113

project report

THE GREATER CHARLOTTETOWN URBAN AREA OPPORTUNITIES STUDY

VOLUME II

THE CHARLOTTETOWN AREA AS A REGIONAL AND PROVINCIAL SERVICE, LIGHT MANUFACTURING AND RESOURCE SUPPORT INDUSTRY CENTRE

prepared for:

Canada Department of Regional Economic Expansion, The Province of Prince Edward Island, and The City of Charlottetown

participating consultants

G.C.F. Shaw
E. F. Haites
S. I. Lyman
T. M. Zaharchuk

STEVENSON & KELLOGG, Ltd.

In Association With:

Canadian-British Consultants Ltd.
Laventhol, Krekstein, Horwath & Horwath
Sunderland, Preston, Simard & Associates

December 1973

STEVENSON & KELLOGG, LTD.

management consultants

TABLE OF CONTENTS

Contents (cont'd.)

Contents (cont'd.)

Contents (cont'd.)

Contents (cont'd.)

TABLES

TABLES (cont'd.)

TABLES (cont'd.)

FIGURES

o0o

I

THE GREATER CHARLOTTETOWN URBAN AREA AS A REGIONAL AND PROVINCIAL SERVICE CENTRE

A. INTRODUCTION AND SUMMARY

1. Introduction

One of the potential roles considered for the Greater Charlottetown Urban Area (Charlottetown area) is that of a regional and provincial service centre. The term service centre was broadly defined to include construction, housing, and all the usual service sectors.

The provision of certain services to the surrounding region is a classic function of urban areas, and the Charlottetown area is no exception. It provides some types of communications, retail, wholesale, finance, business, education, health, and public administration services to the rest of the province. It also provides these and other services to its own residents.

The analysis of the service centre role was necessarily an iterative one. The projected development of each of the roles generated estimates of additional employment and population for the area. These people create demands for various locally produced goods and services. Thus, more jobs are created and a larger population is supported. The results of this iterative analysis of the activities comprising the service centre role are summarized below.

2. Summary

a) Population

The population of the province grew from 95,000 in 1941 to 111,600 in 1971. This is an average annual rate of growth of 0.54 per cent. Over the same period the population of the Charlottetown area has grown from 17,400 to 25,800. This is an average annual rate of growth of 1.32 per cent--more than twice as high as the provincial rate. As a consequence, the Charlottetown area represents an increasing proportion of the provincial population.

The population of Prince Edward Island is projected to grow to 116,200 in 1986. This represents an average annual rate of growth of 0.27 per cent. The Charlottetown area is projected to grow to 34,900 by 1986. It will then account for 30 per cent of the provincial population. This implies an average annual rate of growth of 1.93 per cent, somewhat higher than the historical rate.

b) Labour Force

The labour force in the Charlottetown area grew from 6,400 in 1951 to 9,500 in 1972. This is an average annual rate of growth of 1.9 per cent. This is faster than the rate of population growth because participation rates have been rising. Due to the changing age structure of the population and declining family size, we expect participation rates to continue to increase until the mid-1980's. Specifically, we project the participation rate in the Charlottetown area to rise to 39.0 per cent in 1985 from the current 36.8 per cent. This yields a labour force estimate of 13,300 in 1985. The implied rate of labour force growth is 2.6 per cent per year, almost one and one-half times the historical rate.

The sectoral distribution of the labour force will continue to change. The projected changes reflect our assessment of the development potential of the area. The percentages of the labour force engaged in the primary industry; construction; transportation; storage and utilities; and wholesale trade sectors have declined. There are a variety of reasons underlying these relative declines. We anticipate that these and similar forces will continue to produce relative declines in these sectors.

Historically, the percentage of the labour force engaged in the manufacturing, and finance, insurance and real estate sectors has remained approximately constant. We expect this will continue for the latter sector. But we expect that the manufacturing sector will include a declining percentage of the labour force.

The largest sectors of the labour force are community, business, and personal services; retail trade; and public administration. These sectors have also increased their shares of the total labour force. Essentially, we expect these trends to continue.

The projected composition of the labour force is shown in Table 1.

c) Personal Income

Income data are not available for the Charlottetown area. However, it is likely that the average per capita income in the area is somewhat higher than the provincial average.

TABLE 1

SECTORAL COMPOSITION OF THE LABOUR FORCE OF THE GREATER CHARLOTTETOWN URBAN AREA 1951-1985

Sector	1951		1961		1972		1985		Increase 1972-1985
	No.	%	No.	%	No.	%	No.	%	
Primary Industries	121	1.9	63	0.9	50	0.5	30	0.2	- 20
Manufacturing	758	11.9	877	11.8	1,080	11.4	1,400	10.5	+ 320
Construction	526	8.3	609	8.2	740	7.8	950	7.1	+ 210
Transportation	808	12.7	818	11.0	890	9.4	1,050	7.9	+ 160
Retail Trade	1,064	16.7	1,424	19.2	1,950	20.5	3,050	22.9	+1,100
Wholesale Trade	386	6.0	445	6.0	330	3.5	350	2.6	+ 20
Finance, Insurance, and Real Estate	230	3.6	253	3.4	360	3.8	500	3.8	+ 140
Community, Business, and Personal Services	1,757	28.0	2,121	28.5	2,540	26.7	3,800	28.6	+1,260
Public Administration	584	9.2	673	9.0	1,400	14.7	1,900	14.3	+ 500
Not Stated	109	1.7	147	2.0	160	1.7	270	2.0	+ 110
TOTAL	6,373	100.0	7,430	100.0	9,500	100.0	13,300	100.0	+3,800

Personal income per person in Prince Edward Island has grown from $653 in 1951 to $2,188 in 1971. During this period it has grown at an average annual rate of 6.2 per cent. This rate is higher than the Canadian average. As a result, the Prince Edward Island personal income per capita is now 64.3 per cent of the Canadian average, as compared to 54.5 per cent in 1951. It is, however, the lowest per capita income of any province.

The real component of personal income is expected to maintain the rate of growth achieved during the sixties. We anticipated, however, an average annual inflation of 4.0 per cent as compared to the 3.3 per cent experienced during the sixties. Once the adjustment for the higher rate of inflation has been made, personal income per person in Prince Edward Island is expected to grow at a rate of 9.1 per cent per year.

Because of the relatively low levels of personal income per capita, evidence of poverty is not unexpected. In 1970, 30.0 per cent of the families and unattached individuals had a gross income of less than $3,000, and 53.4 per cent had a gross income of less than $5,000. The corresponding figures for Canada are 19.2 per cent and 32.1 per cent respectively.

d) Land Needs

The development anticipated for the Charlottetown area will require the development of additional land. We estimate the net additional land required at 700 gross acres (that is, including adjacent streets). This requirement is distributed among the major land use categories as follows:

Category	Area (gross acres)	Per Cent
Residential	450	64
Commercial	50	7
Industrial	90	13
Other	110	16
TOTAL	700	100

These estimates clearly reflect the needs of the anticipated development of the retail trade and the community, business, and personal service sectors. The land required for industrial purposes--including manufacturing, warehousing, utilities, railyards, airports, and expressways--is less than would be required to accommodate similar growth in Ontario communities. This reflects the relatively weaker industrial sector in the Charlottetown area.

e) Construction

Conclusive data are not available, but it appears that the Charlottetown area is a net exporter of construction services to the rest of the province. Over half of the province's construction firms are located in the Charlottetown area. A smaller portion of the province's construction work has been undertaken in the area.

There has been a relatively high level of construction activity in the province in recent years. This can be traced directly to government activities stemming from the Development Plan. Specifically, the Plan has spawned the programs to stimulate housing construction and investment in institutional services and by government departments. These types of investment have relatively high construction components.

The recent high levels of social investment spending cannot be maintained until 1985. There will also be a shift to investments that include a larger equipment component. After adjusting for these factors and allowing for productivity improvements, we estimate that the labour force engaged in construction work in the Charlottetown area will grow at an average annual rate of 1.9 per cent to 950 in 1985.

f) Transportation

There are 49 firms in the transportation, storage, communications, and utilities sector in the Charlottetown area. About 890 residents of the area are engaged in this sector. We have no data with respect to the extent that the Charlottetown area provides such services to other parts of the province. The basic component of this sector is, however, relatively small.

The labour force growth experienced by this sector across Canada has been relatively small in recent decades. The Charlottetown area is no exception. There it grew from 808 in 1951 to 890 in 1972. The reason for the low rate of growth has been the steady introduction of labour saving equipment and methods. We anticipate that this sector will continue to experience a relatively high rate of productivity improvement--but the rate will be lower than in the past. The demand in constant dollar terms will increase at about the same rate. Hence, we anticipate a slightly higher rate of labour force growth--1.3 per cent per year. This will bring it to about 1,050 by 1985.

g) Retail Trade

The retail trade sector is the second largest sector in the Charlottetown area, in terms of the labour force. It occupies an estimated 1,950 residents of the area.

In 1971, retail sales in the Charlottetown area were about $46 million. Retail sales in the area have been growing at a rate of 6.6 per cent per year. This is a higher rate than the province as a whole. Hence, Charlottetown accounts for an increasing share of the province's retail sales. This share is currently over one-third.

In recent years, several shopping centres and suburban retail areas have developed. They now include over one-third of the area's retail space. The downtown, however, is still the major shopping area.

The pattern of retail sales is consistent with the pattern of personal income noted earlier. A large percentage of retail sales is accounted for by necessities, but this percentage has declined as incomes have risen. Food, automotive, and general merchandise sales now comprise 75 per cent of total retail sales--down from 80 per cent in 1961.

We project that retail sales will increase more rapidly than they did in the past--at a rate of 10 per cent. There are several reasons for this. It includes a higher rate of inflation. It reflects a higher rate of population growth for the Charlottetown area. It also reflects continued high rates of growth of per capita income and tourist spending.

This rate of increase of retail spending is projected to produce an average annual increase in the sector's labour force of 3.5 per cent. It is also projected to require a net addition of some 310,000 square feet of retail space.

The retail trade projections are conditional on the type of development proposed in the plan. Specifically, as much of the retail development as possible must be focused on the downtown area. In addition, as many of the tourist facilities--hotels, motels, and restaurants--as possible must be located in the downtown area. Finally, the downtown shopping area must be made as attractive as possible by providing convenient access, and parking and protection from inclement weather. Failure to satisfy these conditions will lead to a reduced rate of development of this and other sectors.

h) Wholesale Trade

There has been a major change in the wholesale trade sector of the area's economy since 1961. The size of the labour force engaged in this activity has fallen by 25 per cent since then. It now consists of about 330 persons.

There are 33 wholesalers in the Charlottetown area. They deal mainly in food products, general merchandise, and automotive products. This approximates the pattern of retail trade. It also reveals, however, the rather limited nature of the area's wholesale trade activity. Furniture, appliances, shoes, metal and metal products are not handled by local firms.

There are several forces underlying this pattern. One is the changing pattern of retail trade. More of the retail outlets are being organized on a chain basis. This generally leads to greater centralization of the purchasing and distribution activities, with a consequent reduction in the activities of local wholesalers. At the same time, changes in transportation costs have tended to centralize distribution activities. Most goods distributed in the Maritimes are shipped by rail to a point such as Halifax or Moncton, and are distributed by truck from there.

This is usually cheaper and faster than direct rail shipment. It also tends to centre the wholesaling activities in those communities. As evidence of this pattern, we were able to identify some 126 out-of-province wholesalers serving the area.

We anticipate that these trends will continue to prevail throughout most of the forecast period. Hence, the anticipated labour force growth in this sector will be minimal. We have estimated the 1985 labour force at 350, compared to 330 at present.

i) Finance, Insurance And Real Estate

The Charlottetown area is the financial centre of the province. It includes 11 of the 28 branches of the major chartered banks in the province. In addition, there are five trust company offices and two credit unions. About two-thirds of the province's finance companies, insurance offices and real estate agents are situated in the Charlottetown area as well. We estimate that some 360 residents of the area are engaged in these types of activities.

Thus, the Charlottetown area provides these types of services for a substantial portion of the province. We expect that this will continue to be the case. Thus, the increasing centralization of the population will not provide a significant stimulus to the area's economy. The growth will come as a result of increased need for financial services that accompanies rising incomes. In the past, these factors have been sufficient to stimulate employment growth in the sector at about the same rate as the growth in the labour force. We anticipate that this will continue. The 1985 labour force of the Charlottetown area in this sector is estimated at 500.

j) Community, Business And Personal Services

This sector is the largest, in terms of the labour force engaged, in the Charlottetown area. One reason for this is that it includes tourist facilities--hotels, motels, and restaurants. Our concern here is for the portion of the sector not included in the other roles.

Some 2,540 residents of the Charlottetown area--over 25 per cent of the labour force--is engaged in providing such services. An estimated 815 of these persons are involved with tourist related activities--hotels, motels, restaurants, amusement, and entertainment. The remaining 1,725 provide a wide variety of services to the local and regional population. These services are provided by a large number of relatively small establishments. Our survey identified over 300 establishments in this sector. Some, such as the educational institutions, hospitals, and nursing homes, have large staffs, but most have fewer than five employees.

The analysis of the tourist centre role indicates that the direct employment anticipated in the Charlottetown area will grow from the current 815 to 1,275 in 1985. This is an average annual rate of about 3.5 per cent.

The growth in the remainder of the sector will be at a slower rate--about 3.0 per cent per year. This is higher than the rate achieved in the past. There are two principal reasons for projecting a higher rate. The population of the Charlottetown area is expected to grow significantly faster. And the steady growth in personal incomes will lead to a higher percentage being spent on services.

Our review of the services currently available suggests that the market is large enough to support additional firms in the following areas:

- shoe repairs;
- laundry and dry cleaning;
- property management;
- computer services;
- building cleaning services;
- interior decorators and designers;
- photographic services.

k) <u>Public Administration</u>

The number of civil servants in the Charlottetown area has more than doubled since 1961. This is primarily due to the growth of the provincial civil service.

Federal government employment in the province declined from about 2,300 in 1966 to 2,200 in 1971. In relative terms, the decline is greater, from 21.2 employees per thousand population in 1966 to 19.7 in 1971. This trend is counter to the national and regional experience. In the Maritime provinces, the corresponding figures were 24.9 in 1966 and 27.2 in 1971.

Provincial government employment increased from 20.3 per thousand population in 1966 to 31.6 in 1971. This rapid increase more than offset the federal government declines. It also provided substantial additional employment in the Charlottetown area.

We anticipate that the public administration labour force will continue to grow, although at a slower rate. Specifically, we project that it will grow to 1,900 by 1985 -- a rate of about 2.3 per cent per year. The source of growth will be different. We expect that federal government employment will increase at a moderate rate. But the main growth will be in municipal government employment. Prince Edward Island currently has very low levels of municipal government employment -- 2.6 per thousand population compared to a Canadian average of 9.7.

1) Housing

We estimate the current housing stock in the Charlottetown area at about 7,300. This means an average of about 3.3 persons per unit. Due to changes in the age structure of the population and the declining birth rates, we estimate that the average will decline to 2.8 persons per housing unit. Thus, the area will need about 12,200 housing units in 1985. This represents a net increase of 4,900 units.

In addition, we estimate that 3,500 of the existing units will be replaced by 1985. This can occur either because of old age or because of conversion from residential use to other uses.

This yields a total need for about 7,900 housing units. This averages to just over 600 units per year. Over the past few years, housing starts in the Charlottetown area have averaged about 250 per year. Thus, we expect a substantial increase in the housing starts between now and 1985.

B. RECOMMENDATIONS

- Discourage construction of suburban shopping centres -- encourage new retail and tourist related outlets to locate in the central area.
- Encourage retail sales outlets to support the restoration and upgrading through paint-up/clean-up program along the lines of the Norwich plan.
- Introduce the list of potential ideas identified to local entrepreneurs to interest them in establishing the business.

II

THE DEVELOPMENT FRAMEWORK

A. THEORETICAL

There is no well-tested, widely accepted theory of urban growth to assist us in identifying and evaluating the development potential of the Charlottetown area. We can, however, name a large number of factors that may influence the area's development. They include: the relationship of the Charlottetown area to the rest of the province and to the rest of the Maritimes; the viability of the area's economic sectors; the natural resources of the surrounding area; the types and quantities of goods and services imported into the Charlottetown area; and government policies.

Economic theory does provide a conceptual framework that enables us to assess these factors. Thus, the area's total output of goods and services can be increased by increasing the output of the existing activities or by establishing new activities. An increase in population, in per capita income, or in the market area, can result in higher levels of output for the area's existing activities. New activities can be established by producing goods and services that are currently imported into the area, or goods and services that are currently not available in the area.

These processes are obviously interrelated. If there is an increase in population it may provide the minimum market necessary for the production of a product currently being imported. The production of this product will provide additional employment, thus stimulating further increases in population.

Given these interrelationships, the problem of generating the initial increase in population, or per capita income or the size of the market, remains. Economic base theory provides a framework for analyzing this. Economic base theory divides all economic activities into two components --basic and non-basic. The basic component is the portion of the activity devoted to supplying non-local markets. Thus, the basic component of retail trade is the percentage of total sales made to persons who are not residents of the Charlottetown area. The non-basic component then, is the portion of the activity devoted to supplying local markets. In the case of retail trade, the percentage of sales made to residents of the Charlottetown area. By their nature, some activities are primarily basic while others are primarily non-basic. Hotels and motels tend to be basic activities, while dry cleaners tend to be non-basic.

Economic base theory hypothesizes that the basic components of the various activities must provide the initial stimulus for the area's growth. The consequences of this stimulus are then reflected in the non-basic components. The total non-basic impact depends on many factors --the nature of the basic activity and the economic structure of the area being two. For example, an increase of $1.00 in retail food sales to non-residents may provide 2 cents or 3 cents of additional income to the local economy, if the products are manufactured elsewhere. If the people who receive this net income in turn spend it on goods or services not produced locally, the total impact will be very small. Similarly, an additional $1.00 of tourist spending in the Charlottetown area may provide 55 cents net income for the local economy. Much of this is in the form of wages paid to people working in the tourist industry. To the extent that they spend it on locally produced goods and services, the total impact is increased. The total increase in the basic and non-basic components is called the multiplier. Thus, in the retail food example, the multiplier would have a maximum value of 1.03, while in the tourist example, it would have a maximum value of 1.50

A formal economic base analysis is a very complex undertaking and is only of limited use. The main reason for the complexity is the problem of dividing activities into their basic and non-basic components. It is of limited use because the basic components of a few activities typically account for most of an area's exports. These are usually well known--the importance of tourism to the Charlottetown area's economy, for example.

Another problem with a formal economic base analysis is its focus on exports. As we noted earlier, it is also possible to stimulate economic growth by stimulating the production of goods and services that are currently being imported. Economists call this process "import substitution". It has the added advantage that it tends to raise the multiplier of other activities because more of the income generated by those activities will then be spent locally.

Most of the difficulties with the economic base theory, however, stem from the fact that it is a static theory. In practice, an increase in an area's base activities may be extremely difficult to achieve because similar processes are operating in other urban areas. They may have economic advantages not available to the Charlottetown area and hence succeed where Charlottetown does not. Conversely, the Charlottetown area may have advantages not available to other areas. Also, because the theory is static it does not consider activities not currently found in the local economy. For example, since there are no guard and patrol agencies in the Charlottetown area, this type of activity would not be reflected in the economic base analysis. Yet the market might be capable of supporting such an agency. Similarly, the consequences of changes in the economics of various industries are not reflected in the economic base analysis. Thus, the trend to larger supermarkets and self-service drug stores and the impact of these trends would not be reflected in an economic base analysis.

The Charlottetown area development opportunities study is conceputally related to the economic base analysis. But it is structured so as to avoid some of the weaknesses of the economic base analysis.

The study involves the analysis of four possible roles for the Charlottetown area. These are:

- a regional and provincial service centre role;
- a light manufacturing and resource support industry role;
- a tourist centre role;
- a conference, seminar, and continuing education centre role.

These roles include all of the current, and a number of the potential basic activities. The tourist industry is currently the area's most important basic activity. Similarly, the Charlottetown area hosts many out-of-town convention delegates. But the other dimensions of the role--seminars and continuing education--have not been important contributors to the area's economy. They are potential new activities with large basic components. The analysis of the light manufacturing and resource support industry role involves the identification and evaluation of import-substitution possibilities, and potential basic activities. The service centre role includes a review of virtually all other economic activities. Many of these activities are predominantly non-basic. In such cases the impact of the developments anticipated in the other sectors is evaluated. The expansion of the basic components of existing activities and the possible introduction of new service activities is also evaluated.

While the study has been structured to overcome some of the limitations of economic base theory, some unavoidable limitations remain. They are unavoidable because they relate to the future. Specifically, our estimates of the development potential for each role are based on implicit and explicit assumptions regarding Charlottetown's ability to compete with other centres fulfilling similar roles. Because of the complex relationships among the various sectors an error in our assumptions will be reflected to a greater or lesser degree in almost all sectors.

