

THE EFFECTS ON OUTPUT AND EMPLOYMENT IN
THE ATLANTIC PROVINCES RESULTING FROM THE CLOSURE
OF CANADIAN FORCES BASE SUMMERSIDE:
AN APPLICATION OF REGIONAL INPUT-OUTPUT ANALYSIS

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of The University of Ottawa as partial fulfillment
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Arts



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CURRICULUM STUDIORUM

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INTRODUCTION

On September 19, 1969 the Minister of National Defence officially announced to the parliamentary press gallery that the Canadian Armed Forces were being reduced in strength from 98,000 to 83,000 personnel by the end of the fiscal year 1972/73 in order to operate within a budget fixed at 1.7 billion dollars'. Reductions in N A T O commitments in Europe were to account for approximately one-quarter of this reduction. The remainder was to be accomplished by re-organizations, disbandments and amalgamations within Canada. A perennial proposal for achieving such reductions in manpower is the closure of Canadian Forces Base Summerside, Prince Edward Island and the transfer of the operational units based there to Canadian Forces Base Greenwood, Nova Scotia.

The military justification for closing Canadian Forces Base Summerside is quite clear. In achieving the necessary economies it is essential that reductions be made in administrative and support staff so that operational commitments will not be reduced. Hence, it is a base that should be closed. Flying out of Summerside during the winter is hazardous and the total number of hours of flying is always reduced because of a persistent ground fog. Summerside is fairly isolated, local housing is poor and even

semi-skilled civilian labor is scarce. Finally, all operational functions currently carried out by Summerside could be performed more efficiently at Greenwood, Nova Scotia because of better flying weather in the winter away from the Gulf of St. Lawrence. An enduring source of frustration for the Canadian Armed Forces is that in spite of the military advantages and dollar savings to be achieved if Canadian Forces base Summerside were disbanded, that base is going to remain open. The justification appears to be economic; the closure of C. F. B. Summerside would have too depressing an effect on the economy of the area.

This thesis will be concerned with some of the economic implications of closing Canadian Forces Base Summerside and moving the operational units based there to Canadian Forces Base Greenwood. Specifically, the effects on output and employment for each of the four Atlantic provinces will be investigated by means of a regional Input-Output model.

The approach of regional Input-Output analysis was chosen for three reasons. The first reason concerns the recent availability of a regional Input-Output model for the Canadian maritime provinces.¹

¹ Kari Levitt, "A Macro Economic Analysis of the Structure of the Economy of the Atlantic Provinces, 1960," in a paper presented to the Canadian Economics Association, York University, June 6, 1969.

Secondly, Input-Output analysis is particularly suitable for studying the impact of any change in a sector of the economy such as defence expenditures. Because the actual structure of the economy is abstracted in an Input-Output table, the effects of change in an autonomous sector such as defence spending can be traced through the entire economy and ultimately, when a new equilibrium is reached, the total effect on the output of each sector can be estimated.

The third and most important reason for using regional Input-Output analysis concerns the ability of regional Input-Output to capture intersectoral and inter-regional feedback effects not only between industries in the same region but also between all industries in all regions. Changes in economic activity in Region A not only lead to changes in the economic activity of regions B, C and D but those induced changes in B, C, and D feedback on region A, and themselves until a new equilibrium is reached. Thus, regional Input-Output analysis can simulate the various flows of goods and services among several regions and estimate by region and by industry the final results of any given change in the autonomous sector of any region.

This thesis will begin with an examination of the fundamental concepts of Input-Output analysis both at the national and regional levels, emphasizing the basic types of regional Input-Output models including rectangular tables.

INTRODUCTION

The advantages of each type of table are discussed.

The controversy surrounding Input-Output analysis is investigated in chapter two. Difficulties resulting from the assumptions of constant input co-efficients, constant supply patterns among regions and a static equilibrium are discussed. Errors resulting from aggregation, methods of valuation, and data collection are brought to light.

Chapter three is solely concerned with the Levitt Input-Output model for the Atlantic provinces that is being used in this paper. The theory of this particular model is discussed, dwelling at length upon special characteristics of this model that appear to be troublesome. The statistical sources for the model and the methods of data collection are mentioned briefly and an assessment of the model is attempted.

The sources of data on defence expenditures and the methods by which they are applied to the Levitt model constitute the subject matter of chapter four. The quality of each estimate of defence expenditures is discussed and the flows among the Atlantic provinces that result from the changes in defence spending are followed until a new equilibrium for the Atlantic region as a whole is reached. The change in output for each Atlantic province from the old equilibrium to the new equilibrium is examined and this change in output is translated into employment statistics.

In chapter five the quantitative results are discussed and interpreted. While not dramatic, considerable reductions in output and employment result from closing Canadian Forces Base Summerside due to a substantial dependence of the Prince Edward Island economy on defence spending. Moving operational units to Canadian Forces Base Greenwood leads to a limited increase in output and employment for Nova Scotia but does little to offset the initial reductions in Prince Edward Island. Interregional flows produce a small reduction in output and employment for New Brunswick leaving economic activity in Newfoundland virtually unchanged. A new equilibrium is quickly reached.

C H A P T E R 1

REGIONAL INPUT-OUTPUT ANALYSIS

This chapter will be concerned with the basic concept of Input-Output analysis both at the national and regional level and the system of equations that describe each. The two basic types of regional Input-Output models are discussed with reference to the advantages to be gained from both. The recent innovation of a rectangular table and the improvements it represents are presented.

Input-Output analysis is a method of portraying and investigating the interdependence of an economy in its production and distribution of goods and services. The method is conceptually quite simple; record for each industry in the economy, its sales of output to the other producing industries and to the final demand sector. At the same time each industry's purchases of goods and services from the other producing industries and the primary factors of production are recorded. The result is a single table that describes the sources and disposition of the output of every industry in the economy, every final demand sector and all primary factors of production.

Traditionally, Input-Output analysis has been carried out at the national level because of the data available at national sources and because the nation is the prime unit of

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conomic planning and decision-making. However, the apparent success of the analysis at the national level and the simultaneous increased concern with regional disparity have resulted in the techniques being applied to regional problems. Of the different approaches to the construction of regional models all have the common characteristic of displaying the flows of goods and services which bind together the industries, final demand and primary input sectors as they exist not only within each but also among regions.¹

It is relevant at this point to ask what are the types of problems encountered in Regional Economics the analysis of which may be facilitated by the use of Input-output analysis. Regional Economics is mainly concerned with the elimination of pockets of heavy unemployment and low productivity in order to increase economic growth, strengthen national cohesion and bring about a more equitable distribution of personal income and national wealth.² The construction of regional Input-Output models contribute to the attainment

1 Walter Isard, Methods of Regional Analysis: An Introduction to Regional Science (New York, 1960), p. 310.

2 T. N. Brewis and Gilles Paquet, "Regional Development and Planning in Canada: An Exploratory Essay," Canadian Public Administration, XI, 2 (1968), p. 138.

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of all these goals by recording concisely a large amount of information on the interdependence of regional economic activity in a manner that permits forecasting the outcome of any change in magnitude of the important sectors and linkages of the economy. This forecasting capability permits the quantitative evaluation of different policies and hence a method for aiding in the choice of a policy that provides the best solution to the problems of Regional Economics.

In general, then, regional Input-Output models are useful in evaluating any policy that requires a knowledge of the interdependence of economic activity in and among the regions under consideration.

It should be emphasized that Input-Output models are, however, only a technical aid in the formulation of economic policy and in no way constitute a substitute for planning. In the determination of the industries to be promoted in a region one must resort to comparative cost studies, location theory and traditional market analysis. It is necessary to state this in order to counteract the tendency to interpret regional Input-Output analysis as somehow a magical indicator of desirable industrial programs.

1. The National Model

The theoretical framework of the regional Input-Output model is essentially the same as that of the tradi-

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tional Leontief open national model³ in which the economy is divided into a number of industries on the basis of product.⁴ Each industry buys its inputs from other industries and from the primary input sector and sells its output to other industries and an "autonomous sector" which has no output. The autonomous sector represents final demand and is unexplained within the model. The upshot of this analysis is a system of equations connecting the output of all sectors and the autonomous demand for the products of each sector. Furthermore, there is one equation for each sector so that the number of equations is just equal to the number of sector output levels and, if the autonomous demands are given, this system of equations may determine the equilibrium level of output of each sector.

This equilibrium level of output of each sector will change with any given change in a final demand sector and, given very simple conditions to be discussed later, a new equilibrium will be reached. For example, an increase in consumer demand for automobiles leads to an increase in the output of the automobile industry. This is a "direct

3 W. W. Leontief, The Structure of the American Economy, 1919-1929 (Cambridge, 1941).

4 The refinements of rectangular tables are being intentionally ignored at this point.

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increase in output". However, in order to produce a larger output, the automobile industry will require more steel and the steel industry will require a larger output from the chemical industry. The steel industry and the chemical industry will require an increased output from the transportation industry which will require the automobile industry to increase its output even more. This type of increased output that results from demand generated from within the model because of industrial interdependence is referred to as an "indirect increase in output". The essence of the method by which the Input-Output Model reaches a new equilibrium is contained in the simple postulate that each of indirect increases in output is smaller than the one before it and so after a finite number rounds, the indirect increase in output will approach zero and a new equilibrium has been reached. The immediate purpose of constructing an Input-Output table is to produce a matrix that will describe the total direct and indirect changes in output of any industry per unit of final demand for the output of any other industry, that is, the new equilibrium output of any industry given a change in final demand for any other industry.

The system of equations describing the national economy and the solution to the system is briefly outlined as follows:

Assume a national economy with "n" industries

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X_{ij} is the sale of the output of the i^{th} industry to the j^{th} industry.

Y_i is the output of final goods of the i^{th} industry.

X_i is the total output of the i^{th} industry.

Z_j is the total primary input to the j^{th} industry

Then the total output of the i^{th} industry may be described as the sum of sales to each of the "n" industries, and to the final demand sector.

$$X_{i1} + X_{i2} + X_{i3} + \dots + X_{in} + Y_i = X_i$$

Now, final demand is characteristically composed of consumer purchases of output from the i^{th} industry, government purchases, investment, changes in inventories and purchases by foreigners.

Then

$$Y_i = C_i + G_i + I_i + E_i + H_i$$

where C_i is the output of the i^{th} industry purchased by consumers

G_i is the output of the i^{th} industry purchased for government purposes

I_i is the output of the i^{th} industry purchased for investment purposes

E_i is the output of the i^{th} industry purchased by foreigners

H_i is the change in inventories at all levels of production held by the i^{th} industry

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The total inputs to the j^{th} industry may be described as the sum of purchases from the "n" industries in the economy and purchases of primary inputs.

$$X_{1j} + X_{2j} + X_{3j} + \dots + X_{nj} + Z_j = X_j$$

Primary inputs usually consist of wages, salaries, imports and taxes. It should be noted that imports are a primary input in this model. Hence,

$$Z_j = W_j + S_j + M_j + T_j$$

where W_j is the purchase of labor services for which wages are paid by the j^{th} industry

S_j is the purchase of labor services for which salaries are paid by the j^{th} industry

M_j is the purchase of foreign-produced goods (imports) by the j^{th} industry

T_j is the payment of taxes by the j^{th} industry

The entire model may be described by the following system:

$$X_{11} + X_{12} + \dots + X_{1n} + Y_1 = X'_1$$

$$X_{21} + X_{22} + \dots + X_{2n} + Y_2 = X_2$$

$$X_{31} + X_{32} + \dots + X_{3n} + Y_3 = X_3$$

⋮

$$X_{n1} + X_{n2} + \dots + X_{nn} + Y_n = X_n$$

$$Z_1 + Z_2 + \dots + Z_n + Z_f = W$$

Where

Z_f is the purchase of primary inputs by the final demand sector

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'W is total primary inputs

Define⁵

$$\frac{X_{ij}}{X_j} = a_{ij}$$

$$\frac{Z_j}{X_j} = b_j$$

Substitute into the preceeding system to obtain:

$$\begin{aligned} a_{11} X_1 + a_{12} X_2 + \dots + a_{1n} X_n + Y_1 &= X_1 \\ a_{21} X_1 + a_{22} X_2 + \dots + a_{2n} X_n + Y_2 &= X_2 \\ a_{31} X_1 + a_{32} X_2 + \dots + a_{3n} X_n + Y_3 &= X_3 \\ &\vdots \\ a_{n1} X_1 + a_{n2} X_2 + \dots + a_{nn} X_n + Y_n &= X_n \\ b_1 X_1 + b_2 X_2 + \dots + b_n X_n + Z_f &= W \end{aligned}$$

Or, in Matrix form

$$AX + Y = X$$

where

A is an nxn matrix of input co-efficients indicating input requirements for each industry per dollar of input (equal to output)

X is an n-dimensional vector of industry output levels

Y is an n-dimensional vector of final demand for the output of each industry

$$X - AX = Y$$

⁵ The economic interpretation of these will be discussed at some length later.

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$$[I-A] X=Y$$

$$X=[I-A]^{-1} Y$$

If $[I-A]$ is non-singular.

$$\text{let } [I-A]^{-1} = D$$

Then

$$\begin{bmatrix} X_1 \\ X_2 \\ X_3 \\ \vdots \\ X_n \end{bmatrix} = \begin{bmatrix} d_{11} & d_{12} & d_{13} & \dots & d_{1n} \\ d_{21} & d_{22} & d_{23} & \dots & d_{2n} \\ d_{31} & d_{32} & d_{33} & \dots & d_{3n} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ d_{n1} & d_{n2} & d_{n3} & \dots & d_{nn} \end{bmatrix} \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ \vdots \\ Y_n \end{bmatrix}$$

$$X_1 = d_{11} Y_1 + d_{12} Y_2 + d_{13} Y_3 + \dots + d_{1n} Y_n$$

$$X_2 = d_{21} Y_1 + d_{22} Y_2 + d_{23} Y_3 + \dots + d_{2n} Y_n$$

$$X_3 = d_{31} Y_1 + d_{32} Y_2 + d_{33} Y_3 + \dots + d_{3n} Y_n$$

$\vdots$

$$X_n = d_{n1} Y_1 + d_{n2} Y_2 + d_{n3} Y_3 + \dots + d_{nn} Y_n$$

$$\frac{\partial X_i}{\partial Y_j} = d_{ij} \quad \text{the total change in output of the } i^{\text{th}} \text{ industry per unit increase in final demand for output of the } j^{\text{th}} \text{ industry.}$$

Then, the matrix $[I-A]^{-1}$ describes the total direct and indirect change in output of any industry resulting from a unit change in final demand for the output of any other industry.

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This national model may itself be used as a regional model if there is no attempt to portray flows between the various regions. In this case the region occupies the role of the nation in the model and all flows into or out of the region are treated as imports and exports. This type of regional model may be differentiated from other regional models by distinguishing between strictly regional models and interregional or multiregional models. The former are concerned with only one region as exemplified by the model for the province of Quebec.⁶ The latter portrays several regions and the interrelationships between them such as the model for the Atlantic provinces treating each province as a separate region.⁷ In this thesis the term "regional model" may be taken to include both the regional and interregional types.

2. Regional Model 1

The refinement of the basic model described above into a regional model may be done in one of two ways. The

⁶ Bureau de la Statistique du Québec, Le Système et Son Fonctionnement, 1, Rapport Intérimaire sur le Système de Comptabilité (Quebec, 1967).

⁷ Kari Levitt, "A Macro Economic Analysis of the Structure of the Economy of the Atlantic Provinces, 1960," in a paper presented to the Canadian Economics Association, York University, June 6, 1969.

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first method which, for convenience, shall be called Regional Model 1 consists of redefining the source and disposition of industrial output.

Assume a regional Input-Output system with "n" industries and "m" regions.

Then,

X_{ij}^{rs} is the sales of the output of the i^{th} industry in the region to the j^{th} industry in the s^{th} region.

X_i^r is the total output of the i^{th} industry in the r^{th} region

Y_i^r is the final demand for the output of the i^{th} industry in the r^{th} region

Z_j^s is the total primary input to the j^{th} industry in the s^{th} region

Then the following equation describes the disposition of the output of the i^{th} industry in the r^{th} region.

$$\begin{aligned}
 X_i^r &= X_{i1}^{r1} + X_{i2}^{r1} + X_{i3}^{r1} + \dots + X_{in}^{r1} \\
 &\quad + X_{i1}^{r2} + X_{i2}^{r2} + X_{i3}^{r2} + \dots + X_{in}^{r2} \\
 &\quad + X_{i1}^{r3} + X_{i2}^{r3} + X_{i3}^{r3} + \dots + X_{in}^{r3} \\
 &\quad \vdots \\
 &\quad + X_{i1}^{rm} + X_{i2}^{rm} + X_{i3}^{rm} + \dots + X_{in}^{rm} \\
 &\quad + Y_i^r
 \end{aligned}$$

The total output of industry i

in region r equals the sum of sales to the n industries in region 1

plus the sum of sales to the n

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industries in region 2

plus the sum of sales to the
n industries in region 3

•
•
•
•
•

plus the sum of sales to the
n industries in region m

plus sales to all final demand
sectors.

$$\text{and } Y_i^r = C_i^r + G_i^r + I_i^r + E_i^r + H_i^r$$

where C_i^r is the output of the i^{th} industry in the r^{th} region purchased by consumers

G_i^r is the output of the i^{th} industry in the r^{th} region purchased by all levels of government

I_i^r is the output of the i^{th} industry in the r^{th} region purchased for investment purposes.

E_i^r is the output of the i^{th} industry in the r^{th} region purchased by foreigners

H_i^r is the change in inventories at all levels of production held by the i^{th} industry in the r^{th} region

As before final demand is composed of consumer, government and investment spending, exports and changes in inventories, however in this case each element of final demand may be broken down by region. This regional disaggregation of the elements of final demand was not done here in order to keep the equation system as simple as possible while still conveying the essential structure of this type of regional Input-Output table.

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The source of inputs to the j^{th} industry may be described by the following equation.

$$\begin{aligned}
 X_j^s &= X_{1j}^{1s} + X_{2j}^{1s} + X_{3j}^{1s} + \dots + X_{nj}^{1s} \\
 &+ X_{1j}^{2s} + X_{2j}^{2s} + X_{3j}^{2s} + \dots + X_{nj}^{2s} \\
 &+ X_{1j}^{3s} + X_{2j}^{3s} + X_{3j}^{3s} + \dots + X_{nj}^{3s} \\
 &\vdots \\
 &+ X_{1j}^{ms} + X_{2j}^{ms} + X_{3j}^{ms} + \dots + X_{nj}^{ms} \\
 &+ Z_j^s
 \end{aligned}$$

The total input into industry j

in region S equals the sum of purchases
 from the n industries
 in region 1
 plus the sum of purchases
 from the n industries
 in region 2
 plus the sum of purchases
 from the n industries
 in region 3

$\vdots$
 $\vdots$
 $\vdots$
 $\vdots$
 $\vdots$
 plus the sum of purchases
 from the n industries
 in region m
 plus purchases of all
 primary inputs.

$$\text{And } Z_j^s = W_j^s + S_j^s + M_j^s + T_j^s$$

W_j^s is the purchase of labor services for which wages are paid by the j^{th} industry in the s^{th} region

S_j^s is the purchase of labor services for which salaries are paid by the j^{th} industry in the s^{th} region

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M_j^s is the purchase of foreign-produced goods (imports) by the j^{th} industry in the s^{th} region

T_j^s is the payment of taxes by the j^{th} industry in the s^{th} region

Primary inputs are again composed of wages, salaries, imports and taxes and could be broken down into purchases of each of these elements by region. This disaggregation has been avoided here to keep the system as simple as possible.

The schematic diagram on the next page shows the manner in which the regions and industries fit together and form the Input-Output table.

Define⁸

$$\frac{X_{ij}^{rs}}{X_j^s} = a_{ij}^{rs}$$

And obtain in matrix algebra

$$AX + Y = X'$$

where A is an $(nxm) \times (nxm)$ matrix of input coefficients indicating input requirements for each industry per dollar of input (equal to output)

X is an (nxm) dimensional vector of industry output levels

Y is an $(nxm) \times 5$ matrix of final demand

Note that in this system there are 5 columns because of the five different components of final demand. If each

⁸ The economic significance of this will be discussed at some length later.

		REGION 1	REGION 2		REGION m	FINAL DEMAND					TOTAL OUTPUT
		n INDUSTRIES	n INDUSTRIES		n INDUSTRIES	C	G	I	X	ΔH	
REGION 1	n INDUSTRIES										
REGION 2	n INDUSTRIES										
.											
.											
.											
.											
REGION m	n INDUSTRIES										
PRIMARY INPUTS	W										
	S										
	M										
	T										
TOTAL INPUT											

FIGURE 1
SCHEMATIC OF REGIONAL MODEL I

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element of final demand had also been disaggregated by region Y would have been of dimension $(n \times r) \times (5 \times m)$.

Solving the system

$$X = [I - A]^{-1} Y$$

where $[I - A]^{-1}$ is an $(n \times m) \times (n \times m)$ matrix which gives the total direct and indirect change in output of any industry in any region per dollar of final demand for the output of any industry in any region.

This type of regional Input-Output table requires a tremendous amount of statistical investigation in order to trace the flow of the output from each industry in each region to its destination in any one of the industries in any one of the regions. When the resources available for data collection are limited this type of analysis is likely to be avoided. In addition the method suffers serious conceptual difficulties that will be discussed later.

3. Regional Model II

The alternative to the preceding type of analysis is to produce a separate Input-Output table for each of the regions in the study and linking each of the tables together through the "imports" and "exports" sector of each industry in each region. For convenience we shall call this Regional Model II.

It was mentioned earlier that in both the National and Regional Model I, purchases of import were treated as a primary input while exports were an element of final demand.

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In Model II, imports are moved from the primary input sector where they were a purchase of an input, to the final demand sector where they are treated as a negative sale. In addition, imports and exports are disaggregated by origin or destination so that the flows from industry to industry and from region to region can be traced through the model.

A schematic diagram for a Model II Input-Output table for a single region is provided below. "n" industries and "m" regions have been assumed. There would be one such table for each of the "m" regions.

	n industries	C	G	I	H	E ¹	E ²		E ^m	M ¹	M ²		M ^m	TOTAL OUTPUT
n industries														
Primary Inputs														
TOTAL INPUT														

Figure 2
Schematic Diagram For Regional Model II

REGIONAL INPUT - OUTPUT ANALYSIS

In matrix form

$$AX + Y = X$$

where $Y_i = C_i + G_i + I_i + H_i + E_i^1 + E_i^2 + \dots + E_i^m - M_i^1 - M_i^2 - \dots - M_i^m$

C_i , G_i , I_i and H_i are as defined earlier

X_i^j is the exports from region i to region j

M_i^j is the imports into region i from region j

And

$$X = [I - A]^{-1} Y$$

As before, the matrix $[I - A]^{-1}$ yields total direct and indirect changes in each industry's output per dollar of final demand. However, in this case the final demand sector of the table has been structured in such a manner as to permit the examination of the flows of goods and services among industries and regions by assuming that imports remain a constant proportion of total output as output changes in response to a change in any final demand sector other than exports. This assumption is made in order to specify constant costs for both domestic and foreign industries and hence constant supply pattern between all regions in the model.

4. Rectangular Tables

A recent extension of Input-Output analysis is the construction of rectangular tables. The concept is so recent

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that only one regional table⁹ and one national table¹⁰ are operational and both of these are of a tentative nature. The approach is an attempt to overcome some of the shortcomings of the traditional square (nxn) Input-Output matrices. As will be discussed in Chapter two, it is well-known that the input co-efficients in the square tables have a rather doubtful meaning and their stability is handicapped by a system which forces re-arrangements of secondary-product data.¹¹ In addition, industrial statistics normally record more commodities than industries and so, by aggregating commodities into characteristic industrial groups, some information is needlessly suppressed.¹²

The Quebec regional table and Canadian national table both use two sets of rectangular matrices. The first is an input co-efficient matrix [U], or the primary matrix as Matuszewski calls it, with more rows than columns (more commodities than industries) and describes the value of

⁹ T. I. Matuszewski et al, Le Système de Comptabilité Économique du Québec, III, Bureau de la Statistique du Québec, Laboratoire d'économetrie, Université Laval, 1970.

¹⁰ Queen's Printer, The Input-Output Structure of the Canadian Economy, 1961, I, (Ottawa, 1969).

¹¹ John A. Sawyer, "The Measurement of Inter-Industry Relationships in Canada," The Canadian Journal of Economics and Political Science, XXI (Nov. 1955), p. 491.

¹² United Nations, A System of National Accounts (New York, 1968), p. 37.

REGIONAL INPUT - OUTPUT ANALYSIS

intermediate commodity input into each industry. The table is based on the assumption that the inputs of an industry are proportional to the output of the industry irrespective of the level of that output and its commodity composition. This assumption is defended on the grounds that technology is organized on an industrial basis and hence, the same input structure is appropriate for all commodities produced by an industry. This is referred to as the Industry Technology Assumption.¹³

The second matrix of a rectangular Input-Output system is the output table $[V]$ or the repartition matrix as Matuszewski refers to it. This matrix has the same number of columns as $[U]$ had rows and the same number of rows $[U]$ had columns. In the case of $[V]$ columns refer to commodities and rows to industries. The elements of $[V]$ portray the value of the production of each commodity produced by each industry. The assumption implicit in $[V]$ is that each commodity is produced by industries in fixed proportion and so is referred to as the Market Share Assumption.¹⁴

The manner in which $[U]$ and $[V]$ fit together with final demand and primary inputs is described by the following schematic diagram.

