only a few crops, of which cotton was one, were affected adversely by weather during September. However, the crop is still expected to exceed 15 million bales. The estimated production in Mississippi, Arkansas...
AGRICULTURE

CASH FARM INCOME

(Ag., *48 comp. with 8 month total Jan. to Aug.

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<tbody>
<tr>
<td>Arkansas</td>
<td>$23,734</td>
<td>-9%</td>
<td>8%</td>
<td>$197,115</td>
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<td>$240,849</td>
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<tr>
<td>Illinois</td>
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<td>-1</td>
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<td>1,142,466</td>
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<tr>
<td>Indiana</td>
<td>82,512</td>
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<td>+4</td>
<td>653,889</td>
<td>+5%</td>
<td>633,342</td>
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<tr>
<td>Kentucky</td>
<td>39,031</td>
<td>-2</td>
<td>+15</td>
<td>299,350</td>
<td>-12%</td>
<td>336,485</td>
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<tr>
<td>Mississippi</td>
<td>33,923</td>
<td>+35</td>
<td>-41</td>
<td>189,709</td>
<td>+6%</td>
<td>182,373</td>
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<td>Missouri</td>
<td>102,751</td>
<td>-20</td>
<td>+19</td>
<td>676,196</td>
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<td>649,405</td>
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<tr>
<td>Tennessee</td>
<td>31,223</td>
<td>-6</td>
<td>+6</td>
<td>260,403</td>
<td>+1%</td>
<td>257,706</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$434,467</strong></td>
<td>-20%</td>
<td>-9%</td>
<td><strong>$3,419,867</strong></td>
<td>+2%</td>
<td><strong>$3,372,200</strong></td>
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</table>

RECEIPTS AND SHIPMENTS AT NATIONAL STOCK YARDS

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<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cattle and calves</td>
<td>141,566</td>
<td>-1% -36%</td>
<td>55,876</td>
<td>-5% -17%</td>
</tr>
<tr>
<td>Hogs</td>
<td>167,764</td>
<td>+7 -5%</td>
<td>50,235</td>
<td>-6 +21</td>
</tr>
<tr>
<td>Sheep</td>
<td>62,561</td>
<td>-34 -25%</td>
<td>14,343</td>
<td>-62 +37</td>
</tr>
<tr>
<td>Horses</td>
<td>1,224</td>
<td>+26 -5%</td>
<td>1,324</td>
<td>+3 +35</td>
</tr>
</tbody>
</table>
| **Totals**    | 373,215    | -6% -23% | 122,868 | -17% -28%

The consensus of agricultural economists attending the Outlook Conference during the second week of October indicated that 1949 should be another good year for agriculture but not as good as 1948. The price support program will help hold up the price of most major crops, some of which might be in oversupply. The large supplies of feed and relatively small numbers of livestock coupled with continued strong demand are expected to keep the favorable feeding ratios for livestock and livestock products.

Reports at this Conference indicate that gross farm income in 1948 may equal the $30.2 billion in 1947. However, costs of production in September, 1948 were 14 per cent higher than a year ago. Thus, net farm income in 1948 is expected to be $16.5 billion—somewhat less than net farm income in 1947. Prospects for income in 1949 are, of course, dependent on production and prices. A slightly lower gross farm income generally is expected, with a further decline in net farm income. Farm costs, with the exception of feed, are expected to remain at present levels and in some instances may increase.

The price of hogs declined in early October as much as 20 per cent from the peak prices paid during the latter part of August. During the second week of October, however, prices strengthened. Seasonal declines normally occur following the peak in August. However, the decline was as large as many expected between August and December. Meat supplies per person in 1949 are expected to be slightly less than in 1948. The price of meat animals is expected to remain favorable relative to other agricultural products in 1949.

The index of prices received for agricultural products on September 15 was 250 (1910-14=100), 1 per cent lower than a month earlier but 1 per cent higher than a year earlier. Grain prices were 9 per cent lower, but prices of livestock and livestock products were 9 per cent higher relative to a year earlier. Prices of nearly two-thirds of the agricultural products declined during the month, including most grains, cottonseed, butterfat, and most meat animals. Since September 15, the price of corn, meat animals and most other farm products has declined.