Similarly, the estimates and the specific opportunities identified are based on implicit and explicit assumptions about technological developments. These assumptions are quite valid in the near term but may be invalid for the latter part of the forecast period. For example, our projections for the financial sector implicitly assume no radical changes in the nature of the banking system. In the near term we can be reasonably confident that branch banks and trust companies similar to those we know today will continue to exist. However, there is a possibility that the computerization of financial transactions may dramatically change the nature of the banking system by the 1980's. This possibility is not reflected in our estimates because it would be pure conjecture.

As indicated above, these limitations are unavoidable because to overcome them would require knowledge of the future. But, the reader should bear them in mind when reading the report and interpreting the projections.

B. DEVELOPMENT FRAMEWORK

The remaining sections of this chapter discuss some of the important aggregates for the Charlottetown area for the forecast period. These are the population, labour force, personal income, and land area.

Some explanation as to how these variables were projected is required at this point. Initially, they were projected on the basis of past trends modified where appropriate for anticipated developments. We then projected the development of each sector of the economy based on our evaluation of each of the roles. We then revised our initial projections as necessary.

Only the final projections are presented. They reflect the anticipated development of each role and the consequent impact on other sectors of the economy. The projections in the following sections are related to past trends. It must be stressed that these relationships were not the sole basis for the projection. The relationships are presented to assist in the evaluation and interpretation of the projections.

C. POPULATION GROWTH

1. Past Growth

The population growth in the province and in the study area for the period from 1941 to 1971 is shown in Table 2. The population of the province grew from 95,000 in 1941 to 111,600 in 1971. This is an average annual growth of 0.54 per cent for the period.

The population of the Charlottetown area has grown from 17,400 in 1941 to 25,800 in 1971. This is an average annual growth of 1.32 per cent. Thus, the study area population has grown more than twice as fast as that of the province. As a result, the study area includes an increasing proportion of the provincial population. In 1971 it was 23.1 per cent of the total, up from 18.3 per cent in 1941.

2. Projected Population

There are several possible ways of projecting population

TABLE 2

POPULATION GROWTH OF THE GREATER CHARLOTTETOWN URBAN AREA AND PRINCE EDWARD ISLAND, 1941 TO 1971

YEAR	PRINCE EDWARD ISLAND		GREATER CHARLOTTETOWN URBAN AREA		
	Population (000)	Average Annual Growth Rate (per cent)	Population (000)	Average Annual Growth Rate (per cent)	Proportion Of Provincial Population (per cent)
1941	95.0	-	17.4	-	18.31
1951	98.4	0.4	20.4	1.6	20.70
1956	99.3	0.2	21.5	1.1	21.70
1961	104.6	1.0	23.1	1.4	22.08
1966	108.5	0.7	24.4	1.1	22.48
1971	111.6	0.6	25.8	1.1	23.12

Source: Statistics Canada 1971 Census Data and Stevenson & Kellogg Calculations.

growth. The most satisfactory one for an urban area of the size of Charlottetown is the ratio method. This method forecasts the Charlottetown population as a percentage of the population of a larger area, such as the province.

Figure 1 shows the relationship of the study area population to the provincial population for the 1951-1971 period. If this relationship were maintained, the Charlottetown area would account for just over 26 per cent of the provincial population in 1986.

We do not expect the historical relationship to continue unchanged. Prince Edward Island did not experience the same degree of urbanization as other parts of the country during the 1950's and 1960's. So we expect a greater degree of urbanization over the next 15 years. We feel that the development plan and the development opportunities will assist this process. The relationship we expect over the next 15 years is also shown in Figure 1. It indicates that the Charlottetown urban area will encompass 30 per cent of the provincial population in 1986.

To get a population projection for the Charlottetown area using the ratio method also requires a forecast of the provincial population. Population projections for the province are available from Statistics Canada. The projections are based on the 1971 census data and are made using the component method. The component method forecasts the population using projections of the fertility, mortality, and net migration rates. It is not a very accurate method for an area of the size of Charlottetown because the results are very sensitive to the estimates of net migration. This problem is less serious for an area of the size of the province.

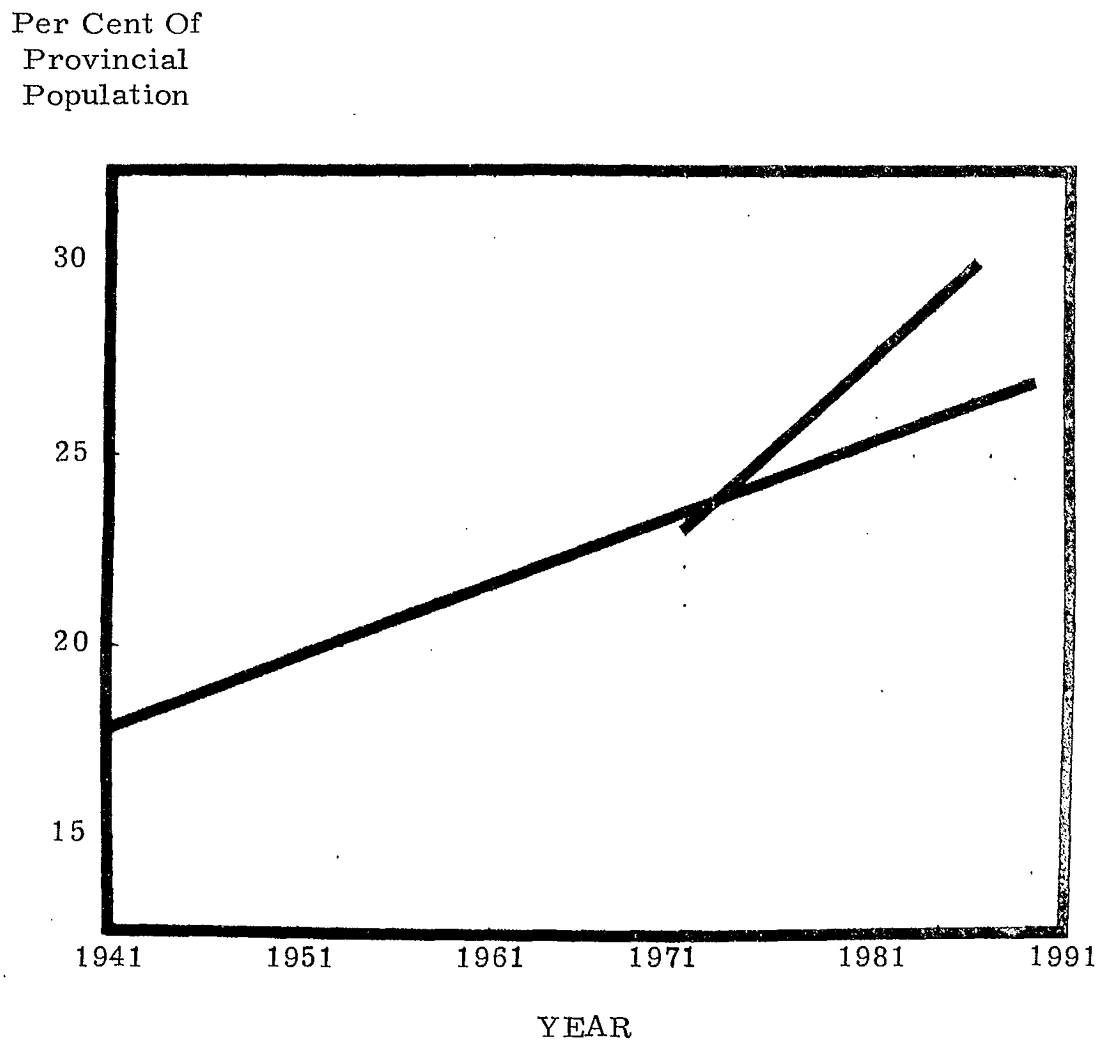
The Statistics Canada projections assume a net out-migration rate of 4.55 per thousand. The projections are:

1976 - 113,300

1981 - 114,700

FIGURE 1

RELATIONSHIP OF THE GREATER CHARLOTTETOWN URBAN AREA POPULATION TO THAT OF THE PROVINCE



We have estimated that the provincial population in 1986 will be 116,200.

Using the relationship shown in Figure 1, the population of the Charlottetown study area is projected to grow from 26,200 in 1971 to 34,900 in 1985. This is an average annual growth rate of 1.93 per cent over the period. This is much faster that the 0.27 per cent average annual growth anticipated for the province as a whole. It is also faster than the historical rate of population growth of the Charlottetown area--1.32 per cent.

The development opportunities study deals with the periods 1972-1975, 1975-1980 and 1980-1985. Using the estimates given above, the population of the Charlottetown area for the these periods is as follows:

Year	Population ('000)	Population Increase Total	Population Increase Per Year
1972	26.7		
1975	28.2	1,500	500
1980	31.2	3,000	600
1985	34.2	3,000	600

These projections might be considered slightly optimistic, but for the purposes of our study it is probably best to use a slightly optimistic forecast. If the optimistic population can be accommodated, a slightly smaller population can also be accommodated. The opposite situation (actual population greater than forecast) is not as easy to handle.

D. LABOUR FORCE

1. Past Growth

The labour force growth in the province and in the Charlottetown urban area for the period 1951 through 1972 is given in Table 3. The provincial labour force grew from 34,000 in 1961 to 40,000 in 1972. This represents an average

TABLE 3

LABOUR FORCE OF PRINCE EDWARD ISLAND AND THE GREATER CHARLOTTETOWN URBAN AREA 1951 TO 1972

	Labour Force			Labour Force Growth Rates			Labour Force Participation Rates		
	1951	1961	1972	1951-61	1961-72	1951-72	1951	1961	1972
Prince Edward Island									
Male		26.0	26.0					49.2	46.1
Female		8.0	14.0		5.2			15.4	25.2
TOTAL		34.0	40.0		1.5			32.5	35.7
Greater Charlottetown Urban Area									
Male		5.0	5.3		0.6			43.1	40.2
Female		2.4	4.2		5.2			29.9	32.1
TOTAL	6.4	7.4	9.5	1.4	2.3	1.9	31.3	32.0	36.1

Source: Statistics Canada, Cat. No. 71-001 and Stevenson & Kellogg, Ltd. Estimates.

annual increase of 1.5 per cent. The labour force of the Charlottetown area grew from 6,400 in 1951 to 9,500 in 1972, an average annual rate of growth of 1.9 per cent.

Table 3 also gives the labour force participation rates. In this case the participation rate is simply the labour force expressed as a percentage of the corresponding population. For example, the male labour force of the province in 1972 represented 46.1 per cent of the total male population. These participation rates are lower than those calculated by Statistics Canada because their rates are calculated as a percentage of the population age 14 and over. The difference is not important for our purposes. The trends are the same. The male participation rates are declining due to the increasing popularity of higher education and the trend toward earlier retirement. However, the female participation rates have been rising more rapidly because fewer married women are content to remain housewives. The result has been a gradual increase in the overall participation rate. These are national trends and we anticipate that they will continue through 1985.

2. Related Matters

The labour force data presented in Tables 3 and 4 require some explanation. The data for 1951 and 1961 are based on census returns and we have attempted to make our 1972 estimates comparable. Each figure is the number of persons resident in the specified area who are members of the labour force at the time of the census. Thus, the figures include both persons employed and persons looking for work.

More significantly, the figures do not give an indication of where these persons work. It is likely that most residents of the Charlottetown area also work in the area. However, there are many people who work in the area but live in the surrounding rural areas. The figures, then, understate the number of jobs in the area. Based on our survey, the extent of the under-estimate is currently about 5 or 6 per cent.

TABLE 4

SECTORAL COMPOSITION OF THE LABOUR FORCE OF THE GREATER CHARLOTTETOWN URBAN AREA 1951 - 1985

Sector	1951		1961		1972		1985	
	No.	%	No.	%	No.	%	No.	%
Primary Industries	121	1.9	63	0.9	50	0.5	30	0.2
Manufacturing	758	11.9	877	11.8	1,080	11.4	1,400	10.5
Construction	526	8.3	609	8.2	740	7.8	950	7.1
Transportation	808	12.7	818	11.0	890	9.4	1,050	7.9
Retail Trade	1,064	16.7	1,424	19.2	1,950	20.5	3,050	22.9
Wholesale Trade	386	6.0	445	6.0	330	3.5	350	2.6
Finance, Insurance, and Real Estate	230	3.6	253	3.4	360	3.8	500	3.8
Community, Business, and Personal Services	1,757	28.0	2,121	28.5	2,540	26.7	3,800	28.6
Public Administration	584	9.2	673	9.0	1,400	14.7	1,900	14.3
Not Stated	109	1.7	147	2.0	160	1.7	270	2.0
TOTAL	6,373	100.0	7,430	100.0	9,500	100.0	13,300	100.0

Source: Dominion Bureau of Statistics, Census of Canada 1951 and 1961.
Stevenson & Kellogg, Ltd. estimates and projections.

That is, the number of jobs in the Charlottetown area is about 10,000 but only 9,500 residents of the area are in the labour force.

We are keenly aware that the Charlottetown area experiences relatively high rates of unemployment. There is also evidence that a significant portion of the employment is of a seasonal nature. These are not matters of direct concern for the study. But they have had an influence in shaping the study. Realization of the development opportunities available may help to reduce the rate of unemployment. And to the extent that the development opportunities provide year-round employment, the seriousness of the seasonality problem will also be reduced. We will comment on these matters as appropriate in the context of the various opportunities.

3. Future Growth And Sectoral Composition

We studied the trends in labour force participation rates and in the age structure of the population. From this we concluded that participation rates would continue to rise at least until 1985. The 1985 participation rate for the Charlottetown area was estimated at 39.0 per cent.

Given the projected population of the Charlottetown area in 1985 of 34,200, the participation rate provides a resident labour force of about 13,300. This implies that the area's labour force will grow at an average annual rate of 2.6 per cent until 1985. This is only slightly faster than the rate achieved during the past decade. It is the result of the relatively high rate of population growth projected combined with the increase in the participation rate.

Table 4 gives the sectoral composition of the labour force. It includes historical data for 1951 and 1961, estimates for 1972 and projections for 1985.

The labour force in all sectors, except the primary industries, has been increasing in absolute terms. The primary industries include agriculture, forestry, fishing, and mining.

It is very common for the number of persons employed in these sectors to decline as the remaining farmland within the city boundaries is converted to urban uses. We expect that there will be a further decline in the number of persons in this sector of the labour force.

Construction, transportation and, more recently, wholesale trade, have suffered relative declines in their share of the labour force. These declines are at least partly due to technological changes in those sectors. The construction industry is making greater use of synthetic materials and prefabricated components. Capacities of most transportation vehicles--railway cars and truck trailers--are increasing and handling requirements are being reduced by containerization. The situation in the wholesale trade sector is more complex. The increasing size and chain organization of retail outlets is reducing the need for local wholesalers. At the same time, warehouse mechanization and improved transportation scheduling favour fewer and larger warehouses. We anticipate that these relative declines will continue.

Manufacturing and finance, insurance and real estate, have approximately maintained their shares of the labour force. We project that this will continue to be the case for the latter sector. Unfortunately, we do not expect that the Charlottetown area will be able to generate additional manufacturing employment at a rate of 2.6 per cent per year. Thus, its share of the labour force is forecast to decline. The decline is from 11.4 per cent of the labour force in 1972 to 10.5 per cent in 1985. This still requires an average annual increase in manufacturing employment of 2 per cent--a slightly higher rate than has been achieved in the past.

The largest sectors of the labour force in the Charlottetown area are community, business, and personal services, retail trade, and public administration. These sectors have also increased their shares of the area's labour force. Essentially, we expect these trends to continue.

The foregoing is a very cursory review of the projected changes in the area's labour force to 1985. The analysis and assumptions underlying these changes are discussed in more detail in the relevant sections of the report.

E. PERSONAL INCOME

1. Past Growth

Personal income data are not published for sub-provincial areas. Thus, this section will deal with personal income for the province as a whole. As a general rule, however, personal income per capita tends to be higher in urban areas than rural areas. This is probably true of Prince Edward Island as well.

Personal income per capita and personal disposable income per capita for the period 1951 to 1971 are presented in Table 5. Personal income per capita increased from $653 in 1951 to $971 in 1961 and to $2,188 in 1971. The average annual increase during the latter decade was 8.5 per cent. The personal income per person in Prince Edward Island has increased from 54.5 per cent of the Canadian average in 1951 to 64.3 per cent in 1971.

Personal disposable income is equal to personal income less personal taxes. Thus, it might be expected to display similar patterns to that of personal income. This is indeed true. Personal disposable income per capita grew from $622 in 1951 to $914 in 1961 and to $1,920 in 1971. The average annual increase during the latter decade was 7.7 per cent. Personal disposable income per person in the province increased from 56.5 per cent of the Canadian figure in 1951 to 69.7 per cent in 1971.

Personal income is the sum of five components:

- wages, salaries, and supplementary labour income;
- net income of farm operators from farm production;

TABLE 5

PERSONAL INCOME AND PERSONAL DISPOSABLE INCOME IN PRINCE EDWARD ISLAND 1951-1971

Year	Personal Income	Per Capita		Share Of Canadian Average	
		Personal Income	Personal Disposable Income	P.I. Per Capita	P.D.I. Per Capita
1951	64	653	622	54.5	56.5
1956	85	859	818	58.7	61.8
1961	102	971	914	58.8	62.0
1966	151	1,385	1,247	60.1	62.6
1971	245	2,188	1,920	64.3	69.7
		GROWTH RATES			
	%	%	%		
1951-61	4.8	4.1	3.9		
1961-71	9.2	8.5	7.7		
1951-71	7.0	6.2	5.8		

Source: Statistics Canada, National Income and Expenditure Accounts, Historical Revision 1926-1971, Ottawa, mimeo 1972, Tables 35, 36, and 37, and Table 1 above.

- business income;
- interest, dividend, and investment income;
- government transfer payments to persons.

The first component is the largest and has accounted for most of the increase. In 1951, wages and salaries accounted for 39.1 per cent of the province's personal income. By 1971 this had risen to 54.7 per cent. During this period, total wages and salaries (in current dollars) have grown at an average rate of more than 8 per cent per year. The only other component to increase its share during this period was government transfer payments. They grew from 12.9 per cent of the total in 1951 to 20.0 per cent in 1971. The current dollar value of these payments has grown at over 9 per cent per year.

The interest, dividend, and investment income share has remained approximately constant--6.3 per cent in 1951 and 6.1 per cent in 1971. The growth described above has been achieved at the expense of a small decline in the share of business income and a very large decline in the share of farm income. The former declined from 14.1 per cent in 1951 to 10.6 per cent in 1971; the latter from 24.2 per cent in 1951 to 2.9 per cent in 1971. Despite the decline in its relative importance, the current dollar value of business income grew at an average annual rate of about 5.5 per cent. The current dollar value of farm income declined at an average rate of almost 3 per cent per year.

2. Income Distribution

In addition to the total income, the distribution of income is of some interest. The most recent statistics available on income distribution are compiled from income tax returns for 1970. In 1970, a total of 36,805 returns were filed by residents of the province. The total income reported was $136.7 million. This is 59.7 per cent of the estimated personal income. This is due to the fact that some types of income, such as investment income, are not reported for tax purposes, and that some individuals do not need to file returns.

The distribution of income based on the returns for the 1970 tax year is shown in Table 6. It reveals that 51.7 per cent of all returns reported gross incomes below $3,000, and 76.7 per cent of all returns reported gross incomes below $5,000. The corresponding figures for Canada are 33.7 per cent and 54.2 per cent.

The table also presents the data in more meaningful form. Here, the returns filed by members of the same family are combined to give family income. After this has been done, we find that 30.0 per cent of the families and unattached individuals had a gross income of less than $3,000 and 53.4 per cent had a gross income of less than $5,000. The corresponding figures for Canada are 19.2 per cent and 32.1 per cent.

It is obvious from these data that Prince Edward Island has a very high percentage of low income individuals and families. This holds implications for the retail trade, and service sectors.

3. Future Growth

Figure 2 shows the growth in personal income per capita in Prince Edward Island over the past decade. The growth has been rapid and sustained except for the recessionary periods at the beginning and end of the decade.

Figure 2 also shows that the personal income per capita would be $6,200 in 1985 if the trend of the past decade were maintained. The personal income figures are in current dollars, so a trend projection implicitly assumes that inflation will continue at the same rate as during the sixties. The average annual rate of inflation from 1961 to 1971, as measured by the GNP implicit price deflator, was 3.3 per cent.