13 Queen's Printer, The Input - Output, p. 38.

14 Ibid., p. 37.

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	n Commodities	m Industries	Final Demand	Total
n Commodities		U	e	q
m Industries	V			g
Primary Inputs		y'		
Total	q'	g'		

Figure 3
Schematic Diagram of Rectangular Model

U is the matrix of commodity inputs used by industries

V is the matrix of industrial outputs of commodities

e is the vector of final demand for commodities

q is the vector of total commodity output

g is the vector of total output per industry

y is the column vector of primary inputs used by industries

y', q' and g' denote the transpose of y, q and g respectively.

The system is defined by (I) and (II)

$$(I) \quad g = D q$$

where D is a matrix of co-efficients calculated by dividing each column element of the matrix V by the corresponding column total in q'.

(I) is the mathematical expression of the Market Share Assumption, that is, that industries will preserve their share of the market for each commodity regardless of the level of commodity production.

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$$= Bg + e$$

output equals commodity production plus final

.

B is a matrix of co-efficients calculated by dividing each column element of the matrix U by the corresponding total in g'.

Note that B is analogous to the A matrix in the square Leontief system when $D = I$, that is, when each industry only produces one commodity

Substitute (I) into (II) and solve for g

$$g = DBg + De$$

$$g - DBg = De$$

$$[I - DB]g = De$$

$$g = [I - DB]^{-1} De$$

$$(III) \frac{\partial g}{\partial e} = [I - DB]^{-1} D$$

where $[I - DB]^{-1} D$ is a matrix producing total direct and indirect industry output changes per dollar of final demand for commodities.

(III) does not allow for competitive import leakages during the successive rounds of re-spending since competitive imports are treated as an addition to domestic supply in the original flow table. Then, to permit the rectangular Input-Output system to simulate flows of goods and services between various regions through the import and export sectors it is necessary to define a new market share matrix

$$D^* = D (1 - \mu)$$

REGIONAL INPUT - OUTPUT ANALYSIS

where μ is a diagonal matrix of competitive import co-efficients from all the sources of imports.

Then import leakages are built into the equation

$$\frac{\partial g}{\partial e} = [I - D^*B]^{-1} D^*$$

where $[I - D^*B]^{-1} D^*$ is a matrix producing total direct and indirect domestic industry output changes per dollar of final demand for commodities.

Several advantages accrue to the rectangular Input-Output system. Changes in production structure and changes in marketing arrangements are determined by different sets of forces. By keeping their descriptions separate, the system is easier to handle, modify and update. A square table, by aggregating the production and distribution structures could disguise structural shifts in the economy. A secondary benefit of rectangular tables results from the fact that the concept corresponds relatively closely to the way the data are collected. Data used are very much in the format in which they arise in industrial statistics on production and marketing, namely as products

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into industries.¹⁵ This makes it possible to draw on industrial experience and outside knowledge to improve and up-date estimates and interpret results.¹⁶

5. Summary

Input-Output analysis was traditionally carried out at the national level. Since then the method has been applied extensively to the problems of Regional Economics through the Regional Models I and II described in this chapter. The first requires very extensive data collection. The second eases the empirical burden by considering imports as a negative final demand vector instead of a primary input, and by disaggregating exports and imports by destination and source. This permits the flow of goods and services between regions to be traced through the import and export sectors of the Input-Output tables for each of the regions. The recent refinements of rectangular tables were considered. These are clearly preferable to the traditional type of table mainly because of their features that minimize changes in input coefficients and make it possible to identify changes when they do occur.

15 United Nations, A System, p. 37

16 T. I. Matuszewski, "Some Remarks on an Econometric Model of Provincial Economy," The Canadian Journal of Economics and Political Science, XXXI (Nov. 1965), p. 556.

C H A P T E R 2

THE WEAKNESSESS OF INPUT-OUTPUT MODELS

This chapter will scrutinize the methods and assumptions of Input-Output analysis in order to be aware of such limitations as may exist. Conceptual difficulties are examined first including a discussion of the use of constant input co-efficients, the assumption of constant supply patterns between regions in regional Input-Output models and the postulate of a static equilibrium for the purposes of constructing the model. Errors that enter the model from an estimation point of view are examined next. The questions raised here concern the problems of aggregation, lack of data on imports, methods of valuation and the accuracy of individual entries.

1. Constant Input Co-efficients

The same ingenious simplification of the economy which made the Input-Output model possible contained the seeds of serious difficulty. The most simplifying and controversial assumption of the analysis concerns the constancy of input co-efficient embodied in the earlier definition,

$$\frac{X_{ij}}{X_j} = a_{ij}$$

This simple mathematical statement infers that as the output of an industry increases, its use of all inputs

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change in strict proportion to the change in output, that is, that each industry's production function is linear and homogeneous of degree one. In such a case the productivity function for each factor of production will be of the form shown in figure 4 instead of the forms shown in figures 5 and 6 which indicate increasing and decreasing returns respectively.

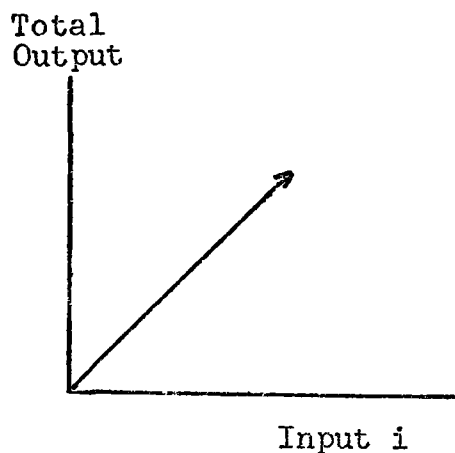


Figure 4

Productivity Function
When Production Function
Is Linear and Homogeneous

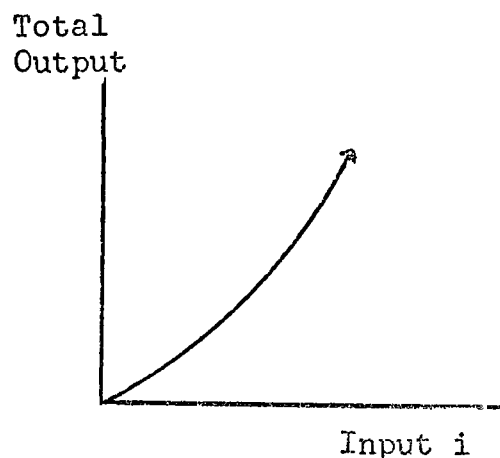


Figure 5

Productivity Function
When Production
Function Is Homogeneous With Increasing
Returns

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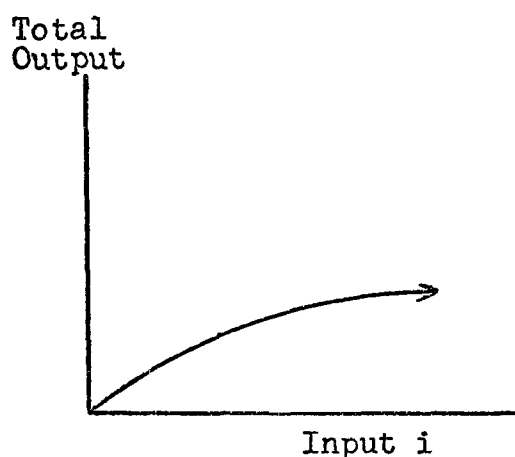


Figure 6

Productivity Function
When Production Function
Is Homogeneous with
Decreasing Returns

Leontief has pointed out¹ that the strict proportionality assumption may be modified in an open model by a constant term K which represents total output in the Input-Output system when the level of all variable inputs is zero. In this case figure 4 changes to figure 7 and allows for constant a marginal product but variable average product. K represents the level of exogenous final demand produced by primary inputs when the level of all intermediate input and output has fallen to zero.

¹ W.W. Leontief, "Some Basic Problems of Empirical Input-Output Analysis," Input-Output Analysis: An Appraisal (Princeton, 1955), p. 18.

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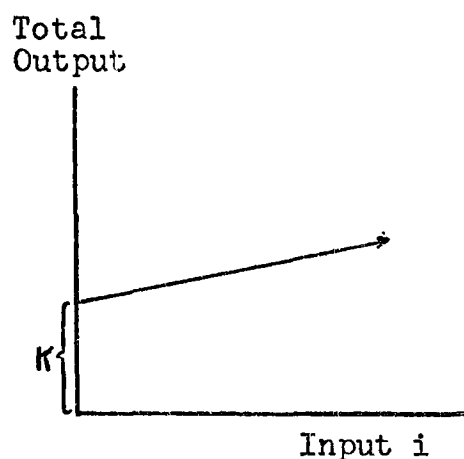


Figure 7

Modified Productivity Function
When Production Function Is
Linear

There are a number of objections to either the figure 4 or figure 7 postulates of proportionality. The most important concerns the apparent lack of substitutability among inputs. Because output changes only in strict proportion to changes in all inputs, inputs can only be combined in strict proportions. Hence, the isoquants and expansion path for any two inputs in a typical Input-Output industry are of the type shown in figure 8.

This postulate of zero elasticity of substitution between inputs violates one of the most basic postulates of the theory of the firm, that is, that the amount of each input used in producing a given output will respond to changes in relative input prices.

THE WEAKNESSES OF INPUT-OUTPUT MODELS

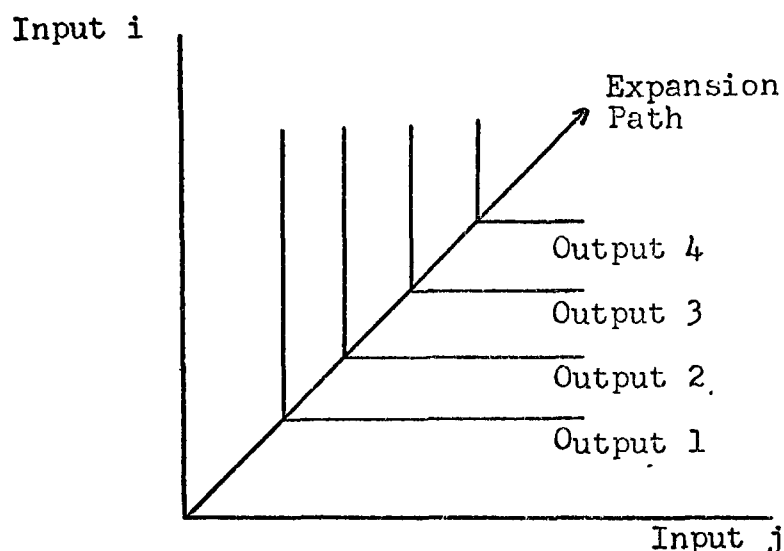


Figure 8

Isoquants and Expansion Path of
Linear Homogeneous Production
Function

Leontief argues that factor substitutions are unimportant in the short run.² Samuelson,³ Georgescu-Roegen⁴ and Chipman⁵ have argued that in the Leontief system even if

2 Ibid., p. 18.

3 Paul A. Samuelson, "Abstract of a Theorem Concerning Substitutability in Open Leontief Models," p. 142-46 in T. C. Koopmans, Activity Analysis of Production and Allocation (New York, 1951).

4 Nicholas Georgescu-Roegen, "Leontief's System in the Light of Recent Results," The Review of Economics and Statistics, XXXII (Aug, 1950), p. 214-22.

5 John S. Chipman, "Linear Programming," The Review of Economics and Statistics, XXXV (May, 1953), p. 101-17

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substitutability is physically possible, it will be ruled out on economic grounds. In an economy where labor is the only factor of production not produced within the system, the price structure will lead to the efficient utilization of labor and, since all productive factors will consist of either direct or embodied labor, there will be no scope for changes in relative factor prices, and, therefore for factor substitution. For example, if wages are increased in the Leontief system, the cost of machines also increases by the same proportion because everything is congealed labor in the Leontief system.⁶ Hence there will be no substitution between factors because there has been no change in the relative prices of factors.

This analysis cannot be readily applied to the open rectangular system because there is not a one to one relation between the m industries which purchase labor inputs and the n commodities produced by those m industries. However, similar results can be derived by separate consideration of each of the basic assumptions of the rectangular Input-Output system.

Consider Figure 9 in which the supply and demand for

⁶ R. Dorfman, P. Samuelson and R. Solow, Linear Programming and Economic Analysis (Toronto, 1958), p. 249.

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any of the commodities produced by industry I in the rectangular Input-Output system are shown.

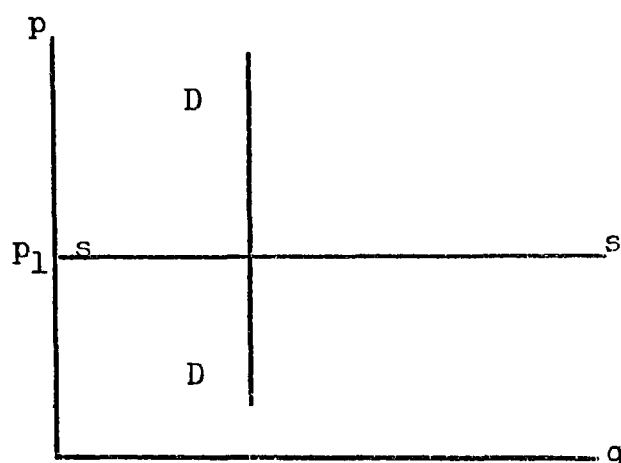


Figure 9

Equilibrium of Industry I

The supply curve ss is horizontal representing the postulate of constant marginal and average costs. It should be noted that, by the Industry Technology Assumption, this supply curve refers to the costs incurred by industry I regardless of the commodity composition of that industry's output. Thus, industry I can supply any quantity of all the commodities it produces at price p_1 .

The demand curve DD is drawn perfectly inelastic because demand in the Input-Output system is inelastic with respect to price. Any shift in the demand curve DD will still produce an equilibrium at price p_1 .

Figure 10 shows the supply and demand for any of the commodities produced by industry II. Now, because industry I

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is almost certain to have a different cost structure than industry II, p_1 will not equal p_2 except by chance.

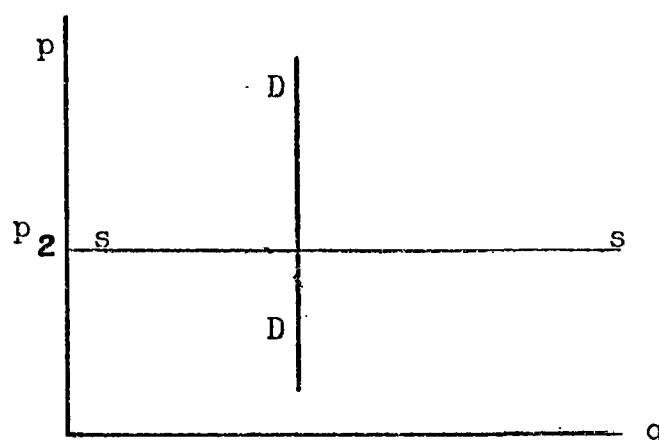


Figure 10

Equilibrium of Industry II

If p_2 is less than p_1 , substitution of the commodities produced by industry II for the commodities produced by industry I would be expected and vice versa if p_1 is less than p_2 .

However, this substitution will not take place because of the Market Share Assumption which requires each industry to retain only its portion of the market for each commodity. This market portion is determined by observation in the base year as the $[V]$ matrix is constructed. The variables determining each industry's portion of the market are exogenous to the model and include commodity differentiation, customs, levels of advertising, geographical displacement of markets, etc.

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The problems of proportionality and non-substitutability are further complicated by the aggregation into industries of firms whose technical methods are not identical or which produce products whose technical requirements are not identical. Input co-efficients resulting from such aggregations are not simple technological co-efficients but complex ratios. Take for example the ratio of the input from the chemical products industry to the output of the clothing industry. The numerator would be the sum of the price times quantity of hundreds of inputs to the clothing industry obtained from the chemical products industry, while the denominator would be composed of the sum of the price times quantity of each of the thousands of different products of the clothing industry. This co-efficient can only be interpreted as a ratio which incorporates a variety of influences including the supply and demand for the products of the clothing industry, the supply and demand for the inputs from the chemical products industry as well as the various technologies of the clothing industry. Hence in an industry which includes some variety of products and technologies, we can assert that the input co-efficients are constant only if we assume that when the output of the whole industry's product changes, the output of all its slightly differentiated products change in the same proportion and also that all technically different segments of the industry expand and contract in the same proportion. It should be noted here that this

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problem is considerably lessened in the rectangular Input-Output system which separates the structure of production from that of distribution.

The production co-efficients and the meaning to be attached to them offer additional problems generated by the static nature of the typical Input-Output model. There is not really an instantaneous connection between the current level of activity in any industry and the current level in its supplying industries. Inputs (except services) must be produced before they can be used. Consequently, the technological relationships (except for service industries) connect the current level of each industry with previous levels of its supplying industries and subsequent levels of its customer industries. Thus, since the usual Input-Output model abstracts from the time sequence of production and exchange it applies only to a static equilibrium. This is exactly the problem one must expect to encounter in attempting to simplify reality into a static model.

One further problem associated with the assumption of fixity of production co-efficients results from there being no upper limit on the various outputs. Thus the output of the automobile industry is assumed to be independent of the capacity of the steel industry, or for that matter, of the quantity of iron ore in the ground. This problem could

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be overcome within the existing concept of Input-Output analysis by generalizing the model to a Linear Programming problem and placing upper limits on one or both of the amount of labor in the economy and the physical capacity of the industries themselves.

All the above remarks on fixed input co-efficients of production are associated with changes in the level of output and changes in prices of factors of production. Whenever an Input-Output table is used for analysis at any time other than the year for which it was prepared a problem arises in considering whether or not a change has occurred in the input co-efficients simply due to the passage of time. This problem is extremely relevant because of the length of time (usually 5-10 years) it takes to prepare a high quality table.

Over a period of 5-10 years invention and innovation change input co-efficients or the stock of capital may change sufficiently to alter the structure of production. Natural resources may become depleted. Also, the mix of industries in any given industrial classification may change. Several attempts⁷

⁷ See for example V. L. Smith, "Engineering Data and Statistical Techniques in the Analysis of Production and Technological Change: Fuel Requirements in the Trucking Industry", Econometrica, XXV (April, 1957), 281-310. W. W. Leontief et al, Studies in the Structure of the American Economy (New York, 1953).

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have been made to investigate the stability of input co-efficients over time, however most are inconclusive and plead for more research in the area. The general conclusion is that for industries, their purchases of goods and services from other industries are based primarily on established customs or technological necessity and hence tend to change only gradually through time.

While it is apparent that the use of constant input co-efficients is a serious shortcoming of Input-Output analysis, it has to be clearly understood that practical necessity rather than theoretical convenience is responsible for the dominant position assigned to this limiting assumption. As Leontief makes very clear⁸ there is simply not enough quantitative knowledge on the structural relationships within the economy to take account of variable proportions at the industry level.

2. Constant Regional Supply Patterns

In the Regional Model Type I, the input co-efficients (the a_{ij}^{rs} 's) are subject to all the conceptual difficulties associated with the National Model input co-efficients (the

⁸ W. W. Leontief, "Some Basic Problems of Empirical Input-Output Analysis," p. 18 in Input-Output Analysis: An Appraisal: Studies in Income and Wealth (Princeton, 1955).

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a_{ij} 's) and an additional difficulty of their own. The Regional Model Type I assumes "stable trade co-efficients".

Regional input co-efficients not only specify the amount of input needed per unit of output as did the national input co-efficients, but they also specify the regional source and that source is assumed to supply a constant proportion of total output. Thus the Type I assumes constant supply or trading patterns between every industry in every region. To assess the limitations involved in this assumption it is necessary to consider the circumstances under which constant supply patterns will prevail.

Given regional cost structures, transportation rates on every commodity between every pair of regions and regional final demand, the trading patterns between regions will be unresponsive to changes in regional final demand if the following conditions are satisfied;

- i) cost of production are constant and there exists excess productive capacity-the usual Input-Output assumptions.
- ii) the cost per unit of transporting a good between every pair of regions is fixed and there exists excess capacity in the transportation network.
- iii) the supply of labor in each region is infinitely elastic at the given regional factor prices.⁹

9 Leon N. Moses, "The Stability of Interregional Trading Patterns and Input-Output Analysis," The American Economic Review, XLV (Dec. 1955), p. 811.

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When these conditions are satisfied any shift in demand will leave the existing pattern of trade between regions unchanged.

The Type II Regional Model relaxes the data collection difficulties encountered in the Type I Model by tracing the origin of imports by region and by industry but treating them as an addition to regional supply of a commodity and assuming all industries use the same proportion of regionally produced goods and imports of the same type of good. However, the assumptions necessary to ensure stability of supply patterns are the same for both Types of Regional Model.

There are other factors which may operate to stabilize the regional input co-efficients. Supply patterns will tend to be stable for those type of commodities which incur significant transportation costs.¹⁰ Also, in those cases where cultural and institutional factors operate to fix supply channels, trade patterns will be stable. Finally, trade patterns will be stable for commodities where different natural attributes of the same product effectively distinguish

¹⁰, Walter Isard, "Interregional and Regional Input-Output Analysis: A Model of a Space-Economy," The Review of Economics and Statistics, XXXIII (Nov. 1951), p. 324.

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the output of one region from another. For example, trading patterns between different Canadian regions would tend to be stable for such products of the Primary Fishing Industry as British Columbia salmon, Northern Ontario trout, or pike and Atlantic halibut.

In summarizing then, it must be acknowledged that the postulate of stable supply patterns is not a particularly reliable assumption. However, it does provide a workable method for simulating the flow of goods and services between regions when dealing with small percentage changes in the final demand sector. The extent of unreality obviously becomes greater and the reliability of results less acceptable as the magnitude of the hypothetical changes increase and as longer and longer run implications are sought.

3. The Static Equilibrium

In a discussion of the conceptual shortcomings of Input-Output analysis, mention should be made of the basic book-keeping identity expressed by the equation;

$$X = AX + Y$$

It must be kept in mind that this bookkeeping balance relates to sales and purchases and not directly to quantities of production and consumption. The difference between the sales of any sector and its output is the change in its inventories of finished goods, and the difference between the

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purchases of any sector and its consumption is the change in its inventories of raw material. Hence sales can be identified with output and purchases with inputs only if inventories do not change and this relationship is valid only in static equilibrium. In the case of those industries that have experienced a change in inventories over the period for which data is being collected for the Input-Output table, a column in the autonomous sector is allocated to changes in inventories. This sector is very difficult to treat properly because it introduces a dynamic element into the static series of flows depicted in an Input-Output table. To compound the problem, information on inventories is notably poor.¹¹

Primarily, information on inventories is poor because of the aggregate nature of the item; it shows the changes in the stocks of each industry which are held by all establishments in the regional economy whether as raw materials, good in process, finished goods or trading inventories.¹²

¹¹ W. Duane Evans and Marvin Hoffenberg, "The Inter-Industry Relations Study for 1947," The Review of Economics and Statistics, XXXIV (May, 1952), p. 118.

¹² Queen's Printer, The Input-Output Structure of the Canadian Economy 1961, I, (Ottawa, 1969), p. 28.

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Secondly, firms employ a variety of inventory accounting methods which may show changes in values of inventories even though there has been no actual changes in the quantities. Hence inventories must be valued by multiplying the physical change by weighted average prices during the year instead of the readily-available book values. The issue is further complicated in those industries, such as the tobacco industry or whisky distilleries, where it is quite common for inventories to contain goods produced in previous periods so that in order to correct book value to physical change, it is necessary to assume a period of turnover for that particular industrial inventory.¹³

In addition to these conceptual difficulties of constant supply patterns, input co-efficients and dynamic inventories in a static model, there are a number of practical or statistical problems encountered in constructing an Input-Output table.

4. Aggregation to an Industrial Classification

In Canada the industries in an Input-Output model represent a grouping of the basic elements of the economy listed

¹³ John A. Sawyer, "The Measurement of Inter-industry Relationships in Canada," The Canadian Journal of Economics and Political Science, XXI (Nov. 1955), p. 484.

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in the Dominion Bureau of Statistics Standard Industrial Classification Manual. Since data used in assembling Input-Output tables are collected on the basis of this classification, an understanding of the meaning of an industrial classification of goods and services is fundamental to an understanding of the nature of the table of inter-industry flows of goods and services.

The unit basic to data collection and Input-Output analysis is the establishment defined as the smallest unit for which accounting records are available.¹⁴ Characteristically, the establishment is the garage, retail outlet, factory, etc. since this is the smallest unit of the firm for which it is possible to obtain statistics on materials used, shipments, inventories, etc.

An industry represents a group of establishments which have sufficient common characteristics that they may be grouped together for analytical purposes.¹⁵ The establishments may produce similar products (eg: Meat, Dairy, Fruit) or may employ similar technological processes (eg: Printing).

One of the chief practical problems in Input-Output work concerns the choice of a particular set of industries to

14 Queen's Printer, The Input-Output..... p. 28.

15 Ibid., p. 22.

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be employed. The final decision will be largely dependent upon costs of, and resources available for data collection and processing, amount and kinds of existing data and the objectives of the study. The greater the amount of industrial detail that can be recorded the greater will be the flexibility and usefulness of the tabulations. Perhaps more important, as the industrial classifications become less aggregative the more homogeneous are the establishments remaining in the classifications. The more homogeneous are the establishments that make up an industry, the more stable will be the input co-efficients over time since the establishments represents a collection of specialized equipment and human experience within which rapid substitutional possibilities are at least limited. In addition, it is desirable to work with fine industrial detail because this leads to better information on competitive imports. The exact nature of this point will be discussed later.

