

INDUSTRIAL SURVEYS

by

Paul E. Malone

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Approved by:

Jens P. Jensen
Instructor in Charge

Frank T. Stockton
Head of Dept.

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Preface

The present study had its origin a few years ago when Dean Frank T. Stockton became interested in the question of the value of industrial surveys as they are now conducted. A large number of surveys were collected by him which were used as a basis for this analysis. However, it was under the guidance of Professor Jens P. Jensen that the actual arrangement of the thesis material was carried out. His criticisms and suggestions have been valuable in the preparation and analysis of the subject matter. Acknowledgment is also due the many Chamber of Commerce secretaries who so generously responded to the questionnaires and to the special inquiries.

Outline

I. Introduction

- (a) Early interest in civic development
- (b) Modern interest in civic development
- (c) Technique of present study

II. Factors stimulating interest in the survey

- (a) General factors
- (b) Changes making the use of the survey necessary

III. Purposes of the survey

- (a) General objectives
- (b) Specific information

IV. Making the survey

- (a) Agency making the survey
- (b) Form of the survey
- (c) Cost of the survey
- (d) Financing the survey
- (e) Collecting the data

V. Use of the survey data

- (a) Getting in touch with prospects
- (b) Follow up
- (c) Special inducements

VI. The regional survey

- (a) Justification for regional scope
- (b) Types of regional survey
- (c) Finance and organization

VII. Adequacy of surveys

- (a) Publicity type
- (b) Civic inventory type
- (c) Analytical type
- (d) Summary

Chapter I

Introduction

Civic development in one form or another has been a problem of considerable importance, not only to modern, but also to ancient peoples. Economic and social welfare is the goal that has been sought down through the years, but the notion as to how such welfare could be achieved has varied with the passing of time and the changing of circumstances. In ancient times the supreme social aim was security for the state, which depended largely on numbers. Thus it was, for example, thought very desirable to increase the potential fighting force of the state. However, today interest in the military strength of the state is sought only indirectly. The increase of individual prosperity is the aim, and it is believed that individual prosperity can be stimulated through group effort. At the present time civic development plans have attained a position where elaborate and carefully worked out organizations with somewhat uniform technique are common.

A. Early Interest in Civic Development

One of the earliest writings on the industrial possibilities of a city and its territory appeared as early as 440 years B. C. when Xenophon in his essay on "The Means of Improving the Revenue of Athens" outlined a program for

the betterment of the state. The following quotation from his essay sounds a note that is strikingly similar to a modern development program: "As I resolved in my mind what I observed, it readily appeared to me that the country is well qualified by nature to afford very large revenues; and in order that it may be understood that I say this with truth, I will first of all give an account of the natural resources of Attica.

"That the seasons in it are extremely mild, the products of the soil testify; for such as will not even grow in many countries bear fruit in perfection in Attica. And as the land is most productive, so likewise is the sea that surrounds the land; and whatever fruits the gods afford in their several seasons begin in this country earliest, and cease latest. Nor is the land superior only in things that grow and decay annually, but has also permanent advantages; for stone is supplied from its abundance from which the most magnificent temples, the most beautiful altars, and the finest statues of the gods are made, and in which both Greeks and barbarians desire to participate. There are indeed portions of the soil which, though sown, will not produce fruit, but which, if they are penetrated by digging, will support many more people than if they produced corn, as, doubtless by divine dispensation, they contain silver beneath the surface; and though there are many states lying near, both by land and sea, not even

the smallest vein of silver is found to extend into any one of them.

Further on Xenophon says: "Besides there are within the walls many pieces of ground for building, vacant of houses. I think that if the state were to allow them to become the property of those who might build upon them, and who, on applying for them, might seem to be deserving, a great number of respectable persons would by that means become desirous of a settlement at Athens."

B. Modern Interest in Civic Development

In recent years considerable interest has been manifested in, and some money has been spent on, the study and stimulation of civic development. One of the tools that is being used to bring about the desired ends is the industrial survey. It has not been peculiar to any region or to any class of cities, but has occurred everywhere and in many forms. As is inevitable in the use of a new device, there has been waste of both effort and money. It is the purpose of the present study to disclose a cross section of current cooperative industrial research by means of the experiences of those who have conducted and used industrial surveys, in hope that the conclusions drawn may be useful to organizations planning surveys in the future.

Table I indicates the time when survey work was first undertaken by cities that responded to the questionnaires sent out to collect data for the present study. Only about half of those replying stated the time when the first survey was made, but the sample is sufficiently large to warrant some general conclusions. In many cases these earlier analyses proved inadequate and other studies have been made subsequent to the year given.

Table I

Distribution of Industrial Surveys

by Classes of Cities and by Years in Which They Were Made

Year	All cities reporting	Cities having population of:		
		Not over 25,000	Over 25,000 but not over 100,000	Over 100,000
Prior to 1913	1*		1*	
1913	1		1	
1914	1		1	
1915	1			1
1916	1			1
1917				
1918	1			1
1919				
1920	1			1
1921	1		1	
1922	2	1		1
1923	2	1		1
1924	6	4	1	1
1925	13	6	5	2
1926	15	7	2	6
1927	15	7	5	3
1928	18	10	5	3
Total	79	36	22	21

*Only one city reported a survey prior to 1913 which was made in 1905.

Two pertinent facts stand out from the figures presented in the table. First, the great majority of the survey work has been done since 1925. Grouping the cities of all sizes together, 78% of the surveys have been completed within the past five years. Second, this type of activity had its origin in the larger cities and only recently has the urge to do some sort of industrial research penetrated down to the smaller cities. Such following in many instances has been blind, which fact probably accounts for the frequently unsatisfactory ends realized. Many replies have been received stating that the survey had been found to have no practical value. These results are due, it appears, to the entering of the local chamber of commerce or other civic organization upon a project, the objectives of which have not been fully determined and whose cost may not have been properly estimated. Cities not enjoying the greatest degree of material health have come to look upon the industrial survey as if it provided a panacea for their ailments, whatever they may be. It is to be hoped that, in the course of time, through the trial and error method, if not more economically otherwise, the survey may assume its proper place as a tool of economic guidance.

C. Technique of the Present Study

In making the present analysis of the survey documents that were made available, and of the supplementary data secured through questionnaires and otherwise, an arbitrary grouping of the cities into three classes was made. The first class consists of cities under 25,000; the second, of cities of 25,000 to 99,999; and the third, of all cities over 100,000. It will generally be recognized that the industrial problem of the small city is quite different from that of the metropolis. To set up any one identical criterion for the two types of communities would fall far short of the purpose of any analysis. While this classification is in many ways inadequate it seems that it is the most practical grouping from the standpoint of workability and simplicity.

Through the Bureau of Business Research 553 letters were sent to industrial departments of chambers of commerce located in 39 leading industrial states of the United States, asking for a copy of their survey material, if such a project had been undertaken and if the findings were available for distribution. From this number of correspondents 445 replies were received, divided as follows: 163 stated that surveys had been conducted and copies of such surveys were mailed to us; 113 reported that they were planning on making such a study, but were waiting for appropriation of funds; and 169 indicated

that they did not intend to make a survey. The following reasons were most generally given for not making a survey: (1) The community is largely agricultural, (2) pleasure resorts the main attraction, (3) the results obtained from surveys in too many cases have not justified the cost.

A questionnaire, a copy of which is shown on the following pages, was mailed to each of the cities that had made surveys, asking for the objective of the survey, the extent to which such objective was realized, the cost, the part of survey found most useful, the steps used in getting in touch with prospects, the methods of follow-up used, how survey data are kept up to date, and what inducements are offered to new industries. These findings will be discussed under appropriate headings in the following chapters.

Name of city

PRESENT SURVEY:

I. What was the cost of your last survey?

II. Through what agency was the survey made?

III. What was the objective of the survey? (Check one or more of the following, numbering 1, 2, 3, in order of importance)

- (a) To obtain a working knowledge of the community's industrial layout.
- (b) To provide information preliminary to a campaign for new industries.
- (c) To provide beneficial information for industries already established.
- (d) To provide information to assist the community in retaining industries contemplating new location.

IV. To what extent have any of the above objectives been realized? (Give concrete answers where possible)

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V. What part of the survey have you found most useful? (check one or more of the following, numbering 1, 2, 3, in order of importance)

- | | |
|--|---|
| <input type="checkbox"/> (a) Labor | <input type="checkbox"/> (g) Size and character of city |
| <input type="checkbox"/> (b) Natural resources | <input type="checkbox"/> (h) Civic refinements |
| <input type="checkbox"/> (c) Power | <input type="checkbox"/> (i) Housing conditions |
| <input type="checkbox"/> (d) Supplies | <input type="checkbox"/> (j) Real estate |
| <input type="checkbox"/> (e) Transportation | <input type="checkbox"/> (k) Vital statistics |
| <input type="checkbox"/> (f) Markets | <input type="checkbox"/> (l) Maps and charts |

VI. What steps are taken to get in touch with prospects?

- (a) Mailing lists
- (b) Magazine and newspapers
- (c) (Any other means)
- (d)

VII. What plan of follow-up and salesmanship do you use?

- (a) Special report
- (b) Representative
 - 1. Full time
 - 2. Part time
- (c) (Any other means)

VIII. How do you keep the data of survey up to date where the loose-leaf system is not used?

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IX. Do you offer any inducements to new businesses such as the following: (check aids used)

- (a) Industrial incubators
- (b) Industrial funds
- (c) Bonuses
- (d) Tax exemption
- (e) Stock endorsement and selling

Chapter II

Factors Stimulating Interest in the
Industrial Survey

At the outset it is of interest to determine just what are the factors that are stimulating diverse communities, ranging from towns of a very scanty population to cities of a million, to make almost super-human efforts to win new industries. More than 300 cities are advertising their advantages, spending from \$1,000 to \$1,000,000 each per year. The total city expenditure in the United States is estimated at \$10,000,000 per year.¹ Basically, self-interest is the vitalizing force and prime motive of this whole process of economic readjustment. It is an extension of the competitive system to a new field, the hope of individual prosperity through group achievement. The reasons for the increased popularity of the industrial survey fall into two classes. First, are those more or less general purposes, inherent in economic life under a competitive regime, such as, desire for a large population, for the establishment of a home market, for the solution of the unemployment problem, and for the cultivation of civic pride. The economic validity of any one of the foregoing purposes is questionable. Second, are those factors

1. "\$6,000,000 for 1926." Alderson, Wroe, Advertising for Community Promotion, Domestic Commerce Series No.21, 1928, p. 5.

that result from the industrial shifts and technological changes that have been taking place in industry with great rapidity during the past few years, such as changing power requirements, less importance of skilled labor, larger supplies of capital in the west, shifting of the population, disadvantages of congested cities, diminishing returns in large industries, growing lists of new industries, centralized control of industry, and the general growing complexity of economic life. These specific conditions are of quite a different nature than the general notions described above and they provide the principal justification for any industrial survey.