We expect that the rate of inflation in the future will be higher. Specifically, we estimate that the average annual increase in the implicit price deflator to 1985 will be 4.0 per cent. We also expect that the impact of the development plan will be to maintain the rate of growth of real personal income achieved during the sixties. This rate of growth was

TABLE 6

INDICATORS OF INCOME DISTRIBUTION IN CANADA AND PRINCE EDWARD ISLAND

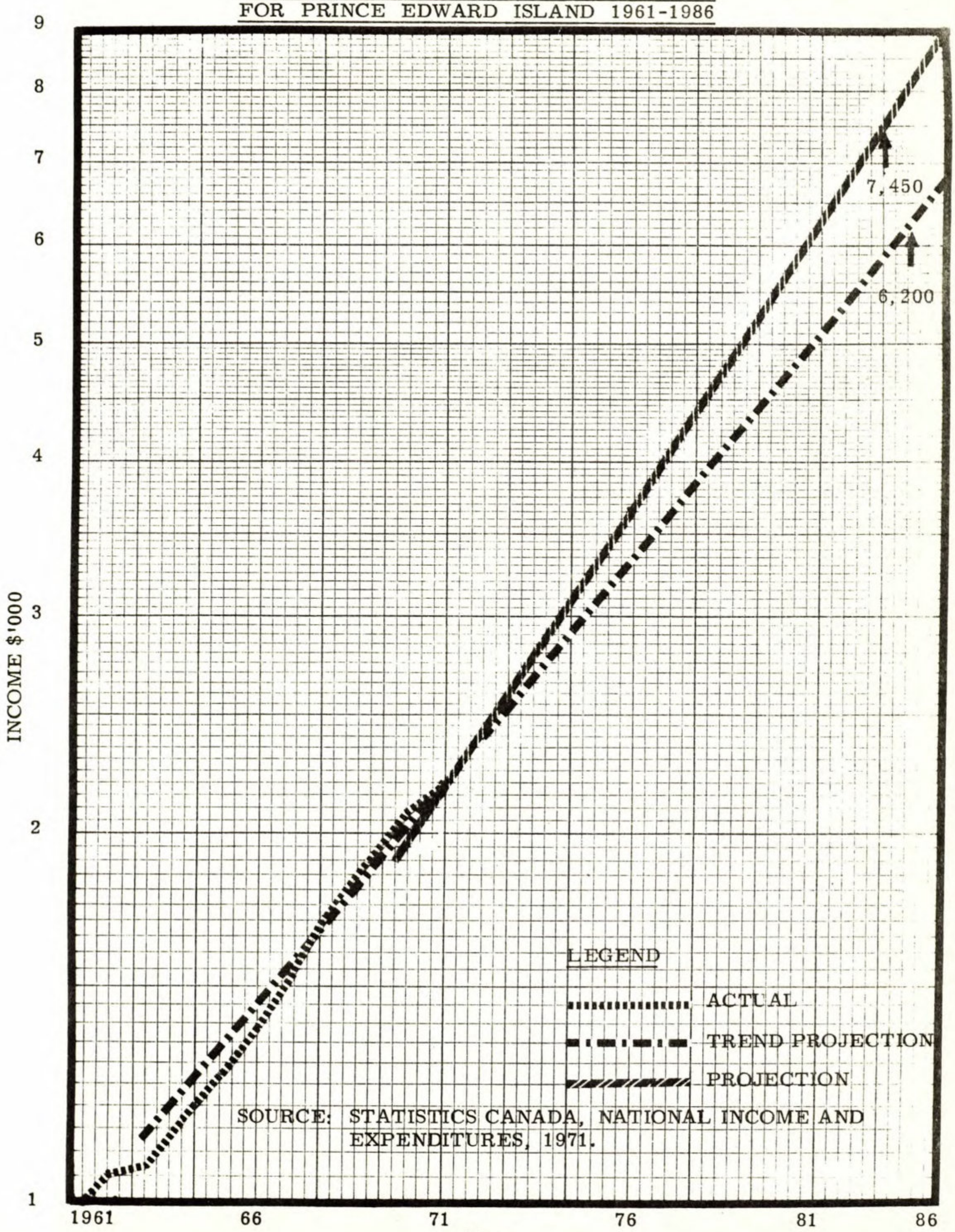
1970

Income Class	All Families And Unattached Individuals		All Income Tax Returns Filed	
	Prince Edward Island	Canada	Prince Edward Island	Canada
$	%	%	%	%
Under 1,000	4.0	5.5	17.0	10.6
1,000 - 1,999	15.1	7.8	17.9	12.2
2,000 - 2,999	10.9	5.9	16.5	10.9
3,000 - 3,999	12.6	6.9	14.6	10.7
4,000 - 4,999	10.8	6.0	10.3	9.8
5,000 - 5,999	8.9)	6.3)	12.2	9.0
6,000 - 6,999	5.6)	6.6)		8.2
7,000 - 7,999	4.7)	6.5)		7.3
8,000 - 8,999	6.9)	7.0)	7.0	5.5
9,000 - 9,999	6.3)	6.3)		4.1
10,000 - 11,999	8.2)	11.2)	3.0	5.0
12,000 - 14,999	3.9)	11.2)		3.2
15,000 - 24,999	1.8)	10.7)	1.6	2.5
25,000 and over	0.4)	2.0)		0.9
TOTAL	100.1	99.9	100.1	99.9
Average Income	$5,831	$8,643		
Median Income	$4,589	$7,757		
Sample Size	261	20,822	37,046	9,183,407

Source: Statistics Canada Cat. No. 13-206, 1971, and Department of National Revenue - Taxation, Taxation Statistics.

FIGURE 2

GROSS PERSONAL INCOME PER PERSON
FOR PRINCE EDWARD ISLAND 1961-1986



higher than the Canadian average. Thus, we must adjust the trend projection of personal income for the higher rate of inflation. This is done in Figure 2.

The projected personal income per capita in 1985 is $7,450. This is an average annual increase of 9.1 per cent. The personal disposable income in 1985 is estimated at $6,300, giving an average annual increase of 8.9 per cent.

F. LAND REQUIREMENTS

As the population of a city increases, several changes in the land use occur. Specifically:

- the area devoted to each of the major uses increases;
- the population density for each major category of land use increases;
- the percentage distribution of land among the major uses changes.

We have projected that the population of the Charlottetown area will increase from 25,800 in 1971 to 34,200 in 1985. Table 7 shows the changes in land use typically associated with such a change in population.

The residential and commercial categories are straight forward. The industrial category includes manufacturing, warehousing, utilities, railyards, airports, and expressways. The "other" category includes institutional uses, parks, and public open space. The numbers represent the gross acreage actually devoted to the various uses. The gross acreage includes the space occupied by adjacent streets.

TABLE 7

CHANGE IN LAND USE REQUIREMENTS FOR A POPULATION INCREASE FROM 25,800 TO 34,200 FOR THE GREATER CHARLOTTETOWN URBAN AREA AND TYPICAL ONTARIO COMMUNITIES

Land Use Category	Greater Charlottetown Urban Area		Typical Ontario Communities	
	Gross Acres	%	Gross Acres	%
Residential	450	64.0	380	54.3
Commercial	50	7.0	35	5.0
Industrial	90	13.0	135	19.3
Other	110	16.0	150	21.4
TOTAL	700	100.0	700	100.0

Source: Calculated from Sinclair, M. H., Urban Land Use In Ontario, Toronto, Department of Municipal Affairs.

It is estimated that an additional 700 acres of land will need to be developed to accommodate the growth of the Charlottetown area. Most of this additional land--450 gross acres--will be required for residential purposes. Institutional and open space needs will increase by about 110 gross acres. An additional 90 acres will be required for commercial purposes. Industrial purposes will require 50 acres. In these latter categories, land use distribution in the Charlottetown area differs from the pattern typical of Ontario communities. The reason being the importance of the tourist industry, the provincial government administrative services, and other service activities to the Charlottetown area. The result is a relatively larger increase in the developed commercial area and a relatively smaller increase in the developed industrial area.

The data in Table 7 must be interpreted carefully. They represent the estimated net increase in the developed area in each category. In addition to these net increases, some areas will need to be redeveloped. Furthermore, a reasonable supply of useable but vacant land must be maintained. This is necessary to provide a choice of locations and to prevent excessive increases in land costs. A thirty per cent vacancy rate is considered sufficient for such purposes.

The other changes in land use patterns are relatively minor for the scale of development projected for the Charlottetown area. The distribution of developed land among the various uses in 1985 will be very similar to that shown in Table 7. Specifically:

Residential	-	64%
Commercial	-	7%
Industrial	-	13%
Other	-	16%

There will be very little change in this distribution over the next 12 years. Likewise, little change is anticipated in the density of development. The overall population density will increase from about 10.1 persons per gross acre to 10.4 persons per gross acre. The density of residential development will increase from about 18.0 to about 18.8 persons per gross acre of residential development. These are insignificant changes.

III

REGIONAL AND PROVINCIAL SERVICE CENTRE OPPORTUNITIES FOR THE CHARLOTTETOWN AREA

A. INTRODUCTION

The development potential of the Charlottetown area was studied in the context of four possible "roles". These are:

- a regional and provincial service centre role;
- a light manufacturing and resource support industry role;
- a tourist centre role;
- a convention, seminar, and continuing education centre role.

This chapter deals with the first role. It is in some respects the most difficult of the roles to assess. It covers a very broad range of activities--broader than any of the other roles. It includes the following sectors:[1]

- construction;
- transportation, communications and utilities;
- retail trade;
- wholesale trade;

[1] Economic activities are often divided into "goods-producing" and "service-producing" sectors. In this framework the construction industry is classified as goods-producing. All of the other sectors, save housing, are classified as service-producing. The provision of housing is typically not isolated as a separate economic sector. We will refer to all of these activities as services.

- finance, insurance and real estate;
- community, business and personal services;
- public administration; and
- housing.

The fact that these are services also contributes to the difficulty. In order to export services, either the person providing the service must travel outside the area -- which is typically the case with consultants -- or the person purchasing the service must travel into the area -- which is typically the case for retail trade and personal services. Thus, an accurate assessment of the services exported requires a division of sales between residents and non-residents or comprehensive data on consumption patterns. Neither is available.

Many of the service activities have large non-basic components. So in addition to estimating changes in the basic components of these services we must estimate the impact of the projected changes resulting from all four roles on the non-basic components. We must also attempt to identify new activities or "import-substitution" possibilities for the Charlottetown area.

It is obvious from the data on the sectoral composition of the labour force that the Charlottetown area is now a major service centre for the province. This will become even more evident from the material presented in the remainder of this chapter. It is also obvious from the projected changes in the sectoral composition of the labour force that we expect that the Charlottetown area will continue to fulfill this rôle.

B. CONSTRUCTION

1. Capital Spending

Construction activity is a function of the nature and extent of capital investment spending. There are two general types of capital expenditures -- construction and machinery and equipment. The division of total capital spending between these two categories changes from sector to sector.

Table 8 shows construction as a percentage of capital expenditures in various sectors in Prince Edward Island. It constitutes a relatively high percentage in the housing; institutional services and government departments; and utilities sectors. In the primary industries and construction, manufacturing, and trade finance and commercial services sectors, over half of the capital expenditure is used to purchase machinery and equipment.

This division of capital expenditures between these two categories is important because they have a vastly different impact on the provincial economy. Most of the machinery and equipment is purchased outside the province. Hence, very little benefit is derived from such spending. Construction spending, however, generates substantial local employment. The associated wages are spent locally and hence generate additional income.

The construction sector, then, is affected both by the level of capital investment and by the sectoral distribution of this investment. The level of capital spending in the province during the past decade is presented in Table 9. Total capital spending increased from about $56 million in 1968 to $87 million in 1972. This is an average annual rate of increase of 11.6 per cent.

This high rate of growth of capital investment has two components. Investment in housing has nearly tripled, and investment by institutions and government agencies has nearly doubled. In both cases, the increase can be traced to the Development Plan.

2. Construction Industry

There are an estimated 135 construction firms in Prince Edward Island. Over half -- 75 -- are located in the Charlottetown area.

TABLE 8

CONSTRUCTION AS A PERCENTAGE OF CAPITAL INVESTMENT SPENDING IN PRINCE EDWARD ISLAND

1966 AND 1971

Sector	1966	1971
Primary Industries & Construction	14.6	4.1
Manufacturing	43.5	31.8
Utilities	65.3	67.1
Trade, Finance & Commercial Services	55.6	23.5
Housing	100.0	100.0
Institutional Services & Government Departments	78.2	73.2
TOTAL	63.1	66.7

Source: An Overview of the Prince Edward Island Economy, draft, Charlottetown, Department of Development, 1973, Table 11, page 66.

TABLE 9

TOTAL CAPITAL INVESTMENT IN PRINCE EDWARD ISLAND

1961-72
($ MILLION)

	Avg. 1961-65	1966	1967	1968	1969	1970	1971	1972
Primary Industries & Construction	12.1	16.4	16.0	14.7	14.6	17.8	14.7	14.7
Manufacturing	1.8	2.3	2.5	2.9	2.3	2.3	2.2	2.0
Utilities	5.6	4.9	7.3	7.2	5.7	5.2	7.6	7.7
Trade, Finance & Com. Svcs.	6.0	3.6	4.0	4.3	5.5	3.3	3.4	4.1
Business Investment	25.5	27.2	29.8	39.1	28.1	28.6	27.9	38.5
Housing	9.1	9.3	9.9	9.6	14.2	17.5	28.5	26.7
Institutional Services & Government Departments	23.0	33.9	20.0	17.4	17.3	26.1	29.5	31.9
Social Investment	32.1	43.2	29.9	27.0	31.5	43.6	58.0	58.6
TOTAL	57.6	70.4	59.7	56.1	59.6	72.2	85.9	87.1

Source: An Overview of the Prince Edward Island Economy, draft, Charlottetown, Department of Development, 1973, Table 8, page 61.

At the same time about 740 residents of the area were employed or usually employed in the construction industry. Assuming they are employed by the local firms gives an average of about ten employees per firm.

There is relatively little information available on the geographic distribution of the capital expenditures. For the three years 1970 through 1972, 750 (33 per cent) of the 2,271 housing starts in the province were in the Charlottetown area. Much of the institutional and government investment has been located in other parts of the province. It appears that the Charlottetown area may be a net exporter of construction services to other parts of the province.

3. The Future

The viability of the construction industry in recent years has been primarily due to government activity. The growth in investment spending has been due to the programs of the development plan. These programs have managed to stimulate investment in the sectors where they provide the greatest stimulus to the construction industry.

The social sector capital investment per capita in Prince Edward Island is currently 15 to 20 per cent above the Canadian average. This is not likely to be continued for another 13 years. Further, in view of the relative growth projected for the Charlottetown area (+ 7,500 persons) and the rest of the province (- 2,900 persons) a much higher percentage of the social sector investment is expected to occur locally. Finally, the stimulus received by the business sector will lead to less construction intensive investment.

The implications are manifold. First the rate of growth of investment spending will decline. Second, the rate of growth of construction spending will decline further because a greater percentage of the spending will go for machinery and construction. Third, the non-basic component of the construction activity will increase because more of the work will be local. Finally, when technological change is taken into account, the employment growth will be relatively modest.

Specifically, we expect that capital investment spending will grow at about 9.7 per cent per year to $290 million in 1985. About 60 per cent of this ($175 million) will be for construction, implying that construction spending in the province will grow at about 8.3 per cent per year. The constant dollars growth will be about 4.1 per cent per year. In other words, the $290 million of capital investment in 1985 will be equivalent to about $174 million in 1972. Due to the higher relative growth of construction activity in the Charlottetown area, we expect that the constant dollar value of the work done by local firms will grow at a rate of 4.4 per cent per year.

We expect that change in building materials and construction practices will produce productivity gains averaging about 2.5 per cent per year. Thus, we anticipate construction sector employment growth in the Charlottetown area of 1.9 per cent per year. On this basis the labour force engaged in construction activity is estimated to grow from 740 in 1972 to 950 in 1985.

Construction is a seasonal activity. In recent years, the industry has devised means of reducing the extent of the seasonality. Further efforts along these lines should be encouraged. The provincial government is in an excellent position to do this in Prince Edward Island. As we have seen its programs influence a major share of the construction activity. Modification of these and future programs to stimulate work during the off-season should be considered.

C. TRANSPORTATION, STORAGE, COMMUNICATIONS AND UTILITIES

1. The Present Situation

Appendix A presents a classification of the transportation, storage, communications and utilities firms in the Charlottetown area, and a similar classification of firms in the Halifax-Dartmouth area. The number of firms in each category is as follows:

Category	Greater Charlottetown	Metropolitan Halifax-Dartmouth
Transportation	36	180
Storage	3	19
Communications	5	13
Utilities	5	5
	49	217

In most cases, we feel a rule-of-thumb of one-to-five is appropriate when comparing these areas. It holds for the transportation sub-sector, but not for the others.

Based on our survey we estimate that the labour force of this sector resident in the Charlottetown area was 890 in 1972. This is only a very modest increase from the 1951 figure of 808.

The reason for the low rate of employment growth is the trend toward greater capital intensity in almost all industries within this sector. The railways are improving their signalling systems, computerizing many aspects of their operations and increasing the capacities of their freight cars. Similarly, the capacities of trucks are increasing. In both cases, containerization is reducing the handling requirements. Storage facilities are becoming larger and more mechanized. The communications and utilities industries are also adopting procedures that tend to reduce labour requirements.

We have no data with respect to the extent that the Charlottetown area provides such services to other parts of the province. Typically, however, the basic component of such activities is relatively small. The exceptions are major railway centres. The basic component in Charlottetown's case consists of trucking and bus services, radio and television service and electric and telephone services.

2. The Future

Based on our comparison of the Charlottetown and Halifax-Dartmouth areas, there appear to be a few industries that are under-represented. These are:

- moving and storage companies;
- bus charter services;
- heavy hauling movers; and
- refrigerated storage facilities.

In each case there appears to be scope for one additional firm.

We expect that the rate of technological change in this sector will be reduced from about 4.0 per cent during the sixties to about 3.5 per cent in the future. The demand, in constant dollar terms, will grow at a slightly faster rate due to the increasing centralization of the provincial population in the Charlottetown area.

The result is a slightly higher rate of labour force growth than in the recent past. Specifically, a projected average annual increase of 1.3 per cent compared to a historical average of 0.8 per cent during the 1961-72 period. This yields an estimated labour force of 1,050 in the transportation, storage, communications and utilities for the greater Charlottetown area in 1985.

D. RETAIL TRADE

1. Island Trade

Table10gives retail sales by category in Prince Edward Island for the years 1961 through 1970. Total sales increased from $78.8 million in 1961 to $130.2 million in 1970. This is an average annual increase of about 5.8 per cent.

Retail sales fell from 78 per cent of personal income in 1961 to 69 percent in 1970. This indicates that higher percentages of total personal income were being devoted to taxes and non-retail items such as services. This pattern is typical of areas with rising per capita real incomes.

There are three major categories of retail trade -- food, automotive and general merchandise. Sales in these categories were as follows:

	Million	
	1961	1970
General merchandise	$22.5	$34.0
Automotive	24.5	33.3
Food	16.7	30.6
	$63.7	$97.9

In 1961, these categories accounted for 80 per cent of all retail sales. By 1970, this had declined to 75 per cent. This pattern again is typical of areas with rising real per capita incomes.

TABLE 10

RETAIL TRADE, BY KIND OF BUSINESS FOR PRINCE EDWARD ISLAND 1961, 1966, 1970

GROUP	1961		1966		1970
	Number	Sales $'000	Number	Sales $'000	Sales $'000
Food	312	16,700.8	328	25,465.4	30,650
General Merchandise	130	22,521.9	99	27,844.6	33,973
Automotive	235	24,501.7	255	33,079.2	33,273
Apparel and Accessories	49	3,410.7	59	4,664.7	5,619
Hardware and Home Furnishings	46	3,141.6	45	2,854.8	2,097 [1]
Other Retail Stores	95	8,524.3	120	13,732.8	24,557
TOTALS	867	78,801.0	906	107,641.5	130,169

Source: Statistics Canada Catalogue No's 97.602, Vol. V1 (6-2) April 1969, 97-501, Vol. 6 Part 1. Retail Trade - 1970.

---

[1] 1970 figure is Furniture, T.V. and Appliance store sales only.

Table 11 gives a breakdown of retail stores by location and sales volume for 1971. It indicates that the retail outlets in the province are generally small. Over half the firms for which sales data are available had sales of less than \$100,000. Another 32.5 per cent of the outlets had sales of \$100,000 to \$300,000. Only 8 per cent of the stores had sales over \$300,000.

As expected, the larger population centres have most of the stores. The Charlottetown area has 28.6 per cent, Summerside has 11.5 per cent, and Montague has 5.0 per cent. But this does not tell the whole story. The 376 stores in these three centres include 52 of the 74 large (sales over \$300,000) outlets. Thus, the larger retail outlets are heavily concentrated in the larger communities.