On the other hand, an increase in the number of industries adds to labor and processing requirements at every stage.¹⁶ Considering that resources available for most

¹⁶ Walter Isard, Methods of Regional Analysis: An Introduction to Regional Science (New York, 1962), p. 319.

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research purposes are limited, there will be a strong incentive to reduce this burden by aggregating to a smaller number of sectors.

The undesirable effects of a necessary sacrifice in detail may, however, be minimized.¹⁷ If the output of one industry is all, or nearly all, purchased by a second sector, the two sectors may be combined with minimal loss of information. If two sectors have identical input structures per unit of output, nothing will be lost in combining them. If two or more sectors have little or no bearing on the particular problem under consideration, these sectors may be combined with small loss.

5. Import Estimation

In constructing an Input-Output table it is necessary to allow for import leakages out of final demand and the successive rounds of intermediate demand. Otherwise, in computing total direct and indirect changes in output per dollar of final demand, an Input-Output model will be overstating

¹⁷ W. Duane Evans and Marvin Hoffenberg, "The Nature and Uses of Inter-Industry Relations, Data and Methods," p. 75, Input-Output Analysis: An Appraisal (Princeton, 1955).

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the change in domestic output by the volume of imports purchased by the intermediate sectors on each of the successive rounds of production induced within the model. Ideally in a table that automatically allows for import leakages, each element of intermediate and final demand would be separated into demand for domestic and demand for foreign goods and it would be assumed that the ratio of domestic to foreign demand for each element of demand remains constant for all levels of output. Unfortunately, the import content of each element of demand is not known because the exact geographical origin of purchases is generally not recorded in the source documents of establishments.¹⁸

To overcome this absence of direct data on imports, two types of imports are distinguished; competitive and non-competitive. Competitive imports are those which have a regionally-produced counterpart. Conversely, non-competitive imports are commodities or services not produced in the regional economy. There is little difficulty in estimating non-competitive imports simply because all of it must, by definition, come from a foreign source.

18. Queen's Printer, The Input-Output..... p. 22.

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Competitive imports are estimated by the "residual difference" method.¹⁹ By this procedure competitive imports are charged to consuming industries where the counterpart regional production takes place and so are distributed simply as an addition to regional supply. The total volume imported for any single type of competitive import is then obtained as the residual difference between the sum of all uses and regional output.

The residuals method of estimating competitive imports is not a safe one. The method will produce different results depending upon the degree of aggregation of the table. The greater the degree of detail in the table the greater will be the volume of non-competitive imports capable of being identified as not produced regionally. In addition, the residual method of determining imports rests heavily on the assumption that there is no re-export of commodities.

6. Methods of Valuation

It is both a statistical and economic necessity that all components of an Input-Output table be measured in as consistent a manner as possible. There are two methods of

¹⁹ Kari Levitt, "A Macro Economic Analysis of the Structure of the Economy of the Atlantic Provinces 1960," in a paper presented to The Canadian Economics Association, York University, June 6, 1969.

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valuation; purchaser's prices and producer's prices.

The price of an article at purchaser's prices includes the value of the article f. o. b. the factory plus wholesale and retail trade margins, plus transportation costs plus indirect taxes.²⁰ This method has the advantage of showing consumer expenditures at the actual delivered prices and therefore directly relates industry outputs to the personal expenditure and other categories in the National Accounts. However, this method has the important disadvantage of including in the input co-efficients trade margins, transportation costs and indirect taxes and changes in these items will affect the ratios even if there has been no change in the technical input co-efficients for the industry.

In order to avoid this source of instability in the input structure producer's prices are most frequently used in the construction of Input-Output tables. In this case the purchase is recorded f. o. b. the factory and trade and transportation margins and indirect taxes are recorded as if they constitute separate transactions by the purchaser.²¹ This

20 W. Duane Evans and Marvin Hoffenberg, "The Nature and Uses....." p. 62.

21 Queen's Printer, The Input-Output, p. 25.

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method poses a problem to the researcher because information available is very likely to be recorded in source documents at purchaser's prices and the sum of trade and transport charges and the sum of indirect taxes must be estimated separately, usually by indirect methods.

Producer's prices may, sometimes, be defined to include commodity taxes in which case the term "basic value" is used to identify the price defined by purchaser's prices less trade and transport margins and commodity taxes.²²

Imports must also be valued in a manner consistent with the valuation of domestically produced goods and services, however, there is no value for imports that is equivalent to producer's values for domestic products.²³ The method used values imports at cost, insurance and freight at the Canadian border plus import duties. In regional models, domestic goods but imported from outside any one region will be valued in the same manner, however, import duties will be zero.

Special problems associated with the import and export sectors of regional Input-Output tables mainly derive from the

22 United Nations, A System of National Accounts (New York, 1968), p. 48.

23 Queen's Printer, The Input-Output..... p. 25.

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fact that regional economies are almost invariably much more reliant on external trade than national economies and inter-regional trade is never recorded as accurately as international trade.²⁴ For example, the income of commuters who live in one region but work in another is very difficult to estimate. There are similar problems associated with large multi-plant corporations which not only have installations in various areas but with ownership dispersed in unknown fashion over several regions. Also government activities, especially at the federal level, are difficult to distribute on a regional basis. All these problems are greatly eased if there are sharp geographical boundaries between the regions. Also, if political boundaries such as provinces or states define the limits of a region, problems of estimation are lessened.

The most basic practical question of Input-Output analysis concerns the numerical accuracy of the individual entries. How closely does the figure on fertilizers purchased by the agricultural industry correspond to the actual magnitude it is supposed to represent? In considering such a problem, one must first ensure that one understands the meaning of the entries in the Input-Output table. The less

²⁴ J. Meyer, "Regional Economics: A Survey," The American Economic Review, LIII (Mar. 1963), p. 24.

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aggregative are the industries, the less index-like are the values in the table and the closer to reality will any given entry correspond. Hence the meaning of the industrial label attached to the individual entry in a detailed Input-Output table can be expected to be more precise than the broader concepts in the aggregated table.

An assessment of the accuracy of any given entry in an Input-Output table implies knowledge of the true magnitude of the entry. But, if the true magnitude were known it certainly would have been used in the first place. An ideal check would be provided if data could be obtained by both purchases and sales. But even in the most advanced industrial regions neither the sale nor purchase information is available in the detail desired from immediate observation.²⁵

Very few, if any, entries in an Input-Output table are obtained through immediate observation. Almost all are arrived at through the application of various indirect estimating procedures to sets of primary data.²⁶ Thus, it is not the

25 Walter Isard, Methods of Regional Analysis: An Introduction to Regional Science (New York, 1960), p. 324.

26 W. W. Leontief, "Some Basic Problems of p.10.

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knowledge of the correct answers, but the quality of the researchers and their experience in the use of similar indirect procedures that enables one to form opinions concerning the reliability of the final statistical entries.

In summary then, Input-Output models suffer from very serious conceptual difficulties the most important of which concerns the use of constant input co-efficients for all levels of production and for extended periods of time after the base year. Both are necessary because at present there is no reliable way to predict changes in input co-efficients. The length of time for which any given model must be used after the base year is determined by the considerable delay required to prepare that table and then up-date it. This will be 5-10 years for a good table.

The assumption of a constant supply pattern among regions is not particularly reliable, however, the conditions for stability can be enunciated. The use of a static model must be accepted until dynamic models can be estimated. Statistical difficulties will limit even the use of a square model, however, procedures have been outlined to minimize the undesirable effects of necessary simplifications. The ultimate assessment of any model is determined by the extent to which special attention has been paid to traditional

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problem areas identified by earlier researchers and by the experience and quality of personnel engaged in the construction of the model.

C H / P T E R 3

T H E L E V I T T M O D E L

The only Input-Output model for the Maritime Provinces in use at the present time is a square table with the base-year 1960 and constructed by Mrs. Kari Levitt of McGill University.¹ This model was presented to the Canadian Economics Association Meeting at York University, June 6, 1969 and is a Type II Regional Model as discussed in Chapter two. One Input-Output table was prepared for each of the Atlantic Provinces and each province was linked to each of the other Maritime Provinces, the Rest-of-Canada and the Rest-of-the-World through separate import and export columns in the final demand sector. The flow table for each of the Atlantic Provinces presented by Levitt is contained in Appendix 1, Tables 1 to 4 inclusive.

1. General Nature of the Model

The Levitt Input-Output model is an attempt to produce a strictly policy-oriented table in the sense that the table is meant to be well-suited to aiding a development policy for the Atlantic region concerned with finding ways and means to

¹ Kari Levitt, "A Macro Economic Analysis of the Structure of the Economy of the Atlantic Provinces, 1960," in a paper presented to the Canadian Economics Association, York University, June 6, 1969.

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increase income and employment.² Because the chief instruments of policy in the Atlantic region are federal and provincial expenditures and transfer payments to persons, local governments and industries,³ the model was designed with particular emphasis on these items. In addition, the openness of the Atlantic provinces relative to the rest of Canada resulted in special attention being paid to the import and export sector.

One table was prepared for each province in the belief that for the purposes of economic planning, the province is the crucial unit of regional economic decision-making.⁴ Treating each province as a region affords certain economies in data collection since it permits the use of existing provincial statistics in the construction of the table. In the case of Newfoundland and Prince Edward Island the provincial boundary provides a distinct geographical barrier over which goods and services entering or leaving the region must pass,

2 Kari Levitt, "Inter-Industry Study of the Economy of the Atlantic Provinces," p. 153 in Sylvia Ostry and T. K. Rymes ed; Papers on Regional Statistical Studies (Toronto, 1966), p. 152.

3 Kari Levitt, "A Macro Economic Analysis....." p. 3.

4 Ibid., p. 4.

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thereby permitting the application of more reliable indirect measures of interregional trade.

The industries selected for the model reflect the attempt to produce a "policy model". Industries were chosen not only to describe how the economy existed in the base-year but as it might become as development plans progressed. Particular effort was made to isolate the key activities upon whose fortunes the region depends. Industrial data was collected in more and more detail until the inter-industry flows became too scanty to justify the additional research necessary for building a larger table.⁵

The elements of the final demand sector are also strongly policy-oriented. Government expenditures are disaggregated by level of government, that is, federal, provincial, and municipal and, by function, that is, defence, civil, education and hospitalization. Imports and exports are disaggregated by source or destination in order to permit the examination of flows between the regions resulting from any change in final demand in any one region. The residuals method for determining imports is used to estimate only those imports into any one of the regions from a source outside the Atlantic provinces. Imports into anyone of the Atlantic

5 Kari Levitt, "Inter-Industry Study....." p. 155.

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provinces from another of the Atlantic provinces is simply the exports of the second Atlantic province to the first province. For example, the entry for competitive imports of industrial product R into region A from region B is simply the exports of R from region B to region A. Since information on the destination of exports is generally much more reliable than the source of imports,⁶ this method for estimating competitive imports into any Atlantic province from any other Atlantic province yields results more reliable than would be expected. In an attempt to increase the reliability of information on competitive imports from outside the Atlantic region, the most disaggregated commodity detail possible was used to estimate imports.⁷

In the estimation of competitive imports through the residuals method re-exports are assumed to be zero. For example, European automobiles unloaded at Halifax and transported through Nova Scotia and New Brunswick to the rest of Canada are assumed to be zero. There is nothing conceptually incorrect about assuming such re-exports to be zero as long as the economic activity generated by such through-shipments will not also be assumed zero. In the Levitt model special

⁶ United Nations, A System of National Accounts (New York, 1968), p. 37.

⁷ Kari Levitt, "Inter-Industry Study....." p. 155.

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effort⁸ has been made to estimate the transportation, storage and distribution charges associated with re-exports although these through-shipments themselves will not appear as either imports or exports.

The Levitt paper actually presents three separate models for the Atlantic Provinces each exhibiting a different degree of "openness." Openness in this sense refers to the extent to which demands are determined external to the Input-Output system (exogenous variables) as opposed to demands which are determined within the model (endogenous variables).⁹ The smaller the number of endogenous variables, the more "open" (or less "closed") the model is.

2. The Theory of the Model

Each of the three Levitt models is defined by the same relationship;

$$g = Ag + D + E - M$$

where g is an n -dimensional vector describing total output for each of the n industries

D is an n -dimensional vector of final demand excluding imports and exports

⁸ Ibid., p. 154.

⁹ Leonid Hurwicz, "Input-Output Analysis and Economic Structure," The American Economic Review, XLV (Sept. 1955), p. 631.

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E is an n-dimensional vector of final demand
for exports to all designations

M is an n-dimensional vector of final demand
for competitive imports from all sources

A is an (nxn) matrix of input co-efficients. Each
element of A is defined by

$$a_{ij} = \frac{u_{ij}}{u_{i.}} \quad i, j = 1 \ 2 \ 3 \ \dots n$$

where u_{ij} is the purchase of inputs by the j^{th} industry
from the i^{th} industry or from a foreign source
producing an output similar to that of the i^{th}
industry.

and $u_{i.}$ is the total output (equal to total input) of
the j^{th} industry

then

$$g - Ag + M = D + E$$

define β to be a diagonal matrix whose elements
in the principal diagonal are;

$$\beta_{ij} = \frac{M_i}{g_i - E_i} \quad i = 1 \ 2 \ 3 \ 4 \ \dots n$$

That is, competitive imports are defined to be a
constant proportion of total output excluding final demand
for exports or what Levitt calls "net provincial output", $(g-E)$.¹⁰

Substitute and obtain

$$g - Ag + \beta(g - E) = D + E$$

10 Kari Levitt, "A Macro Economic Analysis...."p. 20.

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$$g - Ag + \beta g - \beta E = D + E$$

$$g - Ag + \beta g = D + E + \beta E$$

$$[I - A + \beta] g = D + [I + \beta] E$$

$$g = [I - A + \beta]^{-1} [D + [I + \beta] E]$$

then $[I - A + \beta]^{-1}$ is an (nxn) matrix which yields direct and indirect industry output requirements per unit of final demand excluding exports, for each of the n industries.¹¹

The $[I - A + \beta]^{-1}$ matrices for Prince Edward Island and Nova Scotia are contained in Appendix 1.¹²

The $[I - A + \beta]^{-1}$ matrix cannot be used to yield direct and indirect industry output requirements per unit of exports because of the definition;

$$\beta_{ij} = \frac{M_i}{g_i - E_i} \quad i = 1 \ 2 \ 3 \ 4 \ . \ . \ . \ . \ n$$

This defines direct export demand as supplied only from provincial output. However, all other final demand and all indirect demand is supplied from both provincial output and competitive imports in a constant proportion, .

The following derivation may be used to provide a matrix which yields direct and indirect industry output

11 Ibid., p. 19.

12 Table 5 in that appendix is the $[I - A + \beta]^{-1}$ matrix for Prince Edward Island. Table 6 is the same but closed with respect to consumption. Table 7 is the $[I - A + \beta]^{-1}$ matrix for Nova Scotia closed with respect to consumption.

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requirements per unit of final demand for exports.

define

E' is an n-dimensional vector of exports obtained by partitioning the matrix $[D|E]$ into six separate vectors for each of the destinations of exports and then summing each of these vectors into one vector E'

then, the earlier identity

$$g = Ag + D + E - M$$

becomes

$$g = Ag + E' - M$$

as before β is a diagonal matrix whose elements in the principal diagonal are defined by

$$\beta_{ij} = \frac{M_i}{g_i - E'_i} \quad i = j = 1 \ 2 \ 3 \ \dots \ n$$

then,

$$g = Ag + E' - \beta(g - E')$$

$$g = Ag + E' - \beta g + \beta E'$$

$$g - Ag + \beta g = E' + \beta E'$$

$$[I - A + \beta] g = [I + \beta] E'$$

$$g = [I - A + \beta]^{-1} [I + \beta] E'$$

then $[I - A + \beta]^{-1} [I + \beta]$ is an (nxn) matrix which yields direct and indirect industry output requirements per unit of each category of final demand for exports, that is, by destination of exports.

The $[I - A + \beta]^{-1} [I + \beta]$ matrix for each of the Maritime provinces is included in Appendix 2, Tables 5-8 inclusive.

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3. Special Characteristics of the Model

There are certain procedures in the Levitt model that have led to unusual results and merit further investigation at this point. In the construction of an Input-Output model difficulties arise in the treatment of by-products, secondary-products, scrap and waste. Most industries produce some secondary products that are primary products of other industries and it is virtually impossible to separate the cost structure of the industry's primary production from the cost structure of the secondary product. However, for each industry that produces secondary products, by-products, scrap and waste, steps must be taken to ensure that the purchase of inputs by each industry only reflects the cost structure for production of its primary product. There are several methods by which reality may be approximated in such cases.¹³ The method chosen in the Levitt model is based on "the assumption of a commodity technology" which states that any commodity has the

¹³ Terry Gigantes and Paul Pitts, "An Intergrated Input-Output Framework and Some Related Analytical Models," p. 1 in a Paper presented to the Canadian Political Science Association Conference on Statistics, University of British Columbia, Vancouver, June 12-13, 1965.

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same cost structure regardless of the industry which produces it.¹⁴ The Method simply transfers the input structure of the secondary product from the industry where it is produced to the industry for which it is the primary product.

As an example, assume that the New Brunswick Forestry Industry produces a secondary product, say lumber, that is the primary product of the Sawmill Industry. By assuming that the cost structure for lumber in the Forestry Industry is the same as the cost structure for lumber in the Sawmill Industry, the purchase of inputs by the Sawmill Industry in the production of lumber is subtracted from the Forestry Industry and added to the Sawmill Industry. Since there may be inputs into the Sawmill Industry which are not used by the Forestry Industry, the transfer of the input structure of the Sawmill Industry from the Forestry Industry may result in negative inputs in the cost structure of Forestry Industry. Now if these negative inputs are large enough there is a possibility that they will reduce the total output of the Forestry Industry sufficient to produce input co-efficients

14 United Nations, A System, p. 39.

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whose absolute values are greater than one.

Negative input co-efficients have occurred in the Levitt model in several places,¹⁵ notably in the Forestry, Secondary Fishing and Machinery and Equipment Industries. Both positive and negative input co-efficients whose absolute value is greater than one resulted in the Prince Edward Island Forestry Industry. If the Levitt model has been rectangular this problem would not exist because the rectangular system permits any industry to produce more than one commodity.

Model I in the Levitt paper is a standard Input-Output table with thirty, thirty-one, or thirty-three intermediate industries, depending upon which province the table is for, and eighteen final demand elements including five Export demands and four Import demands. The other final demand elements are Personal Consumption, Capital Formation, Changes in

¹⁵ The existence of negative input co-efficients and co-efficients whose absolute value is greater than unity suggest a need to consider the conditions under which a meaningful solution to the Input Output system of matrices will exist. Research in this thesis was unable to satisfactorily establish that this meaningful solution does in fact exist. Correspondence with the Dominion Bureau of Statistics and Mrs. Kari Levitt is continuing on the subject.

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Inventory and Public Sector expenditures disaggregated to six elements giving the purpose and government level which made the expenditure.

Model II closes Model I with respect to consumption, that is, Personal Consumption by the household is moved from from an exogenous final demand element to an intermediate industry. At the same time, Wages and Salaries earned from participating in provincial economic activity are moved from a primary input to the intermediate sector to form the row corresponding to the new Household Industry column.

Closing an Input-Output model with respect to consumption has been criticised on the grounds that it implies a sort of household production function in which all consumption by the household is consumption for production.¹⁶ However, it is not necessary to evoke this dubious concept because closing the Input-Output model with respect to consumption really infers nothing more than a rather obvious connection between the expenditures of a household and its

¹⁶ Robert Dorfman, "The Nature and Significance of Input-Output," The Review of Economics and Statistics, XXXVI (May, 1954), p. 127.

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income via the consumption function.¹⁷ Whether or not the relation between household receipts and expenditures is constant, is, of course, another question. In any case application of the postulate of proportionality to the Household Industry is only an extension of the normal assumptions of constant input co-efficients in the Input-Output system. It should be noted that the relationship between inputs and outputs in the Household Industry is the converse of the production function for a normal industry. For a normal industry, output (sales) results from inputs (purchases). However, in the Household Industry inputs (purchases of consumer goods and services) result from output (receipts of income). Within the Input-Output framework of comparative statics the order in which the activities of input and output occur is irrelevant. All that is required is that a stable relationship between inputs and outputs exist.

Households have, nevertheless, tended to be treated as an exogenous variable principally because they constitute a large proportion of the whole Input-Output system and because

¹⁷ W. W. Leontief, The Structure of the American Economy 1919-1929 (Cambridge, 1941), p. 42.

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consumer behaviour studies are not extensive and reliable.¹⁸ These two factors tend to have a marked affect on numerical results. On the other hand, it is useful to introduce the Household Industry because modern consumption function theory explains consumption in terms of the level of economic activity.¹⁹ In addition, the concept of the Household Industry is the only way in Input-Output analysis to simulate the Keynesian consumption multiplier which produces large increases in economic activity resulting from successive re-spending of incomes by consumers.

The flow table for Model II has not been included because of its similarity to the flow table for Model I.

Model III in the Levitt paper further closed the original Model with respect to municipal and provincial government receipts and expenditures. Model III was not used in this paper because there could be found no firm justification for assuming a fixed relationship between government receipts and expenditures, particularly in a downward direction.

¹⁸ W. W. Leontief, Studies in the Structure of the American Economy (New York, 1953), p. 101.

¹⁹ Dorfman, "The Nature and Significance...." p. 127.

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4. Sources and Evaluation

The statistical sources used in preparation of the Levitt models include Dominion Bureau of Statistics publications provincial statistical material and the Public accounts, supplemented by questionnaires, surveys and direct inquiries.²⁰ Data was collected for approximately 250 industries representing every manufacturing industry found in the Atlantic provinces in 1960 and for six hundred commodities.²¹ This information was eventually aggregated to two levels. The first contains seventy-one industries and second has thirty-four industries.²² Because data was collected for both commodities and industries there is an implication that the existing square tables could be modified into rectangular tables. Unfortunately, this is not the case. When the Levitt model was begun in June, 1962, the concept of a rectangular table had not been originated and while some information on both commodities and industries was collected insufficient information was requested in surveys and questionnaires to

20 Kari Levitt, "Inter-Industry Study....." p. 171-174.

21 Ibid., p. 156-159.

22 Kari Levitt, "A Macro Economic Analysis...."p. 15-17.

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build a rectangular table. At this point it is considered impractical to attempt to convert the existing Levitt square table into a rectangular table. This may, however, be a future project for the Levitt research team when the 1960 tables have been updated.

An evaluation of the Levitt model should take into account the quality and experience of the researchers, the level of aggregation of the tables and the attention that has been paid to the traditionally troublesome sectors. On all these points the Levitt model scores very high. The main factors limiting the usefulness of the table are its age and its square nature. Because construction of an Input-Output table is a painstaking and laborious task, it is very difficult to find a good table that is not at least five years out of date by the time it is published. To this extent the use of a fairly old table must be accepted as more or less inevitable. The fact that the Levitt table is square cannot be accepted as a serious limitation because at this point in time a rectangular table must still be considered a luxury. A rectangular format would, however, have done away with the annoying presence of negative input co-efficients and co-efficients whose absolute value is greater than one.

To summarize, the Levitt paper presents three Input-Output models for each of the Maritime Provinces. The first

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is the standard square open type while the second is closed with respect to consumption and the third is further closed with respect to local governments. In each, the import and export elements in the final demand sector are structured in such a manner as to simulate the flow of goods and services between industries in each region assuming that imports remain a constant proportion of any industry's output. The quality of the models may be labelled "very good" if qualified by the fact that the table is nine years old. Thus, these Input-Output models can show within the assumptions of constant supply patterns, constant input co-efficients and a static framework, how a given autonomous impulse in one region is transmitted to each of the other regions. Subject to those same assumptions, these models can show how the direct and indirect flows play back and forth from region to region and how this affects output and employment in each region.

C H A P T E R 4

ESTIMATES AND METHODS

In this chapter vectors describing the change in defence spending in both Prince Edward Island and Nova Scotia will be derived and applied to the appropriate inverse matrices. The problems of data collection for the elements of the vectors are discussed including an assessment of the quality of the estimate of each element. Each inverse for Nova Scotia and Prince Edward Island is multiplied by the vector describing the change in final demand and the subsequent interregional flows of goods and services are traced until their values approach zero. When the new equilibrium is reached the total change in output for each industry in each province is then estimated and translated into the change in employment.

Having derived the $[I-A+\beta]^{-1}$ and the $[I-A+\beta]^{-1}[I+\beta]$ matrices for each of the Maritime Provinces, the capability now exists to estimate the total direct and indirect changes in industry output for a given change in any final demand element and trace the resulting flows of goods and services among the various regions subject to the usual assumptions of Input-Output analysis discussed in Chapter two. To operate on these matrices requires an n-dimensional vector describing the change in final demand associated with the postulated policy decision.

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1. The Change in Defence Spending Vectors

The closure of Canadian Forces Base Summerside, Prince Edward Island, and the move of its operational units to Canadian Forces Base Greenwood, Nova Scotia, initially involves two final demand vectors. The first is an n -dimensional vector whose elements are all negative or zero for operation on the Prince Edward Island $[I-A+\beta]^{-1}$ matrix. This yields the total direct and indirect inter-industry (not interregional) change in output for each Prince Edward Island industry resulting from the reduction of Federal Government Defence expenditures associated with closing Canadian Forces Base Summerside. The second vector of initial interest is an n -dimensional vector whose elements are all positive or zero for operation on the Nova Scotia $[I-A+\beta]^{-1}$ matrix. This yields the total direct and indirect inter-industry (not interregional) change in output for each Nova Scotia industry resulting from the increase in Federal Government Defence expenditures in Nova Scotia associated with moving operational units from Prince Edward Island to Greenwood, Nova Scotia.