A. General Factors

Population The basic index of community prosperity used by most chamber of commerce secretaries today is population. It is supposed that a large urban population will in itself tend to attract industry, which in turn will mean increased payrolls and growing business activity. The error here made consists in mistaking the effect for the cause. It is like supposing that the weather is made warmer by blowing hot air on the thermometer. Business in general will probably not profit from more people. As soon as the increased volume of trade makes for pure profits, just that soon will industries be attracted that will absorb the advantage and business is soon down to a cost of production basis. Not so, however, for the landowner.

Since land is a non-reproducible good any increase in population registers itself in higher rentals and enhanced property values. Certainly then, it would be desirable from the point of view of the realtors and the landlords to see the population of a city doubled and redoubled. The same is true of industries which depend upon a domestic market for products of localized natural resources, such as public utility enterprises, especially those furnishing power. For business in general population is, however, no cause of individual prosperity.

Home Market Again, it is argued that a large population in the city provides a market for the farm products of the adjacent agricultural territory and that the hinterland is thus made to prosper along with the centrally located city. The market resulting from the increased population is not, of course, limited to the products of the farm, but extends to other products of the region. The landowners who stand to gain by an increase in the population of a city are, therefore, not limited to those of the city itself. It is by no means certain that a more completely developed home market will conduce to greater prosperity. If such were the case it would almost follow that the supposed gains from geographical specialization were not real, and that self-sufficing units of any city and its adjacent trading territory would be economically ideal.

Solution of Unemployment

Cities often feel that in bringing in new factories they will solve the problem of unemployment. Thus bonuses, tax exemption, and large loans at low rates of interest for capital equipment may be thrown out to induce the needed industries to come. It has not occurred to some that the cost of providing for unemployment in such a manner might cost more socially than a dole. Doctrines of economic self-sufficiency creep into most development programs. What do we import into our community? Imports should be stopped immediately and, if humanly possible, the article should be produced at home. Home production would give employment as well as create a demand for power and raw materials. Such a change would only substitute a home market for what formerly was a foreign one. Whatever we cease to import cuts down just that much the ability of the outside importer to buy our goods. It is possible, of course, that these goods can be made more economically at home. If so, it is a proper function of the industrial survey to disclose how far such is the case.

Civic Pride

Lastly, industries are wanted because they gratify the sheer pride of being a growing city. Decade by decade cities have measured one another in terms of size. The question arises whether economic welfare can be measured in physical terms. It certainly cannot be

measured in terms of numbers of inhabitants alone. Economic welfare has been defined as a large amount of socially desirable goods, economically produced and widely diffused. Population, then, is not the only factor to consider. It is possible that the people could be so numerous as compared with the other factors of production that the per capita income could not be very large. Economists thus speak of the optimum population, a population that provides for developing of the natural resources to the point of maximum return per capita of the persons employed.

Nationally, we are confronted with the problem of a too rapidly increasing population. The fact that our population, at the present rate of increase, may double every seventy-five years, provides our economic thinkers with no small amount of anxiety for the future. As a result of these facts, positive economic well being rather than large numbers, is the valid aim of major import. Is it not sound to apply population principles of national validity to the individual municipalities making up the nation?

The foregoing discussion is rather pessimistic and might lead the reader to believe that industrial development is unsound throughout. There is, however, a more optimistic tone. If through economic analysis industries are more advantageously located with respect to raw materials and markets, then the procedure is justifiable.

It is a competitive method and must of necessity entail waste, but as such is in line with our whole economic order. Waste is evident on every hand in production, national resources, and distribution. Yet it is generally believed that the social gains justify the cost, else we would choose some other system of political economy. The recent form of inter-city competition must of necessity carry in its wake appalling losses--losses growing out of unwise expenditures for the services of engineering firms whose business it is to make community surveys, financial losses to guarantors of industrial loans granted to uneconomical industries, losses to the community from vast sums spent in national advertising campaigns which fail to accomplish the desired end.

Again, if out of the vast expenditure, industrial readjustment takes place so that the net product of industry is increased, then the cost will be justified, in part at least. Group intelligence, properly directed, is proving itself an important factor in economic enterprise.

B. Economic Changes Making the Use of the Survey Necessary

The problem of this section is to point out the effect of technological changes with respect to power requirements, labor supply, and market boundaries which in turn affect plant location, and to discuss whether

these changes are not responsible in a major way for the increased use of the survey. The industrial development of the past has been evolutionary and casual. Industrial plants have generally been located without any real analysis of the factors affecting location. More than one plant has been located where it now is, not because it was the most economical location, but because the one who developed it lived there. Today development is taking on quite a different form. A great deal of shrewdness is being exercised with respect to the preliminary steps of locating, financing, and other influences that are going to affect earnings permanently.

Power Nearness to centers of power is certainly less important now than a few years ago. The site on the river is no longer the determining factor in the location of a mill or factory. In a like manner, a new set of forces have caused a shift in value of position with respect to other sources of power such as wood and coal. With the rapid increase in the development of super-power stations and the consolidation of many small independent plants electrical energy has been reduced in cost till now other factors are of relatively greater importance than power. This makes it possible for businesses to decentralize and thus avoid high rents and other costs that mount with increased size. Since it is possible to carry electrical

energy over a radius of two hundred miles or more without perceptible loss, an industry, as far as power supply is concerned, is certain to turn its attention to other savings, such as, moving production nearer to the market areas or closer to the source of raw materials.

Labor Supply The labor supply is another factor the importance of which is declining. Every industry is striving to introduce more machines into its productive process. As machines are introduced the value and importance of skilled labor tends to pass. It does not take a highly skilled person to operate many of the near-automatic machines that are used in thousands of our factories today. The need for the artist of industry is gone. The machine pattern has been set; all that is needed now is a mere automaton to supply the small directive element lacking in the tool. The airplane industry at the present time is dependent upon skilled labor. Not far in the future, however, we shall have machine production as we now have it in the automotive field and then labor as a factor will be relatively unimportant and other factors will then gain in relative significance.

"One of the most significant effects of the extension of the transfer of skill has been in the increase of the capital investment per worker. The biennial census for 1925 gives the investment per worker in 1849 as \$560. By 1919 this ratio had risen steadily to nearly \$5,000,

the yearly increase in capital being always greater in proportion than that of workers employed. In addition to the limitations set by the increasing cost of the tools of production, the use of power is increasing. From 1914 to 1925 the h. p. per industrial worker increased from 3.3 to 4.3²

Markets Markets are constantly establishing new boundaries. Areas that a few years ago were on the fringes of civilization are today the centers of production. Let us see just what a market is and examine some of its limitations. A market has been defined as an area in which a given set of demand and supply forces operate. What are some of the elements that have been affecting the forces of supply and demand in such a way as to give a new set of markets? Transportation has played its important part in bringing about this modification. Improvements in transportation have reduced costs so that markets have been very much widened. Within the next five years it is highly probable that quite an adequate system of inland waterways will be developed--railroad consolidations are now under way. How, then, will markets shift?

Improved means of transportation have affected the demand side as well. Good roads and the automobile have

2. Kimball, Dexter S., "Changes in New and Old Industries," Recent Economic Changes in the United States, Report of the President's Conference Committee, New York: McGraw Hill, 1928, Vol. I, p. 87.

changed buyers' habits. Outlets and potential market possibilities have been opened up that a few years ago were quite definitely closed. A market is no better than the transportation system that makes the market possible. Coming developments in the way of better roads, inland waterways, faster railroad trains, and a national system of airways alone will tell what further changes and shifts may take place in present markets. Standardization has eliminated the need for various inspections and consumer confidence has developed to the extent that markets which formerly were rather narrow have been greatly widened. A further examination of the problem of extended markets should involve a consideration of the change in the buying habits of consumers. Communities that a few years ago were consumers of only the primary necessities of life now are users or potential users of infra-marginal goods. The increase in the per capita wealth of the middle western states is developing new fields for distribution of goods that a few years ago had relatively narrow outlets.

Capital
Requirements

It has been said that capital could be raised more easily in the East than in the West. This is a fact beyond question, but capital accumulations are being developed in the West as well. In the future this problem will be of less importance than it is today.

Shifting of
Population Center

Industry seeks population as a labor supply as well as a consumption agency,

when it is not dependent upon raw materials. The United States Census Bureau map shows a steady shift of population from east to west. Similarly, a shift is taking place with regard to the center of manufacturing. The shift in industry, however, is considerably behind the movement in population. The center for manufacturing production in 1920 was slightly west of the population center of 1870. As soon as population warrants, communities go out after industries that can possibly expand due to increased market potentiality.

Disadvantages of
Congested Cities

Location of industry in large cities is coming to have certain disadvantages

which, in some instances, offset the apparent receiving and shipping conveniences. Density of competing allied industries for labor contribute to high labor turnover and tend to increase the group of floaters. The growth of the use of the automobile as a means of conveyance has made it possible for plants to be located in the smaller town adjacent to the overcrowded municipality.

Diminishing Returns

Again, there is the question as to whether certain plants are not too large for economical production and distribution. It is possible that a definite check has come to the horizontal integration that has

been taking place so rapidly for the past thirty years. In some cases it may prove more profitable to change from the cultivation of a national market to the intensive development of the home-trade region.

