

AN ANALYSIS OF THE RELATIVE IMPORTANCE OF INSTITUTIONAL FACTORS  
ASSOCIATED WITH PLANT LOCATION, WITH PARTICULAR REFERENCE  
TO MEAT PACKING PLANTS

by

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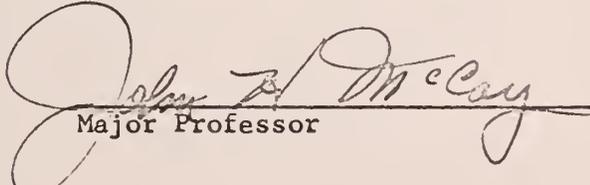
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## INTRODUCTION

American industry is on the move. For a number of years, executives of both large and small manufacturing establishments have been engaged in the reappraisal of existing plant locations and have sought new sites which hold promise for profitable operations. At the same time, industrial growth and expansion has proceeded at an unprecedented rate. The resulting migration and shifts in geographical locations of industries presents problems of continuing interest to our nation's populace.

The increasing tempo of industrial growth and shifting in location has aroused much interest in all states and regions in the United States--an interest directed primarily to the attraction of industry and the promotion of industrial development. Local, state, and regional organizations, both public and private, throughout the nation are endeavoring to aid expansion of existing industries and the establishment of new industries in their areas and communities. In all, well over 10,000 federal, state, and local development-oriented groups are eager to assist companies in finding the "right location."<sup>1</sup> The programs adopted by the states usually provide for some form of assistance or inducement that can be offered to the new firm considering the state as a possible place to locate a plant. Many communities and local organizations have also engaged in certain activities that tend to act as an inducement to the plant to locate in their area. Such organizations engaged

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<sup>1</sup>"Site Selection: A Tough Job Gets Tough," Dun's Review (March, 1965), p. 20.

in the quest for new industries include Chambers of Commerce, power companies, railroads, real estate groups, and industrial development agencies and commissions.

Activities carried on by the various states, communities and other organizations include: personal contacts, providing information about the "ideal" location for almost any industry, conducting studies of resources and other factors, offering certain financial inducements, and offering to eliminate certain barriers, hindrances, or restrictions.

#### Purpose of the Study

This study was designed as a supplement to a North Central Regional Research Project entitled, "Adjustments in Livestock Marketing in the North Central States to Changing Patterns in Production and Consumption." The core of that study was a spatial equilibrium analysis of the livestock-meat economy which among other things, indicated economically optimum flows of meat from points of slaughter to points of consumption. Since that analysis did not incorporate the possible influence of legal and institutional factors on packing plant location, a separate analysis was made to study these factors.

#### Objectives

The specific objectives of this study were:

1. To identify specific legal and institutional barriers and inducements to plant location with particular emphasis on meat packing plant location.
2. To obtain empirical evidence of the legal and institutional factors affecting meat packing plant and other industrial plant location.

3. To determine the relative importance industrial development agency and meat packing plant administrators placed on certain factors in selecting a location.
4. To compare factors affecting meat packing plant location with factors affecting industrial plant location in general.

#### Definitions

A legal barrier is construed to mean any governmental enactment, whether federal, state, or local, that tends to limit or prohibit the location of a meat packing plant or industrial plant in a given year.

Legal enactments may be construed to be institutions. However, for purposes of this study, an institutional barrier will be any other activity, other than legal enactments, which tends to limit or prohibit the location of a packing plant or industrial plant in a given area. An example would be labor union activity.

A legal inducement is defined as any governmental enactment which is intended to make a given area or locality attractive as a plant location. Examples would be such factors as offering to change city ordinances, or special property tax concessions.

An institutional inducement is defined to be any activity, other than legal inducements, which is intended to make a given area or locality attractive as a plant location. Examples would be such factors as a favorable community business attitude, offers of free sites, cash gifts or low interest rate loans.

The term "meat packing plant" is defined to include slaughtering plants, processing plants, and slaughtering-and-processing plants.

Basically, packing plants can be classified into two general types--

federally inspected and nonfederally inspected. A federally inspected meat packing plant is defined as an establishment in which cattle, calves, hogs, horses, goats, and/or sheep and lambs are killed, slaughtered, dressed, or otherwise prepared for transportation or sale as articles of interstate commerce or foreign commerce, or in which meat, meat byproducts, or meat food products of, or derived from cattle, calves, hogs, horses, goats, and/or sheep and lambs are wholly or in part canned, cooked, cured, smoked, salted, packed, rendered, or otherwise prepared for transportation or sales as articles of interstate or foreign commerce, which are capable of human consumption.<sup>1</sup> In this type of plant, the meat, as well as the building and equipment are inspected by personnel of the Meat Inspection Division of the United States Department of Agriculture.

A nonfederally inspected packing plant is defined as any state, city, or local inspected establishment in which cattle, calves, hogs, horses, goats, and/or sheep and lambs are killed, slaughtered, dressed, or otherwise prepared for food purposes for transportation or sale as articles of intrastate commerce, being capable of human consumption. Meat in such plants may be slaughtered and sold within a state subject to whatever inspection that state or particular locality may impose.<sup>2</sup>

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<sup>1</sup>United States Department of Agriculture; Meat Inspection Division, Regulations Governing the Meat Inspection of the United States Department of Agriculture (Washington: United States Government Printing Office, 1960), p. 4.

<sup>2</sup>Ed Uvacek, Meat Inspection and Grading in Texas, Bulletin L-585, (College Station, Texas: Texas A&M University Press, 1963), p. 1.

## PROCEDURE AND SOURCES OF INFORMATION

### General Procedure

The general procedure followed in this study to obtain relevant information involved two phases: (1) a review of literature pertaining to the subject which served as secondary sources of information, and (2) the use of mail survey questionnaires which served as the original and primary sources of information.

### Review of Literature

The nature of this study necessitated an exhaustive search and review of literature pertaining to plant location. Several studies were known to have been made in the area of barriers and inducements to industrial site selection.<sup>1</sup> Only one was found with particular reference to the location of meat packing plants.<sup>2</sup> Many publications were available concerning general plant location.<sup>3</sup> As a rule, they emphasized economic and physical inducements but nevertheless, many were reviewed for possible hints or clues to institutional barriers and inducements, with particular attention given to factors relevant to meat packing plant location.

### Collection of Primary Data

Original data was obtained from the following sources: (1) a survey

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<sup>1</sup>Thomas S. Isaach and James H. Thompson, Factors Influencing Plant Location in West Virginia, 1945-1956 (Morgantown, W. Va.: West Virginia University Press, 1956), pp. 1-24.

<sup>2</sup>Jerry A. Anderson, Legal and Institutional Barriers and Inducements to Interregional Trade and Meat Packing Plant Location, Unpublished M.S. thesis (Manhattan, Kansas: Kansas State University, 1963).

<sup>3</sup>Some of the more relevant publications are listed in the bibliography.

designed to obtain the desired information about industrial plant location in general, which was obtained from industrial agencies,<sup>1</sup> (2) a survey designed to obtain information from meat packing plant operators,<sup>2</sup> (3) correspondence with state development agencies and others and (4) personal interviews with representatives of selected national meat packing firms. Both surveys were made by mail questionnaires.

#### Survey of General Industrial Agencies

The first step involving the industrial agency questionnaire was the assemblage of a mailing list and selection of a sample. A list of such agencies was obtained from the October, 1963, issue of the Industrial Development Site Selection Handbook.

This list, which was defined as the population in this analysis, was enumerated by states, cities within states, and by the person in charge of the particular agency. The total population consisted of 11970 agencies. Each could be classified into one of the following three categories: (1) Area Development Corporations and Chambers of Commerce; (2) Industrial Parks, and (3) others. These were used as strata for sampling purposes. Category one was relatively large compared to categories two and three. A 10 percent random sample was selected--stratified by type of agency and by state. The total sample number 1197.

A major feature of the industrial agency survey was a rating of the relative effectiveness of individually specified (with space also provided for adding additional items by respondents) inducements and hindrances by

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<sup>1</sup>See Appendix B in Appendix.

<sup>2</sup>See Appendix C.

respondents. A list of presumably relevant inducements and hindrances was provided on a questionnaire. This list was derived from a pilot study survey<sup>1</sup> and recourse to literature on the subject. Respondents were asked to rate the relative effectiveness of individual items in the list as a scale of -1 to +4, where -1 was defined to be an adverse effect and +4 was defined to be highly effective in the case of inducements. In the case of hindrances a +4 was defined to be a highly serious hindrance and -1 was defined to be a presumed hindrance which in the experience of the respondent actually was an attraction.

In addition respondents were asked to select the 15 most effective inducements and rank them from 1 to 15, with 1 being the most effective and 15 being the least effective of those selected. Respondents were also asked to rank hindrances in a similar manner.

Additional information was obtained by open questions.<sup>2</sup>

Respondents to the questionnaire numbered 335, for a 27.9 percentage return. The results from this phase of the study are presented in the sections entitled, "Comparison of Factors Affecting Meat Packing Plant Location with Factors Affecting the Location of Industry in General," and "Additional Relevant Information on Packing Plant Location from Industrial Agencies."

#### Survey of Meat Packing Plant Operators

Under the assumption that operators of meat packing plants of relatively recent construction would be familiar with the criteria on which location decisions were made, a study was made of a random sample of operators of

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<sup>1</sup>See Appendix A.

<sup>2</sup>Ibid.

plants constructed during the period 1955-1964. Several sources were used to develop a list of such plants. A major source was from state economic development agencies and commissions. This was supplemented by data from U.S.D.A. Economic Research Service and state inspection agencies. While the list is presumed to be less than 100 percent complete, the (unknown) degree of deficiency is believed to be negligible. In general, the agencies assisting in drawing up the list cooperated fully. The final list consisted of 749 plants. A 10 percent random sample was selected--stratified by state and by type of inspection, i.e., whether federally or nonfederally inspected.

The same basic type questionnaire was used for meat packing plant operators as previously described for industrial agencies.<sup>1</sup>

#### Correspondence and Interviews with State Development Agencies and Others

Much pertinent information was derived from mail correspondence with personnel in various Industrial Development Corporations, State Development Agencies and Chambers of Commerce in 48 states. Relevant information in relation to barriers and inducements to industrial and packing plant was in such forms as personal letters, "fact-packs," circulars, research reports, booklets, leaflets, and bulletins.

Additional information was derived from personal interviews with personnel employed by the state of Kansas who were knowledgeable on the subject of factors affecting industrial and packing plant location. Those persons interviewed were Leona Boyd, Secretary, Kansas Board of Health, and William R. Docking, Chief, Community and Industry Services Division, Kansas Department

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<sup>1</sup>See Appendix C.

of Economic Development.

## CHARACTERISTICS OF THE SAMPLE MEAT PACKING PLANTS AND RESPONDENTS

### Regional Classification of Packing Plants

This study necessitated a classification of states into 26 regions as specified for other purposes in Regional Project RRF 587.

Figure 1 breaks the states of the United States down into the 26 survey regions used in this analysis.<sup>1</sup>

Figure 2 shows the regional breakdown of the states into the survey regions after several minor shifts were made in regional boundaries due to light response from contiguous regions.

Figure 3 indicates the number of federally and nonfederally inspected slaughtering plants used in this survey and the respondents from each state. The total of 749 plants were surveyed. Useable information was obtained from 228 plants.

### Classification by Type of Inspection

The second classification of packing plants was by type of inspection. Figure 4 shows the total number of responding federally and nonfederally inspected packing plants from each state. As the figure indicates, all the states had various combinations of responding federally and nonfederally inspected plants. Federally inspected plants were concentrated in the Eastern Corn Belt, North Atlantic, and South Atlantic states, while the nonfederally inspected plants were more prominent in the Northwestern Corn Belt,

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<sup>1</sup>Several minor shifts were made in regional boundaries specified in RRF/587 due to relatively light returns from certain states.

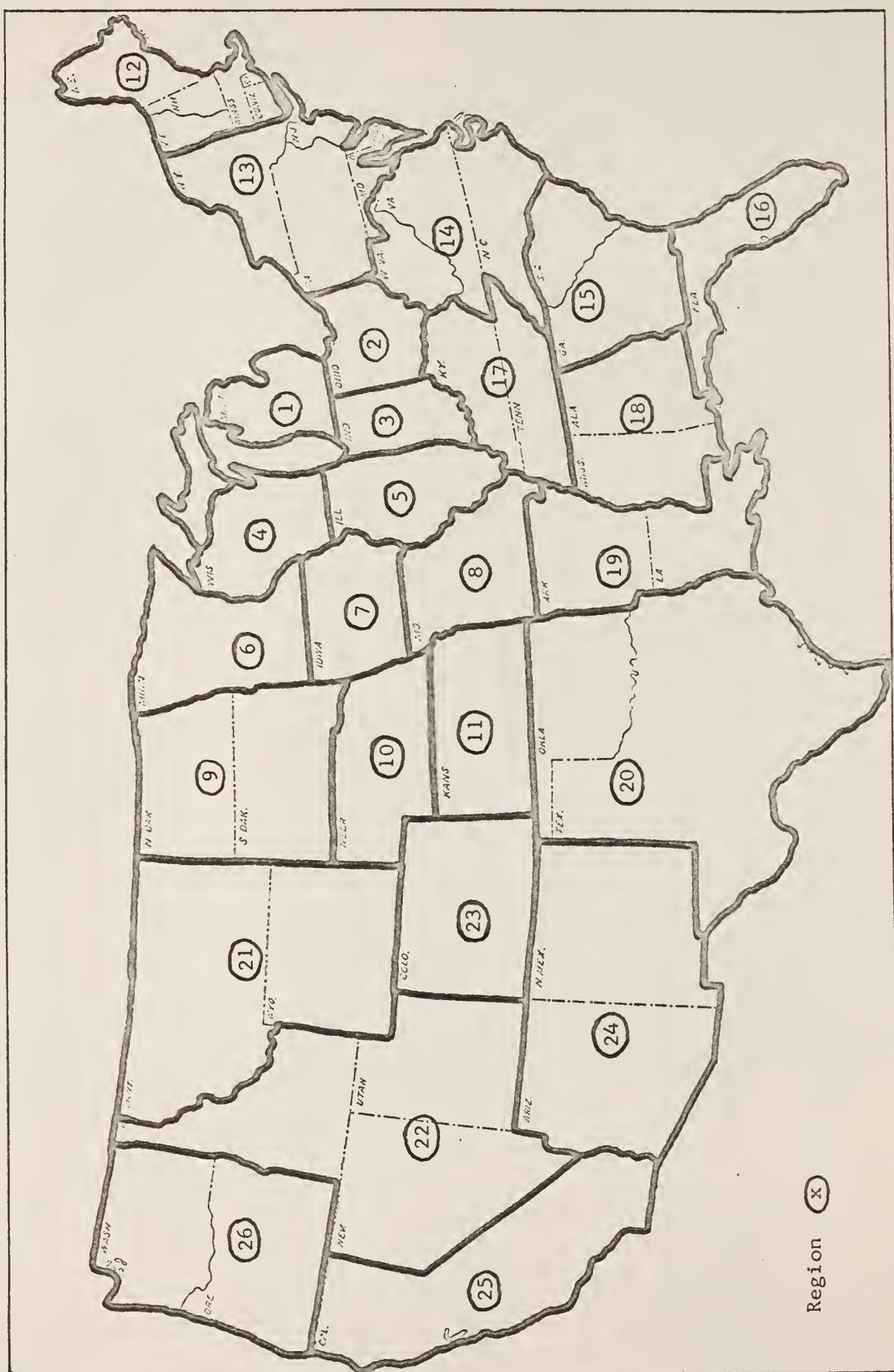


Fig. 1.--Regional breakdown of states in Regional Project RRF 587.



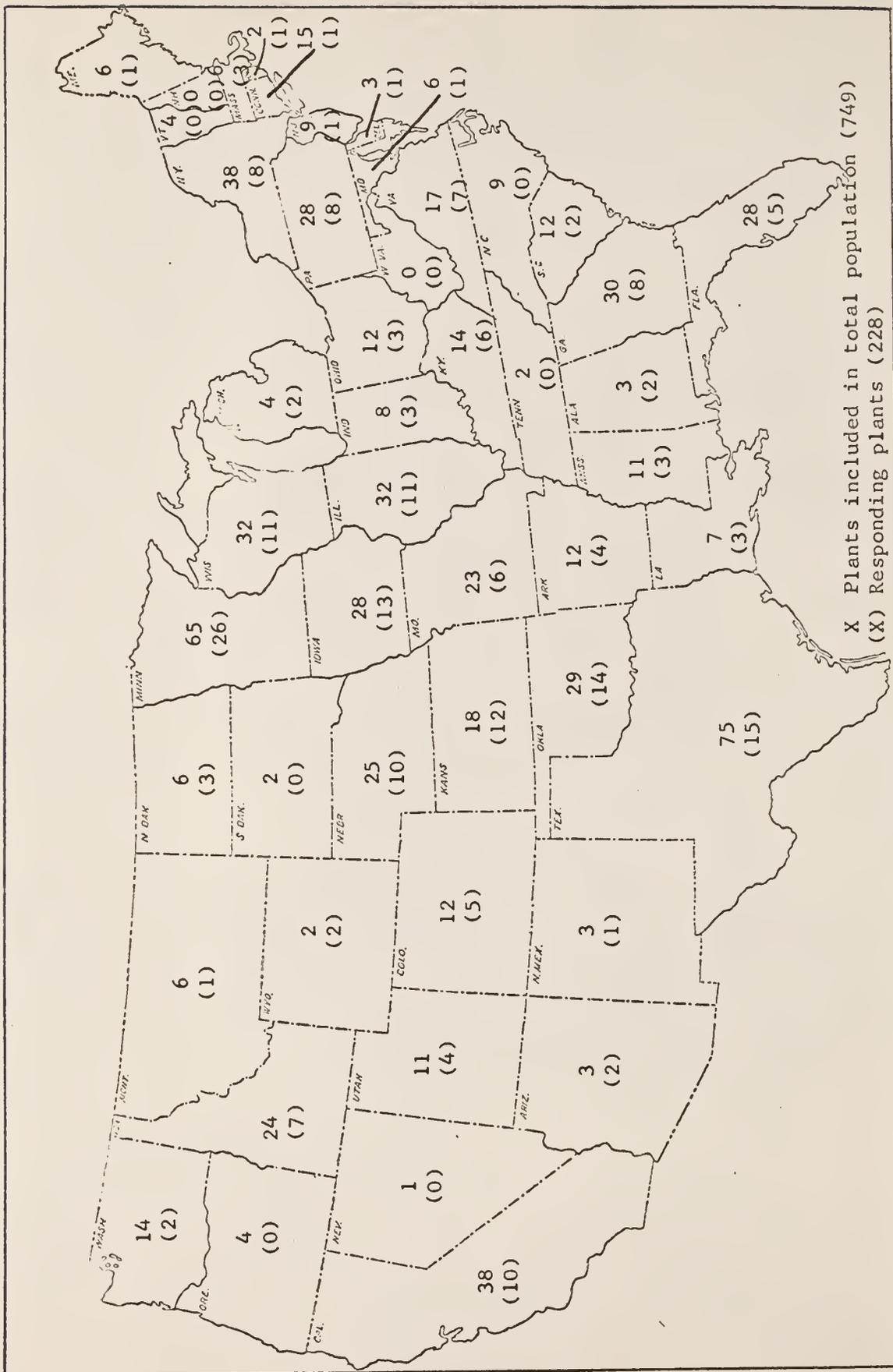


Fig. 3.--Total number of packing plants included in the survey population and respondents from each state.



Southwestern Corn Belt, and South Central states. The Mountain and Pacific states tended to be limited in all types of plants, with the exception of California.

Table 1 classifies the survey packing plants by type of inspection. As shown, the number of federally and nonfederally inspected packing plants used in this survey was almost equal in number with 370 and 379, respectively. Responding nonfederally inspected plants slightly outnumbered federally inspected plants by 123 to 105, respectively.

Table 1.--Classification of survey packing plants by types of inspection.

Type of inspection	:	Number of packing plants in survey	:	Number of responding plants	:	Percent of total plants in survey
Federal	:	370	:	105	:	28.3
Nonfederal	:	<u>379</u>	:	<u>123</u>	:	<u>32.4</u>
Total	:	749	:	228	:	30.4

#### Classification by Function

The meat packing plants used in this analysis were also classified by the function they perform, i.e., slaughtering only, processing only, or slaughtering and processing. Table 2 gives a regional breakdown of the plants according to the function and type of inspection. Most of the slaughtering within the aggregated regions was done by federally inspected plants, whereas the nonfederally inspected plants did most of the processing and slaughtering and processing.

Table 2.--Regional classification of responding packing plants by function performed and type of inspection.

Region	Function										Total respondent plants
	Slaughter only		Process only		Slaughter and process		Slaughter and process		Slaughter and process		
	Federally inspected	Nonfederally inspected	Federally inspected	Nonfederally inspected	Federally inspected	Nonfederally inspected	Federally inspected	Nonfederally inspected	Federally inspected	Nonfederally inspected	
1	0	0	0	0	0	0	0	0	0	0	2
2	1	0	0	0	0	0	0	2	2	0	3
3	1	0	0	0	0	0	0	1	1	0	3
4	3	4	0	0	0	0	0	0	0	4	11
5	6	0	1	0	0	0	0	3	1	1	11
6	2	0	3	0	0	0	0	1	1	18	26
7	7	2	0	0	0	0	0	2	2	1	13
8	0	0	0	0	1	0	0	2	2	2	6
9	1	1	0	0	0	0	0	0	0	1	3
10	5	2	1	0	0	0	0	0	0	0	10
11	2	0	1	1	4	2	2	2	2	3	12
12	1	0	1	1	1	3	0	0	0	1	6
13	6	0	4	2	2	2	6	6	0	0	19
14	1	1	1	0	1	0	1	1	3	3	7
15	0	1	0	1	1	1	2	2	6	6	10
16	0	1	0	0	1	1	1	1	0	0	5
17	0	0	0	1	1	1	2	2	2	2	6
18	1	0	0	0	0	0	2	2	1	1	5
19	0	2	0	0	0	0	3	3	1	1	7
20	3	3	1	6	6	6	3	3	13	13	29
21	1	0	0	0	0	0	1	1	0	0	3
22	1	1	0	0	0	0	0	0	0	8	11
23	1	0	1	0	0	0	3	3	0	0	5
24	0	1	0	0	0	0	1	1	1	1	3
25	4	0	2	0	0	0	1	1	2	2	10
26	0	1	0	0	0	0	0	0	1	1	2
Total	47	20	17	19	41	69	228	2	69	2	228

## THEORY OF PLANT LOCATION

The problem of choosing the most advantageous location for a manufacturing firm is both technical and economic; its most satisfactory solution requiring the services of both the engineer and the practical economist. Locating new plants is a more exacting problem today than it was a few years ago. Mistakes are far more costly, not only because of the high cost of construction, but also because many new industrial plants are so highly specialized in their design that they are not easily convertible if they should ever have to be abandoned or sold.

The success of a manufacturing enterprise depends upon the existence of such favorable technical factors as availability of power at reasonable costs, an abundance of good labor adaptable to the industry for which a location is being sought, water, and an equitable freight rate situation.

Various phases of the subject of markets, their location, extent, and probable growth are most effectively dealt with by the economist. Likewise, many aspects of transportation and freight-rate structures, laws and taxations, labor and wages, rents and land values, more properly fall within the field of economics than within that of engineering. The availability of raw materials involves both technical and economic aspects.

W. Gerald Holmes defines the problem of plant location as that of "...determining that location which in consideration of all factors affecting delivered-to-customers cost of the percent(s) to be manufactured will afford the enterprise the greatest advantage to be obtained by virtue of

location."<sup>1</sup>

By "delivered-to-customers costs" is meant the total cost a commodity must bear from the time it is taken from nature until it is delivered to the manufacturer's customer. It includes such costs as all manufacturing costs, costs of raw materials, and transportation costs to and from the factory.

A number of economists have analyzed the problems in industrial location and have attempted to explain the various forces which influence industrial location patterns. Prior to 1875, the few theoretical attempts that were made to explain the location of industry all dealt simultaneously with agriculture, trade, and industry.

Adam Smith (1723-1790) mentioned the location of industry solely in reference to agriculture, for at that time there was very little manufacturing.<sup>2</sup> He observed that manufacturing might develop in two ways: (1) as an off-shoot of foreign commerce because of the taste developed for imported articles in the importing countries, and (2) as the result of an unexportable food surplus in inland regions or countries. In the latter case, if the surplus could not be exported because of lack of cheap transportation, it became cheap enough to attract and support a labor force engaged in transforming the raw materials into finished goods. This transformation raised the per unit value and the goods could be exported.

J. H. von Thünen (1783-1850) also treated industrial location in relation to agriculture. He visualized a concentric city surrounded by farms

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<sup>1</sup>W. Gerald Holmes, Plant Location (New York: McGraw-Hill Book Company, Inc., 1930), p. 3.

<sup>2</sup>Adam Smith, The Wealth of Nations (New York: The Modern Library, 1937), pp. 381-83.

which supplied the city with products from the land, flocks, and forests in exchange for manufactured goods. The farms nearest the city were predominately occupied by crops, because of perishability and bulkiness encountered in transport. In this sense, transportation costs were virtually the sole determinant of the location of economic activity.<sup>1</sup>

Alfred Marshall (1842-1924), like Adam Smith, recognized the differences in transportation costs as evidenced by the possibilities of shipping products of high unit value in relation to weight long distances. He also pointed out that industry tends to remain in its original position because of the development of labor skills, subsidiary and auxiliary trades and industries, and the use of special equipment. He concluded that the locations of industry were also influenced by localized raw materials, artisans and workers, and markets of a specialized nature.<sup>2</sup>

Early in the twentieth century, the location of industry attracted the attention of such economists as Welhelm Roscher, E. A. Roso, Frederick S. Hull and Alfred Weber. Most of their efforts were toward cataloguing the factors affecting the location of industry, i.e., markets, raw materials, labor, climate, capital, transportation, water power, and fuels.

Alfred Weber was the first to attempt a comprehensive and exhaustive theoretical analysis of the geographical location of industry. He pointed out that three main cost factors accounted for industrial location. These were: (1) costs of transportation, (2) costs of labor, and (3) differences

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<sup>1</sup>Edwin J. Cohn, Jr., Industry in the Pacific Northwest and the Location Theory (New York: King's Crown Press, 1954), p. 8.

<sup>2</sup>Alfred Marshall, Principles of Economics (8th ed.; New York: The MacMillan Company, 1948), pp. 267-77.

in costs of production due to agglomeration and deglomeration.<sup>1</sup>

Weber pointed out that manufacturing normally takes place near the markets unless lured away to another location by cost advantages which occur as the result of one or more of these cost factors. The primary force capable of attracting manufacturing away from the market is raw materials. An industry which utilizes weight-losing raw materials is likely to locate near the source of the materials in order to save freight costs. However, this will occur only if the savings in transportation of the raw materials is greater than the increased cost of shipping finished products. It is the loss of weight in process, rather than the heavy and bulky material, as such, which causes industry to locate near sources of weight-losing materials.

Weber's second factor, labor, can cause industry to locate away from the market area to areas of low labor costs if these lower costs overcome the additional transportation costs which result from the changed location. His third factor, agglomeration, or the concentration of manufacturing activity, causes production costs to be lower in places when industry is concentrated. The heterogeneous agglomerative factors include transportation facilities and terminals, technical and marketing services which may be more readily and cheaply available, a labor force of large size and experience, and counterbalancing seasonal fluctuations in the demand for labor by different industries.<sup>2</sup>

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<sup>1</sup> Alfred Weber, Über den Standort der Industrien; Part I Rein Theorie des Standorts, Tübingen, 1909. Translated by C. J. Friedrich as Alfred Weber's Theory of the Location of Industries (Chicago: The University of Chicago Press, 1928) and cited in Andress Predöhl, "Theory of Location and General Economics," Journal of Political Economy, 36 (June, 1928), pp. 374-79.

<sup>2</sup> Alfred Weber, Ibid., as discussed by Edwin J. Cohn, Jr., op. cit., p. 9.

Frederich S. Hull used data from the United States Census of 1960 to compile numerous statistical tables in an effort to determine the major factors which influence industrial location. From his research, he concluded that the most influential factors are: (1) nearness to markets, (2) favorable climate, (3) proximity to raw materials, (4) supply of labor, (5) availability of water power, (6) capital, and (7) the momentum of an early start.

One of the most prolific American writers on the subject of industrial location is Edgar M. Hoover, Jr. In his investigation of the shoe and leather industry in regards to location theory, he points out that the distribution of raw materials, the tastes and preferences of humans, and economic techniques, i.e., the ways and means by which man is able to combine agents of production to make natural agents yield consumable utilities, are the only factors which can be taken for granted. His analysis also treats the effects of differentials in labor costs, transportation costs, in rent and capital, and the effects of advancing technology.<sup>1</sup>

The most recent publications and empirical studies adding to the understanding of the forces determining the location of industry have been in relation to specific industries. Among these are Walter Isard's and Eugene Schooler's study entitled, Location Factors in the Petrochemicals Industry, Edwin J. Cohn's book entitled, Industry in the Pacific Northwest and the Location Theory, the National Resources Planning Board's report, Industrial Location and National Resources, and the report of the National Planning Association Committee of the South, "Why Industry Moves South." The preceding review of literature on industrial location was not intended to be

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<sup>1</sup>Edgar M. Hoover, Jr., Location Theory and the Shoe and Leather Industries (Cambridge: Harvard University Press, 1937), pp. 3-6.

exhaustive, but it does present a brief resume of writers who have contributed most in this area.

RELATIVE IMPORTANCE OF FACTORS AFFECTING  
PACKING PLANT LOCATION

Institutional Factors Affecting Meat  
Packing Plant Location

Where a company should locate a plant is a very perplexing question of utmost importance. Some industries, such as aluminum, have tended to locate near vast supplies of low cost fuel or power such as that produced by hydroelectric plants. An opposite situation exists for the automobile industry. While most of the manufacturing is done in the Great Lakes area, they have found it best to locate assembly plants near their markets, rather than attempt to serve the entire country from a centralized operation. Still other industries tend to not be limited to certain locations but rather are quite flexible. For example, textile plants have moved from the North to the South in great numbers over the past few decades. One of their main requirements is a huge supply of labor. Both the North and the South can fulfill the manpower requirements, but the cost of labor in the latter is sufficiently below that of the former to cause these companies to relocate.<sup>1</sup>

The fundamental approach used by progressive packing plant managements today is somewhat different from that used in the past. Formerly, management estimated the operating costs and capital expenditures required at several locations and chose the "least expensive." Only casual attention

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<sup>1</sup>"The Rough-and-Tumble of Site Selection," Dun's Review (March, 1963), pp. 98-100.

was given to cost trends.<sup>1</sup>

Today management is attempting to look beyond current costs and is giving weight to such "intangibles" as the business attitude of a community, recreational facilities, civic spirit, housing facilities, etc. This is the trend in industry also. For example, an executive of one of the largest chemical companies stated:

We try now to look at not just tax rates, but the financial status of the town and state; not just labor rates, but also the factors which will influence those rates in the future.<sup>2</sup>

The factors affecting the location of an industrial plant or packing plant can be divided into groups. For example, the National Gypsum Company divides the factors it considers in selecting a plant site into three groups: (1) economic factors, (2) human factors, and (3) future factors.<sup>3</sup> On the other hand, location factors have been classified traditionally as economic and noneconomic.<sup>4</sup> Economic factors have been generally defined as those which have a direct effect on a firm's assembly, production, and distribution costs and returns. Noneconomic or environmental factors involve the social, institutional, cultural, and political aspects of an area or community. These factors have an indirect influence on a plant's costs and returns through the effect of external economies and diseconomies associated with

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<sup>1</sup>Robert M. Atkins, "A Program for Locating the New Plant," Harvard Business Review, XXX (November, 1952), p. 113.

<sup>2</sup>Ibid.

<sup>3</sup>"Site Selection: A Tough Job Gets Tougher," Dun's Review (March, 1965), p. 10.

<sup>4</sup>L. T. Wallace, Factors Affecting Industrial Location in Southern Indiana, 1955-1958, Department of Agricultural Economics, Research Bulletin No. 724, Purdue University (Lafayette, Indiana: Agricultural Experiment Station, 1961), p. 6.

the size and rate of growth of the city, area, or region in which the plant is located.

V. W. Ruttan and L. T. Wallace classify the forces which "determine the location of a particular firm, the level of production of a particular product, and the total level of economic activity in a particular region" into five categories: (1) transportation rates on inputs and final products, (2) the geographic location of inputs and product markets, (3) supply schedules of production factors or inputs, (4) production functions or input-output ratios, and (5) demand functions for products.<sup>1</sup>

The location factors in this study were divided into two main groups: (1) the noninstitutional factors, and (2) the institutional factors, i.e., legal and institutional barriers and/or inducements. The analysis was concerned with the latter which was further subdivided into: (a) those factors related to labor (local supply of labor and labor unions), (b) those pertaining to utilities and facilities (waste disposal facilities and transportation facilities), (c) those related to laws and ordinances (water and sewage disposal regulations, local tax laws, and restrictive city ordinances), (d) those dealing with financial aids and concessions (property tax concessions and free land), (e) those pertaining to costs (labor costs and state inspection costs), and (f) those of a community environmental nature (weather conditions, favorable business attitude of the community, and rapidly developing area).

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<sup>1</sup>V. W. Ruttan and L. T. Wallace, "The Effectiveness of Location Incentives on Local Economic Development," Journal of Farm Economics, XLIV (November, 1962), p. 927. This classification scheme is based on L. N. Moses, "Location and the Theory of Production," Quarterly Journal of Economics, LXXV (May, 1958), pp. 259-272.

### Noninstitutional Factors Affecting Meat Packing Plant Location

Two factors were included in this analysis which are not classed as institutional, namely, the local supply of raw materials (i.e., livestock) and the proximity of product markets. They were included primarily for two reasons, to obtain an indication of the relative importance of noninstitutional compared to institutional factors and to present a more complete picture of locational factors to respondents with a view of improving the response to the mailed questionnaires. Other noninstitutional factors could have been included. These were selected as among the most important on the basis of literature received and the pilot study conducted in connection with this analysis. Table 3 indicates that both of these factors were given a higher priority than any of the institutional factors. Of the 122 respondents who listed local supply of livestock among the 15 most important factors, 80 gave it first rank and 19 gave it second rank. Thus 99 out of 122 or 81 percent placed it either first or second. In the case of proximity of product market, 27 out of the 110 respondents said it was the most important locational factor. An additional 41 placed it second. As can be seen in Table 6, none of the institutional factors received more than 3 first place ratings and the most second place ratings received by any one institutional factor was 26.

It may be pointed out, however, that an institutional factor, local labor supply, was ranked in the top 15 most important factors more times (i.e., 131) than either of the noninstitutional factors. It may be noted also in Table 6 that a few respondents rated these factors as low as 13th, 14th, and 15th, and there was a sprinkling of ratings in the intermediate ranks (i.e., 3rd to 17th).

Table 3.--Ranking of selected location factors, all regions combined.