Estimation of the n -dimensional vector describing the change in defence expenditures in Prince Edward Island requires an estimation of Department of National Defence purchases of goods and services at producer's prices from each of the Prince Edward Island industries specified in the Levitt model. The

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general procedure was to observe directly, whenever possible, Department of National Defence purchases of goods and services. In other cases the linear trend of historical information was used to estimate current purchases. The linear trend was determined using the method of semi-averages. Where no trend could be specified, historical per capita averages for the Armed Forces as a whole were used as the basis for estimation. In a limited number of cases no direct or indirect statistical information on purchases was available without on-site research. In these cases it was assumed that Department of National Defence purchases of specific items remained a constant proportion of total defence provincial expenditures and this proportion was as specified in the Levitt flow table.

The change in Department of National Defence expenditures is a 29-dimensional vector which we shall call vector d^1 for use in the Levitt Prince Edward Island Model I, that is, the standard open model. For use in Model II for Prince Edward Island, the change in defence expenditures is a 30-dimensional vector. The additional dimension is Department of National Defence purchases of the output of the Household Industry. For Nova Scotia the change in Department of National Defence expenditures is a 34-dimensional vector called d^2 . Both vectors are shown in Appendix 2, Table 1.

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The vectors d^1 and d^2 are zero in all cells except for the following industries;

Sawmills, Wood Products	Communications Equipment
Meat, Dairy, Fruit	Electric Power, Water and Gas
Construction	Automobile Operation
Transportation, Travel and Entertainment	Distribution
Finance and Real Estate	Business Services
Personal Services	Household Industry (Model II only)

A check on all estimates is provided by the Levitt procedure of separating the elements of final demand by function. Federal Government Defence expenditures occupy a separate column in the Levitt flow table. Because the closure of Canadian Forces Base Summerside would virtually eliminate all defence spending in Prince Edward Island, the estimates presented here should conform fairly closely to the estimates presented in the Levitt model taking into consideration price increases from 1960 to 1969. Notable exceptions are "Construction" and "Boat and Ship-building." Both will be discussed later.

2. Estimates of Changes in Defence Spending

Two estimation problems specific to defence expenditures were encountered. The first concerns the security classi-

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fication of material. Security regulations prohibit the use of certain data in association with certain Armed Forces formations. For example, the costs of operation of some types of aircraft cannot be published because such information could compromise the number, role and performance of aircraft whose operation is considered vital to the security of Canada. Such security regulations have been observed by not disaggregating Department of National Defence expenditures in Prince Edward Island and Nova Scotia by operational unit. In addition, most critical purchases from a security point of view are hidden in the inoffensive category "Non-Competitive Imports."

The second problem concerns the use of only two years, 1967 and 1968, to set a trend for 1969 whenever trend information for the Armed Forces as a whole was sought. 1967 was the year of integration for the Canadian Armed Forces and all pre-1967 statistical information was gathered differently by each of the Army, Navy and Air Force. All three former services employed different accounting techniques, concepts and definitions resulting in data that cannot be reconciled with post-integration statistics for the Armed Forces as a whole.

This problem of pre-and post- integration statistics is eased if historical averages are sought for any given unit or base which before integration employed only one service and

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whose role has remained essentially the same throughout the period of integration. This is the case for Canadian Forces Base Summerside which employed only Air Force personnel before integration and since integration has continued to perform a maritime patrol function that, by its nature, employs former Air Force personnel. The six years from the fiscal year 1963/64 to 1968/69 was the period used to set the historical trend for projecting base averages into 1969.

Four categories were set up for the purposes of estimating the quality of the estimate of each of the elements of the change in defence spending vector. The first of them is "Excellent" and is applicable only to those elements that were observed directly. The second category, "Good", refers to those estimates arrived at indirectly but based upon reliable assumptions and averages. Estimates of "Fair" quality are based on linear trends or Armed-Forces-wide averages. The final category is "Unknown". No direct or indirect information on industries in this group could be found without on-site research. Entries in this category are assumed to remain a constant proportion of defence expenditures in the intermediate sector.

The element "Meat, Dairy, Fruit" of the vector describing the change in Federal Government Defence expenditures is based on per capita local food purchases for messing

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facilities for the Armed Forces as a whole projected to 1969¹ and the average base population of Canadian Forces Base Summerside during 1969. The quality of this element can only be rated "Fair" because of the use of Armed-Forces-wide historical averages that may vary significantly from year to year depending upon the amount of training being carried out at any given base for any given year. The estimate does, however, correspond well to the Levitt estimate.

The item "Sawmills, Wood Products" is based on per capita local purchases of office furniture for the whole of the Armed Forces² projected to 1969. This estimate corresponds well to the Levitt estimate and is rated "Fair".

"Construction" is estimated from the actual funds spent on construction projects at Canadian Forces Base Summerside during the first three months of 1969 and that portion of funds for the 1969/70 fiscal year whose expenditure during 1969 had been confirmed by 30 January, 1970. Because of the direct nature of estimation, the quality of this item is "Excellent". There is a wide discrepancy between the estimate here and the estimate for the base year

¹ Queen's Printer, Canadian Armed Forces Cost Factors Manual (Ottawa, 1969), p. 241.

² Ibid., p. 191.

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in the Levitt model due to the nature of Department of National Defence expenditures on "Construction". When the future of any base is in doubt, major construction projects are either postponed or cancelled outright. During the fiscal year 1969/70, no major construction projects were undertaken at Canadian Forces Base Summerside.

"Travel" is also considered to be of "Excellent" quality because it is estimated in precisely the same manner as "Construction". In this case the estimate agrees fairly well with the Levitt estimate.

All three estimates "Communications", "Electric Power, Water and Gas" and "Finance, Insurance and Real Estate" are based on projections to 1969 of trends established by historical costs incurred by Canadian Forces Base Summerside.³ The quality of all three estimates are rated "Fair" because they do not conform well with the Levitt estimates of the same items.

"Automobile Operation" represents the local distributor's trading margins on all Department of National Defence local purchases of automobile petroleum, oil, lubricants, spare parts and overhaul of Armed Forces vehicles.⁴ The quality of

3 Ibid., p. 225-233.

4 Queen's Printer, Personnel, Operation and Maintenance Programme Costing 1969/70 (Ottawa, 1969), p. 0104.

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this estimate is only considered "Fair" for two reasons. First, vehicle operating costs are based on Armed-Forces-wide averages that are not necessarily correct for any given location in any given year. The second reason concerns distributor's trading margins which are based on nation-wide averages for services stations with "Average" annual net sales.⁵

The three items "Distribution", "Personal Services", and "Business Services" are all considered of "Unknown" quality because no direct evidence of Department of National Defence expenditures in these areas could be estimated without an on-site investigation into the local purchases of these services and trade margins. In all three of these cases it was assumed that these items were a constant proportion of Department of National Defence expenditures in the intermediate sector and Levitt estimates were inflated accordingly.

The "Household Industry" should be divided into two portions for the purpose of quality estimation; military wages and civilian wages and salaries. The military portion is

⁵ Queen's Printer, Automobile Dealers, Accessories, Tire and Battery Shops, Services Stations, Garages and Paint and Body Shops Operating Results 1965 (Ottawa, 1968), p. 15.

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based on the average number of officers and men by rank and by trade actually employed at Canadian Forces Base Summerside during 1969 and the average pay for each officer rank and man's rank and trade. This portion of Department of National Defence purchases of the output of the Household Industry represents 72.6% of the whole and the quality is "Excellant". The remaining 27.4% of the National Defence wage bill at Canadian Forces Base Summerside can only be considered "Good" since it is based upon the assumption that the base is employing exactly that number of civilians that it is entitled to employ. This assumption is necessary since no exact information is available for the actual number of civilians employed at Summerside without an on-site investigation.

It will be noted that there is no estimate here for the "Boat and Ship-Building Repair" Industry even though the Levitt table shows an entry of eighty thousand dollars. No evidence of any Federal Defence expenditures in Prince Edward Island in this industry was found. It seems very unlikely that there should be since all Department of National Defence ship building and repair is done outside of Prince Edward Island. This must be considered a structural change that has taken place in Federal Government Defence expenditures since 1960.

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A summary relating the quality of estimates to the per cent of total Department of National Defence expenditures is shown in the figure below.

Quality of Estimate	% of Total Expenditures
Excellant	68.1
Good	23.5
Fair	7.1
Unknown	1.3

Figure 10

Quality of Estimates

3. The Generated Changes in Output and Employment

The vector d^1 was applied to the Prince Edward Island $[I-A+\beta]^{-1}$ matrix for both Model I and Model II using the usual multiplication of a matrix by a vector. Appendix 2, Table 2 displays the changes in industrial output for both Model I and Model II.

The vector d^2 describes the change in final demand for Nova Scotia industries caused by increased Federal Government expenditures associated with moving operational units to Greenwood, Nova Scotia. The elements of d^2 were applied to the Nova Scotia $[I-A+\beta]^{-1}$ matrix for Model II to obtain the total direct and indirect change in output for each Nova Scotia industry resulting from the change in final demand specified by the vector d^2 . The results are presented in Appendix 2

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Table 2.

The d^2 vector was not applied to the Nova Scotia $[I-A+\beta]^{-1}$ matrix for Model I because it was not intended to trace the interregional flows for both Model I and Model II. The d^1 vector was applied to the Prince Edward Island $[I-A+\beta]^{-1}$ matrix for both Model I and Model II in order to compare the results of closing the basic Levitt model with respect to consumption. Model III was not used because it seems doubtful that there exists a fixed relation between the revenues and expenditures of local governments if the change is in a downward direction. When faced with a situation of declining economic activity a rational short run economic policy for a lagging region in particular would involve increased public spending at all levels rather than allow public expenditures to fall in line with revenues.

Having estimated the total direct and indirect reduction in output by industry for Prince Edward Island and the total direct and indirect increase in output by industry for Nova Scotia resulting from the respective changes in Department of National Defence expenditures, it is necessary to estimate that portion of each industry's change in output that is imports. Imports from each source are assumed to remain a fixed proportion of each industry's total output excluding exports and the proportion is that which is observed in the base year by the relationship

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$$\beta_i = \frac{M_i}{g_i - E_i} \quad i = 1 \ 2 \ 3 \ 4 \ \dots\dots\dots n$$

where

M_i is the total imports of output of the i^{th} industry

g_i is the total output of the i^{th} industry

E_i is the total exports of output of the i^{th} industry

There is a competitive import co-efficient, β , for each source of imports for each industry in each of Prince Edward Island and Nova Scotia. The β co-efficients for Prince Edward Island and the reduction in imports they produce from each of the other Atlantic provinces are shown in Appendix 2, Table 3. The β co-efficients for Nova Scotia and the increase in imports they produce from each of the other Atlantic provinces are shown in Appendix 2, Table 4.

These changes in imports generated within the Input-Output system lead to a situation where Prince Edward Island's reduction in imports from Nova Scotia is offsetting the initial increase in Nova Scotia's output caused by the increase in defence expenditures at Greenwood. On the other hand, Nova Scotia's increase in imports from Prince Edward Island is offsetting the initial reduction in Prince Edward Island's output caused by the reduction in defence spending at Summerside. Each of New Brunswick and Newfoundland experience both

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an increase in exports to Nova Scotia and a reduction in exports to Prince Edward Island. The extent to which each of these flows offset one another will be discussed in Chapter five.

The next step in the operation is achieved by multiplying the $[I-A+\beta]^{-1}[I+\beta]$ matrix for each of Prince Edward Island and Nova Scotia by a vector whose elements are changes in exports for each Prince Edward Island and Nova Scotia Industry. This procedure estimates the total change in output of each Nova Scotia and Prince Edward Island industry due to their respective changes in exports. The results for Nova Scotia are presented in Appendix 2, Table 9 while Appendix 2, Table 10 contains the same material for Prince Edward Island.

A similar procedure was carried out for New Brunswick and Newfoundland both of which experienced an increase in exports to Nova Scotia and a reduction in exports to Prince Edward Island. These two changes in the export section of final demand were netted by industry and the resulting changes in exports were used to define the change in export vector for each province. Multiplication of these vectors by the appropriate $[I-A+\beta]^{-1}[I+\beta]$ matrix for each province shows the change in output by industry for each of New Brunswick and Newfoundland due to the changes in defence expenditures in Nova Scotia and Prince Edward Island. These tables are displayed in Appendix 2, Tables 9 and 10 for New Brunswick and

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Newfoundland respectively and portray the extent to which interregional flows of goods and services transmit changes in demand for industrial output from one region to another through the import and export sectors on the first round of interregional trade.

Just as the demand for goods and services is transmitted through the intermediate demand sector of the traditional Input-Output model on successive "rounds" of production, so in the interregional model demand is transmitted from region to region on successive "rounds" of trading between the regions. Each of New Brunswick and Newfoundland encounter a further reduction of industrial output on the second round of interregional trading. On the first round of interregional trading, the change in industrial output for New Brunswick and Newfoundland is caused by a reduction in exports to Prince Edward Island and an increase in exports for Nova Scotia. The change in output in Newfoundland and New Brunswick leads to a change in purchases of imports from each of the other Atlantic provinces which produces further changes in the output of all Atlantic provinces. This series of flows between the regions theoretically continues indefinitely but in practice approaches zero very quickly. For New Brunswick and Newfoundland two rounds of trading were sufficient to produce interregional flows that approach zero.

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Prince Edward Island and Nova Scotia were slightly different in that the initial change in output was not generated by interregional trade but a change in defence expenditure in the final demand sector. In the case of Prince Edward Island two rounds of interregional trade resulted in flows that approached zero. Nova Scotia required three rounds of trading before subsequent flows reduced to nil.

Tables are not attached in which the calculations for the changes in output due to changes in exports on the second and third rounds of trading were estimated. The method is identical to that carried out on the first round of trading. The results on each round of trading for each province are contained in Appendix 3, Tables 1 to 4 inclusive where all changes in output by province and by industry are netted to produce a single vector for each province. Each vector describes the total change in output by industry for the appropriate province resulting from the postulated reduction in defence spending in Prince Edward Island and the increase in Nova Scotia. Since all calculations up to this point have been in 1969 dollars, these four vectors describing total change in output for each province may be called f_{69}^1 , f_{69}^2 , f_{69}^3 and f_{69}^4 for Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland respectively.

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In trying to translate the vectors describing the changes in output for each of the provinces into employment figures, a choice in procedures was encountered. Unpublished, but available as a supplement to the Levitt model, was an "Employment Vector" that describes the number of persons employed per thousand dollars of output in 1960 prices for each industry in each of the Atlantic provinces. Multiplications each of these "Employment Vectors" by a vector describing total change in output in 1960 prices for the appropriate province produces an estimate of the change in employment for each province resulting from the changes in Department of National Defence expenditures. This requires deflating the vectors f_{69}^1 , f_{69}^2 , f_{69}^3 , and f_{69}^4 to 1960 prices.

The alternative to this procedure involved estimating a current "Employment Vector" that described the number of persons employed per thousand dollars of output in 1969 prices. The information necessary to do this was not available by province and by the necessary industrial detail for the year 1969.

Deflation of the vectors f_{69}^1 , f_{69}^2 , f_{69}^3 , and f_{69}^4 to base year prices was done using Dominion Bureau of Statistics

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Industrial Price Indexes ⁶ The resulting vectors f_{60}^1 , f_{60}^2 , f_{60}^3 and f_{60}^4 are shown in Appendix 3, Tables 1-4. The product of these vectors and the Employment Vectors are shown in Appendix 3, Tables 7 and 8. This procedure only estimates the change in employment for the intermediate demand sector of the economy. In order to arrive at the total change in employment it is necessary to subtract for Prince Edward Island and add for Nova Scotia that number of workers whose services are purchased directly by the Department of National Defence. This number of workers, provided by Defence purchases in the "Household Industry" is presented in Appendix 3, Tables 7 and 8.

Vectors describing changes in defence spending in both Prince Edward Island and Nova Scotia were derived in this chapter. The quality of each element in the vectors was discussed and it may be concluded that, on the whole, the vectors are a good reflection of the changes in defence spending that would occur if Canadian Forces Base Summerside were to close and its operational units move to Canadian Forces Base Greenwood. The $[I-A+\beta]^{-1}$ matrix for each of Prince Edward

⁶ Queen's Printer, Prices and Price Indexes November 1969 (Ottawa, 1970), p. 1-27.

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Island and Nova Scotia was multiplied by the appropriate vector representing a change in defence spending and the resulting interregional flows were traced until their value became insignificant. The changes in provincial output were then totalled and converted to changes in employment in preparation for the conclusions to be drawn from them in Chapter five.

C H A P T E R . 5

DISCUSSION AND INTERPRETATION OF THE RESULTS

In this chapter the quantitative results arrived at in the previous chapter will be discussed and interpreted. First, the total direct and indirect effects on Prince Edward Island and Nova Scotia outputs caused by changes in defence expenditures will be investigated. The interregional flows generated by these changes in output will then be traced until resultant flows approach zero and a new equilibrium has been reached. The net change in output for each industry in each province will then be calculated and converted into a change in employment. Finally, the economic importance of these changes in output and employment will be assessed for each of the Atlantic provinces.

1. General Remarks on Expected Results

It should be noted at the outset that the vectors d^1 and d^2 which display the change in defence expenditures for Prince Edward Island and Nova Scotia respectively are highly labor intensive. The Household Income (personal income earned from participating in provincial economic activity) component of each of the vectors constitutes 85-90% of the total change in defence expenditures. Hence, initially, the most dramatic changes in industry outputs will be in those industries where the household spends substantial proportions of its total income. However, even if the initial change in output for

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any given industry is substantial, its percentage of the total change in output may be reduced if large import leakages external to the Atlantic Provinces operate to reduce inter-regional feedback effects on successive rounds of regional trading.

Total direct, indirect and interregional changes in output will, then, depend basically upon three things. Most important is the industries in which the initial change in final demand spending takes place. In this case, the critical area of expenditure is determined by the pattern of consumer expenditures. Secondly, the interdependence of the economy determines the indirect change in output, that is, how much of each industry's output is being sold on successive "rounds" of production. Lastly, import leakages outside the Atlantic region and imports from each of the other Atlantic Provinces determine how quickly interregional flows diminish and so dictate the importance of changes in output due to inter-regional feedbacks.

The pattern of consumer expenditures may be observed by consulting the Personal Consumption column of the flow tables for Nova Scotia and Prince Edward Island in Appendix 1, Tables 1 and 3 respectively. This indicates large purchases by the household of the output of the foods industries, the

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Distribution or Wholesale and Retail Trade industry, The Automobile Operation industry and the services industries.

By observation of the intermediate sector of the flow table for each of the provinces generalizations may be made concerning the interdependence of the economic structure of each province. Although the detail varies considerably for each province, the pattern is generally a scanty interdependent structure for the primary industries and a much greater interdependence for the secondary and tertiary industries and, in particular, the Construction, Distribution, Machinery and Equipment, Finance, Insurance and Real Estate and Business Services industries. It should be noted here that the Household Income industry contributes most to the interdependence of the economic structure since the household purchases the output of every industry and sells its own services to every other industry in the Input-Output model.

2. The Direct and Indirect Effects on Output

In its simulation of economic activity the Input-Output table can produce two types of "multipliers" depending upon how "closed" the model is. The first of these multipliers is peculiar to the standard open Input-Output table such as the Levitt Model I. This type of multiplier arises because of the interdependence of the industries in the economy which results in re-spending by industries on successive "rounds" of

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production. The second type multiplier is characteristic of an Input-Output model closed with respect to consumption and merges the first of these multipliers with a Keynesian-type consumption multiplier associated with the marginal propensity to consume. This allows for successive rounds of re-spending by the Household Income industry.

Each of these types of multipliers has been quantified for the change in defence spending described by the vector d^1 . For use in Model I, vector d^1 describes a total change in final demand for the output of the intermediate industries of 1,763 thousand dollars. This change in final demand produces a total direct and indirect change in output of 2,216 thousand dollars. Thus, a multiplier¹ of 1.26 is associated with the interdependence of the Prince Edward Island economy for a change in final demand vector having the same structure as d^1 .

For the Prince Edward Island Input-Output Model II a multiplier of 2.24 was similarly observed. Thus, closing the Prince Edward Island Input-Output model with respect to consumption has the effect of relatively increasing the multiplier effect of changes in final demand by seventy-seven per cent.

¹ This Multiplier is arrived at by dividing total change in output by total change in final demand.

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Results obtained using Model II will, therefore, be much more dramatic than results obtained using Model I. More important, closing an Input-Output model with respect to consumption produces results more closely approximating reality because the short run nature of the Keynesian consumption multiplier is entirely consistent with the short run nature of the Input-Output table.

Multiplication of the $[I-A+\beta]^{-1}$ matrix for Prince Edward Island by the vector d^1 produces the changes in industry output displayed in Appendix 2, Table 2. As expected, the largest reductions in output are experienced by those Prince Edward Island industries whose output is consumer goods. Agriculture, Transportation, Travel and Entertainment, Distribution and Dwelling Services all experience reductions in output in excess of one million dollars. The largest reduction, fifteen million six hundred and ninety-nine thousand dollars, is experienced by the household. This reduction in income is not as serious as would first appear because approximately half of this reduction is income formerly accruing to members of the Canadian Armed Forces stationed at Summerside. Upon closure of base Summerside these Armed Forces personnel would be moved to Greenwood, Nova Scotia or re-employed in other vacancies in the Canadian Armed Forces units located elsewhere in Canada, the United States or Europe. Thus, only about one-half of the reduction in output of the Household Income indus-

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try leads to a reduction in the wages and salaries of persons actually living in Prince Edward Island.

Because of the extensive savings that would be achieved by closing Canadian Forces Base Summerside, the total increase in defence expenditures in Nova Scotia is only approximately one-seventh of the total reduction in Prince Edward Island. While the magnitudes of the increase in Nova Scotia industry output are much smaller, the largest increases in output are again experienced by those industries whose output is consumer goods. Increases in output of greater than one-quarter of a million dollars are experienced by the Transportation, Travel and Entertainment, Distribution, Automobile Operation and Dwelling Services industries. Again, the Household Income industry has the largest change in output, however, over three-quarters of the increase is absorbed by Canadian Armed Forces personnel being moved into Greenwood, Nova Scotia.

3. The Interregional Effects on Output

The interregional flows on the first round of regional trade that result from these initial changes in output of the Prince Edward Island and Nova Scotia industries are displayed in Appendix, Tables 3 and 4. By assuming that imports are a constant proportion of total output net of exports, the import content of each industry's total change in output can be

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estimated.

As shown in Appendix 2, Tables 3 and 4, the Atlantic province import content of each of the industry's change in output resulting from the change in defence expenditures is rather small. For example, in Prince Edward Island only 3.8 per cent of the total direct and indirect reduction in industry output represents a reduction in imports from the other Atlantic provinces. For Nova Scotia, imports from the other Atlantic provinces represent only 1.8 per cent of the total reduction in output. A paradoxical situation seems to have arisen in that interregional flows are quite small in spite of the fact that the economies of the Atlantic provinces are very open to trade.² The explanation of this odd phenomenon lies in the fact that the industries which experience the largest change in output in both Prince Edward Island and Nova Scotia are service industries and the competitive foreign output of such industries are not exported to the Atlantic provinces. In addition it may be observed from the flow tables in Appendix 1, Tables 1-4 inclusive, that the

2 Kari Levitt, "A Macro Economic Analysis of the Structure of the Economy of the Atlantic Provinces, 1960," p. 28-42 in a paper presented to the Canadian Economic Association, York University, June, 1969.

DISCUSSION AND INTERPRETATION OF THE RESULTS

Atlantic provinces are far more open with respect to trade with the rest of Canada and foreign nations than they are with each other. Thus, in spite of large initial changes in output in both Prince Edward Island and Nova Scotia, the resulting interregional flows are relatively small.

The decrease in output of Prince Edward Island industries leads to decreases in Prince Edward Island's imports from each of the other Atlantic provinces. Conversely, increases in the output of Nova Scotia industries results in increases of Nova Scotia's imports from each of the other Atlantic provinces. The change in output for each of the Atlantic provinces caused by these changes in imports into Prince Edward Island and Nova Scotia are presented in Appendix 2, Tables 9 and 10.

The decrease in Prince Edward Island's imports from each of New Brunswick and Newfoundland swamps the increase in Nova Scotia's imports from those same two provinces. The results is a small reduction in the output of most Newfoundland industries. The reduction is, however, not large enough to affect Newfoundland's imports from the other provinces. Almost every New Brunswick industry experiences at least a small reduction in output and one, the Miscellaneous Foods industry, experiences a reduction in output of almost one-half a million dollars. Similarly, Household Income drops

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by greater than one quarter of a million dollars. Because of these and other considerable reductions in output, New Brunswick's imports from each of the other maritime provinces are reduced, producing further reductions in the output of Nova Scotia, Prince Edward Island and Newfoundland industries.

After three "rounds" of such interregional trading, all flows among the Atlantic provinces are no longer significant. The total change in output for each industry in each province is totalled in Appendix 3, Tables 1-4 inclusive. In these same tables the output of each industry is deflated from 1969 dollars to 1960 dollars.