Growing List of New Industries A more potent force contributing to the problem of industrial locations is the ever growing list of new industries. The automotive industry was not mentioned in the census of 1900, but in the 1925 census it was credited with furnishing employment to over 400,000 men and turning out a product valued at \$4,000,000,000. Rayon was mentioned for the first time in 1925, and radio valued at \$191,000,000 in 1927.³ Other new industries that should be included in the list are electric refrigeration, the telephone, chemical products, and electric welding.

Centralized Control of Industry Centralized control and ownership of plants operating in many different parts of the country has made it necessary for the city in which one of the plants happens to be located to prove at times why the plant should not be shut down temporarily or even permanently. Not infrequently the city through some one of its organizations may bring pressure upon the home plant to keep the branch or subsidiary in

3. Op. Cit. p. 85.

operation. Such pressure can be much more effective if it is based on facts. Thus, the survey becomes an important tool to demonstrate why the operating company should not close this particular branch and leave plants operating in cities with less attractive opportunities for future development.

Complexity of Economic life is becoming so complex that
Economic Life the average business enterpriser has no accurate idea of the industrial set-up of his own community, and in many cases he does not have a clear perspective of his business and its relationship to the trade territory. Through cooperative, analytical effort, however, such hazy conceptions can be clarified which certainly is one of the first steps toward economic progress.

Chapter III

Purposes of the Survey

The real function of a survey is the discovery of industrial opportunities that are at the present time dormant or only partly developed. Opportunity has been defined as the quotient of a fraction whose numerator is the total of the free gifts that nature provides and whose denominator is the number of people in a given locality. From the survey this relationship should be made to stand out in such perspective that the economic balance maintained will result in the greatest possible quotient.

A. General Objectives

While the general aim of an industrial survey should always be to promote economic welfare, such welfare can only be made possible through the realization of certain specific ends. In the questionnaires used in the present study a list of general objectives was made so as to include, (1) working knowledge of the industrial layout of the community, (2) information preliminary to a campaign for new industries, (3) information useful to industries already established, and (4) information useful in assisting the community in retaining industries planning a change of location. Doubtless in any city the actual objectives underlying any industrial survey are not clear cut and usually involve one or more motives. In the process of

making the study it was found, however, that the objectives indicated in the questionnaire were familiar and that they represented a fair basis for rating according to importance. Table II presents the rating of the objectives as given by the cities of the indicated classes.

Table II
General Objectives of Industrial Surveys

Objective	Cities responding	Percentage obtained from the ratings given by cities having population of:		
		Not over 25,000	Over 25,000 but not over 100,000	Over 100,000
Industrial layout of community	96	34.8	31.7	36.6
Preliminary to campaign for new industries	85	32.2	31.7	28.2
For use of established industries	72	19.7	19.7	21.2
For use in retaining industries planning change of location	48	13.3	16.9	14.0
Total		100	100	100

The table shows that a desire for an indication of the industrial layout of the community has been the ranking motive. There appears to be no striking variation in the

presence of this motive among the cities of different sizes. It appears in cities of all sizes equally frequently. The second motive in rank and not far behind the former has been the desire to secure information that would help induce industries to locate. The desire to secure new industries appears decidedly stronger in the smaller cities. Perhaps this is due to the fact that the smaller cities have fewer and less varied industries. Larger cities in seeking new industries inevitably must face competition of the new industries with those of the same kind already established.

The two remaining objectives appear to be much less distinctly or generally in the minds of the sponsors of surveys. There is some variation according to the size of the city and it appears that the larger the city the greater is the disposition to seek such information as will aid in establishing industries and inducing those industries which are contemplating a change of location to abandon such purpose and to make such readjustments as may be necessary to continue in operation. Doubtless a partial explanation is the fact that the larger cities have more complex problems to solve and have more definitely formulated detailed solutions.

Information with regard to the industrial layout of the community and useful in inducing the location of new industries takes first rank in two ways. It is not only regarded as important by more persons reporting, but it

is also deemed several times as important as any other purpose. A number of informants replying to the questionnaire took the trouble to rank the objectives of the survey as to their relative importance, from which ranking the foregoing conclusion is drawn.

Some consideration should be given as to the relative economic value of the aforementioned objectives as compared with the ranking that was given by the various cities responding to the questionnaire.

From the standpoint of economic soundness two objectives, namely, to obtain a working knowledge of the community industrial layout, and to secure information useful to industries already established, should be placed at the top of the list. The former objective serves the latter also, since a knowledge of the existing set-up is one thing that certainly would be an aid to concerns now in operation. There is nothing magical about an industrial survey. All that it can hope to do is to present an analysis of the various factors affecting production, such as, markets, labor, transportation, raw materials, power, and vital statistics. These facts, properly presented, form the groundwork on which business enterprisers anticipate the possibility of future success and launch out on whatever venture seems opportune. The success of the community rests ultimately in the hands of its population. If the people are enterprising, the facts of the survey may be the means of performing apparent miracles; if moribund,

there is little hope from any accumulation of data, no matter how suitably prepared and presented.

About fifty percent of the cities replying indicated one of these two objectives as the purpose of their economic research. If these objectives are, however, the sound basis on which industrial analysis should proceed, they ought to be recognized as such by more than one-half of the cities making surveys.

What about the following objectives, namely, to obtain information preliminary to a campaign for new industries, and to secure information useful in aiding the community in retaining industries planning a change of location, which were given first place by nearly half of the cities reporting? These two objectives hinge on one and the same question: Do industries move about? If they do not, then effort expended in attempting to attract new industries or in trying to cater to those threatening a change of location is largely futile.

Light is thrown on the question of whether much can be expected in the way of growth from industries coming in from the outside or whether there is much loss to cities from industries that move elsewhere by a recent survey conducted by the National Electric Light Association, cooperating with the Metropolitan Life Insurance Company. Detailed information was collected from 2,084 cities regarding the problem of such shifting. The out-

standing finding of this survey was that industries do not move and that the community must look to self-development for growth. While it is true that industries do not move, that does not mean that industry does not shift. It does shift.¹ The biological sciences provide an analogy. One could say that a tree does not move, but that is not true of forests. Forests under proper climatic conditions will in time cover all the area for which they are adapted, providing no external force impedes their progress. Particular businesses are not trekking around over the country, but business does die out in one place and springs up in another.

From these 2,084 cities reporting a gain of 10,000 industries, only 9.4 percent were re-locations; 81.8 percent were new industries; 8.2 percent were branch plants. Some information of value to the small city is revealed in the following data as regards percent of gain accruing to cities of various sizes.

Net Gain in Number of Industries		
to Cities of Various Sizes		
150,000 and over	- - - -	39%
50,000 to 149,999	- - - -	21%
10,000 to 49,999	- - - -	21%
2,500 to 9,999	- - - -	13%
Under 2,500	- - - -	6%

1. "Industrial Migration in the United States, 1914-27." Iowa Studies in Business No. VII, Bureau of Business Research, March, 1930.

Attention should be called to the fact that 40 percent of the net gain in industry accrues to the cities of 50,000 and under. In the South Atlantic states 40 percent of the total gains in all plants is to be found in communities of less than 10,000 population.

Local losses for these same cities totalled 5,908 plants, or 60 percent of gain. Here is the point bearing on the subject under consideration. Only 18 percent of the plants moved while 82 percent went out of business. Some rather interesting information is contained in the following tables showing the geographical distribution with respect to relocation of existing industries, establishment of branch plants, and the establishment of local plants.

Relocation

- 1st New York, New Jersey, Pennsylvania
- 2nd New England States
- 3rd North Central States

Establishment of Branch Plants

- 1st Middle Atlantic
- 2nd East North Central
- 3rd South Atlantic

Establishment of Local Plants

- 1st Middle Atlantic States
- 2nd New England
- 3rd East Central

Too many surveys are made with the faulty and futile objective in mind of capturing a business that is ready to pull stakes and look for greener pastures. As indicated in the report of the survey just mentioned growth from such sources is so small that it is insignificant.

B. Specific Information

It is necessary that the information relate to more specific factors in the community's industrial situation. Table III presents replies to the questionnaires showing the several specific items of information that were deemed to be important. It will be seen that transportation facilities were regarded as more important by the informants than any other factor, labor conditions being a close second. These two are obviously and correctly regarded as being of supreme importance for the industrial development of a community. There is a striking agreement here in all classes of cities, regardless of their size.

A second group of factors consisting of market opportunities, power facilities, and natural resources is also regarded as important. Like transportation facilities and labor supplies, these factors relate to the production

and marketing costs and enter directly into calculations of probable business profits. The significance of these three factors is agreed upon in cities of all sizes, as the table shows.

There is, finally, a third and miscellaneous group of items of information all of which, with others not listed, enter indirectly into the consideration of the desirability of a community as a business location. The size and character of a city, its housing facilities, its statistics of health and mortality, its civic facilities and its real estate values, are better direct indices of the economic welfare than of business opportunities, though by no means valueless for the latter purpose.

Table III

Relative Importance of
Specific Information Presented in Surveys

Items of information	Cities responding	Percentage obtained from the ratings given by cities having population of:		
		Not over 25,000	Over 25,000 but not over 100,000	Over 100,000
Transportation	73	15.8	17	19.2
Labor	66	15.6	14	18.9
Markets	58	10.5	13.6	16
Power	56	11.3	12	16.8
Natural resources	55	10.6	12.6	9
Size and character of city	45	9.7	8	5
Housing	33	7.6	4.8	4.9
Vital statistics	36	6.2	5.6	1.2
Civic refinements	33	5.7	5.1	3.7
Supplies	26	4.5	2.6	3.7
Real estate values	21	2.5	4.7	1.6
Total		100	100	100

The master survey should not attempt to cover too wide a field in detail. There are sections that should be developed fully and kept up to date at regular periods. There are others that should only be touched upon in a general way in the master outline, leaving the minute development for the highly specialized and technical individual survey. To make this point clear the section dealing with natural resources and markets might be considered. Which one should have the greater amount of work expended upon it in the general survey?

Let us examine for a moment some of the problems that arise in setting up general conclusions respecting any one market or markets. In the first place, no one set of boundaries will hold for different commodities. A city may have a very limited trade area for some perishable products while a commodity that is rather uncommon and greatly desired may have an international market.

