

SITE SELECTION FACTORS:
AN ALABAMA SURVEY

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The "flight" of industrial concerns from the Northeast to the "Sunbelt" states during the 1970's attracted considerable attention from both the gaining and losing states.¹ Even the Federal government was drawn into the debate by virtue of its regional expenditure patterns.² Just when the debate appeared to have receded to a small roar, "hi-tech" industry entered the picture and raised new concerns about the regional (state) impact of this high growth area.³

The importance of attracting new industry is given added importance in light of the gradual shifting of the structure of the U.S. economy from a manufacturing to a service-oriented economy.⁴ As this adjustment continues, areas in which traditional heavy industry was a dominant force will find the need for new employment opportunities exceeding natural growth. This will be true for states in the "sunbelt" as well as the "frostbelt" and both will be competing for the limited new jobs available. This competition, which has become intense in recent months, includes an attempt to "marry" the locational needs of new firms to the locational advantages of the respective states. Thus it would appear to be a matter of first importance that these states inventory their locational advantages and compare them to the locational needs of new and expanding firms.

There are at least two approaches to the identification of important locational advantages for states: (1) ex ante, in which an inventory of all

locational factors is developed, and (2) ex post, in which existing firms are surveyed to determine which locational factors were decisive in their locational choice. While the limitations of the survey method of investigation are legion and well known, the advantages are not insignificant and the benefit/cost ratio is apparently high enough to justify their continued use in many studies.

The New Competition

Before reporting on the nature of the survey used in this research, a brief review on the current nature of industrial recruiting seems appropriate. In the South, the motivation for examining locational factors in the past was to help explain the lagging nature of the region and to determine the appropriate industrial recruiting approach which would lure plants away from the industrial Northeast and Midwest. The South, it was often suggested, was an economically homogeneous region and faced the equally homogeneous Midwest and Northeast when it came to industrial recruiting.

Today, the South is no longer thought of a homogeneous region and the stronghold which many believed the Northeast and Midwest held on industrial growth is no longer meaningful. A new region, the "Sunbelt" has emerged and helped to raise the level of awareness of those outside the region that the South is a varied area, with high growth states as well as slow growth states. Perhaps no where is this awareness more evident than in those states which are in the South, but not part of the "Sunbelt" explosion.

For these states, the situation today is not much different from that of the 1960's in which intense industrial recruiting was the order of the day. What is different, however, is that the firms which are being recruited are already committed to a Southern or "Sunbelt" location and thus are not being recruited "away" from the Northeast or Midwest. Industrial recruiting efforts

stress the differential advantage of the South versus the Midwest or Northeast will have little impact on the locational choice of southern-bound firms. And industrial recruiting which stress the locational advantages of a particular state versus the Midwest or Northeast will similarly miss the competition. The South, particularly those states which are not enjoying the spontaneous growth associated with the "Sunbelt", must recognize that they are in competition with each other, and that factors which are common to the region cannot effectively be used to differentiate their state over the competition.

Some Earlier Surveys

In order to place the results of this survey in perspective, a brief review of some earlier surveys conducted on Southern locational factors seems in order. One of the earliest such surveys was conducted in 1949 by Glenn McLaughlin, in which a questionnaire was sent to 50 manufacturing concerns which had opened 88 plants during the 1945-1949 period.⁵ According to the results of this study, the firms listed the following three locational factors as most important in their locational choice of the South:

- (1) The growing industrial and consumer market;
- (2) The availability of material and energy resources;
- (3) The availability of an adequate supply of labor.

While the importance of these factors is not at all surprising, it should be noted that they are not factors which are easily influenced by government policy. It would appear that natural resource endowments and growing southern markets played the dominant role in plant location decisions during the 1945-1949 study period. It was also observed that promotional efforts and special inducements had only a limited effect and that they "...play a successful role only if the primary attraction exists in an area. And often in that case they are not necessary."⁶

A more recent survey of industrial location decisions in the South was published in 1982.⁷ In this study, firms in three southern states (North Carolina, South Carolina and Virginia) were polled regarding the relative importance of 19 locational factors. The top five answers (responses were rated on a 1-to-5 scale and the mean response used to rank locational factors) were:

- (1) Business climate;
- (2) Labor productivity;
- (3) Transportation;
- (4) Land availability; and
- (5) Cost of land and construction.