Location factors	Rank of factors <sup>a</sup>															Total responses <sup>b</sup>
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Noninstitutional																
Local supply of livestock	80	19	6	2	--	1	2	3	3	1	2	--	1	1	1	122
Proximity of product markets	27	41	9	9	4	7	5	3	3	1	--	--	--	1	1	110
Institutional																
Local labor supply	2	26	39	15	9	6	5	4	5	4	6	4	5	3	--	131
Labor rate in area	2	8	15	24	14	7	5	5	4	4	6	4	5	3	--	106
Transportation facilities	2	10	13	10	10	10	7	9	3	8	4	3	2	5	3	99
Waste disposal facilities	--	3	21	12	15	13	6	7	3	7	2	1	4	2	2	98
Water and sewage disposal regulations	1	5	4	18	15	9	9	6	10	5	3	6	--	1	2	94
Favorable business attitude of community	3	5	2	6	5	8	10	7	7	11	4	4	7	5	4	90
Banking facilities	3	3	5	3	10	9	6	3	4	3	11	6	7	4	5	82
Rapidly developing areas	2	3	2	2	3	8	5	5	5	8	7	5	5	5	6	72
Local tax laws	--	--	--	2	4	6	2	9	8	15	4	8	3	5	5	71
Land prices	2	2	1	2	2	4	7	5	2	6	6	4	8	5	6	62
Accommodations for housing, schools, etc.	--	--	--	2	5	6	9	8	6	6	2	3	5	6	1	59
State tax laws	--	1	--	1	3	4	6	5	10	6	9	7	5	1	--	58
Absence of labor unions	3	2	4	5	9	6	4	3	4	3	2	3	2	2	6	58
Weather conditions	--	1	2	3	4	3	2	4	8	2	2	6	5	5	6	53
Low interest rate loans	1	2	--	5	1	5	2	2	2	4	5	4	4	5	9	51
Restrictive city ordinances	--	--	1	4	--	6	4	3	2	7	7	4	5	2	3	48

<sup>a</sup>Priority 1 was the most important; priority 15 was least important.

<sup>b</sup>These totals do not sum to the total number of respondents (i.e., 228) because respondents were asked to select the 15 most important factors (out of a total of 31 factors) and rank them 1 to 15--and not all respondents selected the same 15 factors. In addition, some respondents ranked several factors equally and a few ranked less than 15 factors.

Table 3.--Continued.

Location factors	Rank of factors <sup>a</sup>															Total : responses <sup>b</sup>
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Offer to develop an industrial site	1	--	--	2	2	3	4	6	6	3	4	1	2	6	4	44
State inspection laws	--	3	1	1	4	2	3	3	--	--	3	3	5	5	4	37
Local governments and law enforcement	--	1	--	--	1	1	1	--	2	--	4	10	4	4	6	34
Special property tax concessions	--	--	1	--	--	1	4	2	4	4	2	3	2	5	4	32
Unfavorable business attitude of community	--	--	--	1	4	--	4	3	5	2	1	1	2	4	5	32
Strong labor union	2	--	2	1	5	1	4	1	3	1	1	1	2	3	3	30
Economically depressed area	1	2	--	--	1	1	4	6	--	1	1	3	2	2	5	29
Offer to change city ordinances	--	--	--	--	--	2	3	2	3	1	6	5	1	1	2	26
Offer buildings free or with low payments	1	--	1	1	--	1	1	--	4	1	4	1	2	4	1	22
State inspection costs	--	--	--	2	--	1	2	1	--	1	5	--	4	3	1	20
Free site	--	--	--	--	1	--	1	3	1	1	--	5	3	1	3	19
Cash gift	--	--	--	--	1	1	--	1	2	1	1	--	2	3	2	14
Other tax concessions	--	--	--	--	--	--	1	1	1	2	1	--	1	2	--	9
Total responses	133	137	129	133	132	132	128	104	120	115	115	105	105	104	100	

<sup>a</sup>Priority 1 was the most important; priority 15 was least important.

<sup>b</sup>These totals do not sum to the total number of respondents (i.e., 228) because respondents were asked to select the 15 most important factors (out of a total of 31 factors) and rank them 1 to 15--and not all respondents selected the same 15 factors. In addition, some respondents ranked several factors equally and a few ranked less than 15 factors.

When asked if they considered local livestock supply when selecting a plant site, 168 of the 228 respondents indicated yes (Table 4). This was the largest number of responses to consideration of all factors. Only 39 managers said they did not consider this factor.

Table 4.--Total consideration of livestock supply and product markets in packing plant site selection, by responding plant managers.

Factor	: Number of managers			: Percent of total			: Total	
	: <u>considering factor</u>	: <u>respondent managers</u>	: <u>Total</u>	: Yes	: No	: No reply	: Number	: Percent
Local supply of livestock	168	39	21	73.6	17.1	9.3	228	100.0
Nearby product markets	165	42	21	72.3	18.4	9.3	228	100.0

For each of the 31 specific locational factors, the respondents were asked to indicate the relative importance of the factor in influencing locational decisions. They were asked to rank individually each factor on a scale -1 to +4, where -1 means slightly negative importance, 0 means no importance, 1 means slightly important, 2 means moderately important, 3 means important, and 4 means very important. For simplicity in tabulations and presentation here, the specified degrees of influence were combined in such a manner that a -1 and 0 means "no or slight negative influence," 1 and 2 combined means "slight influence," and 3 and 4 combined means "strong influence." Since there are no absolute standards for these terms, it is not possible to have precise measurement of such impressions as "strong influence" or "no (or slight negative) influence."

Figure 5 shows the relative importance of local livestock supply in

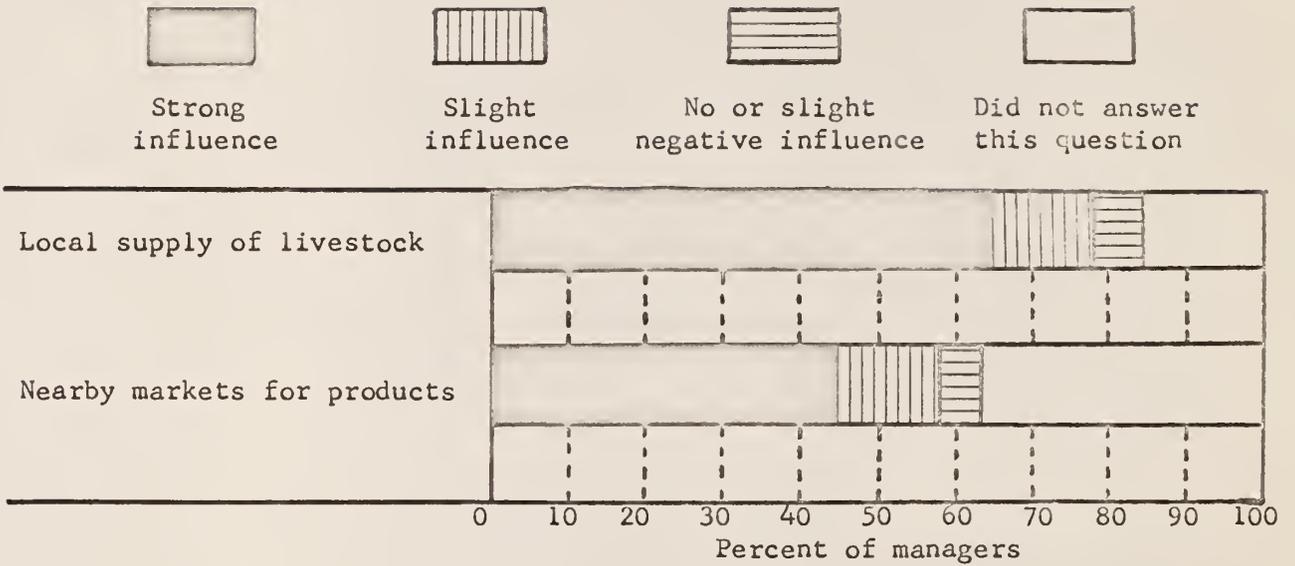


Fig. 5.--Relative importance of the local supply of livestock and nearby product markets as location factors in influencing survey packing plant managers' choice of plant location.

influencing management location decisions. As shown, 65.0 percent of all managers indicated a strong influence from this factor, 18.7 percent indicated a slight influence, and 6.0 percent indicated no (or a slight negative) influence. The remaining managers did not answer this question.

Total consideration and relative importance of the local supply of livestock indicated by plant managers from various regions is shown in Table 5. In a few instances where response was relatively light from contiguous regions they were combined in this tabulation. It is apparent from this tabulation that respondents from all regions did not give equal weight to local livestock supply in packing plant location decisions. In region 12 only one third of the respondents said it was considered as a factor and only a slightly greater proportion (36.8 percent) considered it in region 13. In regions 4, 5, 8, and combined 9 and 21 all respondents indicated it was a consideration. Conversely, as few as none of the managers in region 7 to as many as 52.6 percent in region 13 did not consider it. Twenty-five percent of the managers in region 11 did not reply with either a yes or no. Table 5 also shows that 50.0 percent or more of the managers in every region, except regions 12, 13, and 14, and the combined regions 9 and 21, indicated a strong influence from this factor when selecting a location. In region 12, 90.7 percent of the managers indicated a strong or slight influence from this factor, while all respondents in regions 18 and 23 indicated this. Ninety-two percent of the respondents in region 7, 90.0 percent in region 10, and 80.0 percent in region 18 indicated a strong influence from this factor. The highest percent (40.0) of respondents indicating a slight influence from the local supply of livestock was in region 23. The lowest percent (zero) came from regions 7, 9 and 21 combined, 10, 11, 12, 15, 16 and 17. Similarly,

Table 5.--Local supply of livestock as a consideration in packing plant location, packing industry, respondents, by region.

Regions	: Replies to this question: Was :		: local livestock supply a factor:		: in your location decision?		: Strong : Slight : No (or slight neg- : No rating : Total		: influence : influence : active) influence : given :		
	Yes	No	Total	No Reply	Total	influence	influence	influence	influence	influence	
1, 2, 3 <sup>a</sup>	75.0	25.0	100.0	0.0	100.0	62.5	37.5	0.0	0.0	0.0	100.0
4	100.0	0.0	100.0	0.0	100.0	69.6	9.0	9.0	12.4	100.0	100.0
5	100.0	0.0	100.0	0.0	100.0	63.5	27.2	0.0	9.3	100.0	100.0
6	69.2	27.9	100.0	2.9	100.0	57.6	30.7	3.8	7.9	100.0	100.0
7	92.4	7.6	100.0	0.0	100.0	92.2	0.0	0.0	7.8	100.0	100.0
8	100.0	0.0	100.0	0.0	100.0	83.3	16.7	0.0	0.0	100.0	100.0
9, 21 <sup>a</sup>	100.0	0.0	100.0	0.0	100.0	49.9	0.0	16.6	33.5	100.0	100.0
10	80.0	0.0	100.0	20.0	100.0	90.0	0.0	0.0	10.0	100.0	100.0
11	75.0	0.0	100.0	25.0	100.0	66.6	0.0	0.0	33.4	100.0	100.0
12	33.3	50.0	100.0	11.7	100.0	16.6	0.0	49.9	33.5	100.0	100.0
13	36.8	52.6	100.0	10.6	100.0	47.2	15.7	26.2	10.9	100.0	100.0
14	57.1	28.5	100.0	14.4	100.0	42.7	14.2	0.0	43.1	100.0	100.0
15	90.0	0.0	100.0	10.0	100.0	70.0	0.0	0.0	30.0	100.0	100.0
16	60.0	40.0	100.0	0.0	100.0	60.0	0.0	40.0	0.0	100.0	100.0
17	83.4	16.6	100.0	0.0	100.0	66.6	0.0	0.0	33.4	100.0	100.0
18	80.0	0.0	100.0	20.0	100.0	80.0	20.0	0.0	0.0	100.0	100.0
19	71.4	14.2	100.0	14.4	100.0	71.3	14.2	14.2	0.3	100.0	100.0
20, 24 <sup>a</sup>	78.1	12.5	100.0	9.4	100.0	58.7	9.3	6.2	25.8	100.0	100.0
22	81.8	0.0	100.0	18.2	100.0	72.6	9.0	0.0	12.4	100.0	100.0
23	60.0	40.0	100.0	0.0	100.0	60.0	40.0	0.0	0.0	100.0	100.0
25, 26 <sup>a</sup>	50.0	33.3	100.0	16.7	100.0	50.0	16.6	8.3	25.1	100.0	100.0
All regions	73.6	17.1	100.0	9.3	100.0	65.0	18.7	6.0	10.3	100.0	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

no managers from regions 1, 2 and 3 combined, 5, 7, 8, 10, 11, 14, 15, 17, 18, 22, and 23 rated local livestock supply in the no (or slight negative) influence category. Forty-three percent of the managers in region 14 did not rate this factor. Similarly, 33.5 percent in the combined regions 9 and 21, 33.5 percent in region 12, 33.4 percent in region 11, and 33.4 percent in region 17, did not rate the relative importance of the local supply of livestock.

Proximity of product markets was ranked second in total consideration as indicated by the number of 1st place rankings by managers from all 26 regions, as indicated by Table 3. One-hundred and sixty-five of the 228 respondents indicated they considered nearby product markets when selecting a plant site (Table 4). Forty-two managers said they did not consider this factor and 21 did not reply to this question.

Figure 5 shows 45.0 percent of all managers indicated a strong influence from nearby product markets when selecting a plant site, 13.0 percent indicated a slight influence, and 8.0 percent indicated no or a slight negative influence. The remaining managers (39.0 percent) did not rate the relative importance of this factor.

Total consideration and the relative importance of nearby product markets indicated by managers from various regions is shown in Table 6. In a few instances where response was light from contiguous regions they were combined in this tabulation. As with the local supply of livestock, respondents did not give equal weight to nearby product markets in packing plant location decisions. Nearby product markets were considered by 50.0 percent or more managers in every region. All the managers in regions 17, and 9 and 21 combined said it was a consideration. Conversely, from 33.3

Table 6.--Nearby product markets as a consideration in packing plant location, packing industry respondents, by region.

Regions	: Replies to this question: Was :		Relative importance attached to this factor				: Total	
	: Yes	: No	: Total	: Strong influence	: Slight influence	: No rating		
		: in your location decision?		: (percent of respondents) <sup>b</sup>				
		: Yes	: No	: Total	: influence : active	: influence : neg-	: given	
1, 2, 3 <sup>a</sup>	87.5	12.5	0.0	100.0	62.5	37.5	0.0	100.0
4	72.7	27.2	0.1	100.0	45.3	9.0	36.2	100.0
5	81.8	18.1	0.1	100.0	54.4	27.1	0.0	100.0
6	61.5	26.9	11.6	100.0	49.9	23.0	15.2	100.0
7	69.2	30.0	0.8	100.0	23.0	46.0	15.3	100.0
8	66.6	33.3	0.1	100.0	100.0	0.0	0.0	100.0
9, 21 <sup>a</sup>	100.0	0.0	0.0	100.0	33.3	16.6	16.6	100.0
10	70.0	20.0	10.0	100.0	10.0	50.0	20.0	100.0
11	58.3	16.6	25.1	100.0	33.3	16.6	16.6	100.0
12	50.0	33.3	16.7	100.0	33.3	0.0	33.2	100.0
13	63.1	26.3	10.6	100.0	68.3	21.0	0.0	100.0
14	71.4	14.2	14.4	100.0	42.7	14.2	0.0	100.0
15	90.0	0.0	10.0	100.0	50.0	20.0	0.0	100.0
16	80.0	20.0	0.0	100.0	80.0	20.0	0.0	100.0
17	100.0	0.0	0.0	100.0	66.6	0.0	0.0	100.0
18	80.0	0.0	20.0	100.0	100.0	0.0	0.0	100.0
19	57.1	28.5	14.4	100.0	85.6	0.0	14.2	100.0
20, 24 <sup>a</sup>	84.3	9.3	6.4	100.0	65.6	18.7	6.2	100.0
22	54.5	18.1	27.4	100.0	54.4	0.0	27.1	100.0
23	80.0	20.0	0.0	100.0	60.0	40.0	0.0	100.0
25, 26 <sup>a</sup>	91.6	0.0	8.4	100.0	58.0	24.9	0.0	100.0
All regions	72.3	18.4	9.3	100.0	45.0	13.0	8.0	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondents from each region.

percent of the respondents in region 12 to zero in regions 9 and 21 combined, 15, 17, 18 and 25 and 26 combined said they did not consider it. Twenty-five percent of the respondents in region 11 and 27.4 percent in region 22 did not reply to either question. Table 6 also shows that nearby product markets was considered to have a strong influence on managers' location decisions by as many as all the managers in regions 18 and 8 and ranged down to as few as 10.0 percent in region 10. In region 16, 23 and combined regions 1, 2 and 3, all the respondents indicated either a strong or slight influence from this factor. Similarly, 72.9 percent of the respondents in region 6, 81.3 percent in region 13, 70.0 percent in region 15, 84.3 percent in combined regions 20 and 24, and 82.9 percent in combined regions 25 and 26 indicated a strong or slight influence from nearby product markets.

From 50.0 percent of the respondents in region 10 to none in regions 8, 12, 17, 18, 19 and 22 indicated a slight influence from this factor. In region 4, slightly over one third of the respondents indicated no (or a slight negative) influence from nearby product markets, while in region 10, 70.0 percent of the respondents indicated a slight or no (or a slight negative) influence from this factor. None of the managers in combined regions 1, 2 and 3, 25 and 26, 5, 8, 13, 14, 15, 16, 17, 18, and 23 indicated no (or a slight negative) influence. Forty-three percent of the respondents in region 14 did not rate this factor and only a slightly less proportion (33.5 percent) did not rate it in combined regions 9 and 21, 11, and 12.

#### Labor Factors

Three selected location factors used in this survey which are closely related are included under the heading of labor factors. They are (a) local

labor supply, (b) absence of labor unions, and (c) strong labor unions.

Local Labor Supply. The availability of an adequate supply of labor in surrounding areas was indicated to be one of the basic factors influencing the choice of a location for a packing plant. The meat packing industry demands a relatively large amount of labor. Therefore, most plant managers try to determine, as they investigate the labor supply of a community, the number of qualified workers who will be available for employment in relation to the number and type of job openings which the plant expects to have. The quality of the labor supply may be just as important as the quantity, depending on the plant's employment needs.

Table 3 shows that labor supply ranked first in priority of all institutional factors, as indicated by the total responses to the ranking of this factor.

Table 7 shows the consideration given labor factors by responding managers of all regions when selecting a location. As shown, 70.6 percent of the managers considered the local supply of labor, while only 15.7 percent indicated they did not. Thus, the local labor supply ranked first in consideration within the group of labor factors.

Figure 6 shows the relative importance of the selected labor factors in influencing packing plant managers' location decisions. As shown, 44.0 percent of all managers indicated a strong influence from the local labor supply, 25.5 percent indicated a slight influence, and 4.2 percent indicated no (or a slight negative) influence. The remaining managers (25.9 percent) did not reply.

Table 8 shows the total consideration and the relative importance of

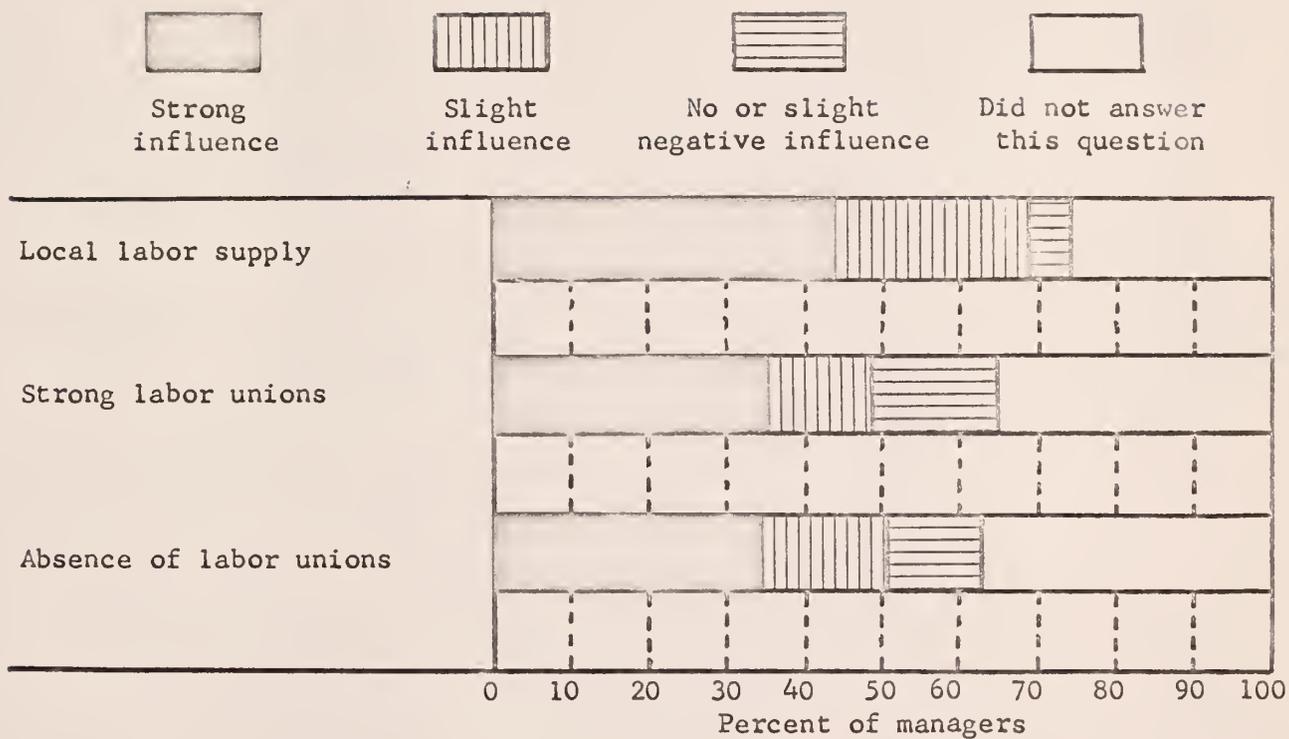


Fig. 6.--Relative importance of selected labor factors in influencing survey packing plant managers' choice of plant location.

Table 7. Total consideration of selected labor factors in packing plant site selection, by responding plant managers.

Factor	: Number of managers : : considering factor :			: Percent of total : : respondent managers :			: Total	
	: Yes	: No	: No reply :	: Yes	: No	: No reply :	: Number	: Percent
Local labor supply	161	36	31	70.6	15.7	13.7	228	100.0
Absence of labor unions	91	80	57	39.3	35.0	25.7	228	100.0
Strong labor unions	70	114	44	30.7	50.0	19.3	228	100.0

the local labor supply indicated by plant managers from various regions. It is apparent from this tabulation that respondents from different regions varied in the weight they attached to this factor in packing plant location decisions. All the regions had 50.0 percent or more of the respondents indicating they considered the local labor supply, with the exception of combined regions 9 and 21 (16.6 percent) and 22 (36.3 percent). All the managers in region 16 and 17 considered this factor. However, 83.3 percent of the respondents in combined regions 9 and 21 said they did not consider this factor in their location decision. About half that many (40.0 percent) of managers in region 23 did not consider this factor. Regions 8, 10, 11, 12, 15, 16, 17, and 18 had no managers not considering it. However, regions 8 and 11 each had 33.4 percent of the respondents not replying to this question. Table 8 also shows that from 94.7 percent of the respondents in region 13 to none in region 9 and 21 combined classified local labor supply as a strongly influencing factor in their location decision. All the managers in regions 16 and 18 indicated either a strong or slight influence

Table 8.--Local labor supply as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :				Relative importance attached to this factor					
	: local labor supply a factor in :		: your location decision?		: Strong : Slight		: No (or slight neg- : No rating : Total			
	Yes :	No :	No reply :	Total :	influence :	influence :	active :	influence :	given :	Total :
	----- (percent of respondents) <sup>b</sup> -----									
1, 2, 3 <sup>a</sup>	87.5	12.5	0.0	100.0	62.5	25.0	12.5	0.0	100.0	0.0
4	72.7	27.2	0.0	100.0	54.4	9.0	27.1	9.5	100.0	9.5
5	81.8	9.0	9.2	100.0	63.5	18.0	0.0	18.5	100.0	18.5
6	57.6	30.7	11.7	100.0	38.3	38.4	7.6	15.7	100.0	15.7
7	84.6	7.6	7.8	100.0	76.8	7.6	7.6	8.0	100.0	8.0
8	66.6	0.0	33.4	100.0	49.9	33.2	0.0	16.9	100.0	16.9
9, 21 <sup>a</sup>	16.6	83.3	0.1	100.0	0.0	66.6	0.0	33.4	100.0	33.4
10	80.0	0.0	70.0	100.0	40.0	50.0	0.0	10.0	100.0	10.0
11	66.6	0.0	33.4	100.0	49.9	33.3	0.0	16.8	100.0	16.8
12	83.3	0.0	16.7	100.0	66.6	16.6	0.0	16.8	100.0	16.8
13	73.6	15.7	10.7	100.0	94.7	0.0	0.0	5.3	100.0	5.3
14	57.1	28.5	14.4	100.0	28.4	28.4	0.0	43.2	100.0	43.2
15	90.0	0.0	10.0	100.0	60.0	20.0	0.0	20.0	100.0	20.0
16	100.0	0.0	0.0	100.0	60.0	40.0	0.0	0.0	100.0	0.0
17	100.0	0.0	0.0	100.0	50.0	16.6	0.0	33.4	100.0	33.4
18	80.0	0.0	20.0	100.0	60.0	40.0	0.0	0.0	100.0	0.0
19	57.1	28.5	14.4	100.0	71.3	14.2	14.2	0.3	100.0	0.3
20, 24 <sup>a</sup>	78.1	9.3	12.6	100.0	37.4	15.6	0.0	47.0	100.0	47.0
22	36.3	36.3	27.4	100.0	18.0	45.3	18.0	18.7	100.0	18.7
23	60.0	40.0	0.0	100.0	40.0	40.0	20.0	0.0	100.0	0.0
25, 26 <sup>a</sup>	58.3	25.0	16.7	100.0	33.3	33.3	8.3	25.1	100.0	25.1
All regions				100.0	44.0	25.5	4.2	25.9	100.0	25.9

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

from this factor, while 80.0 percent or more of the respondents in the combined regions 1, 2 and 3, regions 5, 7, 8, 10, 11, 12, 13, 15, 19, and 23 indicated a strong or slight influence. In the combined regions 9 and 21, two thirds (66.6 percent) of the respondents indicated a slight influence from this factor. Sixty percent of the respondents in region 23 and 63.3 percent in region 22 indicated either a slight or no (or a slight negative) influence from the local labor supply. The highest percentage (27.1) of respondents indicating no (or a slight negative) influence was in region 4. Regions 5, 8, combined 9 and 21, 10, 11, 12, 13, 14, 15, 16, 17, and combined 20 and 24 had no respondents to this particular category of influence. In combined regions 20 and 24, 47.0 percent of the managers did not rate the relative importance of local labor supply, while 43.2 percent in region 14 did not. Combined regions 9 and 21 and region 17 each had 33.4 percent of the respondents giving no rating to this factor.

Absence of Labor Unions and Strong Labor Unions. Two labor factors receiving consideration from management when contemplating a new packing plant site were the absence of labor unions in the plant-site area and presence of strong labor unions. Since the subject of labor and labor unions is so perplexing and significant in the location, operation and profits of plants, this area is being thoroughly scrutinized at Michigan State University, a co-partner in this regional project.

Table 3 shows that absence of labor unions ranked thirteenth in priority of all institutional factors as measured by the number of respondents who place this factor in the 15 most important factors. Strong labor unions ranked twenty-second in priority.

Table 7 shows that absence of labor unions received more consideration

from managers of all regions when selecting a location than strong labor unions. As shown, 39.3 percent of the 228 managers considered the former, while 30.7 percent considered the latter. Conversely, 35.0 percent of the respondents did not consider the former, whereas 50.0 percent did not consider the latter. Absence of labor unions had a higher proportion (25.7 percent) of managers not replying to the question than strong labor unions.

Figure 6 shows that both factors were similar in relative importance in influencing packing plant managers' location decisions. As shown, approximately 36.2 percent of all managers indicated a strong influence from both factors. Absence of labor unions had a slightly higher percent of managers indicating a slight influence than strong labor unions, with 16.2 and 13.6, respectively. The opposite held for no (or a slight negative) influence, with 15.8 and 11.5 percent, respectively.

Tables 9 and 10 show the total consideration and the relative importance of strong labor unions and absence of labor unions, respectively, as indicated by plant managers from the various regions. The tabulations in Table 9 show that respondents from various regions placed different emphasis on strong labor unions as a factor in their location decisions. Consideration of this factor ranged from a high of 81.6 percent of the managers in region 5 to a low of zero in region 23. In region 6 only 3.8 percent of the respondents considered it and only a slightly greater proportion (9.0 percent) considered it in region 22. Respondents indicating they did not consider this factor ranged from 84.6 percent in region 6 to none in region 5. Several other regions, i.e., 15, 16 and 23, had 80 percent of the respondents indicating they did not consider strong labor unions. Over a third of the respondents in every region said they did not consider this



factor when making a location decision, with the exceptions of regions 5, 12 and 17. Forty-eight percent of the managers in region 7 did not reply to this question and a slightly smaller proportion (43.0 percent) did not reply in region 19. Regions 15 and 16 were the only ones with every manager responding to the question. Table 9 also shows that 30.0 percent or more of the managers in every region, except regions 9 and 21 combined, 14, 15, 19, combined regions 20 and 24, and 22 indicated a strong influence from strong labor unions when selecting a plant location. Region 9 and 21 combined did not have any managers indicating a strong influence, whereas 81.7 percent of the managers in region 5 indicated a strong influence. In region 13, 78.7 percent of the respondents indicated either a strong or slight influence, while 60.0 percent of the respondents in region 23 indicated this. Sixty percent of the respondents in region 23 also indicated a slight or no (or a slight negative) influence from this factor, while 49.8 percent in the combined regions 9 and 21 indicated this. Forty percent of the respondents in regions 16 and 23 indicated no (or a slight negative) influence from strong labor unions. None of the managers in the combined regions 1, 2 and 3, 25 and 26, 5, 8, 12, and 14 classified this factor as no (or slight negative) influence. In region 14, 71.6 percent of the managers did not rate the relative importance to strong labor unions. Sixty percent of the managers in region 15 and 50.2 percent in combined regions 9 and 21, 20 and 24, and region 17 also did not give a rating for this factor. Over a third of the respondents in combined regions 1, 2 and 3, 25 and 26, 6, 7, 10, 12, and 22 also failed to indicate the relative importance of this factor.

Table 10 shows that only regions 22, 15, 13, and combined regions 1, 2 and 3 had less than 33.3 percent of their respondents considering absence of



labor unions in packing plant location decisions. The percent range of consideration was from 80.0 in region 16 to zero in regions 25 and 26 combined. Several regions had over half the respondents considering this factor, e.g., region 7 (61.5 percent), regions 10 and 17 (50.0 percent), region 11 (75.0 percent), region 19 (57.1 percent), and combined regions 20 and 24 (59.3 percent). Conversely, as few as zero percent of the managers in regions 10 and 19 to as many as 75.0 percent in combined regions 25 and 26 indicated they did not consider this factor in their location decisions. Regions 16 and 17 were the only regions with all the respondents answering the question of consideration, whereas in region 10, 50.0 percent of the respondents did not reply to the question. Forty percent of the respondents in region 18 and 42.9 percent in region 19 did not reply. Table 10 also shows that from 80.0 percent of the respondents in region 18 to 8.3 percent in combined regions 25 and 26 indicated a strong influence from this factor. Seventy-four percent in region 11 indicated this and 60.0 percent in region 16, whereas only 10.0 percent in region 15 indicated this. In region 8, 49.9 percent of the respondents said absence of labor unions slightly influenced their packing plant location decision. In region 7 only 7.6 percent of the respondents said this factor indicated a slight influence or no (or a slight negative) influence. Similarly, 10.0 in region 10, 14.2 percent in region 14, and 16.6 percent in region 11 indicated this.

Summing up this selected group of labor factors in order of priority, the local supply of labor was the most important location factor related to labor, followed by the absence of labor unions and strong labor unions.

### Community Facility Factors

Three selected institutional factors used in this survey which played a prominent role in influencing packing plant managers' selection of a plant location are related to the facilities of the plant community. This group includes (a) waste disposal facilities, (b) rail and truck transportation facilities, and (c) banking facilities.

Waste Disposal Facilities. One type of community facility which holds special interest for the prospective packing plant is the local system of waste disposal facilities. Such facilities are usually checked most carefully in relation to physical site and are essentials on which compromises are almost negligible.

Waste disposal facilities were indicated to be one of the basic factors influencing the choice of location for a packing plant. Table 3 shows that this factor ranked fourth in priority of all institutional factors.

Table 11 shows the amount of consideration given community facility factors by responding managers of all regions when selecting a location. As shown, 68.8 percent of the managers considered waste disposal facilities, while only 15.7 indicated they did not. The remaining managers (15.5 percent) did not answer the question. Thus, waste disposal facilities ranked second in consideration within the group of community facility factors.

Figure 7 shows the relative importance of the selected community facility factors in influencing packing plant managers' location decisions. As the figure shows, 60.0 percent of all managers indicated a strong influence from waste disposal facilities, 18.0 percent indicated a slight influence, and 4.8 percent indicated no (or a slight negative) influence. The remaining managers (7.2 percent) did not answer this question.

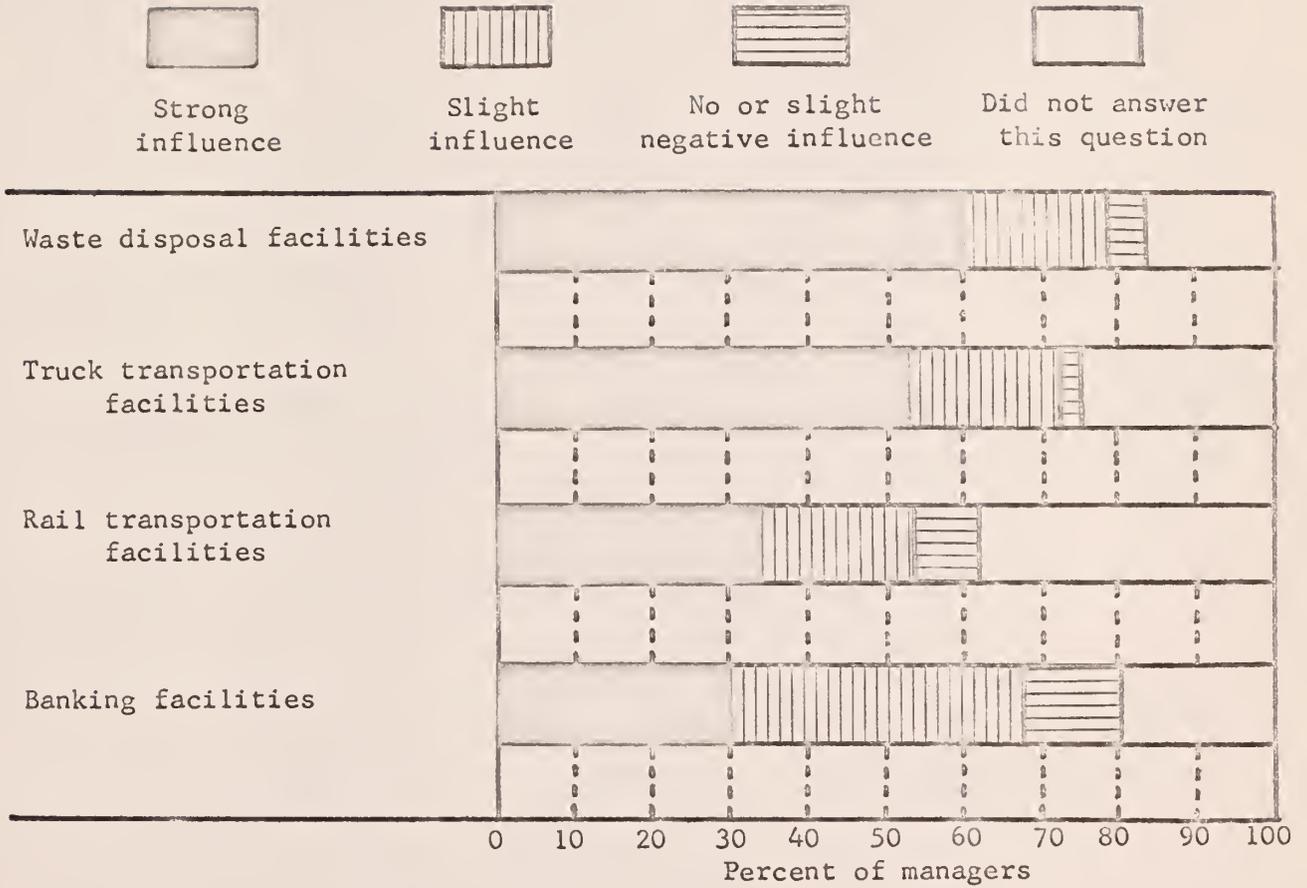


Fig. 7.--Relative importance of selected community facility factors in influencing survey packing plant managers' choice of plant location.