2. Retail Trade In The Charlottetown Area

We undertook a survey of retail outlets in the Charlottetown area. Some of the results of this survey are presented in Appendix B. It revealed that retail stores employed--including owners and members of their families--some 2,000 persons. Some of these persons do not live in the Charlottetown area. The labour force of the Charlottetown area engaged in the retail trade sector is estimated at 1,950. This makes it the second largest sector in the area's economy after community, business and personal services. The importance of the retail sector to the Charlottetown area's economy, then, is quite evident.

The retail sales of the Charlottetown area are shown below:

TABLE 11

RETAIL TRADE BY LOCATION AND SIZE OF BUSINESS IN PRINCE EDWARD ISLAND 1971

LOCATION	SALES: Less Than $100,000	SALES: 100,000 To $300,000	SALES: Over $300,000	SALES: Not Available	Totals
PRINCE COUNTY					
Alberton	12	5	2	2	21
Kensington	10	7	3	5	25
Miscouche	2	3	-	1	6
O'Leary	11	10	3	1	25
St. Eleanors	6	4	-	-	10
Summerside	41	28	15	12	96
Tignish	6	2	1	-	9
Remainder	71	29	5	7	112
	159	88	29	28	304
KINGS COUNTY					
Georgetown	4	2	-	-	6
Montague	22	11	7	1	41
Murray River	6	2	-	-	8
Souris	9	7	4	3	23
Remainder	50	16	1	2	69
	91	38	12	6	147
QUEENS COUNTY					
Charlottetown	99	87	30	33	249
North Rustico	1	2	-	-	3
Other	97	31	3	12	143
	187	120	33	45	385
TOTALS	447	246	74	79	846

Source: Dun & Bradstreet Report - December, 1972, and Stevenson & Kellogg Survey.

Year	Retail Sales In Charlottetown[1]
	$'000
1967	35,890
1968	37,877
1969	38,465
1970	41,376
1971	45,993
1972	49,863

They have been growing at a rate of about 6.8 per cent per year. This is slightly faster than the provincial rate of 5.8 per cent. Hence, Charlottetown accounts for an increasing percentage of the province's retail sales. This percentage is now about 34.

Table 12 shows the retail sales and space for the Charlottetown area. The total occupied retail space in 1972 was 890,753 sq. ft. This was distributed among five major areas as follows:

---

[1] These data were provided by the publishers of Sales Management magazine from past issues of their annual survey of Buying Power. The eating and drinking category has been deducted from their total sales figure because it is not part of the retail trade sector by our definition.

The area covered in each year is that included in the Statistics Canada definition, i.e. the City of Charlottetown.

TABLE 12

RETAIL SALES AND SPACE BY CATEGORY IN THE GREATER CHARLOTTETOWN URBAN AREA, 1971

	RETAIL SPACE BY AREA (SQUARE FEET)						Retail Sales ($1,000)	Sales Per Square Foot	Estimated Space Requirements (Square Feet)	Difference
	Downtown	K-Mart Centre	Royalty Mall	Ellis Brothers	St. Peters Road	Total				
Food Stores	29,733	24,433	17,205	6,600	-	77,971	9,667	95	102,000	- 24,000
General Merchandise	205,898	92,138	34,623	-	-	332,659	11,290	35	322,600	+ 10,000
Apparel	58,430	7,053	4,888	2,232	-	72,603	2,536	55	46,100	+ 26,500
Furniture and Appliances	22,216	5,260	-	-	18,734	46,210	1,041	30	34,700	+ 11,500
Lumber and Hardware	84,790[1]	-	-	-	4,160	88,950	591	8	73,875	+ 15,075
Drug Stores	28,102	-	2,891	-	999	31,992	2,038	60	34,000	- 2,000
Variety Stores	101,974	-	17,795	11,940	-	131,709	4,447	35	127,000	+ 4,700
Gas Stations	19,746	-	-	-	4,136	23,882	5,323	35	15,200	+ 8,600
Automotive Stores	44,982	-	-	-	39,795	84,777	9,060	35	26,000	+ 58,800
TOTAL	595,871	126,884	77,402	20,772	67,824	890,753	45,993		781,475	

[1] Includes 23,500 square feet of space for Parkdale and Southport firms.

	Sq. Ft. ('000)	%
Downtown	595.0	66.8
K-Mart	128.9	14.5
Royalty Mall	77.4	8.7
Ellis Brothers	20.8	2.4
St. Peters Road	67.8	7.6
	890.7	100.0

Over 65 per cent of the retail space is in the downtown area area. The other areas, in order of size, are the K-Mart shopping centre, the Royalty Mall, the St. Peters Road area, and the Ellis Brothers centre. They have 14.5 per cent, 8.7 per cent, 7.6 per cent, and 2.4 per cent of the retail space respectively.

It should be noted that the figures in Table 12 are only for the categories shown. They do not cover all of the space available. For example, the K-Mart shopping centre contains a restaurant and a bank in addition to the retail services shown. These facilities are part of the community, business, and personal service and the finance, insurance and real estate sectors respectively. However, they raise the total space in the shopping centre to 136,884 square feet.

While we do not have complete historical data, we know that the relative position of the downtown area has deteriorated over the past decade. The construction of the K-Mart shopping centre and the Royalty mall have been responsible for this relative deterioration. This is a common occurrence in smaller cities.

The sales per square foot data presented in Table 12 are averages for low volume stores in Canadian shopping centres in 1971. They are used to provide an indication of the adequacy of the current stock of retail space in the Charlottetown area.

The initial impression is that the Charlottetown area has a large amount of retail space relative to its population. Similar communities typically have a total of 20 to 25 square feet of retail space per capita. The Charlottetown area has about 35. This may mean that a large percentage of total sales are made to non-residents. By estimating the retail space required on the basis of sales, this factor is taken into account.

The calculations in Table 12 reveal an overall surplus of retail space. However, the sales volume is sufficient to support some 812,200 square feet of retail space. This is about 31.5 square feet per capita, indicating that a substantial volume of sales is, in fact, made to non-residents. We find that there is excess capacity in all sectors except food stores and drug stores. In most cases, the surplus or shortfall is equivalent to one or two stores. But in the case of apparel and automotive stores, the surplus is equivalent to several stores.

3. Projections

We feel that there is a major opportunity for expansion of the retail trade sector. The basic component of this sector has been growing. We feel that this can continue and indeed grow faster.

However, this potential will only be achieved under certain conditions. First, most of the expansion of retail space must occur within the downtown area. Retail sales are maximized when the potential for impulse sales is maximized. This occurs where the widest variety of goods is available--the downtown area.

This first condition has a number of implications. No new suburban shopping centres should be allowed. The existing shopping centres should not be allowed to expand. The expansion of retail space in the downtown area should occur within a relatively small area. The preferred area is outlined in the development plan. Access to the downtown shopping area by automobile should be as convenient as possible and adequate parking should be provided.

The second condition is that as many tourists as possible should be induced to visit the downtown retail area. This can be done by locating tourist facilities--accommodation and restaurants--nearby. Such downtown locations can be made attractive to tourists by providing them with suggested daily trips to the beaches and other points of interest, and by providing a wide range of entertainment in the evenings. The downtown retail facilities should attempt to provide all-weather shopping because tourists will do much of their shopping on rainy days. They will do much more shopping if they do not have to go out into the rain. The development plan attempts to incorporate these concepts.

Our projections of the development of Charlottetown area's retail trade sector are based on the assumption that the area will make every effort to achieve the retail trade potential.

We project that retail sales in the Charlottetown area could grow at an average annual rate of 9.5 per cent to $160 million in 1985. This is substantially faster than the rate of 6.6 per cent achieved over the past few years. There are several reasons for adopting the higher rate. The personal income per capita (in current dollars) is expected to grow faster than in the past. The population of the Charlottetown area is projected to grow faster than in the past. Tourism will at least maintain the past rates of growth. Finally, the retail development policies outlined briefly above will induce higher per capita retail spending by residents, non-residents, and tourists.

After adjusting for inflation, the rate of increase in retail sales becomes 5.3 per cent per year. This increase will be achieved in two ways--higher sales per employee and more employees. We estimate that sales per employee in constant dollars will rise by 2.2 per cent per year. Thus, employment will grow by 3.6 per cent per year. So we project the labour force of the Charlottetown area engaged in this sector to grow from 1,950 in 1972 to 3,100 in 1982.

Table 13 translates our estimates of retail sales in 1985 into space requirements. The retail sales by category were estimated on the basis of the changes in spending patterns that typically occur as real income rise. Thus, the growth in food and general merchandise is less than that of the other categories.

The average sales per square foot for all categories is estimated to increase at a rate of about 6.1 per cent per year. This reflects the combined effect of the 4 per cent per year price inflation and a 2 per cent per year increase in constant dollar sales per square foot (i.e. productivity improvement). This average rate has been adjusted for the various sectors, on the basis of discussions with persons in the retail business, to reflect the anticipated developments in the different sectors.

The result is an estimated net requirement of 310,000 square feet of retail space. This will require additional space in each sector except automotive stores. As noted earlier, we strongly recommend that the bulk of this additional space be provided in the downtown area.

E. WHOLESALE TRADE

1. Provincial Activity

The data available with respect to wholesale trade in the province are very limited. Our survey of the study area, updating Dun & Bradstreet data, revealed 33 firms engaged in wholesale trade. Island wholesale trade data are presented in Table 14.

Most of the firms dealing in agriculture, fish and forest products are located near the sources of production. The firms dealing in processed or fabricated foods tend to locate in the larger urban centres.

TABLE 13

PROJECTION OF RETAIL SPACE REQUIREMENTS FOR THE GREATER CHARLOTTETOWN URBAN AREA IN 1985

	Retail Sales ($1,000)	Sales Per Sq.Ft. ($)	Est.Retail Space Reqd. (sq.ft.)	Existing Retail Space (sq.ft.)	Net Rqmts. (sq.ft.)
Food Stores	36,000	210	171,000	78,000	+ 93,000
Gen. Merchandise	36,000	100	360,000	332,700	+ 27,300
Apparel	13,000	135	96,000	72,600	+ 23,400
Furniture & Appliances	5,000	75	67,000	46,200	+ 20,800
Lumber & Hardware	2,000	15	133,000	106,700	+ 26,300
Drug Stores	11,000	150	73,000	32,000	+ 41,000
Variety Stores	22,000	85	260,000	131,700	+ 128,300
Gas Stations	16,000	50	32,000	23,900	+ 8,100
Automotive Stores	19,000	70	27,000	84,800	- 57,800
TOTAL	160,000		1,219,000	908,600	310,400

Source: Stevenson & Kellogg, Ltd. projections.

TABLE 14

WHOLESALE TRADE BY KIND OF BUSINESS AND LOCATION IN PRINCE EDWARD ISLAND 1971

Location	Kind Of Business	Number Of Firms	Per Cent Of Total
PRINCE COUNTY			
Alberton	Feed Mill and Farm	1	
	Fish	1	4.17
Kensington	Potatoes	3	6.25
O'Leary	Peat Moss	1	2.08
Summerside	Produce	1	
	Building Supplies	1	4.17
Other Than Major Centres	Produce	2	
	Fish	1	
	Farm Machinery	1	8.33
Sub Total		12	25.00
KINGS COUNTY			
Souris	Pulpwood	1	2.08
QUEENS COUNTY			
Charlottetown	Petroleum	2	
	Paper and Paper Products	1	
	General Merchandise		
	Food Products	10	
	Tobacco	1	
	Apparel and Dry Goods	2	
	Motor Vehicles And Accessories	2	
	Electrical Machinery, Equipment And Supplies	1	
	Hardware	2	
	Liquid Air	1	
	Seed	1	
	Sound Systems	1	
	Periodical Magazine	1	
	Feed, Hay, And Grain	1	
	Soft Drinks	1	
	Mfg. Agt. San Products	1	
	Restaurant Supply	1	
	Optical Supplies	1	
			68.75
Other Than Major Centres	Lumber	1	
	Building Supplies	1	4.17
Sub Total		35	72.92
TOTAL		48	100.00

STEVENSON & KELLOGG, LTD.

Source: Dun & Bradstreet Report - December 1972, and Stevenson & Kellogg Survey.

One feature that is not directly apparent from the table is the limited range of goods handled. There are several firms each dealing in food products and building supplies. But there are no firms distributing furniture, appliances, shoes, metal parts, etc. These items are distributed by firms located outside the province.

2. The Greater Charlottetown Area

The result of our survey of wholesale firms in the Charlottetown area is shown in Table 15. It reveals a total of 33 firms employing 334 persons. After self-employed persons are included, we estimate that 330 residents of the Charlottetown area were engaged in the wholesale trade sector in 1971.

The patterns noted above are evident in Table 15 as well. Specifically, the wholesale trade sector of the Charlottetown area consists of firms that handle a limited range of processed and fabricated products. They distribute these products throughout most of the province.

However, most products are distributed by firms located outside the province. In the course of our survey, we identified some 126 out-of-province wholesalers active in the Charlottetown area. This is almost four times the number of local firms. We do not have data on the relative sales volumes of local and out-of-province wholesalers, but it would not be surprising if the Charlottetown area was a net importer of wholesale trade services.

The dependence on out-of-province wholesalers has been growing. The labour force engaged in this sector fell from 445 in 1961 to 330 in 1972. This is the result of a combination of several forces, but the net result has been a relative deterioration of the position of the local wholesalers.

TABLE 15

WHOLESALE TRADE IN THE GREATER CHARLOTTETOWN URBAN AREA IN 1971

S.I. Code	Classification	Companies	Number Of Employees
608	Petroleum Products	Irving Oil Co. Ltd.	25
		Imperial Oil Ltd.	20
	Sub Total		45
611	Paper and Paper Products	Carter & Co. Ltd.	1
	Sub Total		1
612	General Merchandise	Michael Bros. Ltd.	23
612	General Merchandise	Kays Bros. Ltd.	13
		Island Wholesale	1
	Sub Total		37
614	Food Products		
	. Groceries	DeBlois Bros. Ltd.	45
	. Groceries	Atlantic Wholesalers Ltd.	30
	. Groceries and Fruit	Carvell Bros. Ltd.	26
	. Fish and Sea Foods	J. W. Windsor Co. Ltd.	20
	. Produce	Clarke Fruit Co. Ltd.	14
		R. E. Mutch & Co. Ltd.	8
	. Fruit & Vegetables	H. B. Willis Inc.	5
		Sidney T. Green & Co.	4
		George H. Toomb & Son	3
	. Other Food Products	Johnston Reg. Wholesale	1
	Sub Total		156
615	Tobacco Products	MacDonald Tobacco Inc.	9
	Sub Total		9
617	Apparel and Dry Goods	Beaton Wholesale	5
		Allied Sales Ltd.	4
			9
619	Motor Vehicles and Accessories	Robinson Supplies Ltd.	6
		Tantons Accessories Ltd.	4
	Sub Total		10
621	Electrical Machinery, Equipment & Supplies	W. Stewart Smith	1
	Sub Total		1
624	Hardware	Rogers Hardware	15
		Sumner Co. Ltd.	7
	Sub Total		22
629	Wholesalers n. e. s.		
	. Liquid Air	Island Oxygen Ltd.	9
	. Seed	Halifax Seed Co. (PEI) Ltd.	7
	. Sound Systems	Watts Enterprises Ltd.	7
	. Periodical Magazine	H. H. Marshall Ltd.	6
	. Feed, Hay and Grain	Maple Leaf Mills Ltd.	4
	. Soft Drinks	Maritime Beverages Ltd.	4
	. Mfg. Agt. San Products	Dow Page Agencies	3
	. Restaurant Supply	Pells Restaurant Supply	2
	. Optical Supplies	A.O. Co. Ltd.	2
	Sub Total		44
	TOTAL		334

Source: Dun & Bradstreet Report, December 1972, and Stevenson & Kellogg Survey.

3. The Future

We expect that the trends that influenced the wholesale trade sector during the sixties will continue through 1985. One of these is the changing pattern of retail trade. Retail stores are becoming larger. Thus, fewer stores are needed to serve a given area and a wholesaler then is able to serve a larger area. At the same time, more of the retail stores are being organized on a chain basis. This generally involves centralization of purchasing and distribution activities and a consequent reduction in the need for local wholesalers.

The other major trend is the change in transportation and storage costs. The technology of those activities has altered the cost structures to favour larger shipments and greater centralization. Thus, many goods distributed in the Maritimes are shipped by rail to a point such as Halifax or Moncton and are distributed by truck from there. This is usually faster and cheaper than direct rail shipment.

In view of these trends, we anticipate very little expansion of the wholesale trade sector prior to 1985. Specifically we project a labour force of 350 in that year compared to 330 at present.

F. FINANCE, INSURANCE AND REAL ESTATE

1. Current Situation

The distribution of finance, insurance and real estate establishments in Prince Edward Island is shown in Table 16. There are 28 branches of the major chartered banks in the province. Eleven of them (40 per cent) are situated in the Charlottetown area.

TABLE 16

FINANCE INSURANCE AND REAL ESTATE FIRMS LOCATED IN PRINCE EDWARD ISLAND

1971

LOCATION	KIND OF BUSINESS				TOTALS
	Banks	Finance	Insurance	Real Estate	
PRINCE COUNTY					
Alberton	2	-	2	-	4
Kensington	1	-	1	-	2
Summerside	5	4	17	5	31
Tignish	1	-	-	-	1
Tyne Valley	1	-	-	-	1
SUB TOTAL	10	4	20	5	39
QUEENS COUNTY					
Charlottetown	11	27	44	16	98
Crapaud	1	-	-	-	1
Hunter River	1	-	-	-	1
SUB TOTAL	13	27	44	16	100
KINGS COUNTY					
Montague	2	-	2	1	5
Murray River	1	-	-	-	1
Souris	1	-	-	-	1
Morell	1	-	-	-	1
SUB TOTAL	5	-	2	1	8
TOTAL	28	31	66	22	147

Source: Dun & Bradstreet, 1972, and Stevenson & Kellogg Survey.

The degree of concentration is greater for the other components of this sector. Twenty-seven of the province's thirty-one finance company offices are located there. Two-thirds of the insurance firms are to be found in the Charlottetown area. And about three-quarters of the real estate firms are also located there.

Although we do not have the factual data, it is likely that the concentration of the business activity of this sector in the Charlottetown area is greater than indicated by the above figures. This sector, then, appears to have a relatively large basic component.

Table 17 provides a comparison of the finance, insurance, and real estate sectors in the Charlottetown and Halifax-Dartmouth areas. Our rule-of-thumb of one-to-five again appears appropriate. Using it we find that there may be scope for an additional:

- finance company;
- appraiser and adjuster;
- mutual fund;
- insurance consultant, and
- real estate broker.

We estimate that some 360 residents of the Charlottetown area are normally engaged in the finance, insurance, and real estate sector. This is 130 more than in 1951--a 2.2 per cent average annual rate of increase.

TABLE 17

A 1971 COMPARISON OF
FINANCE, INSURANCE AND REAL ESTATE IN
THE GREATER CHARLOTTETOWN URBAN AREA
AND METROPOLITAN HALIFAX-DARTMOUTH

S.I. Code	Classification	Greater Charlottetown	Halifax-Dartmouth Metro
	Finance Industries		
701	Banks and Other Deposit Accepting Establishments		
	- Banks (*Branches)	11*	60*
	- Trust Companies	5	10
	- Credit Unions	2	15
703	Other Credit Agencies		
	- Loans and Financing	8	52
707	Investment and Holding Companies	11	42
	- Mutual Funds	1	13
721	Insurance Carriers		
	- Insurance Companies, Life	17	29
	- Insurance Companies, Other than Life	4	31
735	Insurance and Real Estate Agencies		
	- Estate Management	2	-
	- Adjusters and Appraisers	8	49
	- Insurance Consultants	-	6
	- Insurance Rating Bureaus	1	1
	- Insurance Agents and Brokers	14	80
	- Annuities	-	1
	- Actuaries	-	2
737	Real Estate Operators		
	- Developers	0	7
	- Brokers	14	82

Source: Stevenson & Kellogg, Ltd. Survey.

We have data on the space occupied by the financial institutions. Some, such as the investment and holding companies, do not have separate commercial space. Thus, the banks, trust companies and finance companies account for most of the space. The total space occupied is 69,220 square feet. About 90 per cent of this space is in the downtown area. The rest is divided equally among the K-Mart, Royalty Mall and Ellis Brothers shopping centres. The minimum size for a facility of this type is about 2,500 square feet. In the Charlottetown area, this is also the average.

2. The Future

We assume that the character of the financial system will not change radically over the forecast period. The projected population growth will not be a significant stimulus to the growth of this sector. The existing facilities serve much of the province. This will continue to be the case. Hence, the relevant rate of population growth is the provincial one -- 0.27 per cent.

The important factor in the growth of the financial sector will be the growth in personal income. The demand for financial services increases with higher personal income per capita. Thus, while we are projecting the same rate of growth of real personal income per capita we expect higher labour force growth. We expect the labour force of this sector to grow at 2.6 per cent per year compared to the historical growth of 2.2 per cent.