Because the interregional flows are relatively small, regional feedbacks do little to offset either the initial reduction in the output of the Prince Edward Island industries or the initial increase in the output of the Nova Scotia industries. In the case of Prince Edward Island only one-quarter of one per cent of the initial reduction in output is offset by regional feedbacks. In Nova Scotia, twelve per cent of the initial increase in output is offset by regional feedbacks.

Deflating the change in output of each industry to 1960 dollars permits the use of an Employment Vector for each province displayed in Appendix 3, Tables 5 and 6. These Employment Vectors portray for each province the number of

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persons employed in each industry per one thousand dollars of output of that industry in 1960 prices. Multiplication of this vector for each province by the vector describing the change in output of each industry for each province in 1960 prices, results in the ultimate goal of this thesis: an estimate of the change in employment in each province associated with closing Canadian Forces Base Summerside and moving its operational units to Canadian Forces Base Greenwood.

4. Conclusions

The changes in employment for each industry in each province are shown in Appendix 3, Tables 7 and 8. All these estimates exclude personnel of the Canadian Armed Forces who would normally be considered a primary input purchased by the Federal Government Defence sector of final demand. Similarly, civilians employed directly at Canadian Forces Base Summerside would not ordinarily appear as a change in employment because they are not employed by one of the intermediate industries. Special provision has been made for civilian labor employed directly at Canadian Forces Base Summerside and at the operational units moved to Greenwood by the entry titled "Final Demand Change in Employment" immediately below the vector describing employment changes in both Prince Edward Island and Nova Scotia.

DISCUSSION AND INTERPRETATION OF THE RESULTS

The unemployment resulting in Prince Edward Island, while not excessive, is substantial. A total of 1,264 persons are estimated to be rendered jobless. This figure represents 3.3% of the Prince Edward Island labor force.³ This would increase by two-thirds the 5.3% unemployment rate experienced as a seasonal average in Prince Edward Island during 1969. Hardest hit among the industries would be Distribution, Automobile Operation, Transportation, Travel and Entertainment and, of course, the civilians formerly employed directly at base Summerside.

Nova Scotia's increase in employment represents one-tenth of one per cent of its labor force. While this additional economic activity would help to relieve the unemployment situation in that province, the advantages for Nova Scotia are far outweighed by the sacrifices required of Prince Edward Island.

The estimated increase in unemployment in New Brunswick is sixty-two persons. This figure is fairly evenly shared by each industry with only the Miscellaneous Foods industry called upon to bear any significant burden. In total, the change in

3 Statistics in the next three paragraphs regarding the current labor force and unemployment rates in the Atlantic region are all from Queen's Printer, Labor Force Special Surveys (Ottawa, 1970), p. 9712-525.

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employment represents less than one-tenth of one per cent of the New Brunswick labor force and, although not inconsequential, is probably acceptable.

The increase in unemployment in Newfoundland is six persons and may be looked upon as insignificant. Because there are few strong regional flows of goods and services between Newfoundland and the other Atlantic provinces, Newfoundland is almost entirely isolated from the changes in output and employment elsewhere in the Maritimes.

For Prince Edward Island the economic consequences considered here are serious enough to necessitate some alternative economic support programme if the possibility of closing Canadian Forces Base Summerside is to be seriously considered. An investigation to recommend any specific support programme should be a separate study in itself and will not be attempted here. However, certain very basic requirements can be suggested based upon the findings of this research. First, in order to avoid dislocations in the economic structure of Prince Edward Island, the alternative programme should be highly labor intensive or else should make large purchases of the output of the foods and services industries. Secondly, because Armed Forces personnel are concentrated in the immediate area of Canadian Forces Base Summerside, the alternative should have its impact in the general Summerside area or a re-location

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problem for the unemployed will have to be faced. Finally, the alternative programme cannot solve the unemployment problem by attempting only to foster the export markets of Prince Edward Island. Such an attempt will only cause unemployment to persist until structural changes in the Prince Edward Island economy have taken place because those industries which have substantial export markets are least affected by closing base Summerside. In addition, it was observed earlier that the interregional flows into and out of Prince Edward Island are too scanty to generate much employment due to increase economic activity in another region.

In this chapter the results obtained in Chapter four were discussed and a judgement made as to their economic significance. The general aspects of economic interdependence, interregional flows and the sources of large expenditures were briefly discussed to indicate the areas in which large changes in output could be expected to take place. Closing the Input-Output model with respect to consumption was demonstrated to produce results of considerably greater magnitude than the standard open model. Having quantified the consequences of closing a model with respect to consumption, all investigations were continued using the closed model because it was expected that the introduction of a Keynesian-type consumption multiplier would produce more realistic results.

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The changes in output and employment were then investigated. Substantial unemployment results in Prince Edward Island from the closure of Canadian Forces Base Summerside with the foods and services industries particularly hard hit because defence spending is highly labor intensive. Although a substantial increase in economic activity took place in Nova Scotia, interregional flows were too slim to offset much of the initial reduction in Prince Edward Island output and employment. New Brunswick suffered a slight reduction in output and employment while Newfoundland experienced no significant change. Because of the fairly serious nature of Prince Edward Island's estimated changes in employment it was concluded that some alternative economic support programme should be introduced to that province to replace defence expenditures if Canadian Forces Base Summerside were to close. Basic requirements were suggested for the implementation of any such economic support programme.

SUMMARY AND CONCLUSIONS

In attempting to operate within a fixed budget the Canadian Armed Forces have argued in favor of closing Canadian Forces Base Summerside, Prince Edward Island and moving operational units from Summerside to Canadian Forces Base Greenwood, Nova Scotia. This thesis has investigated some of the economic implications of this military proposal examining specifically the effects on output and employment for each of the Atlantic provinces using a regional Input-Output model constructed by Mrs. Kari Levitt of McGill University.

The economic implications of Input-Output analysis at both the national and regional levels were first investigated. Regional Input-Output models were shown to be a simple extension of the Leontief national model. The regional model incorporates into the structure of the national model a capability to display and simulate the flows of goods and services not only among the industries in one nation but among all the industries and all of several regions.

The two basic types of regional Input-Output models were considered. The first provides a more detailed description of the interdependence of the regional economies but requires very extensive data collection. The second type of regional model is preferable because, based on the same assumptions as the first model it can produce the same results, but with smaller data collection effort. Rectangular tables are superior to both of the other types of square

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regional models because they separate the structure of production from that of distribution and so minimize changes that may take place in input co-efficients and make it easier to identify changes when they do occur.

In discussing the conceptual difficulties of Input-Output models it was found that serious limitations are associated with the assumptions of constant input co-efficients for various levels of output and for extended periods of time after the year for which the model was constructed. For the present, at least, this assumption is necessary because of the statistical and conceptual difficulties of predicting changes in input co-efficients. Similarly, the constancy of supply patterns between regions in a regional Input-Output model is employed not because it is conceptually correct but because there is no reliable way to predict changes in these patterns. Problems of estimation are extensive. However, certain procedures were outlined to minimize the effects of any necessary simplifications. Any given Input-Output model should be judged on the basis of the quality and experience of personnel engaged in building the model, and the extent to which the experiences of earlier similar research has been put to use in solving traditional problems.

The Input-Output model used in this thesis was discussed in detail dealing specifically with those characteristics

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of the table that appear to be troublesome. Although the table is nine years old it is of high quality when judged by those criteria outlined above. It was concluded that this Input-Output table could, within the normal assumptions of regional Input-Output analysis, simulate the transmission of a given autonomous change in final demand from one region to each of the other regions and show how the direct and indirect flows play back and forth between regions until a final equilibrium output for all industries in all regions is reached.

The vectors describing changes in defence spending in both Prince Edward Island and Nova Scotia were then applied to the appropriate inverses and interregional flows traced until their value approached zero. When a new equilibrium was reached the changes in output were converted to changes in employment. In deriving the change in final demand vector the quality of each individual entry in the vector was estimated and it was found that the large majority of the change in final demand was of at least "Good" quality.

In discussing and interpreting the quantitative results the multiplier effect of the Input-Output tables, both open and closed with respect to consumption, was quantified

SUMMARY AND CONCLUSIONS

for the change in final demand vectors used in this thesis and the direct and indirect changes in output caused by the change in final demand vectors were estimated. Because of the highly labor intensive nature of defence spending the largest changes in output were experienced by those industries whose output is made up of consumer goods, that is, the foods industries, the service industries and Automobile Operation. Interregional flows were too scanty to produce large regional feedbacks and, consequently, the initial reductions in output in Prince Edward Island and increases in output in Nova Scotia due to changes in defence spending remained largely unchanged. Again, because of slim interregional flows the changes in output in New Brunswick and Newfoundland were small in comparison to the changes in the other Atlantic provinces.

Unemployment was estimated to increase by 3.3 per cent in Prince Edward Island and by less than one-tenth of one per cent in New Brunswick. Nova Scotia enjoyed an increase of one-tenth of one per cent in employment while Newfoundland's unemployment remained essentially unchanged. Because of the fairly serious consequences for Prince Edward Island economy it was suggested that some economic support programme would be necessary to replace defence spending if Canadian Forces Base Summerside should ever close. Such an economic support programme should be highly labor intensive, concentrate itself in the general area of Summerside and not rely heavily upon the nurturing of Prince Edward Island's export markets.

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APPENDIX 1 TABLE 1

FLOW TABLE - NOVA SCOTIA 1960

A1

		(000's)									
INDUSTRY COLS		AGRI- CULTURE	FORESTRY	PRIMARY FISHING	COAL MINING	NONMETALS, QUARRIES	MEAT, DAIRY FRUIT	SECONDARY FISHING	MISC. FOODS NES	S. DRINKS DIST. BREW.	TEXTILES, CLOTHING
INDUSTRY ROWS		1	2	3	4	5	6	7	8	9	10
AGRICULTURE	1	5820.6	4266.5	.0	.0	.0	13291.2	100.5	579.4	.0	.3
FORESTRY	2	150.0	-4109.9	633.2	557.1	30.3	.9	10.0	.0	.0	.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	33115.2	.0	.0	.0
COAL MINING	4	.0	.0	.0	337.7	176.8	89.4	54.9	20.4	26.9	49.8
NONMETAL QUARRIES	5	.0	.0	306.0	.0	.0	8.9	198.4	20.4	.9	.0
MEAT, DAIRY, FRUIT	6	.0	.0	.0	.0	.0	1985.2	-121.8	803.6	78.6	.0
SECONDARY FISHING	7	.0	.0	1210.5	.0	.0	5.0	147.0	43.3	.0	.0
MISC. FOODS, NES	8	6405.0	.0	.0	.0	.0	424.2	111.9	1864.0	1040.9	.0
S. DRINK, DIST. BREW	9	.0	.0	.0	.0	.0	1.0	.0	21.8	211.1	.0
TEXTILES, CLOTHING	10	195.2	.9	478.8	.0	.0	5.0	46.4	12.5	.0	2965.3
SAWMILLS, WOOD PR.	11	1109.3	32.4	272.8	450.0	6.3	53.4	775.9	10.4	66.6	42.6
PULP-PAPER + PR.	12	.0	.0	.0	.0	547.6	900.9	1182.2	1580.9	398.2	166.8
PRINTING	13	.0	.0	.0	.0	.0	43.9	91.1	136.3	80.3	19.0
IRON-STEEL MILLS	14	.0	.0	.0	1318.3	.0	.0	.0	.0	.0	.0
METAL FABRIC.	15	199.8	3.7	564.3	1481.6	16.0	1283.8	249.3	3.8	243.3	33.9
MACH. + EQUIPT.	16	227.2	104.4	97.8	2669.9	262.3	535.6	271.0	845.2	495.9	836.8
TRANSP. EQUIPT.	17	.0	.0	642.9	.0	.0	.0	.0	.0	.0	.0
COMMUN. EQ. EL. WIKE	18	100.0	13.8	99.5	221.5	7.7	.0	.0	.0	.0	.0
NONMET. MINERAL PR	19	285.1	.0	.0	8.3	.0	.0	.0	.0	.1	.0
PETROLEUM REF.	20	1263.2	99.6	990.1	32.2	151.0	201.4	269.3	183.4	75.8	40.2
FERT. PAINT, SOAP	21	1377.5	.0	45.0	17.0	32.1	58.8	1.4	74.5	84.3	207.7
MISC. MANUF.	22	.0	.0	146.8	.0	.0	7.7	93.0	.0	.0	.0
CONSTRUCTION	23	1894.0	548.0	1243.0	424.0	293.0	77.9	343.8	165.3	52.1	79.0
TRANSP. TRAVEL, E.T	24	1217.4	129.2	912.7	1137.2	261.6	2179.6	2222.1	1609.3	479.2	941.2
COMMUNICATIONS	25	250.0	279.9	.0	150.0	63.5	45.4	308.4	61.3	19.9	225.2
E. POWER, WATER-GAS	26	580.0	13.6	.0	1969.0	343.9	273.7	551.3	196.0	159.3	146.6
DISTRIBUTION	27	1396.6	54.0	730.7	705.9	162.2	1516.9	870.9	887.8	226.2	545.7
AUTO OPERATION	28	3007.0	22.5	45.0	120.5	120.0	10.0	1.6	74.5	20.8	1.2
FINANCE, R.E.	29	938.0	230.9	1437.0	1469.5	806.0	578.3	486.2	584.4	525.4	218.3
JEWELLING SERVICES	30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	32	.0	7.3	.0	.0	.0	24.2	155.1	56.5	40.0	16.7
BUSINESS SERVICES	33	450.0	88.7	.0	100.0	116.0	207.9	361.7	891.1	512.8	225.5
TOTAL INTER. INPU	34	26865.9	1785.5	9856.1	3175.7	3396.3	23810.2	41896.8	10726.1	4838.6	6761.8
TAXES	35	2389.0	248.3	121.5	1078.0	447.5	534.2	793.7	440.8	266.2	152.6
SUBSIDIES	36	-170.7	.0	-582.3	-2080.9	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	37	698.0	48.1	498.1	1194.8	691.1	511.8	1080.9	8617.5	1283.1	3299.4
WAGES + SALARIES	38	5124.7	7470.7	4545.0	29552.0	2795.9	6173.9	9264.5	5571.6	2083.9	4236.0
JOINCORP. BUS. INC.	39	18213.0	4622.9	9818.2	.0	.0	.0	1000.0	500.0	500.0	.0
PROFIT, RENT, INT.	40	-4222.0	1083.6	1066.4	-1399.6	6235.6	1607.8	1897.4	2065.9	2597.7	1917.7
DEPRECIATION	41	4966.0	1175.1	1771.4	1817.5	540.0	678.3	1005.0	870.1	958.0	437.2
FACTOR INCOMES	42	19115.7	13177.2	15429.6	28152.4	9031.5	7781.7	12161.9	8137.5	5181.6	6153.7
HOUSEHOLD INCOME	43	19115.7	12945.6	15201.7	28152.4	3122.9	7181.6	11756.5	7206.3	4381.8	4479.0
EDUCATION + HOSP.	44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	45	163.0	240.4	-50.0	163.0	356.0	204.7	3.0	101.5	64.4	2.5
MUNICIPAL REVENUE	46	2189.0	4.1	115.5	600.0	90.0	322.3	748.8	323.9	198.7	129.8
FEDERAL REVENUE	47	-133.7	235.4	-298.4	-1770.9	2590.3	355.0	447.3	401.4	571.8	252.4
IMPORT LEAKAGE	48	698.0	48.1	498.1	1194.8	4010.9	764.1	1080.9	9162.7	1514.2	4742.0
EMPLOYMENT	49	2500.0	2750.0	6000.0	7864.0	777.0	2189.0	4039.0	2153.0	550.0	2127.0
TOTAL PRIMARY	50	26498.0	14648.7	17238.3	30157.8	10710.1	9506.0	15041.5	18065.9	7688.9	10042.9

computer

APPENDIX 1 TABLE 1

FLOW TABLE NOVA SCOTIA 1960

A2

INDUSTRY COLS		AGRI- CULTURE	FORESTRY	PRIMARY FISHING	COAL MINING	(000's)		SECONDARY FISHING	MEAT/DAIRY FRUIT	MISC. FOODS NES	S.DRINKS DIST.BREW.	TEXTILES, CLOTHING
						QUARRIES						
INDUSTRY ROWS		1	2	3	4	5	6	7	8	9	10	
TOTAL INPUT	51	53863.9	16434.2	27094.4	43335.5	14106.4	33316.2	56938.3	28792.0	12527.5	16804.7	

computer

APPENDIX I TABLE I

FLUKE TABLE - (C.V.A.S.) 1960

A3

INDUSTRY CODES	SAW MILLS, LOGS, PAPER, PULP, + PRODS	IRON-STEEL MILLS	FABRIC, RETAIL	MACH. + EQUIPT.	IRAIS. EQUIPT.	COMMUN. EQ.	NON-MET. MINERAL PR	PETROLEUM REF.		
INDUSTRY CODES	11	12	13	14	15	16	17	18	19	20
1 AGRICULTURE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 FORESTRY	3444.8	4167.4	0.0	0.0	0.2	0.1	20.9	0.0	0.0	0.0
3 PRIMARY FISHING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 COAL MINING	23.6	64.0	2.9	8648.8	71.7	5.8	144.0	0.0	83.6	0.0
5 NON-METAL. MINERALS	0.0	21.6	0.0	802.4	11.4	0.0	6.7	0.0	701.5	0.0
6 MEAT, DAIRY, FRUIT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 SECONDARY FISHING	7.4	20.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 MISC. FOODS, FIBRES	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9 TEXTILES, CLOTHING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 SAWMILLS, JOU. PK.	311.9	2.6	5.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0
11 PULP-PAPER + PR.	4126.9	110.6	8	0.0	41.4	10.5	312.6	0.0	0.0	0.0
12 PRINTING	30.5	2416.6	1373.7	280.3	44.4	3.1	0.0	0.0	96.8	0.0
13 IRON-STEEL MILLS	1.3	4	223.1	0.0	0.0	0.3	0.0	0.0	1.0	0.0
14 METAL FABRIC.	251.1	268.6	13.5	762.4	2751.9	280.5	676.5	0.3	71.3	646.7
15 MACH. + EQUIPT.	530.9	1114.0	123.0	581.6	1798.1	673.8	908.9	9.8	17.3	113.7
16 TRANSP. EQUIPT.	0.0	0.0	0.0	2759.6	690.1	-625.3	2786.4	36.0	301.5	698.0
17 COMMUN. EQUIPT.	0.0	0.0	0.0	0.0	463.7	425.0	1462.6	0.0	0.0	0.0
18 NON-MET. MINERAL PR	0.0	0.0	0.0	0.0	0.0	0.0	478.2	302.1	0.0	0.0
19 PETROLEUM REF.	164.7	297.5	20.6	1337.2	88.0	13.7	133.1	1.1	673.6	1745.5
20 FERT. PAINT, SOAP	596.5	0.0	0.0	1174.8	70.6	91.8	411.0	1.2	0.0	59.3
21 MISC. MANUF.	0.0	0.0	0.3	0.0	4.0	0.0	0.0	0.0	0.0	0.0
22 CONSTRUCTION	149.0	102.0	76.0	1513.0	4.0	0.0	322.0	10.0	36.8	1227.1
23 TRANSP. TRAVEL, ENT	932.2	1862.7	291.3	4501.6	1226.9	361.8	1739.2	114.2	447.6	666.2
24 COMMUNICATIONS	92.2	126.0	487.3	379.3	160.7	23.3	539.4	23.6	17.4	326.5
25 ELECTRIC, POWER, GAS	190.6	709.2	102.3	675.6	128.7	56.7	211.1	14.2	83.4	387.2
26 DISTRIBUTION	497.3	1124.1	116.0	2635.3	710.3	185.8	1029.3	40.6	252.6	409.8
27 AUTO OPERATION	115.6	30.9	9.9	52.3	29.5	15.8	24.4	4.7	17.2	0.0
28 FINANCE, R.E.	740.4	1524.7	177.4	343.2	323.5	135.2	392.6	108.1	60.7	1731.6
29 DWELLING SERVICES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 HOTELS, REST.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31 PERSONAL SERVICES	18.4	21.3	6.8	34.2	25.0	7.1	16.3	1.7	0.6	19.3
32 BUSINESS SERVICES	97.1	513.3	75.4	465.7	77.2	58.4	140.3	23.5	34.8	29.3
33 TOTAL INTER. INPU	10312.4	14505.2	3109.4	26241.5	8723.3	1723.4	11758.3	691.9	3058.7	8060.2
34 TAXES	396.6	294.4	376.9	1010.1	232.9	47.5	213.6	8.2	58.2	406.4
35 SUBSIDIES	0.0	0.0	0.0	-314.4	0.0	0.0	0.0	0.0	0.0	0.0
36 NON-COMP. IMPORTS	188.0	789.9	844.5	10901.0	1327.7	646.0	1624.4	59.9	69.4	43848.4
37 AGES + SALARIES	0783.0	6363.3	4722.8	22297.2	4908.7	2176.6	14043.6	1345.3	1384.1	2635.3
38 UNINCORP. BUS. INC.	1000.0	0.0	1000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39 PROFIT, RENT, INT.	1510.6	2215.9	1418.8	5408.9	979.4	599.0	1174.9	866.0	1174.1	6885.6
40 DEPRECIATION	388.8	1610.7	157.3	956.5	431.4	100.6	182.5	43.7	302.9	3439.1
41 FACTOR INCOME	9293.6	8579.2	7141.6	27700.1	5888.1	2775.6	15218.5	2211.3	2558.2	9520.9
42 HOUSEHOLD INCOME	8767.9	6742.8	6322.8	22697.2	5196.8	2475.6	14227.3	1345.3	2307.3	3635.3
43 EDUCATION + HUSP.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44 PROVINCIAL REVENUE	78.6	0.0	10.0	21.9	10.9	15.6	20.3	0.1	20.4	0.0
45 MUNICIPAL REVENUE	300.9	290.4	228.3	962.5	214.4	27.7	180.5	5.9	35.6	402.7
46 FEDERAL REVENUE	341.7	806.8	539.6	860.1	71.1	4.2	227.5	2.2	253.1	1111.8
47 IMPORT LEAKAGE	371.1	1823.2	1263.3	14754.1	1955.5	946.0	2400.9	925.9	69.4	48625.9
48 EMPLOYMENT	3235.0	1507.0	1319.0	4364.0	1228.0	590.0	3716.0	315.0	448.0	411.0
49 TOTAL PRIMARY	10269.0	11274.2	8520.3	40254.3	7880.1	3569.7	17239.0	2323.1	2988.7	57214.8

computer

APPENDIX 1 TABLE 1

FLOW TABLE - NOVA SCOTIA 1960

A4

INDUSTRY COLS	SAWMILLS, PULP-PAPER WOOD PROD. + PRODS		PRINTING	IRON-STEEL MILLS	(000's) FABRIC.	MACH. + EQUIPT.	TRANSP. EQUIPT.	COMMUN.EQ. EL.WIRE	NON-MET. MINERAL PR	PETROLEUM REF.	
INDUSTRY ROWS	11	12	13	14	15	16	17	18	19	20	
TOTAL INPUT	51	28581.4	25779.4	11629.7	66500.8	16603.4	5293.1	28997.3	3015.0	6047.4	65275.0