Table 11.--Total consideration of selected community facility factors in packing plant site selection, by responding plant managers.

Factor	: Number of managers : : considering factor :			: Percent of total : : respondent managers :			: Total	
	: Yes	: No	: No reply :	: Yes	: No	: No reply :	: Number	: Percent
Truck trans. facilities	161	29	48	70.6	12.7	16.7	228	100.0
Waste disposal facilities	157	36	35	68.8	15.7	15.5	228	100.0
Banking facilities	133	62	33	58.3	27.1	14.6	228	100.0
Rail trans. facilities	101	55	72	44.2	24.1	31.7	228	100.0

Table 12 shows the total consideration and the relative importance of waste disposal facilities as indicated by plant managers from various survey regions. The tabulations in this table show the differentiation in weights attached to this factor by respondents in packing plant location decisions. All the regions had 50.0 percent or more of the respondents indicating they considered the waste disposal facilities of the plant community, with the exception of regions 11 (41.6 percent) and 18 (40.0 percent). Ninety percent of the managers in region 4 indicated they considered this factor, 85.7 percent in region 19 and combined regions 1, 2 and 3 considered it. Region 8 had 83.3 percent of the respondents considering it. Several regions had replies from 70.0 percent or more of the respondents, e.g., regions 5 and 22 (72.7 percent), regions 6 and 7 (76.9 percent), and combined regions 20 and 24 (75.0 percent). However, in region 12, 33.3 percent of the respondents indicated they did not consider waste disposal facilities, while only a slightly smaller proportion (30.0 percent) in regions 10 and 15 indicated

Table 12.--Waste disposal facilities as a consideration in packing plant location, packing industry respondents, by region.

Regions :	Replies to this question: Was :				Relative importance attached to this factor				
	: waste disposal facilities a fac--:								
	: tor in your location decision? :				: Strong : Slight : No (or slight neg- : No rating : Total				
	Yes :	No :	No reply :	Total :	influence :	influence :	influence :	given :	
	b (percent of respondents)								
1, 2, 3 <sup>a</sup>	87.5	12.5	0.0	100.0	62.5	25.0	12.5	0.0	100.0
4	90.9	0.0	9.1	100.0	72.6	9.0	18.1	0.3	100.0
5	72.7	9.0	18.3	100.0	81.7	0.0	0.0	18.3	100.0
6	76.9	15.3	7.8	100.0	79.2	19.1	1.7	0.0	100.0
7	76.9	23.1	0.0	100.0	46.1	30.6	0.0	23.3	100.0
8	83.3	0.0	16.7	100.0	83.3	16.6	0.0	0.1	100.0
9, 21 <sup>a</sup>	50.0	16.6	33.4	100.0	33.2	16.6	16.6	43.6	100.0
10	50.0	30.0	20.0	100.0	60.0	20.0	0.0	20.0	100.0
11	41.6	25.0	33.4	100.0	58.2	16.6	0.0	35.2	100.0
12	50.0	33.3	16.7	100.0	49.9	16.6	0.0	33.5	100.0
13	68.4	15.7	15.9	100.0	73.5	5.2	10.4	10.9	100.0
14	57.1	28.5	14.4	100.0	28.5	28.4	0.0	43.1	100.0
15	60.0	30.0	10.0	100.0	50.0	30.0	0.0	20.0	100.0
16	80.0	20.0	0.0	100.0	40.0	20.0	20.0	20.0	100.0
17	66.6	16.6	16.8	100.0	49.9	0.0	16.6	33.5	100.0
18	40.0	20.0	40.0	100.0	80.0	20.0	0.0	0.0	100.0
19	85.7	0.0	14.3	100.0	71.3	14.2	0.0	14.5	100.0
20, 24 <sup>a</sup>	75.0	12.5	12.5	100.0	59.3	21.8	0.0	18.9	100.0
22	72.7	9.0	20.3	100.0	72.6	18.0	0.0	9.4	100.0
23	60.0	20.0	20.0	100.0	60.0	20.0	0.0	20.0	100.0
25, 26 <sup>a</sup>	58.3	25.0	16.7	100.0	24.9	33.2	16.6	23.3	100.0
All regions	68.8	15.7	15.5	100.0	60.0	18.0	4.8	7.2	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

this. The lowest percent (0.0) of respondents not considering this factor came from regions 4, 8, and 19. Forty percent of the respondents in region 18 did not reply to this question at all. This was followed by a slightly smaller proportion (33.4 percent) in combined regions 9 and 21 and region 11. Table 12 also shows that from 81.7 percent of the respondents in region 5 to 24.9 percent in combined regions 25 and 26 indicated a strong influence from this factor when selecting a location. All the managers in regions 8 and 18 and practically all in regions 6 (98.3 percent) and 22 (90.6 percent) indicated a strong or slight influence from this factor, while only a slightly smaller proportion (87.5 percent) in combined regions 1, 2 and 3, region 19 (85.5 percent), regions 10, 15, 23 (80.0 percent), and combined regions 20 and 24 (81.1 percent) indicated this.

In region 5 none of the respondents indicated a slight or no (or a slight negative influence from this factor, while a slightly higher proportion (16.6 percent) in regions 8, 11, 12 and 17 indicated this. Responses to no (or a slight negative) influence were limited as Table 13 shows. Forty-three percent of the respondents in combined regions 9 and 21 and region 14 did not rate this factor with a sprinkling of percents below this.

Rail and Truck Transportation Facilities. Among the many considerations influencing the location of plant facilities, transportation is usually least understood and most frequently misinterpreted. This reflects, in part, the complexity of freight rate structures and the extensive interplay of transportation charges, raw material costs, and marketing expenses.<sup>1</sup>

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<sup>1</sup>Leonard C. Yassen, Plant Location (New York: American Research Council, Inc., 1960), p. 15.

Like the investigation of livestock supply, product markets, and labor supply, a careful check of transportation facilities (rail and truck) was indicated to be a fundamental factor influencing the choice of location for a packing plant. Railroad and truck transportation facilities were deemed to be the major carriers of cattle, calves, hogs, horses, etc. Both factors were considered together under transportation facilities in Table 3 to obtain a better indication of the significance of the general topic.

Transportation facilities were ranked third in priority of all institutional factors, as shown in Table 4.

In Table 11 transportation facilities have been broken down into truck and rail facilities for comparison purposes. As shown, truck transportation facilities ranked first in consideration within the group of community facility factors, with 161 of the 228 respondents indicating they considered it. Only 12.7 percent of the respondents did not consider it and 16.7 percent did not reply to this question. Rail transportation facilities ranked last in total consideration within the group. Only 44.2 percent of the respondents considered it, 24.1 percent did not consider it, and 31.7 percent did not reply to this question. This difference in consideration between rail and truck facilities was possibly due to the present trend of industrial decentralization which is causing greater reliance on highway transportation. As one author in Harvard Business Review said: "more and more, the best location will be the one that provides the greatest number of direct single-line motor truck routes to big markets and from major supply sources."<sup>1</sup>

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<sup>1</sup>Maurice Fulton, "Plant Location--1965," Harvard Business Review, XXXIII (April, 1955), p. 48.

Figure 7 shows that 53.0 percent of all managers indicated a strong influence from truck transportation facilities. Only 32.4 percent indicated this for rail facilities. Rail facilities exceeded truck facilities in respondents indicating a slight influence, i.e., 21.9 percent and 26.6 percent, respectively. Similarly, 8.2 percent of all respondents indicated no (or a slight negative) influence from rail facilities, while 2.1 percent indicated this for truck facilities. The remaining respondents in each case did not answer the question.

Table 13 shows the total consideration of rail transportation facilities as indicated by plant managers from various survey regions. When asked if they considered rail transportation facilities when selecting a plant site, the replies to yes ranged from 84.6 percent of the respondents in region 7 to 14.2 percent in region 14. The replies of no consideration ranged from 42.8 percent in region 19 to 0.0 percent in regions 1, 2, and 3 combined, 10, 12, and 16. Regions 10, 12 and 16 all had 80.0 percent or more of the respondents indicating they considered this factor. However, regions 8, 11, 14, 15, 19 and combined regions 9 and 21, 20 and 24, and 25 and 26, all had one third or less of the respondents considering it. In region 6, 42.3 percent of the managers said they did not consider this factor, while 40.0 percent in regions 15, 18 and 23 indicated this. None of the respondents indicated they did not consider this factor in combined regions 1, 2 and 3, 10, 12 and 16. However, in combined regions 1, 2 and 3, and 25 and 26, only 50.0 percent of the managers responded to the question. Similarly, 43.8 percent of the managers in combined regions 20 and 24, 41.7 percent in region 11, and 40.0 percent in region 15 did not reply to the question. Table 13 also shows that thirteen regions i.e., combined 1, 2 and 3, 6, 8, combined 9 and 21, 11,

Table 13.--Rail transportation facilities as a consideration in packing plant location, packing industry respondents, by region.

Regions :	Replies to this question: Was :		Relative importance attached to this factor				Total
	Yes :	No :	Strong influence :	Slight influence :	No (or slight neg- influence) :	No rating given :	
	Yes :	No :	(percent of respondents) <sup>b</sup>				
1, 2, 3 <sup>a</sup>	50.0	0.0	25.0	25.0	0.0	50.0	100.0
4	54.5	9.0	45.3	18.1	0.0	36.6	100.0
5	72.7	9.0	45.3	18.1	9.0	27.6	100.0
6	38.4	42.3	22.9	19.1	15.3	42.7	100.0
7	84.6	7.6	69.1	15.3	0.0	15.6	100.0
8	33.3	33.3	16.6	66.6	0.0	16.8	100.0
9, 21 <sup>a</sup>	33.3	33.3	16.6	16.6	16.6	50.2	100.0
10	80.0	0.0	80.0	10.0	0.0	10.0	100.0
11	33.3	25.0	24.9	24.9	8.3	41.9	100.0
12	83.3	0.0	49.9	0.0	0.0	50.1	100.0
13	42.1	31.5	51.5	15.7	15.7	17.1	100.0
14	14.2	28.5	14.2	42.7	0.0	43.1	100.0
15	20.0	40.0	10.0	10.0	0.0	80.0	100.0
16	80.0	0.0	40.0	40.0	0.0	20.0	100.0
17	50.0	16.6	16.6	16.6	16.6	50.2	100.0
18	40.0	40.0	20.0	80.0	0.0	0.0	100.0
19	28.5	42.8	28.4	14.2	28.4	29.0	100.0
20, 24 <sup>a</sup>	25.0	31.2	9.3	15.6	12.4	62.7	100.0
22	45.4	18.1	18.0	27.1	9.0	45.9	100.0
23	40.0	40.0	20.0	40.0	20.0	20.0	100.0
25, 26 <sup>a</sup>	33.3	16.6	8.3	41.6	0.0	50.1	100.0
All regions	44.2	24.1	32.4	21.9	8.2	37.5	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

fourteen, 15, 17, 18, 19, combined 20 and 24, 23, and combined 25 and 26 had less than 30.0 percent of the respondents indicating a strong influence from rail transportation facilities. Region 10 had 80.0 percent of the respondents indicating this but only 10.0 percent of them indicated a slight or no (or a slight negative) influence. Respondents indicating a slight influence from this factor ranged from 80.0 percent in region 18 to none in region 12. In regions 4, 5, 7, 10, 12, 13, 15, 17, and combined 20 and 24, less than one third of the respondents indicated a slight or no (or a negative) influence from this factor. Eighty percent of the managers in region 15 did not rate this factor, while a slightly smaller proportion (50.0 percent) in combined regions 1, 2, and 3, 9 and 21, 17, and 12 did not give any rating. Combined regions 20 and 24 had 62.7 percent of the managers giving no rating for this factor.

Table 14 shows that all the managers in regions 7, 16 and 17 considered truck transportation facilities in packing plant location decisions. Only three regions, i.e., 14, 18 and 22 had fewer than 50.0 percent of the respondents considering it. Most regions had between 60.0 and 75.0 percent of the managers considering this factor. However, in regions 18 and 23, 40.0 percent of the respondents indicated they did not consider truck facilities. In region 13, only 5.2 percent of the managers did not consider this factor. One third of the respondents in regions 11 and 12 did not reply to the question of consideration. Table 14 also shows that all the respondents in region 8 and 87.5 percent in combined regions 1, 2 and 3 indicated a strong influence from this factor. In region 14, only 14.2 percent of the respondents indicated this. All the respondents in regions 7 and 18 indicated a strong or slight influence from this factor. None of the managers from regions 1, 2

Table 14.--Truck transportation facilities as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor				Total	
	Yes	No	Strong influence	Slight influence	No (or slight neg-: influence	No rating : given		
1, 2, 3 <sup>a</sup>	87.5	12.5	0.0	100.0	87.5	12.5	0.0	100.0
4	63.6	18.1	18.3	100.0	69.6	0.0	9.0	100.0
5	72.7	0.0	27.3	100.0	63.5	0.0	0.0	100.0
6	53.8	30.7	15.5	100.0	46.1	30.6	0.0	100.0
7	100.0	0.0	0.0	100.0	92.3	7.6	0.0	100.0
8	83.3	0.0	16.7	100.0	100.0	0.0	0.0	100.0
9, 21 <sup>a</sup>	66.6	16.6	16.8	100.0	16.6	49.9	0.0	100.0
10	80.0	0.0	20.0	100.0	70.0	10.0	0.0	100.0
11	66.6	0.0	33.4	100.0	58.2	24.9	0.0	100.0
12	66.6	0.0	33.4	100.0	49.9	16.6	0.0	100.0
13	73.6	5.2	21.2	100.0	68.3	15.7	5.2	100.0
14	42.8	28.5	28.7	100.0	14.2	28.5	0.0	100.0
15	60.0	20.0	20.0	100.0	40.0	10.0	0.0	100.0
16	100.0	0.0	0.0	100.0	40.0	20.0	0.0	100.0
17	100.0	0.0	0.0	100.0	33.2	33.3	0.0	100.0
18	40.0	40.0	20.0	100.0	20.0	80.0	0.0	100.0
19	71.4	14.2	14.4	100.0	71.3	0.0	0.0	100.0
20, 24 <sup>a</sup>	75.0	12.5	12.5	100.0	37.4	21.8	6.2	100.0
22	45.4	27.2	27.4	100.0	18.1	36.2	0.0	100.0
23	60.0	40.0	0.0	100.0	60.0	20.0	20.0	100.0
25, 26 <sup>a</sup>	83.3	8.3	8.4	100.0	31.6	33.3	0.0	100.0
All regions	70.6	12.7	16.7	100.0	53.0	20.6	2.1	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

and 3 combined, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 22, and 25 and 26 combined indicated no (or a slight negative) influence while only a slightly larger proportion (5.2 percent) in region 13 indicated this. The largest proportion of respondents (20.0 percent) indicating a no (or a slight negative) influence for this factor was in region 23. One third of the respondents from regions 5, 9 and 21 combined, 12, 17, 20 and 24 combined, and 25 and 26 combined did not give any rating to this factor. Fifty-seven percent of the respondents in region 14 and 40.0 percent in region 16 gave no rating to this factor.

Banking Facilities. The availability of adequate banking facilities in the surrounding area was indicated to be a prominent factor influencing managements' choice of a packing plant location.

Table 3 shows that banking facilities ranked seventh in priority of all institutional factors as measured by the number of respondents who placed this factor in the 15 most important factors.

Table 11 shows that banking facilities ranked third in total consideration by respondents from all regions. As shown, 58.3 percent of all respondents considered banking facilities in selecting a plant site, 27.1 percent did not consider it, and the remaining respondents (14.6 percent) did not answer the question.

Figure 7 shows that 30.2 percent of all respondents indicated a strong influence from banking facilities, 38.7 percent indicated a slight influence, and 12.7 percent indicated no (or a slight negative) influence. Eighteen percent of the managers did not answer the question.

Table 15 shows the total consideration and the relative importance of banking facilities indicated by plant managers from various regions. This



tabulation shows that respondents from various regions did not give equal weight to banking facilities in their location decisions. For example, from 83.3 percent of the respondents in regions 8 and 17 to 20.0 percent in region 16 indicated they considered this factor. Almost two thirds of the respondents in regions 6, 9 and 21 combined, 10, 12, 13, and 20 and 24 combined indicated this. Conversely, from 80.0 percent of the respondents in region 16 to 10.0 percent in region 15 did not consider the factor. Region 8 was the only region with no respondents indicating they did not consider the factor. One third of the respondents in region 11 did not answer the question. Table 15 also shows that the percent of managers indicating a strong influence from banking facilities ranged from 83.2 percent in region 8 to none in region 16. Most of the regions had one third or less of the respondents within the region indicating a strong influence. Banking facilities had a slight influence on as many as 80.0 percent of the respondents in regions 18 and 23 to as few as zero respondents in region 14 and 16. Eighty percent of the respondents in region 16, however, indicated no (or a slight negative) influence for banking facilities. Regions 8, 12, 15, 17, 18, 19, and 23 did not have any respondents indicating this. One third of the respondents in regions 9 and 21 combined, 15, 17, and 25 and 26 combined did not give any rating to the factor. Fifty-seven percent of the managers in region 14 gave no rating for it.

Summing up this selected group of community facility factors in order of priority, transportation facilities (rail and truck) was the most important factor related to the facilities of a community, followed by waste disposal facilities and banking facilities.

### Factors Related to Laws and Ordinances

Seven selected location factors used in this survey which are closely related to laws and ordinances are (a) water and sewage disposal regulations, (b) local tax laws, (c) state tax laws, (d) restricting city ordinances, (e) an offer to change city ordinances, (f) state inspection laws, and (g) local governments and law enforcement.

Water and Sewage Disposal Regulations. A very important factor influencing the location of a new packing plant was that of water and sewage disposal regulations.

Table 3 shows that water and sewage disposal regulations ranked fifth in priority of all institutional factors.

Table 16 shows the consideration given the factors related to laws and ordinances by responding managers from all regions when contemplating a packing plant location. As shown, 66.6 percent of the managers considered water

Table 16.--Total consideration of selected factors related to laws and ordinances in packing plant site selection by responding plant managers.

Factor	: Number of managers :			Percent of total :			Total	
	: considering factor :			respondent managers :			: _____	
	: Yes	No	No reply	: Yes	No	No reply	: Number	: Percent
Water and sewage disposal regulations	152	42	34	66.6	18.4	15.0	228	100.0
Local tax laws	118	70	40	51.7	30.7	17.6	228	100.0
Restrictive city ordinances	112	79	37	49.1	34.6	16.3	228	100.0
State tax laws	111	75	42	48.6	32.8	18.6	228	100.0
Local governments and law enforcement	90	94	44	39.4	42.2	18.4	228	100.0
State inspection laws	86	92	50	37.7	40.3	22.0	228	100.0
Offer to change city ordinances	63	114	51	27.6	50.0	22.4	228	100.0

and sewage disposal regulations, while only 18.4 percent indicated they did not. The remaining proportion (15.0 percent) did not reply. Thus, water and sewage disposal regulations ranked first in consideration within the group of related law and ordinance factors.

Figure 8 shows the relative importance of the selected factors related to laws and ordinances in influencing packing plant managers' location decisions. Careful analysis of this figure shows that 52.1 of all managers indicated a strong influence from water and sewage disposal regulations, 23.0 percent indicated slight influence, and 5.7 percent indicated no (or a slight negative) influence. The remaining 19.2 percent of the respondents did not answer this question.

Table 17 shows the total consideration and the relative importance of water and sewage disposal regulations indicated by plant managers from the various regions. Careful examination of this tabulation will show that respondents from various regions did not place the same emphasis on this factor in their location decisions. All the regions had 50.0 percent or more of the respondents indicating they considered the water and sewage disposal regulations, with the exception of region 15 (40.0 percent). All the managers in region 19 considered this factor. However, from 40.0 percent of the respondents in regions 15 and 16 to 8.3 percent in region 11 indicated they did not consider this factor. It can be pointed out 33.4 percent of the managers in region 11 did not reply to this question. It may be noted also in Table 17 that one third or more of the respondents from every region indicated a strong influence from water and sewage disposal regulations, with exception of region 14 (14.2 percent). Region 5 had as many as 81.7 percent of the respondents indicating a strong influence. In region 16, 80.0 percent

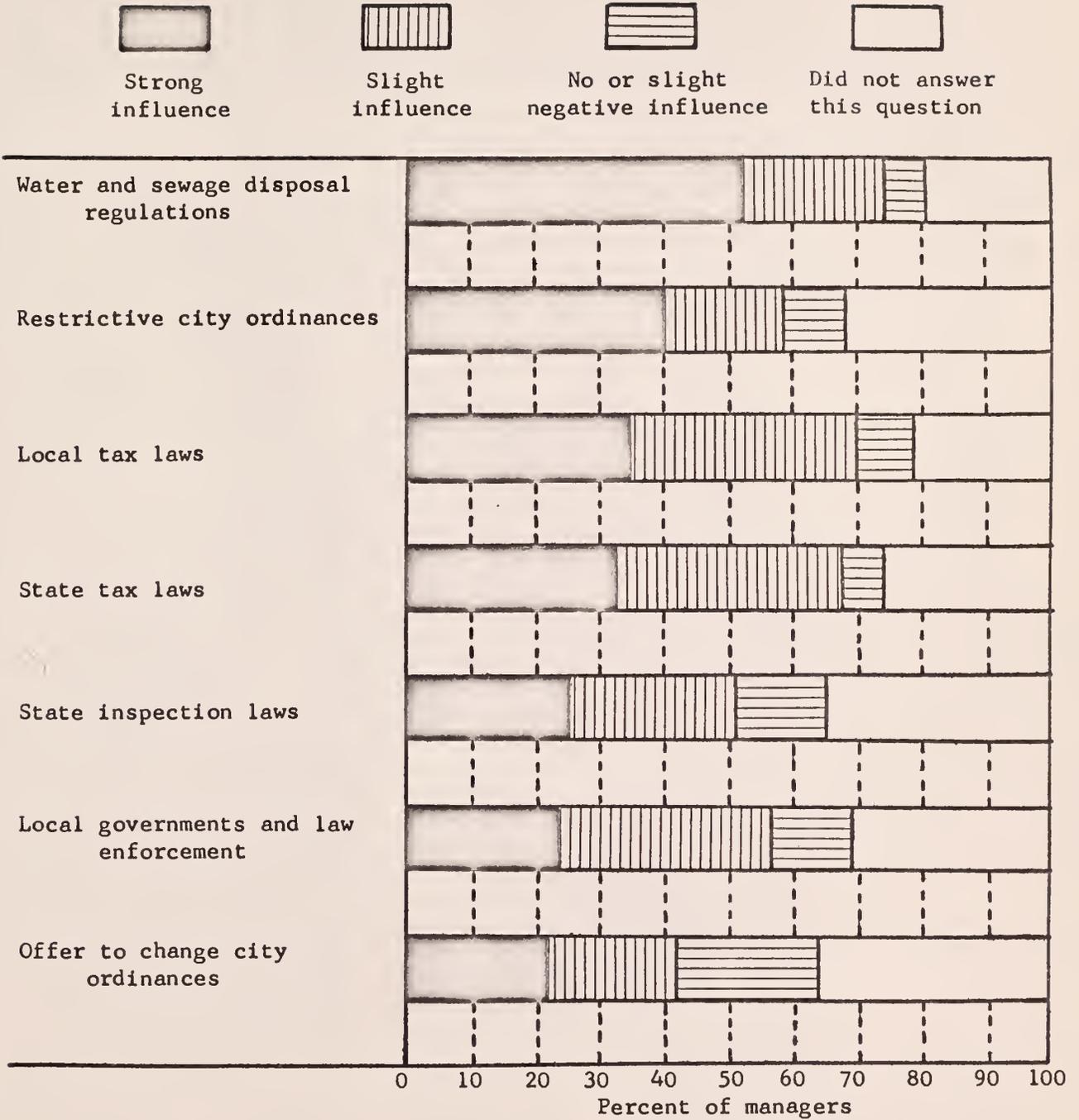


Fig. 8.--Relative importance of selected location factors related to laws and ordinances in influencing survey packing plant managers' choice of plant location.

Table 17. Water and sewage disposal regulations as a consideration in packing plant location, packing industry respondents, by region.

Regions	: Replies to this question: Was :				: Relative importance attached to this factor :				
	: water and sewage disposal :		: regulations a factor in your :		: Strong : Slight : No (or slight neg- : No rating : Total :		: influence : influence : given :		
	: location decision?				: (percent of respondents) <sup>b</sup> - - - - -				
	Yes	No	No reply	Total	Strong influence	Slight influence	No (or slight neg-) influence	No rating given	Total
1, 2, 3 <sup>a</sup>	75.0	12.5	12.5	100.0	62.0	25.0	12.5	0.5	100.0
4	72.3	18.1	9.6	100.0	72.6	9.0	18.1	0.3	100.0
5	72.3	9.0	18.7	100.0	81.7	0.0	0.0	18.3	100.0
6	73.0	23.0	4.0	100.0	61.4	23.0	0.0	15.6	100.0
7	69.2	23.0	7.8	100.0	53.7	22.9	0.0	23.4	100.0
8	66.6	16.6	16.8	100.0	66.6	33.3	0.0	0.1	100.0
9, 21 <sup>a</sup>	66.6	16.6	16.8	100.0	33.3	16.6	16.6	33.5	100.0
10	50.0	30.0	20.0	100.0	60.0	20.0	0.0	20.0	100.0
11	58.3	8.3	33.4	100.0	49.9	33.3	0.0	16.8	100.0
12	66.6	16.6	16.8	100.0	49.9	33.3	0.0	16.8	100.0
13	63.1	15.7	21.2	100.0	47.3	21.0	10.4	21.3	100.0
14	57.1	14.2	28.7	100.0	14.2	28.4	0.0	57.4	100.0
15	40.0	40.0	20.0	100.0	30.0	20.0	10.0	40.0	100.0
16	60.0	40.0	0.0	100.0	40.0	0.0	40.0	20.0	100.0
17	66.6	16.6	16.8	100.0	33.2	33.2	0.0	33.6	100.0
18	60.0	20.0	20.0	100.0	60.0	40.0	0.0	0.0	100.0
19	100.0	0.0	0.0	100.0	57.0	42.7	0.0	0.0	100.0
20, 24 <sup>a</sup>	68.7	15.6	15.7	100.0	59.3	15.5	6.2	19.0	100.0
22	63.6	18.1	18.3	100.0	36.2	45.3	9.0	9.5	100.0
23	60.0	20.0	20.0	100.0	40.0	40.0	0.0	20.0	100.0
25, 26 <sup>a</sup>	75.0	16.6	18.4	100.0	33.2	33.3	8.3	25.2	100.0
All regions	66.6	18.4	15.0	100.0	52.1	23.0	5.7	19.2	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

of the respondents indicated strong or no (or a slight negative) influence from this factor, while a slightly larger proportion (90.7 percent) in region 4 indicated this. Slight influence was indicated by as many as 45.3 percent of the managers in region 22 to as few as 0.0 percent of the managers in regions 16 and 5. Similarly, there were no respondents indicating no (or a slight negative) influence in regions 5, 6, 7, 8, 10, 11, 12, 14, 17, 18, 19, and 23. Fifty-seven percent of the respondents in region 14 and 40.0 percent in region 15 did not indicate any rating for water and sewage disposal regulations. A third of the respondents in regions 9 and 21 combined and 17 did not rate this factor.

Local and State Tax Laws. Before locating a packing plant, some time should be devoted to the exploration of the tax situation in the community and state. Among the more common types of state taxes which have an effect on packing plant location are corporation income, property, sales, unemployment compensation, and occupation or business license. Most municipalities have property taxes and one or more forms of taxes upon business, usually license taxes. Sales and income taxes are also levied by municipalities.

Table 3 shows that local tax laws exceeded state tax laws in relative importance as location factors. As shown, the former ranked ninth in total priority while the latter ranked twelfth.

Table 16 shows that local tax laws exceeded state tax laws in consideration by respondents from all regions. As the table shows, 51.7 percent of all respondents indicated they considered local tax laws, while 48.6 percent indicated they considered state tax laws. Similarly, only 30.7 percent of respondents indicated they did not consider local tax laws, while 32.8 percent indicated this for state tax laws. The remaining respondents in each

case did not answer this question. Thus, local tax laws ranked second in consideration within the group of factors related to laws and ordinances while state tax laws ranked fourth in consideration.

Figure 8 shows that 34.2 percent of the respondents indicated a strong influence from local tax laws, while 32.4 percent indicated this from state tax laws. Both factors received the same proportion of respondents (36.8 percent) indicating slight influence. Also, the same proportion (7.0 percent) indicated a no (or a slight negative influence) for both factors.

The total consideration and relative importance of local tax laws indicated by plant managers from various regions is shown in Table 18. Respondents from all regions did not give equal weight to local tax laws in plant location decisions. When asked if they considered local tax laws in their location decision, from 87.5 percent of the combined regions 1, 2, and 3 to none in region 18 indicated they did. Conversely, in region 18, 60.0 percent of the respondents said local tax laws was not a consideration, while a slightly smaller proportion (57.1 percent) in region 14 did not consider it. Half of the respondents in regions 9 and 21 combined did not consider this factor, while only 9.0 percent of the respondents in region 5 and none of the respondents in region 12 said they did not consider local tax laws. In region 18, 40.0 percent of the managers did not answer the question, whereas in regions 16 and 1, 2, and 3 combined all the managers answered the question. It can also be seen in Table 18 that 50.0 percent or less of the respondents in every region indicated a strong influence of local tax laws, with the exception of regions 1, 2 and 3 combined (62.5 percent), 4 (54.4 percent), 19 (57.0 percent) and 23 (60.0 percent). Thirty percent or more of the respondents in every region indicated a slight or no (or a slight negative)

Table 18.--Local tax laws as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor		Strong : Slight : No (or slight neg- : No rating : Total	influence : active) influence : given :			
	Yes :	No :	Yes :	No :					
1, 2, 3 <sup>a</sup>	87.5	12.5	0.0	100.0	62.5	25.0	0.0	12.5	100.0
4	72.7	18.1	9.2	100.0	54.4	36.2	9.0	0.4	100.0
5	81.8	9.0	9.2	100.0	36.2	54.4	0.0	9.4	100.0
6	46.1	46.1	7.8	100.0	46.0	22.9	7.6	23.5	100.0
7	53.8	23.0	23.2	100.0	23.0	23.0	15.3	38.7	100.0
8	66.6	16.6	16.8	100.0	33.3	33.3	16.6	16.8	100.0
9, 21 <sup>a</sup>	33.3	50.0	16.7	100.0	16.6	49.9	0.0	33.5	100.0
10	50.0	30.0	20.0	100.0	40.0	40.0	10.0	10.0	100.0
11	41.6	33.3	25.1	100.0	8.3	75.0	0.0	16.7	100.0
12	83.3	0.0	16.7	100.0	49.9	33.2	0.0	16.9	100.0
13	42.1	36.8	21.1	100.0	31.4	47.3	5.2	15.1	100.0
14	14.2	57.1	28.7	100.0	28.5	14.2	14.2	43.1	100.0
15	50.0	30.0	20.0	100.0	20.0	40.0	0.0	40.0	100.0
16	60.0	40.0	0.0	100.0	0.0	60.0	40.0	0.0	100.0
17	83.0	16.6	0.4	100.0	49.9	16.6	0.0	33.5	100.0
18	0.0	60.0	40.0	100.0	20.0	40.0	20.0	20.0	100.0
19	42.8	28.5	28.7	100.0	57.0	28.5	0.0	14.5	100.0
20, 24 <sup>a</sup>	53.1	28.1	18.8	100.0	34.3	34.3	6.2	25.2	100.0
22	36.3	36.3	27.4	100.0	18.0	36.2	0.0	45.8	100.0
23	60.0	20.0	20.0	100.0	60.0	20.0	0.0	20.0	100.0
25, 26 <sup>a</sup>	41.6	41.6	16.8	100.0	16.6	33.3	24.9	25.2	100.0
All regions	51.7	30.7	17.6	100.0	34.2	36.8	7.0	22.0	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

influence from this factor, with the exception of regions 1, 2, and 3 combined (25.0 percent), 14 (28.4 percent), 17 (16.6 percent), and 23 (20.0 percent). All the respondents in region 16 indicated no (or a slight negative) influence or a slight influence. In region 11, 75.0 percent of the managers indicated a slight influence from local tax laws. One third or more of the respondents in regions 7, 9 and 21 combined, 14, 15, 17, and 22 did not attach any relative importance to this factor.

Table 19 shows the total consideration and the relative importance of state tax laws indicated by respondent plant managers from the survey regions. As shown, over 40.0 percent of the respondents in every region said they considered state tax laws in their location decision, with the exception of regions 9 and 21 combined (33.3 percent), 22 (36.3 percent), and 23 (20.0 percent). None of the respondents in regions 14 and 18 considered this factor, however. Ninety percent of the respondents in region 5 indicated they considered this factor, while a slightly smaller proportion (83.0 percent) in region 17 considered it. Conversely, 71.4 percent of the respondents in region 14 said they did not consider state tax laws. Several other regions had a slightly smaller proportion indicating no consideration, e.g., regions 16 and 18 (60.0 percent), 9 and 21 combined (50.0 percent), 6 (42.3 percent), 23 (40.0 percent) and 25 and 26 combined (41.6 percent). In regions 18 and 23, 40.0 percent of the respondents did not answer this question. Table 20 also shows that from 66.6 percent of the managers in region 17 to zero in regions 8 and 16 said this factor strongly influenced their location decision. All the managers in region 23 and combined regions 1, 2, and 3 indicated a strong or slight influence from this factor, while only a third of the managers in region 8 indicated this. None of the managers in

Table 19.--State tax laws as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor				Total
	Yes	No	Strong influence	Slight influence	No (or slight neg-)	influence given	
	: your location decision?		: state tax laws a factor in				
	Yes	No	Total	influence	active	influence	: Total
	: No reply		(percent of respondents) <sup>b</sup>				
1, 2, 3 <sup>a</sup>	75.0	12.5	100.0	62.5	37.5	0.0	100.0
4	72.7	18.1	100.0	54.4	36.2	9.0	100.0
5	90.9	0.0	100.0	45.3	45.3	0.0	100.0
6	50.0	42.3	100.0	46.1	23.0	0.0	100.0
7	53.8	23.0	100.0	15.3	22.9	15.3	100.0
8	50.0	33.3	100.0	0.0	33.3	33.2	100.0
9, 21 <sup>a</sup>	33.3	50.0	100.0	16.6	49.9	0.0	100.0
10	50.0	30.0	100.0	30.0	50.0	10.0	100.0
11	50.0	25.0	100.0	16.6	75.0	0.0	100.0
12	66.6	16.6	100.0	49.9	33.3	0.0	100.0
13	47.3	31.5	100.0	26.2	52.5	5.2	100.0
14	0.0	71.4	100.0	14.2	28.5	14.2	100.0
15	40.0	30.0	100.0	20.0	40.0	0.0	100.0
16	40.0	60.0	100.0	0.0	60.0	40.0	100.0
17	83.0	16.6	100.0	66.6	0.0	0.0	100.0
18	0.0	60.0	100.0	20.0	40.0	20.0	100.0
19	42.8	28.5	100.0	42.7	28.5	0.0	100.0
20, 24 <sup>a</sup>	46.8	31.2	100.0	34.3	28.0	6.2	100.0
22	36.3	36.3	100.0	18.0	36.2	0.0	100.0
23	20.0	40.0	100.0	60.0	40.0	0.0	100.0
25, 26 <sup>a</sup>	41.6	41.6	100.0	16.6	33.3	24.9	100.0
All regions	48.6	32.8	100.0	32.4	36.8	7.0	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

region 17 indicated a slight influence. Only 22.9 percent of the respondents in region 7 indicated a slight influence from this factor as compared to 75.0 percent indicating this in region 11. From 40.0 percent of the respondents in region 16 to 0.0 percent in regions 1, 2, and 3 combined, 5, 6, 9 and 21 combined, 11, 12, 15, 17, 20 and 24 combined, 22, and 23 indicated no (or a slight negative) influence from state tax laws. Forty percent or more of the respondents in regions 7, 14, 15, and 22 did not attach any rating to this factor, while a slightly smaller proportion (30.0 percent) did not in regions 6, 8, 9 and 21 combined, 17, and 20 and 24 combined.