The author suggests, based on these factors, that the South is attractive due to lower production costs when compared to other regions. The author also notes that while business climate ranked first among the locational characteristics of firms in these three states, "Industrial climate ...(is) considered to be (a) shared characteristic within the region."⁸ This simply means that while the locational factor may be important in the decision to locate in the South, it is not a determining factor in the selection of one state over another. Since the competition for new industry in the South appears to be with other Southern or "Sunbelt" states, it casts serious doubt on the effectiveness of a recruiting strategy which emphasizes a positive business climate to be found within a particular state.

The results of the Hekman study are summarized in Table 1. It should be noted that this table reports on the average of all firms for the three states surveyed, although data by two digit SIC code is also reported.

TABLE 1
RANKING OF BUSINESS LOCATION FACTORS BY MEAN
HEKMAN SURVEY

FACTORS	RANK
State/Local Industrial Climate	1
Labor Productivity	2
Transportation	3
Land Availability/Room for Expansion	4
Cost of Land & Construction	5
Wage Rates	6
Business Taxation	7
Electricity Availability/Cost	8
Skilled Labor Supply	9
Proximity to Markets	10
Unskilled Labor Supply	12
State/Local Environmental Regulations and Permit Processing	13
Water Supply	14
Availability of Technical Training Programs	15
Fuel Availability/Cost	16
State Financial Incentives	17
Public Wastewater Treatment Capacity	18
Solid/Hazardous Waste Disposal Facilities	19

SOURCE: John S. Hekman, "What Are Businesses Looking For? Survey of Location Decisions in the South," Economic Review. Atlanta: Federal Reserve Bank of Atlanta, June, 1982, Table 6, p. 16.

The Alabama Survey

Each year, the Alabama Development Office publishes a list of all manufacturing firms in the State which announced intentions to expand or locate a plant in Alabama during the pervious calander year.⁹ These publications for the years 1977 through 1981 became the basis for the sample. All firms listed in these publications were included in the mail survey, thus producing a 100 percent sample of new and expanding manufacturing firms in Alabama for the most recent five year period.

The questionnaire, a copy of which is included at the end of this paper, asked the respondents to rank 31 location factors in terms of their relative importance to the decision to open or expand their plant. Respondents were given five alternative reponses: (1) not important, (2) slightly important, (3) moderately important, (4) very important, and (5) extremely important.

The survey was mailed to 330 firms in the State. No follow-up letter was mailed. The response included 102 completed questionnaires, 85 returned as non-deliverable, and 143 non-respondents. Of the 102 completed, 12 were incomplete and not included in the final tabulation. Thus, of the 330 questionnaires mailed, 90 were used in the analysis. This represents a response rate of 27 percent.

Some of the firms did not rate particular factors, either unsure of the meaning of the factor or because the factor was not relevant (as opposed to being not important) to their location. Thus, the number of responses, by question, tends to vary somewhat, with a low of 84 and a high of 90 responses. Table 2 presents the results of the Alabama survey, while Table 3 ranks the responses from highest to lowest.

TABLE 2
SURVEY RESULTS
LOCATIONAL FACTORS OF RECENT ALABAMA MANUFACTURING NEW INDUSTRY

Location Factors	N =	IMPORTANCE				
		NOT IMPORTANT	SLIGHTLY IMPORTANT	MODERATELY IMPORTANT	VERY IMPORTANT	EXTREMELY IMPORTANT
Labor Productivity	89	7.9 %	2.2 %	14.6 %	39.3 %	36.0 %
Housing	86	26.7	20.9	32.6	17.4	2.3
Availability of Technical Training	88	27.3	17.0	29.5	17.0	9.1
Skilled Labor Supply	84	19.0	20.2	21.4	27.4	11.9
Educational System	86	22.1	9.3	32.6	24.4	11.6
Business Taxation	87	6.9	4.6	18.4	41.4	28.7
Unskilled Labor Supply	86	27.9	10.5	25.6	29.1	6.9
Recreational Opportunity	87	36.8	21.8	28.7	11.5	1.1
State Financial Incentives	87	16.1	4.6	19.5	43.6	16.1
Wage Rates	88	13.6	7.9	28.4	31.8	18.2
Cultural Resources	84	41.7	28.6	23.8	5.9	-0-
Water Supply	86	27.9	19.8	18.6	19.8	13.9
State/Local Industrial Climate	87	10.3	11.5	19.5	40.2	18.4
Entertainment	87	47.1	28.7	16.1	4.6	3.4
Public Wastewater Treatment Cap.	86	44.1	18.6	13.9	13.9	9.3
Electricity availability/cost	89	8.9	10.1	31.5	29.2	20.2
Cost of Living	87	9.2	11.5	47.1	24.1	8.0
Solid/Hazardous waste facilities	87	51.7	13.8	13.8	13.8	6.9
Fuel availability/cost	87	25.3	13.8	28.7	18.4	13.8
Physical Quality of air/water	87	29.9	16.1	37.9	10.3	5.7
State/Local Environmental regulations and permit process	86	24.4	12.8	17.4	32.6	12.8
Transportation related to business	89	11.2	8.9	22.5	40.4	16.9
Beauty of natural landscape	86	45.3	34.9	16.3	2.3	1.1
Nearness to Markets	87	11.5	13.8	25.3	21.8	27.6
Nearness to suppliers/services	84	10.7	15.5	33.3	25.0	15.5
Transportation (local traffic)	85	42.4	17.6	23.5	11.7	4.7
Land Availability	90	8.9	5.6	28.9	45.6	11.1
Climate	88	17.0	21.6	28.4	25.0	7.9
Cost of land/construction	89	4.5	10.1	13.5	44.9	26.9
Personal Taxation	86	11.6	25.6	32.6	22.1	8.1
Personal Reasons	89	39.3 %	7.9 %	17.9 %	11.2 %	23.6 %