There is, too, the question of the purchasing power of the consumer for the various classes of goods. Staple commodities will sell well almost irrespective of a tabulated purchasing power.

Markets are constantly shifting, new buying habits formed, facilities increased for getting to new markets, old ones enlarged. Such changes make the task of setting up in one account the analysis of the markets of a city an achievement that would require super-human effort to

realize its accomplishment. Suppose that it were possible to group together under one head all the potential markets for the various goods that resources have indicated could be produced, what value would they have to the business executive? What the prospective business man wants is his problem separated from the others and placed before him in the most concise plan possible, not omitting any essential details. A business man will not willingly pore over a vast amount of foreign material to gather a few facts pertinent to the question in which he is interested.

The section dealing with natural resources presents problems that are quite the opposite from that of markets and should be handled very differently. This part can be worked out in detail at the outset for it presents a somewhat constant factor that will be of some interest and importance to every industrial prospect. Such topics as agriculture, showing the foodstuffs for urban population produced within trucking distance; products for export handling with quantity and annual value; the kinds, quantity and annual value of minerals; the sources, potential horse power, and permanency of water power, need very little revision when presented to producers of commodities in widely varying lines. Then, in addition, these factors are constants within certain limits. With a very slight revision annually the material may be kept up to date.

The principle that is set forth in the discussion of markets vs. natural resources should be the guiding principle in deciding upon the kind of information that should be placed in the master survey and what part should be left for its fullest development in the technical report for the prospect. Certainly any outstanding marketing advantages such as favorable rail or water facilities and purchasing power would have a place in the master survey at least for the purpose of furnishing a basis for advertising campaigns.

It would seem, then, that what the master survey should include would be a sound inventory of the assets of the community of all kinds. Out of this body of facts will grow the material for the advertising campaign and part of the facts for the individual and specialized survey.

Chapter IV

Making the Survey

Before it is determined that a survey should be made there are at least five issues that must be decided upon: (1) The agency by whom the survey shall be made; (2) the form which the survey shall take; (3) the justifiable cost; (4) the scheme for financing; (5) the methods to be used in collecting data. Whether the survey is worth while may depend upon any one or more of these points.

A. Agency Making the Survey

The principle determinant of the choice of an agency will be the amount of money available in the budget for the project. As is shown in Table IV, 60 percent of the cities under 25,000 employed outside agencies, while a similar plan was followed out by 70 percent of cities having a population of 100,000 or over. The reliance of the small city upon outside agencies is due largely to the fact that the small city has less money to spend and that it must depend largely upon the local staff to do the work. The task, too, is simpler, and the small city organization is more likely to distrust outside agencies.

There are advantages in having opinions and criticisms from those who are from without. A better perspective of values is obtained by getting a viewpoint that has some national experience as a basis for a criterion rather than local concepts. Against this advantage, however,

there is something to be said for having the survey made by the local organization. If the major part of the responsibility for making the survey rests upon those who are expected to keep it up to date, and to make use of it afterwards, they will have a better understanding of the contents and probably will achieve a greater degree of success in its subsequent use.

Table IV

Agencies Making Industrial Surveys

Agency	Cities responding	Percentage reported in cities having population of:		
		Not over 25,000	Over 25,000 but not over 100,000	Over 100,000
Industrial departments of chamber of commerce	37	40	32	30
Other agencies	69	60	68	70
Total		100	100	100

In spite of the tendency pointed out by the questionnaire returns, one can venture a forecast that in the future relatively more surveys will be made by some department of the local chamber of commerce and less will be made by outside agencies. The reason for such a statement lies

in the fact that civic organizations are coming to realize that survey work in a dynamic society cannot be completed as of a certain date. It must be continuing, which calls for a permanent research or survey committee. The ideal plan would be to have an advisory engineer and economist as a regular part of the personnel of the industrial department.

Sometimes the school of commerce of the state university or other educational institution may do the work. The bulk of the outside surveys have been made by persons or firms varying greatly among themselves in many respects, but which may best be classed as industrial engineers. A large number of such firms have appeared in recent years, constituting perhaps a new profession of functional experts.

B. Form of the Survey

In practically all cases it is undesirable for the survey to be put together in a bound volume. In too many instances it would seem that the editing of a pretentious volume was the primary objective. This false notion has been one of the factors causing secretaries to report that they did not believe that the "results of the survey justified the cost. The material soon becomes obsolete and all the effort is wasted."

There are several disadvantages inherent in the bound volumes. In the first place, they are exceedingly expen-

sive. Many that have been examined have been bound in elaborate form and would range in price from \$2.00 to \$25.00 per copy, depending somewhat on the number printed. Second, the bound volume becomes obsolete almost by the time that it is published. Markets are constantly shifting; buying habits, changing; population, moving. These and other dynamic tendencies make obsolescence the downing factor of the bound volume. Third, if it could be put in the hands of those interested while the material was still potent, what use would it have? A well written letter setting forth the factors pertinent to a certain business problem will have more real value than will a voluminous survey. Busy executives refuse to pore over pages of material, the major part of which is foreign to their situation.

Kansas City, Missouri; Louisville, Kentucky; Utica, New York; Indianapolis, Indiana; and Columbus, Georgia have presented the summary of their survey in a very attractive and interesting way. Small booklets containing the high-lights made readily intelligible by the use of simple graphs are offered for general distribution. Kansas City has just published "The Book of Kansas City Opportunities." They number 212. In a very vivid way the facts are presented in a booklet of about 35 or 40 pages.

The publishing of the findings of the survey in a

magazine edited by the local chamber of commerce has advantages superior to the one large volume containing all the information in prosaic fashion. The Louisville Board of Trade Journal, Providence Magazine, Sioux City Spirit of Progress carry a particular message in each issue.

Such a type of publicity provides for a repeated presentation of the message and will bring many more inquiries than would the sending out of a large number of surveys which would only have the power of arousing interest once.

The facts uncovered in the industrial analysis should be filed by appropriate headings on some loose-leaf or card system. This is inexpensive and the material can be supplemented or revised as the occasion may require. Of course, these facts should not be pigeon-holed here, never to be made known to the public. Their specific purpose is to arouse the local interest of the community and the special interest of business enterprisers looking for suitable new fields in which to expand. Just how can this be done? People in general, and business executives as well, want some of this thinking done for them. This material must first be refined and the high-lights presented. Hidden away somewhere are facts that will arouse interest developing a "community consciousness." There is also information which, when separated from the other mass of material, will be of interest to certain business men. In this vast store of information the publicity department

has the basis for its local newspaper advertising in facts and figures pertaining to particular industries that should be presented in trade journals. Lastly, here will be found the major part of the factual data for a special report or follow-up work.

The loose-leaf method, while not attractive for publication, if such were desirable, does provide pertinent material which can be presented in tabloid form in small booklets and in various trade journals. When the inquiries come in, the framework for the special report may be found here. This information must, of course, be supplemented by such special investigations as may be necessary for the particular case.

Table V shows the relative popularity of the various methods of recording industrial data.

Table V

Methods of Preserving and Presenting
Industrial Survey Data

Method	Cities responding	Percentage reported in cities having population of:		
		Not over 25,000	Over 25,000 but not over 100,000	Over 100,000
Bound volume	29	34	22	18
Other methods	80	66	78	82
Total	109	100	100	100

C. Cost of the Survey

In Table VI is shown the expenditure for surveys as reported for 77 cities. There are several observations that should be noted. First, as the size of the city increases the expenditures are larger. This is only as one would expect, due to the added size of the city being surveyed. There is another factor, however, less obvious, and that is thoroughness. The job in the large city is probably done more scientifically and accurately. Again, it may be noted that 89 percent of the cities under 15,000 spent less than \$1,000, while of the cities of 100,000 and over, only 39 percent spent as little as \$1,000 and 61 percent spent \$5,000 or more. Finally, the possibility that the smaller cities are not spending as much as they should to get maximum returns amounts to a very strong probability.

Table VI

Expenditure for Surveys

Amounts spent	Cities responding	Cities having population of:		
		Not over 25,000	Over 25,000 but not over 100,000	Over 100,000
Less than \$ 1,000	55	34	14	7
\$ 1,000 - \$ 1,999	5	1	4	
\$ 2,000 - \$ 3,999	4	1	3	
\$ 4,000 - \$ 5,999	8	1	4	3
\$ 6,000 - \$ 7,999	2	1	1	
\$ 8,000 - \$ 9,999	1			1
\$10,000 - \$11,999	3			3
Over \$12,000	5			5
Total	83	38	26	19

D. Financing the Survey

The majority of all surveys are financed by private subscription, either directly to the fund for the survey or indirectly by budgeting the survey as one of the projects to be financed as a part of the regular program of the chamber of commerce. The advantage of the contribution or subscription plan lies not in its theoretical applica-

tion, but primarily in its practicability. Real industrial research is non-spectacular and thus it is difficult to secure common public support. Aid for such a project must come from those who are to be directly benefited and the individuals representing such firms must be of sufficiently high caliber to appreciate the real advantages to be derived from sound, unbiased fact-finding. The manufacturing interests are the ones on whom most reliance must be placed for the support of the survey. Distributors of the city can see the advantage of publicity work, but may question large expenditures for purely analytical work. This probably explains why many community advertising programs receive tax support, while very few survey projects receive funds directly from public revenue.

There is a great deal that might be said for tax support of the survey. If it is a tool of sufficiently general public use, why should not all be compelled to contribute? In such a manner more liberal amounts would be made available and the burden would be less unfairly distributed. Then, too, if it is believed advisable to carry on such economic analysis by larger regions, taxation provides an equitable method of distributing the burden and an already existing organization can be made available for collecting the funds. Business men generally contribute liberally to something for their immediate community, but they are less zealous in the support of a program involv-

ing a region one hundred miles distant. Again, there is the difficulty of statutory and constitutional difficulties. Many states do not permit the use of tax funds for publicity purposes.

