THE IMPACT OF NEW INDUSTRY ON MUNICIPAL SERVICES AND AMENITIES AND ON THE ECONOMIC STRUCTURE OF SOME SELECTED SMALL COMMUNITIES

by

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We accept this thesis as conforming to the required standard

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Date April 22nd 1960
ABSTRACT

For some time now there has been a growing tendency for new industry to locate in or near small communities for reasons varying from deliberate decentralization for defense purposes to the purely economic necessity of locating near the site of required natural resources. This study is concerned with communities in such area where the new industry's activity is large in comparison with the economic activity already in existence and thus the new industry often becomes the dominant or characteristic function of the community.

Quite naturally under these conditions new industry has a considerable impact on the social, economic and physical make-up of a community. The effects may be, and often are, so significant that the resources of the community may be stretched to breaking point in its effort to adapt to meet the changes brought about. Far worse is the fact that within the community itself there is often little realization of the far reaching changes which may result from the presence of a new plant and therefore little forethought is given to population changes, in terms of number or characteristics, or the changes in community service and facility needs which will ensue. As a result little if any planning is done to meet and ameliorate these changes. There is much evidence of this sort of thing having taken place in British Columbia and there are indications that large industrial concerns will continue to locate in small communities in that Province.
Different methods commonly used for measuring the impact of new industry are discussed and evaluated, and the proposition is advanced that the use of any one method may not have any meaning. The approach adopted is therefore descriptive and qualitative. No quantitative indices are sought and no attempt is made to arrive at a precise quantitative measure of change, rather the area of change is emphasized throughout. The procedure followed consists of an examination of published accounts of experiences in the United States and Canada and a study of some selected communities in the Province of British Columbia. The work is chiefly concerned with community economic structure and services and facilities; the sociological aspects of change are not examined.

The analysis of the experience of communities is concerned with isolated significant aspects of change and with the broader effects on the economic structure of the community as a whole. The analysis is further concerned with different types of communities and how the impact of a given new industry may vary with community type.

Implications for planning are dealt with and specific planning measures are advanced to ameliorate the impact of new industry. Since the knowledge of this impact is not enough for municipalities in poor financial condition the notion is advanced that financial assistance is necessary from a higher level of government and that there is a definite role for a super municipal
government in many communities for this and other reasons.
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I must particularly thank Professor I. M. Robinson of the Department of Community and Regional Planning for his constant help throughout the entire project. Dr. H. P. Oberlander of the same Department was helpful in rigorously appraising the study and giving it structure. Miss M. Dwyer of the University Library was a great help at all times. I should also like to thank my wife who had the miserable luck to type the first draft and Mrs Norma Nutt who typed the final report.

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CHAPTER I

INTRODUCTION

For a considerable time new industry has been locating in communities in developed and underdeveloped areas alike. For the most part new industry has a beneficial effect. It can reduce unemployment and balance an economy through diversification.

Unfortunately, the establishment of new industry in a community can have some unwanted and disturbing side effects. These may become apparent in the social, economic or physical make-up of the community's fabric. For example, people in resort towns such as Aiken, South Carolina, may be particularly disturbed by changes brought about and feel a loss of exclusiveness. Serious clashes may even develop between new settlers and the original inhabitants. New industry may precipitate a rapid transition in the urban nature of a community and bring about the necessity of services and facilities which were not hitherto required. As was experienced in Warren County, the economic structure of the community may not always be financially capable of meeting such necessary changes. The physical changes brought about may not always be desirable as was the case in Lexington Park, Maryland, where honky-tonks and big signs sprang up along what were previously quiet country roads. There are of course many other aspects of change of the physical make-up of a community which may not be satisfactory.

One of the objectives of planning is to smooth out the effects of such changes as may be brought about by the establishment of new industry in a community. Indeed it is the contention
of this thesis that adequate planning activity can indicate areas in a community's fabric which, as the result of the effects of the establishment of new industry, may cause problems at a later date. It is further contended that the adoption of certain planning measures may then ease and ameliorate these adverse changes.

Industry may locate in or near a small community for a variety of reasons among which is a desire to avoid the congested conditions within urban centres. Sometimes it is the result of a deliberate policy of decentralization stemming from defense reasons. In some cases industry locates in such communities because of attractive living conditions which the company concerned may regard as being a key element in the maintaining of a permanent labor force. Of course, in a large number of instances it is a matter of pure economics, whether it be the necessity to locate near the site of a natural resource, or for other economic considerations.

Naturally enough the communities selected by new industry vary in character according to their location and functional structure. Some of the accounts of communities chosen for the case studies of this thesis were selected because they well illustrate a new industry's effect on particular aspects of a community's fabric. Descriptions of other communities in the process of change as a result of the establishment of new industry were selected because they emphasize the effects on the overall economic structure and population of the community, although other effects are also included. Finally, information was collected
locally on some communities in the province of British Columbia in an effort to determine the effects on them of a specific industry.

These communities were re-classified into three different groups for purposes of analysis. The first group consists of those communities which are isolated and located in areas in which there is only one dominant economic activity. The second group includes those communities which are in regions that possess more than one economic activity and which are predominantly agricultural areas. The last group is composed of those communities which are in areas in which there is more than one economic activity but where agriculture is of little significance in terms of either occupation or economic activity. This study is concerned with communities in such areas where the new industry's activity is large in comparison with the economic activity already in existence and thus the new industry often becomes the dominant or characteristic function of the community.

Quite naturally under these conditions new industry has a considerable impact on the social, economic and physical make-up of a community. The effects may be, and often are, so significant that the resources of the community may be stretched to the breaking point in an effort to meet the changes brought about. Far worse is the fact that within the community itself there is often little realization of the far reaching changes which may result from the presence of a new plant and therefore little forethought is given to population changes, in terms of numbers or character-
istics, or the changes in community service and facility needs which will ensue. As a result little if any planning is done to meet and ameliorate these changes. There is much evidence of this sort of thing having taken place in British Columbia and there are indications that large industrial concerns will continue to locate in small communities in that province.

In recent years some techniques have been evolved to measure the impact that a new industry might have on a community and these are discussed in the following chapter. One of the methods used for guidance of a community's future development is based on surveys of the experience of communities elsewhere. Such surveys are often conceived in terms of what the effects are of a hundred workers of a manufacturing type being added to the labor force of a community. Another method of evaluating the impact of industry upon a community takes advantage of a regionally orientated technique. The underlying premise of this concept is that any urban centre is effected by other centres of activities in its immediate region and is ultimately linked to the national economy as a whole. It is basically an input-output analysis. A third method, commonly used, takes advantage of the economic base concept which makes a distinction between productive activity which brings money into the community and activities which simply recirculate money which is already there. Proponents of this method usually advance the notion of the existence of a ratio between basic and service activities.

The approach of this study is really two-fold; it consists
of an examination of published accounts of experiences in the United States and Canada and a study of some selected communities in the Province of British Columbia. In connection with the former, Bulletin #31 of the Planning Advisory Service of American Society of Planning Officials has been heavily relied on and case studies have been extracted from this source unless otherwise indicated. Studies of the British Columbia Communities are based on information obtained from local private industrial companies and the actual field observations of the writer. By and large the work is concerned with effects on community economic structure and services and facilities and not to any degree on sociological aspects.

The analysis of the experiences of communities is concerned with isolated significant aspects of change and with the broader effects on the economic structure of a community as a whole. In dealing with the first, a detailed examination is made of new industries' impact on community facilities and services and commercial enterprises. Its concern is to draw attention to the areas where change will probably come about. In examining the effects on the economic structure of a community, use is made of the basic-service ratio and the multiplier effect since it is felt that this is a quick and useful device which appears to have some measure of validity in conditions as are contemplated here.

The analysis is further concerned with different types of community and how the impact of a given new industry may vary with community type. The types of community described earlier are
utilised, and an attempt is made to illustrate how the population and the multiplier effects do in fact vary with these types.

Finally, the implications for planning are dealt with. Specific planning measures are advanced to ameliorate the impact of industry on community facilities and it is seen how an analysis of the type of community may be of assistance in their preparations. The awareness of industry's probable impact and its implications is however often not enough for many communities which are in poor financial condition. It is suggested that financial assistance is often necessary from a higher level of government and further, that there is a definite role for a super municipal government in many communities for this and other reasons.

In dealing with the case studies it is believed that the application of any one method of gauging the impact may not have any meaning. The approach taken is therefore descriptive and qualitative. No quantitative indices of change are sought and no attempt is made to arrive at a precise quantitative measure of change, rather the area of change is emphasised throughout.
CHAPTER II

EXISTING APPROACHES TO MEASURING THE IMPACT OF NEW INDUSTRY

The most potent force in a community for the attraction of people is the opportunity for employment. Needless to say, a number of areas exist that do not possess employment opportunities which can and do attract people but these are relatively few and it is only, normally, the wealthy and retired who are affected. Such areas ordinarily are noted for the number of amenities they have to offer. These might range from the possession of scenic beauty or a healthy environment, to more practical considerations such as educational facilities. For the majority of people, however, employment opportunity possesses the greatest lure.

Income opportunities may be offered by a wide range of activities of which the more significant are the production, distribution and consumption functions of an urban centre. As these functions grow they create jobs which in turn attract more people who will eventually require land for residential and other purposes and communities' destinies are governed to a high degree by them. It is therefore vital to recognise the original stimulus or stimuli of an economy and to have a knowledge of the economy's structure and function if planning is to have any value.

It is clear that some of these functions will be interrelated and that different kinds of industries and businesses will influence and attract different kinds of people and industry to them. Therefore the nature of an economy should really be ascertained in order to judge the amount and kind of housing and recreational and other facilities. Moreover, the speed or rate of
economic growth will affect the rate of development in the present and in the future. The ideal method of evaluating impact would be to take the dynamic nature of an urban economy into account.

There are currently three approaches in use to assess the probable impact of new industry on a community. These are: (1) the use of surveys of communities' experiences elsewhere, (2) the input-output analysis and (3) the base-ratio analysis. The first of these is really a collection of data on industries' impact elsewhere while the other two methods hinge upon well developed theories. Each is described and its value and shortcomings discussed below.

The Survey Method

This approach takes into account the effects of new industry's establishment elsewhere. Several surveys of the experiences of various communities have been undertaken by different agencies and three examples are presented below. They are generally conceived in terms of what the effects are of 100 workers of a manufacturing type being added to the labor force of a community. As may be seen from the three examples wide variations occur between the results. This should not really be surprising since they may have been undertaken in widely differing areas. While such research represents a lot of work and is of interest to the originating area is it in fact likely to be of significant value to other areas? The answer to this is of great importance since such surveys seem to be self-perpetuating in their use and are being utilised as a basis of prediction by communities in widely differing circumstances.
For example, the Department of Municipal Affairs in Saskatchewan recently utilised one such survey in predicting future developments in Esterhazy, where a salt mining company initiated operations. (1)

It appears highly improbable that the results of the U.S. Survey would be of any value as far as Esterhazy is concerned, even if used as a point of departure for it is hardly likely that experiences of communities in the U.S. will correspond to those of a rural community in the Canadian Prairies.

**TABLE 1**

**THE IMPACT OF 100 NEW WORKERS**

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<th>A</th>
<th>B</th>
<th>C</th>
</tr>
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<tbody>
<tr>
<td>No. of people they will support</td>
<td>700</td>
<td>131</td>
<td>600</td>
</tr>
<tr>
<td>(households)</td>
<td></td>
<td></td>
<td>800</td>
</tr>
<tr>
<td>No. of new homes</td>
<td>200</td>
<td></td>
<td>150-200</td>
</tr>
<tr>
<td>No. of new School children</td>
<td>400</td>
<td>66</td>
<td>400</td>
</tr>
<tr>
<td>No. of new School teachers required</td>
<td>12</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>No. of new Schoolrooms required</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of cars likely to be purchased</td>
<td>200</td>
<td>187</td>
<td>200</td>
</tr>
<tr>
<td>No. of new Professional people</td>
<td>12</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>No. of new stores</td>
<td>16</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Amount of new retail sales</td>
<td>$375,000</td>
<td>$939,000</td>
<td>$350,000</td>
</tr>
<tr>
<td>No. of new workers in other fields</td>
<td>-</td>
<td>117</td>
<td>-</td>
</tr>
<tr>
<td>Amount of taxes to the community per annum</td>
<td>-</td>
<td>$30,000</td>
<td>-</td>
</tr>
<tr>
<td>Amount of tax foundation established</td>
<td></td>
<td></td>
<td>$1,600,000</td>
</tr>
<tr>
<td>Provide a payroll of</td>
<td></td>
<td></td>
<td>$130,000 to 170,000</td>
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Sources:

A. Saskatchewan, Department of Municipal Affairs, *Esterhazy Plans its Development*, 1958 P.15

B. Ontario Industrial Development Council, "What does a New Plant Mean to a Community", *Financial Post*, Feb. 28, 1959

C. American Society of Planning Officials, Planning Advisory Service, "Impact of Industry on Small Communities", Bulletin No.31
Even where the surveyed community bears resemblance to the community experiencing the establishment of new industry such results should be used with caution since the type of industry and its relations with other industries will have a bearing on any effects generated. Another important aspect is the time element. How much time is involved before some of the effects actually take place? Is it at all likely that it will be similar in different communities in different areas? The answer is surely no, and for this and the previous reasons an approach based on the effects of the addition of manufacturing workers does not seem to offer a valid method for predicting the probable impact of a locating industry.