Restrictive City Ordinances. Restrictive city ordinances was indicated to be moderately important in influencing the choice of location for a packing plant. Table 3 shows that restrictive city ordinances ranked sixteenth in priority of all institutional factors. A recent location study<sup>1</sup> in the area of city ordinances disclosed that "perhaps the greatest barriers to meat packers lies in this area." Table 17 shows that 112 of the 228 respondents considered restrictive city ordinances, 79 indicated they did not. The remaining 37 respondents did not answer this question. Thus, restrictive city ordinances ranked third in consideration within the group of related law and ordinance factors.

Figure 8 shows that 40.3 percent of all managers indicated a strong influence from restrictive city ordinances, 36.0 percent indicated slight influence, and 7.8 percent indicated no (or a slight negative) influence. The remaining respondents (15.9 percent) did not answer this question.

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<sup>1</sup>Anderson, op. cit., p. 26.

The total consideration and relative importance of restrictive city ordinances indicated by respondents from various regions is shown in Table 20. All the regions had 40 percent or more of the respondents indicating they considered the restrictive city ordinances when locating a packing plant, with the exception of regions 6 (26.9 percent, 9 and 21 combined (16.6 percent), 14 (14.2 percent), 22 (27.2 percent), and 25 and 26 combined (33.3 percent). All the managers in regions 1, 2, and 3 combined said this factor was a consideration, while 90.9 percent in region 5 indicated this. However, from 71.4 percent of the respondents in region 14 to 0.0 percent in regions 1, 2, and 3 combined, 8, and 23 said they did not consider this factor. Over half of the managers in regions 6, 9 and 21 combined, 22, and 25 and 26 combined said they did not consider it. Table 20 also shows that 80.0 percent or more of the respondents in regions 5, 8, 11, 18, and 23 said this factor had a strong or slight influence on their location decision. Less than half of the managers in regions 9 and 21 combined, 14, 19, 22, and 25 and 26 combined indicated a strong or slight influence, while none of them indicated this in region 16. Sixty percent of respondents in region 16 indicated no (or a slight negative) influence, while only 6.2 percent in combined regions 20 and 24 indicated this. None of the managers in regions 1, 2, and 3 combined, 5, 7, 8, 11, 12, 14, 17, and 23 indicated no (or a slight negative) influence. In region 14, 71.6 percent of the respondents did not give a rating to restrictive city ordinances, while 66.8 percent of the managers did not. Region 18 was the only region with all the managers rating this factor.

Community Offer to Change City Ordinances. A legal inducement to meat packing plant location indicated to be of relative minor importance was an offer by the community to change the city ordinances. An offer to change city



ordinances ranked twenty-fourth in priority of all institutional factors as shown in Table 3.

Table 16 shows that an offer to change city ordinances ranked last in total consideration within the group of factors related to laws and ordinances. Only 27.6 percent of all respondents considered an offer to change city ordinances in their location decisions, while 50.0 percent indicated they did not consider this factor. Twenty-two percent of the respondents did not reply to this question.

Figure 8 shows that 21.4 percent of the respondents indicated a strong influence from an offer to change city ordinances in their location decisions, 20.0 percent indicated slight influence, and 15.3 percent indicated no (or a slight negative) influence. However, 43.3 percent of the respondents failed to answer this question.

Table 21 indicates the total consideration and relative importance of an offer to change city ordinances indicated by respondent managers from the survey regions. This tabulation shows that respondents from every region did not give equal weight to an offer to change city ordinances in packing plant location decisions. For example, 75.0 percent of the respondents in combined regions 1, 2, and 3 indicated they considered this factor, while none of the respondents in region 18 indicated this. In regions 25 and 26 combined, only 8.3 percent of the managers said they considered this factor. Conversely, over half the managers in regions 4, 5, 6, 8, 9 and 21 combined, 12, 13, 14, 15, 18, 22, and 25 and 26 indicated they did not consider this factor, while a slightly smaller proportion (40.0 percent) indicated this in regions 11, 20 and 24 combined, and 23 indicated the same. The highest percent (80.0) of respondents not considering this factor was in regions 15 and 18, while

Table 21.--Community offer to change city ordinances as a consideration in packing plant location, packing industry respondents, by regions.

Regions	: Replies to this question: Was :		: Relative importance attached to this factor :				Total		
	: a community offer to change :	: city ordinances a factor in :	: Strong :	: Slight :	: No (or slight neg- :	: No rating :			
	: Yes :	: No :	: Total :	: influence :	: influence :	: given :			
	: your location decision?								
	: Yes : No : No reply : Total : Strong : Slight : No (or slight neg- : No rating : Total								
	: influence : influence : active) influence : given : given :								
	: (percent of respondents) <sup>b</sup> -----								
1, 2, 3 <sup>a</sup>	75.0	0.0	25.0	100.0	37.5	12.5	0.0	50.0	100.0
4	27.2	54.5	18.3	100.0	36.2	9.0	27.1	27.7	100.0
5	45.4	54.5	0.1	100.0	18.0	18.0	9.0	55.0	100.0
6	19.2	61.5	19.3	100.0	26.8	15.2	7.6	50.4	100.0
7	23.0	38.4	38.6	100.0	23.0	15.3	15.3	46.4	100.0
8	33.3	50.0	16.7	100.0	33.2	33.2	0.0	33.6	100.0
9, 21 <sup>a</sup>	16.6	66.6	16.8	100.0	0.0	16.6	16.6	66.8	100.0
10	40.0	20.0	40.0	100.0	40.0	20.0	20.0	20.0	100.0
11	25.0	41.6	33.4	100.0	33.3	33.3	8.3	25.1	100.0
12	33.3	50.0	16.7	100.0	0.0	49.9	16.6	33.5	100.0
13	15.7	68.4	15.9	100.0	20.9	21.0	31.5	26.6	100.0
14	14.2	71.4	14.4	100.0	14.2	0.0	0.0	85.8	100.0
15	20.0	80.0	0.0	100.0	10.0	40.0	0.0	50.0	100.0
16	60.0	20.0	20.0	100.0	20.0	0.0	40.0	40.0	100.0
17	50.0	33.3	16.7	100.0	33.2	33.3	0.0	33.5	100.0
18	0.0	80.0	20.0	100.0	20.0	40.0	20.0	20.0	100.0
19	28.5	28.5	43.0	100.0	14.2	14.2	42.7	28.9	100.0
20, 24 <sup>a</sup>	28.1	43.7	28.2	100.0	12.4	16.0	16.0	55.6	100.0
22	18.1	54.5	27.4	100.0	0.0	36.2	9.0	54.8	100.0
23	40.0	40.0	20.0	100.0	40.0	20.0	20.0	20.0	100.0
25, 26 <sup>a</sup>	8.3	58.3	33.4	100.0	16.6	16.6	24.9	41.9	100.0
All regions	27.6	50.0	22.4	100.0	21.4	20.0	15.3	43.3	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

none of the respondents in regions 1, 2, and 3 combined considered it. Table 21 also shows that 40.0 percent or more of the managers in regions 10 and 19 did not answer this question, with a sprinkling of respondents in other regions also not replying to it. Respondents indicating a strong influence from an offer to change city ordinances were relatively few in number, e.g., none of the respondents in regions 9 and 21 combined, 12, and 22 indicated a strong influence, while the largest proportion (40.0 percent) of managers indicating this was in regions 10 and 23. In all the regions, less than half of respondents indicated a strong or slight influence from this factor, with the exception of regions 10 (60.0 percent), 11 (66.6 percent), 17 (66.5 percent), 18 (60.0 percent), and 23 (60.0 percent). None of the respondents in regions 14 and 16 indicated a slight influence. Respondents indicating no (or a slight negative) influence ranged from 42.7 percent in region 19 to 7.6 percent in region 6. In regions 1, 2, and 3 combined, 8, 14, 15, and 17, none of the managers indicated no (or a slight negative) influence. It should also be pointed out in Table 21 that over half of the respondents in regions 1, 2, and 3 combined, 5, 6, 9 and 21 combined, 14, 15, 20 and 24 combined, and 22 did not rate this factor, while 80.0 percent or more of the managers in regions 10, 18, and 23 did rate this factor.

State Inspection Laws. State inspection laws applying to meat packing plants ranked about moderately important as a location factor to packing plants.

Table 3 shows that state inspection laws ranked eighteenth in priority of all institutional factors.

Within the group of factors related to laws and ordinances, state inspection laws ranked next to last in consideration. Only 37.7 percent

of the respondents considered state inspection laws, 40.3 percent said they did not consider it, and 22.0 percent did not answer this question.

Figure 8 shows that 26.7 percent of the respondents indicated a strong influence from state inspection laws, 25.0 percent indicated slight influence, and 14.4 percent indicated no (or a slight negative) influence. The remaining managers (33.9 percent) did not answer this question.

Table 22 shows the total consideration and the relative importance of state inspection laws indicated by plant managers from various regions. As shown, the replies to consideration ranged from 100.0 percent of the managers in region 17 to zero in regions 18 and 23. Conversely, from 80.0 percent of the respondents in regions 18 and 23 to zero in region 17 said they did not consider this factor. In region 10, half of the managers did not reply with either a yes or no to this question, while 43.0 percent of managers in region 19 did not. Table 22 also shows that only 27.2 percent of the respondents in region 5, 33.2 percent in region 8, 30.0 percent in region 10, 28.4 percent in region 14, and 24.9 percent in regions 25 and 26 combined indicated a strong or slight influence from this factor, while in regions 16 and 18, 80.0 percent and 90.0 percent, respectively, indicated a strong or slight influence. None of the respondents in region 19 indicated a strong influence. Response to no (or a slight negative) influence ranged from 45.3 percent of the managers in region 4 to zero in regions 1, 2, and 3 combined, 9 and 21 combined, 12, 14, and 17. In region 14, 71.6 percent of the respondents did not attach any rating to this factor, while a slightly smaller proportion (60.0 percent) in regions 10 and 15 did not. Regions 16 and 18 were the only regions with all the respondents indicating a rating for this factor.

Table 22.--State inspection laws as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor				Total		
	Yes	No	Total	Strong influence	Slight influence	No (or slight neg-) influence			
1, 2, 3 <sup>a</sup>	62.5	12.5	25.0	100.0	37.5	25.0	0.0	37.5	100.0
4	36.3	54.5	9.2	100.0	27.1	9.0	45.3	18.6	100.0
5	36.3	54.5	9.2	100.0	0.0	27.2	18.1	54.7	100.0
6	34.6	53.8	11.6	100.0	38.4	26.8	3.8	31.0	100.0
7	30.7	38.4	30.9	100.0	0.0	30.6	22.9	46.5	100.0
8	33.3	33.3	33.4	100.0	16.6	16.6	16.6	50.2	100.0
9, 21 <sup>a</sup>	33.3	50.0	16.7	100.0	33.2	33.3	0.0	33.5	100.0
10	20.0	30.0	50.0	100.0	10.0	20.0	10.0	60.0	100.0
11	41.6	41.6	16.8	100.0	33.3	33.3	16.6	16.8	100.0
12	50.0	33.3	16.7	100.0	16.6	66.6	0.0	16.8	100.0
13	42.1	42.1	15.8	100.0	31.4	21.0	20.9	26.7	100.0
14	14.2	71.4	14.4	100.0	14.2	14.2	0.0	71.6	100.0
15	40.0	40.0	20.0	100.0	40.0	10.0	10.0	60.0	100.0
16	80.0	20.0	0.0	100.0	40.0	40.0	20.0	0.0	100.0
17	100.0	0.0	0.0	100.0	33.3	33.3	0.0	33.4	100.0
18	0.0	80.0	20.0	100.0	80.0	10.0	10.0	0.0	100.0
19	42.8	14.2	43.0	100.0	0.0	57.1	14.2	28.7	100.0
20, 24 <sup>a</sup>	46.8	18.7	34.5	100.0	37.5	15.5	6.2	40.8	100.0
22	27.2	36.3	36.5	100.0	18.1	27.1	9.0	45.8	100.0
23	0.0	80.0	20.0	100.0	20.0	20.0	40.0	20.0	100.0
25, 26 <sup>a</sup>	16.6	66.6	16.8	100.0	16.6	8.3	41.6	33.5	100.0
All regions	37.7	40.3	22.0	100.0	26.7	25.0	14.4	33.9	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

Local Governments and Law Enforcement. The final factor related to laws and ordinances involved in this survey was that of local governments and law enforcement. Results of this survey indicated this factor to be moderately important as an institutional location factor to packing plant location. Table 3 shows that local governments and law enforcement ranked nineteenth in priority of all 29 institutional factors.

Table 16 shows that local governments and law enforcement ranked fifth in consideration by responding plant managers. As shown, 111 of the 228 managers said they considered this factor, while 75 said they did not consider it. The remaining 42 managers did not answer this question.

Figure 8 shows that 23.2 percent of all managers indicated a strong influence from local governments and law enforcement, 32.8 percent indicated slight influence, and 12.7 percent indicated no (or a slight negative) influence.

Table 23 shows the total consideration and relative importance of local governments and law enforcement indicated by respondents within the various regions. This tabulation shows that all the managers in region 17 considered this factor, whereas none of the managers in regions 9 and 21 combined and 14 considered it. Regions 6, 10, 18, 22, 23, and 25 and 26 combined were the only regions with less than one third of the respondents indicating this factor was a consideration in their location decisions. However, 66.6 percent and 71.4 percent of the respondents in these regions, respectively, said they did not consider this factor. Only 14.2 percent of the managers in region 19 said it was not a consideration, while regions 16, 18, and 23 had 60.0 percent of the respondents indicating it was not a consideration. Forty-three percent of the respondents in region 19 did not indicate whether

Table 23.--Local governments and law enforcement as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor				Total
	Yes	No	Strong influence	Slight influence	No (or slight neg- : ative) influence	No rating : given	
	enforcement a factor in your location decision?		percent of respondents) <sup>b</sup>				
	Yes	No	Total	Strong influence	Slight influence	No (or slight neg- : ative) influence	No rating : given
1, 2, 3 <sup>a</sup>	50.0	25.0	100.0	37.5	12.5	0.0	50.0
4	36.3	45.4	100.0	27.1	9.0	45.3	18.6
5	72.7	18.1	100.0	45.3	36.2	9.0	9.5
6	23.0	61.5	100.0	26.8	26.8	7.6	38.8
7	46.1	30.7	100.0	15.3	46.1	0.0	38.6
8	50.0	33.3	100.0	16.6	33.2	16.6	33.6
9, 21 <sup>a</sup>	0.0	66.6	100.0	0.0	33.3	16.6	50.1
10	20.0	40.0	100.0	30.0	10.0	10.0	50.0
11	41.6	33.3	100.0	16.6	58.3	16.6	8.5
12	50.0	33.3	100.0	16.6	66.6	0.0	16.8
13	47.3	36.8	100.0	21.0	42.0	15.7	21.3
14	0.0	71.4	100.0	14.2	0.0	14.2	71.6
15	60.0	30.0	100.0	20.0	20.0	10.0	50.0
16	40.0	60.0	100.0	40.0	20.0	40.0	0.0
17	100.0	0.0	100.0	16.6	50.0	0.0	33.4
18	20.0	60.0	100.0	40.0	20.0	40.0	0.0
19	42.8	14.2	100.0	28.5	14.2	28.4	28.9
20, 24 <sup>a</sup>	46.8	37.5	100.0	21.8	37.4	6.2	34.6
22	27.2	36.3	100.0	18.0	36.2	18.0	27.8
23	20.0	60.0	100.0	20.0	80.0	0.0	0.0
25, 26 <sup>a</sup>	25.0	58.3	100.0	16.6	16.6	24.9	41.9
All regions	39.4	42.2	100.0	23.2	32.8	12.7	31.3

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

this factor was or was not a consideration, while one third of the respondents in regions 9 and 21 combined, and 22 did not reply. Table 23 also shows that the largest proportion (45.3 percent) of managers indicating a strong influence from local governments and law enforcement was in region 5, while the smallest proportion (0.0 percent) was in regions 9 and 21 combined. In region 23 all the respondents indicated a strong or slight influence from this factor, while regions 5 (81.5 percent), 11 (74.9 percent), and 12 (83.2 percent) had a smaller proportion indicating this. The respondents to no (or a slight negative) influence ranged from 45.3 percent in region 4 to zero in regions 1, 2, and 3 combined, 7, 12, 17, and 23. Half of the respondents in regions 1, 2, and 3 combined, 9 and 21 combined, 10, and 15 did not indicate any rating for this factor, while 71.6 percent of the respondents in region 14 did not. One third of the respondents in regions 6, 7, 8, 17, and 20 and 24 combined did not indicate any rating for this factor.

Summing up the group of factors related to laws and ordinances in order of priority, the most important factor was water and sewage disposal regulations. The next most important factor was local tax laws, followed by state tax laws, restrictive city ordinances, state inspection laws, an offer to change the city ordinances, and local governments and law enforcement. It should be pointed out that local and state tax laws had little relevance to packing plant location. This was precisely what John D. Garwood contended in his article in the National Tax Journal in reference to industrial location in general.<sup>1</sup>

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<sup>1</sup>John D. Garwood, "Taxes and Industrial Location," National Tax Journal (December, 1952), p. 365.

## Financial Aid and Concession Factors

Due to the intense geographic competition for new industry, increasing numbers of communities and states are turning annually to subsidization schemes of one type or another to attract industry. These subsidies have one common denomination, i.e., their purpose--to serve as catalyst for industrial development in the area concerned.

Seven selected location factors which served as legal subsidies to packing plants were included in this study under the heading of financial aids and concessions. They were: (1) special property tax concessions, (2) other tax concessions, (3) community offer of buildings free, (4) community offer of buildings with low payments, (5) free sites, (6) cash gift, and (7) low interest rate loans.

Special Property Tax Concessions. One of the more unimportant concessions used to attract meat packing plants was special property tax concessions, despite the fact that this factor was one of the first industrial development incentives employed by states and localities.<sup>1</sup>

Table 3 shows that special property tax concessions ranked twentieth in priority of all institutional factors in this study.

Table 24 shows the consideration given the selected financial aid and concession factors by responding managers from all regions in packing plant site selection. From this tabulation, it can be seen that only 26.3 percent of all respondents considered special property tax concessions, while 51.7

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<sup>1</sup>New York State Department of Commerce, The Use of Public Funds or Credit in Industrial Location, Department of Commerce, Research Bulletin No. 6 (Albany, New York: State of New York, 1964), p. 2.

percent did not consider it. The remaining respondents (22.0 percent) did not answer this question.

Table 24. Total consideration of selected financial aid and concession factors in packing plant site selection, by responding plant managers.

Factor	: Number of managers : Percent of total			: considering factor : respondent managers			: Total	
	: Yes	No	No reply	: Yes	No	No reply	: Number	: Percent
Low interest rate loans	85	91	52	37.2	39.9	22.9	228	100.0
Special property tax concessions	60	118	50	26.3	51.7	22.0	228	100.0
Offer buildings with low payments	52	109	56	22.8	47.8	29.4	228	100.0
Offer buildings free	32	119	77	14.0	52.1	33.9	228	100.0
Free site	23	129	76	10.0	56.5	33.5	228	100.0
Other tax concessions	22	101	105	9.6	44.2	46.2	228	100.0
Cash gift	21	137	70	9.2	60.0	30.8	228	100.0

Figure 9 shows the relative importance of the selected financial aid and concession factors in influencing packing plant managers' location decisions. As the figure shows, 22.8 percent of all managers said special property tax concessions strongly influenced their choice of site, 26.7 percent reported a slight influence, and 14.4 percent indicated no (or a slight negative) influence. The remaining respondents (22.0 percent) did not answer this question.

Table 25 shows the total consideration and relative importance of special property tax concessions indicated by respondents from various regions. The percentage of managers considering this factor when selecting a plant location ranged from 66.6 in region 12 to zero in region 23. All the regions had one third or less of the respondents indicating this factor

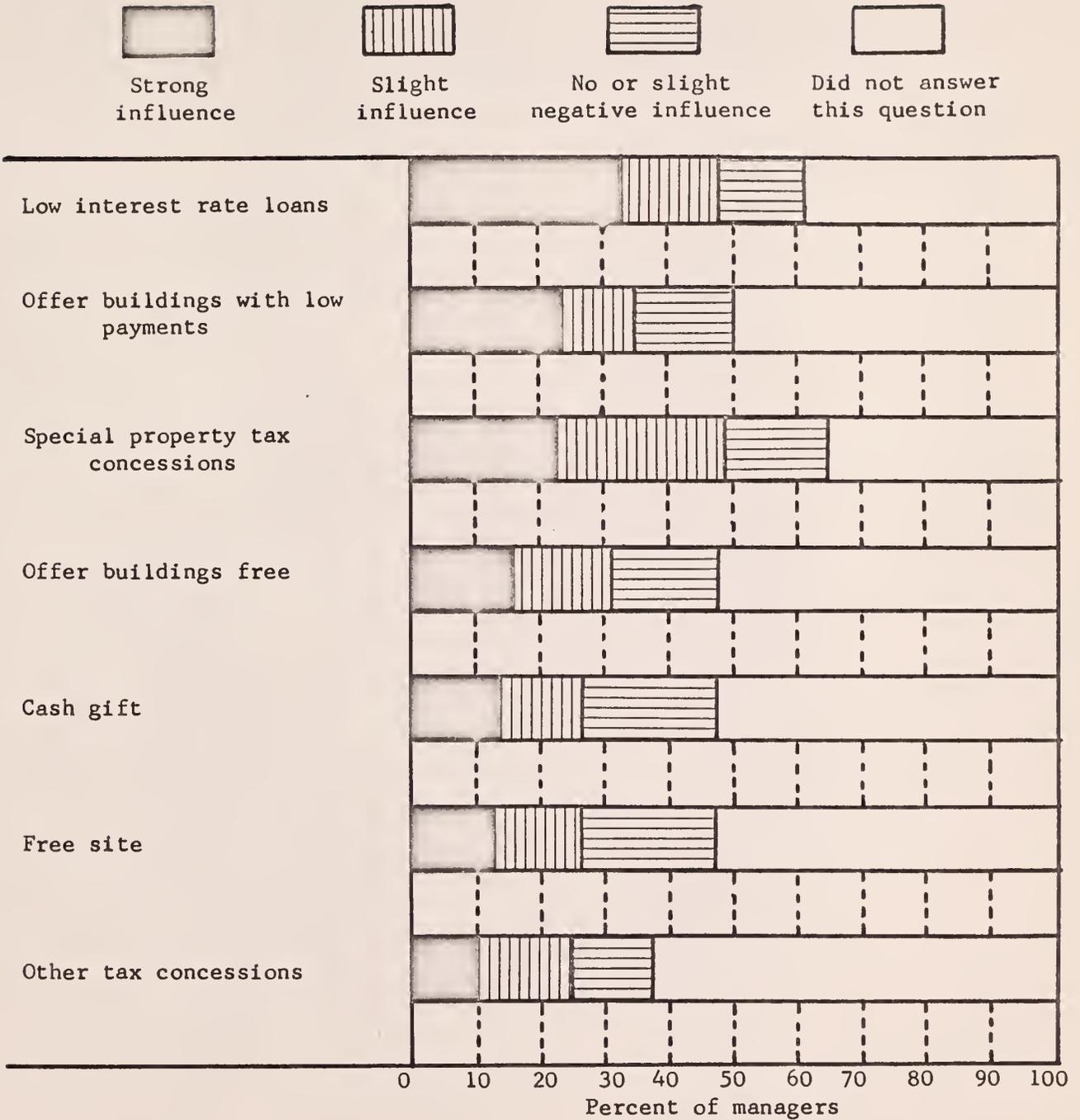


Fig. 9.--Relative importance of selected financial aid and concession factors in influencing survey packing plant managers' choice of plant location.

Table 25.--Special property tax concessions as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :			Relative importance attached to this factor			Total
	special property tax concessions a factor in your location decision?	Yes	No	Strong influence	Slight influence	No (or slight neg-) influence	
	Yes	No	Total	influence	influence	influence	given
	----- (percent of respondents) ----- <sup>b</sup> -----						
1, 2, 3 <sup>a</sup>	37.5	37.5	100.0	49.5	0.0	0.0	50.5
4	18.1	63.6	100.0	27.2	27.1	18.0	27.7
5	63.6	36.4	100.0	27.1	45.3	18.1	9.5
6	23.0	57.6	100.0	30.6	11.4	15.2	42.8
7	38.4	38.4	100.0	22.9	30.6	7.6	38.9
8	33.3	33.3	100.0	33.2	0.0	16.6	50.2
9, 21 <sup>a</sup>	33.3	50.0	100.0	0.0	16.6	16.6	66.8
10	20.0	60.0	100.0	10.0	40.0	10.0	40.0
11	8.3	66.6	100.0	16.6	58.3	16.6	8.5
12	66.6	16.6	100.0	16.6	49.9	0.0	33.5
13	21.0	63.1	100.0	26.2	31.5	20.9	21.4
14	14.2	57.1	100.0	14.2	14.2	0.0	71.6
15	10.0	70.0	100.0	0.0	30.0	0.0	70.0
16	40.0	60.0	100.0	0.0	40.0	60.0	0.0
17	50.0	50.0	100.0	49.9	16.6	0.0	33.5
18	20.0	60.0	100.0	20.0	60.0	0.0	20.0
19	42.8	14.2	100.0	28.4	28.4	14.2	29.0
20, 24 <sup>a</sup>	25.0	53.1	100.0	25.0	18.7	9.3	47.0
22	18.1	27.2	100.0	9.0	36.2	9.0	45.8
23	0.0	80.0	100.0	40.0	20.0	20.0	20.0
25, 26 <sup>a</sup>	8.3	75.0	100.0	8.3	8.3	49.9	33.5
All regions	26.3	51.7	100.0	22.8	26.7	14.4	36.1

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

was a consideration, with the exception of regions 1, 2, and 3 combined (37.5 percent), 5 (63.6 percent), 7 (38.4 percent), 12 (66.6 percent), 16 (40.0 percent), 17 (50.0 percent), and 19 (42.8 percent). On the other hand, as many as 80.0 percent of the respondents in region 23 said they did not consider this factor, while 75.0 percent of the respondents in combined regions 25 and 26 said the same. The remaining regions all had half or more of the respondents indicating they did not consider this factor, with the exception of regions 1, 2, and 3 combined (37.5 percent), 5 (36.4 percent), 7 (38.4 percent), 8 (33.3 percent), 12 (16.6 percent), 19 (14.2 percent), and 22 (27.2 percent). Forty-three percent of the respondents in region 19 did not answer this question, while 57.4 percent of the respondents in region 22 did not. Table 25 also shows that less than half of the respondents in every region indicated a strong influence from this factor, with the range of replies being from 49.9 percent of the managers in region 17 to zero in regions 9 and 21 combined, 15, and 16. Respondents indicating slight influence ranged from 60.0 percent in region 18 to zero in regions 1, 2, and 3 combined, and 8. In region 16, all the managers indicated a slight or no (or a slight negative) influence from this factor, while regions 5, 10, 11, 12, 13, 18, 19, and 25 and 26 combined had at least half of the respondents indicating this. All the regions had one fifth of the respondents indicating no (or a slight negative) influence from this factor, except regions 13 (20.0 percent), 16 (60.0 percent), and 25 and 26 combined (49.9 percent). However, in region 14, 71.6 percent of the managers did not indicate any relative importance for this factor. Seventy percent of the respondents in region 15 did not reply to this question, while many regions had over one third of the respondents not rate this factor, e.g., region 7 (38.9 percent), 12, 17, and 25 and 26

combined (33.5 percent). Half of the respondents in regions 1, 2, and 3 combined and 8 did not rate this factor.

Other Tax Concessions. The least important institutional location factor to packing plant location was indicated to be other tax concessions. Other tax concessions includes concessions for taxable items like income, license, sales, gross receipts, motor fuel, and etc.

Table 3 shows that other tax concessions ranked last, i.e., twenty-ninth in priority of all institutional factors.

Table 24 shows that other tax concessions ranked next to last in consideration within the group of financial aid and concession factors. Only 9.6 percent of all respondents said they considered other tax concessions in their location decision, while 44.2 percent said they did not consider it. However, it should be noted also that 46.2 percent of the managers did not answer this question.

Figure 9 shows that only 10.9 percent of all respondents indicated a strong influence from other tax concessions, 15.0 percent indicated slight influence, and 13.1 percent indicated no (or a slight negative) influence. However, 61.0 percent of the respondents did not answer this question.

The relative importance and total consideration of other tax concessions indicated by respondents from various regions is shown in Table 26. The tabulations in this table show that this factor was not considered by very many managers in various regions. For example, region 5 had the highest proportion (36.3 percent) of respondents indicating they considered this factor in their location decision. Region 12, with 33.3 percent, had the second largest proportion of managers considering this factor. The smallest proportion (0.0 percent) came from regions 4, 8, 9 and 21 combined, 14, 18, 19,

Table 26.--Other tax concessions as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor				Total		
	Yes	No	Strong influence	Slight influence	No (or slight neg- : influence	given			
	: in your location decision?		: other tax concessions a factor :						
	Yes	No	Total	influence	active	influence			
	: No reply		: (percent of respondents) <sup>b</sup>						
1, 2, 3 <sup>a</sup>	12.5	25.0	62.5	100.0	25.0	0.0	12.5	62.5	100.0
4	0.0	54.5	45.5	100.0	9.0	18.0	18.1	54.9	100.0
5	36.3	54.5	9.2	100.0	18.0	27.1	18.1	36.8	100.0
6	11.5	34.6	53.9	100.0	15.3	11.5	3.8	69.4	100.0
7	7.6	38.4	54.0	100.0	7.6	15.2	7.6	69.6	100.0
8	0.0	33.3	66.7	100.0	16.6	0.0	16.6	66.8	100.0
9, 21 <sup>a</sup>	0.0	83.3	16.7	100.0	0.0	16.6	16.6	66.8	100.0
10	10.0	10.0	80.0	100.0	20.0	20.0	0.0	60.0	100.0
11	8.3	50.0	41.7	100.0	16.6	33.3	16.6	33.5	100.0
12	33.3	16.6	50.1	100.0	0.0	50.0	0.0	50.0	100.0
13	5.2	68.4	26.4	100.0	26.2	10.5	31.5	31.8	100.0
14	0.0	71.4	28.6	100.0	0.0	0.0	14.2	85.8	100.0
15	10.0	50.0	40.0	100.0	0.0	20.0	0.0	80.0	100.0
16	20.0	40.0	40.0	100.0	0.0	20.0	20.0	60.0	100.0
17	16.6	50.0	33.4	100.0	0.0	0.0	0.0	100.0	100.0
18	0.0	40.0	60.0	100.0	0.0	20.0	0.0	80.0	100.0
19	0.0	14.2	85.8	100.0	14.2	14.2	14.2	57.4	100.0
20, 24 <sup>a</sup>	12.5	37.5	50.0	100.0	21.8	3.1	9.3	65.8	100.0
22	9.0	36.3	54.7	100.0	0.0	27.1	9.0	63.9	100.0
23	0.0	40.0	60.0	100.0	0.0	0.0	20.0	80.0	100.0
25, 26 <sup>a</sup>	0.0	66.6	33.4	100.0	8.3	0.0	41.6	50.1	100.0
All regions	9.6	44.2	46.2	100.0	10.9	15.0	13.1	61.0	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

twenty-three, and 25 and 26 combined. However, the proportion of managers indicating they did not consider other tax concessions ranged from 83.3 percent of the managers in regions 9 and 21 combined to 10.0 percent in region 10. Over half of the managers in regions 4, 5, 13, 14, 15, 17, and 25 and 26 combined indicated this factor was not a consideration. In regions 16, 18, and 23, 40.0 percent of the respondents did not consider this factor. However, in region 19, 85.8 percent of the managers did not answer this question, while region 10 had 80.0 percent of the managers failing to respond to this question. All the regions, with the exception of regions 5, 9 and 21 combined, 13, and 14, had one third or more of the respondents not replying to this question. Table 26 also shows that very few respondents attached any relative importance to other tax concessions. For example, the range of respondents indicating a strong influence from this factor was from 26.2 percent in region 13 to zero in regions 9 and 21 combined, 12, 14, 15, 16, 17, 18, 22, and 23. The range for slight influence was from 50.0 percent in region 12 to zero in regions 1, 2, and 3 combined, 8, 14, 17, 23, and 25 and 26 combined. Responses to no (or slight negative) influence ranged from 41.6 percent of the managers in regions 25 and 26 combined to zero in regions 10, 12, 15, 17, and 18. Every region had half or more of the respondents not rating this factor, with the exception of regions 5 (36.8 percent), 11 (33.5 percent), and 13 (31.8 percent). All of the managers in region 17 failed to rate this factor.

Offer Buildings Free or with Low Payments. The entire subject of offering buildings, i.e., offering buildings free or with low payments played an insignificant role in influencing location decisions of packing plant managers as indicated by this study.

Whenever it is considered imperative that an existing building be acquired to house a new packing plant, this requirement constitutes an important limiting factor in the selection of both community and site. However, the inducements of offering buildings free or with low payments are often successful in attracting a packing plant when significant savings can be realized.

Table 3 shows that offering buildings free or with low payments ranked twenty-fifth in priority of all institutional factors.

Within the group of financial aid and concession factors, offering buildings has been divided into its two component parts, i.e., offering buildings free and offering buildings with low payments for comparison purposes in Table 24. As shown, offering buildings with low payments received more consideration than offering buildings free, i.e., 22.8 percent of the respondents said they considered the former, while only 14.0 percent considered the latter. Forty-seven percent of the respondents said they did not consider an offer of buildings with low payments, while 52.1 percent did not consider an offer of buildings free.

Figure 9 shows that an offer of buildings with low payments strongly influenced relatively more plant managers than an offer of free buildings. As shown, 23.3 of the respondents indicated a strong influence from an offer of buildings with low payments, while only 16.0 percent indicated this for an offer of free buildings. Twelve percent of the respondents indicated a slight influence from the former, while 14.9 percent indicated this for the latter. For no (or a slight negative) influence, the respondents were about equal with 16.2 indicating this for an offer of buildings with low payment and 16.6 percent for an offer of free buildings.