In a few cases what has passed under the name of a survey has apparently been made self-sustaining by selling space to advertisers. The surveys thus financed are of an almost negligible number and are not bona fide surveys, but merely an ingenious advertising scheme of some individual. The task of conducting an industrial survey is not one that can be made self-sustaining, though it may be quite justifiable economically.

E. Sources of the Data

From the publicity material distributed it is evident that a so-called industrial survey is frequently little more than a collection of data culled from secondary sources that happen to be available at little or no cost. In a relatively few cases primary data concerning the local factors have been secured by means of canvasses made by the agency in charge of the survey. Secondary and primary data, as thus defined, occur in varying ratios in all the surveys and the publicity material. The data are organized with varying degrees of effectiveness.

The sources of secondary data, available without the necessity of a local canvass and analysis, are rich and

varied. They include such sources as the United States Census, the publications of the United States Geological Survey, the United States Bureau of Labor Statistics, reports of the State Departments of Agriculture, reports of the State Tax Commissions and of local assessment officials, the Biennial Census of Manufactures, and various census-of-distribution studies that have been made by the United States Chamber of Commerce. Not to utilize these sources in so far as they are available and in so far as the material is pertinent would be to waste labor and money in unnecessary duplication. Analysis of such available materials and comparisons of local with general data may yield valid and valuable conclusions at the lowest possible cost. It is obviously by reason of the existence and utilization of this vast and varied body of general information that so many of the surveys have been conducted at such a remarkably low cost. That the survey making in many cases has been little more than analysis and comparison based upon the general information available is not necessarily a matter deserving adverse criticism. The local situation may have warranted only that amount of study.

Some special attention should be paid to the Biennial Census of Manufactures, since it probably provides the best outline of survey procedure. "The census statistics are compiled primarily for the purpose of showing (1) the production of each important class or kind of manufactured

commodity and the increase or decrease therein, (2) the absolute and relative magnitude of various manufacturing industries covered and their growth and decline, and (3) the industrial importance of individual states and cities and their changes in rank."¹ In addition, statistics are presented which throw light upon certain matters of economic and sociological importance, such as size of establishments, monthly employment of wage earners, and power equipment.² Industry for purposes of study is classified into sixteen groups. Under each of these groups the various products are named and treated with respect to the following questions:

(1) Summary for the United States during a five year period showing number of establishments, wage earners, wages paid for contract work, cost of materials, value of product, value added by manufacture, horse power, and the percent of increase or decrease.

(2) Wage earners, by months, for the United States for five year period and for selected states as of a certain year.

(3) Prime movers, generators, and motors by type number and rated capacity.

(4) Summary of these general statistics by states.

1. Biennial Census of Manufactures, Department of Commerce, 1925, p. 3.

2. Ibid, p. 31

Other tables and summaries are as follow:³

(1) Combined summary for all industries by geographical divisions and states for five year period.

(2) General statistics by industries for the United States as of a certain year.

(3) Summary, by states for all industries combined, and for individual industries.

(4) Summary for cities having 100,000 population, for all industries combined, and for individual industries.

(5) Summary for cities having 10,000 population or more, and for states.

One of the larger cities of the middle west uses this biennial census as the main source of information for production figures. On the years that the Government does not take the census, the industrial department organizes a staff of five census takers and in four or five months time duplicates the work of the Department of Commerce. Their work is even more inclusive than that of the Government in which industries producing less than \$5,000 are excluded. The local survey includes all. Coupling these data with those of the census of distribution, a quite complete picture of the community is available as to production and consumption standards. This information is

3. Op. cit., p. 1283-1453.

secured annually for almost one-fourth the amount that was paid to an engineering firm to make a survey of the city a few years ago, the value of which turned out to be practically nil.

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Chapter V

Use of the Survey Data

Assuming the survey completed and the material kept up to date, the real purpose for which the information was collected must then be accomplished, namely, to acquaint local business interests and outside prospects with the industrial situation. Otherwise, the data are largely valueless. The utilization of the survey to the fullest extent involves the following three distinct steps: First, getting in touch with prospects through various advertising media; second, following up leads by means of special reports or a personal call by a representative; and third, the extension of such aid as it may be the policy of the organization to give.

A. Getting in Touch With Prospects

Locating and opening negotiations with the prospective business interest is not, of course, a part of survey making. However, the form of the survey must be adapted to the requirements of the prospect, as shown above, because the prospect must be appealed to on the basis of interests. The material in the survey and the research reports must be adapted to the advertising media and methods which are quite varied as the following paragraphs will show. Moreover, it is also the function of the advertising program to disclose the response of prospects,

with the possibility that hints and suggestions as to what opportunities in the local industrial conditions are to be investigated.

Direct Mail It appears from the questionnaire returns that the mailing list ranks first as a means of getting in touch with those that might be interested in knowing about the industrial opportunities of the community. When a special class of individuals are to be reached, direct mail should prove the most effective and the least expensive. Mailing lists can be procured from firms specializing in furnishing this service, from trade organizations and associations, and from a variety of other sources.

Magazines and Newspapers Magazines and newspapers are given second place. The newspaper has more value in creating an atmosphere of "home development," in making the people of the city in question "community conscious." The community must be put in order to receive and care for the expected increase in business activity. The magazine is more important when a message is to be carried to a special group.¹ A city, for example, that wants a new hotel, and has the assurance that its people will back up such an enterprise with both moral and financial support,

1. Mowry, Don, Community Advertising, Cantwell Press, 1924, p. 304.

goes to the hotel journals and buys space to make this fact known. The city, in this way, reaches hotel operators and others of means who may be interested in the particular city advertising for a hotel.

Technical Journals Opportunities for industrial advertising in the technical journals are so numerous that there is need for subdivision even in the selection of journals in which to advertise a phase of the industrial activities or needs of the community.² If the community can show a need for metal trades, for organizations employing artisan labor, for industries employing women in whole or in part, there are special journals for each appeal through paid advertising space. In a word, an industrial or a business opportunity is being sold and the reader must be made to think. This thinking must be within the range of his experience, invite his interest, and secure a response.

Other Methods The questionnaire brought forth the following suggestions as to methods used in locating industrial prospects: press clippings, requests, personal tips, local manufacturers and merchants, industrial bureau of public utilities, personal solicitation, new incorporations

2. Op. cit., p. 305

in the state, correspondence, industrial representative, and tips from members. The aforementioned miscellaneous group cannot be relied upon alone for industrial prospects. Aggressive methods, such as advertising, must form the backbone of the program. However, any wide-awake industrial department should and will make use of any of the auxiliary methods that may chance to be available.

What Some Cities
are Doing

Dallas, Texas was stimulated by the achievement of Atlanta, Georgia to investigate the advisability of advertising Dallas and its trade territory. Twenty thousand dollars was made available for securing the services of an engineering firm. After two years of investigation they came to the conclusion that there were eighteen lines of industry for which the peculiar circumstances of the southwest assured a good opportunity for development. The campaign as now outlined calls for \$450,000 to be used in advertising at the rate of \$150,000 for each of three years. The campaign is being directed in trade journals of the recommended lines. Within one year's time the number of national and sectionally important concerns have increased in Dallas by 163. New businesses of all types have increased 600 in seven months. The advertising has been a very valuable means of securing prospects. More than 2,000 inquiries have been received, 1,000 of which are sound prospects.

A cooperative project that is attracting considerable attention at the present time is the work of Puget Sound and British Columbia, Incorporated. International rivalry and traditional civic jealousy have been laid aside for team work. Vancouver, Victoria, Bellingham, Everett, Seattle, Tacoma and Longview are carrying on their work through the existing chamber of commerce with the office at Seattle acting as a clearing house for the association. The budget for the year 1928 called for \$41,000. This sum was raised by contribution from each city, its share being based on population. Each dollar of this \$41,000 was expended in the following way: 86¢ for advertising space, 2¢ for photographs, 4¢ for information bureaus, 4¢ for literature and 2¢ for clerical help.

New England is sponsoring a program through the activities of the recreational and power interests. Three hundred thousand dollars has been recommended for a period of three years. It is hoped that through this campaign good will may be created for New England products; that New England can be sold to itself; that visitors may be attracted by advertising recreational and historical features; and lastly, that present industries may be encouraged to expand.

Louisville established its Industrial Foundation in 1916. However, it was by chance that an advertising campaign was decided upon. In 1927 the Louisville Gas and

Electric Company completed a new hydro-electric plant. For a period of three months the company advertised the plant in eight of the metropolitan newspapers. Inquiries were produced in such a large volume as to warrant the entering of the city on an enlarged advertising program. One hundred thousand dollars a year for three years has been subscribed. These subscriptions have been raised at a cost of $2\frac{1}{2}$ percent.

In 1926 the community advertising bill was estimated at approximately \$6,000,000.³ A questionnaire sent out by the United States Department of Commerce concerning expenditure of cities for advertising, exclusive of other types of community promotion, brought returns totalling \$4,592,001.00. This amount was distributed in the following manner among cities of various sizes:

3. Advertising for Community Promotion, Domestic Commerce Series No. 21, 1928, p. 36 (Appendix).

<u>Amount Expended</u>	<u>No. of Cities</u>
Less than \$ 1,000	27
\$ 1,000 to \$ 4,999	64
\$ 5,000 to \$ 9,999	33
\$10,000 to \$14,999	11
\$15,000 to \$19,999	8
\$20,000 to \$24,999	1
\$25,000 to \$29,999	7
\$30,000 to \$34,999	1
\$35,000 to \$39,999	3
\$40,000 to \$44,999	2
\$45,000 to \$49,999	3
\$50,000 to \$54,999	9
\$55,000 to \$59,999	2
\$60,000 to \$64,999	1
- - - - -	
\$75,000 to \$80,000	2
- - - - -	
\$100,000 to \$145,000	8
- - - - -	
\$700,000 to \$1,000,000	2

As stated previously, it is estimated that at the present time the expenditure for community promotion will run well over \$10,000,000 for the more than three hundred communities involved.

B. Follow Up

When the prospect has been located, only a small part of the task is completed; in fact, the real task has just begun. Interest has been aroused but action is what determines whether the efforts have been successful or not. No industrial committee should be willing to risk this vital part of the selling process to a stereotyped industrial analysis that they may have available for such purposes. The least that should be done would be to send a specially prepared report, carefully worked out and setting forth clearly the advantages that the city has to offer as regards this special concern's problem.