SOURCE: SURVEY RESULTS

TABLE 3
RANKING OF LOCATION FACTORS BY MEAN
ALABAMA SURVEY

FACTORS	RANK	MEAN
Labor Productivity	1	4.42
Business Taxation	2	4.37
Cost of Land/Construction	3	4.26
State/Local Industrial Climate	4	3.96
Nearness to Markets	5	3.91
State Financial Incentives	6	3.89
Transportation (Business)	7	3.85
Electricity Availability/Cost	8	3.84
Land Availability	9	3.83
Nearness to Suppliers/Services	10	3.80
Wage Rates	11	3.78
Cost of Living	12	3.56
Skilled Labor Supply	13	3.49
State/Local Environmental Laws	14	3.45
Educational System	15	3.42
Personal Taxation	16	3.37
Climate	17	3.24
Fuel Availability/Cost	18	3.24
Unskilled Labor Supply	19	3.22
Water Supply	20	3.16
Personal Reasons	21	3.05
Availability of Technical Training	22	2.99
Housing	23	2.88
Physical Quality of Air & Water	24	2.82
Public Wastewater Treatment	25	2.62
Transportation (Local Traffic)	26	2.57
Recreational Opportunity	27	2.51
Solid/Hazardous Waste Facilities	28	2.42
Cultural Resources	29	2.31
Entertainment	30	2.16
Beauty of Natural Landscape	31	2.08

SOURCE: Derived from Table 2

A Comparison of the Heckman and Alabama Survey Results

Table 4 presents a comparison of the Heckman results with those obtained in the Alabama Survey. Since the Alabama survey asked 31 questions, while the Heckman study listed only 19, the absolute rankings in the Alabama Survey were converted to relative rankings for purposes of comparison to the Heckman study. This conversion will not affect the correlation coefficient if it can be assumed that the Alabama respondents would not have altered their assessment of the importance of each factor if they had received the shorter 19 question survey. Since each factor is assessed independently of the others, it seems reasonable to assume that no altered responses would have occurred. More importantly, however, is the fact that only four of the absolute rankings given by Alabama respondents exceeded 19, the highest rank in the Heckman study.

Once this conversion was made, as shown in Table 5, a simple rank correlation coefficient was estimated for the two series. The simple rank correlation coefficient for these two series was determined to be .74. This suggests that overall, the two surveys did not produce very different rankings.¹⁰

In spite of the apparent similarities in the two rankings, there are still areas of significant disagreement. Table 5 shows the absolute differences in relative rankings between the Heckman and Alabama Survey. Note that while for most factors, the differences are relatively small, the difference in rankings for State Financial Incentives amounted to 11 positions out of a maximum of 18 positions. In the Heckman study, this factor ranked 17 out of 19 items, a strong indication that such inducements are not effective in industrial recruiting. This is consistent with the McLaughlin study in 1949 which suggested that such inducements were not important.