National Summary of Business Conditions

INDUSTRIAL OUTPUT and employment were maintained in September at August levels. Value of department store sales in September and the early part of October showed about the usual seasonal increase. Prices of foods declined from earlier record levels, while prices of most other commodities showed little change.

Industrial production—The Board's seasonally adjusted index of industrial production was maintained in September at 191 per cent of the 1935-39 average. Manufacturing output showed a small gain, while minerals production declined 3 per cent.

Steel mill activity in September was at a rate of 96 per cent of capacity as compared with 93 per cent in August. Output of electric steel reached a new record level. In the third week of October total steel production was scheduled at a rate of 99 per cent of capacity. Activity at most metal fabricating plants showed little change in September. Automobile production was cur-
tailed further but increased sharply in the last week of September, reflecting mainly settlement of strikes at suppliers' plants. Output of lumber and stone, clay and glass products declined somewhat in September.

Production of nondurable goods rose slightly in September and was at a level close to the June rate. Cotton consumption and production of paperboard and rubber products showed small further gains from the reduced summer levels. Food production was in larger volume in September, reflecting increased meat production and a recovery in canning operations from the sharply curtailed rate in August. Output of petroleum products was reduced somewhat in September mainly because of labor disputes at refineries in California.

Production of minerals declined in September, reflecting chiefly the reduced output of crude petroleum on the West Coast. In the early part of October petroleum output recovered to the August rate. Coal production declined somewhat in September and the first half of October and was below year-ago levels, reflecting some reduction in demand, mainly for export.

**Construction**—Contracts awarded for construction, reported by the F. W. Dodge Corporation, declined further in September reflecting mainly seasonal decreases in most types of awards. The number of new houses started, according to Department of Labor preliminary estimates, declined from 83,000 in August to 81,000 in September. Last year the number of new units started was 88,000 in August and 94,000 in September.

**Distribution**—Value of department store sales in September and the early part of October was maintained close to the advanced level prevailing since last May, after allowance is made for the usual seasonal changes.

Railroad freight carloadings showed less than the usual seasonal rise in September and the early part of October, and shipments of most classes of freight during this period were in smaller volume than in the same period a year ago.

**Commodity prices**—The general level of wholesale commodity prices declined 3 per cent from the middle of September to the first week of October, reflecting chiefly sharp decreases in prices of livestock products. During the subsequent two weeks prices of these products increased somewhat. Spot prices for corn dropped sharply in September and the first three weeks of October and were moderately below the support level for the new crop. Wholesale prices of textiles, leather, lumber, and coal declined somewhat, while further marked advances were reported in prices of various metal products.

Retail food prices in mid-October were estimated to be about 5 per cent below the record high reached in July, while consumer prices of most other groups of items advanced somewhat further in this period.

**Bank credit**—Required reserves of all member banks were increased by about 2 billion dollars in the latter part of September as a result of the action of the Board of Governors in increasing reserve requirements against net demand and time deposits. The increase in required reserves necessitated substantial sales of Government securities by banks to the Federal Reserve in the latter part of September, but the increase was about equal to the volume of reserve funds that had been supplied to banks in the period June through September by gold inflow and net sales of Government securities to the Federal Reserve Banks by nonbank investors.

Federal Reserve support purchases of long-term Government securities from insurance companies and other nonbank investors continued large during the first three weeks of October. Banks used the reserve funds supplied them by Federal Reserve transactions with nonbank investors to purchase short-term securities from the Reserve Banks. Total holdings of Government securities at the Reserve Banks declined somewhat.

Business loans showed further rapid growth at banks in leading cities during September and the first half of October. Real estate and consumer loans also continued to rise. During the first half of October, banks in leading cities added somewhat to their holdings of Government securities, following reductions in late September to meet higher reserve requirements.

**Interest rates and security markets**—Yields on short-term Government securities rose slightly in late September and early October. Prices of high-grade corporate and municipal bonds were relatively stable during the first three weeks of October, and common stock prices rose somewhat, following moderate declines in September.