Input-Output Analysis

Another method of evaluating the impact of industry upon a community might take advantage of a regionally-orientated technique. The underlying premise of this concept is that any urban centre is affected by other centres of activities in its immediate region and is ultimately linked to the national economy as a whole. This technique, commonly known as the input-output analysis, is based on theoretical work by an economist, Wassily Leontief. Although originally conceived and actively applied in practice to national economic analysis, in recent years this method has attracted researchers concerned with regions and metropolitan areas. Isard, for example, experimented with it and recently applied it to the study of the impact of a steel mill on the greater New York-Philadelphia industrial region. (2)
Such a study would involve: (1) an inter-industry analysis establishing the basic relationship existing between the volume of output for each industry and the volume of input required from all other industries in the production processes of each such industry; and (2) the relationship between the flow of commodities between regions which occur in fulfilling output requirements.\(^{(3)}\)

In Isard's New York-Philadelphia study the direct and indirect repercussions of the operations of the steel mill were quantified by compiling the entire set of inputs.

"This bill of goods was constructed 1., by multiplying the cent's worth of every input required per dollar output of a given steel fabricating activity by the dollar volume of that activity corresponding to the estimated new employment, 2., by multiplying the cent's worth of every input per dollar of output of steel by the dollar volume of new steel output corresponding to our estimate of new steel capacity; 3., by summing horizontally for each of the forty-five different industrial inputs the requirements by steel and each fabricating activity". \(^{(4)}\)

Thus this technique clearly offers many possibilities and might with refinement be one of the best tools available upon which to base projections for the urban economy, since it offers a means of evaluating inter-industry and inter-regional relationships and also permits analysis of the economic functioning of one urban centre in relationship to other urban centres.

However, limitations are imposed upon this method by the lack of data and the question of it being in a suitable form to permit analysis. Furthermore, it is questionable whether such a method would be either justifiable or even practical for a region below a metropolitan area. In a resource-based economy, such as British
Columbia, the location of industry in a small community remote from a large urban centre would clearly have an impact on the economy of the Province as a whole which could be evaluated to advantage, without assisting too much the evaluation of the impact on the community itself. This would be especially so in the case of industry which relies either on its proximity to markets or the ease of getting its products there. In other words, the inter-industrial relationships developed might be widely dispersed geographically because of the strong market pull on those related manufacturing processes inducing them to locate in larger urban centres. Thus a large measure of the impact of the inter-industrial relationships might have little or no effect on the community where the original industry located. Clearly the foregoing must be tempered by the type and size of the industry and the situation and size of the community located in.

**Base-ratio Analysis**

Another, perhaps most widely used method of assessing economic change in a community, employs the use of the "economic base" concept. Homer Hoyt's experimentation and work in economic analysis has provided the contemporary model of the base concept now in general use. This concept makes a distinction between productive activity which brings money into the community and activity which simply recirculates money which is already there.

"The first class is composed of basic or town building activities which according to theory are industries which export goods beyond the boundaries of the metropolis. The second class is composed of the service or town filling
activities which are purely local in nature. They complement the base and react to changes in it. The forces of change, however, according to the theory, develop in the base industries, and therefore for purposes of analysis the base industries are the more significant". (6)

In other words basic industry is held to be the key to a city's economic strength and expansion in basic lines usually means growth in service activities.

The first step in the application of the economic base technique is the classification of activities as either basic or service. The manner in which this is done will have considerable bearing on the results of the analysis, for it is this relationship which establishes the base-service ratio. Some hold that the addition of basic activity will cause service activity to rise in proportion to the ratio established and thus be utilized for employment and population projection. Units of measure frequently used have included: employment, payrolls, value added, value of production, physical production and dollar income and expenditure accounts for an entire urban area.

Classification is not however simple and all forms of economic activity cannot be sharply defined since some activities serve the outside as well as local activities.

Hans Blumenfeld who acknowledges that the concept has value in analysing areas of local economic activity, questions the validity in predictive studies, and queries the distinction between basic and nonbasic activity.

"If an area produces its normal share of, say, elect-
- trical machinery it would be completely erroneous to assume that this is non-basic industry working exclusively for the local market. It is entirely possible, and probable, that most locally produced machinery is exported, while at the same time most locally consumed electrical machinery is imported". (7)

Blumenfeld also states that the applicability of the base concept tends to decrease with the increasing size of an urban centre, suggesting that the numerical value of the ratio tends to be highest in small, relatively new cities and lowest in large metropolitan areas.

The linkage between Basic and Non-basic activities, or the multiplier effect, has been the subject of much discussion and study. At one time it was thought the multiplier effect was 1:1, i.e., for every worker in a Basic industry there was one engaged in a service activity on the premise that a direct relationship existed between the two. If an increase of 100 Basic Workers occurred then the number of service workers would increase by 100 and similarly there would be a proportionate negative effect.

However, there would appear to be innumerable occasions when this proportionate change should not take place. For example, if newly added basic workers are assiduous savers or are not spending much money in their new area due to attachments in old areas the multiplier effect will not behave as expected. Moreover, service activities may be working under capacity prior to the expansion of basic activities. An increase of 100 basic workers may not mean a corresponding increase of the service workers because that activity is already lagging and the deficit may be made up by working overtime for example.
In the light of the former comments any study of a community's economy wishing to take advantage of a Base Service method would have to take into account to what degree the labor force is expandable within the area and in addition the spending habits that exist at present and what they are likely to be in the future. It may then be possible to forecast what the service activities are likely to be in relation to an increase of basic activity.

In the event of a decrease in basic activities it has been found that certain service core elements exhibit resistance to negative change. Not only do a number of factors tend to minimize a decrease in service activities but there is often a perceptible lag here too, which is evident in the study of Ajo, Arizona.\(^8\)

The notion that total population will decline with a decrease in basic activities assumes complete mobility of labor. Clearly this is not so and outward migration is not proportionately related to declines of basic activity. Sentimental ties, social attachments, home ownership and a host of factors prevents this and often causes labor to indulge in marginal activity in an economic sense, rather than to move away.

An area's propensity to consume can change over time irrespective of any change of basic activities and thus change the level of service activities. Technical improvements in industry of basic or service type leading to higher productivity can provide higher wages and salaries which may increase consumption spending. Increase in income due to union or company policy could have the same effect, quite independent of the number of basic employees.
The consumption function, however, is fairly stable over time and varies mainly with the income class of family.

Autonomous public or private investment can play a role in modifying a B/S ratio but the bulk of public investment is for schools which is usually in response to population growth. Local savings in British Columbia communities in their early stages of growth are usually devoted to foreign investment and the improvement of basic things which do not directly affect service activities.

Higher utilization of an area's service activities may enable it to decrease its imports and expand its service activities quite independently of basic activities.

Total employment may change independently of basic activity due to emigration for health reasons or as a result of an increase of expenditure of service firms. Long run social changes, such as the birth rate, custom or taste, not associated with basic activities, will affect the service activities as well.

The ratio of total employment to total population also can and does change. In the early stages of a community's growth it tends to be higher and as expansion takes place, the ratio tends to decline.

It is generally conceded that four main factors influence the basic service ratio: (a) the nature of the basic activities themselves, (b) a community's geographic location, (c) its degree of maturity, and (d) its size. A government centre such as Victoria with a high proportion of professional people will have a different
B/S ratio from a city based on an extractive industry. A relatively isolated community may have a higher ratio than one in a metropolitan area which relies on the central city for most of its services. An older or slower growing city frequently has a higher ratio than a young city concerned with export activity and larger cities seem to have lower ratios than small communities.

Although the base ratio has many defects it is relatively easy to obtain. It does permit a rough prediction. It may not be a suitable tool for the detailed analysis for which it has often been used; it is at least a starting point.

Chapin points out that:

"there are some urban areas where a basic service system of classification can be applied with little or no qualification - particularly in the smaller communities engaged in activities that are mutually independent of one another". (10)

Because it is relatively easy to obtain and fewer complications arise in the classification of basic-service activities in small communities it is proposed to utilize this method in analysing the effects of new industry on some of the case study communities discussed in the chapters which follow. Moreover, since this type of analysis has not been so extensively used for small communities, such a study would be a contribution to knowledge.

However, since in practice there are a number of factors which cause the ratio to deviate from its theoretical value, it is not proposed to rely solely upon this method. Further, quantitative indices are not being deliberately sought and the application of any one method would not have any meaning for purposes of this
study since it would not reflect a sufficiently comprehensive view of new industry's impact on communities' fabric. It is therefore proposed to examine new industry's impact on communities for other effects, such as the impact on community services and amenities, and on the population.

Sources:
(1) Saskatchewan, Department of Municipal Affairs, Esterhazy Plans its Development, 1958 P.15
(3) Chapin, F.S., Urban Land Use Planning, Harper and Brothers, New York 1957 P.91
(4) Isard and Kuenne, op.cit. P.295
(5) Chapin, op.cit. P.106
(9) Grigsby and Gillies, op.cit. P.22
(10) Chapin, op.cit. P.106
CHAPTER III
NEW INDUSTRY'S IMPACT ON POPULATION, MUNICIPAL SERVICES AND THE ECONOMIC STRUCTURE OF SELECTED COMMUNITIES

Two distinct groups of communities comprise the case studies of this chapter. The first group consists of those accounts of communities which emphasize new industry's impact on municipal services and amenities. The second group of communities illustrates more clearly new industry's impact on population and on the economic structure. The location of these communities is shown on the accompanying maps.

Information for the first group of communities was derived from Bulletin #31, "The Impact of Large Industries on Small Communities" prepared by the Planning Advisory Service of the American Society of Planning Officials.

Information on communities in the second group was derived from three sources. The accounts of Front Royal and Edmore were extracted from a pamphlet entitled, "What Will New Industry Mean to My Town?" by W. Calef and C. Daoust of the United States Department of Commerce. Information on Ajo was derived from, "The Economics of A One-Industry Town" by L. W. Casaday as presented in the Arizona Business And Economic Review of December, 1954. The account of Leduc was obtained from, "A General Plan for the Town of Leduc" as prepared by the Edmonton District Planning Commission in 1954.

NEW INDUSTRY'S IMPACT ON MUNICIPAL SERVICES AND AMENITIES

Seneca, Illinois was a quiet town with a population of approximately 1,200 people before the establishment of an L.S.T. shipyard in 1942 caused the population to jump some 6,500 people. At
that time it supported some forty commercial establishments. It had a six room school house with an enrollment of approximately 175 students and in addition, a high school with 131 students and a parochial school with forty-five students. Fire protection was provided by volunteer citizens. Sewage disposal was accomplished by septic tanks and privies with the result that a small stream which meandered through the community was polluted.

An in-migration of about 5,000 people caused all existing housing facilities to be filled, both in Seneca and for thirty-five miles around. Hundreds of trailers were located in back yards and trailer camps. Since private enterprise was unwilling or unable to supply housing which was still needed the Federal Public Housing Authority built some 1,500 family units and a dormitory for 300 single men.

The number of commercial establishments grew to sixty-five. Restaurant business expanded thirty to forty times, the news service increased eight times, and food stores and the Post Office increased business in proportion to the population increase of some five times. The sales volume of clothing stores increased four and one half times, drug stores by three times and hardware and furniture stores doubled their volume of business.

After two years, enrollment in schools reached a peak of 700 in elementary schools, 250 in high school, and ninety-five in parochial schools. A new school was eventually built with sixteen classrooms at a cost of $110,000. Expenditure for schools increased from $45,000 to $124,000.
The fire station had to employ two full time men and a drainage and sewer system was built with a grant of $187,000 from the Federal Government.

Generally speaking, at the beginning of the boom the following were inadequate: commercial facilities, housing, schools, recreation facilities, transportation and sanitation facilities. Police protection was termed inefficient. After two years, housing, schools, medical services and police protection were adequate and transportation, commercial and recreation facilities were passable. Schools and sewage disposal were rectified near the end of the boom but recreation and transport facilities remained unsatisfactory.

When the shipyard closed in 1945 the population sank back to slightly above the pre-war population figure, school enrollment was only thirty above, and thirty-six stores were vacant.