Table 27 shows the total consideration and relative importance of a community offer of buildings with low payments indicated by respondents from various regions. This tabulation shows that from 80.0 percent of the managers in region 16 to 8.3 percent in regions 25 and 26 combined said they considered this factor. In regions 1, 2, and 3 combined, 62.5 percent of the respondents said this factor was a consideration, while half the managers in region 17 indicated this. The remaining regions had less than one third of the respondents indicating this factor was a consideration. In regions 25 and 26 combined, 75.0 percent of the respondents indicated this factor was not a consideration in their location decision, while over 50.0 percent of the respondents in regions 5 (54.5 percent), 6 (61.5 percent), 7 (53.8 percent), 8 (66.6 percent), 10, 12, 15, and 17 (50.0 percent), and 13 (52.6 percent) indicated it was not considered. None of the managers in region 14 and 16 indicated it was not considered, while only 12.5 percent of the managers in combined regions 1, 2, and 3 indicated this. Seventy-one percent of the respondents in region 14 did not answer this question, while regions 9 and 21 combined, 10, 18, 19, 22, and 23 had 40.0 percent or more respondents not answering. Table 27 also shows that the percentage range of respondents indicating a strong influence from this factor ranged from 36.7 in region 13 to zero in regions 15 and 16. In region 6, only 19.2 percent of the respondents indicated slight and no (or a slight negative) influence from this factor, while a slightly higher proportion (25.0 percent) in regions 1, 2, and 3 combined indicated this. In region 14, none of the respondents indicated slight and no (or a slight negative) influence, while 60.0 percent of the respondents in regions 16 and 23 did. The largest proportion of managers indicating a slight influence from this factor was 40.0 percent in



regions 16 and 18. The smallest proportion was 0.0 percent in regions 6, 14, 19, and 25 and 26 combined. For no (or a slight negative) influence, the range was from 42.7 percent of the respondents in region 19 to 0.0 percent in regions 1, 2, and 3 combined, 12, 14, 17, and 18. Eighty percent of the managers in region 15 did not attach any relative importance to this factor, while region 14 had 71.5 percent. Regions 1, 2, and 3 combined, 7, 10, and 17 had over 60.0 percent of the respondents not rating this factor.

Table 28 shows the total consideration and relative importance of a community offer of free buildings indicated by respondents from various regions. Tabulations in this table show that every region had less than one fifth of the respondents indicating they considered this factor in their location decision, with the exception of regions 1, 2, and 3 combined (50.0 percent), 5 (36.3 percent), 14 (42.8 percent), and 16 (40.0 percent). None of the managers in regions 8, 12, 15, 18, 23, and 25 and 26 combined said this factor was a consideration, whereas from 83.7 percent of the respondents in region 8 to 12.5 percent in combined regions 1, 2, and 3 indicated this factor was not considered. Half or more of the respondents in regions 9 and 21 combined, 19, and 23 did not answer this question. Table 28 also shows that up to one third of the respondents in every region indicated a strong influence from this factor, with the exception of region 18 (40.0 percent). Regions 9 and 21 combined, 15, 16, 22, and 23 did not have any managers indicating a strong influence, while combined regions 25 and 26 had only 8.3 percent of the respondents indicating this. Half of the managers in regions 9 and 21 combined indicated a slight influence from this factor, 3.8 percent in region 6 said this, and none of the managers in regions 17, 19, and 25 and 26 combined indicated this. The range of responses to no (or a slight

Table 28.--Community offer of buildings free as a consideration in packing plant location, packing industry respondents, by region.

Regions	: Replies to this question: Was :				: Relative importance attached to this factor			
	: a community offer of buildings :		: free a factor in your location :		: decision?		: decision?	
	Yes	No	No reply	Total	Strong influence	Slight influence	No (or slight neg- : influence :	No rating : Total
	Yes	No	No reply	Total	influence	influence	influence	given
	: (percent of respondents) <sup>b</sup>							
1, 2, 3 <sup>a</sup>	50.0	12.5	37.5	100.0	12.5	12.5	0.0	75.0
4	18.1	54.5	27.4	100.0	27.1	18.0	27.1	27.8
5	36.3	45.4	18.3	100.0	18.1	9.0	18.0	54.9
6	3.8	61.5	34.7	100.0	23.0	3.8	19.2	54.0
7	15.3	53.8	30.9	100.0	7.6	7.6	30.6	54.2
8	0.0	83.3	16.7	100.0	16.6	33.2	16.6	33.6
9, 21 <sup>a</sup>	16.6	33.3	50.1	100.0	0.0	49.9	16.6	33.5
10	10.0	50.0	40.0	100.0	20.0	20.0	10.0	50.0
11	16.6	41.6	41.8	100.0	33.3	16.6	8.3	41.8
12	0.0	66.6	33.4	100.0	16.6	33.3	0.0	50.1
13	15.7	57.8	26.5	100.0	31.4	10.5	21.0	37.1
14	42.8	14.2	43.0	100.0	14.2	14.2	0.0	71.6
15	0.0	60.0	40.0	100.0	0.0	10.0	10.0	80.0
16	40.0	40.0	20.0	100.0	0.0	40.0	20.0	40.0
17	16.6	50.0	33.4	100.0	33.3	0.0	0.0	66.7
18	0.0	80.0	20.0	100.0	40.0	20.0	0.0	40.0
19	14.2	28.5	57.3	100.0	28.5	0.0	28.5	43.0
20, 24 <sup>a</sup>	12.5	50.0	37.5	100.0	12.5	12.4	12.4	62.7
22	9.0	63.6	27.4	100.0	0.0	18.1	18.1	63.8
23	0.0	40.0	60.0	100.0	0.0	20.0	40.0	40.0
25, 26 <sup>a</sup>	0.0	75.0	25.0	100.0	8.3	0.0	33.3	58.4
All regions	14.0	52.1	33.9	100.0	16.6	14.9	16.6	51.9

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

negative) influence was from 40.0 percent of the respondents in region 23 to 0.0 percent in regions 1, 2, and 3 combined, 12, 14, 17, and 18. However, 80.0 percent of the respondents in region 15, 75.0 percent in regions 1, 2, and 3 combined, and 71.6 percent in region 14 did not attach any relative importance to an offer of free buildings. The remaining regions had one third or more of the respondents not indicate any rating for this factor, with the exception of region 4 (27.8 percent).

Free Site and Cash Gift. Two inducements once used extensively to attract industry primarily in small and medium sized towns and cities are the offer of a free site or free use of vacant land and the cash bonus or outright gift of a sum of money. For years, the cash bonus was the inducement most commonly held out by communities to attract industry, primarily in the 1930's, when the justification of attempting to lure the manufacturer by this means was that the community, as a whole, profited by having more people employed and hence more money put into circulation.

Results from this survey indicated that these inducements were insignificant to packing plant location. This is illustrated by Table 3, which shows that the factors of free site and cash gift ranked twenty-seventh and twenty-eighth in priority within the group of institutional factors.

Table 24 shows that the factor free site received consideration from two more respondents than cash gift, i.e., 23 of the 228 respondents indicated they considered a free site, while 21 respondents indicated consideration for cash gift. One hundred and twenty-nine managers said they did not consider the former, while 137 indicated this for the latter. The remaining respondents, i.e., 76 for free site and 70 for cash gift, did not answer this question.

Figure 9 shows that respondents indicated about equal relative influence from cash gift and free site. Twelve percent of the respondents indicated a strong influence from free site and 13.0 percent from cash gift. Fourteen percent of the respondents indicated a slight influence from cash gift and 15.0 percent from free site, while 21.0 percent of the respondents indicated no (or a slight negative) influence from both cash gift and free site, respectively.

Table 29 shows the total consideration and the relative importance of a free site as indicated by respondents from various regions. The tabulations in this table show that very few managers considered a free site in their location decision, e.g., from 37.5 percent of the respondents in regions 1, 2, and 3 combined to none in regions 6, 14, 15, 18, 22, 23, and 25 and 26 combined considered this factor. Conversely, 91.6 percent of the respondents in regions 25 and 26 combined said they did not consider it, while a slightly smaller proportion (80.0 percent) in region 18 indicated no consideration. All the regions had at least half of the respondents indicating no consideration, with the exception of regions 1, 2, and 3 combined (37.5 percent), 5 (45.4 percent), 9 and 21 combined (33.3 percent), 14 (42.8 percent), and 19 (28.5 percent). Several regions, i.e., 9 and 21 combined, 14, and 19 had over half of the respondents not answering this question. Table 29 also shows that the proportion of managers from various regions indicating a strong influence from a free site were relatively small, e.g., not more than one third of the managers in any region indicated a strong influence. Regions 9 and 21 combined and 12 each had 33.3 percent of the respondents indicating a strong influence, while regions 15, 22, 23, and 25 and 26 combined did not have any managers indicating slight influence. Only 3.8

Table 29.--Free site as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor		Total
	Yes	No	Strong influence	Slight or slight neg- influence	
1, 2, 3 <sup>a</sup>	37.5	37.5	12.5	0.0	87.5
4	18.1	54.5	27.1	18.0	27.8
5	36.3	45.4	27.1	18.0	45.9
6	0.0	69.2	19.1	23.0	54.1
7	15.3	53.8	7.6	30.6	54.2
8	0.0	66.6	16.6	16.6	33.6
9, 21 <sup>a</sup>	16.6	33.3	33.3	16.6	33.5
10	10.0	50.0	20.0	10.0	60.0
11	16.6	50.0	16.6	16.6	33.5
12	16.6	50.0	33.3	0.0	66.7
13	10.5	63.1	31.4	5.2	26.7
14	0.0	42.8	14.2	14.2	71.6
15	0.0	70.0	0.0	10.0	80.0
16	20.0	60.0	20.0	20.0	40.0
17	16.6	66.6	16.6	0.0	83.4
18	0.0	80.0	20.0	0.0	40.0
19	14.2	28.5	14.2	42.7	43.1
20, 24 <sup>a</sup>	9.3	62.5	9.3	18.7	53.4
22	0.0	63.6	0.0	18.0	64.0
23	0.0	60.0	0.0	40.0	0.0
25, 26 <sup>a</sup>	0.0	91.6	0.0	49.9	50.1
All regions	10.0	56.5	12.0	21.0	52.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

percent of the respondents in region 6 indicated a slight influence from this factor. Region 23 had 60.0 percent of the respondents indicating slight influence. None of the respondents in regions 1, 2, and 3 combined, 12, 17, 19, and 25 and 26 combined indicated slight influence. From 49.9 percent of the respondents in regions 25 and 26 combined to 0.0 percent in regions 1, 2, and 3, 12, 14, 17, and 18 indicated no (or a slight negative) influence from this factor. In regions 1, 2, and 3 combined, 87.5 percent of the respondents did not attach any rating to this factor, while a slightly smaller proportion (83.4 percent) in region 17 did not either. Region 23 was the only region with all the managers answering this question.

Table 30 shows the relative importance and total consideration of a cash gift indicated by respondents from various regions. As shown, none of the managers in regions 8, 9 and 21 combined, 12, 14, 15, 17, 18, 22, 23, and 25 and 26 combined indicated this factor was a consideration. Regions 20 and 24 combined had the highest proportion (40.6 percent) of respondents indicating it was a consideration, while region 6 had only 3.8 percent indicating this. However, as many as 91.6 percent of the respondents in regions 25 and 26 combined said they did not consider a cash gift, while the smallest proportion (28.5 percent) indicating this was from region 19. All the regions, excepting region 19, had over one third of the respondents indicating this factor was not a consideration. Table 30 also shows that the proportion of managers not answering this question was relatively high in some regions, e.g., regions 19 (57.3 percent), 14 (57.2 percent), and 9 and 21 combined (50.0 percent). The proportion of respondents indicating a strong influence from this factor ranged from 31.1 percent in combined regions 20 and 24 to zero in regions 12, 15, 17, and 23. In region 23, 80.0

Table 30.--Cash gift as a consideration in packing plant location, packing industry respondents, by regions.

Regions	: Replies to this question: Was :				: Relative importance attached to this factor			
	: a cash gift a factor in your :				: location decision?			
	Yes	No	Total	No reply	Strong influence	Slight influence	No (or slight neg- : influence	No rating : Total
	Yes	No	Total	No reply	influence	influence	influence	given
	: (percent of respondents) <sup>b</sup>							
1, 2, 3 <sup>a</sup>	37.5	37.5	100.0	25.0	12.5	12.5	0.0	75.0
4	18.1	54.5	100.0	27.4	18.0	27.1	27.1	27.8
5	27.2	54.5	100.0	18.3	27.1	9.0	18.0	45.9
6	3.8	65.3	100.0	30.9	19.1	3.8	23.0	54.1
7	23.0	46.1	100.0	30.9	7.6	15.3	30.6	46.5
8	0.0	66.6	100.0	33.4	16.6	33.2	16.6	33.6
9, 21 <sup>a</sup>	0.0	50.0	100.0	50.0	16.6	16.6	16.6	50.2
10	10.0	50.0	100.0	40.0	20.0	10.0	10.0	60.0
11	8.3	58.3	100.0	33.4	8.3	25.0	24.9	41.8
12	0.0	66.6	100.0	33.4	0.0	33.3	0.0	66.7
13	5.2	73.6	100.0	21.2	15.7	10.4	42.0	31.9
14	0.0	42.8	100.0	57.2	14.2	14.2	0.0	71.6
15	0.0	70.0	100.0	30.0	0.0	10.0	10.0	80.0
16	20.0	60.0	100.0	20.0	20.0	20.0	20.0	40.0
17	0.0	66.6	100.0	33.4	0.0	0.0	0.0	0.0
18	0.0	80.0	100.0	20.0	20.0	40.0	0.0	40.0
19	14.2	28.5	100.0	57.3	14.2	14.2	42.7	28.9
20, 24 <sup>a</sup>	40.6	34.3	100.0	25.1	31.1	12.4	12.4	44.1
22	0.0	72.7	100.0	27.3	9.0	9.0	9.0	73.0
23	0.0	60.0	100.0	40.0	0.0	40.0	40.0	20.0
25, 26 <sup>a</sup>	0.0	91.6	100.0	8.4	8.3	0.0	41.6	50.1
All regions	9.2	60.0	100.0	30.8	13.0	14.0	21.0	52.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percents based upon respondent managers from each region.

percent of the managers indicated a slight and no (or a slight negative) influence from a cash gift, while none of the managers in region 17 indicated this. The range of responses to slight influence was from 40.0 percent in regions 18 and 23 to 0.0 percent in regions 17, and 25 and 26 combined. The range for no (or a slight negative) influence was from 42.7 percent of the respondents in region 19 to zero in regions 1, 2, and 3 combined, 12, 14, 17, and 18. All the regions had over one third of the respondents attaching no relative importance to this factor, with the exception of regions 4 (27.8 percent), 17 (0.0 percent), 19 (28.9 percent), and 23 (20.0 percent).

Low Interest Rate Loans. The most important financial and concession factor involved in this study was low interest rate loans. Such loans could be obtained from such agencies as state-chartered development credit corporations, state industrial finance authorities, banks and others.

Within the group of institutional location factors used in this survey, this factor ranked fifteenth in priority, as Table 3 indicates.

The significance of this factor within the group of financial aid and concession factors is shown in Table 24. As Table 24 shows, low interest rate loans ranked first within the group in consideration by managers from all regions with 37.2 percent consideration. Slightly more, i.e., 39.9 percent, did not consider this factor. The remaining proportion (22.9 percent) did not answer this question.

Figure 9 shows that 37.7 percent of all respondents indicated a strong influence from low interest rate loans. This was the largest proportion of respondents indicating a strong influence for any factor within the group of related factors. Fifteen percent of the managers indicated a slight influence from this factor and 11.8 percent indicate no (or a slight negative)

influence. The remaining 35.5 percent did not answer this question.

Managers' responses in regards to consideration and relative importance of low interest rate loans from various regions are shown in Table 31. The responses to the amount of consideration given this factor when selecting a site ranged from 75.0 percent in combined regions 20 and 24 to 14.2 percent in region 14. All the regions had one third or more of the respondents indicating they considered this factor, with the exception of regions 14 (14.2 percent), 15 (20.0 percent), 18 (20.0 percent), 22 (18.1 percent), and 23 (20.0 percent). The percentage of managers not considering this factor ranged from 60.0 percent in regions 18 and 23 to 0.0 percent in region 19. In region 19, 42.9 percent of the respondents did not answer this question. When asked if this factor strongly influenced their location choice, managers' responses ranged from 52.5 percent in region 13 to 10.0 percent in region 15. For slight influence, the responses ranged from 45.3 percent in region 22 to none in region 17. The last category of influence, i.e., no or slight negative, had responses ranging from 49.9 percent in the combined regions 25 and 26 to zero in regions 1, 2, and 3 combined, 9 and 21 combined, 12, 14, 17, 18, and 19. None of the respondents in region 17 indicated a slight influence. Seventy-one percent of the respondents in region 14 did not rate this factor, while regions 1, 2, and 3 combined, 7, 15, 17, and 19 had half or more of the respondents not rating this factor.

Summing up the group of financial aid and concession factors in order of priority, this survey indicated that low interest rate loans was the most important factor affecting the location of a packing plant. This was succeeded in priority by special property tax concessions, offering buildings free or with low payments, free site, cash gift, and other tax concessions,



respectively.

### Cost Factors

Management is generally aware that the subject of costs and location factors related to costs in any plant location decision can be interpreted from many angles. Management is also conscious of the fact that major cost factors vary from region to region throughout the nation. Nevertheless, an important group of cost factors to be considered when contemplating a location of a new packing plant includes the following factors: (1) high and low labor costs within the area, (2) high and low land prices within the area, and (3) state inspection costs.

High and Low Labor Rates Within Area. The cost of labor is obviously an important element in the location of any packing plant even though, as packing plant processes become more automatic, the labor input for a unit or product diminishes. This study indicated that labor rates (both high and low) were especially significant as location factors to packing plant location. This is shown in Table 3, whereby the subject of labor rates ranked second in priority within the group of institutional factors.

Table 32 shows the consideration given each selected cost factor by responding managers from all 26 regions in packing plant site selection. As the table shows, low labor rates received consideration from 48.2 percent of all managers, which placed it first in consideration within the group. Only 17.1 percent of the managers indicated they did not consider this factor. High labor rates received consideration from 35.5 percent of all managers, while 19.2 percent indicated they did not consider this factor. Thirty-four percent of the respondents did not answer this question for low labor rates,

Table 32. Total consideration of selected cost factors in packing plant site selection, by responding plant managers.

Factor	: Number of managers :			Percent of total :			Total	
	: considering factor :			respondent managers :			Number	Percent
	Yes	No	No reply	Yes	No	No reply		
Low labor rates within area	110	39	79	48.2	17.1	34.7	228	100.0
Low land prices within area	82	51	95	35.9	22.3	41.8	228	100.0
High labor rates within area	81	44	93	35.5	19.2	45.3	228	100.0
State inspection costs	71	112	45	31.1	49.1	19.8	228	100.0
High land prices	65	66	97	28.5	28.9	42.6	228	100.0

while 45.3 percent did not answer for high labor rates.

Figure 10 shows the relative importance of the selected cost factors in influencing packing plant managers' choice of plant location. As shown, 38.6 of all managers indicated a strong influence from low labor rates, 12.0 percent indicated a slight influence, and 4.8 percent indicated no (or a slight negative) influence. Figure 10 also shows that 32.9 percent of all managers indicated high labor rates strongly influenced their choice of plant site, 12.2 percent indicated it slightly influenced their choice, and 4.8 percent indicated no (or a slight negative) influence from this factor.

Table 33 shows a more detailed analysis of low labor rates in terms of the total consideration and relative importance as indicated by respondents from various regions. Tabulations in this table show that the proportion of managers indicating consideration of this factor ranged from 84.6 percent in region 7 to 0.0 percent in region 23. All the regions had over one third of the respondents considering this factor, with the exception of combined regions 1, 2, and 3 (25.0 percent), 12 (16.6 percent), and 25 and 26 combined

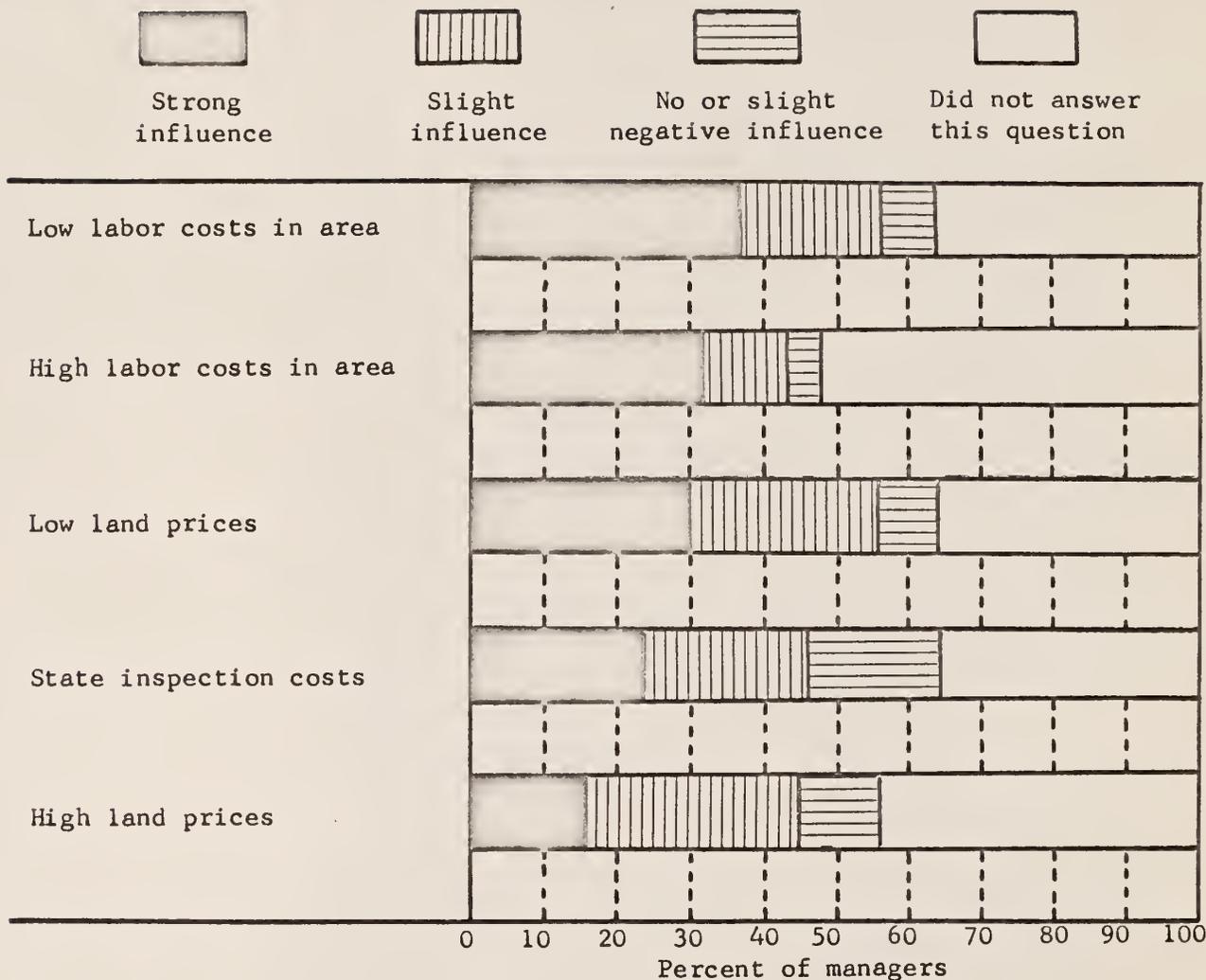


Fig. 10.--Relative importance of selected location factors related to costs and prices in influencing survey packing plant managers' choice of plant location.

Table 33.--Low labor rates as a consideration in packing plant location, packing industry respondents, by region.

Regions	: Replies to this question: Was :				Relative importance attached to this factor				
	: low labor rates a factor in :				:				
	: your location decision?				: Strong : Slight : No (or slight neg- : No rating : Total				
	Yes :	No :	No reply :	Total :	influence :	influence :	influence :	given :	
	----- (percent of respondents) b -----								
1, 2, 3 <sup>a</sup>	25.0	25.0	50.0	100.0	37.5	12.5	0.0	50.0	100.0
4	36.3	36.3	27.4	100.0	18.0	18.1	18.1	45.8	100.0
5	45.4	9.0	45.6	100.0	27.1	18.0	9.0	45.9	100.0
6	57.6	26.9	15.5	100.0	34.5	30.6	7.6	27.3	100.0
7	84.6	7.6	7.8	100.0	61.4	22.9	7.6	8.1	100.0
8	66.6	0.0	33.4	100.0	66.6	16.6	0.0	16.8	100.0
9, 21 <sup>a</sup>	33.3	33.3	33.4	100.0	33.3	16.6	0.0	50.1	100.0
10	60.0	0.0	40.0	100.0	50.0	10.0	0.0	40.0	100.0
11	33.3	25.0	41.7	100.0	58.3	8.3	8.3	25.1	100.0
12	16.6	33.3	50.1	100.0	33.2	0.0	0.0	66.8	100.0
13	42.1	15.7	42.2	100.0	42.0	20.9	0.0	37.1	100.0
14	57.1	14.2	28.7	100.0	28.4	28.4	0.0	43.2	100.0
15	40.0	20.0	40.0	100.0	20.0	30.0	0.0	50.0	100.0
16	80.0	20.0	0.0	100.0	20.0	60.0	20.0	0.0	100.0
17	83.3	0.0	16.7	100.0	66.6	0.0	0.0	33.4	100.0
18	80.0	0.0	20.0	100.0	20.0	80.0	0.0	0.0	100.0
19	71.4	0.0	28.6	100.0	42.7	14.2	14.2	28.9	100.0
20, 24 <sup>a</sup>	50.0	15.6	34.4	100.0	50.0	0.0	3.1	46.9	100.0
22	45.4	18.1	36.5	100.0	27.2	18.1	18.1	36.6	100.0
23	0.0	0.0	100.0	100.0	20.0	40.0	0.0	40.0	100.0
25, 26 <sup>a</sup>	8.3	25.0	66.7	100.0	8.3	0.0	25.0	66.7	100.0
All regions	48.2	17.1	34.7	100.0	38.6	12.0	4.8	44.6	100.0

<sup>a</sup>When response was light in contiguous regions, several were combined.

<sup>b</sup>Percentages based upon respondent managers from each region.

(eight and three tenths percent). On the other hand, from 36.3 percent of the managers in region 4 to 0.0 percent in regions 8, 10, 17, 18, 19, and 23 indicated this factor was not a consideration. Table 33 also shows that less than two thirds of the respondents in every region indicated a strong influence from low labor rates, with the proportions ranging from 66.6 percent of the managers in region 8 to 8.3 percent in combined regions 25 and 26. All the managers in region 18 indicated a strong and slight influence from this factor, while only 8.3 percent of the respondents in combined regions 25 and 26 indicated this. From 80.0 percent of the managers in region 10 to zero in regions 12, 17, 20 and 21 combined, and 25 and 26 combined indicated a slight influence, while from 25.0 percent of the managers in combined regions 25 and 26 to zero in regions 1, 2, and 3 combined, 8, 9 and 21 combined, 10, 12, 13, 14, 15, 17, 18, and 23 indicated no (or a slight negative) influence. One half or more of the respondents in regions 1, 2 and 3 combined, 9 and 21 combined, 12, 15, and 25 and 26 did not attach any rating to this factor.

Table 34 shows the total consideration and relative importance of high labor rates as indicated by respondents from various regions. As shown, the proportion of managers indicating high labor rates was a consideration in their location decision ranged from 66.6 percent in regions 8 and 12 to 14.2 percent in region 14. Conversely, from 41.6 percent of the respondents in regions 25 and 26 combined to zero in regions 8, 10, 18, 19, and 23 indicated they did not consider it. Eighty percent of the managers in region 18, 71.6 percent in region 14, 70.0 percent in region 15, 62.5 percent in regions 1, 2 and 3 combined, and 60.0 percent in regions 10, and 23 did not answer this question. Table 34 also shows that all the managers in region 8 indicated a strong and slight influence from high labor rates, whereas one third or less

Table 34.--High labor rates as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor		Total				
	Yes	No	high labor rates a factor in your location decision?	high labor rates a factor in your location decision?					
	Yes	No	Total	Strong influence	Slight influence	No (or slight neg- : No rating : Total			
	Yes	No	reply	influence : active)	influence :	given :			
	--- (percent of respondents) <sup>b</sup> ---								
1, 2, 3 <sup>a</sup>	25.0	12.5	62.5	100.0	25.0	0.0	12.5	62.5	100.0
4	36.3	18.1	45.6	100.0	45.3	0.0	0.0	54.7	100.0
5	45.4	27.2	27.4	100.0	54.4	9.0	0.0	36.6	100.0
6	19.2	34.6	46.2	100.0	23.0	19.1	7.6	50.3	100.0
7	38.4	23.0	38.6	100.0	30.6	7.6	7.6	54.2	100.0
8	66.6	0.0	33.4	100.0	83.3	16.6	0.0	0.1	100.0
9, 21 <sup>a</sup>	33.3	33.3	33.4	100.0	16.6	49.9	0.0	33.5	100.0
10	40.0	0.0	60.0	100.0	30.0	0.0	0.0	70.0	100.0
11	16.6	33.3	50.1	100.0	33.3	8.3	8.3	50.1	100.0
12	66.6	16.6	16.8	100.0	33.2	0.0	0.0	66.8	100.0
13	57.8	10.5	31.7	100.0	57.8	21.0	5.2	16.0	100.0
14	14.2	14.2	71.6	100.0	14.2	14.2	0.0	71.6	100.0
15	20.0	10.0	70.0	100.0	20.0	10.0	0.0	70.0	100.0
16	20.0	40.0	40.0	100.0	0.0	40.0	20.0	40.0	100.0
17	50.0	16.6	33.4	100.0	16.6	16.6	0.0	66.8	100.0
18	20.0	0.0	80.0	100.0	20.0	0.0	0.0	80.0	100.0
19	57.1	0.0	42.9	100.0	28.4	14.2	0.0	57.4	100.0
20, 24 <sup>a</sup>	28.1	18.7	53.2	100.0	34.3	3.1	3.1	59.5	100.0
22	36.3	9.0	54.7	100.0	36.3	9.0	9.0	45.7	100.0
23	40.0	0.0	60.0	100.0	20.0	20.0	0.0	60.0	100.0
25, 26 <sup>a</sup>	50.0	41.6	8.4	100.0	25.0	16.6	16.6	41.8	100.0
All regions	35.5	19.2	45.3	100.0	22.9	12.2	4.8	50.1	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percentages based upon respondent managers from each region.

of the respondents in regions 1, 2 and 3 combined, 10, 12, 14, 15, 17, and 18 indicated this. None of the managers in region 16 indicated a strong influence from this factor while regions 1, 2 and 3 combined, 4, 10, 12, and 18 had no respondents indicating slight influence. The proportion of managers indicating no (or a slight negative) influence ranged from 20.0 percent in region 16 to 0.0 percent in regions 4, 5, 8, 9 and 21 combined, 10, 12, 14, 15, 17, 18, 19, and 23. All the regions had over one third of the respondents not attaching any relative importance to this factor, with the exception of region 8 (0.1 percent).

High and Low Land Prices. How much should a company pay for industrial and what constitutes high and low land prices are questions faced by every site seeker. There is no simple answer to either of these. It has been said<sup>1</sup> that if land is to be purchased at a minimum cost, some local resident should be taken into the company's confidence to purchase a tract as if he wanted it for his own purposes. This is particularly important in rural areas which tend to inflate prices when prospective plants are in the need of land.

This study showed that the entire subject of land prices, including both high and low land prices was moderately important as location factors to packing plant location. This is shown in Table 3, where land prices ranked tenth in priority of the institutional factors.

Table 32 shows consideration of the component parts of the subject of land prices, i.e., low land prices and high land prices for comparison purposes. As shown, low land prices received consideration from more

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<sup>1</sup>Yaseen, op. cit., p. 157.

respondents than high land prices, i.e., 35.9 percent of all respondents indicated they considered low land prices in their location decision while 28.5 percent indicated this for high land prices. Thus, the latter ranked last in consideration within the group of cost factors while the former ranked second. Twenty-two percent of the respondents indicated low land prices was not a consideration while 28.9 percent indicated this for high land prices.

Figure 10 shows that high land prices was relatively unimportant in influencing managers' location decisions. Only 16.2 percent of all managers indicated that this factor strongly influenced their choice of site. Twenty-eight percent said it slightly influenced their choice, and 11.8 percent indicated no (or a slight negative) influence. It should be noted that within the group of cost factors, high land prices received the largest proportion (28.2 percent) of managers indicating an influence from these selected factors. The remaining 44.0 percent of the respondents did not answer this question. Figure 10 also shows that 30.6 percent of all respondents indicated a strong influence from low land prices, 26.7 percent indicated slight influence, and 7.0 percent indicated no (or a slight negative) influence. The remaining 35.7 percent did not answer this question.

Table 35 shows the managers' responses to consideration and the relative importance of high land prices from various regions. As shown, the percentage replies indicating consideration of this factor ranged from 66.6 in region 12 to zero in region 18. Most of the regions had less than one third of the respondents indicating consideration, with the exception of region 5 (54.5 percent), 12 (66.6 percent), 13 (36.8 percent), 15 (40.0 percent), and 25 and 26 combined (50.0 percent). The proportion of managers indicating they

Table 35.--High land prices as a consideration in packing plant location, packing industry respondents, by region.

Regions	: Replies to this question: Was :		Relative importance attached to this factor						
	Yes	No	Strong influence	Slight influence	No (or slight neg- : Total	No rating : Total			
	: your location decision?		: influence : active) influence : given :						
	Yes	No	Total	: (percent of respondents) <sup>b</sup>					
1, 2, 3 <sup>a</sup>	12.5	37.5	50.0	100.0	0.0	37.5	0.0	62.5	100.0
4	27.2	36.3	36.5	100.0	27.1	27.1	0.0	45.8	100.0
5	54.5	18.1	27.4	100.0	18.0	27.1	18.1	36.8	100.0
6	19.2	23.0	57.8	100.0	22.9	15.2	3.8	58.1	100.0
7	33.7	46.1	20.2	100.0	7.6	22.9	15.3	54.2	100.0
8	33.3	50.0	16.7	100.0	33.3	66.6	0.0	0.1	100.0
9, 21 <sup>a</sup>	16.6	66.6	16.8	100.0	16.6	33.3	16.6	33.5	100.0
10	20.0	30.0	50.0	100.0	0.0	30.0	10.0	60.0	100.0
11	8.3	41.6	50.1	100.0	16.6	24.9	16.3	42.2	100.0
12	66.6	0.0	33.4	100.0	33.3	16.6	0.0	50.1	100.0
13	36.8	31.5	31.7	100.0	36.8	10.4	15.7	37.1	100.0
14	14.2	14.2	71.6	100.0	14.2	14.2	0.0	71.6	100.0
15	40.0	20.0	40.0	100.0	10.0	10.0	20.0	60.0	100.0
16	20.0	40.0	40.0	100.0	20.0	0.0	40.0	40.0	100.0
17	33.3	0.0	66.7	100.0	16.6	16.6	0.0	66.8	100.0
18	0.0	20.0	80.0	100.0	0.0	40.0	20.0	40.0	100.0
19	28.5	28.5	43.0	100.0	28.4	28.5	14.2	28.9	100.0
20, 24 <sup>a</sup>	31.5	21.8	46.7	100.0	15.6	15.5	9.3	59.6	100.0
22	27.2	18.1	54.7	100.0	0.0	18.0	27.1	54.9	100.0
23	20.0	60.0	20.0	100.0	0.0	60.0	20.0	20.0	100.0
25, 26 <sup>a</sup>	50.0	33.3	16.7	100.0	0.0	41.6	25.0	33.4	100.0
All regions	28.5	28.9	42.6	100.0	16.2	28.0	11.8	44.0	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percentages based upon respondent managers from each region.

did not consider this factor ranged from 66.6 percent in regions 9 and 21 combined to 0.0 percent in regions 12 and 17. Region 18 had 80.0 percent of the respondents not replying to this question while several other regions had over one half or more of the respondents not replying, i.e., regions 1, 2 and 3 combined and 10 and 11 (50.0 percent), 6 (57.8 percent), 14 (71.6 percent), 17 (66.7 percent), and 22 (54.7 percent). Table 35 also shows that less than one third of all the respondents in every region indicated a strong influence from high land prices with the exception of region 13 (36.8 percent). Region 7 only had 7.6 percent of the respondents indicating strong influence while regions 1, 2 and 3 combined, 10, 18, 22, 23, and 25 and 26 had no respondents indicating strong influence. The proportion of managers indicating slight influence ranged from 66.6 percent in region 8 to 0.0 percent in region 16. The range of responses to no (or a slight negative) influence was from 40.0 percent of the managers in region 16 to 0.0 percent in regions 1, 2 and 3 combined, 4, 8, 12, 14, and 16. Several regions, i.e., 1, 2 and 3 combined, 6, 7, 10, 12, 14, 15, 17, 20 and 24 combined, and 22 had one half or more of the respondents not attaching any rating to this factor.