computer

APPENDIX 1 TABLE 1

FLOW TABLE - NOVA SCOTIA 1960

A5

INDUSTRY COLS	FERT. PAINT + SOAP PR	MISC. MANUF.	CON- STRUCTION	TRANSP. TRAVEL, ENT	COMMUNICAT IONS	ELEC. POWER WATER-GAS	DISTRIBUTN	AUTO OPERATION	FINANCE R.E.	DWELLING SERVICES
INDUSTRY ROWS	21	22	23	24	25	26	27	28	29	30
AGRICULTURE	1	.0	.0	38.6	.0	.0	.0	3.4	.0	.0
FORESTRY	2	.0	.0	212.6	.0	.0	.0	.0	.0	.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	.0	.0	.0
COAL MINING	4	-32.6	.9	1.7	284.9	.0	3000.0	.0	.0	.0
NONMETAL QUARRIES	5	10.1	.6	1137.1	3.0	.0	.0	.0	.0	.0
MEAT, DAIRY, FRUIT	6	.1	.0	.0	.0	.0	.0	.0	.0	.0
SECONDARY FISHING	7	29.2	.0	.0	.0	.0	118.2	.0	.0	.0
MISC. FOODS, NES	8	.0	.0	.0	.0	.0	.0	.0	.0	.0
S. DRINK, DIST. BREW	9	.0	.0	.0	.0	.0	.0	.0	.0	.0
TEXTILES, CLOTHING	10	.0	1.6	.0	.0	.0	204.4	.0	.0	.0
SAWMILLS, WOOD PR.	11	.0	26.6	18866.0	160.3	.0	155.1	.0	.0	.0
PULP-PAPER + PR.	12	115.9	25.6	1806.9	.0	.0	421.9	.0	.0	.0
PRINTING	13	1.4	.2	.0	21.1	109.8	10.0	.0	.0	.0
IRON-STEEL MILLS	14	777.0	70.3	3089.3	550.0	.0	.0	.0	.0	.0
METAL FABRIC.	15	87.6	47.2	12573.0	344.5	.0	4.1	15.5	.0	.0
MACH. + EQUIPT.	16	212.6	10.0	2570.0	1041.3	206.0	215.0	1820.3	270.0	830.0
TRANSP. EQUIPT.	17	.0	.0	.0	5166.5	.0	.0	450.0	.0	.0
COMMUN. EQ. EL. WIRE	18	.0	.0	2915.9	50.5	.0	29.1	.0	.0	.0
NONMET. MINERAL PR	19	.0	.0	15072.7	.0	.0	.0	.0	.0	.0
PETROLEUM REF.	20	63.1	7.6	1522.2	7337.0	.0	439.1	775.6	.0	.0
FERT. PAINT, SOAP	21	188.4	32.8	3427.3	57.8	.0	12.9	.0	89.6	.0
MISC. MANUF.	22	.0	-28.2	.0	9.4	.0	.0	.0	.0	.0
CONSTRUCTION	23	37.6	4.4	189.0	450.0	1043.0	2132.0	840.0	421.0	364.0
TRANSP. TRAVEL, ENT	24	247.5	66.9	19932.0	5991.6	137.5	1796.6	14018.3	2493.1	9.3
COMMUNICATIONS	25	13.1	9.0	700.4	1844.1	405.0	11.0	1698.1	300.0	480.0
E. POWER, WATER-GAS	26	74.3	54.9	599.3	1593.3	290.0	101.0	1581.7	505.7	91.0
DISTRIBUTION	27	128.8	29.1	12362.4	7120.6	32.5	975.4	704.9	1538.3	5.7
AUTO OPERATION	28	3.3	3.9	100.0	971.5	.0	230.0	.0	.0	.0
FINANCE, R.E.	29	94.9	35.0	9638.8	8661.8	256.0	165.2	8985.3	4875.0	1173.0
DWELLING SERVICES	30	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	31	.0	.0	.0	1919.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	32	1.8	1.6	77.3	464.4	30.0	479.0	396.7	.0	.0
BUSINESS SERVICES	33	63.9	33.6	7194.8	115.6	340.0	100.0	4749.5	220.0	340.0
TOTAL INTER. INPU	34	2118.0	433.6	114027.2	52047.2	2649.8	3760.4	37028.9	10712.7	3293.0
TAXES	35	32.5	35.3	774.0	9202.7	585.0	1810.0	2734.5	4170.0	6081.1
SUBSIDIES	36	.0	.0	.0	-11270.9	.0	-1102.8	.0	.0	.0
NON-COMP. IMPORTS	37	1120.6	209.4	15766.1	4310.1	580.2	95.2	2271.3	22254.3	7468.0
WAGES + SALARIES	38	942.6	570.4	80568.1	53604.0	9826.4	7411.4	75457.2	14000.0	18204.9
UNINCORP. BUS. INC.	39	.0	.0	13000.0	5123.0	.0	.0	14000.0	6000.0	3000.0
PROFIT, RENT, INT.	40	1400.9	287.5	5937.4	13540.7	5098.9	10674.9	18718.9	4881.5	15620.8
DEPRECIATION	41	153.4	33.7	2689.7	15640.6	3306.0	3935.1	8483.0	1666.1	4558.0
FACTOR INCOMES	42	2343.7	957.9	99505.5	71270.7	15225.3	18036.3	108176.1	24861.5	16825.7
HOUSEHOLD INCOME	43	1096.5	996.5	96776.3	62270.7	12402.8	12570.5	99624.6	21108.0	24704.9
EDUCATION + HOSP.	44	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	45	2.8	7.8	451.0	2267.9	317.0	56.0	333.0	3970.0	4162.6
MUNICIPAL REVENUE	46	27.3	24.6	300.0	844.8	180.0	1751.0	1719.8	200.0	2809.2
FEDERAL REVENUE	47	2.4	64.3	951.4	-11200.9	1288.0	247.8	3983.4	500.0	510.0
IMPORT LEANAGE	48	2357.8	209.4	17556.9	17310.1	2302.7	4263.4	7515.1	25527.8	19088.9
EMPLOYMENT	49	250.0	182.0	24600.0	15000.0	3100.0	1800.0	24350.0	6926.0	4000.0
TOTAL PRIVATE	50	3650.2	1236.3	118735.3	9171.4	19496.5	22793.8	121664.9	52971.9	55832.8

computed

APPENDIX 1 TABLE 1

FLOW TABLE NOVA SCOTIA 1960

(000's)

A6

INDUSTRY COLS	FERTILIZER + SOAP	MISC. MANUF.	CON- STRUCTION	TRANSP. TRAVEL	COMMUNICAT- IONS	ELEC. POWER WATER-GAS	DISTRIBUTN	AUTO OPERATION	FINANCE, R.E.	DWELLING SERVICES	
INDUSTRY COLS	1	22	23	24	25	26	27	28	29	30	
TOTAL INPUT	51	5768.2	1669.9	232702.5	145210.6	22046.3	32554.2	158693.8	63684.6	59125.8	84456.5

computer

APPENDIX 1 TABLE 1
FLOW TABLE NOVA SCOTIA 1960
(000's)

A7

INDUSTRY COLS	TELS	PERSONAL	BUSINESS	PERSONAL	CAPITAL	INVENTORY	FED. GOVT.	FED. GOVT.	PROVINCIAL	MUNICIPAL
INDUSTRY ROWS	+ REST.	SERVICES	SERVICES	CONS.	FORMATION	CHANGE	DEFENCE	CIVIL	GOVT.	GOVT.
	1	32	33	34	35	36	37	38	39	40
AGRICULTURE 1	.0	.0	.0	38267.0	625.0	-116.0	.0	90.4	13.7	9.5
FORESTRY 2	.0	.0	.0	1429.3	.0	1801.7	.0	2.8	48.0	24.2
PRIMARY FISHING 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
COAL MINING 4	210.0	.0	.0	4700.0	.0	-1068.3	1206.8	94.2	21.3	60.0
NONMETAL QUARRIES 5	.0	.0	.0	.0	.0	50.4	6.0	.0	.0	35.7
MEAT, DAIRY, FRUIT 6	.0	.0	.0	64781.0	.0	1373.0	520.6	160.1	25.1	17.2
SECONDARY FISHING 7	.0	.0	.0	6250.0	.0	.0	.0	57.7	3.1	.0
MISC. FOODS, NES 8	.0	.0	.0	32685.4	.0	736.7	96.8	23.5	16.1	17.9
B. DRINK, DIST. BREW 9	.0	.0	.0	16000.5	.0	21.3	.0	.0	.0	.0
TEXTILES, CLOTHING 10	41.1	56.6	4.0	33014.4	.0	439.8	.0	98.5	.5	54.8
SAWMILLS, WOOD PR. 11	317.6	361.0	.0	6250.0	971.9	-468.8	367.1	265.7	15.0	2.2
PULP-PAPER + PR. 12	10.9	17.7	.0	694.9	.0	213.5	.0	.0	.0	.0
PRINTING 13	142.3	59.0	3860.0	3074.0	.0	10.5	.0	16.1	1590.0	101.7
IRON-STEEL MILLS 14	.0	.0	70.4	.0	.0	41.8	.0	.0	.0	.0
METAL FABRIC. 15	.0	.0	43.0	.0	417.2	-51.3	358.6	78.5	40.4	.0
MACH. + EQUIPT. 16	.0	575.0	.0	.0	57011.9	-135.8	639.8	238.1	719.1	57.6
TRANSP. EQUIPT. 17	.0	.0	.0	.0	2982.1	-144.2	9631.4	1198.7	79.4	.0
COMMUN. ED. EL. WIRE 18	.0	.0	55.0	5500.6	16.4	74.1	3027.8	32.7	.0	23.2
NONMET. MINERAL PR 19	.0	1.5	.0	.0	.0	36.8	181.6	.0	35.9	1.5
PETROLEUM REF. 20	640.0	49.5	23.0	24880.8	.0	2641.8	700.4	314.6	387.9	180.0
FERT, PAINT, SOAP 21	99.0	398.0	44.0	.0	.0	257.7	100.7	142.0	7.7	59.7
MISC. MANUF. 22	42.6	524.9	203.0	459.4	.0	9.3	.0	.0	20.3	.0
CONSTRUCTION 23	87.0	392.0	.0	.0	115170.3	.0	11700.0	14590.0	32442.0	3127.0
TRANSP. TRAVEL, ENT 24	1035.0	675.4	923.8	31170.6	.0	.0	855.0	2187.0	4093.4	2087.6
COMMUNICATIONS 25	527.9	689.2	2447.3	7800.0	.0	.0	257.7	141.6	129.7	121.9
E. POWER, WATER-GAS 26	1013.4	510.0	150.0	13398.5	.0	.0	2254.4	224.2	86.2	1299.8
DISTRIBUTION 27	339.4	301.9	797.7	118929.3	.0	.0	895.9	572.1	626.1	207.9
AUTO OPERATION 28	266.0	.0	.0	49764.0	.0	.0	160.0	122.0	71.7	237.8
FINANCE, R.E. 29	1757.0	3234.6	826.1	3402.0	.0	.0	.0	329.6	276.9	650.8
DWELLING SERVICES 30	.0	.0	.0	84450.5	.0	.0	.0	.0	.0	.0
HOTELS, REST. 31	.0	.0	.0	24111.5	.0	.0	.0	.0	.0	.0
PERSONAL SERVICES 32	851.4	63.0	.0	43961.7	.0	.0	183.0	116.9	9.5	.0
BUSINESS SERVICES 33	835.4	75.0	31.7	.0	.0	.0	103.8	492.3	1650.1	217.5
TOTAL INTER. INPU 34	8216.0	7984.3	9479.0	61500.3	177194.8	5724.0	33247.4	21589.3	42409.1	8595.5
TAXES 35	1911.2	2758.6	1560.3	101814.0	.0	.0	20.0	20.0	158.0	67.6
SUBSIDIES 36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS 37	304.4	1798.3	3167.3	78584.0	.0	.0	851.5	536.8	720.5	653.9
WAGES + SALARIES 38	7547.7	14732.4	4818.9	.0	.0	.0	54000.0	56744.0	14745.3	8070.0
UNINCORP. BUS. INC. 39	5869.3	14552.0	3000.0	.0	.0	.0	.0	.0	.0	.0
PROFIT, RENT, INT. 40	1202.0	4539.4	271.7	.0	.0	.0	.0	.0	11580.0	3984.0
DEPRECIATION 41	1359.0	991.4	288.8	.0	.0	.0	.0	.0	1194.0	2084.0
FACTOR INCOMES 42	14619.0	33823.8	8090.6	.0	.0	.0	54000.0	56744.0	26325.3	12054.0
HOUSEHOLD INCOME 43	13417.0	31723.9	8025.8	.0	.0	.0	54000.0	56744.0	20745.3	10070.0
EDUCATION + HOSP. 44	.0	.0	.0	5063.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE 45	810.0	386.0	250.0	3114.0	.0	.0	.0	.0	.0	.0
MUNICIPAL REVENUE 46	1058.0	2367.1	1300.3	5924.0	.0	.0	.0	.0	158.0	67.6
FEDERAL REVENUE 47	43.2	505.5	66.3	57683.0	.0	.0	20.0	536.8	6300.5	2637.9
IMPORT LEAKAGE 48	1506.4	3398.2	3175.8	71584.0	.0	.0	851.5	.0	4000.0	3000.0
EMPLOYMENT 49	4180.0	10000.0	1500.0	.0	.0	.0	12000.0	14000.0	4000.0	14859.5
TOTAL PRIMARY 50	18193.6	39372.1	13107.0	18139.0	.0	.0	54871.5	57300.8	28397.8	14859.5

computer

APPENDIX 1 TABLE 1

FLOW TABLE NOVA SCOTIA 1960 (000's)

A8

INDUSTRY COLS	1	2	3	4	5	6	7	8	9	10
	INDUSTRY ROWS	11	12	13	14	15	16	17	18	19
		20	21	22	23	24	25	26	27	28
		29	30	31	32	33	34	35	36	37
		38	39	40	41	42	43	44	45	46
		47	48	49	50	51	52	53	54	55
		56	57	58	59	60	61	62	63	64
		65	66	67	68	69	70	71	72	73
		74	75	76	77	78	79	80	81	82
		83	84	85	86	87	88	89	90	91
		92	93	94	95	96	97	98	99	100
		101	102	103	104	105	106	107	108	109
		110	111	112	113	114	115	116	117	118
		119	120	121	122	123	124	125	126	127
		128	129	130	131	132	133	134	135	136
		137	138	139	140	141	142	143	144	145
		146	147	148	149	150	151	152	153	154
		155	156	157	158	159	160	161	162	163
		164	165	166	167	168	169	170	171	172
		173	174	175	176	177	178	179	180	181
		182	183	184	185	186	187	188	189	190
		191	192	193	194	195	196	197	198	199
		200	201	202	203	204	205	206	207	208
		209	210	211	212	213	214	215	216	217
		218	219	220	221	222	223	224	225	226
		227	228	229	230	231	232	233	234	235
		236	237	238	239	240	241	242	243	244
		245	246	247	248	249	250	251	252	253
		254	255	256	257	258	259	260	261	262
		263	264	265	266	267	268	269	270	271
		272	273	274	275	276	277	278	279	280
		281	282	283	284	285	286	287	288	289
		290	291	292	293	294	295	296	297	298
		299	300	301	302	303	304	305	306	307
		308	309	310	311	312	313	314	315	316
		317	318	319	320	321	322	323	324	325
		326	327	328	329	330	331	332	333	334
		335	336	337	338	339	340	341	342	343
		344	345	346	347	348	349	350	351	352
		353	354	355	356	357	358	359	360	361
		362	363	364	365	366	367	368	369	370
		371	372	373	374	375	376	377	378	379
		380	381	382	383	384	385	386	387	388
		389	390	391	392	393	394	395	396	397
		398	399	400	401	402	403	404	405	406
		407	408	409	410	411	412	413	414	415
		416	417	418	419	420	421	422	423	424
		425	426	427	428	429	430	431	432	433
		434	435	436	437	438	439	440	441	442
		443	444	445	446	447	448	449	450	451
		452	453	454	455	456	457	458	459	460
		461	462	463	464	465	466	467	468	469
		470	471	472	473	474	475	476	477	478
		479	480	481	482	483	484	485	486	487
		488	489	490	491	492	493	494	495	496
		497	498	499	500	501	502	503	504	505
		506	507	508	509	510	511	512	513	514
		515	516	517	518	519	520	521	522	523
		524	525	526	527	528	529	530	531	532
		533	534	535	536	537	538	539	540	541
		542	543	544	545	546	547	548	549	550
		551	552	553	554	555	556	557	558	559
		560	561	562	563	564	565	566	567	568
		569	570	571	572	573	574	575	576	577
		578	579	580	581	582	583	584	585	586
		587	588	589	590	591	592	593	594	595
		596	597	598	599	600	601	602	603	604
		605	606	607	608	609	610	611	612	613
		614	615	616	617	618	619	620	621	622
		623	624	625	626	627	628	629	630	631
		632	633	634	635	636	637	638	639	640
		641	642	643	644	645	646	647	648	649
		650	651	652	653	654	655	656	657	658
		659	660	661	662	663	664	665	666	667
		668	669	670	671	672	673	674	675	676
		677	678	679	680	681	682	683	684	685
		686	687	688	689	690	691	692	693	694
		695	696	697	698	699	700	701	702	703
		704	705	706	707	708	709	710	711	712
		713	714	715	716	717	718	719	720	721
		722	723	724	725	726	727	728	729	730
		731	732	733	734	735	736	737	738	739
		740	741	742	743	744	745	746	747	748
		749	750	751	752	753	754	755	756	757
		758	759	760	761	762	763	764	765	766
		767	768	769	770	771	772	773	774	775
		776	777	778	779	780	781	782	783	784
		785	786	787	788	789	790	791	792	793
		794	795	796	797	798	799	800	801	802
		803	804	805	806	807	808	809	810	811
		812	813	814	815	816	817	818	819	820
		821	822	823	824	825	826	827	828	829
		830	831	832	833	834	835	836	837	838
		839	840	841	842	843	844	845	846	847
		848	849	850	851	852	853	854	855	856
		857	858	859	860	861	862	863	864	865
		866	867	868	869	870	871	872	873	874
		875	876	877	878	879	880	881	882	883
		884	885	886	887	888	889	890	891	892
		893	894	895	896	897	898	899	900	901
		902	903	904	905	906	907	908	909	910
		911	912	913	914	915	916	917	918	919
		920	921	922	923	924	925	926	927	928
		929	930	931	932	933	934	935	936	937
		938	939	940	941	942	943	944	945	946
		947	948	949	950	951	952	953	954	955
		956	957	958	959	960	961	962	963	964
		965	966	967	968	969	970	971	972	973
		974	975	976	977	978	979	980	981	982
		983	984	985	986	987	988	989	990	991
		992	993	994	995	996	997	998	999	1000

computer

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FLOW TABLE - NOVA SCOTIA 1960

INDUSTRY COLS

EDUCATION

HOSPITAL

EXPORTS-
FOREIGN

EXPORTS
CANADA

EXPORTS-
N.S.

EXPORTS-
N.B.

EXPORTS-
P.E.I.

EXPORTS-
NFD.

IMPORTS-
No. 5.

IMPORTS-
N.B.

INDUSTRY ROWS

41

42

43

44

45

46

47

4B

50
49

50

TOTAL INPUT.

51

57269.0

39862.0

107623.3

127615.4

0

38052.0

9196.0

24333.0

•

-34319.0

APPENDIX I TABLE I
FLOW TABLE NOVA SCOTIA 1960
('000's)

AI1

INDUSTRY COLS		IMPORTS- P.E.I.	IMPORTS- NFLD.	IMPORTS- RESIDUAL	TOTAL PUB. SECTOR	EXPORTS EX A.P.	EXPORTS TO A.P.	EXPORTS FROM A.P.	TOTAL FINAL DEM.	TOTAL INTER-DEM.	TOTAL OUTPUT
INDUSTRY ROWS		51	52	53	54	55	56	57	58	59	60
AGRICULTURE	1	-2966.0	-56.0	-11237.1	320.1	1865.5	3284.0	-3245.0	29763.5	24100.5	53864.0
FORESTRY	2	-224.0	.0	-432.6	75.0	2799.0	.0	-256.0	5416.4	11017.8	16434.2
PRIMARY FISHING	3	.0	-9057.0	.2	.0	.0	3036.0	-9057.0	-6020.8	33115.2	27094.4
COAL MINING	4	.0	.0	.2	1962.4	20325.0	4149.0	.0	30068.3	13265.2	43333.5
NONMETAL QUARRIES	5	.0	-492.0	-1.1	41.7	10520.4	758.0	-492.0	10877.4	3229.0	14106.4
MEAT, DAIRY, FRUIT	6	-3630.0	.0	-33433.2	2250.5	2283.2	2954.0	-9638.0	30570.5	2745.7	33316.2
SECONDARY FISHING	7	-387.0	-119.0	-2737.6	87.6	50860.7	1766.0	-873.0	55353.6	1584.6	56938.2
MISC. FOODS, NES	8	.0	-500.0	-13408.4	285.8	4568.6	3143.0	-9068.0	18943.1	9848.0	28792.0
S. DRINK, DIST. BREW	9	.0	.0	-5311.1	.0	515.0	1305.0	-245.0	12293.6	233.9	12527.5
TEXTILES, CLOTHING	10	-180.0	.0	-33437.1	306.5	11634.9	2079.0	-1573.0	12464.5	4340.2	16804.7
SAWMILLS, WOOD PR.	11	.0	.0	-12709.2	849.6	2969.8	4174.0	-771.0	1266.3	27315.1	28581.4
PULP-PAPER + PR.	12	-58.0	.0	-2595.6	62.1	18712.9	1246.0	-3993.0	14340.8	11438.6	25779.4
PRINTING	13	.0	.0	-396.4	3041.1	100.0	1000.0	.0	6829.2	4800.5	11629.7
IRON-STEEL MILLS	14	.0	.0	-3512.9	.0	55630.2	3271.0	.0	55430.1	11070.9	66501.0
METAL FABRIC.	15	.0	.0	-10759.1	477.5	3427.4	2170.0	-909.0	-5227.3	21830.8	16603.5
MACH. + EQUIPT.	16	.0	.0	-76977.0	1684.3	833.8	453.0	-87.0	-17216.8	22510.5	5293.7
TRANSP. EQUIPT.	17	.0	.0	-5144.4	10922.5	7533.6	4267.0	-30.0	20386.6	8610.7	28997.3
COMMUN. EQ. EL. WIRE	18	.0	.0	-11049.2	3296.6	2358.2	12.0	-1480.0	-1266.3	4281.3	3015.0
NONMET. MINERAL PR	19	.0	-640.0	-10715.3	219.0	575.6	622.0	-2178.0	-11439.9	17487.3	6047.4
PETROLEUM REF.	20	.0	.0	-12596.6	2147.5	9286.6	28663.0	-7776.0	47252.1	18023.1	65275.2
FERT. PAINT, SOAP	21	.0	.0	-5968.1	698.8	2436.1	2357.0	-771.0	-989.5	6757.7	5768.2
MISC. MANUF.	22	.0	.0	-114.7	168.8	233.5	90.0	-180.0	666.3	1003.6	1669.9
CONSTRUCTION	23	.0	.0	.0	82511.0	.0	.0	.0	197661.3	35081.0	232762.3
TRANSP. TRAVEL, ENT	24	.0	.0	.0	12434.2	31047.6	.0	.0	74658.4	70560.2	145218.6
COMMUNICATIONS	25	.0	.0	.0	768.1	1573.8	.0	.0	10141.9	12704.4	22846.3
E. POWER, WATER-GAS	26	.0	.0	.0	5032.8	.0	782.0	-6.0	19207.3	13347.0	32554.3
DISTRIBUTION	27	.0	.0	.0	4219.7	2012.1	.0	.0	125161.1	33532.7	158693.8
AUTO OPERATION	28	.0	.0	.0	870.5	.0	.0	.0	50534.5	13050.1	63684.6
FINANCE, R.E.	29	.0	.0	.0	2045.6	.0	.0	.0	5447.6	53678.2	59125.8
DWELLING SERVICES	30	.0	.0	.0	.0	.0	.0	.0	84456.5	.0	84456.5
HOTELS, REST.	31	.0	.0	.0	379.1	.0	.0	.0	24490.6	1919.0	26409.6
PERSONAL SERVICES	32	.0	.0	.0	579.0	.0	.0	.0	44540.7	2815.7	47356.4
BUSINESS SERVICES	33	.0	.0	.0	2970.8	.0	.0	.0	2978.8	19607.2	22586.0
TOTAL INTER. INPU	34	-7445.0	-10864.0	-252536.2	140710.2	244103.5	71581.0	-52628.0	949100.6	514906.4	1464067.0
TAXES	35	.0	.0	.0	302.8	.0	.0	.0	102116.8	55864.7	157981.5
SUBSIDIES	36	.0	.0	.0	.0	-8864.8	.0	.0	-8864.8	-15528.0	-24392.8
NON-COMP. IMPORTS	37	.0	.0	.0	8688.6	.0	.0	.0	87272.6	137573.2	224845.8
WAGES + SALARIES	38	.0	.0	.0	183973.3	.0	.0	.0	183973.3	431262.2	615235.5
UNINCORP. BUS. INC.	39	.0	.0	.0	.0	.0	.0	.0	.0	104204.4	104204.4
PROFIT, RENT, INT.	40	.0	.0	.0	19290.0	.0	.0	.0	19290.0	143064.1	162354.1
DEPRECIATION	41	.0	.0	.0	5431.0	.0	.0	.0	5431.0	92718.9	98149.9
FACTOR INCOMES	42	.0	.0	.0	203263.3	.0	.0	.0	203263.3	678530.7	881794.0
HOUSEHOLD INCOME	43	.0	.0	.0	193973.3	.0	.0	.0	193973.3	592108.0	786081.3
EDUCATION + HOSP.	44	.0	.0	.0	.0	.0	.0	.0	5063.0	.0	5063.0
PROVINCIAL REVENUE	45	.0	.0	.0	.0	.0	.0	.0	33144.0	20471.0	53615.0
MUNICIPAL REVENUE	46	.0	.0	.0	.0	.0	.0	.0	5924.0	13744.0	19668.0
FEDERAL REVENUE	47	.0	.0	.0	302.8	-8864.8	.0	.0	49121.0	3429.1	52950.1
IMPORT LEAKAGE	48	.0	.0	.0	17970.6	.0	.0	.0	96562.6	206288.5	302851.1
EMPLOYMENT	49	.0	.0	.0	45000.0	.0	.0	.0	45000.0	144236.0	189236.0
TOTAL PRIMARY	50	.0	.0	.0	217685.7	-8864.8	.0	.0	389218.9	949159.5	1338378.3

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APPENDIX 1 TABLE 1

FLOW TABLE NOVA SCOTIA 1960

A12

											A12
INDUSTRY COLS	IMPORTS- P.E.I.	IMPORTS- NFLD.	IMPORTS- RESIDUAL	TOTAL PUS. SECTOR	(000's) EXPORTS EX A.P.	EXPORTS TO A.P.	EXPORTS FROM A.P.	TOTAL FINAL DEM.	TOTAL INTER-DEM.	TOTAL OUTPUT	
INDUSTRY ROWS	51	52	53	54	55	56	57	58	59	60	
TOTAL INPUT	51	-7445.0	-10864.0	-252536.2	358401.9	235238.7	71581.0	-52628.0	1338379.5	1464065.8	2802445.3

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APPENDIX 1 TABLE 2

FLOW TABLE - NEW BRUNSWICK 1960
(000's)