**Neosho, Missouri** is another community which experienced rapid growth during the Second World War. It was a town of some 5,000 people of whom some 800 found employment in commercial activities and in the processing of farm goods.

Upon the construction of Camp Crowder nearby, thousands of construction workers settled in and around Neosho while many others settled in nearby towns. A peak force of 21,000 workers was employed.

A housing shortage quickly developed with a rise in rents of almost fifty per cent. It was commonplace to take in roomers and all sorts of make-shift shelters were utilised.

Real estate transfers of property along highways on the edge of
the camp were very active. There was no roadside control with the result that liquor stores, trailer and tent camps, jerry-built hotels, gas stations and amusement centres rapidly developed.

A rapid rise in business was experienced by hotels, restaurants, grocery stores and filling stations. Along with a housing problem came difficulties in health and sanitation although the Federal Government assisted in the construction of a new sewage disposal plant and a sewerage system.

Finally a tremendous overcrowding problem of the three elementary schools and the junior-senior high school was experienced.

Following the location of a Du Pont powder plant in Charlestown, Indiana, a population explosion of from 936 to 17,000 people resulted in the war years, and extensive commuting in a sixty mile area took place.

A local and a county interim zoning ordinance was enacted at an early time as were subdivision controls and a simplified building code. However the transportation system proved to be inadequate for the large amount of commuting that was taking place and serious traffic problems were common until a traffic code was formulated to ameliorate it. At the time, it was observed that a traffic light twelve miles away stopped traffic in Charlestown; such was the volume of traffic on the state highway.

Workers were discouraged from settling in the town but a housing shortage swiftly occurred and an enormous number of trailers moved into some twenty-one trailer camps despite it and a Federally assisted building program.
Adequate school facilities were lacking as were water mains and sewers and in connection with the latter a widespread fear of epidemics developed as the sanitation control broke down.

**Lexington Park** in St. Mary's County, Maryland, provided yet another example although of rather a different type. The establishment of a Navy Air Test centre in the early days of World War II near this town contributed to its doubling its population in about ten years. Such social friction was generated as was testified by the *Baltimore Sun* of August 4th, 1946, which stated:

"Regardless of what the Navy Officers said, the county folks saw the picture of the area in the light of what had happened in the past two years (during the temporary boom period). They saw more honky-tonks – and worse – springing up along once quiet country roads, they saw big signs going up to attract customers where once there was only Southern Maryland Sedateness".\(^1\)

More recent experience after the cessation of hostilities in World War II provides further illustrations of new industries impact. When U.S. Steel located its Fairless Steel Plant outside **Morrisville, Pennsylvania**, it precipitated the location of numerous cooperant and other manufacturing plants in the same general vicinity. The resultant change of economic base from agriculture to manufacturing has caused a tremendous influx of workers into the area and a consequential housing construction rate in excess of 150 houses per week.

One of the paramount problems is finance; how much tax will the industries pay and to whom? The area of impact as regards housing and facilities spreads across two States, New Jersey and Pennsylvania, and since most residential property does not
contribute sufficient funds in taxes to pay for demanded services the apportionment of industrial taxes is critical.

The construction of a hydrogen bomb plant by the Atomic Energy Commission in Georgia took place some twenty-seven miles south of Augusta, a town of some seventy thousand people, and about the same distance from Aiken, South Carolina.

Many small communities experienced a population increase including Aiken, a resort town, which went from 7,000 to 9,000 people. Aside from housing problems and rapid inflation of land values, especially along highways leading to the plant, serious clashes developed between the new settlers and the original inhabitants.

Many people were disturbed by change, per se, the loss of exclusiveness, the loss of riding trails and the peaceful agricultural setting. Many had resisted and resented the invasion of their town by the construction force. Crowded stores, traffic congestion and the ubiquitous trailer camps have brought home to the residents of Aiken the fact that the community will never be the same again.

Brandenburg, Kentucky felt the impact of industrial location and its population has risen from 800 to approximately 5,000 people. Its water system and housing proved to be inadequate and the construction of a sewer system was precipitated.

Corona, California, a community of some 11,000 people found itself with problems when a large, dormant Naval Hospital was re-opened. As might be expected the community did not possess a mass
transit system or a bus line and consequently transportation problems became acute. Recreation facilities and schools became particularly inadequate and a housing shortage was aggravated by shortage of local mortgage money.

NEW INDUSTRY'S IMPACT ON POPULATION AND THE ECONOMIC STRUCTURE
Front Royal, Virginia

Front Royal, a rural market town in Warren County, an area characterized by general farming, had a population of two thousand, four hundred twenty-five persons in 1935. It is situated seventy miles west of Washington, D.C., in the Shenandoah Valley.

Warren County contained 8,340 persons in 1930 and economic and population growth was fairly well stabilized, although the agricultural economy may be judged to be fairly near the subsistence level. Agriculture was the largest source of employment and it realized an income of $800,000 in 1935 while manufacturing, the second largest source of employment earned three million dollars. Five hundred and thirty two persons were employed by eleven firms which paid them $302,000 per annum.

Warren County was served by 126 retail establishments providing a livelihood for 286 proprietors and employees, and realizing gross sales of $1,600,000. Eight wholesale establishments employed twenty-four persons and forty-four service establishments provided work for seventy-nine persons.

The town government was simple and on a small scale and ordinary operating expenses were balanced by revenues of about seventy thousand dollars. A total of twenty-two persons carried
out all the county administration and judicial activities while
the state maintained all roads. The County maintained nine schools
staffed by sixty teachers for 1,950 pupils at a cost of $105,000
per annum.

In late 1936 the opening of an entrance road to a nearby
national park, stirred increased economic activity through the
development of a tourist trade which caused the construction of
tourist homes, motels, restaurants, curio shops and other facilit­
ies.

A few months later in the Summer of 1937 the American Viscose
Corp. commenced the construction of a large textile chemical plant
just outside the corporate limits of Front Royal. Material and
labor requirements for the plant were significant but aside from
the purchase of 45,000 gallons of drinking water per day it made
few direct demands on the town's facilities.

Population increased with the arrival of construction workers,
but new homes were built and no stringent pressures were placed on
housing, utilities, or community facilities. Although when the
plant started production in 1940 with 2,500 workers it was not
until 1942 when a major plant expansion took place that the re­
sources of Front Royal and Warren County were unable to cope with
rising demands. This and subsequent expansions led to a peak labor
force in 1946 of 3,937 workers.

Warren County's population increased by thirty-six per cent to
11,350 people in 1940 and had reached 14,425 by 1947. The town of
Front Royal grew in population from 2,425 in 1935 to 3,831 in 1940
and to four thousand by 1947. It is interesting to note that a significant portion of the new population in both came from surrounding counties which in all cases but one lost population in the 1940's.

Most of the new residential construction took place outside the corporate limits after 1940 since little land remained vacant within.

Gross expenditures for municipal functions tripled during the ten years following Viscose's arrival. This was especially marked in the fields of water, electricity, sewage and education facilities and streets. The number of churches in the town doubled and more facilities for entertainment appeared. In addition, hospital facilities had to be modernized and expanded.

Air pollution in the community resulted from the plant stacks despite efforts to prevent it and increased waste disposal from both the plant and the municipality polluted the Shenandoah River although the chemical effluent from the plant was later purified.

Education, the principal County function, caused much of the increase in County expenditure. School enrollment increased from 1,980 in 1935 to 3,080 in 1947. Both expenditures for Warren County grew much faster percentage wise than did those of the Counties of Virginia as a whole.

The number of retail and service establishments in the County increased rapidly during the early years of industrialization with the retail units jumping from 126 in 1935 to 186 in 1939 but apart from an expansion in size there has been no subsequent increase.
Their employees rose from 173 in 1935 to 681 in 1948.

Service functions in Front Royal were apparently over expanded since there were only three more in 1948 than existed in 1935. Retail sales volume jumped more than six hundred per cent, service fees more than 550 per cent and the wholesale volume was twenty times greater in 1948 than in 1935. Industrialization was the chief factor in the increase in economic activity although not the sole cause.

With the increase of 2,626 jobs in manufacturing from 1935 to 1945 the further 795 jobs have come about in other activities in Warren County. That is, for every three and one third jobs in manufacturing one job in non-manufacturing activities has occurred.

Wages rose generally throughout the area and in point of fact wages and employment increased far more in Warren County than they did in any of the other six contiguous Counties or throughout Virginia.

Data comparing the situation in Warren County in 1935 with that in 1945 is summarised in the Table which follows.

**TABLE 2**

*Comparative Economic Data for Warren County, Virginia - 1935 and 1945*

<table>
<thead>
<tr>
<th></th>
<th>1935</th>
<th>1945</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value of farms</td>
<td>$5,002,485</td>
<td>$5,750,330</td>
</tr>
<tr>
<td>Farm Labor</td>
<td>1,240</td>
<td>661</td>
</tr>
<tr>
<td>Wages Paid</td>
<td>112,388</td>
<td>237,749</td>
</tr>
<tr>
<td><strong>Manufacturing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees</td>
<td>532</td>
<td>3,158</td>
</tr>
<tr>
<td>Wages Paid</td>
<td>301,861</td>
<td>6,523,984</td>
</tr>
<tr>
<td>Value of Products</td>
<td>$1,389,638</td>
<td>$27,744,602</td>
</tr>
</tbody>
</table>

(cont...)
TABLE 2 (cont...)

<table>
<thead>
<tr>
<th></th>
<th>1935</th>
<th>1945</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Establishments</td>
<td>126</td>
<td>186</td>
</tr>
<tr>
<td>Total Employed</td>
<td>286</td>
<td>860</td>
</tr>
<tr>
<td>Sales</td>
<td>$1,602,000</td>
<td>$11,568,000</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Establishments</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>Total Employed</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>Sales</td>
<td>$460,000</td>
<td>$9,768,000</td>
</tr>
<tr>
<td>Service Trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Establishments</td>
<td>44</td>
<td>47</td>
</tr>
<tr>
<td>Total Employed</td>
<td>79</td>
<td>169</td>
</tr>
<tr>
<td>Receipts</td>
<td>$87,000</td>
<td>$571,000</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>$461</td>
<td>$931</td>
</tr>
</tbody>
</table>

Source:
Calef, W., and Daoust, C., "What Will New Industry Mean to My Town?", U. S. Department of Commerce 1955

The Village of Edmore, Montcalm County, Michigan

Edmore is located in east central Michigan on the northern fringe of the manufacturing belt. Although the area has numerous lakes and a minor tourist trade the leading economic activity is agriculture with general farming and commercial vegetable production predominating. The largest city in the County is Montcalm with a population of 6,608 and Edmore is one of a few tiny villages and hamlets scattered about it.

In 1952 Edmore, with a population of 971, had three small manufacturing plants all related to agriculture, providing employment for fifty full time employees and a few more temporary workers for a few weeks in the Summer. At that time the village had fifty-eight retail and service establishments, a relatively large number reflecting the seasonal influx of tourists, since most sales and service activities were orientated to a farm populace.
In 1951, the Carboloy Dept. of the General Electric Company began construction of a plant for fabricating cutting tools. After receiving more than four thousand applications for the two hundred jobs available, General Electric decided to build an additional plant and work began on the Alnico plant the following year. When in production the two plants provided employment for 285 people.

Supervisory personnel and some labor was transferred from the old plant in Detroit while many more were hired locally. Only 37 per cent located in Edmore while the remainder scattered to villages and farms as far as thirty-five miles distant. 60 per cent of the employees resided at least six miles away although less than 20 per cent commuted more than twelve miles.

This high dispersal was in part due to the fact that almost 70 per cent of the labor force were local farmers or part-time farmers. In addition, out of town housing was available in surplus farm dwellings and numerous cottages and summer homes which could be bought cheaply and converted into permanent dwellings.

Five new subdivisions were planned of which four were extensions of the village into agricultural land. Since no integrated utility system was provided by the developers and little immediate advantage was offered by locating there, the newcomers went elsewhere with the result that by 1953 only thirteen of thirty-one new housing units completed were in the new subdivisions.

The subdivisions had many desirable features: lots were large and there were restrictive covenants regarding land use, minimum value construction, floor space and the location of structure on the property. A survey of employees showed that the lack of
utilities was a major obstacle and that cheaper sites on good roads free from any restrictions proved much more attractive to most potential home builders and buyers.

Business in Edmore was affected only slightly and the most visible effect was a general remodelling and refurbishing of the buildings on the main business street. Only seven new retail and service businesses were established. It was felt that retail and service trade experienced no more than a ten to fifteen per cent increase in volume despite a 450 per cent increase in industrial payrolls. Less than twenty additional employees were hired in all retail and service activities.

Trade, however, has been stabilized, since before the plant arrived business failures were numerous and the life expectancy of a newly established business was approximately two and one half years.