TABLE 4
A COMPARISON OF THE BUSINESS LOCATION FACTORS,
HEKMAN SURVEY AND ALABAMA SURVEY

FACTORS	HEKMAN RANK	ALABAMA RANK
State/Local Industrial Climate	1	4
Labor Productivity	2	1
Transportation	3	7
Land Availability/Room for Expansion	4	9
Cost of Land & Construction	5	3
Wage Rates	6	11
Business Taxation	7	2
Electricity Availability/Cost	8	8
Skilled Labor Supply	9	13
Proximity to Suppliers/Services	10	10
Proximity of Markets	11	5
Unskilled Labor Supply	12	19
State/Local Environmental Regulations and Permit Processing	13	14
Water Supply	14	20
Availability of Technical Training Programs	15	22
Fuel Availability/Cost	16	18
State Financial Incentives	17	6
Public Wastewater Treatment Capacity	18	25
Solid/Hazardous Waste Facilities	19	28

SOURCE: John S. Hekman, "What Are Businesses Looking For? Survey of Location Decisions in the South," Economic Review. Atlanta: Federal Reserve Bank of Atlanta, June, 1982, Table 6, p. 16, and Alabama Survey.

TABLE 5
 A COMPARISON OF THE BUSINESS LOCATION FACTORS,
 HEKMAN SURVEY AND ALABAMA SURVEY (Adjusted)

FACTORS	HEKMAN RANK	AJUSTED ALABAMA RANK	RANK DIFFERENCE
State/Local Industrial Climate	1	4	3
Labor Productivity	2	1	1
Transportation	3	7	4
Land Availability/Room for Expansion	4	9	5
Cost of Land & Construction	5	3	2
Wage Rates	6	11	5
Business Taxation	7	2	5
Electricity Availability/Cost	8	8	0
Skilled Labor Supply	9	12	3
Proximity to Suppliers/Services	10	10	0
Proximity of Markets	11	5	6
Unskilled Labor Supply	12	15	3
State/Local Environmental Regulations and Permit Processing	13	13	0
Water Supply	14	16	2
Availability of Technical Training Programs	15	17	2
Fuel Availability/Cost	16	14	2
State Financial Incentives	17	6	11
Public Wastewater Treatment Capacity	18	18	0
Solid/Hazardous Waste Facilities	19	19	0
Sperman's Rank Correlation Coefficient			

SOURCE: John S. Hekman, "What Are Businesses Looking For? Survey of Location Decisions in the South," Economic Review. Atlanta: Federal Reserve Bank of Atlanta, June, 1982, Table 6, p. 16, and Alabama Survey.

However, in the Alabama study, State Financial Incentives were ranked 6th in the adjusted scale and 4th in the unadjusted scale. Since this is an area in which state governments exercise control, the apparent importance of such inducements claimed by Alabama firms would tend to support public policy which offers financial inducements. Yet one must somehow reconcile the fact that earlier studies suggest that such inducements are not important and that public policy which offers such inducements may not significantly affect industrial location.

While the precise explanation of this difference must await additional research, some tentative explanations can be offered. As it will be shown, the respondents in the Alabama Survey were predominantly smaller firms (employment levels less than 200). These firms may well find that their economic survival depends on the financial inducements offered by state and local governments. Respondents in the other surveys may have been larger, more established firms and thus the importance of financial inducements played only a minor role in their locational decision.

Who Does Alabama Compete With?

Earlier, it was hypothesized that states in the South are now in competition with each other rather than with the traditional manufacturing locations of the northeast and midwest. Heckman noted that while business climate was the number one ranked factor in the three southern states he examined, it was a shared characteristic of the south and thus not a determining factor in the choice of states within the region. This would suggest that among the southern states, labor productivity, transportation and land availability were the three determining factors.

In an effort to see if this hypothesis is supported in the Alabama Survey, respondents were asked if another state was considered in their locational decision, and if so, what states were considered.

Table 6 reveals that out of the 44 firms that considered a location in another state, only five of them considered states outside the south/southeast region. Of the states mentioned, most were considered due to their proximity to raw materials or proximity to the home or parent plant.

What Role do Financial/Tax Incentives Play in Location Decisions?

This is perhaps the most debated issue in location factors. Practitioners including many state development authorities, believe that financial concessions of various forms are indeed significant locational factors. At the same time, most studies of locational factors have failed to identify tax issues as of primary importance.¹¹ As shown in Table 1, Heckman found that business taxation ranked 7th importance, while state financial incentives ranked 17th. This is in sharp contrast to the Alabama Survey which ranked Business Taxation 2nd and State Financial Incentives 6th (Table 3).