Mr. E. W. McCullough, manager of Department of Manufacture of the United States Chamber of Commerce, in a recent letter addressed to the writer concerning the opinion expressed at the Industrial Bureau Managers Conference held in Washington on April 15-16, 1928, as to the usability of the detached survey, made the following statement: "The consensus of opinion as developed by this part of the discussion seems to point toward the necessity of more carefully analyzing the information that is included in an industrial survey from the standpoint of intelligibility to the industrial executive to whose attention it will be brought. In various different ways the thought was emphasized that today a great deal of time and money is being wasted by communities in sending copies of detailed indus-

trial surveys to the heads of manufacturing companies that might be regarded in the light of prospects for new location. In fact, the statement was made that a well written letter consisting of a page or a page and a half definitely applying itself to the industry under discussion, would secure greater attention as a starting point for securing an industrial prospect than an elaborate and costly industrial survey, through which a busy executive had to dig for the facts he wanted."

The following table indicates the general policy of the cities reporting, with respect to follow up methods.

Table VII

Methods of Following Up

Method	Cities responding	Cities having population of:		
		Not over 25,000	Over 25,000 but not over 100,000	Over 100,000
Special report	67	26	21	20
Part time representative	43	23	14	6
Full time representative	23	3	6	14
Total	133	52	41	40

C. Special Inducements

The practice of offering special inducements of any kind whatsoever is of questionable merit. Business tends to locate in the most favorable position relative to natural resources, markets, and other possible factors. To disclose the facts in these respects is all that the industrial survey can do. Any artificial stimulus that hinders the working of these factors is of questionable economic value. Assuming that the impetus of an early start is more important than resources or markets, then there would be some justification for business inducements as far as the community securing the new industry is concerned.

Two striking facts, as shown in Table VIII, stand out in an analysis of the section dealing with this subject. First, the general tendency of cities of all classes is to give no artificial stimulus of any kind. Second, the larger cities give practically no inducements and those that are offered are non-glamorous and economically sound. A few of the large industrial centers hold out tax exemption and industrial funds. Tax exemption generally is merely nominal and is limited to a period of five or ten years. Industrial funds are quite a different proposition from bonuses, such as, free site, cash, or moving expenses.

Table VIII

Special Aid Extended to Prospects

Type of aid	Cities responding	Cities having population of		
		Not over 25,000	Over 25,000 but not over 100,000	Over 100,000
No special aid	65	23	20	22
Stock endorsement and selling	9	8	1	
Tax exemption	11	7	3	1
Bonuses	10	9	1	
Industrial funds	12	3	5	4
Industrial incubators	5	3	1	1
Total	112	53	31	28

As a community develops industrially, its technique of acquiring new industries changes. At first, it will throw out its bait rather promiscuously. Free building sites, cash, stock endorsement, and stock selling are the type of inducements that the unsophisticated offer. Such inducements are found to attract, in too many cases, a business that is transitory. Eventually the activity changes from seeking to that of selection. The larger cities have learned to encourage only industrial development that is sound.

Industrial
Incubators

Industrial incubators are buildings or a building so equipped that small industries may be housed there till they reach the stage where they are able to move to larger quarters and meet the competitive forces of industrial life on equal terms. In general these plans have been abandoned. However, one city that has such an incubator is Chicago.⁴ The central manufacturing district of Chicago set out to meet the need of the infant industry. An old building formerly used for storage of war materials was first used. Other buildings have been added to take care of the twenty-nine small companies now housed there. The value of the plan has been demonstrated by the fact that three concerns have graduated in an average incubation period of two years. The plan does not leave off here, but provides a new home for the industry that is growing up, allowing it to pay for its new home on a deferred payment plan.

Industrial
Funds

In most cases the establishment of any sort of an industrial fund can do little more to stimulate industrial growth than can the regular banking institutions. Williamsport, Pennsylvania, which was a pioneer in the guaranty fund movement, abandoned the plan in 1915 after giving it fifteen years trial.⁵ The failure

4. Thomas, Leon I., "Hatching New Industries," Factory and Industrial Management, May, 1929.
5. Industrial Development Bulletin, Organization Service Bureau Series, United States Chamber of Commerce, 1923, p. 16

of the plan was attributed to the fact that there was no real, legitimate field for its activities. Other communities having tried industrial funds and later abandoning them are, Wheeling, West Virginia; Butler, Pennsylvania; Little Rock, Arkansas; Pittsburgh, Pennsylvania; LaFayette, Indiana; Elmira, New York; Tacoma, Washington; and Lincoln, Nebraska.⁶

A recent letter addressed to Oshkosh, Wisconsin and Poughkeepsie, New York regarding their industrial funds brought the following replies. Oshkosh stated that their plan was discontinued several years ago. Poughkeepsie continued the plan until the subscribers were called upon to meet the deficit growing out of two failures.

On the other hand there are notable examples of success. Excerpts of letters received from the following cities show, in part, the plan and what degree of success they have had with it.

Hudson, New York. "This organization, Chamber of Commerce Industrial Development, purchased a tract of land comprising about 160 acres for the sum of \$20,000. This land was improved with railroad siding, streets, water, and fire protection facilities, and we were then ready for industries. The money for the tract and improvements was raised by members of the Chamber of Commerce

6. Op. cit. p. 17

who under-wrote money borrowed from our banks to cover the expense by endorsement of six-month notes as a guarantee that the banks would be protected. On the strength of these notes, sufficient money was borrowed for the organization.

"The tract was divided into five acre lots and sold on the basis of \$1,000 per acre to prospective industries. The Chamber of Commerce guaranteed maintenance of the railroad siding connecting the factory with the B. & A. Railroad, together with improvements such as water lines and power line service.

"Next, the Chamber of Commerce, through the notes of its members, borrowed sufficient money from the banks with which to erect a suitable factory building for the prospect. The cost of said plant was repaid by the industry in question through the retirement of a series of bonds at the rate of \$3,000 per year at stated intervals.

"This is the story in a nutshell, and has been highly successful; we have located five stable industries on this tract of land within the past seven years."

St. Joseph, Michigan. "About eighteen years ago the St. Joseph Development Company was organized and had turned over to it about \$42,000 out of a paid bond issue for industrial development purposes. The Development Company has assisted in one way or another 23 industries,

12 of which are in business and successfully operating. Due to careful investment and conservation of funds we still have about \$15,000 left.

"The assistance rendered in the early days consisted of outright donation of land and in one or two cases payment of a cash bonus. In more recent years the assistance has consisted of partial payments for switch track service, for payment of moving expenses, and loans without interest. In spite of the smallness of the fund with which we had to work the Development Company has been unusually successful, the industries secured employing from 40 to 1000 persons each."

Fort Wayne, Indiana. "Along in 1921 and 1922, when we secured the International Harvester Company's large plant from Akron, Ohio, it was necessary for us to develop an industrial district immediately east of our city, and to do so the Greater Fort Wayne Development Company, with a capitalization of \$1,000,000 was formed. Stock was sold to the extent of a million dollars and a tract of land of some 200 acres was purchased, belt line railroad run through the property, and city service installed. A portion of this land had to be set aside for houses, as, when the International were figuring with us right after the war, we were decidedly short on houses.

"From the time the contract was signed until the

International actually completed their plant, private initiative had taken care of the housing situation, so we only called about \$260,000 of the million dollars subscribed, which was sufficient to buy the property and construct the belt line, etc. Since that time we have placed possibly a dozen substantial industries in this tract, selling them the land at actual cost to us without any speculative profit from the transaction.

"We also have created in the last year and a half a million dollar industrial fund which is purely a credit proposition. The plan in brief is as follows: Each subscriber will sign a note for the total amount for which he could be called upon in the event of loss on any loan. The ultimate aggregate of these notes is expected to be \$1,000,000 or more. These notes will be placed in the hands of the trustee, the First National Bank, to be used under the direction of the industrial commission and the industrial finance committee.

"If a loan is applied for by a company which contemplates establishing its plant or business in this city, an investigation will first be made by the industrial commission. If the commission decides, after investigation, that the applicant is entitled to such financing as it asks, it will refer the matter to the finance committee. If this committee in turn approves the recommendation of the industrial commission, it will determine what collateral

or security, other than a mortgage on its plant and machinery, the borrower must put up in order to secure the loans as requested. It will then authorize the trustee, upon receipt by it of the collateral security specified, to issue to any bank making such loans to the borrowing company, participation certificates, which will in effect provide that the loaning bank is entitled to participate in the amount of subscribers' notes held by the trustee up to an amount equal to the loan made by such bank.

"The bank may make such loan either directly to the borrower or to the trustee. In the latter event, the trustee will then turn over the proceeds of the loan to the borrower and the borrower's note will be made to the trustee. If any such loan should be defaulted, the trustee will then proceed to foreclose and realize on the security or collateral put up with the trustee by the borrower. If the borrower does not meet the loan, and if the collateral held by the trustee is insufficient to pay the amount of it, then the subscribers will be called upon to pay their pro rata share of such loss; that is, each subscriber would then have to pay to the trustee a percentage of this note equal to the percentage that the loss suffered bears to the aggregate of all subscribers' notes."

The following tabulated report is a summary and condensation of a study with respect to industrial financing

and industrial funds conducted by Mr. A. S. Keller, manager of the industrial division of the Pittsburgh Chamber of Commerce. The central note expressed by practically all chambers regarding aids to business is that it must be above the clamor of the public and based on sound economic principles of financing.

It is probably true that there is more justification for a revolving fund to aid either new or established businesses in the small city than there is in the large ones. The large city generally has established credit facilities which are available and which are capable of opening a line of credit adequate for the needs of any business. Business which the bankers refuse to underwrite should be discounted very highly by any other credit system.