A13

INDUSTRY COLS		AGRI- CULTURE	FORESTRY	PRIMARY FISHING	METAL MINING	COAL MINING	NONMETALS, QUARRIES	MEAT, DAIRY FRUIT	SECONDARY FISHING	MISC. FOODS NES	S. DRINKS, BREWRIES
INDUSTRY ROWS		1	2	3	4	5	6	7	8	9	10
AGRICULTURE	1	5367.4	6238.3	.0	.0	.0	.0	14236.2	146.6	1149.4	.0
FORESTRY	2	80.0	-6051.9	412.6	.0	60.0	.0	.7	1.8	.4	.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	.0	14410.1	.0	.0
METAL MINING	4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
COAL MINING	5	.0	.0	.0	1.9	13.0	2.2	12.7	3.6	7.6	.0
NONMETAL QUARRIES	6	.0	.0	.0	.0	.0	.0	15.9	72.4	28.4	.9
MEAT, DAIRY, FRUIT	7	.0	.0	.0	.0	.0	.0	2739.7	-232.0	514.9	.0
SECONDARY FISHING	8	8.3	.0	595.9	.0	.0	.0	.0	239.6	115.6	.0
MISC. FOODS, NES	9	3850.2	.0	.0	.0	.0	.0	261.0	.0	2169.4	452.2
SOFT DRINK MANUF.	10	.0	.0	.0	.0	.0	.0	13.7	.0	145.8	153.7
TEXTILES, CLOTHING	11	304.9	.9	442.2	.0	.0	.0	61.6	28.0	380.1	.0
SAWMILLS, WOOD PR.	12	753.4	91.2	.0	15.0	9.4	1.2	47.4	60.6	.0	46.5
PULP-PAPER + PR.	13	91.0	.0	.0	.0	.0	292.8	822.6	929.2	3504.8	401.9
PRINTING	14	.0	.0	.0	.0	.0	.0	79.7	94.5	181.5	35.2
METAL FABRIC.	15	142.8	5.1	145.1	29.6	343.6	9.2	26.4	1616.5	.0	94.3
MACH. + EQUIPT.	16	.0	276.1	25.7	308.0	1310.7	131.7	362.4	296.0	894.7	302.4
TRANSP. EQUIPT.	17	.0	.0	72.1	.0	.0	.0	.0	.0	.0	.0
APPL. MFG. EL. WIRE	18	35.6	42.0	.0	.0	25.5	.0	.0	.0	.0	.0
NONMET. MINERAL PR	19	1141.6	.0	.0	.0	.0	.0	.0	.0	4.0	.0
PETROLEUM REF.	20	1109.1	316.7	306.1	132.8	110.7	48.4	185.1	150.5	628.7	81.5
FERT. PAINT, SOAP	21	2240.0	.0	23.8	.0	15.0	5.9	.0	.0	13.0	73.1
MISC. MANUF.	22	.0	.0	19.3	.0	.0	.0	9.5	66.5	.0	.0
CONSTRUCTION	23	1793.0	958.0	179.9	.0	40.0	19.0	178.5	154.7	303.9	40.5
TRANSP. TRAVEL, ENT	24	1516.1	427.2	355.2	154.7	214.7	59.8	2146.0	2658.6	5031.6	368.5
COMMUNICATIONS	25	200.0	378.9	.0	52.3	11.5	17.5	50.3	342.7	802.9	115.9
E. POWER, WATER-GAS	26	514.0	14.7	.0	8.3	210.7	49.0	225.0	330.5	213.9	91.4
DISTRIBUTION	27	1772.6	155.4	233.5	61.2	105.6	29.6	1039.5	293.9	2271.4	133.5
AUTO OPERATION	28	2989.8	79.5	.0	5.0	131.0	20.0	23.0	.0	336.1	27.0
FINANCE, R.E.	29	1200.7	610.8	173.1	.0	229.5	89.0	298.9	.665.3	902.1	181.2
DWELLING SERVICES	30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	32	.0	19.5	.0	.0	.0	.0	24.2	43.5	61.8	10.1
BUSINESS SERVICES	33	330.0	233.7	.0	.0	8.0	26.4	197.6	347.8	1228.4	264.3
TOTAL INTER. INPU	34	25440.5	3796.1	2984.5	768.8	2838.9	801.7	23057.6	22720.9	20890.4	2874.5
TAXES	35	2974.0	3555.8	74.5	.0	274.3	27.3	251.8	527.5	547.4	137.0
SUBSIDIES	36	-170.7	.0	-233.6	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	37	903.2	153.0	84.0	115.2	396.6	91.6	585.3	1337.5	30193.5	893.9
WAGES + SALARIES	38	5510.0	21838.1	3254.5	1310.7	3429.1	1054.7	4285.3	5318.2	8061.4	1577.2
UNINCORP. BUS. INC.	39	25938.0	2938.8	1286.5	.0	.0	.0	1000.0	500.0	1000.0	500.0
PROFIT, RENT, INT.	40	-4105.0	2580.3	1310.8	-1850.0	868.5	763.9	1846.1	1882.4	7162.9	3106.7
DEPRECIATION	41	4769.0	2797.3	596.4	200.0	856.0	83.0	514.3	1083.3	1812.9	360.3
FACTOR INCOMES	42	27343.0	27357.2	5851.8	-539.3	4297.6	1818.6	7131.4	7700.6	16224.3	5183.9
HOUSEHOLD INCOME	43	27343.0	25847.8	5597.2	1310.7	4117.0	1701.0	6197.0	7239.8	9853.2	3456.4
EDUCATION + HOSP.	44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	45	100.0	3436.2	-147.0	.0	151.5	18.7	111.8	418.0	157.2	28.0
MUNICIPAL REVENUE	46	2849.0	109.5	74.5	.0	121.5	8.0	132.0	56.5	339.8	105.0
FEDERAL REVENUE	47	-145.7	619.5	168.0	.0	181.9	118.2	392.4	513.8	1648.8	681.5
IMPORT LEAKAGE	48	903.2	1053.0	84.0	-1734.8	396.6	91.6	1135.3	1337.5	34966.2	1943.9
EMPLOYMENT	49	1900.0	8380.0	1200.0	400.0	871.0	489.0	1336.0	2659.0	2685.0	408.0
TOTAL PRIMARY	50	35818.5	33863.3	6373.1	-224.1	5824.5	2020.5	8482.8	10648.9	48778.1	6575.1

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FLOW TABLE - NEW BRUNSWICK 1960

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APPENDIX 1 TABLE 2
FLOW TABLE - NEW BRUNSWICK 1960
(000's)

A15

INDUSTRY COLS		TEXTILES:	SAWMILLS:	PULP-PAPER	PRINTING	METAL	MACH.	TRANSP.	APPL. MFG.	NON-MET.	PETROLEUM
		CLOTHING	WOOD PROD.	+ PRODS		FABRIC.	+ EQUIPT.	EQUIPT.	ELEC. WIRE	MINERAL PR	REF.
INDUSTRY ROWS		11	12	13	14	15	16	17	18	19	20
AGRICULTURE	1	346.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
FORESTRY	2	.0	10984.4	20897.2	.0	.0	.0	10.4	.2	63.9	.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
METAL MINING	4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
COAL MINING	5	17.6	30.5	4122.2	.1	26.7	3.3	79.5	14.3	294.3	.0
NONMETAL QUARRIES	6	.0	.0	39.8	.0	11.0	.0	.0	.0	312.2	.0
MEAT, DAIRY, FRUIT	7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SECONDARY FISHING	8	.0	32.8	63.2	.3	.0	.0	.0	.0	.0	.0
MISC. FOODS, NES	9	.0	.0	98.8	.0	.0	.0	.0	.0	16.2	.0
SOFT DRINK MANUF.	10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TEXTILES, CLOTHING	11	248.8	79.1	151.0	.8	.2	.0	10.4	.0	.0	.0
SAWMILLS, WOOD PR.	12	.0	6001.6	1911.3	.0	11.2	10.1	420.8	14.7	.0	.0
PULP-PAPER + PR.	13	59.2	14.1	4678.3	657.8	51.5	.4	.0	14.2	390.1	.0
PRINTING	14	2.0	.1	53.4	482.5	.2	.0	.0	.0	.0	.0
METAL FABRIC.	15	.6	83.8	588.2	20.6	703.3	10.2	754.1	18.0	2.0	.0
MACH. + EQUIPT.	16	168.2	651.8	7867.3	94.3	332.0	-402.3	3538.2	1042.0	439.1	25.0
TRANSP. EQUIPT.	17	.0	.0	.0	.0	146.8	.0	934.4	.0	.0	.0
APPL. MFG. EL. WIRE	18	.0	.0	.0	.0	.0	556.6	.0	159.0	.0	.0
NONMET. MINERAL PR	19	.0	.0	615.3	.0	2.4	.0	4.7	.0	374.3	.0
PETROLEUM REF.	20	24.0	117.5	1219.7	23.5	44.3	12.5	55.2	38.2	128.0	61.4
FERT, PAINT, SOAP	21	5.9	391.9	105.4	.0	76.6	46.9	257.0	9.0	.9	37.3
MISC. MANUF.	22	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0
CONSTRUCTION	23	30.0	100.0	492.0	18.0	47.0	4.0	183.0	39.0	13.0	574.0
TRANSP. TRAVEL, ENT	24	372.7	1468.0	5798.3	174.3	1493.6	125.2	1056.7	528.4	482.3	3070.4
COMMUNICATIONS	25	11.3	63.2	591.8	23.9	23.5	12.3	18.1	18.3	16.3	313.6
E. POWER, WATER-GAS	26	92.9	231.3	2754.6	66.1	60.5	27.5	150.8	42.7	306.9	278.7
DISTRIBUTION	27	168.2	689.6	4238.5	78.4	721.0	45.5	492.4	232.3	218.3	2999.0
AUTO OPERATION	28	2.1	87.5	25.9	6.7	6.2	12.5	8.8	3.4	14.3	.1
FINANCE, R.E.	29	125.2	502.7	1967.5	92.0	154.8	62.0	247.7	131.5	74.9	1153.0
DWELLING SERVICES	30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	32	2.1	23.9	33.2	3.3	5.3	.5	3.1	3.2	1.0	11.4
BUSINESS SERVICES	33	77.4	65.2	469.8	35.8	45.7	22.6	64.2	127.1	54.1	23.3
TOTAL INTER. INPU	34	1754.8	21619.0	58782.6	1776.4	3963.8	549.8	8289.5	2437.5	3202.4	8567.2
TAXES	35	74.8	116.7	804.6	39.1	80.4	41.9	71.7	50.2	73.5	59.3
SUBSIDIES	36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	37	1985.1	92.0	6739.3	647.2	1457.8	369.0	3577.3	1062.9	66.3	18346.4
WAGES + SALARIES	38	2119.9	7683.1	22727.9	3645.1	2606.4	1142.6	9423.2	2050.6	2011.7	1050.6
UNINCORP. BUS. INC.	39	.0	1500.0	.0	1000.0	.0	.0	.0	.0	.0	.0
PROFIT, RENT, INT.	40	752.2	2387.5	13930.2	586.2	486.5	402.4	-1073.3	1282.6	740.0	3532.9
DEPRECIATION	41	200.8	508.9	9958.6	160.3	322.3	58.3	791.8	150.3	950.4	2859.7
FACTOR INCOMES	42	2872.1	11570.6	36658.1	5231.3	3092.9	1545.0	8349.9	3333.2	2751.7	4623.5
HOUSEHOLD INCOME	43	2332.8	10423.6	25382.6	5121.4	3020.9	1481.1	8982.2	2277.4	2303.1	3313.9
EDUCATION + HOSP.	44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	45	1.8	18.3	7.2	10.1	4.5	6.5	2.0	33.2	11.0	.0
MUNICIPAL REVENUE	46	66.5	95.2	790.1	19.9	72.7	33.4	65.1	6.1	59.6	57.4
FEDERAL REVENUE	47	140.0	500.2	2852.0	119.0	75.2	65.9	4.6	218.2	86.9	611.5
IMPORT LEAKAGE	48	2390.9	742.0	15170.1	647.2	1457.8	369.0	2945.0	1911.4	432.9	19046.4
EMPLOYMENT	49	924.0	3198.0	4507.0	1067.0	652.0	289.0	2514.0	603.0	585.0	256.0
TOTAL PRIMARY	50	5132.8	12288.2	54160.6	6077.9	4953.4	2014.2	12790.7	4596.6	3843.9	25888.9

computer

APPENDIX 1 TABLE 2

FLOW TABLE - NEW BRUNSWICK 1960

A16

INDUSTRY COLS	TEXTILES, CLOTHING	SAWMILLS, WOOD PROD.	PULP-PAPER + PRODS	PRINTING (000's)	METAL FABRIC.	MACH. + EQUIPT.	TRANSP. EQUIPT.	APPL.MFG. ELEC.WIRE	NON-MET. MINERAL	PETROLEUM REF.
INDUSTRY ROWS	11	12	13	14	15	16	17	18	19	20

TOTAL INPUT	51	6887.6	33907.2	112943.2	7850.3	8917.2	2564.0	21080.2	7034.1	7046.3	34456.1
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APPENDIX 1 TABLE 2

FLOW TABLE NEW BRUNSWICK 1960
(000's)

A17

INDUSTRY COLS	FERT, PAINT + SOAP PR	MISC. MANUF.	CON- STRUCTION	TRANSP. TRAVEL, ENT	COMMUNICA TIONS	ELEC. POWER WATER-GAS	DISTRIBUTN OPERATION	AUTO FINANCE, R.E.	DWELLING SERVICES	
INDUSTRY ROWS	21	22	23	24	25	26	27	28	29	30
AGRICULTURE	1	.0	.0	42.4	.0	.0	.0	2.0	.0	.0
FORESTRY	2	.0	.0	156.4	.0	.0	.0	.0	.0	.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	.0	.0	.0
METAL MINING	4	.0	.0	.0	.0	.0	.0	.0	.0	.0
COAL MINING	5	.3	8.4	.0	30.6	.0	675.7	.0	.0	.0
NONMETAL QUARRIES	6	11.8	.1	1195.0	.0	.0	.0	.0	.0	.0
MEAT, DAIRY, FRUIT	7	.0	308.6	.0	.0	.0	.0	.0	.0	.0
SECONDARY FISHING	8	.0	.0	.0	.0	.0	3.5	.0	.0	.0
MISC. FOODS, NES	9	.0	.0	.0	.0	.0	.0	.0	.0	.0
SOFT DRINK MANUF.	10	.0	.0	.0	.0	.0	.0	.0	.0	.0
TEXTILES, CLOTHING	11	.0	63.1	.0	4.2	.0	274.8	.0	.0	.0
SAWMILLS, WOOD PR.	12	.0	166.1	10312.7	193.9	.0	70.0	110.0	.0	.0
PULP-PAPER + PR.	13	250.3	76.0	496.3	.5	.0	259.9	.0	.0	.0
PRINTING	14	.0	2.9	.0	10.8	165.0	12.4	.0	.0	.0
METAL FABRIC.	15	.0	33.6	7665.8	45.8	40.0	76.2	12.6	.0	.0
MACH. + EQUIPT.	16	172.5	142.3	2205.6	3.7	1725.0	368.5	850.1	200.0	787.0
TRANSP. EQUIPT.	17	.0	.0	.0	4357.7	.0	.0	.0	.0	.0
APPL. MFG, EL. WIRE	18	.0	.0	2960.7	31.0	.0	.0	6.4	.0	.0
NONMET. MINERAL PR	19	.0	.0	10082.3	.0	.0	.0	.0	.0	.0
PETROLEUM REF.	20	18.6	4.0	2238.5	7834.6	.0	717.4	612.0	.0	.0
FERT, PAINT, SOAP	21	658.9	55.5	1937.2	61.4	.0	30.0	4.3	62.0	.0
MISC. MANUF.	22	.0	.0	.0	2.4	.0	2.4	.0	.0	.0
CONSTRUCTION	23	22.0	22.0	119.0	7170.0	1021.0	930.0	635.0	393.0	295.0
TRANSP. TRAVEL, ENT	24	169.0	188.2	11779.0	6105.0	497.6	1362.9	8729.1	1631.2	6.2
COMMUNICATIONS	25	16.3	17.8	718.5	1500.4	338.0	7.2	1471.9	200.0	510.5
ELEC. POWER, WATER-GAS	26	32.6	51.3	320.3	750.0	288.0	1191.0	1067.0	80.0	44.0
DISTRIBUTION	27	56.4	74.1	8746.5	2026.0	212.4	537.9	2777.4	1392.8	3.1
AUTO OPERATION	28	2.3	3.5	100.0	7810.3	.0	200.0	.0	.0	.0
FINANCE, R.E.	29	113.4	67.5	9127.5	5612.2	184.0	203.5	7409.6	3902.3	948.0
DWELLING SERVICES	30	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	31	.0	.0	.0	1353.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	32	.9	1.4	52.2	441.9	33.0	463.0	326.4	.0	.0
BUSINESS SERVICES	33	38.6	27.9	4347.7	890.8	249.0	269.0	3431.6	180.0	260.0
TOTAL INTER. INPU	34	1563.9	1314.3	74603.5	46281.2	4753.0	7117.1	27983.6	8041.3	2853.8
TAXES	35	36.2	60.0	625.5	7097.9	295.0	560.5	2397.3	3337.0	6979.0
SUBSIDIES	36	.0	.0	.0	-7211.0	.0	-593.6	.0	.0	.0
NON-COMP. IMPORTS	37	2132.2	407.0	16500.5	3044.0	235.8	142.3	1352.8	16853.0	5145.7
WAGES + SALARIES	38	544.2	1290.2	49462.8	51984.3	8192.5	5476.8	54834.8	11825.9	12085.5
UNINCORP. BUS. INC.	39	.0	.0	7000.0	3041.4	.0	.0	17600.0	4000.0	1000.0
PROFIT, RENT, INT.	40	515.4	205.5	4867.8	-5760.4	3791.4	7419.7	10767.7	5557.0	13933.0
DEPRECIATION	41	122.6	96.9	3247.9	16019.6	2968.0	4274.0	4977.0	1680.0	4350.0
FACTOR INCOMES	42	1059.6	1495.7	61330.6	49259.3	11983.9	12896.5	83202.5	21382.9	26918.5
HOUSEHOLD INCOME	43	545.2	1404.7	58847.1	54600.9	10523.6	8163.3	78187.6	17425.9	16641.5
EDUCATION + HUSP.	44	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	45	.1	6.4	308.0	6460.0	65.0	27.0	399.0	3187.0	4594.0
MUNICIPAL REVENUE	46	32.5	46.9	300.0	524.6	160.0	532.0	1483.6	150.0	2377.0
FEDERAL REVENUE	47	83.6	47.7	1051.0	-7097.7	583.0	-167.9	2106.9	771.0	956.0
IMPORT LEAKAGE	48	2566.6	457.0	17950.5	-2300.6	1183.1	4451.3	4785.5	20039.0	14474.7
EMPLOYMENT	49	129.0	376.0	15000.0	14000.0	2150.0	1300.0	16486.0	5582.0	3000.0
TOTAL PRIMARY	50	3350.6	2059.5	81704.5	68209.8	15482.7	17279.7	91929.6	43252.9	43393.2

computer

APPENDIX 1 TABLE 2

FLOW TABLE - NEW BRUNSWICK 1960

INDUSTRY COLS	FERT, PAINT + SOAP PR	MISC. MANUF.	CON- STRUCTION	(000's)		RADIO, TEL, TELEGR.	ELEC. POWER WATER-GAS	DISTRIBUTN	AUTO OPERATION	FINANCE, R.E.	DWELLING SERVICES	A 18
				TRANSP. TRAVEL	ENT							
INDUSTRY ROWS	21	22	23	24	25	26	27	28	29	30		
TOTAL INPUT	51	4914.5	3373.9	156308.0	114491.0	20235.7	24396.8	119913.2	51294.2	46247.0	64659.7	

A18

INDUSTRY CODES	INDUSTRY CODES	PERSONAL SERVICES	SUBSIDIES	PERSONAL CO.S.	FORMAL FORMATION	CHANGE	FED. GOVT. CIVIL	PROVINCIAL GOVT.	MUNICIPAL GOVT.
31	32	33	34	35	36	37	38	39	40
1	0.0	0.0	24771.9	504.0	73.0	63.7	71.7	65.7	10.6
2	0.0	0.0	3103.1	0.0	4675.7	0.0	0.0	19.0	24.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	544.7	0.0	0.0	0.0	0.0	0.0
5	109.5	0.0	706.5	0.0	1029.5	35.6	0.0	34.0	9.5
6	0.0	0.0	0.0	0.0	93.9	0.0	0.0	83.0	7.8
7	0.0	0.0	41954.5	0.0	2202.2	427.5	89.9	53.3	44.4
8	0.0	0.0	4901.6	0.0	0.0	64.7	6.6	0.0	0.0
9	0.0	0.0	23974.9	0.0	1177.5	65.9	20.3	13.0	21.5
10	0.0	0.0	12722.6	0.0	33.8	0.0	0.0	0.0	0.0
11	24.8	46.1	25530.2	0.0	-104.8	24.5	104.7	43.2	55.5
12	148.0	256.0	5652.0	1900.0	-80.9	273.7	87.9	239.7	30.0
13	3.1	12.2	516.0	0.0	1224.4	0.0	0.0	0.0	0.0
14	80.1	55.0	2443.0	0.0	-6.8	0.0	17.5	83.1	80.8
15	0.0	0.0	0.0	36.4	-148.5	53.2	5.3	55.4	0.0
16	0.0	557.0	0.0	50741.6	-33.6	37.9	18.0	18.0	0.0
17	0.0	0.0	0.0	1869.5	0.0	1460.6	207.7	50.0	0.0
18	0.0	0.0	0.0	0.0	-63.1	909.2	60.1	46.0	4.5
19	0.0	9.0	0.0	3470.0	77.6	78.0	0.0	0.0	0.0
20	427.4	43.8	15860.5	0.0	345.2	0.0	343.1	664.4	633.4
21	64.4	377.7	0.0	0.0	693.5	18.6	31.0	104.3	67.3
22	25.2	337.9	170.0	354.7	8.8	0.0	0.0	3.9	0.0
23	129.0	249.0	0.0	0.0	0.0	3602.0	7020.0	12428.0	3678.0
24	2070.5	27.9	1080.7	21043.0	0.0	120.8	1502.8	2795.7	1672.0
25	423.7	601.0	2140.5	5706.0	0.0	123.1	100.3	208.9	55.0
26	588.3	300.0	60.0	10589.6	0.0	851.5	231.5	160.2	607.2
27	249.5	192.0	525.5	83287.9	0.0	167.5	145.6	340.0	143.3
28	139.5	0.0	0.0	37450.0	0.0	0.0	91.8	1107.5	301.0
29	1023.4	2653.5	579.2	2750.5	0.0	0.0	277.9	374.2	242.3
30	0.0	0.0	0.0	64659.7	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	14864.1	0.0	0.0	0.0	0.0	0.0
32	450.0	147.5	1.2	35997.4	0.0	0.0	34.1	250.9	58.8
33	658.6	90.0	15.2	0.0	0.0	0.0	374.3	846.0	341.0
34	6600.0	6615.6	6443.8	444351.9	130802.7	8378.0	10827.1	40839.2	8174.1
35	915.1	1797.0	1355.0	64849.8	0.0	40.0	23.1	89.9	33.6
36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	389.8	1415.2	2120.2	57971.3	0.0	233.2	699.5	3416.9	855.3
38	4428.8	12428.6	3631.7	0.0	0.0	14000.0	29490.0	10332.0	6051.9
39	2221.4	12501.0	900.0	0.0	0.0	0.0	0.0	0.0	0.0
40	1043.2	3134.0	1299.0	0.0	0.0	0.0	0.0	10451.0	4385.0
41	765.0	838.0	247.2	0.0	0.0	0.0	0.0	1063.0	1063.0
42	7693.4	28063.6	5830.7	0.0	0.0	14000.0	29490.0	20783.0	10436.9
43	7003.4	26278.4	5013.0	0.0	0.0	14000.0	29490.0	16432.0	8051.9
44	0.0	0.0	0.0	5073.0	0.0	0.0	0.0	0.0	0.0
45	344.0	286.0	250.0	34641.5	0.0	0.0	0.0	0.0	0.0
46	546.5	1507.0	1100.0	7150.0	0.0	0.0	0.0	0.0	0.0
47	214.6	722.2	306.2	37979.3	0.0	40.0	23.1	89.9	33.6
48	889.8	2482.2	2636.7	57971.3	0.0	233.2	699.5	7767.9	3240.3
49	2580.0	8000.0	1000.0	0.0	0.0	3000.0	7000.0	3000.0	2000.0
50	9763.3	32113.4	9555.1	142821.1	0.0	14273.2	30212.6	24289.8	12388.8

A 20

(000¹ ■)

											A20
INDUSTRY COLS	HOTELS + REST.	PERSONAL SERVICES	BUSINESS SERVICES	PERSONAL CONS.	CAPITAL FORMATION	INVENTORY CHANGE	FED. GOVT. DEFENCE	FED. GOVT. CIVIL	PROVINCIAL GOVT.	MUNICIPAL GOVT.	
INDUSTRY ROWS	31	32	33	34	35	36	37	38	39	40	
TOTAL INPUT	51	16363.3	38729.4	15998.9	587173.0	130802.7	11197.3	22651.2	41039.7	65129.0	20562.9

APPENDIX 1 TABLE 2

FLOW TABLE - NEW BRUNSWICK 1960

(000's)