Village expenditures and receipts were largely unaffected and certain capital expenditures would have been done anyway since state funds were available. School expansion had come about in 1950 and no new facilities were needed although the old water system had to be rebuilt to facilitate the larger population.

The plant added greatly to the tax base in Home township but expenditures increased negligibly while the valuation in Montcalm County increased only about 2 per cent.

Because the volume of 'phone calls increased 50 per cent the modernization and enlargement of the operation of the telephone company became necessary and this was probably the most significant change directly attributable to the plant's arrival.
The plant's higher wages caused some Edmore employers to raise wages in order to retain personnel. Carboloay officials estimated that one million dollars was added to the area's annual income by their plant but the purchasing power was diffused in accordance with the geographical distribution of employees. An increase of twenty other jobs in Edmore came about in other activities with the increase of 285 manufacturing jobs reflecting the dispersion affect and the possible under utilization of existing retail and service facilities.

The Community of Ajo, Arizona

Ajo is a company owned community fifty miles south of Gila Bend, a small village, and about the same distance north of the Mexican border. The surrounding countryside is desert and as such it is virtually barren of any economic activity. The photographs on the following pages illustrate this and other aspects of the community itself.

Ajo owes its existence to the mining operation of the Phelps Dodge Corporation since it has only a negligible tourist trade and is not a shopping centre for residents of other areas.

Over an extensive period of time, some thirty years, the size and growth of population have closely followed the rate of increase in copper production at the New Cornelia Mine. The rate of increase of population has differed substantially from that of either Pima County or the State of Arizona.

By way of illustration, between 1920 and 1936 copper production was rapidly increased, using a leaching process developed earlier. The community's population grew from 2,336 to 4,570, a
THE COMMUNITY OF AJO, ARIZONA, U.S.A.

The Desert Setting

The Northern Approach

The Phelps Dodge Mine

Mixed Land Uses
THE COMMUNITY OF AJO, ARIZONA, U.S.A.

Shopping Arcade
and
Community Square

Typical Housing

Samples of Some Retail Business Establishments
rate of increase (96 per cent) higher than for Pima County (61 per cent) or for the State (30 per cent).

Between 1940 and 1950 labor shortages and wartime and post-war difficulties held the copper production growth to less than 25 per cent, a very moderate rate of increase. Similarly, Ajo's population only increased about 14 per cent or from 5,795 to 6,588. This and the former illustration demonstrates Ajo's population dependance on the local mine's activities rather than on general conditions in the State which had a population increase of 50 per cent or those of Pima County which had an increase of 94 per cent.

In 1950, average employment in the mining operation was 1,126 while at the same time the community's population was 6,588. In other words for every one employee in mining there were 5.85 people living in the community. Earlier in 1940, one thousand workers were employed by the company and the population at that time was 5,795 giving a ratio of one to 5.79, and suggesting a fairly constant ratio between employment in the mining occupation and the total population in the community.

In the following table basic employment refers to workers employed in the mining operation since it was felt that industry was fundamentally responsible for the town's existance and that due to the community's isolation all other employment activities are supplementary to, and in a sense, supported by it.

TABLE 3
Total Basic and Non-Basic Employment in Ajo, 1942 - 1952
(cont...)
TABLE 3 (cont...)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Basic</th>
<th>Non-Basic</th>
<th>Basic/Non-Basic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1942</td>
<td>1,314</td>
<td>1,057</td>
<td>257</td>
<td>1 to .24</td>
</tr>
<tr>
<td>1943</td>
<td>1,310</td>
<td>1,050</td>
<td>260</td>
<td>1 to .25</td>
</tr>
<tr>
<td>1944</td>
<td>1,141</td>
<td>875</td>
<td>266</td>
<td>1 to .30</td>
</tr>
<tr>
<td>1945</td>
<td>1,037</td>
<td>768</td>
<td>259</td>
<td>1 to .35</td>
</tr>
<tr>
<td>1946</td>
<td>1,211</td>
<td>935</td>
<td>278</td>
<td>1 to .30</td>
</tr>
<tr>
<td>1947</td>
<td>1,346</td>
<td>1,049</td>
<td>297</td>
<td>1 to .28</td>
</tr>
<tr>
<td>1948</td>
<td>1,328</td>
<td>1,007</td>
<td>321</td>
<td>1 to .32</td>
</tr>
<tr>
<td>1949</td>
<td>1,389</td>
<td>1,032</td>
<td>357</td>
<td>1 to .35</td>
</tr>
<tr>
<td>1950</td>
<td>1,509</td>
<td>1,126</td>
<td>383</td>
<td>1 to .34</td>
</tr>
<tr>
<td>1951</td>
<td>1,565</td>
<td>1,161</td>
<td>404</td>
<td>1 to .35</td>
</tr>
<tr>
<td>1952</td>
<td>1,642</td>
<td>1,220</td>
<td>422</td>
<td>1 to .35</td>
</tr>
</tbody>
</table>

Source:

At any given time between 1942 and 1952, employment in the mining industry was from three to four times as large as employment in all other activities combined. That is, during this period it was considered that one worker in the mining industry supported only the equivalent of between a quarter and a third of a worker in activities other than mining. Further it may be seen that between 1942 and 1952 while the community's population grew moderately, the ratio of non-basic employment to employment in the mining industry rose from .24 to 1 in 1942 to .35 to 1 at the end of the period.

Referring again to Table 3 it may be seen that basic employment in Ajo rose from 1,057 in 1942 to 1,220 in 1952, an increase of 163 workers. During the same period non-basic employment advanced by 165 workers. The two categories rose at a ratio of 1 to 1.01 over this period. However it may be seen that this is true only in total and that non-basic employment increased at a
 steadier but slower rate of increase than basic, and thus there appears to be a substantial lag in time in the basic working force and the responsive change in the non-basic working force. Moreover, when the basic employment experienced a decline in 1943, 44 and 45 and 48 the non-basic showed no decline, in fact, moderate increases were experienced in those years.

Table 4 shows that, on a per capita basis, wages and salaries in 1950 were substantially higher in Ajo than the average for Arizona and nearly as high as the average for the United States. This is explained in part by the fact that the mining industry pays relatively high wages and that a high proportion of Ajo's total population may be assumed to be wage and salary earners than is true for the State or country as a whole.

On a similar basis to Table 3, the aggregate section of Table 5 presents the relationship between basic and non-basic wages and salaries. By way of example, in 1952, non-basic workers received twenty cents in wages and salaries for each one dollar the basic employees received. Over the long term from 1942 to 1952 the basic industry payroll increased at a ratio of one to .23 to the non-basic activities. The long run ratio does not differ materially from the ratio of any given year and it may be assumed that the basic and non-basic payrolls rose at approximately the same rate during the eleven year period. The steadiness of non-basic employment over the same period is reflected in the absence of non-basic wages and salaries following the slump of basic wages and salaries.

The aggregate ratio of basic to non-basic for 1952 was 1 to
.20 while the average ratio was 1 to .59. Each worker in the non-basic industries earned a salary or wage equal to 59 per cent of that received by each employee in the basic industry.

From 1942 to 1952 basic wages and salaries increased by $2,790 while non-basic increased by $1,405 representing a ratio of 1 to .50. Since this ratio is lower than the lowest ratio for any individual year it seems apparent that average wages and salaries for the non-basic activities did not climb as rapidly as those for the basic activities.

TABLE 4
Per Capita Wages & Salaries for the U.S., Arizona, and Ajo, 1950

<table>
<thead>
<tr>
<th>Population</th>
<th>Wages &amp; Salaries</th>
<th>Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>150,697,361</td>
<td>$141,632,000,000</td>
</tr>
<tr>
<td>Arizona</td>
<td>749,587</td>
<td>535,000,000</td>
</tr>
<tr>
<td>Ajo</td>
<td>6,588</td>
<td>5,953,000</td>
</tr>
</tbody>
</table>


TABLE 5
Aggregate & Average Wages & Salaries in the Basic Industry and Non-Basic Industries in Ajo 1942 - 52

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Basic</th>
<th>Non-Basic</th>
<th>Basic/Non-Basic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1942</td>
<td>$3,317,781</td>
<td>$2,851,194</td>
<td>$466,587</td>
<td>1 : .16</td>
</tr>
<tr>
<td>1943</td>
<td>3,560,928</td>
<td>3,053,067</td>
<td>507,861</td>
<td>1 : .17</td>
</tr>
<tr>
<td>1944</td>
<td>2,752,543</td>
<td>2,249,394</td>
<td>503,149</td>
<td>1 : .22</td>
</tr>
<tr>
<td>1945</td>
<td>2,395,218</td>
<td>1,855,273</td>
<td>539,945</td>
<td>1 : .29</td>
</tr>
<tr>
<td>1946</td>
<td>3,529,491</td>
<td>2,934,933</td>
<td>594,553</td>
<td>1 : .20</td>
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Source:

**Leduc, Alberta**

The settlement of Leduc was incorporated as a village in 1899 and as a town in 1906. From 1901 to 1931 its growth was steady and continuous. The growth of Leduc was brought to a standstill by the declining agricultural prosperity of the thirties and only very minor increases in the post war period indicated that the town had reached its upper limit of growth as an agricultural service centre. In 1947 the discovery of oil provided the town with a new basis of expansion and the population doubled in the next five years as it climbed to 1,842 in 1951.

Future development of Leduc was considered to be linked to agriculture and oil exploration and drilling and the general plan for Leduc assessed the trends in oil and agriculture in addition to any latent potential that might have provided a basis for further growth.

Leduc's role in the development of the surrounding oil fields
was mainly confined to a place of residence for oil field workers and the location of offices and yards of oil field welders, truckers and drilling firms.

In 1951 there were approximately 160 oil workers living in Leduc; by 1954, 200. These workers, together with their dependents and the accompanying service population, now account for more than 50 per cent of the population. This survey revealed that the growth of the town since 1951 had been largely the result of oil field exploitation and any assessment of future growth had to consider prospects for employment in the town.

Accordingly, oil activity was investigated and it was determined that the greater percentage of oil wells had been completed in the Leduc-Woodbend field and had resulted in an overall decline of drilling activity and firms engaged in this aspect of the work had to adjust to the trends. For those workers engaged in maintenance and production, employment stabilized and it was estimated that the field would be in production for at least ten years. Assumptions were therefore made regarding these trends in oil and agricultural activities and their effects on population; and community planning commenced on this basis.

Source:

(1) As cited by American Society of Planning Officials, The Impact of Large Industries on Small Communities, Bulletin No. 31 1951
CHAPTER IV
THE PULP AND PAPER INDUSTRY'S IMPACT ON COMMUNITIES

British Columbia has a resource-based economy and the major source of income is from the forestry industry. There are many operations such as logging and sawmills, on the coast and in the interior but one of the more rapidly expanding activities has been the pulp industry. In the last decade over half a dozen large mills have been constructed and brought into production in the Province.

Under modern conservation practices mills utilize tree farming methods to insure a long and continuous supply of timber. Companies concerned procure licenses from the Provincial Government to operate such farms which are often very extensive in area. Frequently mills are located on tidewater to ensure cheap transportation facilities by ship.

For these and other reasons pulp and paper plants are normally located in rural areas where there may be either only small communities nearby or none at all. Naturally enough these mills, employing between six hundred and twelve hundred workers, have a not insignificant impact on the local economies concerned and the physical and social aspects of the communities that are present.

Since it is likely that more of such enterprises will come into being in the future it is of interest to examine some typical examples. Four communities were therefore chosen: Port Alice, Ocean Falls, Campbell River and Castlegar. Their location may be observed on the maps presented earlier in this thesis.

Two of these, Ocean Falls and Port Alice, are company-owned communities and are virtually isolated from any other economic
activities, making them completely dependent on the company's operation. It therefore follows that there is no question of examining any impact of industry upon them since the settlements were created to serve the mills.

However both settlements have existed for a long period of time and are relatively stabilized although of course changes periodically occur with production fluctuations. There is something to be learned from what has evolved physically and population wise as a result of the operation of these industries.

The third example, Campbell River, represents an attempt to actually describe and measure the impact of the location of a pulp mill near to a small village which was formerly dependent chiefly on commercial fishing and a tourist trade for its livelihood.

Castlegar is a small village in the interior of B.C. located between the cities of Trail and Nelson. It is close to the site chosen for construction of a pulp mill which expects to be operating in a year's time (1961). In this case, change is looked at through the eyes of the company and what they expect to take place is described.

Although the discussion is by no means exhaustive it is hoped that a reasonable cross section of the impact of a specific industry is presented.

Unless otherwise indicated information on Castlegar was obtained from Celgar Ltd., information on Ocean Falls was obtained from Crown Zellerbach Ltd., and information on Port Alice was obtained from Alaska Pine & Cellulose Ltd. Crown Zellerbach Ltd. also supplied information on the company's activities near the village of
The Village of Castlegar, B.C.