G. COMMUNITY, BUSINESS AND PERSONAL SERVICES

In terms of the labour force engaged, this is the largest sector of the Charlottetown area economy. One reason that it is the largest is that it includes the tourist facilities--hotels, motels, restaurants, etc. In view of the importance of the tourist industry to the Charlottetown area, the size of the labour force in this sector is not surprising. Furthermore, the community, business and personal services sector is the largest in most urban centres.

The tourist centre role and the conference, seminar and continuing education centre role, and the employment associated with them, are discussed elsewhere in our report. Our concern here is for the portion of the sector not included in the other roles.

At present, an estimated 815 residents of the Charlottetown area are directly engaged in tourist related activities. The employment due to the conference, seminar, and continuing education role is negligible. Thus, there are some 1,725 persons engaged in providing community, business, and personal services to the local and regional population.

1. Education Facilities

Table 18 lists the types of educational facilities found in the Charlottetown area. The range of facilities available is quite complete for an area of this size. In addition to public schools, it has 4 business colleges and trade schools, Holland College, the University of Prince Edward Island, municipal and provincial libraries, and a music school.

We have not attempted to assess the quality of these services. Nor have we investigated the capacities of the institutions. However, we are not aware of any serious capacity problems at the present time.

We expect that the capacities of these institutions will increase in response to the growth of the relevant

TABLE 18

EDUCATION AND RELATED SERVICES IN THE GREATER CHARLOTTETOWN URBAN AREA

S.I. Code	Classification	Greater Charlottetown
	Education and Related Services	
801	Kindergartens and Nursery Schools	1
802	Elementary and Secondary Schools	15
803	Schools of Art and the Performing Arts	-
804	Vocational Centres, Trade Schools and Business Colleges	4
805	Post-Secondary, Non-University Education Institutions	1
806	Universities and Colleges	1
807	Libraries, Museums and Other Repositories	2
809	Education and Related Services	
	- Music Instruction, Instrumental	1
	- Music Instruction - Vocal	-
	- Dancing Schools	-

Source: Stevenson & Kellogg, Ltd. Survey.

segment of the population. In the case of the public schools, the age structure of the population is such that very little growth will be required prior to 1985. Some growth will be required in the post-secondary institutions but this will be much less than in the recent past. Thus, the labour force engaged in this sector will not rise much above the current level of 970.

2. Health And Welfare Services

Table 19 classifies the various health and welfare services available in the Charlottetown area. The largest employers in this category are the hospitals, nursing homes and welfare organizations. The other establishments--physicians and surgeons, and dentists--are typically quite small. The total employment engaged in these establishments is estimated at 900. It is the largest component of the community, business and personal services sector.

There are approximate standards that enable us to assess the health facilities available in the Charlottetown area. These standards vary by size of community and change over time. At the present time, communities of the size of the Charlottetown area should have the following facilities:

Hospital beds	8	per	1,000	population
Nursing home beds	4.5	per	1,000	"
Physicians and Surgeons	1	per	600	"
Chiropractors	1	per	7,500	"
Optometrists	1	per	7,500	"
Dentists	1	per	2,000	"

Based on these standards, the Charlottetown area should have about 200 hospital beds, 115 nursing home beds, 43 physicians and surgeons, 13 dentists, and 3 or 4 chiropractors and optometrists.

TABLE 19

HEALTH AND WELFARE SERVICES IN THE GREATER CHARLOTTETOWN URBAN AREA

S. I. Code	Classification	Greater Charlottetown
821	Hospitals	5
822	Related Health Care Institutions	
	- Nursing Homes/Rest Homes	4
823	Physicians and Surgeons	56
824	Para-Medical Personnel	
	- Chirpractors	2
	- Podiatrists	1
	- Optometrists	3
825	Dentists	18
827	Miscellaneous Health Services	
	- Dental Laboratories	-
	- Appliances	
	. Orthopedic	-
	. Surgical	-
	- Dispensing Opticians	3
	- Hearing Aids	2
	- Artificial Eyes/Limbs	-
	- Contact Lenses - Consultants/ Fitters	-
	- Ambulance Service	4
828	Welfare Organizations	9

Source: Stevenson & Kellogg, Ltd. Survey.

Except for chiropractors and optometrists, these levels are exceeded by substantial margins. This is due to the fact that health services are also provided to residents of the surrounding area. However, the general indication is that the health facilities available in the Charlottetown area are at least comparable to those of similar communities.

3. Services To Business Management

Table 20 presents a list of the types of business services available in the Charlottetown area. There are 77 firms of this type. Over one-third of them are lawyers and notaries. The total employment in these firms is estimated at about 225. Most of the establishments are obviously one-person operations.

It is difficult to assess the adequacy of the range of services available in the Charlottetown area. The appropriate range of services obviously depends on the size and nature of the area's business community.

In some of the other sectors we have found that a rule-of-thumb of one-to-five is reasonable when comparing the Charlottetown area and the Halifax-Dartmouth area. The business services available in the two areas are compared in Table 20. If our rule-of-thumb is appropriate, there is significant scope for expansion of business services in the Charlottetown area. Many of the services that are currently available could be expanded. In addition, there may be sufficient demand to support firms providing:

- computer services
- private detective, guard and patrol services

TABLE 20

A 1971 COMPARISON OF PROFESSIONAL SERVICES OFFERED IN THE GREATER CHARLOTTETOWN URBAN AREA AND METROPOLITAN HALIFAX-DARTMOUTH

S.I. Code	Classification	Greater Charlottetown	Halifax-Dartmouth Metro
	Services to Business Management		
851	Employment Agencies and Personnel	3	12
	- Stevedoring Contractors	-	7
	- Models - Living	-	1
853	Computer Services	-	7
855	Security and Investigation Services		
	- Credit Reporting Agencies	1	7
	- Detective Agencies	-	5
	- Guard and Patrol Services	-	6
	- Collection Agencies	1	11
861	Offices of Accountants	8	36
862	Advertising Services (includes all media)	4	29
863	Offices of Architects	6	20
864	Engineering and Scientific Services	7	68
866	Offices of Lawyers and Notaries	27	216
	- Bailiffs	-	1
	- Bonds - Surety and Fidelity	-	2
	- Commissioners for Oaths	-	1
867	Management and Business Consultants	1	22
	- Personnel Consultants	-	6
	- Public Relations Counsellors	-	4
	- Publicity Service	-	2
	- Human Relation Consultants	-	1
869	Miscellaneous Services to Business Management		
	- Food Brokers	-	25
	- Business Brokers	1	-
	- Telephone Answering	1	5
	- Food Service to Offices	-	3
	- Distributing Services	-	5
	- Drafting	-	5
	- Property Management	-	13
	- Messenger Service	-	3
	- Addressing and Letter Service	5	2
	- Printing, Copying, Bookbinding, etc.	5	54
	- Bookkeeping Service	3	3
	- Market Research and Analysis	-	3
	- Office and Desk Room Rental Service	-	1
	- Parking Consultants	-	1
	- Pension Plans	-	3
	- Surveyors		
	. Aerial	-	2
	. Cargo	-	5
	. Land	2	13
	. Marine	-	5
	- Teletypewriter Commercial Service	1	2
	- Telemetering Service	1	1
	- Custom House Brokers	-	5
	- Ship Brokers	-	2

Source: Stevenson & Kellogg, Ltd. Survey.

- distributing services
- drafting services, and
- property management services.

These services may be available in the Charlottetown area. But there are no firms that specialize in providing them. And the market may be capable of supporting such firms.

4. Personal and Miscellaneous Services

Table 21 lists the types of personal and miscellaneous services available in the Charlottetown area. Altogether there are 116 firms listed. Sixty-four of them are in the personal service category. Almost half of the personal service category consists of barber and beauty shops. We estimate the total labour force normally engaged in these enterprises at about 635 -- an average of less than five persons per establishment.

Again for want of a recognized standard for evaluating the adequacy of the services available we turn to a comparison of the Charlottetown and Halifax-Dartmouth areas. In the personal services category we find that our rule-of-thumb holds in total. But an examination of the individual services indicates that there may be scope for additional shoe repair shops and laundries and dry cleaners. In addition, the community may be able to support a dressmaker and a fur cleaner.

In the miscellaneous services category there appears to be scope for firms providing:

- photographic services

TABLE 21

A 1971 COMPARISON OF SERVICE TRADES IN THE GREATER CHARLOTTETOWN URBAN AREA AND METROPOLITAN HALIFAX-DARTMOUTH

S. I. Code	Classification	Greater Charlottetown	Halifax-Dartmouth Metro
	Personal Services		
871	Shoe Repair Shops	1	14
872	Barbour and Beauty Shops	31	144
874	Laundries, Cleaners and Pressers (except self-service)	6	51
876	Self-Service Laundries and Dry Cleaners	2	25
877	Funeral Services	4	12
879	Miscellaneous Personal Services		
	- Babysitters	1	3
	- Diaper Service	1	-
	- Rug and Carpet Cleaning	4	16
	- Fur Cleaning, Remodelling and Repairing	-	5
	- Dressmaking	-	5
	- Electrolysis	-	3
	- Furniture Repairing and Refinishing	2	8
	- Drapery Cleaning	3	3
	- Furniture Cleaning	2	6
	- Driving Instruction	-	6
	- Costume and Dress Clothes Rental	-	8
	- Linen Supply Service	-	1
	- Luggage Repairing	-	1
	- Tailors	2	5
	- Wake-Up Service	-	2
	- Kennels	-	5
	- Packaging Service	-	2
	- Veterinarians	1	5
	- Tax Consultants	1	2
	- Car Washing	3	12
	- Pet Hospitals	-	3
	Accommodation and Food Services		
886	Restaurants, Caterers and Taverns		
	- Caterers	6	26
	- Taverns	-	7
	Miscellaneous Services		
891	Labour Organizations and Trade Associations	-	32
893	Photographic Services		
	- Aerial	-	8
	- Animal	-	1
	- Commercial	1	16
	- Portrait	-	20
	- Press	-	1
	- Photo Finishing	-	4
894	Automobile and Truck Rental	1	32
	- Trailer and Boat Rental	-	7
	- Tent Rental	1	
	- Bicycle Rental	1	1
895	Machinery and Equipment Rental		54
	- Rugs and Carpets	1	2
	- Television	1	14
	- Musical Instruments	-	1
896	Blacksmithing and Welding Shops	6	29
897	Miscellaneous Repair Shops		
	- Tool Grinding and Sharpening	-	1
	- Locksmiths	1	6
	- Safe Opening and Repairing	-	2
	- Musical Instrument Repairing	-	1
	- Scale Repairing	-	3
898	Services to Buildings and Dwellings		
	- Boiler and Furnace Repairing and Cleaning	2	9
	- Building Cleaners/Janitor Service	2	27
	- Elevator Repair	1	8
	- Interior Decorators and Designers	1	28
	- Garbage Collection	1	5
	- Vending Machines	1	5
	- Window Cleaners	1	6
	- Building Renovators	-	1

TABLE 21 - cont'd.

S.I. Code	Classification	Greater Charlottetown	Halifax-Dartmouth Metro
898	Services to Buildings and Dwellings - cont'd.		
	- Carpet Layers	-	7
	- Chimney Cleaning	-	1
	- Floor Refinishing	-	5
	- Cesspool Cleaners	-	1
	- Lighting Fixtures, Repairs and Maintenance	-	2
	- Paint Cleaning Service	-	1
	- Pump Repairing	-	6
	- Tank Cleaning and Maintenance	-	5
899	Miscellaneous Services, n. e. s.		
	- Piano Tuning and Repairing	-	3
	- Picture Restoring	-	1
	- Rustproofing	-	3
	- Recording Studios	-	2
	- Salvage	-	1
	- Ship Repairing	-	2
	- Silversmiths	-	2
	- Snow Removal Contractors	-	2
	- Sodding and Grading	-	4
	- Soil Investigators	1	5
	- Soil Testing	-	2
	- Marine Salvage	-	4
	- Motion Picture Cleaning and Inspection	-	1
	- Kitchen Planning Service	1	6
	- News Service	-	2
	- Geologists	-	1
	- Designers - Typographic	1	1
	- Exterminating and Fumigating	1	9
	Recreation and Amusement Services		
841	Motion Picture Theatres	4	8
843	Bowling Allies and Billiard Parlours	2	14
844	Golf Clubs and Country Clubs	2	2
845	Theatrical and Other Staged Entertainment	1	2
849	Miscellaneous Amusement and Recreation Clubs		
	- Riding Academies	-	2
	- Skating Rinks	1	3
	- Race Tracks	1	1
	- Other	9	11

Source: Stevenson & Kellogg, Ltd. Survey.

- building cleaning services

- interior decorating and designing services.

5. The Future

The labour force engaged in the community, business and personal services sector has grown at an average annual rate of 1.8 per cent over the past two decades. This is about one and one-half times as fast as the rate of population growth.

The services we are considering are primarily local services. Thus, we expect employment growth in these services to be closely related to the rate of population growth and the rate of per capita income growth in the Charlottetown area. We expect real per capita incomes to increase as rapidly as they have in the past. The incomes in the area are sufficiently high that an increasing percentage will be spent on services. We have projected the rate of population growth in the area at over 1.9 per cent to 1985.

On the basis of these considerations we expect that the labour force engaged in the services discussed above will continue to grow at a rate about one and one-half times as fast as the rate of population growth. Specifically we expect it to grow at about 3 per cent per year, giving a labour force for these services of 2,525 in 1985.

The analysis of the tourist centre role indicates that the direct employment anticipated in the Charlottetown area will grow to 1,275 in 1985. This is an average annual rate of about 3.5 per cent. It brings the projected labour force in the community, business and personal services sector to 3,800 in 1985.

The space occupied by the various establishments in this sector -- excluding the health, education and tourist facilities -- is estimated at 254,000 square feet. We estimate that a net increase of 125,000 square feet of space will be required to cope with the growth anticipated for this sector. Again the bulk of this space should be in the downtown area.

H. PUBLIC ADMINISTRATION

The number of civil servants in the Charlottetown area has more than doubled since 1961. This is primarily due to the growth of the provincial civil service.

Federal government employment in the province declined from about 2,300 in 1966 to 2,200 in 1971. In relative terms the decline is greater -- from 21.2 employees per 1,000 population in 1966 to 19.7 in 1971. This goes counter to the national and regional experience. In the Maritimes, the corresponding figures were 24.9 in 1966 and 27.2 in 1971.

Provincial government employment increased from 20.3 per 1,000 population in 1966 to 31.6 in 1971. This rapid increase more than offset the declines in federal government employment. It also created a substantial amount of additional employment in the Charlottetown area. Both the federal and provincial administrations have significant basic components. Many of the civil servants working in the Charlottetown area perform functions for the province as a whole, so parts of their activities are "exported" to other parts of the province.

Municipal governments in the province tend to have very low levels of employment. The average was 2.6 employees per 1,000 population in 1971. This figure for the Maritimes was about twice as high and the figure for Canada was 9.7. Municipal government has no basic component.

There is no market for public administration services. Hence there is no way of estimating the demand for such services and no way of projecting the labour force required to provide the services. Attempts to relate public administration growth to population growth are not very illuminating. During the 1951-61 period the population growth averaged 1.2 per cent and the public administration labour force growth averaged 1.4 per cent. Over the 1951-72 period the population and public administration labour force growth rates were 1.1 and 4.6 per cent, respectively.

For the period to 1985 we anticipate that the public administration labour force will grow at a rate only slightly faster than the rate of population growth. Specifically we project that it will grow at a rate of 2.3 per cent per year, giving a total of 1,900 in 1985.

This is a much lower rate than has prevailed in recent years. But such high rates could not continue. The source of the labour force growth in the future will also be different. The federal government employment will increase at a moderate rate. But the main growth will be in municipal government employment. Thus, the basic component of the public administration activity will be much smaller in 1985.

I. HOUSING

We estimate that the housing stock in the Charlottetown urban area is about 7,300 dwelling units. This means an average of about 3.3 persons per unit.

The age structure of the population is such that the number of persons in the family forming age groups is high and will remain high until the mid-1980's. The fertility rates for this segment of the population have been relatively low. Thus, we expect a relatively high demand for housing throughout the forecast period. In addition, we expect that the high rate of family formation and the low fertility rates will combine to reduce the number of persons per dwelling unit.

We estimate that the number of persons per dwelling unit will decline to 2.8 in 1985. Thus, the estimated housing stock in that year will be 12,200 units -- a net increase of 4,900 units.

In addition, we estimate that 3,500 of the existing units will be replaced by 1985. This can occur either because of old age or because of conversion from residential to other uses.

This yields a total of 7,900 housing units that will need to be constructed by 1985. This averages to just over 600 units per year. Over the past few years housing starts in the Charlottetown urban area have averaged about 250 per year. We therefore expect a substantial growth in housing starts to 1985. This increase bodes well for the construction sector.

IV

THE GREATER CHARLOTTETOWN URBAN AREA AS A LIGHT MANUFACTURING AND RESOURCE SUPPORT INDUSTRY CENTRE

A. INTRODUCTION AND SUMMARY

1. Introduction

The second proposed role for the Greater Charlottetown Urban Area is that of a light manufacturing resource support industry centre. In identifying opportunities, we broadly interpreted this role to cover all manufacturing opportunities, whether import substitution or export oriented, for the area.

The industries we studied fell into two categories: those already in existence and those to be considered for possible establishment in the Charlottetown area. Our study entailed an examination of the current manufacturing sector, and identification of potential light manufacturing and resource support industry. The initial list arrived at after a preliminary screening process was subjected to further analysis to identify the candidate products which appeared to be economically justifiable.

We developed projections on employment in the manufacturing sector and identified land requirements to accommodate the new industry for the Charlottetown area.

2. Summary

a) Existing Industries

The current labour force in the manufacturing sector totals 1,154. More than half of the total is employed in the food and beverage manufacturing sector. The next three largest employers are in building supplies, printing, publishing and allied trades, and metal fabrication, hardware, etc.

b) Opportunities Identified

Our analysis of the light manufacturing and resource support industry sector did not suggest any significant opportunities for the Charlottetown area. We did, however, identify four possible opportunities during the course of our project. Some of these ideas are already being implemented, or have just started production. Others will require test marketing, and others will require further study and analysis. The four opportunities that appear to exist are:

- trusses - residential, agricultural
  - a plant to manufacture trusses has been established outside of the Charlottetown area;
- interior and exterior panels for residential construction;
- P. E. I. replica pine furniture;
- skim milk powder.

c) Growth Of The Manufacturing Sector to 1985

The manufacturing sector forecast is about 1,400. This in an increase of 523 over 1961, and 320 over 1972. Our projections suggest that the four largest sectors of the manufacturing labour force will employ:

Foods and Beverages	179
Building Supplies	55
Printing, Publishing and Allied Trades	35
Metal Fabrication and Hardware	32

We suggest that the projected growth in the manufacturing sector would best be met by expansion of existing firms.

d) Industrial Land

Based on our analysis of future employment in the manufacturing sector and our experience, we see manufacturers of foods and beverages, and metal fabricating firms, as logical candidates for location in industrial park land. We would expect that about 80 per cent of new jobs created in these two sectors would locate in an industrial park. We therefore estimate that about 13 acres, in addition to the Parkdale Industrial Park, would be required between now and 1985. We therefore recommend that steps be taken in 1975 to take options on land in the area designated by our planners, to create a new industrial park. This should be a quality park and have initially 10 acres of serviced land, out of a total of a minimum of 100 acres.

B. RECOMMENDATIONS

Our recommendations resulting from the study of opportunities for light manufacturing and the resource industry support role for the Charlottetown area are as follows:

- Charlottetown area firms with compatible experience, who could logically expand their existing operations to incorporate facilities to manufacture these new products should be encouraged to do so.

- Industrial Enterprises Incorporated should consider the creation of the new industrial park. They are aware of new industry requirements for land in the Parkdale Industrial Park and are in the best position to more accurately define the need and park development schedule.

- As noted below in our tourism recommendations, encouragement should be given to the handcraft industry as a means of creating new product designs and a possible source of new products for light manufacture.

- Steps should be taken to improve the marketing capability of industry in the Charlottetown area in particular, and in the Island in general.

In carrying out the field work in the Charlottetown area to identify opportunities in light manufacturing and resource industry support role, we observed a characteristic common to most manufacturing firms. Although there is an awareness of a need to manufacture and sell products at competitive prices, there appeared to be little understanding of the marketing concept. Most firms are largely sales oriented. This can be attributed largely to the historical growth of firms in the area. For the most part, they do not appreciate the need to acquire marketing skills or competent personnel to carry them out.

An example of the confused thinking was the approach presented at one of our encounters. It was suggested that the provincial government should be encouraged to find out the products that larger Ontario firms have discarded, in order that Island firms may set up to manufacture them.