Table 36 shows the relative importance and consideration of low land prices indicated by plant managers from various regions. Briefly, the responses to consideration of this factor ranged from 83.3 percent of the respondents in region 17 to 0.0 percent in regions 9 and 21 combined. Conversely, regions 9 and 21 combined had the largest proportion (50.0 percent) of respondents indicating they did not consider this factor, while region 22 had the smallest, i.e., 9.0 percent. Almost every region had over 40.0 percent of the respondents not answering this question, with the exception of regions 7 (7.8 percent), 8 and 11 (33.4 percent), 16 (0.0 percent), and



seventeen (26.7 percent). Table 36 also shows that every region had less than one third of the managers indicating a strong influence from this factor, with the exception of regions 8 and 12 (49.9 percent), and 16 (40.0 percent). None of the managers in regions 15, 18, 23, and 25 and 26 combined indicated strong influence, while only 9.0 percent in region 4 did. Response to slight influence was from 60.0 percent of the managers in regions 18 and 23 to 9.0 percent in regions 5 and 22. Respondents in region 12 did not indicate slight influence. Forty percent of the managers in regions 25 and 26 combined indicated no or a slight negative influence while all remaining regions had 20.0 percent or less of the respondents indicating this. In combined regions 25 and 26, 83.4 percent of the managers did not attach any rating to this factor, while regions 1, 2 and 3 combined, 5, 9 and 21 combined, 10, 12, 14, 15, 20 and 24 combined, and 22 had one half or more of the respondents indicating no rating for low land prices.

State Inspection Costs. This study indicated that state inspection costs, i.e., the fees imposed by various states for inspecting packing plant facilities was relatively unimportant as a location factor in packing plant location.

Table 3 shows that state inspection costs ranked twenty-sixth in priority of all institutional factors.

Table 32 shows that state inspection costs ranked next to last in total consideration by respondents within the group of cost factors. Slightly less than one third, i.e., 31.1 percent of all respondents indicated this factor was considered in their location decisions, while almost one half, i.e., 49.1 percent, said it was not a consideration. The remaining 19.8 percent of the respondents did not answer this question.

Figure 10 shows that state inspection costs strongly influenced the location decisions of 23.2 percent of all respondents and slightly influenced 24.5 percent of the respondents. Only 17.9 percent of the respondents indicated no (or a slight negative) influence from this factor.

Table 37 shows the consideration and relative importance of state inspection costs indicated by respondents within various regions. This table shows that all the managers in region 17 said this factor was considered in locating a packing plant. However, in region 18 none of the managers considered it and only 8.3 percent of the managers in regions 25 and 26 combined considered it. Sixty-two percent of the managers in combined regions 1, 2 and 3 indicated it was a consideration. The percentage of managers indicating this factor was not a consideration ranged from 80.0 in region 18 to 0.0 in region 17. Forty-three percent of the managers in region 19 and 40.0 in region 10 did not answer this question. Table 37 also shows that every region had less than one half of the respondents indicating a strong influence from this factor, with the exception of region 18 (60.0 percent). Regions 7 and 19 did not have any respondents indicate strong influence. Respondents to slight influence ranged from 49.9 percent in region 12 to 8.3 percent in regions 25 and 26 combined. Sixty percent of the managers in region 23 indicated no (or a slight negative) influence while none of the managers in regions 8, 14, 17, and 22 indicated this. Seventy-one percent of the managers in region 14 and 60.0 percent in region 15 did not indicate any rating for this factor.

Summing up this group of cost factors in order of priority, by far the most important cost factor affecting packing plant location was labor rates within the area. This was followed by land prices within the area and state

Table 37.--State inspection costs as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor		Total			
	Yes	No	Strong influence	Slight influence				
: tor in your location decision? :								
: state inspection costs a fac-		: No (or slight neg- : No rating :						
: tor in your location decision? :		: influence : active) influence : given :						
b (percent of respondents)								
1, 2, 3 <sup>a</sup>	62.5	12.5	25.0	100.0	37.5	12.5	37.5	100.0
4	36.3	54.5	9.2	100.0	27.1	18.0	36.2	100.0
5	36.3	54.5	9.2	100.0	18.0	18.1	27.2	100.0
6	15.3	73.0	11.7	100.0	30.7	19.1	15.3	100.0
7	30.7	38.4	30.9	100.0	0.0	30.6	22.9	100.0
8	50.0	33.3	16.7	100.0	49.9	33.3	0.0	100.0
9, 21 <sup>a</sup>	16.6	66.6	16.8	100.0	16.6	33.2	16.6	100.0
10	30.0	30.0	40.0	100.0	20.0	30.0	10.0	100.0
11	41.6	41.6	16.8	100.0	33.3	41.6	16.6	100.0
12	16.6	66.6	16.8	100.0	16.6	49.9	16.6	100.0
13	21.0	63.1	15.9	100.0	21.0	26.2	26.2	100.0
14	14.2	71.4	14.4	100.0	14.2	14.2	0.0	100.0
15	30.0	60.0	10.0	100.0	20.0	10.0	10.0	100.0
16	60.0	40.0	0.0	100.0	20.0	40.0	20.0	100.0
17	100.0	0.0	0.0	100.0	33.3	33.3	0.0	100.0
18	0.0	80.0	20.0	100.0	60.0	20.0	20.0	100.0
19	28.5	28.5	43.0	100.0	0.0	42.8	28.4	100.0
20, 24 <sup>a</sup>	34.3	37.5	28.2	100.0	31.2	15.5	9.3	100.0
22	36.3	27.2	36.5	100.0	18.1	36.2	0.0	100.0
23	20.0	60.0	20.0	100.0	20.0	20.0	60.0	100.0
25, 26 <sup>a</sup>	8.3	66.6	25.1	100.0	8.3	8.3	49.9	100.0
All regions	31.1	49.1	19.8	100.0	23.2	24.5	17.9	100.0

<sup>a</sup> Where response was light in contiguous regions, several were combined.

<sup>b</sup> Percentages based upon respondent managers from each region.

inspection costs.

### Community Environmental Factors

Up to now in this packing plant location analysis, the manager has been concerned with the geographic "pull" of his supply of livestock, his markets, his labor requirements and costs, transportation facilities, land prices, and the effects of various local and state taxes and laws in his specific operations. He has, through a process of careful elimination, selected a general area within which he must indicate the one outstanding community for his specific packing plant requirements.

It is in this phase of plant location analysis at the local level that particular attention must be given to the interpretation of location factors related to the community, primarily because of the intangibility involved. There are many such factors related to the community, but this analysis included only six. These were: (1) accommodations for housing, schools, hospitals, etc., (2) weather conditions, (3) rapidly developing area, (4) favorable business attitude of the community, (5) unfavorable business attitude of the community, (6) offer by the community to develop an industrial site, and (7) economically depressed area.

Favorable Business Attitude of the Community. A recent highly significant trend in industrial development has been the growing emphasis on the attitude of the community toward new business entry. In terms of a favorable attitude, most manufacturers are looking for a general atmosphere of interest, enthusiasm, and desire for additional industry which promises to produce a spirit of friendly cooperation toward the new plant.

Results from this study (Table 3) indicated that a favorable business

attitude of the community ranked sixth in priority of all institutional factors.

Table 38 shows the consideration given the selected community environmental factors by responding managers from all regions in packing plant site selection. As shown, a favorable business attitude of the community ranked first in consideration within the group of related factors. Sixty-nine percent of all respondents said they considered this factor, 17.9 percent said they did not consider it, and 22.9 percent did not answer this question.

Table 38.--Total consideration of selected community environmental factors in packing plant site selection by responding plant managers.

Factor	: Number of managers :			Percent of total :			Total	
	: Yes	No	No reply	: Yes	No	No reply	: Number	: Percent
Favorable business attitude of the community	158	41	29	69.2	17.9	22.9	228	100.0
Rapidly developing area	91	104	33	39.9	45.6	14.5	228	100.0
Accommodations for housing, schools, hospitals, etc.	91	103	34	39.9	45.1	15.0	228	100.0
Offer to develop an industrial site	74	115	39	32.4	50.4	17.2	228	100.0
Weather conditions	64	122	42	28.0	53.5	18.5	228	100.0
Unfavorable business attitude of the community	52	116	68	22.8	50.8	26.4	228	100.0
Economically depressed area	42	147	39	18.4	64.4	17.2	228	100.0

Figure 11 shows the relative importance of the selected community environmental factors in influencing packing plant managers' choice of plant location. As the figure shows, 41.2 percent of all respondents indicated a strong influence from a favorable business attitude of the community, 32.0

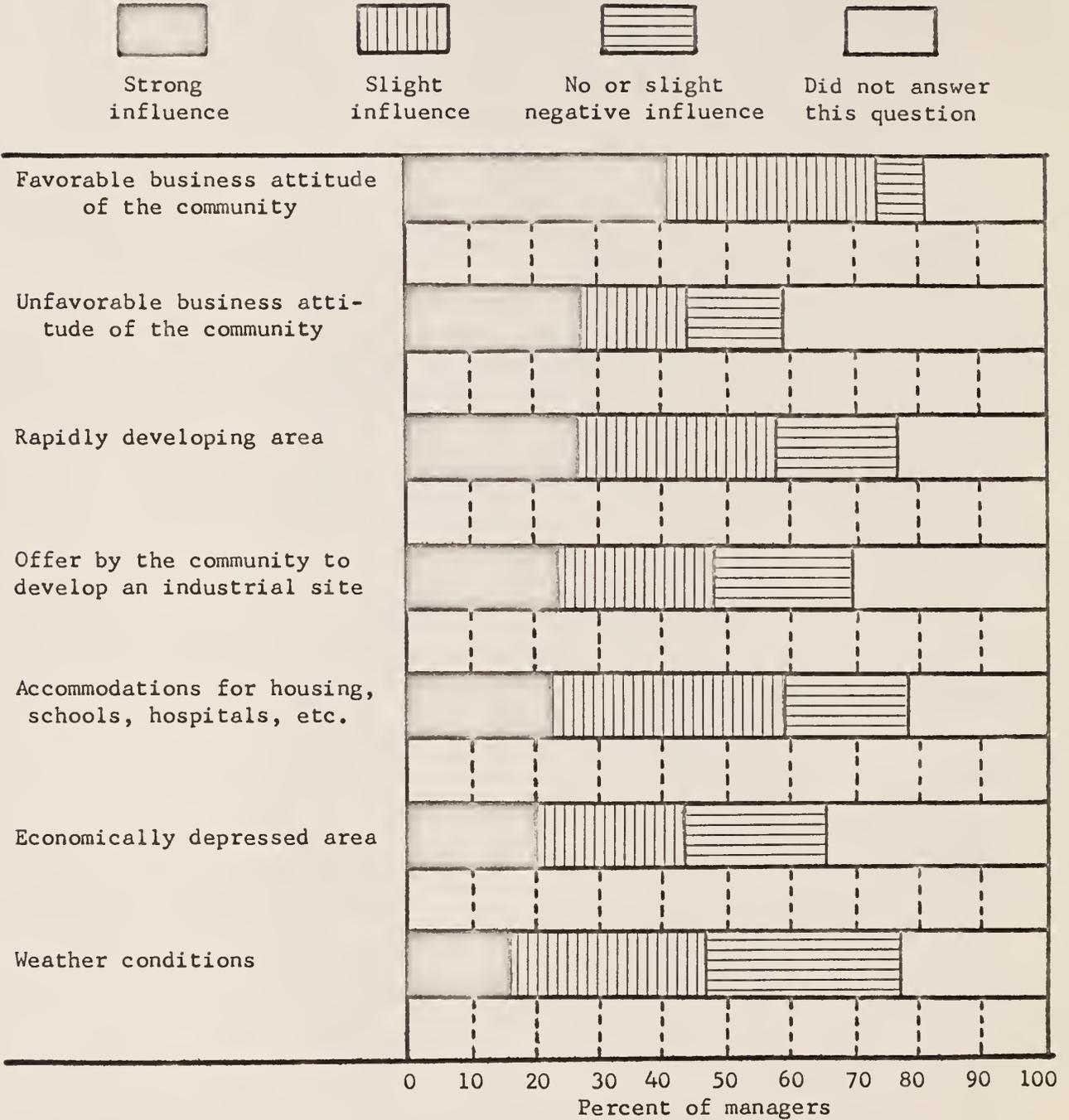


Fig. 11.--Relative importance of selected location factors related to the community and its environment in influencing survey packing plant managers' choice of plant location.

percent indicated slight influence and 7.0 percent indicated no (or a slight negative) influence. The remaining managers, i.e., 7.3 percent, did not reply.

The total consideration and relative importance of a favorable business attitude of the community indicated by plant managers from various regions is shown in Table 39. Tabulations in this table show that over one half of the respondents in every region said they considered this factor in their location decision, with the exception of regions 14 (28.5 percent), 16 (40.0 percent) and 22 (45.4 percent). All the managers in region 7 considered it, 90.9 percent in region 5 considered it and 85.7 percent in region 19 considered it. However, 60.0 percent of the respondents in region 16 said they did not consider this factor. While the remaining regions had one third or less of the respondents not considering it. In region 14, 57.3 of the respondents did not reply to this question. Table 39 also shows that all the managers in regions 8 and 23, 99.7 percent in region 7, 91.5 percent in region 12, and 85.5 percent in region 19, and 83.2 percent in region 11 indicated a strong and slight influence from this factor. Eighty percent of the managers in regions 10, 81.6 percent in region 5, and 80.5 percent in region 6 indicated the same. None of the respondents in region 15 indicated strong influence and none of the respondents in region 4 indicated slight influence. The responses to no (or a slight negative) influence ranged from 40.0 percent in region 16 to zero in regions 4, 5, 7, 8, 9 and 21 combined, 11, 12, 15, 17, 23, and 25 and 26 combined. Region 15 had only half of the respondents attaching any relative importance to this factor.

Rapidly Developing Area. One of the more important economic intangibles influencing plant managers' selection of a plant site was the amount of

Table 39.-- Favorable business attitude of the community as a consideration in packing plant location, packing industry respondents, by region.

Regions	: Replies to this question: Was :		: Relative importance attached to this factor				: Total
	: Yes :	: No :	: Total :	: Strong influence :	: Slight influence :	: No (or slight neg- : influence :	
	: of the community a factor in :		: your location decision?				
	: a favorable business attitude :		: (percent of respondents) <sup>b</sup>				
1, 2, 3 <sup>a</sup>	75.0	25.0	100.0	12.5	62.5	12.5	100.0
4	72.7	18.1	100.0	72.6	0.0	0.0	100.0
5	90.9	0.0	100.0	54.4	27.2	0.0	100.0
6	76.9	15.3	100.0	53.7	26.8	3.8	100.0
7	100.0	0.0	100.0	69.1	30.6	0.0	100.0
8	50.0	33.3	100.0	66.6	33.3	0.0	100.0
9, 21 <sup>a</sup>	50.0	33.3	100.0	33.2	33.3	0.0	100.0
10	70.0	10.0	100.0	30.0	50.0	10.0	100.0
11	75.0	0.0	100.0	41.6	41.6	0.0	100.0
12	50.0	33.3	100.0	41.6	49.9	0.0	100.0
13	57.8	31.5	100.0	47.4	15.7	21.0	100.0
14	28.5	14.2	100.0	14.2	28.5	14.2	100.0
15	70.0	10.0	100.0	0.0	50.0	0.0	100.0
16	40.0	60.0	100.0	20.0	20.0	40.0	100.0
17	83.3	16.6	100.0	33.2	33.2	0.0	100.0
18	60.0	20.0	100.0	60.0	20.0	20.0	100.0
19	85.7	0.0	100.0	71.3	14.2	14.2	100.0
20, 24 <sup>a</sup>	75.0	18.7	100.0	40.5	21.8	12.4	100.0
22	45.4	27.2	100.0	18.0	36.2	9.0	100.0
23	60.0	20.0	100.0	40.0	60.6	0.0	100.0
25, 26 <sup>a</sup>	66.6	16.6	100.0	8.3	66.6	0.0	100.0
All regions	69.2	17.9	100.0	41.2	32.0	7.0	100.0

<sup>a</sup>Where response was light in contiguous areas, several were combined.

<sup>b</sup>Percentages based upon respondent managers from each region.

industrial development occurring in the community area.

As Table 3 shows, rapidly developing area ranked eighth in priority of all institutional factors.

Within the group of community environmental factors, rapidly developing area factor ranked second in total consideration, as shown in Table 38.<sup>1</sup> Thirty-nine percent of the 228 managers indicated they considered this factor when selecting a site. However, 45.6 percent indicated they did not and 14.5 percent did not reply.

Figure 10 shows that 26.3 percent of all managers indicated a strong influence from rapidly developing area in their selection of a plant site, 32.0 percent indicated slight influence, and 17.9 percent no (or a slight negative) influence.

Table 40 shows the total consideration and relative importance of rapidly developing area indicated by responding managers from various regions. As shown, all the managers in region 19 said they considered this factor while two thirds of the managers in regions 8 and 17 indicated this. The smallest proportion (18.1 percent) of managers indicating this factor was a consideration was in region 22. Conversely, from 76.9 percent of the managers in region 7 to 0.0 percent in regions 14 and 19 indicated this factor was not a consideration. Forty-two percent of the managers in region 14 did not reply to this question. Table 40 also shows that one half or more of the respondents in regions 1, 2 and 3 combined, 8, 13, 19, and 23 indicated a strong influence from this factor. None of the managers in regions 10 and 22 indicated strong influence. Responses to slight influence ranged from 15.3

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<sup>1</sup>Rapidly developing area was ranked above accommodations for housing, schools, hospitals, etc., because the former ranked higher (eighth) in priority than the latter (eleventh) according to Table 3.

Table 40.--Rapidly developing area as a consideration in packing plant location, packing industry respondents, by region.

Regions	Replies to this question: Was :		Relative importance attached to this factor				Total	
	Yes	No	Strong influence	Slight influence	No (or slight neg- ative) influence	No rating given		
	: factor in your location :		: Total : (percent of respondents) <sup>b</sup> - - - - -					
	: decision? :		: Strong influence : Slight influence : No (or slight neg- ative) influence : No rating given :					
1, 2, 3 <sup>a</sup>	62.5	37.5	100.0	50.0	25.0	0.0	25.0	100.0
4	27.2	63.6	100.0	31.6	27.1	36.1	5.2	100.0
5	27.2	63.6	100.0	9.0	18.1	45.4	27.5	100.0
6	34.6	46.1	100.0	19.1	15.3	11.4	54.2	100.0
7	23.0	76.9	100.0	7.6	30.6	30.6	31.2	100.0
8	66.6	16.6	100.0	66.6	33.3	0.0	0.1	100.0
9, 21 <sup>a</sup>	33.3	50.0	100.0	16.6	50.0	0.0	33.4	100.0
10	30.0	50.0	100.0	0.0	50.0	40.0	10.0	100.0
11	41.6	33.3	100.0	24.9	33.3	16.6	25.2	100.0
12	33.3	50.0	100.0	16.6	49.9	16.6	16.9	100.0
13	57.8	36.8	100.0	52.5	31.5	15.7	0.3	100.0
14	57.1	0.0	100.0	14.2	42.8	0.0	43.0	100.0
15	50.0	40.0	100.0	20.0	30.0	10.0	40.0	100.0
16	40.0	60.0	100.0	40.0	20.0	40.0	0.0	100.0
17	66.6	33.3	100.0	33.2	33.3	0.0	33.5	100.0
18	20.0	60.0	100.0	20.0	60.0	20.0	0.0	100.0
19	100.0	0.0	100.0	57.0	28.4	14.2	0.4	100.0
20, 24 <sup>a</sup>	34.3	50.0	100.0	24.9	25.0	18.6	31.5	100.0
22	18.1	54.5	100.0	0.0	45.3	9.0	45.7	100.0
23	40.0	20.0	100.0	60.0	20.0	20.0	0.0	100.0
25, 26 <sup>a</sup>	33.3	58.3	100.0	25.0	25.0	16.6	33.4	100.0
All regions	39.9	45.6	100.0	26.3	32.0	17.9	23.8	100.0

<sup>a</sup>When response was light in contiguous regions, several were combined.

<sup>b</sup>Percentages based upon respondent managers from each region.

percent of the managers in region 6 to 60.0 percent in region 18. Regions 9 and 21 combined, 10, and 12 had half of the respondents indicating slight influence. Responses to no (or a slight negative) influence ranged from 45.4 percent of the managers in region 5 to 0.0 percent in regions 1, 2, and 3 combined, 8, 9, 14, and 17. Forty-five percent of the managers in region 22, 43.0 percent in region 14, and 40.0 percent in region 15 gave no rating to this factor.

Accommodations for Housing, Schools, Hospitals, Etc. Packing plant managers considered the accommodations for housing, schools, hospitals, etc., to be very important as attractive features of the community in which they helped to establish a plant.

Table 3 shows that accommodations for housing, schools, hospitals, etc., ranked eleventh in priority of all institutional factors.

Table 38 shows that accommodations for housing, schools, hospitals, etc., ranked third in consideration within the group of community environmental factors. Thirty-nine percent of all respondents said they considered this factor, 45.1 percent said they did not consider it, and 15.0 percent did not reply to this question.

Figure 11 shows that 21.9 percent of all managers indicated this factor strongly influenced their choice of site, 37.2 percent indicated a slight influence from it, and 19.2 percent indicated no (or a slight negative) influence from it. One fifth of the respondents did not reply to this question.

Table 41 gives a regional breakdown of the consideration and relative importance of accommodations for housing, schools, hospitals, etc., indicated by responding managers in their location decisions. Careful analysis of this



table shows that the proportion of respondents indicating consideration of this factor ranged from 71.4 percent in region 19 to 0.0 percent in regions 9 and 21 combined. Region 22 had 63.6 percent of the managers considering this factor. Conversely, from 83.3 percent of the managers in regions 9 and 21 combined to 14.2 percent in region 19 indicated they did not consider this factor. Eighty percent of the respondents in region 16, 71.4 percent in region 14, 66.6 percent in combined regions 25 and 26, and 60.0 percent in regions 10, 15, and 23 indicated they did not consider this factor. Table 41 also shows that not very many managers indicated a strong influence from this factor. The range of responses to strong influence was from 46.1 percent of the managers in region 6 to 0.0 percent in regions 9 and 21 combined, 12, 16, 17, 18, 23, and 25 and 26. All the managers in region 18 indicated a slight influence from this factor, while all managers in regions 16 and 23 indicated slight and no (or a slight negative) influence. None of the managers in regions 8, 14, and 18 indicated no (or a slight negative) influence. All regions had one third or less of the respondents failing to indicate any relative importance for this factor.

Weather Conditions. Weather conditions are important to some industries, although less so than a few years ago. Today, generally at a reasonable cost, the temperature, humidity, dust, ventilation and fumes can be installed in practically any type of plant. This makes the natural climate less important than it used to be.

In the case of packing plants, weather conditions as a location factor played a moderately important role in affecting packing plant location. Table 3 shows it ranked fourteenth in priority of all institutional factors.

Table 38 shows that this factor received consideration from 28.0 percent

of the responding managers. However, nearly twice as many managers (53.5 percent) indicated they did not consider this factor when selecting a site.

Figure 11 shows that weather conditions strongly influenced only 15.3 percent of all managers, slightly influenced 32.4 percent, and exerted no (or a slight negative) influence on 30.2 percent.

Table 42 shows the total consideration and relative importance of weather conditions indicated by responding managers from various regions. Tabulations in this table show that less than half of the respondents in every region indicated they considered this factor, with the exception of regions 25 and 26 combined, which had exactly 50.0 percent. In regions 9 and 21 combined, 14, and 18, none of the respondents considered this factor while only 12.5 percent in regions 1, 2 and 3 combined considered it. Conversely, over one third of the managers in every region said they did not consider this factor, with the exception of regions 15 (30.0 percent) and 22 (27.2 percent). All of the managers in region 14 indicated this factor was not a consideration while 80.0 percent of the managers in regions 16 and 18 indicated this. Table 42 also shows that this factor did not strongly influence very many managers' decisions, e.g., only 41.6 percent of the managers in combined regions 25 and 26 indicated strong influence while other regions had still smaller proportions, e.g., regions 10 and 15 (10.0 percent), 13 (10.5 percent), 7 (15.3 percent), and 20 and 24 combined (15.5 percent). Regions 1, 2 and 3 combined, 4, 12, 14, 16, 17, and 18 did not have any managers indicating strong influence. However, from 66.6 percent of the managers in region 8 to 16.6 percent in regions 17 and 25 and 26 combined indicated a slight influence from this factor. Region 10 did not have any respondents indicating slight influence. Responses to no (or a slight

Table 42.---Weather conditions as a consideration in packing plant location, packing industry respondents, by regions.

Regions	Replies to this question: Was :		Relative importance attached to this factor						
	: weather conditions a factor in :		: your location decision? :						
	Yes :	No :	No reply :	Total :	Strong : Slight : No (or slight neg- : No rating : Total	influence : active) influence : given :			
1, 2, 3 <sup>a</sup>	12.5	75.0	12.5	100.0	0.0	37.5	50.0	12.5	100.0
4	27.2	54.5	18.3	100.0	0.0	36.2	54.4	9.4	100.0
5	45.4	36.3	18.3	100.0	27.2	27.1	27.1	18.6	100.0
6	19.2	69.2	11.6	100.0	19.1	26.8	30.7	23.4	100.0
7	38.4	46.1	15.5	100.0	15.3	30.6	23.0	31.1	100.0
8	33.3	50.0	16.7	100.0	33.2	66.6	0.0	0.2	100.0
9, 21 <sup>a</sup>	0.0	66.6	33.4	100.0	16.6	49.9	0.0	33.5	100.0
10	30.0	50.0	20.0	100.0	10.0	0.0	30.0	60.0	100.0
11	16.6	50.0	33.4	100.0	16.6	33.3	25.0	25.1	100.0
12	16.6	66.6	16.8	100.0	0.0	33.3	50.0	16.7	100.0
13	21.0	63.1	15.9	100.0	10.5	31.5	47.2	10.8	100.0
14	0.0	100.0	0.0	100.0	0.0	28.4	42.7	28.9	100.0
15	40.0	30.0	30.0	100.0	10.0	30.0	10.0	50.0	100.0
16	0.0	80.0	20.0	100.0	0.0	20.0	80.0	0.0	100.0
17	16.6	66.6	16.8	100.0	0.0	16.6	33.3	50.1	100.0
18	0.0	80.0	20.0	100.0	0.0	40.0	40.0	20.0	100.0
19	28.5	57.1	14.4	100.0	28.5	42.8	28.4	0.3	100.0
20, 24 <sup>a</sup>	40.6	34.3	25.1	100.0	15.5	37.4	12.4	34.7	100.0
22	45.4	27.2	27.4	100.0	27.2	18.0	45.3	9.5	100.0
23	20.0	60.0	20.0	100.0	20.0	60.0	20.0	0.0	100.0
25, 26 <sup>a</sup>	50.0	41.6	8.4	100.0	41.6	16.6	25.0	16.8	100.0
All regions	28.0	53.5	18.5	100.0	15.3	32.4	30.2	22.1	100.0

<sup>a</sup>Where response was light in contiguous regions, several were combined.

<sup>b</sup>Percentages based upon respondent managers from each region.

negative) influence ranged from 80.0 percent of the managers in region 16 to 10.0 percent in region 15. None of the respondents in regions 8 and 9 and 21 combined indicated no (or a slight negative) influence from this factor. Sixty percent of the managers in region 10 and 50.0 percent in region 15 did not indicate any rating for this factor.

Offer to Develop an Industrial Site. An offer by the community to develop an industrial site was indicated by this study to be moderately important to packing plant location.

Table 3 shows that an offer to develop an industrial site ranked seventeenth in priority of all institutional factors in this study.

Table 38 shows that an offer to develop an industrial site ranked fourth in consideration within the group of related factors. This factor received consideration from 32.4 percent of all managers when selecting a plant site. However, 50.4 percent of the managers indicated they did not consider this factor.

Figure 11 shows that 23.2 percent of all managers indicated a strong influence from this factor, 24.5 percent indicated slight influence, and 21.9 percent indicated no (or a slight negative) influence. Almost one third (30.4 percent) of the managers did not reply to this question.

The tabulations in Table 43 show the consideration and relative importance of an offer to develop an industrial site indicated by managers from various regions. For example, Table 43 shows that this factor was considered by as few as none of the respondents in regions 14 and 25 and 26 combined to as many as 66.6 percent in regions 12 and 17. Conversely, the percentage of managers indicating they did not consider this factor ranged from 91.6 in regions 25 and 26 combined to 16.6 in region 12. Every region, except



region 12, had over one third of the respondents indicating they did not consider this factor. Table 43 also shows that less than one half of the respondents in every region indicated a strong, slight, or no (or a slight negative) influence separately from this factor. The only exceptions were 60.0 percent of the managers in region 23 indicated strong influence and 60.0 in region 18 indicated slight influence. Only 9.0 percent of the managers in region 4 indicated strong influence, while none of the respondents in regions 9 and 21 combined, 16, and 22 indicated this. None of the managers in regions 8, 17, and 19 indicated slight influence. Regions 5, 8, 12, and 18 had no respondents indicating no (or a slight negative) influence. Regions 9 and 21 combined, 14, 15, and 22 had half or more of the respondents failing to rate this factor.

Unfavorable Business Attitude of the Community. An unfavorable business attitude of the community was not as important as a favorable business attitude in packing plant location according to this study.

Tabulations in Table 3 show that an unfavorable business attitude of the community ranked twenty-first in priority of all institutional factors in this study.

Table 38 shows that an unfavorable business attitude of the community ranked next to last in consideration by respondents from every region. Only 22.8 percent of all managers said they considered this factor in their selection of a site while over twice that many, i.e., 50.8 percent said they did not consider it. One fourth of the respondents did not reply to this question.

Figure 11 shows that 26.7 percent of all managers indicated a strong influence from an unfavorable business attitude of the community. Seventeen

percent indicated slight influence and 15.3 percent indicated no (or a slight negative) influence. However, 41.0 percent did not answer this question.

Table 44 indicates the total consideration and relative importance of an unfavorable business attitude of the community indicated by responding managers from various regions. As shown, region 18 was the only region with no respondents indicating they considered this factor in their location decision. Regions 20 and 24 combined had only 6.2 percent of the respondents indicating consideration whereas region 5 had 54.5 percent of the respondents considering this factor. Conversely, 80.0 percent of the respondents in region 18, 75.0 percent in regions 1, 2 and 3 combined, and two thirds of the respondents in region 12 said they did not consider this factor. The remaining regions had one third or more of the respondents indicating no consideration for this factor, with the exception of regions 14 (28.5 percent) and 16 (20.0 percent). Table 44 also shows that less than half of the managers in every region indicated a strong influence from this factor, with the exception of regions 4 (54.3 percent), 5 (63.5 percent), and 8 (50.0 percent). None of the respondents in region 15 indicated strong influence, while a slightly larger proportion (8.3 percent) in combined regions 25 and 26 indicate this. From 50.0 percent of the managers in regions 1, 2 and 3 combined to zero in regions 5, 12, 16, and 19 indicated slight influence. Response to no (or a slight negative) influence ranged from 60.0 percent of the respondents in region 16 to 0.0 percent in regions 5, 8, 9 and 21 combined, 14, 15, 17, and 23. Every region except region 16 had one third or less of the managers indicating no or a slight negative influence from this factor. Seventy percent of the managers in region 15, 57.4 percent in regions 14 and 19, 56.5 percent in regions 20 and 24 combined, 55.0 percent in region 22 and 50.1

Table 44.--Unfavorable business attitude of the community as a consideration in packing plant location, packing industry respondents, by regions.

Regions	: Replies to this question: Was :		: an unfavorable business atti- :		: tude of the community a factor :		: in your location decision? :		: Strong : Slight : No (or slight neg- : No rating : Total		: influence : influence : influence : given :	
	Yes	No	Yes	No	Yes	No	Yes	No	influence	influence	influence	given
1, 2, 3 <sup>a</sup>	25.0	75.0	0.0	100.0	25.0	50.0	12.5	12.5	12.5	12.5	12.5	100.0
4	27.2	45.4	27.4	100.0	54.3	9.0	18.0	18.0	18.0	18.0	18.7	100.0
5	54.5	36.3	9.2	100.0	63.5	0.0	0.0	0.0	0.0	0.0	36.5	100.0
6	15.3	65.3	19.4	100.0	26.8	11.4	19.1	19.1	19.1	19.1	42.7	100.0
7	30.7	53.8	15.5	100.0	30.6	15.2	7.6	7.6	7.6	7.6	46.6	100.0
8	33.3	33.3	33.4	100.0	50.0	33.3	0.0	0.0	0.0	0.0	16.7	100.0
9, 21 <sup>a</sup>	50.0	33.3	16.7	100.0	16.6	33.3	0.0	0.0	0.0	0.0	50.1	100.0
10	20.0	40.0	40.0	100.0	10.0	40.0	10.0	10.0	10.0	10.0	40.0	100.0
11	25.0	33.3	41.7	100.0	49.9	8.3	16.6	16.6	16.6	16.6	25.2	100.0
12	16.6	66.6	16.8	100.0	33.2	0.0	33.3	33.3	33.3	33.3	33.5	100.0
13	21.0	47.3	31.7	100.0	26.2	5.2	31.0	31.0	31.0	31.0	37.6	100.0
14	42.8	28.5	28.7	100.0	14.2	28.4	0.0	0.0	0.0	0.0	57.4	100.0
15	20.0	50.0	30.0	100.0	0.0	30.0	0.0	0.0	0.0	0.0	70.0	100.0
16	40.0	20.0	40.0	100.0	20.0	0.0	60.0	60.0	60.0	60.0	20.0	100.0
17	33.3	50.0	16.7	100.0	16.6	33.2	0.0	0.0	0.0	0.0	50.2	100.0
18	0.0	80.0	20.0	100.0	40.0	20.0	20.0	20.0	20.0	20.0	20.0	100.0
19	14.2	42.8	43.0	100.0	14.2	0.0	28.4	28.4	28.4	28.4	57.4	100.0
20, 24 <sup>a</sup>	6.2	56.2	37.6	100.0	21.8	9.3	12.4	12.4	12.4	12.4	56.5	100.0
22	9.0	45.4	45.6	100.0	18.0	18.0	9.0	9.0	9.0	9.0	55.0	100.0
23	20.0	60.0	20.0	100.0	40.0	40.0	0.0	0.0	0.0	0.0	20.0	100.0
25, 26 <sup>a</sup>	33.3	58.3	8.4	100.0	8.3	33.3	33.3	33.3	33.3	33.3	25.1	100.0
All regions	22.8	50.8	26.4	100.0	26.7	17.0	15.3	15.3	15.3	15.3	41.0	100.0

<sup>a</sup>When response was light in contiguous regions, several were combined.