The villages of Castlegar and Kinnaird are located in the southern part of the West Kootenay region of B.C., roughly halfway between the two largest population centres of the region, the cities of Trail and Nelson. Population-wise, Castlegar is the larger with some 1,329 people in contrast to 947 people in Kinnaird.

Castlegar participates in several ways in a larger economic unit which includes the cities of Trail and Nelson with their industrial and other activities and as a forest industrial area. In the vicinity of Castlegar, forestry operations include logging and twelve sawmills which employ a total of 200 men (1955).

Castlegar has nine service establishments providing fifteen to seventeen people with a payroll of $29,900. Receipts amounted to almost $200,000 in 1951. Some twenty-three retail stores provide twenty-eight to forty-five employees with a payroll of $70,000, and have an annual sales value of $996,000.

The relatively large number of stores is again similar in ratio to Nelson and larger than Trail, indicating that the trade area of Castlegar extends beyond the village boundaries. However, sales per person and per store are only about one third of those in the cities (of Nelson and Trail) showing that a large portion of the money used for purchases by Castlegar people was spent in the cities. (1)
This condition has probably started to change during the seven years since 1951 and it is expected that it will gradually improve in favour of local shopping facilities as the local population increases. The number of employees per store is small and the total payroll amounts to about 10 per cent of the wage earnings of Castlegar's inhabitants.²

Celgar Limited is at present constructing a bleach Kraft pulp mill with a capacity of five hundred tons per day some two miles west of Castlegar and in addition a new small mill with a capacity of approximately sixty-two million board feet per year. It is expected that the pulp mill will employ about 325 workers and the sawmill three hundred fifty workers when each is in production. Since the company has a sawmill already in production employing about 220 men this means that the company's new activities will provide about 450 new jobs. It is estimated that when the two operations are running at normal production rates the annual payroll will amount to three million dollars, or an increase of two million dollars for the area.

Celgar Limited expects to find some two hundred men locally in the area and to have to recruit the remaining 250 from other parts of the country. Although it is not the company's intention to create a "Company Town" it decided to organize housing units for one hundred sixty workers. One half of these units would be rental, row-type houses. For the remainder, the company arranged the subdivision of a small piece of land into lots upon which the workers may build, if they should so choose, and take advantage of the company's offer to underwrite second mortgages.
Services to be provided include roads, water mains, sewers and a sewage disposal plant. The company is thus insuring some accommodation for workers by assisting the purchase of houses and guaranteeing a minimum occupancy to the organization which is constructing and financing the rental units. Later, it seems, a policy will be pursued of encouraging non-company workers to utilize this accommodation.

Although the company does not expect to be in production until March of 1961 there are already about six hundred construction workers in the area and it is expected that a peak construction force of twelve hundred workers will be employed in June, tapering off after September of this year.

In anticipation of the increased purchasing power, a new, large shopping centre has already been constructed and brought into operation and there is talk of a new motel.

The Village of Campbell River, B.C.

The village of Campbell River is located on the east coast of Vancouver Island near the northern terminus of the Island highway. It is the largest settlement north of the Courtnay-Comox complex and is about one hundred miles north of Nanaimo.

To the north, south and east (Quadra Island) of the village there are numerous small, unincorporated communities and in 1948, prior to the locating of a pulp mill, there were 5,400 people living in the Campbell River area. By 1956 this number had grown to approximately 11,000. In the village itself the population grew from 2,400 in 1948 to 3,100 people in 1956.

Originally the area's and the village's economy depended on
logging, commercial fishing and small mining operations. The area
is well-known for its excellent salmon fishing and in the Summer
the tourist trade precipitated by this adds a significant sector
to the economy. The village was basically a "jumping off" point
for the logging and fishing industries. Reference to the "Camp­
bell River area" above could be a bit misleading since it comp­
rises school district 72 and covers an area of five thousand two
hundred and fifty square miles. However, it should be understood
that Campbell River is the significant service centre for this
area. As a corollary of this the number of commercial and ser­
vice activities of the village both in 1948 and the present time
are more meaningfully related to the number of people in the area
as opposed to the number of people in the village itself.

In 1949 the Crown Zellerbach Corporation started construct­
ion of a groundwood pulp mill which was completed in 1952. In
1954 construction of a kraft pulp mill was started and eventually
brought into production in 1956. Finally a sawmill was added in
1958. All three units have been expanded in their capacity since
their inception until now the groundwood mill has a capacity of
420 tons daily: the craft mill 500 tons per day and the sawmill
seventy-five million board feet per year. This vast plant now
employs approximately 700 men and women and has an annual payroll
of $3,400,000.

It is still too early to analyse fully the impact this has
had on Campbell River. However between 1948 and 1956 the population of the village increased some 30 per cent. The population of the Campbell River area in the meantime doubled by increasing from fifty-five hundred to eleven thousand people. Obviously such a large gain cannot be attributed solely to the Crown Zellerbach activities. It should be remembered that the payroll of 155 various business and industrial operations in 1947 in the Campbell River area amounted to $5,700,000.

Between 1953 and 1958 the number of commercial and service establishments increased by 150 per cent, or from 50 to 127. The following types of establishments experienced most significant gains: electrical appliance stores, furniture stores, grocery stores, hardware stores, auto dealers, banks, butchers, garages and restaurants. A large increase in the number of restaurants could be due in part to an increase in activity of the tourist trade.

The 1951 census of Canada lists forty-five stores in the village with a sales volume of $3,260,000 and a number of employees fluctuating between a minimum of 95 and a maximum of 151. Clearly there was little change in the number of stores between 1951 and 1953. While there was a large construction force in the vicinity the groundwood mill operation at this time was only employing some 200 men on a permanent basis.

Aside from changes in quantity there has been a qualitative change for the better in the appearance of the commercial area of the village. It is apparent that the population and the number of functions of the village now place it well above average in
The Community of Ocean Falls, British Columbia, Canada.
comparison with other villages in the Province of British Columbia. Above all the village now has a semblance of urban character which it did not previously have.

The Community of Ocean Falls, B.C.

Ocean Falls is a company owned community located on the northern B.C. coastline. It owes its existence to the operation of the Crown Zellerbach Company's various industrial activities. These include a 240 tons per day capacity groundwood mill, a 120 ton per day capacity sulphite mill and a 190 ton per day capacity kraft pulp mill. The operation is in general relatively more labor intensive than some operations due to the number of speciality and newsprint machines operated and also to the fact that it is a very old mill.

In 1958 the annual average earnings of company employees amounted to $5,377 or approximately $5,940,000 in total.

The community has a population of some 3,200 people composed of 1,230 married people and 550 children of school age. The remainder are single.

The largest single employer is the mill which employs approximately 1,200 men. A Hudson Bay store, formerly the property of Crown Zellerbach, employs about 50 people. A bank employs three, Standard Oil two, the Canadian Legion Hall two, a Government Liquor Store two, Johnston's Terminal Storage Ltd. six, Northwest Telephone four and a Post Office two. Other employers include Pacific Western Airlines and Nelson's Laundry. An R.C.M.P. detachment makes its headquarters in the community and there is one Dentist.
In the original townsite there are 312 houses and 222 apartments, which are all owned by the company and rented to the occupants. A small subdivision in the nearby Martin Valley provides a further 30 houses which are privately owned by the occupants. Single accommodations are available in the company Hotel, dormitories and the Martin Inn Annex. An apartment block was constructed for Provincial Government employees.

The Hudson Bay Store is the largest commercial establishment. In 1952, while it was still in the hands of Crown Zellerbach, it had an annual sales volume of $1,750,000 when the approximate annual earnings of the Crown Zellerbach employees amounted to $4,500,000. It was believed that this sales volume represented 98 per cent of all retail sales in the area at that time.

Other small concerns include a bank, a Standard Oil establishment, Johnston's Terminal Storage, Nelson's Laundry and Pacific Western Airlines. The Hotel provides space for such functions as a barber shop, beauty salon, beer parlour, cafeteria and a bakery.

Communications are handled by North West Telephone Company.

There are eighty clubs in existence of various types including a yacht club, tennis, rod and gun, and bowling alleys. There is a library which has the second highest circulation rate in the country. A Community Hall is utilized for many functions and also houses an indoor swimming pool.

A five hundred seat company theatre is open three or four nights a week.

A newspaper is published once a week by a private individual. There is a ski lodge complete with power driven ski tow.
The Community of Port Alice, British Columbia, Canada.
Three churches are represented in Ocean Falls and there is a 33 bed hospital staffed by two doctors and several nurses. In the town site the fire department employs six men on a full time basis plus other volunteers. The Martin Valley residents built their own firehall and staffed it by volunteers.

There is a courthouse, a custom office and a Provincial Forestry Office.

General municipal services include common sewers, water mains and street lighting. Martin Valley residents are charged two dollars per month for water and other services.

Port Alice, B.C.

Port Alice is a company owned community located at the northern end of Vancouver Island. It owes its existence to the operation of the Alaska Pine and Cellulose Company's 350 ton per day bleach sulphite pulp mill. There is no other major employer in the settlement and only a very limited number of minor employers. The company owns all of the land and buildings.

In 1958 the average annual earnings of Company employees amounted to $4,562 or approximately $1,921,000 in total.

The community has a population of some 951 people of whom 421 are employed by the mill. There are 264 single people and 360 married people, with 327 children of whom 180 attend school. It is normal practice for children to leave Port Alice if they wish to continue their education past grade ten.

Of the working force of 420 some 320 were foreign born and of mainly British and Italian origin. There is a high "community" spirit and it has not been necessary to selectively choose
employees on an origin basis, in view of the easy blending of the
different racial groups. During a recent survey it was found that
139 workers had served the company for five years, 17 for twenty-five
years and 11 for thirty years. Despite the high rainfall (120
inches per year) and the relative isolation from large urban cen­
tres many people wish to retire in the area or on the nearby Gulf
Islands.

There is often a waiting list for housing although there are
160 houses and 26 apartments. A large number of people live in
the company bunkhouses or dormitories. The company periodically
adds to the number of houses and the more recent ones are of a very
attractive type. Materials are supplied free of charge for any
occupants who wish to construct additions. The building program
is, however, limited since space is very important there being
little suitable land and furthermore an annual loss exceeding
$200,000 results from the maintenance of the houses. Between 8
and 10 men are kept busy on a full time basis on townsit maintenance.

It is interesting to note that many own summer cottages on
Lake Victoria and on the nearby Gulf Islands.

A company owned store employing ten people provides all but
very large goods. The annual sales volume of the establishment
is in the vicinity of $500,000 but it is impossible to state what
proportion of retail sales this represents since large goods such
as furniture are purchased through mail order services and a
large number of people supply goods and services on a sideline
basis. The latter finds encouragement from the company for it
creates additional interests for people. Such activities include
dressmaking, insurance and clothing agencies and a jewellery
outlet.

Other extra company commercial activities include a bank
employing three people and a cookhouse operated by a married
couple on a contract basis with the company.

There is no liquor store and all liquor has to be obtained
from Vancouver on a C.O.D. basis.

A visitor to Port Alice would probably find himself staying
at the company guest house in the absence of a commercial Hotel.
He might then be pleasantly surprised to find, not far away, a
nine hole golf course. A gardening club closely rivals this for
popularity for it seems that most people have a plot of land in a
valley just outside the community which they cultivate intensively.

A community hall serves as a focal point for social life and
is a centre for numerous activities such as bowling and also as a
theatre.

A company owned hospital provides nineteen beds tended by a
doctor and four nurses.

Fire protection is provided by a citizen volunteer group who
look after mill and townsite.

Electricity is relatively cheap, the first two hundred
twenty-five kilowatt hours are free, the next one hundred seventy-
five kilowatt hours are charged at the rate of three cents per
kilowatt hour and at five cents per kilowatt hour in excess of
four hundred kilowatt hours.
Source:


(2) Ibid, P.9
CHAPTER V

SIGNIFICANT ASPECTS OF CHANGE CAUSED BY INDUSTRIAL LOCATION

In the preceding chapters the experiences of various communities were related. This chapter discusses some of the more important aspects of communities fabric which are affected by incoming industry. In attempting to generalize on this experience it has been kept in mind that different communities have different problems and some problems are more critical than others. To a large degree it will depend on the urban nature of the community prior to the coming of industry. Even more, it will vary according to the magnitude of the incoming enterprise.

Throughout most of the examples however there appears to be a thread which does unite these communities on a common basis. In each there appears to be a portion of the urban fabric that is affected to a degree whether it be critical or otherwise. This then, is the area of interest here, and although no effort has been made to quantify the effects – it being considered outside the scope of this study– it is believed that this summary will serve to focus attention on the area of the impact of vital concern to planners.