At the fall Annual Meeting of the Charlottetown Chamber of Commerce, Col. Robert L. Houston of the Canada-Japan Trade Council, highlighted the potential represented by the tremendous growth in the Japanese market. His talk stressed the need to adopt a marketing approach particularly for agricultural and fish products. He underscored the necessity to identify, through marketing, those products which are compatible with the Island resources and manufacturing capabilities.

C. EXISTING INDUSTRIES

In order to proceed with the identification of opportunities for light manufacturing and resource support industry for the Charlottetown area, we examined the present manufacturing sector. Currently, more than half of the labour force is employed in the food and beverage manufacturing sector. The next two largest employers are in building supplies, and metal fabrication, hardware, etc. Building supplies represents about 17 per cent and metal fabrication, hardware, etc. about 10 per cent of the labour force. The 1973 detailed analysis of the manufacturing companies and the male and female labour force by industry classification is listed in Table 22. In summary by classification, we found the following:

	Labour Force	Per Cent Of Total
Food and Beverages	649	56.24
Commercial Printing	27	2.34
Newspaper Publishing	98	8.49
Building Supplies	195	16.90
Metal Fabrication, Hardware, etc.	113	9.80
Textiles	26	2.25
Chemicals	8	0.69
Miscellaneous	38	3.29
TOTAL	1,154	100.00

TABLE 22

MANUFACTURING COMPANIES IN THE GREATER CHARLOTTETOWN URBAN AREA

Company	Classification And Products	Number of Employees		
		Male	Female	Total
	Food and Beverages			
Canada Packers Ltd.	Meat Products	170	25	195
C. M. MacLean Ltd.	Frozen Vegetables and Fruit	81	111	192
Central Creameries	Dairy Products	78	12	90
J. & T. Morris Ltd.	Carbonated Beverages	22	3	25
Seamans Beverages	Carbonated Beverages	22	3	25
The Pure Milk Co. Ltd.	Dairy Products	16	3	19
Enterprise Bakery	Bread and Pastries	9	9	18
Purity Dairy	Dairy Products	12	2	14
Seven-Up Sussex Ltd.	Carbonated Beverages	12	0	12
Bake Shop	Bread and Pastries	5	6	11
G. & G. Pure Milk Co.	Dairy Products	7	1	6
Rodd's Home Style Bakery	Bread and Pastries	2	6	8
Johnston's Home Style Products	Salads, Packaged Meat	4	3	7
Kent Bakery	Bread and Pastries	2	4	6
DeBlois-Likely Ltd.	Canned Lobster	4	1	5
Health Pasteurized Milk Co.	Dairy Products	5	0	5
Mrs. Kenny's Home Bakery	Bread and Pastries	4	0	4
Ruth's Home Bakery	Bread and Pastries	0	3	3
Boates (PEI) Ltd.	Fish Products	1	1	2
		456	193	649
	Commercial Printing			
Irwin Printing Co.	Printed Materials	9	2	11
Dillon Printing Co.	" "	6	1	7
Island Offset	" "	2	3	5
Acton Press and Marketing	" "	0	3	3
Clarks Printing Service	" "	1	0	1
		18	9	27
Guardian-Patriot	Newspaper Publishing	76	22	98
	Building Supplies, Furniture, Etc.			
M. F. Schurman Co. Ltd.		93	6	99
Bagnall's Mills Ltd.		59	3	62
Chandler Bros. Ltd.		16	2	18
MacDonald-Rowe Woodworking Ltd.		12	1	13
MacAskill Woodworking Ltd.		3	0	3
		183	12	195

Table 22 - Cont'd.

Company	Classification And Products	Number of Employees		
		Male	Female	Total
	Metal, Hardware, Etc.			
Douglas Bros. & Jones Inc.	Heating Systems	25	2	27
Hall & Stavert Ltd.	Marine Hardware	28	1	29
Charlottetown Metal Products	Fish processing equipment, Piping, Aluminum and Stainless Steel equipment	24	2	26
Bruce Stewart Ltd.	Agricultural Implements	15	0	15
Island Metal	Miscell. Sheet Metal	10	1	11
Becker & Son Ltd.	Tin Products, Heat Equip.	2	0	2
Wallers Machine Shop		2	0	2
Doyles Machine Shop		1	0	1
		107	6	113
	Textiles			
Wm. Condon & Sons Ltd.	Textiles - Woollen Yarns and Blankets	17	9	26
	Chemicals and Paints			
Northumberland Chemicals	Chemicals - Paints	4	1	5
Diagnostic Chemicals Inc.	Specialty Chemicals	3	-	3
		7	1	8
	Miscellaneous			
Island Cabinet Shop		2	-	2
Agro Co-Op Ltd.	Livestock Feeds	8	1	9
Scantlebury Signs & Plastics Ltd.	Signs, displays, plastic specialities	8	1	9
Signman P.E.I. Ltd.	Signs, nameplates, etc.	7	1	8
Hickey, Nicholson Tobacco	Tobacco Products	6	0	6
Island Brikcrete Products	Brikcrete, concrete blocks	3	0	3
Hussey Signs	Plywood Signs	1	1	2
Roland Hyde	Livestock feeds	1	0	1
		34	4	38
	TOTAL	898	256	1,154

[1] Source: Department of Industry and Commerce--Charlottetown Community Profile, and Stevenson & Kellogg, Ltd. Survey.

D. SOURCE OF IDEAS FOR LIGHT MANUFACTURING AND RESOURCE SUPPORT INDUSTRY

1. Industries Identified For Evaluation

In preparing our preliminary list of light manufacturing resource support industries for the Charlottetown area, we exhausted a number of possible sources. Our identification process covered the following:

- Import Substitution;
- Resource Industry Analysis;
- A General Review of Major Manufacturing Companies In Nova Scotia and New Brunswick;
- Interviews with Federal and Provincial Government Departments and Discussions With the Area Development Committee;
- A Review of Relevant Feasibility Study Reports On Manufacturing Opportunities for Other Sites in the Atlantic Region.

These sources suggested a relatively long list of potential ideas. The long list was then subjected to preliminary screening. This selection process entailed:

- a comparison with products now being manufactured in Nova Scotia and New Brunswick;
- an examination of the studies for products that have been considered through feasibility analysis in the Atlantic Provinces.

The resulting initial list shown in Table 23was submitted to the Steering Committee for approval. As we proceeded with our investigation on each of the opportunities, our findings were presented and suggestions and comments elicited.

TABLE 23

INITIAL LIST OF LIGHT MANUFACTURING AND RESOURCE SUPPORT INDUSTRY BY SOURCE OF IDEA

			SIC	
A.	IMPORT SUBSTITUTION	Food and Beverages:	129	Dakeries: . Bread - Sponge Dough
			141	Soft Drinks
			145	Breweries
		Wood Industries:	254	Trusses - Residential, Agricultural, Institutional, Mobile Home
			354	Residential Exterior and Interior Panels
B.	RESOURCE INDUSTRY ANALYSIS	Food and Beverages:	101	Slaughtering and Processing
			105	Dairy Factories . Skim Milk Powder
		Leather Industries:	172	Leather Tanneries
C.	A GENERAL REVIEW OF MAJOR MANUFACTURING COMPANIES IN NOVA SCOTIA AND NEW BRUNSWICK	Transportation Equipment:	325	Motor Vehicle Parts, Etc.
		Furniture and Fixtures:	261	Household Furniture
D.	REVIEW OF OTHER RELEVANT REPORTS ON INDUSTRY IN THE ATLANTIC REGION AND BASED ON OUR EXPERIENCE AND KNOWLEDGE	Textile Industries:	221	Canvas Products: . Sleeping Bags, Tents
		Leather Industries:	175	Gloves
		Transportation Equipment:	324	Truck Bodies and Trailers: . Pickup Truck Caps
			329	Miscellaneous Vehicles: . Trailers - Ski Doo . Sulkies
		Metal Fabrication Industries:	301	Boiler and Plate Works: . Tanks - Septic, Oil
			303	Ornamental and Architectural Industries: . Store, Stair Rails, etc.
			309	Miscellaneous Metal Fabrication
		Machinery Industries:	311	Agricultural Implements
			315	Miscellaneous Machinery and Equipment
		Wood Industries:	259	Miscellaneous Wood: . Models and Patterns . Turned Parts
		Miscellaneous:	259	Musical Instruments: . Yukulele, Recorder, Percussion Instruments
E.	SUGGESTIONS ARISING FROM DISCUSSIONS WITH (FEDERAL AND PROVINCIAL) GOVERNMENT OFFICIALS AND OTHER PERSONS IN THE GREATER CHARLOTTETOWN URBAN AREA	Miscellaneous Metal Fabrication:	309	Bicycles Light Truck Bumper-Trailer Hitch Combinations Tobacco Driers
		Rubber Industries:	163	Tires and Tubes: . Recapping
		Miscellaneous:	385	Plastic Fabricators: . Furniture
			328	Pleasure Boats and Yachts
			106	Poultry Feed: . Oyster and Clam Shell for Poultry Feed

2. Import Substitution

Our analysis of the value of goods manufactured by Island firms, and the apparent provincial consumption of products in the major industrial groups, revealed that the food and beverage industries are the major manufacturing sector. This group accounts for over 80 per cent of the manufacturing shipments. It is also evident that the Province's manufacturing sector exports only 55 per cent of all manufactured goods, while two-thirds of food and beverage products are exported. The proximity to the Island's agriculture and fisheries sectors obviously provides these industries with a comparative advantage.

In our analysis of provincial consumption patterns, we noted that over 80 per cent of manufactured goods consumed are imported. Less than 20 per cent are produced on the Island. This is even true for foodstuffs--60 per cent of the food stuffs consumed on the Island are imported. These figures give an indication of the scope for import substitution.

A quantification of imports to the Island suggested that an average size Island plant might be economically justifiable, if they were able to capture their share of the market. The industries where imports exceed the output of an average size establishment are:

Industry	S. I. Code
Slaughtering and meat processors	101
Dairy factories	105
Fruit and vegetable canners and preservers	112
Feed manufacturers	123
Bakeries	129
Miscellaneous food manufacturers	1392
Other knitting mills	239
Men's clothing industry	243
Women's clothing factories and contractors	244
Children's clothing factories	245
Fur goods industry	246
Sash, door and other millwork plants	2541
Household furniture industry	261
Miscellaneous furniture industries	266
Commercial printing	286
Metal stamping, pressing and coating industry	304
Miscellaneous metal fabricating industries	309
Other chemical industries, n. e. s.	3799

In the process of shortlisting the apparent opportunities identified from import substitution, we reviewed Department of Industry and Commerce statistics on inward car and truck load freight for the years 1968 through 1971. These statistics cover all shipments by rail and truck through Borden and by truck through Wood Island.

Unfortunately, the general nature of some of the statistics made it impossible to identify many manufactured items which may be considered as logical candidates for import substitution. In particular, data on major groupings such as general freight, agricultural implements, and machinery parts did not lend themselves to further analysis.

The four major manufactured commodity imports for the period 1968 to 1971 derived from the carload and truckload statistics are contained in Table 24. These four major commodities are:

TABLE 24

MAJOR MANUFACTURED COMMODITY[2] IMPORTS 1968-1971 CONSIDERED FOR IMPORT SUBSTITUTION

YEAR	1968		1969		1970		1971	
Commodity	Truck Loads	Rail[1]	Truck Loads	Rail[1]	Truck Loads	Rail[1]	Truck Loads	Rail[1]
Bread	557		557		520		520	
Soft Drinks	26	52 (C)		7(C)	35		43	
Beer and Liquor	292		312		314		375	
Pre-Fabricated Houses	2	457 (T)	18		17		70	

[1] Rail Shipments - (C) indicates Carload, (T) - Tons.

[2] Source: Dept. of Industry and Commerce, Prince Edward Island, 1972.

STEVENSON & KELLOGG, LTD.

- bread;
- soft drinks;
- beer and liquor;
- pre-fabricated houses.

3. Resource Industry Analysis

This approach to opportunity identification entailed interviews with senior departmental staff of fisheries, agriculture, and forestry. We learned of the growth in the fluid milk production on the Island, and the estimated potential lumber resources available for building products.

4. A General Review Of Major Manufacturing Companies In Nova Scotia and New Brunswick

A review of the manufacturing firms in the Atlantic Provinces suggested two firms who were major buyers of components for their end products. These two firms were:

- Volvo Canada Limited, Halifax - Automobiles;
- Boise Cascade Ltd., Amherst - Mobile Homes.

We met with senior personnel of both companies to review their current purchasing practices for parts, components, etc. Both firms expressed an interest in being able to purchase from Atlantic Region suppliers. The national and international scale of their operations, however, affords them bulk purchasing advantages. The possibility of any small scale Island operation being able to compete on a price basis appears to be very remote.

5. A Review Of Other Relevant Feasibility Studies On Industry In The Atlantic Region

Through the auspices of the Department of Regional Economic Expansion, and the Industrial Intelligence Unit in Ottawa, feasibility studies and other relevant reports on the Atlantic Region were obtained from their respective libraries. We also had access to the Industrial Enterprises Incorporated feasibility studies. A list of the reports we reviewed is contained in Table 25.

E. PRODUCTS ELIMINATED THROUGH PRELIMINARY SCREENING

129 - Bakery Products

Import substitution - estimated market potential, 20,000 loaves per day. (520 trailer loads - 1971.) There are three major bakeries serving the provinces of Nova Scotia and New Brunswick. These are Bens Ltd. in Nova Scotia and Eastern Bakeries and Lanes Bakeries in New Brunswick. The two New Brunswick bakers located in Moncton, Lanes and Eastern, supply sponge dough type bread to the Island.

Eastern Bakeries are reported to have the most modern and efficient bakery in the Atlantic Region. They are able to produce bread at low cost and can be competitive in the P.E.I. market despite their transportation charges.

Assuming a Charlottetown area bakery could capture the import bread market, this would mean about 20,000 loaves per day. A minimum size modern plant could produce about 3,000 loaves per hour. The total daily import market potential represents about six hours production. There appears to be little chance of an expanded Charlottetown area sponge dough bread bakery being successful, and for this reason we did not pursue this possibility further. We believe, however, that there could be expansion in the bakeries producing and aggressively marketing sweet line goods.

TABLE 25

INDUSTRIAL INTELLIGENCE REFERENCE UNIT PRODUCT FEASIBILITY STUDIES AND OTHER RELEVANT REPORTS REVIEWED

GENERAL

FOR. A-008	Director of Manufactured Products
FOR. G-059	Problems And Policies Relating To Small And Medium Sized Businesses
A.P. G-040	Industrial Location With Special Reference To The Atlantic Provinces
N.S. I-003	Industrial Opportunity Study Of Cape Breton (Stat. Appendix)
N.S. I-003	Industrial Opportunity Study Of Cape Breton, 2 Volumes
N.S. G-011	Costs Of Manufacturing In Alternative Locations: Nova Scotia Compared With Ontario And Quebec
N.B. F-002	Feasibility Studies For New Brunswick, by Gilbert Tardif, 1968
B.C. I-035	Opportunities For Consumer Product Manufacturing In British Columbia

PLASTICS

FOR. I-001	Injection Molding Of Plastic Products, Carroll County, Ga.

FURNITURE

FOR. I-005	The Manufacture Of Office Furniture In Northern Plains
CAN. I-041	Marketing Canadian Furniture In The United States
CAN. I-044(C.2)	Marketing Canadian Hardwood Furniture Components In The United States
CAN. I-096	Canadian Household Furniture Manufacture
A.P. F-001(2)	A Feasibility Study Of The Furniture And Fixtures Industries Of The Atlantic Provinces.

BOATS

FOR. I-033	Pleasure Boats - A Manufacturing Opportunity In Missouri

BUILDING

CAN. I-024	Custom Component Building

TRAILERS

ALTA. I-011	Manufacturing Opportunities Trailer Components
ALTA I-012	Manufacturing Opportunities Trailer Components

TOYS

CAN. I-066	A Review Of The Toy And Game Industry In Canada

FOOD

CAN. I-094	Potato Processing. A Study Of Major Product Items
A.P. I-003	Fruit And Vegetable Processing Industry - A Development Study, Volume I
P.E.I. I-002	Outline Of A Plant For Producing Alcohol From Potatos On Prince Edward Island
N.S. I-004	Food Processing Opportunities In Nova Scotia
MAN. F-003	Feasibility Of An Integrated Vegetable Oil Plant In Manitoba
MAN. F-005	Report And Feasibility Study On Cheese Processing Facilities In Manitoba

Table 25 -

Industrial Intelligence Reference Unit
Reports Reviewed - Cont'd.

PET FOODS

MAN. F-002	Economic Feasibility Of Establishing A Pet Food Manufacturing Operation In Manitoba

SLAUGHTERHOUSES

MAN. F-012	Small Inspected Slaughterhouse Operation
MAN. F-006	Report And Feasibility Study Of New Rendering Facilities In The Province Of Manitoba

METAL AND FOUNDRIES

N.B. F-001	Study For The Creation Of A Metalworking Complex In New Brunswick
B.C. F-005	A Survey For The Requirements For Foundry And Fabrication Facility In The Okanagan.- Similkameen Region
B.C. I-007	Study Of The Fabrication and Foundry Facility In The Okanagan And Similkameen Region

WOOD

CAN G-174	The Use Of Wood And Wood-Based Building Materials In Single-Detached Dwellings In Canada
ALTA. I-001	Poplar Wood Products Integrated Plant
ALTA. I-003	Poplar Wood Products - Market Survey
B.C. I-036	British Columbia Fabricated Forest Product Exports

I.E.I. FEASIBILITY STUDY REPORTS REVIEWED

FOOD

Feasibility Of Integrated Potato Processing Complex for P.E.I., 1969, for Seabrook Farms Frozen Foods Ltd.

Research Notes By R.P.C. - Studies on Syruping And Drying Of Blueberries

A Study Of The Feasibility Of The Processing Of Dehydrated Potatoes And Other Dehydrated Foods On Prince Edward Island, 1962, Stevenson & Kellogg, Ltd.

Background Study by A.D.B. - The Competitive Position Of Maritime Agriculture

PLASTICS

Import Study On Plastic Materials and Products, 1966, By The Canadian Department Of Industry

METAL

Report On Opportunities For Establishing (Or Expanding) Light Metal Fabricating Activity In The Atlantic Provinces, 1968, For the A.D.B. By Woods, Gordon & Co.

CANVAS

Broad Review Of The Canvas Products Industry In The Atlantic Provinces, 1968, for the A.D.B., By Stevenson & Kellogg, Ltd.

OYSTER SHELLS

Oyster Shell In The Maritimes, A Small Business Opportunity, 1966, By The Federal Department Of Industry

141 - Soft Drinks

This possibility was suggested in the Atlantic Provinces Water Resources study. The Maritime Bottlers Association have indicated that up to two months ago there were three bottlers in Prince Edward Island. These were:

- J. & T. Morris Ltd. - Pepsi Cola;
- Seven-Up Sussex Ltd. - Seven-Up products;
- Seamans Beverages.

Seven-Up Sussex have removed their machinery. Due to the seasonal nature of the market in P.E.I. it is doubtful that two manufacturers can survive. In the Association's opinion, eventually there will be only one operator. It would appear that this possibility has limited chance of success.

325 - Motor Vehicle Parts, Etc.

A review of major manufacturing companies in Nova Scotia suggested that there might be a possibility of manufacturing motor vehicle parts for Volvo --providing price and quality are competitive with European suppliers. Volvo Nova Scotia purchase about 10,000 parts per annum. Volvo Sweden are now supplying plastic parts to their world-wide automotive plants from their own plant.

All of the rubber components, i.e. tubing, gaskets, etc. are being considered for manufacture in Canada by Goodyear Rubber Company and Case. There are apparently not enough simple items which could be manufactured on a small scale to justify further investigation.

325 - Automotive Rebuilding

We initially considered the rebuilding of automotive mechanical and electrical components. This would involve rebuilding:

- Pumps--Oil, Water
- Alternators
- Generators
- Starters.

It is apparent that the Canadian Tire Corporation in the Charlottetown area enjoys the lions share of this replacement business. Their sales volume of rebuilt components on a national basis enables them to sell or install these parts at a low cost.

The success of this business hinges largely on a firm's ability to obtain the cores[1] at a reasonable cost. We doubt that a small Charlottetown area company could obtain the necessary cores to compete with the national Canadian Tire Corporation. For this reason, we have not pursued this possibility any further.

325 - Tire Recapping and Retreading

There are three firms, two located in the Charlottetown area and Firestone in Moncton, servicing this market. Registrations on the Island are now about 32,000 vehicles. It is doubtful that a third firm could be justified, considering the potential future market and the established competition.

Metal Fabrication Industries

301 Boiler and Plate Works
303 Ornamental and Architectural Industries
309 Miscellaneous Metal Fabrication -
- Light Truck Bumper-Trailer Hitch Combinations
- Miscellaneous Vehicles.

