NEW JOHNSONVILLE, TENNESSEE REVISITED:
CASE STUDY OF AN INDUSTRIAL AREA

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ABSTRACT
New Johnsonville, Tennessee is one of the youngest towns in Tennessee and also a rapidly growing industrial site. This is due to the favorable locational factors of labor, power, water, raw materials, transportation and recreation.

Most of the industries of the area are classified as heavy industry. E. I. Du Pont, Foote Mineral, Consolidated Aluminum, and Inland Container Corporation are a few of the industries of the area.

All in all, these industrial plants, as indicated by numerous field surveys concerning industrial employment, production, distribution and marketing variables, contribute significantly to the economic climate of the state.

INTRODUCTION
Located on the east side of the Tennessee-Kentucky Lake and approximately 75 miles west of Nashville, New Johnsonville, Tennessee, is the youngest town in Humphreys County. The town derived its name from the old town of Johnsonville, which was formerly located a few miles downstream and existed for nearly a century without appreciable growth. When Kentucky Reservoir, impounded by the dam at Gilbertsville, Kentucky, inundated Johnsonville in 1945, the town was relocated at what is now New Johnsonville and a new railroad and highway bridge were constructed.

Characterized by a small collection of residences and a population of approximately 600, New Johnsonville is a rapidly growing industrial area. Thus the purpose of this paper is to analyze the industrial growth in the New Johnsonville area between 1966 and 1976. Actually, the analysis updates the author's study made in 1966 (Chester, 1966).

FACTORS OF INDUSTRIAL LOCATION
Complex factors determine the location of manufacturing. Modern industrial corporations, in analyzing new locations for plants, should consider five main factors—power, labor, transportation facilities, land, water, and recreational facilities. Other less significant factors, depending on the type of secondary activity, are industrial linkage, infrastructure, internal and external economies. Most of these factors are industrially favorable in the New Johnsonville area.

Power. Covering 575 acres and employing 588 people, the Tennessee Valley Authority steam plant at New Johnsonville was the first large, modern, and economical thermoelectric power plant. It was originally constructed as a six unit operating establishment and began operations October 27, 1951. The six units have a capacity of 794,000 kilowatts. Four additional units were completed on August 20, 1959, with a capacity of 691,000 kilowatts or a combined total capacity of 1,485,000 kilowatts.

Coal, obtained from Western Kentucky coal fields by barge, is used as a source of energy to operate the boilers. The consumption of coal is approximately 3,500,000 tons a year. The boilers can produce 11,600 BTU's per pound of coal, and the stacks are being equipped with electrostatic precipitators.

The cost of power as part of the total costs is usually not significant (Miller, 1970). Therefore, plants are not located at a particular place because of a power cost differential. However, power reliability is an important locating factor for such industries as those in the New Johnsonville area.

Labor. There is an abundance of potentially skilled labor in Humphreys and surrounding counties. In fact, the unemployment rate of this area is approximately six percent. Therefore, the availability of potentially skilled labor in the surrounding counties is an important factor accounting for industrial growth of the area.

Industries that do not have well developed internal economies find the area lacking in skilled labor, especially electricians and plumbers. However, a technical trade school has recently been established approximately 35 miles east of New Johnsonville, which may mitigate the present situation. All in all, the labor force has been an advantageous factor for industrial development.

Transportation. In many cases, high wage-labor extensive industries demand specialized transportation such as rail or water. Contrarily, "footloose" or low wage plants rely greatly on trucking companies or their own private trucks for the transportation of both raw materials and finished products (Lineback, 1972).

New Johnsonville is not located near the center of the nation's industrial activity. However, federal highway 70 and the Louisville and Nashville Railroad, connecting Memphis and Nashville, run parallel through the area. Also, interstate 40, an east-west route, is located 10 miles to the south of the study area, and the Tennessee-Kentucky Lake provides a navigable waterway for transporting coal, other bulky raw materials, and finished products by barge. In addition, a small airport is located five miles east of New Johnsonville.

Located on these transportation routes, the site of New Johnsonville is readily accessible in respect to sources of raw materials and markets.

Land. Abundant level land along the reservoir is available at premium prices for industrial development.
Many industries require large acreage for initial location and possible expansion; therefore, the favorable land availability factor of the area is a great asset. Relative to this factor is the equalized tax law, under which the assessed value of all property, industrial or personal, is as assessed by Humphreys County. Obviously, this is another factor favoring industrial settlement.

Recreation. The area is well endowed with a wide variety of recreational activity. However, most of it is associated with fishing, hunting, and camping as part of their regular recreational activity. In addition, five public Mineral Springs and two national parks are located within a 50-mile radius of New Johnsonville.

Industrial Growth

A recent field survey at the study area revealed that older industrial establishments, located outside the city limits, have shown tremendous growth between 1955 and 1966, during the same time frame new industries, as shown in Figure 1, either developed or purchased building sites. The development of a major industrial area is under way, and many of these industries have already established themselves. The major industries are concentrated in the New Johnsonville area. The major industries are concentrated in the New Johnsonville area.

FIG. 1: Location of Industries in the New Johnsonville Area

1. Inland Container Consolidated Alu.
2. Dupont
3. TVA Steam Plant
4. TVA Steam Plant

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system and stored in five silos that have a total storage capacity of 65,000 tons.

Employing 625 people, the company produces 200,000 pounds of raw XI, a tenfold increase from four years prior. Power is a very important factor in this output since approximately 20,000 kilowatt hours of electric energy are required to produce 1000 pounds of magnesium. The New Johnsonville thermoelectric plant provides the required energy at premium rates.

The company has paid a total of $10,055,000 in state and federal taxes, which is also not insignificant when the company pays its previous $10 million, which is highly significant to the local and regional economy.

New and Future Industries. A few industries that have ideas of future expansion have purchased large areas of land in proximity to present industrial plants. One of the most significant of this is Vanguard Industries, which will manufacture heavy bridge and barge equipment, plus large steel tanks.

The Charnock Paper Company is a significant landowner in the area. In addition, a few industrial contractors are beginning to locate in the area. The Tennessee Pipe Company is an example of this type activity. It is the opinion of the writer that the recent location of these industries is another indication that the study area has a sound industrial climate.

Conclusion

After examining the New Johnsonville area, it is readily understood that this industrial site is ideal for certain specific industries such as those previously mentioned. Industries that require vast amounts of low rate electrical power should consider locating in the area. Other industries that consume thousands of gallons of water and demand a navigable waterway for the shipment of bulky raw materials and finished products should be attracted to the area.

Due to well developed transportation, the great distance to population centers does not present a market disadvantage. However, with the continuing development of Southern industries, future industries of the area will have more accessible markets.

All in all, it is the opinion of the writer that New Johnsonville will continue its industrial growth. It seems those industries with high value-added and high wage characteristics.

Literature Cited