LAND VALUES

Prior to the construction phase it seems common to expect a boom in land values as was experienced in Aiken and Neosho. This is especially marked in land fronting on roads leading to the site of the new plant. Real-estate market activity increases and this may be prolonged or merely temporary according to the react-
-ion precipitated in economic activity by the incoming industry.

**HOUSING**

One of the first and most vital areas of the community's structure affected is housing. Not only is it the first to be affected but it also provides one of the problems that is most prolonged.

Although the previous statement is true, more often than not, it depends to a large degree, as was seen in the case of Edmore, on where the new labor force is recruited from. If, as in the case of Edmore, a large number of workers are recruited locally there may be little or no housing problem at all. Moreover, the condition of housing in surrounding areas and communities and the willingness of workers to commute long distances will also temper housing demands. It was seen that workers commuted as much as 35 miles to Edmore while employees of the Morrisville Steel Plant located in an area spread over two States.

The former conditions will determine to some extent whether there will be an influx of trailers. It is reasonable to expect some trailers, due to the temporary nature of the construction crews' employment. Such trailers as may come will be located in camps, back yards or any odd spot according to the local regulations in force. The availability of local housing will probably determine the number.

Rents may rise drastically and it may become common to take in roomers. As was the case in Neosho all sorts of makeshift
shelters may be pressed into service during the construction phase and afterwards.

Private enterprise may be unwilling or unable to supply housing required for the permanent labor force when the construction phase is ended and the industry established.

New subdivisions may be unacceptable due to the lack of facilities or to more attractive sites being available elsewhere as happened in Edmore. Certainly if there is little land available within the municipality new residential construction may take place outside corporate boundaries in an indiscriminate fashion and take the form of 'shack towns', trailer camps and so on.

SCHOOLS

In almost every community study there was a demand created for additional educational facilities as a result of incoming industry and the accompanying population increase. Edmore was the notable exception to this and there it was accounted for by the fact that school expansion had come about shortly before the new industry arrived; moreover, the impact was dispersed over a relatively wide area. But elsewhere tremendous overcrowding of existing facilities led to expansion of educational facilities in a relatively short time, presumably before much adjustment could take place.

The effect on schools would appear to be related to population pressure and population characteristics rather than to any specific kind of industry. Where the incoming population tended to be dispersed the pressure on schools was dissipated.
TRAFFIC AND TRANSPORTATION

Remarkably few of the communities examined suffered in any critical way from traffic or transportation problems as a result of incoming industry. Those which did had to contend with an extremely high population influx relative to the size of the settlement, as in the case of Charlestown, or as in Corona's case a large number of people dependent on public transportation. Clearly the amount of commuting that takes place is very critical, as is the location of the plant relative to the community and the capacity of the existing circulation system.

Ribbon development along the roads leading to the new plant site tends to exaggerate the congestion problem. The inflation of land values along such roads tends to increase the problem by making it more expensive to ameliorate the difficulty by such measures as street widening. Operational characteristics of the industry concerned will tend to magnify or reduce the congestion dependent on the time of termination of the day's activities relative to the same in other activities within the community, or, if the industry is working on a shift basis the time of the day shift's completion.

WATER, SEWERS AND SEWAGE TREATMENT

Most of the communities studied embarked on an expansion program of one or more of these services as the result of a new industry's establishment. The relationship, however, is not always clear cut. In some cases these services were expanded merely to service new residential areas developed as a direct result of
population pressure. In others the old water or sewerage system was rendered inadequate; while in yet other cases the change in the urban fabric of the settlement rendered one or more of the services necessary as was the case in Brandenburg where a system had to be built.

Evidently in this field the degree to which the community is urbanized prior to the introduction of new industry is critical since the increase in population may be enough to change its texture from that of a rural nature. Where such services are already in existence their capacity for expansion is of importance.

POLICE

Few of the examples required extra police protection or direction. Of those which did, the increase of population was very high in proportion to that of the community or it was precipitated by a specific problem such as traffic congestion.

FIRE PROTECTION

Only in Seneca was there evidence of a change in the level of fire protection. In Seneca's case the impact was very large. It is believed that where a change of status is involved for a community previously of a definite rural nature then the establishment of this service may become necessary. The settlement's location relative to other communities also has a definite bearing.

RECREATIONAL FACILITIES

Again it appears that the degree to which the industry causes change in the urban nature of a community is the most significant in precipitating the requirement of recreational facilities. In
Seneca where the population pressure was very intense recreational facilities were termed inadequate at the beginning of the boom and only passable after two years had passed.

Resort towns such as Aiken may lose an intangible recreational atmosphere which is inherent in the character of the community itself.

In special cases such as Corona where a large number of people without private means of transportation are added to the population, urban recreational facilities may be particularly vital. Obviously, their location will be critical.

**OTHER PUBLIC FACILITIES**

In some communities it was observed that medical services and hospital facilities became a problem because of their inadequacy. These seemed to occur only where the impact was particularly large populationwise.

**PUBLIC NUISANCE EFFECTS**

In one community the pollution of both the atmosphere and a stream resulted although measures were later taken to correct this. This effect was caused by a specific type of industry.

**TAXATION AND PUBLIC FINANCE**

The increase in demand for public facilities caused increased municipal expenditure and taxation in all cases with the exception of Edmore where the impact was widely dispersed. The experience of Front Royal was that expenditures for it and Warren County grew much faster percentagewise than did those of the Counties of Virginia as a whole. The shock of this increase caused a serious
imbalance between municipal revenue and receipts. In many cases balance was only restored by U.S. Federal Government assistance. In other words, even where the industry increased the tax base of the community it was not sufficient to meet increased public costs.

Another problem in this field was illustrated by Morrisville's experience. There, difficulty was met in assigning a mutually agreeable proportion of the tax burden to the steel industry. In addition it was recognised that the results of that industry's establishment, such as housing, did not contribute sufficient taxes for the demanded services and, moreover, since the employees of the new concern scattered over a wide area the apportionment of the firm's taxes was enormously complicated.

Clearly, the public finance problems are two-fold. First, the direct contribution that the incoming industry makes to municipal revenues may not be sufficient to meet the costs precipitated by the incoming employees' demanded level of services. Secondly, this situation is worsened by the complication of municipal and other governmental boundaries separating the industry from the areas where the increased costs are incurred.

SOCIAL CONFLICTS

In Lexington Park and Aiken it was noted that much social friction was generated between the incoming people and the original residents. The Lexington Park residents resented the new developments that resulted and regarded them as being incompatible with the Maryland setting to which they were accustomed. The residents
- 59 -

of Aiken, (which, as will be recalled, is a resort town) were more disturbed by change per se and what they regarded as being an intrusion of their exclusive way of life.

Clearly these issues are a question of values and it is impossible to generalize on such matters since human values differ widely from area to area. Whether the conflict was resolved in Aiken on the termination of the construction phase is not known. For purposes of this study it is significant that such an effect can be caused by new industry's establishment.

COMMERCIAL FACILITIES

In the early construction phase an increase in business seems to be apparent in chiefly, the Hotel, restaurants, grocery and filling stations. Later it seems common for retail outlets such as clothing stores, drug stores, hardware and furniture stores, electric appliance stores and auto dealers to have increased sales volume. It was found in Edmore that although business was only slightly affected, trade was stabilized, where once business failures were numerous and the life expectancy of newly established businesses was only two and one half years.

The change in the absolute number of retail stores varied with each community and the population increase. Some communities such as Front Royal experienced a rapid increase in the number of retail stores during the early years of industrialization. After the early impact there was no subsequent increase but rather a qualitative change. In the same community over the same period there was little increase in the number of service functions,
although service fees jumped over 550 per cent in comparison to retail sales increase of 600 per cent. Retail and service trade experienced no more than 10 to 15 per cent increase in volume despite a 450 per cent increase in industrial payrolls in Edmore reflecting again the dispersion of new employees. It seems common for new retail and service establishments to locate on roads leading towards the site of new industry.

While the number of manufacturing jobs in Warren County increased by 2,620 between 1935 and 1945, the number of jobs in other activities increased by 795, or for every 3.3 jobs in manufacturing there was one in other activities. In Edmore 285 jobs were provided by the new industry while jobs in other activities increased by only 20, or for every 14.2 jobs added in manufacturing there was only one job added in other activities.

In summary, the establishment of new industry does affect retail business, can affect the number of stores and sometimes stabilizes trade. Service activities are affected to a lesser extent. With the increase in business comes an increase in the number of service and retail jobs. There is often evidence of a qualitative change and a general refurbishing of stores. Since the accompanying increase in employment provided by the incoming industry and the accompanying increase in jobs in other activities is so critical in precipitating increased population and consequential demand for services and facilities the following chapter is devoted solely to this topic.
CHAPTER VI

THE BASE-SERVICE RATIO AND THE MULTIPLIER EFFECT

In the previous chapter it was seen that additional employment, with its consequential population increase, was a critical factor in the increase of demand for public facilities and service among other things. It was also evident that the addition of jobs in one field of activity was followed by the creation of employment opportunities in other activities. Since overall community growth and hence the demand for facilities and amenities is dependent on the sum total of all economic activity it is of considerable value to the planner to establish what relationship, if any, exists between the new incoming industry and the employment in other activities it generates.

Some of the case studies will therefore be re-examined in an effort to investigate this relationship. For the sake of simplicity, convenience and other reasons discussed in Chapter II, use is made in some cases of the Basic-Service ratio concept, but this should not be interpreted as implying implicit faith in the concept's validity. Where Basic-service terminology is used, basic industry should be interpreted as meaning that economic activity which brings money into the community from outside. Service activities are used as defining those activities which merely re-circulate money earned by the basic industries.

A few of the communities are relatively easy to analyse from this standpoint due to their isolation, while others are complex because of their regional setting and the consequential classification problems. The study is not a detailed one, the object being
to effect some comparison and hence estimates are frequently presented. However the situation of each community is outlined and pertinent conditions presented in order to prevent any significant misinterpretations.

Front Royal and Warren County

Front Royal and Warren County, although only 70 miles from Washington, are clearly in a rural area characterized by farming. In 1935, prior to the new industry's arrival, agriculture was the area's largest source of employment but it is evident that much of the production was consumed on farms and hence only a relatively small amount was sold outside the County. Between 1935 and 1945, an increase of 2,626 jobs in manufacturing resulted in an increase of 795 jobs in other activities, or the two rose in a ratio of 1 manufacturing job for every .3 jobs in other activities. Over the same period population rose at the rate of 2.3 persons for every manufacturing worker.

For every one person engaged in agriculture or manufacturing in 1935 there were 4.7 people living in the County and in 1945 this had dropped to 3.8. Assuming that in 1945 all manufacturing and agricultural workers were engaged in basic employment then while 3,819 workers were thus engaged there were 1,129 workers in other activities, or at a basic service ratio of 1 to .3. The uncertainty of the agricultural sector in 1935 precludes any hazarding of an estimate for 1935, while by 1945 it is assumed that the subsistence portion of the agricultural sector had been largely eliminated.
Edmore

Edmore, it may be recalled, is a rural service centre in a general farming area. Prior to the establishment of new industry it had a population of 971, and Greenville the next largest community in the County had a population of 6,668. At that time 50 workers were employed in manufacturing, a few in retail and service stores and the majority in farming. An increase of 285 jobs in manufacturing resulted in an increase of 20 jobs in other activities, or at a Basic-service ratio of 1 to .07. In point of fact only 37 per cent or 105 of these new workers located in Edmore while the rest commuted from outlying areas. It is of course impossible to assign the correct number of basic workers responsible for the increase of service activities since it depends on where they spend their earnings. If the smaller number of basic workers were taken i.e. 105, then the ratio would be 105:20, or 1 to .2. Population figures are not available to compute the effect of the new basic industry on generating additional population.

Ajo

Because of Ajo's geographical isolation and its dependence on a mining company for its existence, this community presents an ideal situation for a study of basic service relationships. There are virtually no classification problems.

At any given time between 1942 and 1952 employment in the basic mining industry was from 3 to 4 times as large as employment in all other activities. In 1942 the Basic-service ratio was
.1 to .24 while in 1952 it had declined to 1 to .35.

In 1940 when 1,000 workers were employed in the basic mining industry, Ajo's population was 5,795, or it may be considered that every 1 basic worker supported 5.79 persons in total. By 1952 the number of basic workers had increased to 1,126 and the population to 6,588 or 5.85 people for every basic worker. Thus over these twelve years the relationship between basic employment and population has been fairly constant.

Between 1942 and 1952, 163 workers have been added to the basic industry while 165 workers were added to non-basic activities. Thus growth proceeded at a ratio of 1 to 1.01. However, this is the long term effect; it was not the case for individual years. There is clearly a lag which is active both ways between basic and non-basic activities. It is interesting to note that, on the average, each non-basic worker earned only 59 per cent of the wages and salaries earned by each basic employee.