---

[1] Cores are the reusable pump, alternator, and generator cast housings which are disassembled, cleaned, and rebuilt.

Our preliminary investigations reveal that metal fabricators in general in the Charlottetown area, because of their small volume, are forced to purchase in less than carload lots and pay considerably more for semi-fabricated steel products than major off-Island fabricators who are in direct competition with them. The volume of production on the above items, combined with the market potential, would place any Charlottetown area fabricator at a disadvantage.

In general it would appear that local metal fabricators are in a position to compete only on non-ferrous fabrication, in particular for aluminum and stainless high value products.

In the ornamental and architectural industry, the nature of the business, combined with the fact that several contractors fabricate their own structural steel and miscellaneous metals for major building construction, makes it difficult for any of the local firms to compete.

For these reasons we have not pursued these possibilities.

309 - Bicycles

Our research of Canadian manufacture of bicycles revealed that major manufacturers produce only chassis components, that is frames, handlebars, sprockets, and wheels. The availability of hubs, chains, and gear shifts, etc. at highly competitive prices from the U.K., Austria, and Japan forces them to purchase components to remain competitive.

We understand that negotiations have started between Nova Scotia and a major Canadian bicycle manufacturer to establish an assembly plant in Dartmouth. Preliminary indications are that this plant would employ a labour force of 500. Considering the relatively large scale of this type of plant and the obviously competitive advantage of importing semi-fabricated steel by ship, and supplying export markets out of Nova Scotia, we elected not to pursue this idea further.

101 - Slaughtering and Processing

Slaughterhouses in Prince Edward Island are forced to import livestock in order to operate. At present they purchase locally about 50 per cent of the hogs and less than 50 per cent of cattle. To support the present level of operations, they purchase in Western Canada and Quebec. There are five firms competing at P. E. I. and mainland auctions.

Meat consumption in P. E. I. takes about 25 per cent of their total production. The limited source of local livestock, combined with a relatively small market, contributes to a net profit margin of less than one per cent.

In the past 15 years, there has been a decline from 20, 000 - 25, 000 to 2, 000 per annum of sheep and lamb. Apparently, this reflects a requirement to fence in sheep in order to fend off wild dogs. More importantly, the competition from frozen New Zealand and Australian lamb at lower prices has made raising of these livestock non-profitable. The fact that slaughter houses are working well below capacity at relatively low profit margins underlines the futility of further investigation.

172 - Leather Tanneries

The limited scale of operation of slaughter houses on the Island with relatively small throughput produces insufficient hides to justify the establishment of a tannery in P. E. I. Moreover, the tannery operation would, in effect, be paying two-way freight on the finished leather. Western Canadian and Quebec cattle brought to the Island for slaughtering would generate hides which would have to be shipped to the major Canadian leather markets. For these reasons we have elected not to pursue this item further.

259 - Miscellaneous Wood

▶ **Trusses - Residential, Agricultural, Institutional, Mobile Homes:**

Our preliminary evaluation of the construction industry suggested that a plant to assemble trusses could be a viable industry for the Island. At present about 80 per cent of all residential construction use prefabricated roof trusses. The government's decision to upgrade existing and establish a new saw mill to produce kiln dried graded lumber would mean a source of material for these trusses.

The Department of Agriculture and Forestry estimate that at present saw mills on the Island produce about 10 million board feet of ungraded, non-dried lumber. They further estimate that only about 50 per cent of renewable resources are being harvested. Forest inventory estimates suggest that 20 - 25 million board feet of dressed lumber could be produced on the Island.

We started preliminary investigation into the feasibility of this idea and learned that one firm is already manufacturing trusses on the Island. The market for prefabricated trusses would not support two firms in this business. This contention is supported by the fact that there are, in addition, off-Island manufacturers shipping trusses to the P. E. I. market through building supply houses.

▶ **Residential Exterior and Interior Panels:**

Our investigation suggested that it would be feasible to establish a plant to build wall panels for exterior and interior residential partitions and walls for houses. These panels are assembled from 2" x 4" lumber and 3/8" plywood. Sophisticated systems employing computer programs to calculate bills of material could be made available to a shop building these panels. It is expected that this product would be manufactured by a firm already in the building supply business. The feasibility study on this product appears below.

261 - Furniture and Fixtures, Household Furniture

- **Replicas Of Antique P. E. I. Pine Furniture**

  The Charlottetown area tourist market, as indicated in our chapter on tourism, suggests a growth of about 8 per cent per annum. There is a continually increasing demand for antique pine furniture which cannot be met because of the declining supplies. These factors therefore suggest that there is a reasonable opportunity to establish a small scale plant to manufacture replicas of antique P. E. I. pine furniture and miscellaneous wooden items. The action required to follow up on this product appears below.

- **Musical Instruments**

  - Yukulele, Guitar, Recorder, and Wooden Percussion Instruments

  We investigated the possibility of establishing a small plant to manufacture these instruments. In the course of our investigation, we met with the Director of Music Education for the city school system, Halifax, and a major distributor of instruments for the Atlantic Provinces. Enquiries were also directed to the Association of Musical Instrument Industries in the U.K. We enlisted their assistance in identifying a possible firm in the United Kingdom who may be interested in establishing a satellite plant in Charlottetown. We contacted the Yamaha Corporation in Japan to determine what interest, if any, they would have in manufacturing instruments in Canada.

  Unfortunately, neither the Japanese nor the British manufacturers have any interest at present.

The instrument market continues to grow at a substantial rate. Yamaha appears to have the lion's share of the small stringed instrument market. Their ability to penetrate the North American musical instrument market reflects the quality-price of their instruments in competition with North American manufacturers. Because of the strong Japanese position in the market, the high cost of suitable wood for the manufacturing process, and the lack of instrument manufacturing technology on the Island, we elected not to pursue this item further.

145 - Breweries

In our investigation of the opportunity to establish a brewery in the Charlottetown area, we contacted two major Canadian brewing companies, and the Brewers Association of Canada.

We understand that the capacity of all four Maritime brewery plants has been expanded in the past two years, and that total current production is well in excess of Maritime consumption.

Total sales of beer in the three Provinces in 1971 was 740,189 barrels. The three Provinces' sales breakdown is as follows:

	Barrels
Nova Scotia	403,435
New Brunswick	289,646
Prince Edward Island	47,108

The average annual increase in consumption in the Maritimes over the past ten years has been roughly 8 per cent. This is attributed largely to per capita increased consumption, since population growth has been small. The consumption per capita in 1971 was:

	Gallons
Nova Scotia	13.10
New Brunswick	11.46
Prince Edward Island	10.61

P.E.I. consumption of 47,108 barrels is less than half of a practical minimum 100,000 barrel capacity plant. The bulk of the production would therefore have to be exported.

We explored the possibility of any interest on the part of the national breweries. One firm demonstrated some degree of interest, but suggested the problem was political. The success of a P.E.I. brewery would hinge on the degree of co-operation between the three Maritime provinces. The political question would have to be resolved before a national brewery would contemplate looking at the feasibility of a brewery for P.E.I. It was left with the Steering Committee to pursue the political constraints further before proceeding with any subsequent analysis.

105 - Dairy Products

- Skim Milk Powder

  The increase in bulk production (26 per cent in 1972) suggests that a Charlottetown area dairy could capitalize on the availability of surplus fluid milk to produce skim milk. We understand that one major Charlottetown area dairy can, for a limited amount of funds, extend their product line into powdered skim milk. They are examining this possibility further.

385 - Plastic Fabricators

▶ Furniture

We have examined the possibility of fabricating furniture components from flexible and rigid urethane foam. Our research has revealed that both firms who made components for the furniture and radio component industry are now supplying the raw materials to major firms who are in these businesses. With the growth in volume, manufacturers set up their own in-house capability of manufacturing components. For this reason, we have not pursued this item further.

Miscellaneous

▶ Poultry Feed

Ground oyster shells are imported from Mexico as a calcium additive to poultry feed. Although there appears to be a market for this product, the Department of Fisheries have not recommended further pursuit of this idea. They indicate that the deposits of oyster shells are infinitely smaller in the Maritime area, although these do occur in quite a few places to a depth of three to four feet. They plan a far more efficient use for these shell deposits in developing oyster production areas. This shell stock will be used as clutch for collection of oyster spat in bays. The retrieval of this shell stock is a delicate operation, since these also occur where present oyster production is taking place. Because of the department's policy decision, we have not pursued this opportunity further.

F. OPPORTUNITIES IDENTIFIED

We have, as a result of examining the light manufacturing and resource support industry opportunities, identified five possible opportunities. Some of these ideas are already being implemented or have just started production. Others will require subsequent test marketing, and others will require further study and analysis. The five opportunities that appear to exist and result from our study are:

- Trusses - residential, agricultural;
- Interior and exterior panels for residential construction;
- P. E. I. replica pine furniture;
- Skim milk powder;
- Handcrafts.

1. Trusses - Residential, Agricultural

   We understand that there is a firm outside the Charlottetown area who already is manufacturing trusses. As mentioned above, the market for prefabricated trusses is sufficient to only support one firm in this business.

2. Interior And Exterior Panels For Residential Construction

   The feasibility analysis on this product follows below.

3. P. E. I. Replica Pine Furniture

   Market data on the potential for replica pine furniture is not available. We were therefore unable to carry out a feasibility analysis. However, we present below an outline of the necessary steps to proceed further with this opportunity.

4. Skim Milk Powder

A major Charlottetown area dairy, by adding one piece of dehydrating equipment, can set up to manufacture this product.

5. Handcrafts

Our comments on the handcraft industry as a source of developing design and technical skills, and possible new small manufacturing opportunities, appear below.

G. PANEL PLANT FEASIBILITY STUDY

Here we present the feasibility analysis on the plant to manufacture exterior and interior panels for residential construction. For purposes of our analysis of this product, we were guided by the following criteria:

- Plant location in the Charlottetown area.
- Plant is a self-contained unit, not an addition to existing plant.
- Composite federal and provincial grants[1] of 30 per cent on all capital assets.
- Equity participation - minimum of 20 per cent of capital assets.
- A production learning curve for plant operations - 75 per cent efficiency for year one, 80 per cent for year two, and 90 per cent for year three.
- Pro forma profit and loss and cash flow-working capital statements are projected for a three year period.

---

[1] Source: R. E. Grose, Industrial Enterprises Incorporated.

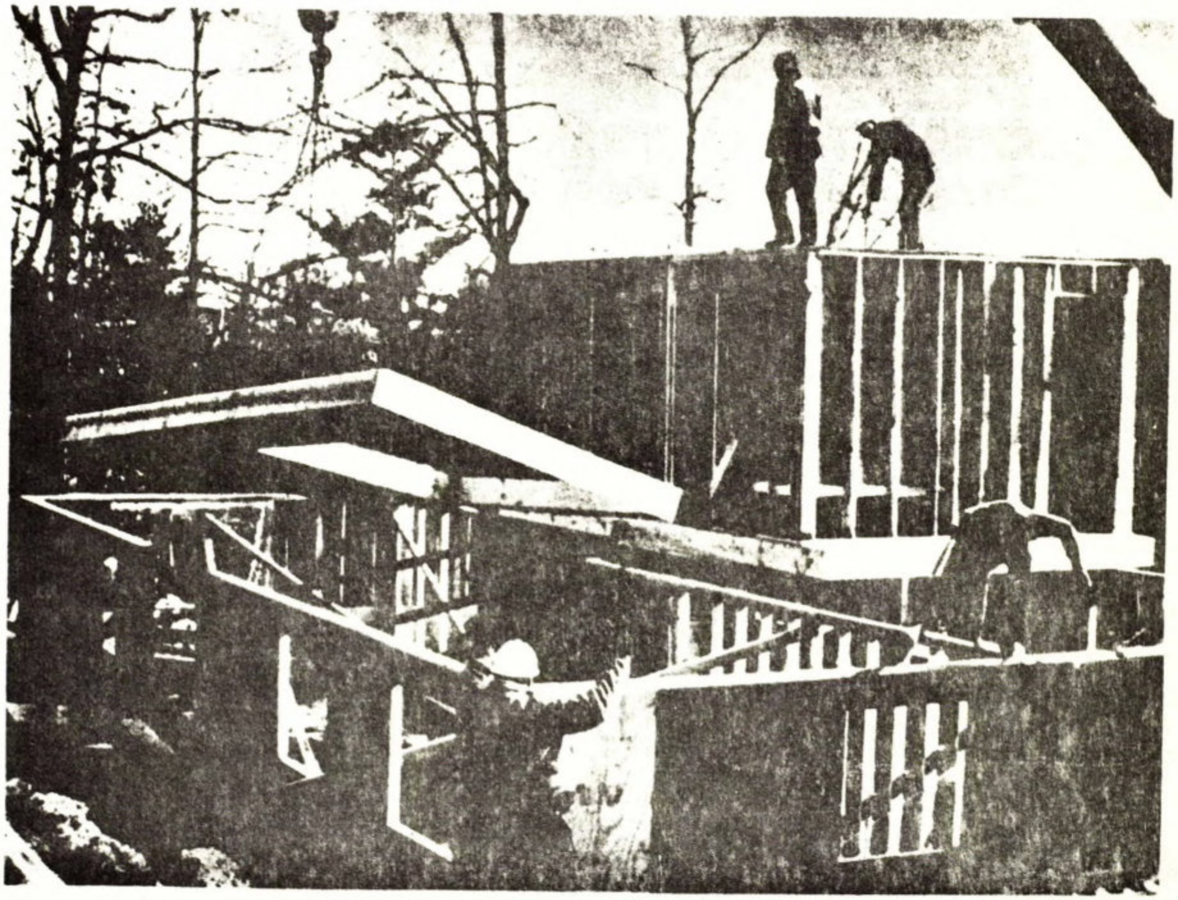
1. <u>Methodology</u>

In carrying out our feasibility study we:

- compiled and reviewed potential market data and determined a conservative market penetration for the product;
- used our estimated sales and unit selling prices to arrive at an annual sales figure;
- calculated variable costs, including material and labour, and determined an average unit cost;
- established an annual production rate, assuming a normal working schedule, and allowing for the learning curve;
- estimated office and administrative costs;
- determined a capital cost schedule, including plant, land, and office equipment;
- calculated the interest and principal payments to amortize the borrowed funds;
- estimated municipal taxes on the basis of real property and business assessment, and the current tax rate;
- calculated a declining balance depreciation schedule - 5 per cent for plant and production, and 20 per cent for office equipment;
- prepared a pro forma profit and loss statement and a cash flow and working capital statement for three years.

2. Exterior And Interior Wall Panels

a) Description



Pre-built wall panels are shop fabricated exterior walls and interior partitions for houses. The exterior wall panels are assembled from 2 x 4 studs and 3/8" plywood. Interior walls are fabricated from 2 x 4 studs. The gangnail system employs a computer program to calculate the bill of material required and prepares a shop assembly work order. It also prints out a plotter diagram to serve as an aid in the erection and as a last minute check for comparison with the drawings.

This systems approach eliminates manual estimating and preparation of bills of material and shop work orders. The programmed shop assembly of wall panels minimizes waste.

Panels are trucked to the house construction site and lifted into position on the foundation in a matter of hours.

b) Forecast Sales

In Table 26 we show actual Prince Edward Island housing construction for 1970, 1971, and 1972. In summary, the three year average housing starts are:

- Charlottetown 118
- Remainder of the Island 638.

The recent five year estimate of single family dwellings needed in Prince Edward Island by the Hon. E. Jean Canfield, Chairman of the Prince Edward Island Housing Commission, is 5,600. This means an annual average of 1,125 housing units.

TABLE 26

RESIDENTIAL CONSTRUCTION IN PRINCE EDWARD ISLAND 1970, 1971 AND 1972

YEAR	HOUSING STARTS		TOTAL	VALUE OF CONSTRUCTION $'000
	Charlottetown	Remainder Of The Island		
1970	210	460	670	13,100
1971	94	688	782	23,900
1972	52	767	819	25,900
TOTALS	356	1,915	2,271	62,900
AVERAGE	118	638	757	20,967

Source: P. E. I. Housing Authority, Statistics Canada, Construction in Canada, Catalogue 64-20 Annual.

We assume an annual gross potential market of about 1,000 units. Currently, all house walls, except in the case of prefabricated houses, are framed up by the contractors. We also understand that prefabricated trusses are built into about 80 per cent of new construction. This means contractors have adopted the prefabricated concept. They should recognize the advantages of prebuilt panels. Therefore, our market penetration assumptions, although conservative, should be attainable. We estimate for the three year period the following:

Year	1	2	3
Total Annual Market	1,000	1,000	1,000
Market Penetration %	20	25	30
Forecast Sales (Housing Units)	200	250	300

The estimated current selling prices are:

Panels	$/Linear Foot				$/Unit
Exterior	4.31				
Interior	2.71				
Average	3.51	x	300	=	1,050

c) Variable Costs

i) Material Costs

	Estimated Cost Per Lineal Foot	
	Interior $	Exterior $
3/8" Plywood 12" x 8'	-	1.36
2" x 4" Studs 8' 0"	1.53	1.04
Nails	0.20	0.35
Licensing	0.05	0.05
Total	1.78	2.80

Average Material Cost $2.29

ii) Estimated Labour Costs

Labourers: 4 at $2.75/hr. = $11.00

Average Labour Cost: $2.75

Cost Per Lineal Foot:

Panels:	$/Ft.	
▶ Interior	0.28	
▶ Exterior	0.16	
Average	0.22	$0.22
Total Material and Labour Costs		$2.51

The estimated average house unit cost =

(300)[1] ($2.51) = $753.

[1] 300 lineal ft. average of exterior and interior panels. Based on industry experience and average C.M.H.C. house plans.

iii) Production Rate

Based on
- a 5 man crew
- working a 5 day week
- and an 8 hour day
- at 75 per cent efficiency factor for year one.

We have: $\frac{(2.75)\ (\ 75)}{(0.22)\ (100)}$ = 9.38 lineal ft/man hour

Or (7) (9.38) = 65 Ft/Man/Shift.

The daily production we estimate at:

(4) (65) = 260 lineal feet.

Therefore, the estimated production for year one is

(242) (260) $\doteq$ 62,920 lineal feet.

Or $\frac{62,920}{300}$ = 243 units.

Allowing for the learning curve (80 per cent in year two and 90 per cent in year three) we estimate production in the second and third year to be:

Year	Efficiency Factor %	Production Units /Annum
1	75	243
2	80	259
3	90	291

d) Overhead

i) Office and Administrative Costs

Salaries:		
Foreman	$ 7,500	
Manager	$10,000	
Stenographer	3,600	
		$21,100
Administration (includes heat, light and telephone, and miscellaneous expenses		4,000
Equipment Rental (air driven nailing machine) at $100/month		1,200
Advertising and Promotion		5,000
		$31,300

ii) Capital Cost Schedule

Plant and Land:

Plant: Prefabricated Metal Building 5,000 square feet at \$18.00/Sq. Ft.	= \$90,000	
Serviced Land - 1/2 Acre	= \$ 5,000	\$ 95,000

iii) Plant Equipment

Fork Lift	\$18,000	
Pull Saw and Handtools	1,000	
Saw and Assembly Tables	2,500	
Monorail	3,000	
Lumber Carts, 4 at \$300	1,200	
		\$ 25,700

iv) Office Equipment		\$ 2,000
TOTAL		\$122,700

v) Less Government Grants[1]

A combined federal and provincial grant estimated at 30%:

(\$122,700) (0.3) =	\$36,810	\$ 36,810
		\$ 85,890

vi) Working Capital Estimated at 25% of Year One Sales (25) (210,000) =	\$ 52,500
TOTAL ASSETS	\$138,390

[1] Source: Estimated by R. Grose, Industrial Enterprises Incorporated.

vii) Equity Participation

(20% of Total Assets - $138, 390)

(0. 20) (138, 390) = $ 27, 678

viii) Interest

Borrowed Funds = $138, 390 - $27, 678 = $110, 712

Amortization Schedule For A $110, 712 Mortgage
(9% Interest Rate For A 20 Yr. Term)

Year	Year End Principal $	PAYMENTS Interest $	Principal $	Total $
1	110, 712	9, 700	2, 100	11, 800
2	108, 612	9, 520	2, 280	11, 800
3	106, 332	9, 350	2, 450	11, 800

ix) Depreciation Schedule

Plant - (5% Declining Balance)

Year End Balance $	YEAR 1 $	YEAR 2 $	YEAR 3 $
90,000	4,500		
85,500		4,275	
81,225			4,061
Sub Totals	4,500	4,275	4,061

Production and Office Equipment - (20% Declining Balance)

27,700	5,540		
21,160		4,232	
16,928			3,385
Sub Totals	5,540	4,232	3,385
Totals	10,040	8,507	7,446

x) Municipal Taxes

Assessment (Real Property and Business)

$= (2)(95,000) = \$190,000$

Tax Levy - $2.30/$100 Assessment

$$\text{Year one taxes} = \left(\frac{190,000}{100}\right)(2.3) = \$4,370$$

TABLE 27

PANEL PLANT PRO-FORMA PROFIT AND LOSS

	YEAR 1	YEAR 2	YEAR 3
FORECAST SALES			
- Units	200	250	300
- $/Unit[1]	1,050	1,110	1,180
- Total	$210,000	$277,500	$354,000
VARIABLE COSTS:			
- Units	243	259	291
- $/Unit[1]	753	798	846
- Total	$182,979	$206,682	$246,186
CONTRIBUTION TO OVERHEAD	$ 27,021	$ 70,818	$ 107,184
OVERHEAD:			
- Office[1] and Administrative	31,300	33,200	35,200
- Interest	9,700	9,520	9,350
- Depreciation	10,040	8,507	7,446
- Municipal Taxes[1]	4,370	4,630	4,920
- Total	55,410	55,857	56,916
PROFIT:			
- Before	(28,389)	14,961	50,268
- Income Taxes at 50%	-	-	18,420
- After	(28,389)	14,961	31,848
RETURN ON ASSETS AFTER TAXES	-	10.8%	23.0%

[1] Inflated at a rate of 6% compounded annually.

xi) Cash Flow and Working Capital Statement

Year	1	2	3
	$	$	$
Incoming Funds			
Profit After Tax	(28,389)	14,961	31,848
Depreciation	10,040	8,507	7,446
	(18,349)	23,468	39,294
Outgoing Funds			
Principal	2,100	2,280	2,450
Change in Working Capital	(20,449)	21,188	36,844

Working Capital Position Assuming No Dividends Or Changes in Accounts Receivable or Payable

January 1	52,500	32,051	53,239
December 31	32,051	53,239	90,083

H. REPLICAS OF ANTIQUE P. E. I. PINE FURNITURE

There is a continually increasing demand for antique pine furniture which cannot be met because of the declining supply of original pieces. It was recommended to the Steering Committee that samples of replica pine furniture be fabricated and test marketed this summer in the Charlottetown area.