Chambers of Commerce Aiding in Industrial Financing

Name of city	Population	Results
Atlanta	288,000	Funds used for advertising.
Cincinnati	445,000	As yet no practical value. Plan too rigid.
Easton	40,000	Must not yield to public clamor. All loans made on a business basis.
Louisville	333,000	Most successful in aiding industries now operating in Louisville.
Minneapolis	404,000	
Omaha	228,000	The difficulty lies in the fact that conservative administration is not spectacular enough to satisfy the public.
Portland	369,000	Some value.
Rochester	340,000	Very cautious about financing done.
Scranton	155,000	Rather hazardous. In most cases a result of public clamor.
Syracuse	214,000	Set up to fill a definite need. Most funds are a result of public clamor.
Toledo	320,000	Same as Easton.

**Chambers of Commerce which have Discontinued
Industrial Financing**

Name of City	Population	Results
Boston	807,000	Losses overwhelming.
Los Angeles	1,407,082	General financing through regular institutions seems sufficient.
New Orleans	435,624	Most firms needing financing could be handled by banks as well.
Wilmington	131,009	Considerable money lost. Policy now not to finance or recommend investments in anything.

Active Industrial Funds

City	Date of incorporation	No. of loans made	Fail-ures	Purpose	Type of fund	Nature of assistance	Connected with C. of C.
Baltimore	1915	30	2	Aid existing and new industries	Cash	Center for demand and supply of capital	No
Binghampton	1926	1		Aid new and established industries	Credit	6% loans for one to ten year periods	Yes
Easton	1910	24	*	New industries	Credit	Building site purchased and buildings erected and mortgaged with funds for 100%	Yes
Fort Wayne	1928	4		New and established industries	Credit	Aids industries to purchase land and buildings on amortization plan.	Yes
Hoquain	1923	1		Aid old and secure new industries	Cash	6% loans	Yes
Hudson	1922	**		Confined to new industries	Credit	Constructed plants for 14 industries	Yes

* One operated by guarantors.

** \$168,000

Active Industrial Funds (Continued)

City	Date of incorporation	No. of loans made	Fail-ures	Purpose	Type of fund	Nature of assistance	Connected with C. of C.
Keene	1913				Cash	Constructed 13 plants	No
Louisville	1916				Cash	First mortgage on land and building	No
Muskegon	1925	12	none	Aid new and established industries	Cash	Preference given to building loans rather than working capital	No
Norfolk-Ports	1922	2			Credit	Mortgage on land and building 20% per year at 6%	
Ohio Valley	1926	2		New industries in the Wheeling District	Cash	Investment, loans and endorsement	No
Portland	1926	4		Worthy new industries	Cash	Invest in stocks of approved industries	No
Utica	1926	2		New and old industries	Cash	Loans to 30 or 40% of requirement	No

Abandoned and Inactive Industrial Funds

City	Years operated or date abandoned	Reason for abandonment
Boston	2 years	No real legitimate field for the activities of such a community financing. Worthwhile industries could be financed through banking circles and local investors.
Cleveland		Inactive; understood, however, a \$500,000 credit fund is now being raised by the commercial club of Cleveland.
Los Angeles	1928	Never organized; funds not fully subscribed and therefore did not operate along the lines planned.
New Orleans	2 years	(Same as Boston).
Oshkosh	1918-25	Purpose of financing only local going industries completed.
Scranton	1914	Inactive as a result of endeavoring to care for financing which bankers turned down.
Williamsport	1900-15	(Same as Boston).
Wilmington	1894	Abandoned; consider it absolutely unsound and unsafe.

Tax Exemption

Tax exemption is practiced in varying degrees primarily in the Northeast and Southern states. The New England section is pressing this feature much less than the South. The New England exemption laws are seldom mandatory while in some states in the South certain types of industries are named directly in the exemption lists.⁷

Stock Endorsement

Stock endorsement and stock selling really amount to guarantees of the success of the concern by those responsible for the endorsement. The achievement of a concern depends in part upon those at its head. Management may change in a few years and the entire business policy may be revamped. Thus, one can see the disrepute that a chamber of commerce may be drawn into by such an undertaking.

7. Jensen, Jens P., Tax Exemption as a Means of Encouragement to Industry. Kansas Studies in Business, No. 10, May, 1929.

Chapter VI

The Regional Survey

The surveys discussed in the preceding sections have been thought of as limited to the area of a particular city and in some cases to the trading area of that city. It is necessary, however, to call attention briefly to a type of survey covering areas of varying size, but always larger than any one city and its immediate trading territory. Such regional surveys are less numerous than those restricted to a city, but they cover a large area in the aggregate. They merit consideration also because they constitute a method of avoiding some of the objections to the more narrow city survey.

A. Justification for Regional Scope

Industry and commerce ignore political boundaries, except where the latter create differentials such as tax burdens of varying weight. The areas that have a common interest may be large or small but they rarely coincide completely with the political units. The economic area may substantially cover a county or it may embrace a group of contiguous counties. Others cover an entire state, while still others include a group of several states. The enlargement of the survey area is more or less spontaneous in response to recognized community interests.

In some instances the survey, though covering a large area, is carried on primarily in the interest of, and at the cost of, the "hub city" of the area. Such, for example, is the case with the "Industrial Analysis of the Northwest" which was conducted and financed by the city of Seattle and which covered the states of Washington, Oregon, Idaho, and Montana, as well as a part of British Columbia. In general, however, regional surveys must be initiated and financed on a cooperative basis.

The regional survey is probably the most economical method of furthering the common community interest. The local surveys contain practically all the information required by the regional survey, thus resulting in much needless duplication of expenditure. As the per capita cost of the regional survey is less than that of the local survey, the cost of community advertising based on the survey would be less.

Recently the idea of a community interest on a broader basis than any political unit was recognized by the United States Department of Commerce in grouping the several states into nine groups, each group being regarded as having a community of interest. The idea has long been recognized by the Bureau of the Census in presenting diverse statistical data relating to the several states in substantially such a grouping. Through the Business Week, a financial magazine, and other means an effort is being made to

stimulate surveys on such a geographical basis.

States Grouped According to General
Community of Interest

New England

Maine
Vermont
New Hampshire
Massachusetts
Connecticut
Rhode Island

Central Atlantic

New York
Pennsylvania
New Jersey
Delaware
Maryland

Mid-West

Iowa
Wisconsin
Michigan
Illinois
Indiana
Kentucky
West Virginia
Ohio

Central Northwest

Montana
North Dakota
Minnesota
South Dakota

Pacific Northwest

Washington
Oregon
Idaho

Mid-West Continental

Wyoming
Nebraska
Colorado
Kansas

Pacific Southwest

California
Nevada
Utah
Arizona
New Mexico

Southeast

Alabama
Georgia
North Carolina
South Carolina
Virginia
Florida

Gulf South

Oklahoma
Texas
Tennessee
Missouri
Arkansas
Louisiana
Mississippi

The sponsoring of such a plan by the six New England states through the New England Industrial Council demonstrates the fact that the plan embodies sound principles. The work of the Council was outlined in a recent radio address made by Dr. Julius Klein of the Department of Commerce on February 2, 1930. The program calls for the development and working out of the following problems:

Stimulating New England's industries, greater utilization of electric power, development of a sound farm-marketing program based on the grading and standardization of farm products to the extent that they can be identified by suitable trade-marks, increasing the popularity of the section as a vacation region, and mapping of a logical system of inter-related air routes. It has given thought to the matter of improvements at the ports and the greater use of water transportation.

"Governors of the six states are sponsors and active members. Each state is represented on every committee. The council meets quarterly in each state in turn. An annual conference is a great event of New England's year. Financial support is voluntary."¹

The Department of Commerce and the New England Council have worked together in carrying out a thorough "Commercial Survey" of New England. This has comprised comprehensive studies of the facts on the commercial and industrial structure of the region. These studies promise to prove extremely helpful not only to the area but to business men elsewhere who are interested in selling or buying things in New England.

Economically, the Department of Commerce believes that the regional surveys form one of the basic features of its domestic commerce work.

In addition to the New England survey, such studies

1. "A Plan to Promote Economic Balance," Business Week, January 8, 1930, p. 24.

have been conducted in the states of the Southeast, and studies of the Pacific Coast and the Gulf area are now proceeding. Surveys will be made in other regions just as soon as funds are available.

The Department of Commerce feels that the regional survey fills a need that is impossible to be reached through the various community studies. The Department speaks openly against the tendency that now prevails of one city regarding its neighbors as "out-lying" districts, and the tendency to restrict "patriotism" to the local community. In many respects their interests are common. All of the cities have a great deal in common and any mental set-up that tends to thwart cooperative effort is thoroughly unwise.

B. Types of Regional Surveys

With a fair degree of clearness the regional surveys are classified on several bases so that at least certain typical cases may be seen. The area furnishes one basis, and the nature of the survey another. Twelve of the regional surveys available for study were made on the county basis. They include the survey of Lane County, Oregon; Los Angeles County, California; Gray Harbor County, Washington, and a number of others. Of the county surveys one was prepared by an industrial engineering firm, one by the research division of a state development asso-

ciation, one by the industrial department of the chamber of commerce of a large city located in the county, and one by the school of commerce of the state university. Thus it is evident that a large range of agencies are employed.

The following table shows the distribution of the regional surveys according to the agencies responsible for making them.

Public utilities	5
Chambers of commerce	6
Some division of state school	2
Industrial engineers	1
Commissioner of agriculture	1

It is but a step from the single county survey to that in which several counties unite. Yet it seems that in order to generate initiative for the formation of a new organization and to induce the competitive interests of the cooperating units to unite, the common interest must be decisive. Such was evidently the case with the Michigan copper counties whose program is summarized as follows:

1. To examine all the possibilities that exist for the expansion of industries in the three counties.
2. To induce industries to locate in the copper counties.

3. To investigate the possibilities of the manufacture of copper.

A similar clear-cut case of a community interest is found in a group of southeast Kansas counties whose basic interests are the coal mining industry and other industries which have grown in that section because of the presence of coal.

The particular common interest that unites the various units may vary from place to place. Thus, in Buffalo, New York the Niagara power district is included. Not only the best utilization by the entire area of the generated power, but also rate and regulation problems can be best adjusted on the basis of cooperative fact-finding.