**Ocean Falls**

This is an isolated company-owned community on B.C.'s northem coast. In 1958 it had a population of 3,200 dependent on the income of 1,200 company employees. It may be considered that every one company employee supports 2.7 people. There are approximately 100 persons engaged in activities other than the dominant industry, realizing a Basic-service ratio of approximately 1 to .08. It is not known how this ratio has varied over time.

**Port Alice**

Port Alice is a company owned community again in an isolated
site on the B.C. coast. It has a population of 951 who are dependent on the earnings of 421 company employees, i.e. for every person employed by the company there are 2.3 persons living in the community.

It is estimated that there are approximately 25 persons engaged in activities other than that of the company giving a Basic-service ratio of 1 to .06. It is not known how this has changed over time.

**Campbell River**

The village of Campbell River is a service centre for a considerable coastal area which makes it most complicated from the point of view of attempting a Basic-service classification. However, between 1948 and 1956 the village's population grew from 2,400 to 3,100. During this period, although there was a decline in mining operation which employed a small number of persons, the construction of a pulp mill added approximately 450 employees to Campbell River's basic labor force. The population increase of 700 is accounted for in the main, then, of 450 basic employees. Thus for every 1 basic worker added the population increase by 1.6 persons. While it is known that almost all the mill workers located in the village itself, employment in other activities increased but exact figures are not available. In recent years there have been further additions to basic employment and there is much evidence of refurbishing of stores and other qualitative changes.

**Leduc**

In 1946 Leduc's 900 people were dependent on agriculture.
In 1954 the town's population had grown to 2,168 after the development of nearby oilfields. It was estimated that 200 workers lived in Leduc who were employed by oil companies and they supported 1,168 persons while 1,000 persons were by then dependent on agricultural employees. Thus for every one oil worker 5.8 persons were added to the town.

**TABLE 6**

<table>
<thead>
<tr>
<th>Communities</th>
<th>Basic/Total Population Ratio</th>
<th>Basic/Comm. Serv. Ratio</th>
<th>Basic/Comm. Serv. Ratio</th>
<th>Basic/Population Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warren County</td>
<td>3.8</td>
<td>1 to .3</td>
<td>1 to .3</td>
<td>1 to 2.3</td>
</tr>
<tr>
<td>Edmore</td>
<td></td>
<td></td>
<td></td>
<td>1 to .2</td>
</tr>
<tr>
<td>Ajo</td>
<td>5.85</td>
<td>1 to .35</td>
<td>1 to 1.01</td>
<td>1 to 6.3</td>
</tr>
<tr>
<td>Ocean Falls</td>
<td>2.7</td>
<td>1 to .08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port Alice</td>
<td>2.3</td>
<td>1 to .06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campbell River</td>
<td></td>
<td></td>
<td>1 to .15</td>
<td>1 to 1.6</td>
</tr>
<tr>
<td>Leduc</td>
<td></td>
<td></td>
<td></td>
<td>1 to 5.8</td>
</tr>
</tbody>
</table>

**Basic Employment & Total Population**

Those adherents of the Basic-service concept consider basic industry as the supporting sector of the economy of a community. If the surveyed communities are approached in this light reference to the above table indicates that one basic worker supports between 2.3 people and 5.85 people. It is interesting to note that these maximum and minimum figures are based on communities which are geographically isolated. In addition basic workers in both places earn high incomes per capita in relation to their respective national average incomes. Both communities have small populations, Ajo with 6,588 and Port Alice with 951, and both are company towns.
There is of course a difference in climate and their isolation aspect is not strictly compatible in the sense that whereas Ajo is accessible by road, Port Alice can only be reached by sea or air.

**Basic Service Ratio**

Curiously enough the same two communities also provide the maximum and minimum basic-service ratio. The average earnings of basic workers obviously must have an effect on the amount of service activities that can be supported if the concept is followed, yet here they are both on a par while there still remains a striking difference in the ratios. Since both have been in existence for fifty years there seems little likelihood of there being any significant lag effect contributing to the difference for which there is no obvious accounting.

**The Multiplier Effect**

The addition of one basic worker in Ajo has for the last eleven years been followed by at least one service worker which follows a commonly accepted assumption of the concept's adherents. There is a big difference however between the effect in Ajo, Warren County and Edmore and an even more significant one between Ajo and Campbell River.

It must be remembered that Ajo is isolated and the other communities mentioned are service centres for their respective surrounding areas which are in a sense supporting the central place. There would be a good reason, therefore why the addition of one basic worker should have a dissimilar effect in Ajo compared to the others since the impact will be more, proportionately, in Ajo.
Multiplier Effect - Basic Employment & Total Population

There are wide differences between the communities in terms of the effect of basic employment on total population. The large impact on population that the addition of one basic worker has in Ajo is not matched by any other community except perhaps Leduc which is certainly not isolated, it being within a few hours drive from Edmonton. Basic employment in Ocean Falls and Port Alice fluctuates without such a high related change between it and total population. Almost all the incoming basic workers located within Campbell River's municipal boundaries as did the generated population increase. Yet this was still much lower than Ajo's experience.

Conclusion

There are wide differences in all aspects of the Basic-service ratio among the communities examined. As a general rule the addition of basic employment in the pulp and paper communities resulted in smaller numbers of people and fewer service activities. In addition, basic industry seems to support less service industry in the pulp and paper communities and fewer people. This holds true even where such communities are isolated.
CHAPTER VII

NEW INDUSTRY’S IMPACT ON DIFFERENT TYPES OF COMMUNITIES

In Chapter V significant aspects of change were discussed on a functional basis, and in Chapter VI new industrial activity was dealt with in terms of its impact on service activities and its population effect. In this Chapter an attempt is made to distinguish new industry’s impact on different types of communities.

For purposes of this study three different types of communities are considered. The first category includes those communities which are isolated and where there is only one dominant economic activity in the area. The second category includes those communities which are in regions that possess more than one economic activity and which are predominantly agricultural areas. The third group is composed of those communities which are in areas in which there is more than one economic activity but where agriculture is of little significance in terms of either occupation or economic activity.

By analysing the case studies in this fashion the possibility of the magnitude of a given industry’s impact varying with types of regions in which the industry locates might be demonstrated. Since many of British Columbia’s communities fall in category three it is of value to determine whether in fact the experience of those communities in other groups is applicable and if so, to what degree.

Group 1 – Isolated Communities

Three of the communities studied were geographically isolated. These were Ajo, Port Alice and Ocean Falls. Ajo was in actual
fact accessible by road while the other two could only be approached by sea or air.

In examining these settlements it should be borne in mind that each is a company town built expressly to service the operation of a resource based industry. Thus the examination is not a question of analysing the impact of a new industry upon the community but rather the study of the effects of the fluctuation of a specific industry's activities and what that industry supports.

In considering the basic service structure of the communities it will be recalled that every one basic worker in Ajo supports 5.85 people while in Ocean Falls and Port Alice one basic worker supports 2.7 and 2.3 people respectively. The average earnings of basic workers were $5,487 in Ajo in 1952, $5,370 in Ocean Falls in 1958 and $4,560 in Port Alice in 1958. There is little significant difference therefore between the average earnings of basic workers in Ajo and Ocean Falls to account for the discrepancy in population supported. Without attempting to answer why Ajo's figure is high or Ocean Falls' and Port Alice's figures are low it should be remembered that there are significant climatic differences between Ajo and the two pulp and paper communities. Ocean Falls has approximately 170 inches of rain per year and Port Alice about 100 inches per year. Thus neither has a climate particularly suited to human settlement compared to Ajo's dry desert climate.

Ocean Falls has a high turnover in its labor force which in
1958 amounted to 80 per cent of all workers. Clearly, despite the high income potential workers do not wish to stay for any length of time. Perhaps these two factors account in some measure for the difference in population supported by basic workers. In addition it could account for the difference in basic-service ratio since although in this aspect the pulp and paper settlements are comparable, they are significantly lower than Ajo.

Whether these two pulp and paper communities experience a multiplier effect as high as Ajo's 1 to 1.01 is extremely doubtful since both have frequently fluctuating basic labor forces, partly due to the persistent labor turnover and partly due to present uncertainty of the pulp market. The core of service activity at such a low level necessarily remains fairly stable. In view of the high number of single people employed in these pulp and paper settlements it is also doubtful whether the population added per basic worker equals that in Ajo. A demographic survey of this aspect might be quite revealing.

Little is known as regards the impact of fluctuations in activity of the dominant industries on community facilities in these particular settlements although they possess, in common with many other communities of this type, a remarkably high level of facilities and services. In this regard it should be recalled that since they are 'artificial' in the sense that they were created for a specific purpose they should not be viewed as being directly comparable with communities that have developed in an organic manner.
Group 2 - Communities in an Agricultural Region

Of the case studies the following communities fall into this category: Seneca, Neosho, Charlestown, Lexington Park, Morrisville, Front Royal, Edmore and Leduc.

Unlike the isolated communities this type of settlement is in a sense a service centre for economic activity of an agricultural type already in progress in a region. The impact of an incoming, new industry on the community and its hinterland will depend, to some extent, on the intensity of activity already in being and the magnitude of the new industry in proportion to it. In addition it will depend on the relationship between the new industry and existing activities.

In considering the multiplier effect in two such communities namely Warren County and Edmore, it was seen to be 1 to .3 and 1 to .2 respectively. In other words the addition of one basic worker to the labor force accounted for the addition of .3 and .2 workers in other activities. These figures are not directly compatible since they correspond to calculations made over different periods of time and thus may be subject to lag effects.

This multiplier effect is considerably smaller than that in Ajo in Group 1 although comparable to that of Campbell River in Group 3.

Figures are available for only two communities as far as the effect of increased basic employment on total population. In Warren County the addition of one basic worker realized a gain of 2.3 people while in Leduc it meant a gain of 5.8 people. Some of the large difference between the effect on population in these
two communities may be explained by the former presence of subsistence farming in Warren County leading to a re-allocation of employment requiring fewer employees from outside the area. However this may be only a partial explanation and the analysis is very slender upon which to base generalisations.

The impact of facilities and services was described in detail in Chapter V. Much of the information presented there was obtained from communities in an agricultural setting. Since few of these communities had significant excess capacity in their facilities nearly all went through a period of difficulty due to the sudden population pressure overloading or overcrowding such facilities that existed. In addition, the rapid urbanization of some of the more rural settlements created an urgent demand for facilities which had not previously been required or available. **Group 3 - Communities in a Non-agricultural Area**

Campbell River and Castlegar fall in this category. The distinction between an agricultural region and a non-agricultural region has been drawn because many British Columbia communities are located in the latter situation. Although a little agricultural activity is maintained in the surrounding area of such communities it plays only a minor role in the economy. Basically the communities house workers who are engaged in resource based industries such as forestry, mining and fishing. Workers often commute up to 20 and 30 miles to the location of employment activity which may be continually changing. Much of this type of employment may mean seasonal unemployment with a consequential low level of
service activity.

In the study of Campbell River it was found that the addition of basic workers had a multiplier effect of 1 to .15. This was the lowest multiplier effect in all three types of community studied although the value of this finding is based on the narrowest of surveys. The population added per basic worker of 1.6 to 1 is also the lowest found in all the groups although this finding too is based on only slender evidence.

It should be recalled that there has been a steady increase in basic activities in Campbell River for the last ten years. Although there has been a marked increase in service activities there may be a substantial lag effect suppressing a further increase in this type of activity. There is certainly much evidence of recent refurbishing and other qualitative changes in this community's appearance.

Notwithstanding the foregoing there may be other good reasons for a lower multiplier effect and less induced population in this type of community. Climate, for example, and other attractions may not be as conducive for settlements as in agricultural areas. The population effect may be lower due to the absence of subsistence farming.

Prior to the establishment of the pulp mill in Campbell River, services and facilities were at a very low level. As in many of the settlements in agricultural areas the rapid urbanisation of this community has precipitated the necessity for many new facilities in addition to the expansion of those already in existence.
Summary

Communities in the first category would appear to have basic-service ratios lower than communities in the other groups although since Ajo's experience is so strikingly different to that of the pulp and paper settlements the relative nature of isolation and other factors such as climate may distort this. Basic employment in inaccessible, isolated communities appears to support and cause the addition of fewer people than it does in other types of communities although Ajo again is a notable exception. There is evidence to suggest that the multiplier effect is lower in this type of settlement than in the others since the population added tends to be low.