TABLE 6
 CLASSIFICATION OF RESPONDENTS,
 ALABAMA SURVEY

FACTORS	RESPONSE			
	Employment Category			
	1-200	201-500	501-1000	1000 Plus
Employment Size	82%	15%	2%	1%
Affiliated with Parent Firm	62%			
Independent Organization	38%			
Would this location have been selected in the absence of tax incentives?	<u>YES</u> 44.5%	<u>NO</u> 55.4%		
Was another state considered as an alternative?	<u>YES</u> 47.9%	<u>NO</u> 52.1%		

SOURCE: Survey Results

There are several plausible explanations for this variance in rankings. As Moriarty notes, the fact that firms have been moving south coupled with fact that tax rates tend to be higher in the north leads to the simple inference that tax rates are a cause of the migration. This inference is then supported by "attitudes of businessmen, who frequently complain about taxation and government interference, leaving the impression with state and local officials that taxes are more important in location decisions than they actually are."¹² Another factor mentioned by Moriarty is that many of those who believe that taxes do matter are unaware of all of the empirical evidence which supports the conclusion that taxes are not an important consideration in most locational decisions.

While the respondents to the Alabama Survey ranked State Financial Incentives 6th in importance, 44 percent of the firms responded that they would have selected the same location in the absence of tax incentives. While this may suggest that tax incentives were important to 56 percent of the firms in their final choice of sites, this conclusion too ignores the available evidence from other surveys. The fact is that total average cost for most manufacturing firms appears to be insensitive to either intra-state locations or even intra-metropolitan locations.¹³ Of significant importance in explaining this relative equality of total costs is the fact that while tax rates may vary with location, the differentials in total taxes are less significant due to the variety of ways in which taxes are determined.

It appears that while respondents to the Alabama Survey believed state taxes to be an important factor in their locational choice, all other evidence suggests that it is highly unlikely that taxes or financial incentives played an important role in their locational choice.

SUMMARY

With the exception of State Financial Incentives, the results of the Alabama Survey are apparently different from those uncovered by other surveys of locational factors. However, the relative importance given to this factor in Alabama raises some interesting questions. Since financial incentives play an important role in industrial recruiting programs, one can conclude that (1) the state has seized upon an important locational factor and should be relatively successful in attracting new industry to the state, or (2) the state has misread the true locational factors and its program based on financial incentives will prove to be ineffective in attracting industry which would not have selected Alabama in the absence of such incentives. While the Alabama Survey would tend to support the first conclusions, evidence collected in a number of other surveys fails to support such a conclusion.

Footnotes

¹See for example, R. B. McKenzie, "Myths of Sunbelt and Frostbelt," Policy Review (Spring, 1982), pp. 103-114. As evidence of the length and breath of interest in the controversy, see for example "The Second War Between the States," Business Week (May 17, 1976), pp. 92-95, and Horace Sutton, "Sunbelt vs. Frostbelt: A Second Civil War?," Saturday Review (April 15, 1978), pp. 28-37. G. Breckenfeld, "Business Loves the Sunbelt (and vice versa)," Fortune (June, 1977), pp. 132-7.

²J.R. Pack, "The States' Scramble for Federal Funds: Who Wins, Who Loses?," Journal of Policy Analysis and Management (Winter, 1982), pp. 175-195.

³For a recent survey of the location factors in "hi-tech" see Robert Premus, Location of High Technology Firms and Regional Economic Development, Joint Economic Committee, Washington, D.C. 1982.; also "America Rushes to High Tech for Growth," Business Week, March 28, 1983, pp. 84-90.

⁴See Eli Ginzberg and George J. Vojta, "The Service Sector of The U.S. Economy," Scientific American (March, 1981), pp. 48-55.

⁵Glenn E. McLaughlin, Why Industry Moves South: A Study of Factors Influencing the Recent Location of Manufacturing Plants in the South (Kingsport, Tennessee: Kingsport Press, Inc., 1949).

⁶McLaughlin, op. cit., p.119.

⁷John S. Hekman, "What Are Businesses Looking For?," Economic Review (Federal Reserve Bank of Atlanta) June, 1982; pp. .

⁸Hekman, op.cit., p. 15.

⁹Alabama Development Office, Industry - New and Expanding (Montgomery: Alabama Development Office), 1977, 1978, 1979, 1980 and 1981.

¹⁰Given the necessity of converting the Alabama rankings, a significance test was deemed inappropriate.

¹¹Barry Moriarty, Industry Location and Community Development (Chapel Hill: University of North Carolina Press, 1980), p. 252.

¹²Moriarty, op.cit., p. 256.

¹³William V. Williams, "A Measure of the Impact of State and Local Taxes on Industry Location," Journal of Regional Science (1967), pp. 49-59.