From the evidence shown in the material on hand, it appears that some of the most comprehensive regional survey work of this nature has been done by public utility companies, such as the Southwestern Bell Telephone Company. Their economic surveys usually take the state as a unit. Two or three field men spend as much as two years of time compiling material from the region concerned. While this material is particularly valuable in making forecasts of business growth, it is also valuable from the viewpoint of any business concern. These general economic surveys are available for distribution to selected mailing lists.

Most agricultural development problems can best be

handled by regions. If a product or group of products are found to be adapted to a region, the most advantageous production will come about through a unified effort of the whole area. If enough producers can be stimulated to operate collectively many cooperative undertakings are made possible. In the first place, the product can be graded. Second, after the product has been graded it can be trademarked and the region and its product advertised. Third, cooperative marketing agencies are made possible.

Where the "hub city" of a region undertakes a survey, the region may involve several states or only several counties in one or more states. The "Industrial Analysis of the Northwest," mentioned above, made by the city of Seattle is one of the broader surveys. Much more limited in scope is the survey of the city of New Orleans in which both an industrial zone and a trading area were recognized. Surveys of this type, though covering considerable area, are not cooperative ventures, as are the regional surveys generally. The benefits to the areas outside of the central city, at whose cost the survey is made, are largely incidental.

The areas larger than a single county, so far as the materials available for study go, include the Piedmont Region, the Billings Trade Area, the Turlock Irrigation District, and Western North Carolina. Such surveys may be bounded by any one of a number of spatial limits. The

largest area, perhaps, is that included under the New England Industrial Council.

The Kansas Chamber of Commerce in cooperation with the power and gas companies is now completing an organization which is to obtain information preliminary to a development program for Kansas. A questionnaire covering the characteristics of a city has been mailed to each city in Kansas having a population exceeding 500. The industrial information is to be compiled by the engineering staffs of the power and gas companies. The power companies agree to furnish \$2,000 to conduct the industrial research in counties where they are not operating. This information is to be collected in the state chamber of commerce at Topeka and tabulated. The material is to form the basis of reports growing out of requests coming from industrial prospects. It is also planned to use it as a basis for an advertising campaign as soon as the state is ready for such publicity. At the present time a complete staff organization has not been worked out, but delegation of work is contemplated as requirements necessitate and budget allowances permit. The work thus far has been under the direction and supervision of an industrial engineer and publicity expert. The project has not proceeded far enough to predict with any degree of accuracy what success the plan may subsequently meet with.

C. Finance and Organization

Where the survey is made by some state agency, such as the Commissioner of Agriculture, the problem of financing is simplified since the work is then made a regular function of an already existing organization and is paid for by means of a public appropriation for investigation and publicity. It is a familiar fact that such development work has been carried on as a regular state activity by many states, especially the newer ones. Such tax-supported development is not peculiar to the United States. The Dominion of Canada maintains the Natural Resources and Intelligence Service in the Department of the Interior for this purpose, and similar organizations are maintained in some of the provinces.

The same method of financing the survey by means of taxation is open only where the survey area is coextensive with a regularly organized political unit, whether such political unit be a city, a county, a state, or federation of states, and where such procedure is not prohibited by law. This is more significant than the fact that an organization already exists for spending money for collective services, and accounts, doubtless, for the relatively few cases in which a political boundary inscribes the survey area. Elsewhere it is necessary to set up a new organization for the specific and exclusive

purpose of financing, conducting, and giving publicity to the data of the survey.

Most of the county regional projects are handled by the existing chambers of commerce in the region, one acting as a clearing house for information and heading up the organization work for the other cities. Expenses for such an undertaking generally are allocated to the various towns in the region on the basis of population.

Chapter VII

Adequacy of Surveys

The surveys on file, when classified as to their nature and make-up, seem to fall into one of three rather broad and general classes. First of these is the survey of the publicity type; second, the "civic inventory"; third, the real industrial survey. An explanation of this classification will be given in the following discussion.

A. Publicity Type

The publicity type of survey can scarcely be classed as an industrial analysis at all. However, many of such a nature were mailed in compliance with the request for industrial surveys and, too, a great many of them are labeled as industrial surveys.

This type of survey is primarily interested in the appearance and appeal of the publication. Great emphasis is placed on attractive covers, high quality enameled paper, attractive pictures, and high sounding phrases, such as, "Midwestia citizens are great home lovers." Such expressions sound well but mean little to one interested in securing real information concerning existing economic conditions.

Transportation, labor supply, market and power factors are treated very superficially. To say that the

city is located advantageously with respect to a "voracious" market does little to tell of the buying habits or of the purchasing power of the trade area. To say that the coal mines are within easy reach and that the rates are in line with other competing communities is a statement that has imparted no informative material. To say that the labor structure is made up of a group of individuals who are law abiding and satisfied is merely yielding to glamor and finding an easy way to avoid a presentation of true labor conditions.

Of the surveys on file received from cities under 100,000, 42 percent of them are of this type. This is not at all other than could be expected when consideration is given to the amounts expended. Seventy-one percent of these cities spent \$1,000 or less for their so-called survey. While 40 percent of them are of this type some allowance should be made for the possibility that the agency sending the report has more pertinent material on file in its office.

B. Civic Inventory Type

This type of survey differs from the publicity type with respect to its general make-up. It is not particularly attractive in appearance. The cover is of ordinary cover stock and the print stock may be nothing more than ordinary mimeograph paper. No pictures are included and for publicity purposes the publication certainly does not

have much value. It differs from the industrial survey in that no analysis of markets, raw materials, power or labor supply is attempted. It is peculiar to itself in that it does nothing but give an inventory of the civic assets.

The following analysis of a "civic inventory" is based on the contents of a survey made by a mid-western city which is representative of the group. Eighty percent of the space is devoted to a mere recounting of the city's assets and only 20 percent devoted to labor, fuel, electricity, water, communication, agriculture, coal, raw materials, markets (both local and foreign), and transportation. According to the questionnaire returns these topics that receive one-fifth of the space are found to be the most useful. Why, then, should they be relegated to a space of such small proportions?

The other 80 percent of the book is devoted to a historical sketch, plans and regulations guiding physical development, city government, taxation, public service, education, recreation, religious agencies, social agencies, and business. The section on business gives the number of retail and wholesale stores dealing in certain commodities. Just what value such an analysis has, it is rather hard to determine. However, a "volume of business" index would have some value when hooked up with population.

Thirty-five percent of the surveys made by cities under 100,000 belong to this class. In some ways, the

type is less desirable than the publicity type. It is not suitable for general publicity and has no value as a sound analysis of the economic set-up of the community.

C. Analytical Type

The real industrial survey does more than merely recount the civic assets. It goes out for first-hand information, not as an academic performance nor as an advertising project, but a deliberate and sober search designed to acquaint the citizen body with facts as they are. Such a project calls for the collecting of much first-hand information which will of necessity require a budget of more than ordinary proportions. The major part of the study is devoted to an analysis of transportation, raw materials, markets, and labor conditions.

An analysis of transportation calls for more than merely naming the carriers. It should analyze the physical facilities for serving the market by showing package-car service, express service, air mail and express service, motor truck service, and motor bus lines operating out of the city. A comparison of these maps with maps showing concentration of population and rated retail outlets will show what best areas of the region are within specified time areas of the city with respect to delivery. Maps should be provided showing where the freight rates break as between the city in question and its competitors.

A market analysis should show the total wealth produced in the trade area. Such a statement does not mean so much when standing alone, but it becomes valuable when put on a comparative basis with other similar regions in the United States. Maps can be constructed showing the distribution of various kinds of retail outlets for the trade territory.

An analysis of buying habits can be determined in part by various consumptive indexes such as the following: Per capita ownership of automobiles, per capita use of telephones, number of people per dwelling, percent of persons owning their own homes, percent of land farmed by tenants, and finally, an analysis of the racial characteristics with respect to consumption.

An analysis of labor conditions should include a distribution of the total working population as to race, sex, skilled, unskilled, children, and adult. Wage data should be available taken from the actual experience of operating industries, an average obtained and compared with the wage paid in similar industries in other parts of the country. Facts regarding labor legislation should be digested and also put on a comparative basis with other states. There is no absolute standard by which a city can measure itself; it must be relative. Thus, there is a strong argument in favor of putting the facts as discovered on a basis so that they can be compared with what

is being done elsewhere. It is then that some worthwhile revelations may come to light.

A survey is not very valuable if it does not analyze the facts, at least to the extent that certain conclusions are reached. Those responsible for making the survey should be able to tell whether there is a possibility of expansion along certain lines and what these lines are. Such a result is possible from the following procedure: First, analyze the value of the various articles sold in the trade area by checking local wholesale distribution. Second, ascertain what percent of these articles are made locally and what percent are imported. As soon as this is learned one has a clue as to where to look for lines of expansion. When a product is found, the greater percent of which is imported for no obvious reason other than that there is no local manufacture, then the field of production should be explored and conclusions arrived at.

D. Summary

In general it can be said that the stereotyped survey that has been in vogue during the past ten years is a very inadequate and expensive approach to industrial development. Any one of the three types discussed are valuable only if they are continuous. The amount expended for the publicity type could probably be used to a better advantage as a creator of good will in a well planned magazine advertising campaign. The appeal can be varied from month to month

and the attention of prospects can be stimulated each time the publicity material appears in the magazine, whereas the booklet is glanced at once and cast aside.

The community spending its money for the mere "civic inventory" type of survey certainly wastes practically all expended in such fashion. It has no value as a publicity project and as an industrial survey is woefully inadequate.

The real industrial survey to be effective must be constantly revised and it should be placed in the hands of a committee whose function it is to dig out facts for particular businesses when they request them. Such a trend in procedure is noticeable in the larger industrial centers. Cities that a few years ago spent large sums for comprehensive studies find that they are now out of date. They are adopting methods which provide for a continuing body of facts.

The economic soundness of a survey conducted on a regional basis is readily recognized. The most salient feature of a regional development program is the organization that is to get behind the movement, analyze the facts, and prepare special reports for prospects. The program is less spectacular than that of the large city, direct responsibility is remote, and the tendency is to let the other fellow bear the burden of community development.

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