Many of these communities were company towns, planned from the outset and often more efficient in terms of land use. It follows that the expansion of facilities and services due to increased basic activity is often more easily brought about. The communities examined appear to have a remarkably high level of services. It is perhaps enlightening to conclude with the statement of Mr. Harry Walker, who said:

"Beyond their (the companies') ownership and operation of utilities and services ordinarily associated with municipal government, the companies responsible for the creation of townsites in conjunction with their industrial operation often provide facilities and services normally supplied by the individual himself or by separate private enterprise. The rationale behind the ubiquitous company operation is that the company must supply these services because no one else can or will; they must be supplied so as to create conditions of modern, comfortable urban living in an isolated area to attract and hold responsible employees". (2)
The second category of communities appear to have a higher basic-service ratio than isolated communities. The multiplier and population effects of the addition of basic workers seem to be more than in Group 3 communities although this is based on slender evidence. Obviously, the intensity of economic activity already in progress is a variant in agricultural areas. There may be considerable subsistence farming in existence and the incoming industry may cause a re-allocation of jobs rather than an influx of workers from outside. Total employment and added population might thus be less than that expected.

Agricultural regions are often more conducive to settlement than those regions in which category 3 communities are found. This may be due to climate or topographic features or even to the presence of the means of subsistence farming per se. At any rate the sum total is that new industry entering agricultural areas may expect to find fairly stable economic conditions which it will frequently disrupt. Group 3 communities are somewhat similar to those of Group 2 in that they exist because of economic activity already in existence in an area. Incoming, new industry would seem to have a lower multiplier and population effect than in Group 2 communities. As already stated it may be due to conditions being non-conducive to settlement. It may also be due to this type of region having a lower level of economic activity than agricultural areas. More important, it may be due to the instability of this type of region, for its economic activity will often pivot around the recovery of natural resources which may be subject
to unstable market conditions.

Community services and facilities are often at a low level in communities of Groups 2 and 3 and the establishment of a new industry with its accompanying population influx may mean rapid urbanization which in turn could cause an urgent demand for facilities and services hitherto not required.

Source:

(1) Institute of Local Government, Queens University, Single Enterprise Communities in Canada, A Report to C.M.H.C. 1954

(2) Loc. cit.
CHAPTER VIII
IMPLICATIONS FOR PLANNING

In the earlier Chapters, the sorts of changes that communities experienced as a result of the establishment of new industry were discussed. Further, the communities were analysed in an effort to establish whether it was possible to indicate the magnitude and sort of impact by type of community. In this concluding Chapter the aim is to discuss possible approaches of meeting the expected impact of new industry and ameliorating some of the problems it raises.

In approaching the question of the impact of industry on small communities the problem really amounts to what should be done, and in what order of priority, and how any action contemplated may be brought about. Stated another way, it is the intention here to discuss some of the things that community planning can do to meet the problems raised by new industry and how planning may best be initiated.

WHAT SHOULD BE DONE AND A POSSIBLE ORDER OF PRIORITY

Irrespective of the type of settlement the first fundamental requirement for communities about to experience the establishment of new industry is the need for a community inventory. The purpose of this is to establish the resources that the community has available to meet the expanding requirements of the ensuing period. It should be as comprehensive as possible and cover a range of aspects from the capacity of various facilities and services to the financial resources of the community. Further, it should include.
a study of land utilization within the corporate limits and the availability of land for future development.

Since the expansion of services and facilities is predicated on population growth, it is vital to undertake an estimate of the future population which may result from the coming of new industry. This is really a two-sided issue since some people may enter the community because of increased services per se and not directly due to the industry itself. However, it is suggested that the classification of the community by its type would be of assistance here. In dealing with the population issue it is necessary also to attempt a forecast based on not only the permanent labor force but also the temporary construction force since the community might have to undergo a quite lengthy transitional period which should be taken into account. Additions to the housing supply and the capacity of utilities and facilities should be planned on the basis of the eventual population but, if these can be commenced early enough the extreme shortages during the transitional or construction period may be considerably eased.

Once an idea of the eventual population has been established the likely demands for housing and facilities and services may be compared with those in existence as established by the community inventory and the areas of possible maladjustment and crises anticipated in advance. By planning the use of community resources at an early stage to reduce the discrepancy between existing facilities and future requirements the chaotic results in some of the communities described may be avoided to a considerable extent.
Thus, armed with a community inventory and an estimate of future population, planning studies may properly commence.

**HOUSING**

One of the earliest fields for the attention of planning activity is that of housing. Judging by the experiences of Seneca, Neosho, Aiken and Charlestown the population during the construction phase will probably be too large to be adequately accommodated in existing permanent housing. It is likely that the discrepancy will be filled by the use of trailers, temporary structures, conversions and makeshift dwellings, as took place in the above communities, and therefore it is advisable that regulations governing such forms of housing be drawn up in advance to prevent haphazard location, construction and use. The building code, where there is one in existence, should be revised and simplified if necessary. It may be advisable to draw up a local by-law covering the permitted locations, standards of density, sanitation and improvements for trailer camps.

It may be necessary to formulate standards for temporary housing and conversions and in connection with the latter to develop some control over the number of roomers permitted in terms of density, for example. It may be deemed expedient to relax such standards where they are already in existence; in either event they should be realistic.

**LAND USE REGULATIONS**

Concommittant with the problem of housing is its location and the location of land uses generally since the problem cannot be
completely isolated. Where there is either no zoning by-law in existence or the zoning by-law is incapable of coping with the expected expansion, a general land use plan will be of value in guiding the development or revision of a zoning by-law. It is possible that in the interest of time an interim zoning by-law may be deemed essential to set out rough boundaries for zones of residential, commercial, industrial and possibly agricultural use and establish certain basic standards and requirements. Since the traditional type of interim zoning by-law freezes all construction except residential (which is the field of activity likely to be most active and to cause most permanent problems), it has serious limitations in a period of rapid change and thus is no substitute for a zoning by-law based on a general development plan.

OTHER MUNICIPAL REGULATIONS

Where zoning provisions have been made establishing zones for residential use it is still necessary to formulate subdivision regulations to guide the development of new areas. In connection with this it is advisable to develop a general street pattern in order to co-ordinate any subdivision plans that might be submitted by developers. Local traffic by-laws per se may be necessary to handle acute problems that may arise as was evident in one of the case studies.

Rapid expansion, and more particularly, higher utilization of housing facilities may necessitate a critical examination of health and sanitation codes if in fact any are in existence. In most cases this will be essential since acceptable standards for a
densely developed community will differ drastically from those permissable in a sparsely settled area.

**COMMUNITY FACILITIES AND SERVICES**

Earlier studies of the estimated population increase and housing requirements will give a clue to the additional facilities and services required. Seneca, Neosho and most of the other communities studied required substantial additions to educational facilities. Where the community is small and the influx of people large (and those usually being young couples) it may be necessary to consider educational facilities which are flexible because of a large body of children of similar age advancing through the grades together. Thus it may be expedient to consider the construction of schools which may be easily converted from elementary to high school uses.

Some of the communities experienced the need for additional facilities and services such as water supply, sewerage treatment, refuse collection, recreation, fire and police protection and even municipal personnel. It is suggested that a system of priorities be set up as soon as possible in order to establish the respective needs for these public works and services.

An early extension of the water supply system may be necessary. Sewerage and refuse collection and disposal may be particularly critical dependent on local conditions. It will be recalled that sanitation was a major difficulty in several of the case studies. The individual disposal systems - septic tank, cesspool, etc. - may not be too inadequate when housing is dispersed, but
such methods of disposal may be disastrous in areas of increasing population density even if the installations are in conformity with existing health standards and are inspected regularly.

ANALYSIS OF THE COMMUNITY'S FINANCIAL POSITION

Faced with the prospect of the wholesale expansion of housing facilities and services, communities may benefit from another major planning activity, that is, the preparation of an analysis of the community's financial position. Such an analysis could include not only an assessment of the community's financial resources but also the drafting of a tentative capital improvement budget for the provision of required public improvements and the enlargement of inadequate systems of utilities.

Planning the budget is essential since there may be problems of financing the required improvements and in formulating taxation policies with respect to the new industry and its employees. There may be an increase in revenue if the plant is located inside the settlement's boundaries. In addition there may also be increased revenues from new commercial and residential properties constructed. Unfortunately, it is likely that there will be a time lag between the increased expenditures for capital improvements and expanded municipal government and the collection of new taxes. Moreover, since the residential property may not be expected to pay entirely for the services it receives there may be a net loss to the city from the new construction.

ROLE OF A HIGHER LEVEL OF GOVERNMENT

The previous section has dealt with some of the specific
measures a community should undertake to meet the problems raised by the establishment of new industry. By taking advantage of such measures communities can maximize the use of their resources often with a minimum of planning assistance. Unfortunately, many small communities do not possess a planning staff or even officers qualified to properly assess the resources at their disposal. This is often the case in all three types of communities studied. The communities may feel that they are financially unable to afford the services of a full-time planner or engineer and even their use of consultants in these fields may be of necessity limited.

Even where the community has been able to afford a minimum of planning services the rapid urbanization and consequential demand for services may simply be too much for its financial resources in either the immediate or foreseeable future. Many of the communities described had critical problems in, for example, the field of permanent housing which private builders were unable or unwilling to supply. The situation was eased only by federal government assistance. Similarly, those communities which required new or additional water or sewerage facilities only got by through the extension of federal government financial help.

The financial straits which a municipality may find itself in is well illustrated by a statement by Richardson Wood:

"One thousand dwellings are added to a community and are normally financed. But there is a charge on the city of $1,000 a unit for roads, pavements and water and sewer connections on the site, $1,000,000 there. Then the sewage disposal plant must be enlarged, $½ million, water systems, ditto. Suppose that is all except a new school
at $\frac{1}{2}$ million, and more teachers, police and firemen - that may be $150,000 a year. If the city can borrow at 3 per cent and amortize at 5 per cent, it will need $200,000 a year for debt services, plus the new payroll, or $350,000 a year in all. But the new development is assessed at $10 million ($10,000 per unit) and the city tax rate is 2 per cent on 80 per cent of that figure, or $160,000, less than half of what is needed. Moreover, the city's debt limit is 10 per cent of assessed value and it is up to its limit already so it can borrow only a million more, not the two and one half million it needs, but can't service anyhow. This is where the federal government gets a distress call". (1)

There are, thus, grounds for super municipal governmental assistance not just for planning functions but also for assistance in overcoming the problems of financing, housing, and facilities and services.

Another financial aspect of the establishment of new industry is the fact that it very often locates outside the corporate limits of the settlement in question. This is particularly true of Group 3 communities where the industry locates at the site of the resource rather than, as in the case of some secondary industries, locating in the community itself. Campbell River is an example of this situation and is typical of many British Columbia communities. In British Columbia industry locating outside the municipality is, in the absence of any county tier of government, in unorganized territory and not subject to any direct form of taxation that might accrue to the municipality itself.

The municipality thus finds itself in the unenviable situation of being faced with rapidly expanded expenditures for new and additional facilities and services without receiving any revenue in the form of tax from the industry precipitating such expenditures.
Further problems which are raised in British Columbia and which may be typical of some Group 3 communities elsewhere are caused through new workers building their homes often in a haphazard manner locationwise, outside the municipality in unorganized territory. True, in some cases such as Castlegar, the new company in question takes considerable pains to design the layout of such residential areas and provide the required facilities, but this is often the exception rather than the rule. The construction of isolated housing units outside the municipal boundaries often leads to sprawl, causes problems later if additional services are required and frequently makes general development of the community more difficult.

As was seen in the case studies, commercial enterprises tend to locate on the highways leading to the new plant and in situations such as British Columbia, this is particularly disturbing where it takes place outside the city limits for the previously mentioned reasons. There is little or no control on such development and it often precipitates further development leading to ribbon and sprawl conditions.

One very ticklish problem for these small communities is the fact that they seldom if ever have any advanced warning of industry's intention to locate in or near the municipality concerned. Since, as has been previously stated, many communities do not have the benefit of planning activity or staff, they are totally unprepared for the changes to come. The impact is upon them before they can properly take stock of the situation, and many
lasting problems are created which might otherwise have been avoided.

It is suggested that in cases such as these there is a real need for planning activities to be carried on for their benefit by a higher level of government, such as a county; in British Columbia where these do not exist, such a function is a legitimate field of activity for regional planning. The municipalities themselves are unable to afford full-time planning offices, and, apart from sporadic aid from consultant planners, are unlikely to receive planning assistance in any other way.

Such regional planning activity could keep an up-to-date account of community inventories and prepare general plans as was in fact done by the provincial government of Alberta for the town of Leduc. This might not solve all the problems raised by new industry but it would certainly alleviate them.

In conclusion it should be repeated that there is a very definite role for a higher level of government in the case of small communities, particularly those of Group 3 type, and this is vital to the public interest in British Columbia, where there are indications of many communities being affected this way in the future.

Source:

(1) As cited by American Society of Planning Officials, The Impact of Large Industry on Small Communities. Bulletin Number 31, 1951 P.25
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