<sup>b</sup>Percentages based upon respondent managers from each region.

percent in regions 9 and 21 combined did not attach any relative importance to this factor.

Economically Depressed Area. A community and its surrounding area not growing in industrial development and overall business importance is seldom a good location risk for any type of industry. In most cases, such a community is invariably affected with a pessimistic state of mind.

This study indicated that an economically depressed area was relatively unimportant as a location factor to packing plant location. Table 3 shows that an economically depressed area ranked twenty-third in priority of all institutional factors.

Table 38 shows that an economically depressed area ranked last in consideration within the group of related factors. Only 18.4 percent of all respondents indicated they considered this factor while 64.4 percent said they did not consider it.

Figure 11 shows that an economically depressed area was indicated to have a strong influence in 20.6 percent of all respondents. Twenty-three percent indicated slight influence and 21.5 percent indicated no (or a slight negative) influence. The remaining proportion (34.3 percent) of the managers did not answer this question.

Responses from managers within various regions indicating the total consideration and relative importance of an economically depressed area on location decisions is shown in Table 45. As indicated in this table, this factor was considered by as many as 70.0 percent of the respondents in region 15 to as few as none in regions 1, 2, and 3 combined, 4, 18, 23, and 25 and 26 combined. Most of the regions had one third or less of the respondents indicating this factor was a consideration. Conversely, every region had



half or more of the respondents indicating they did not consider this factor, with the exception of region 15, which had only 10.0 percent indicating no consideration. Regions 25 and 26 had all the respondents considering this factor. Table 45 also shows that only 20.0 percent of the managers in regions 15, 22, and 23 indicated strong and slight influence from this factor while regions 7, 14, and 20 and 24 combined had 15.3 percent, 14.2 percent, and 9.0 percent respectfully indicating this. In region 8, 99.8 percent of the respondents indicated a strong and slight influence. Responses to no (or a slight negative) influence ranged from 60.0 percent of the managers in region 16 to 0.0 percent in regions 8, 17, and 23. Eighty percent of the managers in region 23, 71.6 percent in region 14, and 60.0 percent in region 15 did not rate this factor.

Summing up the group of community environmental factors in order of priority, the most important factor was a favorable business attitude of the community. This was followed by rapidly developing area, accommodations for housing, schools, hospitals, etc., weather conditions, an offer to develop an industrial site, an unfavorable business attitude of the community factor, and an economically depressed area.

#### FACTORS AFFECTING THE LOCATION OF INDUSTRIAL PLANTS IN RELATION TO MEAT PACKING PLANTS

The formidable list of factors that affect packing plant location mentioned in the previous sections indicates that the problem of selecting the "right" plant site can be exceedingly complicated. When several locations are possible for a packing plant, it is seldom that a few essential factors will clearly dictate the choice. This usually is the case for industrial plants also, with a few exceptions of course.

Management that is looking for a new plant site may have a difficult time making a decision, but the difficulty is not for any lack of information. Usually an industrial company will be offered hundreds of "perfect" plant sites. Also, the company will be swamped with data on everything from transportation costs to the number of playgrounds available for the employees' children.<sup>1</sup>

What makes for a good industrial plant location and what criteria should management use in selecting a new site are questions which have plagued plant executives for many years. The answers depend partly on whom you ask, because different executives have different view points and prejudices, and partly on when you ask.<sup>2</sup> The answer that a company would have given 25 years ago differs from the one today, and the answer given today will be different, in all probability, from that given 10 years from now. For example, a study<sup>3</sup> conducted by Bergin and Eagan concerning 820 firms moving into the states of Mississippi, Kentucky, and Tennessee revealed that the top five factors considered out of 16 in selecting a plant location were (1) availability of labor, (2) convenience to markets, (3) lower labor costs, (4) availability of buildings or other property, and (5) availability of raw materials, in order of importance.

In a study<sup>4</sup> made in Michigan, manufacturers were asked to classify each

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<sup>1</sup>Leo Anderson, "The Big Pitch for New Industry," The Management Review, May, 1958, p. 65.

<sup>2</sup>Fulton, op. cit., p. 40.

<sup>3</sup>Thomas P. Bergin and William F. Eagan, "Are Subsidies Worth While?" Industrial Development, July, 1960, p. 77.

<sup>4</sup>Survey Research Center, Institute for Social Research, Industrial Mobility in Michigan (December, 1950), p. 72.

of a number of locational factors as "important" or in one of four alternative categories, i.e., "of minor importance," "minimum condition," "not important," and "importance not ascertained." The four factors ranked as important by the largest percentage of respondents were (1) markets, 61%; (2) materials, 60%; (3) labor productivity, 55%; and (4) hourly wage rates, 55%.

A study<sup>1</sup> conducted of Wisconsin manufacturers revealed that the most important locational factors in their industries were (a) wages (including in the context of the questionnaire labor productivity and availability as well as wage rates), (b) markets, (c) materials, and (d) taxes. Studies in other midwestern states tend to confirm this general ranking.

A Minnesota study<sup>2</sup> called for the classification of 24 locational factors as of major, secondary, or negligible importance, with each factor given a score of 3.00, 2.00, or 1.00, respectively. The most important factor and their average scores were (a) work attitudes of individual workers, 2.71; (b) labor hourly wage rates, 2.69; (c) availability of truck services, 2.58; (d) nearness to major markets for products, 2.56; (e) availability of rail transport services, 2.52; (f) personal property taxes, 2.47; (g) real property taxes; 2.36; (h) community attitude toward industry, 2.31; and (i) nearness to sources of raw materials, 2.25.

The point of these four example studies was to show how the different factors are used as criteria in selecting a plant site and the variations

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<sup>1</sup>Wisconsin Commerce Reports, Locational Factors in Industrial Development in Wisconsin, April, 1957, p. 38.

<sup>2</sup>Business Executives' Research Committee and School of Business Administration, Industrial Location and the Minnesota Economy (University of Minnesota), p. 57, as cited in Ibid., p. 39.

that exist as to the criteria management uses in selecting a site.

The purpose of the following section is first, to present the results of the industrial development agency survey, and secondly, to compare selected locational factors affecting the location of meat packing plants with factors affecting the location of other industrial plants. This comparison will be in terms of the total number of packing plant managers considering a particular factor with the total number of industrial development agency managers having experience with the factor. Also, a comparison will be made concerning the relative effectiveness of selected factors in influencing packing plant managers' and industrial development agency managers' choice of plant location.

Table 46 shows the total number of industrial agency operators having experience with the selected location factors in attracting industry to a community. As the table shows, adequate housing, schools, hospitals, etc., ranked first as an inducement to industrial location based upon the number of operators having experience with the factor. Seventy-one percent of all respondents, i.e., 335, said they had experience with this factor in attracting industry to the community, while only 7.6 percent indicated no experience. A favorable business attitude of the community ranked second within the group of inducement factors. Sixty-seven percent of the respondents indicated experience with this factor. Only 6.2 percent reported having no experience with it. W. Gerald Holmes<sup>1</sup> said that "tax exemption, cash bonuses, free land or rent, and the existence of industrial foundations or factor funds are sometimes indicative of a favorable community attitude."

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<sup>1</sup>Holmes, op. cit., p. 214.

Offering to develop industrial sites ranked third within the group of selected inducement factors. Sixty-two percent of the respondents indicated experience with this factor in attracting industry, while 17.6 percent indicated not having experience with it. The importance of this factor can be understood in light of the post war growth of developed sites, particularly the "organized industrial district"<sup>1</sup>--a planned industrial district complete with streets, utilities, and rail and truck facilities. Providing buildings on easy terms ranked fourth in this study as an inducement to industrial location.

Almost half (49.8 percent) of the respondents had experience with this factor, while 27.1 percent did not. Change zoning laws ranked fifth as an inducement, with 45.9 percent of the operators indicating experience with it and almost one third (31.6 percent) indicating no experience. Low interest rate loans ranked sixth in this study. Such loans could come from state-chartered development corporations, state industrial finance authorities, community-financing programs, local credit associations, and others. Forty percent of the respondents said they had experience with this inducement in attracting industry. Thirty-six percent indicated they did not have any experience with this factor.

Free land appeared to be about moderately important as an inducement to industry, ranking seventh. Only 29.2 percent of the managers had experience with this inducement, while 52.5 percent said they did not. This seems somewhat contradictory to managements' views 30 years ago, according to W. Gerald Holmes.<sup>2</sup> Mr. Holmes commented in the 1930's that the chief forms of special

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<sup>1</sup>"Industrial Land Prices," Industrial Development, January, 1959, p. 11.

<sup>2</sup>Holmes, op. cit., p. 217.

inducements were the cash bonus or the outright gift of a sum of money, tax abatement or exemption, free land or the free use of vacant buildings, subscription to stock or bond issues at unusually favorable loans, and general financial assistance through the industrial foundation or revolving factory fund.

Property tax concessions ranked eighth in this study despite the fact, that of all the incentives, this is the oldest. Relatively few states have laws today permitting the city, county, or other unit of government to exempt new plants from property taxes for a specified number of years. Twenty-seven percent of the respondents used this inducement, whereas over half (55.5 percent) did not.

Another inducement related to the community was the promise to provide adequate housing, schools, hospitals, etc. As shown, this inducement ranked ninth within the group of inducements. The latter ranked eleventh as an inducement to industrial location. Only 18.5 percent of the 335 respondents said they had experience with this factor. Over half (63.5 percent) indicated no experience with it, and 28.0 percent of the respondents did not answer this question.

Ranking eleventh in this study was the inducement of a cash gift. Only 15.5 percent of the managers used this to attract industry. Almost 70 percent indicated they never used this factor at all. This was most interesting from the standpoint that 30 to 40 years ago the cash bonus was the inducement most commonly held out by communities to attract industry.<sup>1</sup> This was because capital was less important as a factor in manufacturing than it is today.

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<sup>1</sup>Holmes, op. cit., p. 218.

Of even less importance than a cash gift as an inducement was an offer of other tax concessions. These concessions could be on such things as mortgages, bank deposits, and certain raw materials. Alabama exempted these in 1952.<sup>1</sup> Louisiana in the past exempted cash and bank deposits, legal reserves of domestic life insurance companies, all cattle, ships, and certain manufacturing or commercial property on the navigation canal of New Orleans.<sup>2</sup>

Ranking last as an inducement factor to industry location was the offer to provide buildings free. This offer could come from private, local, or state institutions and/or persons. Only 7.1 percent of the managers had had experience with it, whereas 65.9 percent indicated they had not had experience with it.

The leading restricting factor to industrial plant location was labor unions and labor laws. As Table 46 shows, 53.4 percent of the managers reported having had experience with this factor. Twenty-eight percent reported no experience. One way in which labor unions act as a negative factor to an industry looking for a location is through their effects on productivity. Some unions engage in "slow-downs," strikes, etc., which decreases productivity and this tends to affect prospective industry adversely.

Zoning laws ranked second as a restricting factor within the related group of factors. Zoning is a site factor which has often been overlooked in the past--sometimes with unhappy consequences.<sup>3</sup> Profiting from experience,

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<sup>1</sup>Garwood, op. cit., p. 366.

<sup>2</sup>Ibid.

<sup>3</sup>Thompson, op. cit., p. 53.

most firms now regard zoning regulations as highly important. For example, zoning regulations can act as a restricting factor in several ways, e.g., causing litigation, allowing undesirable industrial neighbors, or incompatible land use.

Sewage disposal regulations is another restricting factor closely related to zoning laws. The former factor ranked third in this study, with 45.3 percent of the managers reporting they had experience with it and 34.9 percent reporting no experience.

High land prices ranked fourth as a restricting factor. Forty percent of the managers reported having experience with this factor. Thirty-five percent indicated no experience. It has been said<sup>1</sup> that there are some 700 different factors which influence the choice of plant sites. Almost all of these factors in some way affect the price of land. A survey<sup>2</sup> conducted by Industrial Development of industrial land prices in 16 states across the United States revealed that the approximate average land costs within a three-mile radius of the urban center were about \$6,300 per acre; a planned district, about \$3,800 for a zoned tract; and about \$1,400 for raw land. This survey also indicated that for sites within an eight-mile radius, the going prices were about \$9,300 per acre for districts, \$4,400 for zoned tracts, and \$1,200 for raw land. The reason land eight miles out cost more than land three miles out was thought to be just a peculiarity of the survey, influenced by the way the questions were posed.

Local taxation appeared to be a moderately important restricting factor,

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<sup>1</sup>"Industrial Land Prices," Industrial Development and Manufacturers Record, loc. cit.

<sup>2</sup>Ibid.

ranking fifth in priority. Community taxation included such taxes as real estate, personal property, school, county, township, municipal, business license fees, poll, and others. As Table 46 shows, 39.7 percent of the managers had experience with this factor, while 34.3 percent did not.

In sixth place was a negative business attitude of the community. Thirty-four percent of the managers had experience with this factor and 42.6 percent reported having no experience with it. This factor is related to several restrictive factors, according to Gerald Holmes.<sup>1</sup> He says that "high taxes on industrial property, burdensome ordinances, and inelastic zoning regulations are indicative of an unfavorable community attitude."

Inadequate utilities ranked seventh within the group of restricting factors. Only 29.2 percent of the respondents said they had experience with this factor, while nearly twice that many (45.6 percent) indicated no experience with it.

Closely related to a negative business attitude of a community was another restricting factor, i.e., present industries do not want new industries. The latter ranked eighth in this study, with 28.6 percent of the respondents indicating they had experience with it and 45.6 percent indicating no experience with it.

In last place (ninth) as a restricting factor within the group was an undesirable local government. Only 21.4 percent of the managers had experience within this factor when attracting new industry. Fifty-five percent of the managers reported having had no experience with this factor.

The relative effectiveness of selected location factors in attracting

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<sup>1</sup>Holmes, op. cit., p. 214.

Table 46.--Total number of responding industrial agency operators having experience with the selected location factors in attracting industry to a community.

Rank <sup>a</sup>	Factors	Replies to this question: Did you have experience with the factor in attracting industry to your community?		Total (number of respondents)	Percent of respondents			
		Yes	No		Yes	No		
				Total	Yes	No	Total	
				(number)			(percent)	
	<u>Inducement factor</u>							
1	Adequate housing, schools, hospitals, etc.	239	24	72	335	71.3	21.6	100.0
2	Favorable business attitude	227	21	87	335	67.7	26.1	100.0
3	Develop industrial sites	209	59	67	335	62.3	20.1	100.0
4	Provide buildings on easy terms	167	91	57	335	49.8	23.1	100.0
5	Change zoning laws	154	106	75	335	45.9	31.6	100.0
6	Low interest rate loans	137	122	76	335	40.8	36.4	100.0
7	Free land	98	176	61	335	29.2	52.5	100.0
8	Property tax concessions	93	186	56	335	27.7	55.5	100.0
9	Promise to provide adequate housing, schools, hospitals, etc.	81	120	134	335	24.1	55.5	100.0
10	Sell stocks of the corporation	62	213	60	335	18.5	63.5	100.0
11	Cash gift	52	233	50	335	15.5	69.5	100.0
12	Offer other tax concessions	39	176	120	335	11.6	52.5	100.0
13	Provide buildings free	24	221	90	335	7.1	65.9	100.0

<sup>a</sup>Rank is based upon the number of operators having experience with the factor.

Table 46.--Continued.

Rank <sup>a</sup>	Factors	Replies to this question: Did you have experience with the factor in attracting industry to your community? (number of respondents)	Yes	No	Total	Yes	No	Total	Percent of respondents
			(number)	(number)	(number)	(percent)	(percent)	(percent)	(percent)
1	Labor unions and labor laws	179	95	61	335	53.4	28.3	18.3	100.0
2	Zoning laws	162	117	56	335	48.3	34.9	16.8	100.0
3	Sewage disposal regulations	152	117	66	335	45.3	34.9	19.8	100.0
4	High land prices	135	119	81	335	40.2	35.5	24.3	100.0
5	Local taxation	133	115	87	335	39.7	34.3	26.0	100.0
6	Negative business attitude of community	115	143	77	335	34.3	42.6	23.1	100.0
7	Inadequate utilities	98	153	84	335	29.2	45.6	25.2	100.0
8	Present industries do not want new industries	96	153	86	335	28.6	45.6	24.8	100.0
9	Undesirable local government	72	186	77	335	21.4	55.5	23.1	100.0

<sup>a</sup>Rank is based upon the number of operators having experience with the factor.

or discouraging industry indicated by all industrial agency operations is shown in Table 47. As shown, the three inducements having the largest number of operators indicating these were very effective inducements were (1) a favorable community business attitude, (2) already have adequate housing, schools, hospitals, etc., and (3) develop industrial sites. A comparison of these three inducements with the first three inducements in Table 46 will show that the factors are identical, but not in the same order or priority. In Table 47, 195 of the 335 industrial operators considered a favorable community attitude to be very effective in attracting industry, 152 considered adequate housing, schools, hospitals, etc., to be very effective, and 118 considered an offer to develop industrial sites. However, four inducements were not considered by very many respondents to be very effective. These were (1) an offer to sell stocks of the corporation, (2) property tax concessions, (3) a cash gift, and (4) other tax concessions. Table 47 also shows that the operators indicated the hindrance factors of (1) negative community business attitude of the community, (2) labor unions and labor laws, (3) inadequate utilities, and (4) undesirable local government to be the most effective factors in discouraging industries from locating in a community. Local taxation and industries do not want new industries ranked next to last and last within the group of hindrance factors in terms of being very effective in discouraging industry. It should also be pointed out in Table 47 that 86 operators indicated the inducement of adequate housing, schools, hospitals, etc., was effective in attracting industry. Eighty-eight operators said providing buildings on easy terms was an effective inducement. Fifty-one operators said a cash gift had a negative effect as an inducement. Regarding hindrance factors, 75 respondents indicated labor unions and labor

Table 47.--Relative effectiveness of selected location factors in attracting or discouraging industry, industrial agency operators, all regions combined.

Rank <sup>a</sup>	Factors	Number of times ranked						Total
		-1 <sup>b</sup>	0	1	2	3	4	
<u>Inducement factor</u>								
1	Favorable community business attitude	2	1	8	29	74	195	309
2	Already have adequate housing, schools, hospitals, etc.	1	3	10	44	86	152	296
3	Develop industrial sites	2	9	23	4	72	118	228
4	Change zoning laws	6	17	30	75	60	79	267
5	Low interest rate loans	5	13	29	46	79	79	251
6	Provide buildings on easy terms	8	12	20	65	88	69	262
7	Free land	26	37	41	53	39	45	241
8	Promise to provide adequate housing, schools, etc.	9	24	52	47	44	39	215
9	Provide buildings free	38	34	33	35	26	24	190
10	Sell stocks of the corporation	31	50	48	38	24	23	214
11	Property tax concessions	24	37	67	54	37	22	241
12	Cash gift	51	61	37	29	12	21	211
13	Offer other tax concessions	22	29	26	22	11	13	123
<u>Hindrance factor</u>								
1	Negative community business attitude	9	10	8	20	60	137	244
2	Labor unions and labor laws	12	15	17	40	75	130	289
3	Inadequate utilities	7	9	7	26	53	122	224
4	Undesirable local government	6	14	17	34	61	103	235
5	Zoning laws	20	23	32	48	70	78	271
6	High land prices	5	12	24	74	65	70	250
7	Sewage disposal regulations	12	19	37	57	53	70	248
8	Local taxation	7	12	29	54	62	66	230
9	Present industries do not want new industries	14	34	26	36	51	64	225

<sup>a</sup>Rank is based upon the number of times factor is ranked "4," i.e., very effective.

<sup>b</sup>A -1 means negative effect; 0, no effect; 1, slightly effective; 2, moderately effective; 3, effective; and 4, very effective.

laws to be effective in discouraging industry; 70 indicated zoning laws. Seventy-four operators indicated high land prices to be moderately effective in discouraging industry.

A survey undertaken by Dun's Review in 1963 compiled twenty-one key factors in industrial site selection.<sup>1</sup> The information which was presented in this report was collected from federal, state, and industry sources throughout the fifty states. The results of this survey are shown in Table 48.

Table 49 shows the "baits" that various states offered industry in 1961.<sup>2</sup>

Local government programs to attract industry do not have nearly so much impact on industry's location decisions as do federal activities.<sup>3</sup> To many economists, the local tax concessions to new businesses are only "sweeteners"--they do not determine a company's original decision to migrate, mainly because state and local taxes are only a very small part of total business costs. On the other hand, many businessmen associate higher taxes in a community with higher spending for local government services, many of which benefit business.

At the state level, the controversies among schemes between competing states to hire industry are increasing. States that are offering inducements will wonder if they are doing enough to meet the competition from other states. Table 49 illustrates some of the more common "baits" that states

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<sup>1</sup>"The Rough and Tumble of Site Selection," Dun's Review, loc. cit.

<sup>2</sup>"Hotter Bidding for New Plants," Business Week (December 16, 1961), p. 126.

<sup>3</sup>"West and Southwest Lead the Rate," Business Week (April 14, 1962), p. 68.

Table 48.--Key factors in picking plant sites.

State	: Fair employ- : ment prac- : tice law	: Right- : to-work : law	: Unem- : ployed <sup>a</sup>	: Manufacturing	
				: Average : weekly hours	: Average : hourly earnings
Alabama	no	yes	6.2%	40.5	\$2.05
Alaska	yes	no	4.0	NA	NA
Arizona	no	yes	3.7	39.9	2.57
Arkansas	no	yes	4.2	40.8	1.67
California	yes	no	4.0	40.8	2.79
Colorado	yes	no	2.1	40.7	2.55
Connecticut	yes	no	3.2	41.2	2.41
Delaware	yes	no	1.9	41.7	2.42
Florida	no	yes	3.9	41.3	2.03
Georgia	no	yes	3.4	41.0	1.72
Hawaii	no	no	4.4	37.0	2.04
Idaho	yes	no	5.9	39.7	2.28
Illinois	yes	no	2.2	41.1	2.60
Indiana	yes <sup>b</sup>	yes	2.5	41.2	2.67
Iowa	no	yes	3.1	39.9	2.52
Kansas	yes	yes	2.3	41.0	2.43
Kentucky	no	no	4.9	40.2	2.26
Louisiana	no	yes <sup>c</sup>	2.2	43.8	2.25
Maine	no	no	4.3	40.0	1.90
Maryland	no	no	4.8	40.1	2.41
Massachusetts	yes	no	5.2	38.7	2.25
Michigan	yes	no	3.0	42.4	2.93
Minnesota	yes	no	5.1	40.4	2.45
Mississippi	no	yes	4.8	40.5	1.64
Missouri	yes	no	2.9	39.6	2.39
Montana	no	no	4.9	39.3	2.47
Nebraska	no	yes	1.9	43.2	2.19
Nevada	yes <sup>b</sup>	yes	4.5	39.9	3.10
New Hampshire	no	no	3.5	40.2	1.89
New Jersey	yes	no	4.4	40.6	2.54
New Mexico	yes	no	3.1	40.7	2.20
New York	yes	no	3.4	39.5	2.45
North Carolina	no	yes	2.9	41.1	1.63
North Dakota	no	yes	4.9	42.4	2.15
Ohio	yes	no	4.1	40.7	2.75
Oklahoma	no	no	4.3	41.1	2.18
Oregon	yes	no	5.0	37.3	2.62
Pennsylvania	yes	no	5.5	39.5	2.41
Rhode Island	yes	no	4.2	38.9	2.07
South Carolina	no	yes	3.0	41.5	1.69
South Dakota	no	yes	1.9	44.9	2.20
Tennessee	no	yes	5.2	40.6	1.92
Texas	no	yes	2.7	41.9	2.31
Utah	no	yes	2.2	40.1	2.63
Vermont	no	no	4.8	41.9	1.95
Virginia	no	yes	1.4	41.4	1.92

Table 48.--Continued.

State	Fair employ- ment prac- tice law	Right- to-work law	Unem- ployed <sup>a</sup>	Manufacturing	
				Average weekly hours	Average hourly earnings
Washington	yes	no	6.8%	39.0	\$2.72
West Virginia	yes <sup>b</sup>	no	5.3	40.0	2.56
Wisconsin	yes	no	3.2	41.4	2.53
Wyoming	no	no	5.3	37.6	2.57

State	Office salaries		AFL-CIO membership	State sales tax	Development and financial devices <sup>d</sup>	% U.S. Market	
	Male	Female				Con- sumer	Indus- trial
Alabama	\$88.77	\$65.63	185,000	3.0%	A,B	1.19	1.68
Alaska	NA	NA	22,300	none	A,B,C	0.15	0.007
Arizona	84.80	70.07	80,000	3.0	none	0.70	0.23
Arkansas	69.75	58.95	72,000	3.0	B,C	0.63	0.77
California	96.61	80.70	1,350,000	3.0	none	8.70	6.69
Colorado	86.69	70.92	90,000	2.0	B	1.04	0.42
Connecticut	91.62	73.03	200,000	3.5	C,D	1.83	2.38
Delaware	95.37	78.52	28,000	none	D	0.33	0.24
Florida	80.75	65.03	150,000	3.0	D	2.48	1.24
Georgia	87.85	67.33	115,000	3.0	B,C	1.59	2.33
Hawaii	NA	NA	24,200	3.5	C	0.37	0.18
Idaho	72.50	65.58	20,000	none	none	0.30	0.17
Illinois	95.47	73.06	1,200,000	3.5	B	6.62	7.65
Indiana	92.43	70.19	315,000	0.375	none	2.52	3.22
Iowa	88.08	67.86	135,000	2.0	none	1.43	1.01
Kansas	87.33	69.44	100,000	2.5	B	1.13	0.62
Kentucky	89.46	69.96	132,000	3.0	A,B,C,D	1.21	1.15
Louisiana	84.21	64.31	130,000	2.0	A,B,D	1.30	0.99
Maine	78.12	60.86	68,000	3.0	C,D	0.44	0.74
Maryland	89.00	71.04	195,000	3.0	A,B,C,D	1.90	1.54
Massachusetts	83.70	66.79	600,000	none	D	3.29	4.76
Michigan	128.50	107.50	700,000	4.0	none	4.36	4.28
Minnesota	88.94	68.29	258,000	none	none	1.80	1.29
Mississippi	88.60	61.35	45,000	3.0	A,B	0.66	0.92
Missouri	91.54	70.69	450,000	2.0	B	2.38	2.69
Montana	NA	NA	50,000	none	A	0.32	0.12
Nebraska	82.36	65.85	65,000	none	B	0.75	0.41
Nevada	NA	NA	17,500	2.0	none	0.22	0.05
New Hampshire	72.50	64.00	40,000	none	C,D	0.32	0.68
New Jersey	98.20	83.95	500,000	none	C,D	4.09	4.94
New Mexico	75.00	71.78	17,000	2.0	B	0.43	0.08
New York	87.13	75.25	2,000,000	none	C,D	11.72	9.94
North Carolina	86.35	63.30	80,000	3.0	D	1.83	3.70
North Dakota	NA	NA	18,000	2.0	A,B	0.24	0.05
Ohio	95.03	73.84	1,000,000	3.0	D	5.56	7.21
Oklahoma	80.57	62.96	50,000	2.0	A,B,C,D	1.08	0.61

Table 48.--Continued.

State	Office salaries	Office salaries	AFL-CIO membership	State sales tax	Development and financial devices <sup>d</sup>	% U.S. Market	Con-sumer	Indus-trial
	Male	Female						
Oregon	\$100.68	\$74.62	160,000	none	none	0.99		0.94
Pennsylvania	91.17	71.45	1,500,000	4.0	D	6.26		9.13
Rhode Island	74.69	61.60	58,000	3.0	A,C,D	0.47		0.88
South Carolina	91.00	60.00	35,000	3.0	A,D	0.83		1.50
South Dakota	NA	62.00	17,000	2.0	D	0.31		0.05
Tennessee	86.00	63.98	150,000	3.0	B	1.40		2.23
Texas	87.51	67.00	350,000	2.0	none	4.71		3.22
Utah	97.18	68.57	46,000	2.5	none	0.44		0.23
Vermont	88.83	69.31	9,000	none	A,B,C,D	0.18		0.26
Virginia	84.62	69.86	95,000	none	D	1.87		1.76
Washington	95.44	73.08	350,000	4.0	C	1.67		1.03
West Virginia	101.00	76.31	70,000	2.0	C,D	0.76		0.68
Wisconsin	96.00	68.11	400,000	3.0	B	2.13		2.85
Wyoming	NA	NA	15,000	2.0	none	0.19		0.04

State	Fuel costs per million BTUs			Transportation facilities			Higher education institutions <sup>e</sup>	Corporate income tax
	Coal	Oil	Gas	Air-lines	Motor carriers	Rail-roads		
Alabama	22.3 <sup>f</sup>	NU	23.5 <sup>f</sup>	5	38	28	29	3.0%
Alaska	NA	NA	NA	16	NA	2	2	(g)
Arizona	NU	59.6 <sup>f</sup>	33.6	5	25	2	7	1.0
Arkansas	NU	44.1	25.0	5	22	25	19	1.0
California	NU	32.6	35.2	28	250	36	194	5.5
Colorado	23.4	34.0	22.2	8	47	12	22	5.0
Connecticut	35.9	39.7	38.8	9	69	3	32	5.0
Delaware	33.7	52.0	31.5	2	13	3	4	5.0
Florida	30.5	34.0	34.5	36	46	13	52	none
Georgia	28.7	47.8	25.4	11	46	29	50	4.0
Hawaii	NA	NA	NA	13	NA	1	5	5.0
Idaho	NU	NU	NU	3	7	4	10	9.5
Illinois	24.8	67.5	24.2	16	232	32	109	none
Indiana	22.0	70.6	27.2	8	119	22	41	none
Iowa	27.1	67.6	26.1	4	96	20	48	3.0
Kansas	28.5	42.6	20.0	10	34	13	43	3.5
Kentucky	17.5	NU	20.5	8	30	19	37	5.0
Louisiana	NU	27.0	22.6	12	36	35	23	4.0
Maine	41.1 <sup>f</sup>	40.3	NU	2	19	8	20	none
Maryland	31.9	77.7	NA	12	150	6	40	5.0
Massachusetts	35.8	36.8	36.3	16	122	6	101	6.765
Michigan	30.8	77.3	35.1	15	137	31	59	none
Minnesota	29.9	59.2	24.4	8	78	21	35	10.23
Mississippi	38.2 <sup>f</sup>	50.9	26.1	3	16	18	16	2.0
Missouri	22.4	51.4	22.0	10	114	24	60	2.0

Table 48.--Continued.

State	: Fuel costs per : million BTUs :			: Transportation facilities:			Higher :	Corporate
	: Coal :	: Oil :	: Gas :	Air- : lines :	Motor : carriers :	Rail- : roads :	: institu- : tions <sup>e</sup> :	: income : tax
Montana	21.6	NU	22.8	4	12	11	9	4.5
Nebraska	29.9	49.6 <sup>f</sup>	26.5	5	75	10	22	none
Nevada	NU	58.4	39.8	7	9	3	2	none
New Hampshire	40.5	37.7	NU	2	11	6	16	none
New Jersey	34.6	35.0	32.5	11	216	17	38	1.75
New Mexico	26.9	35.0	21.3	3	16	6	9	3.0
New York	34.8	36.4	41.0	39	357	36	187	5.5
North Carolina	26.9	NA	NA	6	80	29	58	6.0
North Dakota	27.3	71.0	34.0	3	23	6	13	3.0
Ohio	22.4	54.9	28.7	14	255	34	67	none
Oklahoma	32.3	31.9	17.3	5	45	19	33	4.0
Oregon	45.6	39.6	35.9	9	38	16	24	6.0
Pennsylvania	25.4	38.6	32.2	9	288	7	127	5.0
Rhode Island	36.1	38.9	36.8	6	17	4	11	6.0
South Carolina	27.8	38.3	28.6	5	22	16	31	5.0
South Dakota	30.0	121.3	26.0	5	15	7	13	none
Tennessee	19.1	NU	NA	10	55	13	47	3.75
Texas	NU	45.9	17.8	15	152	32	135	none
Utah	22.0	44.0	27.0	8	25	7	9	4.0
Vermont	40.0	NU	NU	2	14	10	18	5.0
Virginia	26.3	87.1	27.5	13	72	14	51	5.0
Washington	NU	33.8	39.5	9	196	16	29	none
West Virginia	18.4	80.5	21.7	6	29	22	20	none
Wisconsin	31.6	81.1	28.3	6	66	16	59	2.0
Wyoming	11.4	26.0	20.0	2	10	6	6	none

<sup>a</sup> Insured unemployed, latest available figures; not seasonably adjusted.

<sup>b</sup> Voluntary compliance only.

<sup>c</sup> Agriculture only.

<sup>d</sup> Key to Development and Financial Devices: A--Permissive tax exemptions; B--Municipal bonds; C--State financial assistance; D--State development.

<sup>e</sup> Includes institutions above high school level.

NU--fuel not used or in inconsequential amounts.

<sup>f</sup> Dun's Review estimate.

<sup>g</sup> 18% of federal income tax.

Source: Dun's Review, March, 1963, pp. 98-100.

Table 49.--The "baits" that states offer industry.

State	Property tax exemptions	City & county bonds for facilities	General obligation	Revenue	State financial assistance	State-chartered private development corporations	Special features
Alabama	X	X		X			Emphasizes tax exemptions, bonds
Alaska	X			X			Unique program of 90% state loans
Arkansas		X		X		X	Bonds are the big thing
Connecticut						X	New 90% plant mortgage insurance
Delaware	X			X		X	State backs local groups' bonds
Florida			X			X	New statewide corporation formed
Georgia			X		X		Enabling act needed for state loans
Illinois			X		X		State can build plants. Bonds untried
Kansas			X				Using bonds to match nearby states
Kentucky	X	X		X		X	Only one with all baits
Louisiana	X	X					Leads all states with exemptions
Maine				X		X	First with mortgage insurance
Maryland	X	X				X	Development loans starting
Massachusetts						X	Development corporation big, active
Mississippi	X	X		X		X	Pioneer in general obligation bonds
Missouri		X		X			Use of bonds just beginning
Nebraska				X			Bond law awaiting court test
New Hampshire						X	State powers are broadest of all
New Jersey					X	X	Corporation loans around \$700,000
New Mexico				X			Cities' broad powers controversial
New York					X	X	Loan potential: \$100-million
North Carolina						X	Development corporation ranks third
North Dakota		X					Has added general obligation bonds
Oklahoma			X		X		New program of state loans
Pennsylvania			X		X		Most successful lending authority
Rhode Island	X		X		X	X	Done well with mortgage insurance
South Carolina	X					X	Many firms waive tax exemptions

Table 49.--Continued.

State	Property tax exemptions	City & county bonds: for facilities: General	State financial assistance:	State-chartered: private development corporations	Special features
South Dakota		X		X	Loans help diversify economy
Tennessee			X		Bonds are the main device
Vermont	X	X	X	X	Mortgage insurance just adopted
Virginia				X	First loans from corporation
West Virginia			X	X	New state authority making loans
Wisconsin		X		X	Bonds only for land acquisition

\* Inducements listed are on the books, but may not have been utilized. List does not include states without any financial inducements or states where development corporations have been authorized but not yet organized.