There are three criteria of prime importance in the marketability of furniture, as identified in feasibility studies on this product. The three most important factors are:

- design;
- quality;
- price.

We believe that the design constraint can easily be met through the selection of simple pieces, perhaps unique to P. E. I., which would appeal to a broad sector of the market. The quality factor may be met by having P. E. I. craftsmen involved in the fabrication of these replicas.

A local company with experience in cabinet work had agreed to make a dozen samples of each of the following:

- bedside table with drawer;
- seachest;
- corner cupboard (capable of being shipped in a knocked-down form);
- small drop-leaf table;
- wash-stand.

Accurate cost information was to be kept on the labour and materials involved in producing samples.

A test marketing program of these replica pine furniture pieces under the auspices of the Market Development Centre was to be carried out. It was intended that suitable displays with historical backdrops be located at appropriate locations where tourists could examine the samples and, if interested, place orders. The data obtained from the test marketing program would help to identify the initial potential market for these replicas.

We identified another small firm who is interested in proceeding with the manufacture of these pieces, should the facts generated through this program suggest that such a small plant would be economically justifiable.

Steps necessary to proceed with the opportunity then, are:

- Enlist the services of a "professional" who is knowledgeable and could assist with the selection of the antique P. E. I. pine pieces.

- Proceed with the fabrication, paying special attention to the details, and in particular, to the finished colour of the samples.

- Have the Market Development Centre identify the most suitable sites for test marketing the samples. Design suitable historical backdrops for the display areas. They should be manned possibly by students who are well informed as to the source of the original pieces, and P. E. I. pine furniture history in general.

- Collect the fabrication cost information and assemble all test marketing data.

- Prepare a projection on the market and carry out the feasibility analysis.

- Present to the potential fabricators in the Chalottetown area.

I. HANDCRAFTS

Industries in the Charlottetown area, like those in other major centres in the Atlantic Provinces, are remote from the design centres of Canada. New products entering the market must incorporate the latest design concepts in order to be competitive. Just as industries on the Island labour under the lack of markets, so will they suffer from lack of design expertise.

The growth and development of handcrafts on the Island may serve as the means of offsetting this design disadvantage. Skilled craft people originate new designs and fabricate handcrafts on the Island. The design and techniques embodied in these crafts may represent a comparative advantage for these hand fabricated products.

We feel that handcraft growth on the Island should be encouraged. The new products incorporating unique designs may become the source of a number of new ideas for small industries.

A systematic approach should be adopted in identifying items which, through consumer demand, may have reached sufficient volume to warrant manufacturing on a small production scale. Craft sales on the Island would have to be monitored to determine the sales growth patterns. Once the growth handcrafts are selected, an organized test marketing program should be carried out. The Charlottetown area has an unique opportunity as a test marketing centre in the Atlantic provinces. The tourists visiting the Charlottetown area are a good representative sample of a broad sector of the potential market.

A limited survey of markets, particularly in the New England states, should then be completed. On the basis of the marketing data, a feasibility analysis would determine the viability of a small plant to manufacture these items. Once the opportunity is proven economically justifiable, firms or entrepreneurs with compatible experience should then be encouraged to assist skilled craftsmen in establishing a production plant.

J. GROWTH OF THE MANUFACTURING SECTOR TO 1985

1. Labour Force

An analysis and forecast of sector labour forces in the Charlottetown area is recorded in Table 1, Chapter I, on the Service Industry. The manufacturing sector forecast is about 1,400. This is an increase of 523 over 1961, and 320 over 1972.

Table 28 outlines the growth of manufacturing employment in the Charlottetown area by type of establishment. We estimate that about 320 new jobs should be added by 1985 to the manufacturing labour force. In summary, the increase by major sector is as follows:

Foods and Beverages	179
Printing, Publishing and Allied Trades	35
Building Supplies	55
Metal Fabricating and Hardware	32
Textiles	7
Chemicals and Chemical Products	2
Other major groups	10
TOTAL	320

The projected growth in the manufacturing sector would best be met by expansion of existing firms. In this way, new products produced in the area will take advantage of the reduced overhead through sharing with a compatible operation.

2. Industrial Land

The Parkdale Industrial Park has about 20 acres of serviced land left to accommodate new industries requiring plant sites. According to Industrial Enterprises Incorporated, they expect that this land will be used up within the next two years.

TABLE 28

PROJECTED GROWTH OF MANUFACTURING EMPLOYMENT IN THE GREATER CHARLOTTETOWN URBAN AREA

TYPE OF ESTABLISHMENT	EMPLOYEES			
	1951	1961	1972	1985[1]
Foods and Beverages	268	573	649	876
Printing, Publishing, and Allied Trades	104	109	125	169
Wood Industries	18	19	N/A	N/A
Building Supplies	N/A	N/A	195	264
Furniture and Fixtures	10	10	N/A	N/A
Metal Fabricating	20	32	113	154
Textiles	N/A	N/A	26	35
Chemical and Chemical Products	24	35	8	11
Other Major Groups	314	99	38	51
TOTAL	758	877	1,080	1,400

Source: Statistics Canada Census Of Canada 1961, Series 3.2-1, IBID. 1951, Volume IV, and Stevenson & Kellogg, Ltd. Survey.

[1] Stevenson & Kellogg, Ltd. Estimate.

Based on our analysis of future employment in the manufacturing sector and our experience, we see manufacturers of foods and beverages, and metal fabricating firms as logical candidates for location in industrial park land. The growth in employment represented by these two industries totals 211. We would expect that about 80 per cent of the new jobs will be located in an industrial park.

Calculated on a worker density per gross acre, we estimate that about 13 acres in addition to the Parkdale Industrial Park will be required between now and 1985. We therefore recommend that steps be taken in 1975 to take options on land in the area designated by our planners to create a new industrial park. This park should have 10 acres of serviced land initially, out of the total of a minimum of 100 acres.[1] We further recommend that it should be a quality park.[1]

---

[1] Reference: Industrial Park Needs of the Metropolitan Area of Charlottetown, Appendix "G", Stevenson & Kellogg, Ltd. February, 1967.

APPENDICES

APPENDIX A

A 1971 COMPARISON OF TRANSPORTATION, COMMUNICATION AND OTHER UTILITIES IN THE GREATER CHARLOTTETOWN URBAN AREA AND METROPOLITAN HALIFAX-DARTMOUTH

A 1971 COMPARISON OF TRANSPORTATION, COMMUNICATION AND OTHER UTILITIES IN THE GREATER CHARLOTTETOWN URBAN AREA AND METROPOLITAN HALIFAX-DARTMOUTH

S. I. Code	Classification	Greater Charlottetown	Halifax-Dartmouth Metro
	Transportation		
501	Air Transport (Inc. Charter and Self-Flying)	2	7
502	Services Incidential to Air Transport	3	12
503	Railway Transportation	1	2
504	Water Transport	1	1
506	Moving and Storage, Used Goods, Uncrated	4	27
507	Other Truck Transport		
	- Cartage and Express	5	22
	- Forwarding	2	9
	- Transport	12	62
517	Miscellaneous Services Incidental to Transport		
	- Bus Charter	-	5
	- Chaffeur Service	-	1
	- Limousine Service	-	2
	- House and Building Movers	-	2
	- Car Towing	5	17
	- Moving - Heavy Hauling	-	7
	- Water Hauling	-	1
	- Marine Towing	-	1
508	Bus Transports, Interurban and Rural	1	1
509	Urban Transit Systems	-	1
527	Storage and Warehousing	3	15
	- Fur and Garment Storage	-	4
	Communication		
543	Radio and Television Broadcasting	2	7
544	Telephone Systems	1	1
545	Telegraph and Cable Systems	1	3
548	Post Office	1	2
	Electric Power, Gas and Water Utilities		
572	Electric Power	1	1
574	Gas Distribution	3	2
576	Water Systems	1	2

Source: Stevenson & Kellogg, Ltd. Survey.

APPENDIX B

RETAIL TRADE IN THE GREATER CHARLOTTETOWN URBAN AREA IN 1971

RETAIL TRADE IN THE GREATER CHARLOTTETOWN URBAN AREA IN 1971

S.I. Code	Classification	Companies	Number Of Employees
631	Food Stores	Central Farmers Co-op. Assn.	160
		Ellis Bros. Supermarket Ltd.	20
		Sell-Rite Foods Ltd.	20
		Sobeys Stores Ltd.	15
		R. E. Mutch & Co. Ltd.	10
		Taweels Groceteria Ltd.	10
		Zakems Ltd.	10
		E. D. Reid Produce Ltd.	10
		P.E.I. Vegetable Growers Ltd.	9
		G & G Pure Milk Dairy	8
		PJS Ltd.	6
		Raynors Poultry Farm & Hatchy.	6
		Ellis & Birt Ltd.	5
		Campbell & MacCallum Ltd.	4
		Henry Peters	4
		Gordon S. Manuels	3
		P.E.I. Candy Corner Ltd.	3
		A. Said Tweel	3
		George H. Toombs & Son	3
		Haddad Bros.	3
		Fords Meats and Groceries	3
		Cecil Trainor	3
		Michaels Grocery	3
		JMS Meats	2
		Keenan Produce Ltd.	2
		Mel Taweels Groceteria	2
		George Rashod	2
		George Bassett	2
		Belvedere Store	2
		George Adams	2
		Lorraine De Coste	2
		Highland Groceteria	2
		Atallah J. Ghiz	2
		Elias N. Kays & Son	2
		Lords Grocery	2
		McKarris Grocery	2
		Olive S. Foster	2
		Cecil J. Costello	1
		Parkdale Groceries and Meats	1
		Thos. Mills Meat Market	1
		Munroe L. MacLeod	1
		T. L. Smith	1
		Mearl E. Rodgerson	1
		Belvedere Heights Grocery	1
		Bright Spot Grocery	1
		C. Henry Foster	1
		Mrs. Salimi Kassoul	1
		Frank N. Kays	1
		Charlottetown Stawberry Assn.	1
		J. P. Duffy & Son	1
	Sub Total		364
642	General Merchandise Stores	T. Eaton & Co. Ltd.	105
		R. T. Holman Ltd.	85
		MacLead Steadman Ltd.	50
		Carvell Bros. Ltd.	41
		Moore & McLead Ltd.	35
		Ralph H. Darrach	2
	Sub Total		318
654	Gasoline Service Stations	Charlies Texaco	11
		Belvedere Esso Service Station	6
		City Service Station	6
		J. Thomas Davies	6
		James MacLean	5
		Leonard P. Wilson	5
		Driscolls Shell	4
		Grafton Street Service Station	4
		Vernon B. Matheson	4
		Parkdale Irving Station	4
		Bells Service Station	4
		Melvin J. Melvin	3
		Walter Burhoe	3
		Busters Service Station	3
		Ives Esso Service	3

S.I. Code	Classification	Companies	Number Of Employees
654	Gasoline Service Stations - cont'd.	Kimballs Irving Service Station	3
		Ronald Peters	3
		John Proude	3
		Vesseys Shell Service	3
		Grafton Street Texaco	3
		Arthur H. Roper	2
		Vernon W. Robinson	2
		Euston Street Service Station	2
	Sub Total		92
656	Motor Vehicle Dealers	Hillside Motors Ltd.	35
		Fair Isle Ford Sales Ltd.	34
		F. R. McLaine Ltd.	32
		MacLennon Motors Ltd.	30
		W. G. Barbour Ltd.	25
		Batt & MacRae Ltd.	25
		Parkway Volkswagon Ltd.	20
		Stewart & MacRae Ltd.	20
		Goodyear Tire & Rubber Co.	16
		Clark Motors PEI Ltd.	15
		Martins Garage Ltd.	15
		Heather Toyota Ltd.	9
		O.K. Tire Store of PEI Ltd.	8
		Robinson Supplies Ltd.	6
		Capital Auto Supply Ltd.	6
		Tantons Accessories Ltd.	4
		Crown Auto Sales	4
		Custom Auto Sales	4
		Eastern Auto Supply	2
		Capital Auto Electric Co. Ltd.	2
		Dons Tire	2
		Island Automobile Supplies	1
		Muffler Centre	1
	Sub Total		316
658	Motor Vehicle Repair Shops	Maritime Motor Supply Co. Ltd.	22
		Spence & McLead Ltd.	15
		Falls Autobody Ltd.	9
		Colbecks Auto Body Ltd.	8
		Horace Smith	6
		Parkdale Auto Supply Ltd.	5
		Gaudet Auto Body Shop	4
		MacIntyre, Frank	2
		T. William Campbell	2
		Sheldon Beaton	2
		Ace Transmission Centre	2
		Reliance Garage	1
	Sub Total		78
663	Shoes	Le Page Shoe Co. Ltd.	10
		Chippens Clothing & Ftwr Ltd.	7
		Wright Shoe Co.	5
		Proudes Shoe Store Ltd.	5
	Sub Total		27
665	Men's Clothing Stores	Henderson & Cudmore Ltd.	25
		Hooleys Men's Wear	7
		Ralphs Men's Wear	3
		King of Suits	2
		Dows Men's and Boys' Wear	2
		Hambly & Innis	2
	Sub Total		41
667	Women's Clothing Stores	Island Furriers Ltd.	9
		Barbara Anne Ltd.	5
		Mona's Boutique Ltd.	5
		Fashion Shoope	5
		Gloria Ladies Wear	3
		Adella's Millinery	2
		Nu Style Dress Shop	2
		Helen's Dress Shoppe	2
		Elite Millinery	2
		Avant Garde	1
		Edison Drake	1
	Sub Total		37
669	Family Clothing	Beatons Dry Goods	6
		Corney's Family Store	3
		Chippens Clothing & Ftwr Ltd.	3
		Slack Shack	2
	Sub Total		14

S. I. Code	Classification	Companies	Number Of Employees
673	Hardware	Rogers Hardware Co. Ltd.	20
		Sumner Co. Ltd.	5
		A. Kennedy & Co. Ltd.	4
	Sub Total		29
676	Household Furniture and Appliances	Archer & MacDonald Ltd.	15
		Island Radio Centre Ltd.	10
		J. F. Worth Furniture Fashions	10
		M. & M. Furniture Ltd.	8
		Scottys Place	8
		Central Radio & T. V.	4
		Allied Sales Ltd.	4
		Stewart & Fitzpatrick Ltd.	3
		Jack Beaton	1
	Sub Total		61
678	Radio, Television and Electrical Appliance Repair Shops	Storey Electric Ltd.	23
		Burke Electrical Ltd.	16
		Norwood Motor Sports	3
		Edison Electric Ltd.	3
		Douglas Bros. & Jones Ltd.	28
		Westinghouse Factory Service	2
		T. Henry James	2
		Jenkins Washing Machine Service	1
	Sub Total		78
681	Drug Stores	Steads Pharmacy Ltd.	17
		Kays Bros. Ltd.	15
		Hughes Drug 1969 Inc.	10
		Lords Supervalue Pharmacy	8
		Parkdale Pharmacy	7
		G. Tamblyn Ltd.	6
		MacNeil Pharmacy Ltd.	6
		Medical Pharmacy	6
		Reddin Bros.	5
		MacKenzies Pharmacy	4
		Johnston & Johnston	4
		Klark J. Cantwell	2
		J. Ernest H. Worth	2
			92
691	Book and Stationery Stores (including gift shops)	Carter & Co. Ltd.	7
		Studio of H. Barry Bugden	3
		Scanboro Enterprises Inc.	3
		Studio of 183 Queen	3
		Jensen Stationery	2
		Raymond L. Blakney	2
		Off the Isle	2
		Herbert Cleal	2
	Sub Total		24
692	Florists	Flower Cart Ltd.	3
		Sidmount Gardens	2
		City Florists	2
		Jerry's Flower Shop Ltd.	5
	Sub Total		12
694	Jewellery	Taylor Jewellers Ltd.	7
		Island Jewellers Ltd.	7
		G. B. Murphy Ltd.	7
		Pattersons Ltd.	5
		Burkes Jewellers Ltd.	4
		Burns Jewellers	4
		Williams Jewellery	1
	Sub Total		35
699	Not Elsewhere Specified		
	• Building Supplies	Schurman Supply Ltd.	15
		Metro Building Supplies Ltd.	12
	Sub Total		27

S. I. Code	Classification	Companies	Number Of Employees
699	Not Elsewhere Specified - cont'd.		
	. Farm and Industrial Supplies	A. Pickard Machinery Ltd.	20
		International Harvester Co. Ltd.	20
		Maritime Co-op. Services Ltd.	14
		Turner Farm Equipment Ltd.	12
		Lounsbury Industrial Ltd.	7
		Sherwood Industrial Ltd.	5
		Island Dairy Farm Equipment	2
		Joseph Linus Rossiter	1
	Sub Total		81
	. Office Furniture and Equipment	H. M. Simpson Ltd.	30
		Wizard Business Machines	12
		Cudmore Business Equipment	9
		Island Collection & Office Furn.	4
		Photocopy Specialists Ltd.	3
		Olivetti Canada Ltd.	3
		Roy C. Keenan	1
	Sub Total		62
	. Fuel Dealers	Armfast Propane Ltd.	9
		Island Propane Gas Ltd.	9
		A. Pickard & Co. Ltd.	6
		Atlantic Speedy Propane Ltd.	6
		Burma Propane Gas Co. Ltd.	6
		Robert C. Barwise Ltd.	6
		Albert L. Thomas	4
		Carvers Fuels	4
		Charlottetown Home Heat	3
		Large & Co.	2
		Terrys Texaco Petroleum	2
	Sub Total		57
	. Music Supplies	Watts Enterprises Ltd.	6
		Toobes Music Store	3
		Dennis Boudreau	1
	Sub Total		10
	Other	Custom Interiors and Fabric Ltd.	21
		Primary Processors Ltd.	15
		Worths Bakery	14
		Atlantic Drywell Ltd.	9
		Bike Shop and Sport Lodge Ltd.	9
		Coastal Ready Mix Ltd.	8
		R. J. Cross	8
		Halifax Seed PEI Co. Ltd.	7
		Hambly Enterprises Ltd.	6
		Boyles Optical Co. Ltd.	6
		Murray White	5
		Island Optical Ltd.	5
		Island Woodworking Co. Ltd.	4
		Wood Shop	4
		Murdock MacEwen & Son	3
		Island Lime Services Ltd.	3
		Block Metal & Bottle Co.	3
		Rea-Fac Agencies Ltd.	3
		Wellington McNeill	2
		G. & J. Equipment	2
		Currie Bros.	2
		Olive MacDonald	2
		Charlottetown Tile & Terrazzo	2
		Tulle Bros. Ltd.	2
		Henry Gilbert	1
		Brooklyn Sand & Gravel	1
		Donald H. Jenkins	1
	Sub Total		148
	TOTAL		2,003