Source: "Hotter Bidding for New Plants," Business Week, December 16, 1961, p. 127.

offer to industry.<sup>1</sup> As the table shows, lures are not confined to any area, and they may take a variety of forms. Arguments often arise not only over what type of bait works best for the state or for the manufacturer, but also over whether any such incentives are needed at all.

In 1964, the New York State Department of Commerce conducted a study of government-sponsored plans used for financial assistance to new industry.<sup>2</sup> The results of this study can be seen in Table 50. The most important characteristic of this table is that it shows which states have added what "bait" or financial-assistance plan, etc., since 1961 when compared with Table 49.

The second purpose of this section is to compare selected location factors affecting the locations of meat packing plants and industrial plants. This comparison will be in terms of the number of industrial agency operators having experience with a given factor with the number of packing plant operators considering a given factor.

In regards to the packing plant study, Table 51 shows the total consideration of all selected location factors in packing plant site selection indicated by all responding plant managers. This table, a reproduction of Tables 4, 7, 11, 16, 24, 32, and 38, shows the location factors receiving the most consideration from respondents. As shown, the two noninstitutional factors, i.e., local supply of livestock and nearby product markets, ranked first and second, respectively, based upon total consideration. Six other factors, i.e., local labor supply, truck transportation facilities, waste

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<sup>1</sup>"Hotter Bidding for New Plants," Business Week, loc. cit.

<sup>2</sup>New York State Department of Commerce, The Use of Public Funds or Credit in Industrial Location, op. cit., pp. 4-5.

Table 50.--Summary of government-sponsored plans for financial assistance to new industry, by state and region (as of May 1, 1964).

Region and state	: Development : credit : corporation	: State : industrial : finance : authority	: Local bond issues		
			: Revenue	: General : obligation	: Tax : concession
<u>New England</u>					
Maine	yes	yes	no <sup>1</sup>	no	no
New Hampshire	yes	yes	no	no	no
Vermont	yes	yes	yes	no	yes <sup>2</sup>
Massachusetts	yes	no	no	no	no
Rhode Island	yes	yes	no	no	yes
Connecticut	yes	yes	no	no	no
<u>Middle Atlantic</u>					
New York	yes	yes	no	no	no
New Jersey	yes	yes <sup>3</sup>	no	no	no
Pennsylvania	yes	yes	no	no	no
<u>East North Central</u>					
Ohio	no <sup>4</sup>	no	no	no	no
Indiana	no	no	no	no	no
Illinois	no	no	yes	no	no
Michigan	no <sup>4</sup>	no	yes	no	no
Wisconsin	yes	no	yes	yes	no
<u>West North Central</u>					
Minnesota	no <sup>5</sup>	no	no	no	no
Iowa	no <sup>5</sup>	no	yes	no	no
Missouri	no <sup>5</sup>	no	yes	yes	no
North Dakota	no	no	yes	yes	no
South Dakota	yes	no	(6)	(6)	no
Nebraska	no	no	yes	no	no
Kansas	no <sup>5</sup>	no	yes	no	no
<u>South Atlantic</u>					
Delaware	no	yes	no	no	yes <sup>8</sup>
Maryland	yes	no	yes	yes	yes
Virginia	yes	no	yes	no	no
West Virginia	yes	yes	yes	no	no
North Carolina	yes	no	no	no	no
South Carolina	yes	no	no	no	yes
Georgia	no	no <sup>3</sup>	yes	no	no
Florida	yes	no	no	no	no
<u>East South Central</u>					
Kentucky	yes	yes	yes	yes	yes
Tennessee	no <sup>5</sup>	no	yes	yes	no
Alabama	no	no	yes	yes	yes
Mississippi	yes	no	yes	yes <sup>6</sup>	yes

Table 50.--Continued

Region and state	: Development credit corporation	: State industrial finance authority	: Local bond issues		
			: Revenue	: General obligation	: Tax concession
<u>West South Central</u>					
Arkansas	yes	no	yes	yes	no
Louisiana	no	no	yes	yes	yes
Oklahoma	no	yes	yes	yes	yes
Texas	no	no	no	no	no
<u>Mountain</u>					
Montana	no	no	no	no	yes
Idaho	no <sup>5</sup>	no	no	no	no
Wyoming	no	no	yes	no	no
Colorado	no	no	no	no	no
New Mexico	no	no	yes	no	no
Arizona	no	no	(7)	(7)	no
Utah	no	no	no	no	no
Nevada	no	no	no	no	no
<u>Pacific</u>					
Washington	yes	no	yes <sup>8</sup>	no	no
Oregon	no <sup>5</sup>	no	no	no	no
California	no	no	no	no	no

<sup>1</sup>Legislation is pending.

<sup>2</sup>Tax stabilization, rather than exemption.

<sup>3</sup>Only in areas designated by the Federal Area Redevelopment Administration.

<sup>4</sup>Corporation authorized but none has been formed.

<sup>5</sup>Corporation authorized, but none has been formed.

<sup>6</sup>Only in 18 counties.

<sup>7</sup>Bond issue authorization has been enacted; no further details are available.

<sup>8</sup>Only in port districts.

Source: New York State Department of Commerce, The Use of Public Funds or Credit in Industrial Location, Department of Commerce, Research Bulletin No. 6 (Albany, New York: State of New York, 1964), pp. 4-5.

Table 51.--Total consideration of all selected location factors in packing plant site selection, by responding plant managers, all regions combined.

Rank <sup>a</sup>	Locational factor	Number : considering : managers	Percent : of : managers	Number : not : considering : managers	Percent : of : managers	Number non-respondent : managers	Percent : of : managers
1	Local supply of livestock	168	73.6	39	17.1	21	9.2
2	Nearby markets for products	165	72.3	42	18.4	21	9.2
3	Local labor supply	161	70.6	36	15.7	31	13.6
4	Truck transportation facilities	161	70.6	29	12.7	38	16.6
5	Favorable business attitude of community	158	69.2	41	17.9	29	12.7
6	Waste disposal facilities	157	68.8	36	15.7	35	15.3
7	Water and sewage disposal regulations	152	66.6	42	18.4	34	14.9
8	Banking facilities	133	58.3	62	27.1	33	14.4
9	Local tax laws	118	51.7	70	30.7	40	17.5
10	City ordinances	112	49.1	79	34.6	37	16.2
11	State tax laws	111	48.6	75	32.8	42	18.4
12	Low labor cost in area	110	48.2	39	17.1	79	34.6
13	Rail transportation facilities	101	44.2	55	24.1	72	31.5
14	Absence of strong labor union	91	39.9	80	35.0	57	25.0
15	Accommodations for houses, schools, hospitals, etc.	91	39.9	103	45.1	34	14.9
16	Rapidly developing area	91	39.9	104	45.6	33	14.4
17	Local government and law	90	39.4	94	41.2	44	19.3
18	State inspection laws	86	37.7	92	40.3	50	21.9
19	Low interest rate loans	85	37.2	91	39.9	52	22.8
20	Low land prices	82	35.9	51	22.3	95	41.6
21	High labor cost in area	81	35.5	44	19.2	103	45.1
22	Offer to develop site	74	32.4	115	50.4	39	17.1

<sup>a</sup>Rank is based upon number of managers considering the factor.

Table 51.--Continued.

Rank <sup>a</sup>	Locational factor	Number : considering : managers	Percent : of : managers	Number : not : considering : managers	Percent : of : managers	Number non- : respondent : managers	Percent : of : managers
23	State inspection costs	71	31.1	112	49.1	45	19.7
24	Strong labor union	70	30.7	114	50.0	44	19.3
25	High land prices	65	28.5	66	28.9	97	42.5
26	Weather conditions	64	28.0	122	53.5	42	18.4
27	Offer to change city ordinances	63	27.6	114	50.0	51	22.3
28	Special property tax concession	60	26.3	118	51.7	50	21.9
29	Unfavorable business attitude of community	52	22.8	116	50.8	60	26.3
30	Offer buildings with low payments	52	22.8	109	47.8	67	29.4
31	Economically depressed area	42	18.4	147	64.4	39	17.1
32	Offer buildings free	32	14.0	119	52.1	77	33.7
33	Free site	23	10.0	129	56.5	76	33.3
34	Offer other tax concessions	22	9.6	101	44.2	105	46.0
35	Cash gift	21	9.2	137	60.0	70	30.7

<sup>a</sup>Rank is based upon number of managers considering the factor.

disposal facilities, water and sewage disposal regulations and banking facilities, ranked third, fourth, fifth, sixth, seventh, and eighth, respectively, in total consideration. Comparing these eight factors with the top eight inducement factors (based upon the total number of operators having experience with the factor in attracting industry) in Table 46, i.e., adequate housing, schools, hospitals, etc., favorable business attitude, develop industrial sites, provide buildings on easy terms, change zoning laws, low interest rate loans, free land, and property tax concessions, respectively, shows that the only common factor within the top eight location factors in both studies was a favorable business attitude. Comparing the same eight packing plant factors in Table 51 as restricting factors with the nine restricting factors in Table 46, i.e., (1) labor unions and labor laws, (2) zoning laws, (3) sewage disposal regulations, (4) high land prices, (5) local taxation, (6) negative business attitude of the community, (7) inadequate utilities, (8) present industries do not want new industries, and (9) undesirable local government, shows that only one restricting factor is common to industrial plant and packing plant location, i.e., an unfavorable (negative) business attitude of the community.

#### ADDITIONAL RELEVANT INFORMATION ON PACKING PLANT LOCATION FROM INDUSTRIAL DEVELOPMENT AGENCIES

As noted in the Survey of General Industrial Development Agencies section of this analysis, the industrial development agency survey questionnaire contained several open questions<sup>1</sup> concerning meat packing plants.

Table 52 shows the responses of industrial agency operators to two

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<sup>1</sup>See Appendix A.

questions related to the attraction of packing plants to a community. As shown, 71 operators indicated they attempted to attract a packing plant. Only 33 succeeded. Two hundred and forty operators said they did not attempt to attract a packing plant. Fifty-nine indicated they succeeded in attracting a plant. These figures are significant in that they give a brief indication of how development agencies are attempting to attract meat packing plants and their success.

Table 52.--Industrial agency operators' responses to questions related to packing plant location, all regions combined.

Questions	Number of replies				Percent of total replies			
	to question							
	: No :		: Total :		: No :		: Total :	
	: Yes :	: No :	: reply :	: Total :	: Yes :	: No :	: reply :	: Total :
1. Did you attempt to attract a meat packing plant to your area?	71	240	22	335	21.1	71.6	7.3	100.0
2. Did you succeed in securing the packing plant?	33	59	243	335	9.8	17.6	72.6	100.0

When asked what were the main reasons for success or failure in attracting a packing plant, managers' reasons varied considerably. Table 53 shows the reasons given by industrial agency operators for success in attracting packing plants and the number of operators citing the reason. As shown, the main reason given for success in attracting packing plants was an adequate supply of raw materials. Out of the 33 operators succeeding in attracting a packing plant, 9 said an adequate supply of raw materials was the reason for this. The other reasons cited for success were financial aids and

concessions, nearby markets for products, favorable community attitude, local supply of labor, good transportation facilities, and available land. Several other reasons given for success, but not shown here, were 100 percent financing, sale of stocks and bonds, rapidly developing area, available buildings, and no unions.

Table 53.--Reasons for success in attracting meat packing plants, as cited by survey industrial agency operators.

Reasons	: Number of operators citing reason
Adequate supply of raw materials	9
Financial aids and concessions	7
Nearby markets for products	6
Favorable community business attitude	6
Adequate labor supply	5
Good transportation facilities	4
Available land	4

Table 54 shows the reasons given by operators for failing to attract packing plants. Three reasons, i.e., inadequate supply of raw materials, inadequate supply of land, and similar plants within the area, were cited as equally important in causing a packing plant to not locate in a community. Five of the 59 operators failing to attract a packing plant cited each reason, respectively. The last two reasons, i.e., unavailable markets and insufficient financing, were cited by three operators. Other miscellaneous reasons given but not shown for failure included inadequate transportation facilities, zoning restrictions, high freight rates, lack of tax concessions,

insufficient utilities, and poor geographic location.

Table 54.--Reasons for failing to attract meat packing plants, as cited by survey industrial agency managers.

Reasons	: Number of operators citing reason
Inadequate supply of raw materials	5
Inadequate supply of land	5
Similar plants within 60 mile radius	5
Unavailable markets for products	3
Insufficient financing	3

#### SUMMARY AND CONCLUSION

It was the purpose of this study to analyze the relative importance of selected institutional factors associated with plant location, with particular reference to packing plant location, as a supplement to a North Central Regional Research Project. A search of the Kansas State University library and correspondence with State Development Agencies and others was undertaken in addition to questionnaires sent to both general industrial development agencies and meat packing plants built within the last decade. Personal interviews with representatives of selected national meat packing firms were also held.

A survey of 1197 general industrial development agencies within the United States, excluding Alaska and Hawaii, was conducted to obtain information about industrial plant location in general.

A survey of 749 meat packing plants was conducted to obtain information from packing plant operators about packing plant location. This survey

involved 26 regions within the United States, excluding Alaska and Hawaii. Plants within the survey regions were classified by geographic location, type of inspection and function.

Most of the theoretical attempts that were made to explain the location of industry prior to 1875 all dealt simultaneously with agriculture, industry, and trade. Today, most authors agree that the dominant locational factors of plant location are: (1) materials used in production, (2) means of transportation, (3) nearness to market, (4) quantity and quality of labor, (5) power and fuels, and (6) the availability of desirable sites. The meat packing plant survey revealed that location factors to packing plant location can be roughly categorized into two classes: (1) noninstitutional factors, and (2) institutional factors. Two noninstitutional factors and 33 institutional factors were included in this survey. Results from this survey showed that the most important factors to packing plant location indicated by consideration of responding managers from every region were the noninstitutional factors, i.e., (1) the local supply of livestock, and (2) nearby markets for the products, respectively. The most important institutional factors were: (1) the local supply of labor, (2) truck transportation facilities, (3) favorable business attitude of the community, (4) waste disposal facilities, (5) water and sewage disposal regulations, and (6) banking facilities.

A survey of industrial development agencies revealed that the most important inducements to general industrial plant location were: (1) a favorable business attitude of the community toward new prospective industry, (2) the adequacy of housing, schools, and hospital facilities within the community, (3) a community offer to develop industrial sites, (4) an offer to change the zoning laws for the industry, and (5) low interest rate loans.

Numerous other government-sponsored plans for financial assistance and inducements have been offered also by states. The most important hindrance factors to general industrial plant location were: (1) an unfavorable (negative) business attitude of the community toward new industry, (2) labor unions and labor laws, (3) inadequate utilities, and (4) an undesirable local government.

Comparing the most important institutional factors associated with industrial plant location with those associated with meat packing plants showed that these factors are different.

Additional information from industrial agency operators indicated relatively few communities have attempted to attract a meat packing plant and even fewer are succeeding in securing such a plant. Those securing packing plants cited an adequate supply of raw material, financial aids and concessions, nearby product markets, adequate local labor supply, good transportation facilities, and available land as reasons for success. Communities failing to attract meat packing plants cited an inadequate supply of raw material and land, similar plants in area, unavoidable markets and insufficient financing as reasons for failure.

## ACKNOWLEDGMENT

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## APPENDIX

The Department of Economics at Kansas State University is engaged in a study of factors affecting the location of plants and industries.

Our approach is an analysis of experiences realized by organizations such as the one you represent. We are interested in knowing the various types of inducements or attractions used and how well they have worked in attracting firms and industries. We also would like to determine the barriers, obstructions, or restrictions to the location of plants and industries.

After reviewing a number of studies on the problem, we have not been able to find a comprehensive analysis. We, therefore, have devised what we hope is a rather simple form to give us the information needed. We would greatly appreciate it if you would give us this information as related to your experience. If you have not had actual experience with some of the factors, please give us your opinion regarding them. Do not hesitate to add comments that would be helpful to us in this study.

We are particularly interested in factors affecting meat packing plant location. If you have experience or knowledge of either obstructions or inducements in regard to meat packing plant location, please indicate this on the form. Please note that this study is not limited to meat packing plants although we do have a special interest in them.

The information you furnish will be kept strictly confidential. Published results will not reveal the identity of any individual or organization.

Thank you.

Very truly yours,

John H. McCoy  
Professor

JHM:ds

Enclosures

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Appendix A.--Example of letter of introduction used with the pilot study questionnaire and questionnaire sent to industrial development agencies.

## Questionnaire

Project No. \_\_\_\_\_

Listed below are several inducements or attractions thought to have some influence in attracting industry to a community. If you have had experience with offering the inducement or attraction, indicate so with a "yes" in Column I. If you have not had experience with the inducement, place a "no" in Column I. In the column entitled "effectiveness," circle the number that you feel describes the relative effectiveness of the inducement to attract industries. (-1 means a negative effect; 0, no effect; 1, slightly effective; 2, moderately effective; 3, effective; 4, very effective.) Even if you have not had experience with the inducement or attraction, indicate how effective you feel the inducement would be in attracting industry. In Column III, rank the whole list from the least important item to the most important item with "1" being the least important item and the largest number the most important item. There are several spaces left at the bottom of the list where you can indicate other inducements or attractions that you know exist.

<u>Inducements or Attractions</u>	<u>I</u>	<u>Effectiveness</u>	<u>III</u>
1. Property tax concessions	_____	-1 0 1 2 3 4	_____
2. Free land	_____	-1 0 1 2 3 4	_____
3. Cash gift	_____	-1 0 1 2 3 4	_____
4. Low interest rate loans	_____	-1 0 1 2 3 4	_____
5. Provide buildings			
(a) Free	_____	-1 0 1 2 3 4	_____
(b) Easy terms	_____	-1 0 1 2 3 4	_____
6. Sell the stocks of the corporation	_____	-1 0 1 2 3 4	_____
7. Favorable business attitude	_____	-1 0 1 2 3 4	_____
8. Adequate housing, hospitals, schools.			
(a) Already have the facilities	_____	-1 0 1 2 3 4	_____
(b) Promise to provide the facilities needed	_____	-1 0 1 2 3 4	_____
9. Develop industrial sites	_____	-1 0 1 2 3 4	_____
10. Change zoning laws to favor industry	_____	-1 0 1 2 3 4	_____
11. Offer other tax concessions (specify on back of page)	_____	-1 0 1 2 3 4	_____

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Appendix A.--Example of the pilot study questionnaire mailed to 50 industrial development agencies.

<u>Inducements or attractions</u>	I	<u>Effectiveness</u>	III
12.	_____	-1 0 1 2 3 4	_____
13.	_____	-1 0 1 2 3 4	_____
14.	_____	-1 0 1 2 3 4	_____

Listed below are several restrictions, barriers or hindrances thought to have some influence on an industry wanting to locate in a community. If you have had experience with the restriction, barrier, or hindrance, indicate so with a "yes" in Column I. If you have not had experience with the hindrance, place a "no" in Column I. In the column entitled "importance," circle the number that you feel indicates the relative importance of the hindrance, barrier, or restriction, in discouraging an industry from locating in a community. (-1 means negative importance; 0, no importance; 1, slightly important; 2, moderately important; 3, important; 4, very important). Even if you have not had experience with the hindrance, indicate how important you feel the hindrance would be in discouraging an industry. In Column III, rank the whole list from least important to most important with "1" indicating the least important in discouraging industry and the largest number indicating the most important in discouraging industry. There are several spaces left at the bottom of the list where you can indicate other hindrances, barriers, or restrictions that you know exist.

<u>Hindrances or Restrictions</u>	I	<u>Importance</u>	III
1. Zoning laws	_____	-1 0 1 2 3 4	_____
2. Labor unions and labor laws	_____	-1 0 1 2 3 4	_____
3. Local taxation (describe on back of page)	_____	-1 0 1 2 3 4	_____
4. Sewage disposal	_____	-1 0 1 2 3 4	_____
5. Negative business attitude of community	_____	-1 0 1 2 3 4	_____
6. Present industries do not want new industries in the community	_____	-1 0 1 2 3 4	_____
7. Undesirable local government	_____	-1 0 1 2 3 4	_____
8. Inadequate utilities (Specify on back of page)	_____	-1 0 1 2 3 4	_____
9. High price of land	_____	-1 0 1 2 3 4	_____
10.	_____	-1 0 1 2 3 4	_____
11.	_____	-1 0 1 2 3 4	_____
12.	_____	-1 0 1 2 3 4	_____

In general how successful do you feel your activities have been in attracting industry? (Check the proper word.) High\_\_ Medium\_\_ Low\_\_ No success\_\_.

Do you feel the other activities, such as providing information and personal contacts, are more important than\_\_, as important as\_\_, less important than\_\_ special inducements? (Check one).

Do you plan on expanding the inducements you offer? (If so, indicate what they are.)

Have you attempted to attract a meat packing plant to your area? \_\_\_\_\_  
Did you succeed in securing the meat packing plant? \_\_\_\_\_ What do you feel  
were the reasons for your success or failure in attracting the packing plant?

Would you like a copy of the study? Yes \_\_\_\_\_ No \_\_\_\_\_.

List below the industries your community has attracted and the inducements offered them. List the industries you did not succeed in attracting and the inducements offered them.

A) Industries attracted and important inducements.

B) List the industries you attempted to attract, but did not succeed in attracting, and the inducements offered them. (Include reasons why you think they did not locate in your area.)

The Department of Economics at Kansas State University is engaged in a study of factors affecting the location of plants and industries.

Our approach is an analysis of experiences realized by organizations such as the one you represent. We are interested in knowing the various types of inducements or attractions used and how well they have worked in attracting firms and industries. We also would like to determine the barriers, obstructions or restrictions to the location of plants and industries.

After reviewing a number of studies on the problem, we have not been able to find a comprehensive analysis. We, therefore, have devised what we hope is a rather simple form to give us the information needed. We would greatly appreciate it if you would give us this information as related to your experience. If you have not had actual experience with some of the factors, please give us your opinion regarding them. Do not hesitate to add comments that would be helpful to us in this study.

We are particularly interested in factors affecting meat packing plant location. If you have experience or knowledge of either obstructions or inducements in regard to meat packing plant location, please indicate this on the form. Please note that this study is not limited to meat packing plants although we do have a special interest in them.

The information you furnish will be kept strictly confidential. Published results will not reveal the identity of any individual or organization.

Thank you.

Very truly yours,

John H. McCoy  
Professor

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Enclosures

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Appendix B.-- Example of the letter of introduction accompanying the questionnaire mailed to 1197 industrial development agencies.

## Questionnaire

Listed below are several inducements or attractions thought to have some influence in attracting industry to a community. If you have had experience with offering the inducement or attraction, indicate so with a "yes" in Column I. If you have not had experience with the inducement, place a "no" in Column I. In the column entitled "effectiveness," circle the number that you feel describes the relative effectiveness of the inducement to attract industries. (-1 means a negative effect; 0, no effect; 1, slightly effective; 2, moderately effective; 3, effective; 4, very effective.) Even if you have not had experience with the inducement or attraction, indicate how effective you feel the inducement would be in attracting industry.

<u>Inducements or Attractions</u>	<u>I</u>	<u>Effectiveness</u>
1. Property tax concessions	_____	-1 0 1 2 3 4
2. Free land	_____	-1 0 1 2 3 4
3. Cash gift	_____	-1 0 1 2 3 4
4. Low interest rate loans	_____	-1 0 1 2 3 4
5. Provide buildings		
(a) free	_____	-1 0 1 2 3 4
(b) easy terms	_____	-1 0 1 2 3 4
6. Sell the stocks of the corporation	_____	-1 0 1 2 3 4
7. Favorable business attitude	_____	-1 0 1 2 3 4
8. Adequate housing, hospitals, schools,		
(a) already have the facilities	_____	-1 0 1 2 3 4
(b) promise to provide the facilities needed	_____	-1 0 1 2 3 4
9. Develop industrial sites	_____	-1 0 1 2 3 4
10. Change zoning laws to favor industry	_____	-1 0 1 2 3 4
11. Offer other tax concessions (specify on back of page)	_____	-1 0 1 2 3 4
12.	_____	-1 0 1 2 3 4
13.	_____	-1 0 1 2 3 4
14.	_____	-1 0 1 2 3 4

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Appendix B.--Example of the questionnaire mailed to 1197 industrial development agencies.

Listed below are several restrictions, barriers or hindrances thought to have some influence on an industry wanting to locate in a community. If you have had experience with the restriction, barrier, or hindrance, indicate so with a "yes" in Column I. If you have not had experience with the hindrance, place a "no" in Column I. In the column entitled "importance," circle the number that you feel indicates the relative importance of the hindrance, barrier, or restriction, in discouraging an industry from locating in a community. (-1 means negative importance; 0, no importance; 1, slightly important; 2, moderately important; 3, important; 4, very important.) Even if you have not had experience with the hindrance, indicate how important you feel the hindrance would be in discouraging an industry.

<u>Hindrances or Restrictions</u>	<u>I</u>	<u>Importance</u>
1. Zoning laws	_____	-1 0 1 2 3 4
2. Labor unions and labor laws	_____	-1 0 1 2 3 4
3. Local taxation (describe on back of page)	_____	-1 0 1 2 3 4
4. Sewage disposal regulations	_____	-1 0 1 2 3 4
5. Negative business attitude of community	_____	-1 0 1 2 3 4
6. Present industries do not want new industries in the community	_____	-1 0 1 2 3 4
7. Undesirable local government	_____	-1 0 1 2 3 4
8. Inadequate utilities (specify on back of page)	_____	-1 0 1 2 3 4
9. High price of land	_____	-1 0 1 2 3 4
10.	_____	-1 0 1 2 3 4
11.	_____	-1 0 1 2 3 4
12.	_____	-1 0 1 2 3 4

In general how successful do you feel your activities have been in attracting industry? (Check the proper word.) High\_\_ Medium\_\_ Low\_\_ No success\_\_.

Do you engage in promotional activities other than the ones indicated on page 1? Yes\_\_ No\_\_. If yes, list the activities in the order of importance, with the first activity the most important.

Do you plan on expanding the inducements you offer? (If so, indicate what they are.)

Have you attempted to attract a meat packing plant to your area?\_\_\_\_\_  
Did you succeed in securing the meat packing plant?\_\_\_\_\_ What do you feel were the reasons for your success or failure in attracting the packing plant?

Would you like a copy of the study? Yes\_\_\_\_\_ No\_\_\_\_\_.

Attention: Plant Manager

Dear Sir:

The Department of Economics at Kansas State University is involved in a study of factors affecting the location of meat packing plants. This is part of a regional study and an attempt is being made to contact operators of all plants built in recent years.

Our approach is an analysis of experiences realized by firms. We are interested in knowing the various factors, and the relative importance of those factors, in influencing plant location. We also would like to determine the barriers, obstructions, or restrictions to the location of plants as well as inducements which attract the location of plants.

We have devised what we hope is a rather simple form to give us the information needed. We would greatly appreciate it if you would give us the information as related to your experience. Even if you have not had actual experience with some of the factors, please give us your opinion regarding them. Do not hesitate to add comments that would be helpful to us in the study.

The information you furnish will be kept strictly confidential. Published results will not reveal the identity of any individual or firm.

Thank you.

Very truly yours,

John H. McCoy  
Professor

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Enclosures

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Appendix C.--Example of the letter of introduction accompanying the questionnaire mailed to 749 meat packing plants.

Information Sheet

Project No.

Listed below are several general factors thought to be important in influencing the decision to locate a meat packing plant in a particular area. If you considered the factor when determining where to locate your plant then place a "yes" in Column I. If you did not consider the factor when locating your plant then place a "no" in Column I. In the column entitled "relative importance" circle the number that you feel describes the relative importance of the factor in influencing locational decisions (-1 means negative importance, 0 = no importance, 1 = slightly important, 2 = moderately important, 3 = important, 4 = very important). Even if you did not consider the factor when locating your plant, indicate how important you feel the factor would be in locational decisions. In Column III, after reviewing all 31 factors, pick the 15 factors which you consider the most important from the list and rank them in importance. Rank the 15 factors from 1 to 15, using "1" to represent the most important factor and "15" the least important of the 15 factors. There are several spaces left at the bottom of the list where you can indicate other factors you may have encountered or heard about that we have not listed.

<u>General Factors</u>	<u>I</u> <u>(Yes or No)</u>	<u>II</u> <u>Relative</u> <u>Importance</u>	<u>III</u> <u>Rank of</u> <u>Importance</u>
1. Local supply of livestock	_____	-1 0 1 2 3 4	_____
2. Nearby markets for products	_____	-1 0 1 2 3 4	_____
3. Local labor supply	_____	-1 0 1 2 3 4	_____
4. Labor cost within area	<u>XXXXXXXXXX</u>		
(a) Low	_____	-1 0 1 2 3 4	<u>XXXXXXXXXX</u>
(b) High	_____	-1 0 1 2 3 4	<u>XXXXXXXXXX</u>
5. Waste disposal facilities	_____	-1 0 1 2 3 4	_____
6. Water and sewage disposal regulations	_____	-1 0 1 2 3 4	_____
7. Accommodations for housing, schools, hospitals, etc.	_____	-1 0 1 2 3 4	_____
8. Weather conditions	_____	-1 0 1 2 3 4	_____
9. Land prices	<u>XXXXXXXXXX</u>		
(a) High	_____	-1 0 1 2 3 4	<u>XXXXXXXXXX</u>
(b) Low	_____	-1 0 1 2 3 4	<u>XXXXXXXXXX</u>
10. Transportation facilities	<u>XXXXXXXXXX</u>		
(a) Rail	_____	-1 0 1 2 3 4	<u>XXXXXXXXXX</u>
(b) Truck	_____	-1 0 1 2 3 4	<u>XXXXXXXXXX</u>
11. Banking facilities	_____	-1 0 1 2 3 4	_____
12. Rapidly developing area	_____	-1 0 1 2 3 4	_____

Appendix C.--Example of the questionnaire mailed to 749 meat packing plants.

13. Economically depressed area	_____	-1 0 1 2 3 4	_____
14. Favorable business attitude of community	_____	-1 0 1 2 3 4	_____
15. Unfavorable business attitude of community	_____	-1 0 1 2 3 4	_____
16. Offer by the community to develop an industrial site	_____	-1 0 1 2 3 4	_____
17. Local tax laws	_____	-1 0 1 2 3 4	_____
18. State tax laws	_____	-1 0 1 2 3 4	_____
19. Special property tax concession	_____	-1 0 1 2 3 4	_____
20. Other tax concessions (specify on back of page)	_____	-1 0 1 2 3 4	_____
21. Restrictive city ordinances	_____	-1 0 1 2 3 4	_____
22. Offer to change city ordinances	_____	-1 0 1 2 3 4	_____
23. State inspection costs	_____	-1 0 1 2 3 4	_____
24. State inspection laws	_____	-1 0 1 2 3 4	_____
25. Local governments and law enforcement	_____	-1 0 1 2 3 4	_____
26. Strong labor union	_____	-1 0 1 2 3 4	_____
27. Absence of labor union	_____	-1 0 1 2 3 4	_____
28. Offer buildings	<u>XXXXXXXXXX</u>		
(a) Free	_____	-1 0 1 2 3 4	<u>XXXXXXXXXX</u>
(b) Low payments	_____	-1 0 1 2 3 4	<u>XXXXXXXXXX</u>
29. Free site	_____	-1 0 1 2 3 4	_____
30. Cash gift	_____	-1 0 1 2 3 4	_____
31. Low interest rate loans	_____	-1 0 1 2 3 4	_____
32.	_____	-1 0 1 2 3 4	_____
33.	_____	-1 0 1 2 3 4	_____
34.	_____	-1 0 1 2 3 4	_____
35.	_____	-1 0 1 2 3 4	_____

General Information:

1. Year in which this plant was constructed \_\_\_\_\_.

2. Weekly capacity of this plant (number of head):

- (a) cattle \_\_\_\_\_ head
- (b) calves \_\_\_\_\_ head
- (c) hogs \_\_\_\_\_ head

3. Percent of livestock obtained within--:

- (a) 25 miles \_\_\_\_\_ %
- (b) 50 miles \_\_\_\_\_ %
- (c) 100 miles \_\_\_\_\_ %
- (d) 200 miles \_\_\_\_\_ %
- (e) Over 200 miles \_\_\_\_\_ %

4. Does your plant:

- (a) Slaughter only      Yes \_\_\_\_\_ No \_\_\_\_\_  
(b) Process only        Yes \_\_\_\_\_ No \_\_\_\_\_  
(c) Slaughter and  
    process                Yes \_\_\_\_\_ No \_\_\_\_\_

5. If you so desire, please give the name of your firm and the person filling out this questionnaire.

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AN ANALYSIS OF THE RELATIVE IMPORTANCE OF INSTITUTIONAL FACTORS  
ASSOCIATED WITH PLANT LOCATION, WITH PARTICULAR REFERENCE  
TO MEAT PACKING PLANTS

by

GARY L. BLINKA

B. S., Texas A & M University, 1964

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AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Economics

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1966

American industry is moving. Local, state, and federal organizations, both public and private, throughout the nation are aiding the expansion and establishment of new industries in their areas and communities.

Institutional factors affect the location of plants. This study, which served as a supplement to a North Central Regional Research Project, was an analysis of the relative importance of institutional factors associated with plant location, with particular reference to meat packing plants. The procedure followed to obtain relevant information involved (1) a review of literature pertaining to the subject which served as secondary sources of information, (2) the use of mail survey questionnaires which served as the original and primary sources of information, and (3) correspondence with state development agencies and others. A 10 percent random sample of 11,970 general industrial development agencies was surveyed within the United States, excluding Alaska and Hawaii, to obtain the desired information about specific institutional barriers and inducements to plant location. Respondents to the questionnaire numbered 335, for a 27.9 percentage return. Meat packing plants constructed during the period 1955-1964 were surveyed by questionnaire to obtain information about selected packing plant location factors. Twenty-one survey regions were indicated. Plants within the survey regions were classified by geographic location, type of inspection (federal or non-federal) and function (i.e., slaughter only, process only, slaughter and process). A total of 749 plants was surveyed with 228 operators responding. Mail correspondence with personnel of various industrial development corporations and Chambers of Commerce produced much pertinent information.

A review of the few theoretical attempts that were made prior to 1875 by such economists as Adam Smith, J. H. von Thünen, and Alfred Marshall to

explain industry location revealed that all dealt simultaneously with agriculture, trade and industry. In the twentieth century, economists such as Wilhelm Roscher, Alfred Weber, Frederick S. Hull, and Edgar M. Hoover dealt more extensively with such factors as markets, raw materials, labor, transportation, climate, sites, capital, and fuels in industrial location.

The meat packing survey indicated the two major factors affecting packing plant location were noninstitutional in nature, i.e., (1) local supply of livestock, and (2) nearby markets for products. These were followed by six institutional factors: (1) local supply of labor, (2) truck transportation facilities, (3) favorable business attitude of the community, (4) waste disposal facilities, (5) water and sewage disposal regulations, and (6) banking facilities. Inducements in the form of a cash gift, free site, property tax concessions, and offering buildings free or with low payments were relatively unimportant in packing plant location.

The industrial development agency survey indicated the most important inducements to general industrial plant location were (1) a favorable business attitude of the community, (2) adequate housing, schools, hospitals, etc., (3) community offer to develop industrial sites, (4) offer to change zoning laws, and (5) low interest rate loans. The most important factors discouraging industrial location were (1) an unfavorable business attitude of the community, (2) labor unions and labor laws, (3) inadequate utilities, and (4) an undesirable local government.

Additional information from industrial agencies indicated that relatively few communities have attempted to attract meat packing plants and even fewer have succeeded in attracting such plants.