A21

INDUSTRY COLS		EDUCATION	HOSPITAL	EXPORTS- FOREIGN	EXPORTS- CANADA	EXPORTS- N.S.	EXPORTS- N.B.	EXPORTS- P.E.I.	EXPORTS- NFLD.	IMPORTS- N.S.	IMPORTS- N.B.
INDUSTRY ROWS		41	42	43	44	45	46	47	48	49	50
AGRICULTURE	1	.0	468.9	3937.0	11086.0	223.0	.0	20.0	234.0	-2080.0	.0
FORESTRY	2	.0	8.0	8977.0	3351.0	32.0	.0	.0	17.0	.0	.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	.0	.0	-3036.0	.0
METAL MINING	4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
COAL MINING	5	525.0	175.0	1595.0	1361.0	.0	.0	31.0	.0	-2287.0	.0
NONMETAL QUARRIES	6	.0	.0	82.0	1177.9	.0	.0	.0	.0	-312.0	.0
MEAT, DAIRY, FRUIT	7	35.2	990.4	1184.0	847.3	6008.0	.0	317.0	1084.0	-1566.0	.0
SECONDARY FISHING	8	.0	85.7	17829.6	10726.1	367.0	.0	135.0	577.0	-1009.0	.0
MISC. FOODS, NES	9	.0	229.5	250.0	30310.0	8568.0	.0	4306.0	3473.0	-1523.0	.0
SOFT DRINK MANUF.	10	.0	.0	39.0	.0	245.0	.0	450.0	.0	-823.0	.0
TEXTILES, CLOTHING	11	.0	120.9	11.6	2726.0	1393.0	.0	5.0	46.0	-1016.0	.0
SAWMILLS, WOOD PR.	12	238.0	157.4	9005.1	5005.1	771.0	.0	507.0	1129.0	-1040.0	.0
PULP-PAPER + PR.	13	12.7	.0	72964.0	25440.4	3935.0	.0	413.0	2023.0	-1023.0	.0
PRINTING	14	818.4	275.7	.0	100.0	.0	.0	350.0	.0	.0	.0
METAL FABRIC.	15	.0	12.6	2150.1	676.9	909.0	.0	169.0	134.0	-874.0	.0
MACH. + EQUIPT.	16	20.1	41.0	.0	64.9	87.0	.0	1.0	.0	-192.0	.0
TRANSP. EQUIPT.	17	18.0	.0	2026.1	12405.7	30.0	.0	11.0	20.0	-1060.0	.0
APPL. MFG. EL. WIRE	18	41.6	24.5	241.5	522.0	1480.0	.0	176.0	166.0	-7.0	.0
NONMET. MINERAL PR	19	2.3	8.5	.0	23.5	1538.0	.0	411.0	14.0	-294.0	.0
PETROLEUM REF.	20	676.2	226.0	421.5	4733.5	7776.0	.0	1653.0	5601.0	-15532.0	.0
FERT. PAINT, SOAP	21	156.1	359.6	.0	346.6	771.0	.0	886.0	135.0	-1592.0	.0
MISC. MANUF.	22	34.2	.0	391.0	1644.8	180.0	.0	100.0	65.0	-41.0	.0
CONSTRUCTION	23	7274.0	3247.0	.0	.0	.0	.0	.0	.0	.0	.0
TRANSP. TRAVEL, ENT	24	877.4	503.1	2380.4	21817.4	.0	.0	.0	.0	.0	.0
COMMUNICATIONS	25	79.1	70.5	.0	1828.7	.0	.0	.0	.0	.0	.0
E. POWER, WATER-GAS	26	798.0	465.0	1038.8	1.0	6.0	.0	.0	.0	-782.0	.0
DISTRIBUTION	27	619.2	835.0	750.9	850.0	.0	.0	.0	.0	.0	.0
AUTO OPERATION	28	229.0	42.4	.0	.0	.0	.0	.0	.0	.0	.0
FINANCE, R.E.	29	737.4	401.8	.0	.0	.0	.0	.0	.0	.0	.0
DEWELLING SERVICES	30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	31	69.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	32	54.0	168.6	.0	.0	.0	.0	.0	.0	.0	.0
BUSINESS SERVICES	33	230.2	127.6	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INTER. INPU	34	13545.1	9044.7	125274.5	137061.8	34319.0	.0	9940.0	14718.0	-36089.0	.0
TAXES	35	26.2	10.9	.0	.0	.0	.0	.0	.0	.0	.0
SUBSIDIES	36	.0	.0	.0	-323.5	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	37	1444.7	3960.5	.0	.0	.0	.0	.0	.0	.0	.0
WAGES + SALARIES	38	22426.0	16419.6	.0	.0	.0	.0	.0	.0	.0	.0
UNINCORP. BUS. INC.	39	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROFIT, RENT, INT.	40	2943.0	1937.3	.0	.0	.0	.0	.0	.0	.0	.0
DEPRECIATION	41	.0	1254.0	.0	.0	.0	.0	.0	.0	.0	.0
FACTOR INCOMES	42	25369.0	18356.9	.0	.0	.0	.0	.0	.0	.0	.0
HOUSEHOLD INCOME	43	23676.0	17169.6	.0	.0	.0	.0	.0	.0	.0	.0
EDUCATION + HOSP.	44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	45	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MUNICIPAL REVENUE	46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
FEDERAL REVENUE	47	26.2	10.9	.0	-323.5	.0	.0	.0	.0	.0	.0
IMPORT LEAKAGE	48	3137.7	5147.8	.0	.0	.0	.0	.0	.0	.0	.0
EMPLOYMENT	49	5000.0	4000.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL PRIMARY	50	26839.9	3582.3	.0	-323.5	.0	.0	.0	.0	.0	.0

computer

APPENDIX 1 TABLE 2

FLOW TABLE - NEW BRUNSWICK 1960

A22

INDUSTRY COLS	41	42	43	44	45	46	47	48	49	50
INDUSTRY ROWS										
EDUCATION	40385.0	32627.0	125274.5	176730.3	74319.0	.0	9940.0	14718.0	-36989.0	.0
TOTAL INPUT	51									

EXPORTS- FOREIGN	EXPORTS- DOMESTIC	EXPORTS- P.E.I.	EXPORTS- Nfld.	IMPORTS- N.S.	IMPORTS- N.B.
42	43	44	45	46	47

APPENDIX 1 TABLE 2

FLOW TABLE - NEW BRUNSWICK 1960
(000's)

A23

INDUSTRY COLS		IMPORTS-	IMPORTS-	IMPORTS-	TOTAL PUR.	EXPORTS	EXPORTS	EXPORTS	TOTAL	TOTAL	TOTAL
INDUSTRY ROWS		P.E.I.	Nfld.	RESIDUAL	SECTOR	EX A.P.	TO A.P.	FROM A.P.	FINAL DEM.	INTER-DEM.	OUTPUT
		51	52	53	54	55	56	57	58	59	60
AGRICULTURE	1	-595.0	.0	-5226.2	680.6	15025.0	477.0	-2675.0	33730.3	27528.9	61259.2
FORESTRY	2	-48.0	.0	-9115.5	51.0	12328.0	49.0	-48.0	11043.3	26616.1	37659.4
PRIMARY FISHING	3	-683.0	.0	-1333.5	.0	.0	.0	-3719.0	-5052.5	14410.1	9357.6
METAL MINING	4	.0	.0	-1.0	.0	.0	.0	.0	544.7	.0	544.7
COAL MINING	5	.0	.0	-1.6	780.0	2956.0	31.0	-2287.0	3209.4	5454.0	8663.4
NONMETAL QUARRIES	6	.0	.0	.2	92.8	1259.9	.0	-312.0	1134.7	1687.5	2822.2
MEAT/DAIRY/FRUIT	7	-1132.0	.0	-24330.4	1641.7	2031.3	7409.0	-2695.0	28209.3	3331.2	31540.5
SECONDARY FISHING	8	.0	-591.0	-784.7	157.0	28557.7	1079.0	-1600.0	32310.5	1059.2	33369.7
MISC. FOODS/FES	9	.0	.0	-8049.9	350.2	20566.0	16347.0	-1523.0	62840.7	6827.8	69668.5
SOFT DRINK MANUF.	10	.0	.0	-3531.2	.0	39.0	695.0	-923.0	9136.4	313.2	9449.6
TEXTILES/CLOTHING	11	-662.0	.0	-23521.2	340.8	2737.6	1444.0	-1678.0	4764.6	2123.0	6887.6
SAWMILLS/WOOD PR.	12	-480.0	.0	-10138.9	1026.7	14010.2	2407.0	-1520.0	13256.1	20651.1	33907.2
PULP-PAPER + PR.	13	.0	-26.0	-5558.2	11.7	28410.4	6371.0	-1049.0	99929.3	13014.2	112943.5
PRINTING	14	.0	.0	-103.7	2025.5	100.0	350.0	.0	4810.0	3046.3	7856.3
METAL FABRIC.	15	.0	.0	-6741.6	126.5	2827.0	1211.0	-874.0	-3563.2	12480.4	8917.2
MACH. + EQUIPT.	16	.0	.0	-72929.0	120.0	64.9	88.0	-192.0	-22139.1	24703.4	2564.3
TRANSP. EQUIPT.	17	.0	.0	-1469.4	1730.3	14431.8	61.0	-1060.0	15569.2	5511.0	21080.2
APPL. MFG. EL. WIRE	18	.0	.0	-3880.0	1050.9	763.5	1822.0	-7.0	3191.3	3842.8	7034.1
NONMET. MINERAL PR	19	.0	-48.0	-6998.2	80.8	23.5	1963.0	-342.0	-5187.3	12233.6	7046.3
PETROLEUM REF.	20	.0	.0	-6673.8	2543.1	5155.0	15030.0	-15532.0	17733.9	16722.2	34456.1
FERT. PAINT. SOAP	21	.0	-237.0	-3404.1	730.9	346.6	1792.0	-1829.0	-1664.1	6578.6	4914.5
MISC. MANUF.	22	.0	.0	-1.0	38.1	2035.8	345.0	-41.0	2740.4	633.5	3373.9
CONSTRUCTION	23	.0	.0	.0	57249.0	.0	.0	.0	132355.5	23952.5	156308.0
TRANSP. TRAVEL/ENT	24	.0	.0	.0	7470.8	24197.8	.0	.0	52721.6	61769.6	114491.2
COMMUNICATIONS	25	.0	.0	.0	630.9	1828.7	.0	.0	9165.6	11070.1	20235.7
E. POWER/HEAT/GAS	26	.0	.0	.0	3113.4	1039.8	6.0	-782.0	13966.8	10430.0	24396.8
DISTRIBUTION	27	.0	.0	.0	2251.5	1000.9	.0	.0	87140.3	32773.0	119913.3
AUTO OPERATION	28	.0	.0	.0	1771.7	.0	.0	.0	39251.7	12042.5	51294.2
FINANCE/R.E.	29	.0	.0	.0	2033.6	.0	.0	.0	4790.1	41457.0	46247.1
DWELLING SERVICES	30	.0	.0	.0	.0	.0	.0	.0	64659.7	.0	64659.7
HOTELS/REST.	31	.0	.0	.0	140.2	.0	.0	.0	15010.3	1353.0	16363.3
PERSONAL SERVICES	32	.0	.0	.0	560.4	.0	.0	.0	36563.8	2165.6	38720.4
BUSINESS SERVICES	33	.0	.0	.0	1919.1	.0	.0	.0	1919.1	14079.8	15998.9
TOTAL INTER. INPU	34	-3600.0	-402.0	-193789.8	90800.2	262336.3	58976.9	-40591.0	764092.5	419860.9	1183953.4
TAXES	35	.0	.0	.0	223.7	.0	.0	.0	85073.5	44651.4	129724.9
SUBSIDIES	36	.0	.0	.0	.0	-323.5	.0	.0	-323.5	-8208.9	-8532.4
NON-COMP. IMPORTS	37	.0	.0	.0	10610.1	.0	.0	.0	68581.3	118837.5	187418.9
WAGES + SALARIES	38	.0	.0	.0	23719.5	.0	.0	.0	98719.5	326326.4	425045.9
UNINCORP. BUS. INC.	39	.0	.0	.0	.0	.0	.0	.0	.0	83927.1	83927.1
PROFIT/RENT/INT.	40	.0	.0	.0	1971.3	.0	.0	.0	19716.3	108507.7	128224.0
DEPRECIATION	41	.0	.0	.0	2317.0	.0	.0	.0	2317.0	90050.1	92367.1
FACTOR INCOMES	42	.0	.0	.0	114435.8	.0	.0	.0	118435.8	518761.2	637197.0
HOUSEHOLD INCOME	43	.0	.0	.0	108819.5	.0	.0	.0	108819.5	461189.3	570008.8
EDUCATION + HOSP.	44	.0	.0	.0	.0	.0	.0	.0	5073.0	.0	5073.0
PROVINCIAL REVENUE	45	.0	.0	.0	.0	.0	.0	.0	34641.5	20285.5	54927.0
MUNICIPAL REVENUE	46	.0	.0	.0	.0	.0	.0	.0	7156.0	23236.0	30392.0
FEDERAL REVENUE	47	.0	.0	.0	223.7	-323.5	.0	.0	37879.5	8428.5	46308.0
IMPORT LEAKAGE	48	.0	.0	.0	2022.4	.0	.0	.0	78197.6	160902.0	239099.6
EMPLOYMENT	49	.0	.0	.0	24000.0	.0	.0	.0	24000.0	104651.0	128651.0
TOTAL PRIMARY	50	.0	.0	.0	11560.5	-323.5	.0	.0	274064.1	764091.3	1038175.4

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APPENDIX 1 TABLE 2

FLOW TABLE - NEW BRUNSWICK 1960

(000's)

INDUSTRY COLS	IMPORTS- P.E.I.	IMPORTS- NFLD.	IMPORTS- RESIDUAL	TOTAL PUB. SECTOR	EXPORTS FX A.P.	EXPORTS TO A.P.	EXPORTS FROM A.P.	TOTAL FINAL DEM.	TOTAL INTER.DEM.	TOTAL OUTPUT	
INDUSTRY ROWS	51	52	53	54	55	56	57	58	59	60	
TOTAL INPUT	51	-3600.0	-902.0	-193789.8	222394.8	262012.8	58976.9	-40591.0	1038176.7	1183952.2	2222128.9

A24

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APPENDIX 1 TABLE 3

FLOW TABLE PRINCE EDWARD ISLAND 1960

A25

INDUSTRY COLS		AGRI- CULTURE	FORESTRY	PRIMARY FISHING	QUARRIES (000's)	MEAT, DAIRY FRUIT	SECONDARY FISHING	MISC. FOODS NES	SOFT DRINK MANUF.	TEXTILES, CLOTHING	SAWMILLS, WOOD PROD.
INDUSTRY ROWS		1	2	3	4	5	6	7	8	9	10
AGRICULTURE	1	2580.4	1004.5	.0	.0	8262.5	68.8	128.2	.0	25.7	.0
FORESTRY	2	85.8	-989.9	368.2	.0	.0	3.9	.0	.0	.0	302.3
PRIMARY FISHING	3	.0	.0	.0	.0	.0	3956.6	.0	.0	.0	.0
QUARRIES	4	.0	.0	.0	.0	3.7	12.1	3.8	.0	.0	.0
MEAT, DAIRY, FRUIT	5	41.1	.0	.0	.0	2413.3	-31.9	59.0	.0	.0	.0
SECONDARY FISHING	6	1.0	.0	521.5	.0	56.9	31.9	7.4	.0	.0	2.5
MISC. FOODS, NES	7	1628.3	.0	.0	.0	33.4	.0	175.0	86.0	.0	.0
S. DRINKS, BREWERS	8	.0	.0	.0	.0	.0	.0	17.7	42.9	.0	.0
TEXTILES, CLOTHING	9	233.7	.0	72.9	.0	33.5	.3	22.7	.0	7.4	19.7
SAWMILLS, WOOD PR.	10	90.0	2.4	.0	.0	26.7	23.7	.0	.0	.0	206.0
PAPER PRODS.	11	.0	.0	.0	.0	290.9	1.9	8.2	.0	.9	1.2
PRINTING	12	.0	.0	.0	.0	80.2	3.5	1.5	.0	.3	.0
METAL FABRIC.	13	205.8	.2	37.5	.0	337.6	175.9	.2	.0	1.8	13.2
MACH. + EQUIPT.	14	300.0	60.2	49.0	5.0	334.0	40.9	24.9	7.2	3.1	7.2
BOAT + SHIP BLDG.	15	.0	.0	51.5	.0	.0	.0	.0	.0	.0	.0
NONMET. MINERAL PR	16	152.9	.0	.0	.0	.0	.0	.0	.0	.0	.0
PAINT, SOAP PR.	17	2640.0	.0	27.0	3.7	.0	.0	.0	7.3	.0	105.3
MISC. MANUF.	18	.0	.0	.0	.0	9.2	.0	.0	.0	.0	.0
CONSTRUCTION	19	930.0	39.0	10.3	.0	45.8	55.1	7.6	2.3	7.0	10.0
TRANSP. TRAVEL, ENT	20	1178.3	9.6	135.3	4.6	637.1	476.8	103.8	21.8	77.8	75.6
COMMUNICATIONS	21	100.0	2.5	.0	1.0	23.7	106.8	3.7	1.1	2.0	5.8
E. POWER, WATER-GAS	22	206.0	.0	.0	5.8	130.5	34.4	18.8	3.3	5.9	10.9
DISTRIBUTION	23	1295.0	5.5	148.6	4.0	535.7	113.4	88.5	18.6	67.9	60.0
AUTO OPERATION	24	1715.0	.0	.0	.0	9.4	.0	.7	1.2	2.6	3.6
FINANCE, R.E.	25	597.0	19.6	96.5	0.0	163.9	174.5	17.0	11.8	16.9	34.5
DWELLING SERVICES	26	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	28	.0	.6	.0	.0	7.6	5.4	.4	.5	.2	.1
BUSINESS SERVICES	29	250.0	7.4	.0	1.5	66.3	106.7	22.0	16.7	14.1	9.7
TOTAL INTER. INPU	30	14230.3	161.6	1518.3	31.6	13501.9	5360.7	711.1	220.7	233.6	867.6
TAXES	31	505.0	3.8	16.7	1.0	67.3	104.0	11.3	9.3	7.9	18.8
SUBSIDIES	32	-144.0	.0	-63.4	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	33	1197.3	11.4	145.3	8.8	149.3	569.2	548.2	25.4	647.8	46.2
WAGES + SALARIES	34	2760.0	422.9	764.7	43.1	1912.3	795.1	191.3	92.6	155.2	384.8
UNINCORP. BUS. INC.	35	13855.0	38.6	1673.3	.0	300.0	200.0	110.0	.0	.0	100.0
PROFIT, RENT, INT.	36	-1439.0	17.6	300.6	29.2	1085.0	132.0	10.3	157.8	236.7	83.5
DEPRECIATION	37	2478.0	65.6	284.0	3.0	177.4	189.9	47.8	21.3	14.0	37.8
FACTOR INCOMES	38	15176.0	479.1	2738.6	72.3	3297.3	1127.1	311.6	250.4	391.9	568.3
HOUSEHOLD INCOME	39	15176.0	479.1	2738.6	66.7	2535.8	1100.6	301.1	149.6	344.5	511.0
EDUCATION + HOSP.	40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	41	37.0	.0	.0	.0	24.3	.0	4.2	4.0	4.3	4.9
MUNICIPAL REVENUE	42	455.0	3.5	16.7	1.0	39.8	84.6	6.4	5.1	3.3	12.8
FEDERAL REVENUE	43	-131.0	.3	-63.4	5.6	201.6	45.9	.7	51.0	47.7	15.4
IMPORT LEAKAGE	44	1197.3	11.4	145.3	8.8	712.4	569.2	558.7	75.4	647.8	89.2
EMPLOYMENT	45	1100.0	70.0	800.0	21.0	608.0	443.0	133.0	35.0	154.0	197.0
TOTAL PRIMARY	46	19212.3	559.9	3121.2	85.1	3691.3	1990.2	918.9	306.4	1061.6	671.1
TOTAL INPUT	47	33442.6	721.5	4639.5	116.7	17193.2	7350.9	1630.0	527.1	1295.2	1538.7

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APPENDIX 1 TABLE 3

FLOW TABLE PRINCE EDWARD ISLAND 1960
(000's)

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INDUSTRY COLS		PAPER	PRINTING	METAL	MACH.	BOAT +	NON-MET.	FERTILIZER	MISC.	CON-	TRANSP.
INDUSTRY ROWS		PRODS		FABRIC.	+ EQUIPT.	SHIP BLDG	MINERAL PR		MANUF.	STRUCTION	TRAVEL-ENT
		11	12	13	14	15	16	17	18	19	20
AGRICULTURE	1	.0	.0	.0	.0	.0	.0	.0	9.8	26.0	.0
FORESTRY	2	.0	.0	.0	.0	.0	.0	.0	.0	24.2	.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
QUARRIES	4	.0	.0	.0	.0	.0	4.7	9.8	.0	169.0	.0
MEAT, DAIRY, FRUIT	5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SECONDARY FISHING	6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MISC. FOODS, NES	7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
S. DRINKS, BREWERS	8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TEXTILES, CLOTHING	9	.0	.2	.0	.0	1.5	.0	.0	.0	.0	4.4
SAWMILLS, WOOD PR.	10	.0	.0	.0	.0	55.5	.0	.0	.0	2060.6	24.8
PAPER PRODS.	11	17.4	100.7	.0	.0	.0	5.7	113.7	.0	369.6	1.5
PRINTING	12	.0	5.1	.0	.0	.0	.0	.0	.0	.0	.1
METAL FABRIC.	13	.0	.8	-78.0	6.3	9.5	.0	.0	.0	1971.7	9.0
MACH. + EQUIPT.	14	3.3	18.4	1.0	4.5	3.8	2.4	27.8	.3	410.2	33.9
BOAT + SHIP BLDG.	15	.0	.0	78.0	.0	.0	.0	.0	.0	.0	1010.6
NONMET. MINERAL PR	16	.0	.0	.0	.0	.0	22.2	.0	.0	2240.4	.0
PAINT, SOAP PR.	17	.0	.0	.0	.0	15.1	.0	230.7	.0	523.7	15.3
MISC. MANUF.	18	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8
CONSTRUCTION	19	.0	2.0	.0	.0	.0	.0	10.0	.0	16.0	198.0
TRANSP. TRAVEL, ENT	20	3.4	39.9	7.4	10.9	11.5	8.4	112.8	2.0	2836.8	500.1
COMMUNICATIONS	21	1.6	17.9	.3	1.0	.8	.5	6.9	.3	79.0	127.7
E. POWER, WATER-GAS	22	.1	16.3	.6	1.7	4.3	1.3	4.6	1.3	91.2	102.2
DISTRIBUTION	23	3.0	18.6	6.2	7.4	8.6	6.5	76.3	1.5	2277.6	262.7
AUTO OPERATION	24	.0	3.9	.1	.3	.0	.5	.5	.0	35.0	1113.7
FINANCE, R.E.	25	3.4	24.3	1.8	3.4	6.1	2.0	43.3	1.0	2268.9	1174.8
DWELLING SERVICES	26	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	27	.0	.0	.0	.0	.0	.0	.0	.0	.0	483.4
PERSONAL SERVICES	28	.1	1.1	.0	.1	.1	.0	.3	.0	13.0	65.8
BUSINESS SERVICES	29	5.4	19.1	.8	1.6	5.4	.3	13.5	2.6	2085.9	150.2
TOTAL INTER. INPU	30	37.7	268.3	18.2	39.2	122.2	54.5	650.2	18.8	17498.8	5279.0
TAXES	31	5.5	36.3	1.2	1.1	1.3	2.1	19.2	.3	82.0	1330.9
SUBSIDIES	32	.0	.0	.0	.0	.0	.0	.0	.0	.0	-2848.4
NON-COMP. IMPORTS	33	3.6	132.8	52.1	52.2	11.1	13.8	960.1	5.4	4361.2	1524.5
WAGES + SALARIES	34	9.7	498.4	15.5	60.5	107.5	65.7	126.4	86.6	6265.0	7031.2
UNINCORP. BUS. INC.	35	.0	.0	.0	.0	.0	.0	.0	.0	3000.0	1012.8
PROFIT, RENT, INT.	36	4.9	181.4	14.8	6.5	-24.6	37.6	213.7	17.0	971.7	-1220.2
DEPRECIATION	37	2.3	25.0	3.0	4.5	18.2	13.9	48.7	1.4	812.3	3363.6
FACTOR INCOMES	38	14.6	679.8	30.3	67.0	82.9	103.3	340.1	103.6	10236.7	6823.8
HOUSEHOLD INCOME	39	14.6	613.0	30.3	67.0	82.9	103.3	139.4	103.6	9741.4	8244.0
EDUCATION + HOSP.	40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	41	.0	.5	.1	.0	.0	1.4	2.9	.2	61.0	1227.9
MUNICIPAL REVENUE	42	4.9	23.6	1.1	.9	1.0	.7	14.8	.1	15.0	95.1
FEDERAL REVENUE	43	.6	48.6	.0	.2	.3	.0	51.5	.0	201.0	-2840.5
IMPORT LEAKAGE	44	3.6	163.2	52.1	52.2	11.1	13.8	1110.8	5.4	4661.5	104.3
EMPLOYMENT	45	4.0	176.0	8.0	27.0	40.0	21.0	41.0	13.0	2150.0	1900.0
TOTAL PRIMARY	46	26.0	873.9	86.6	124.8	113.5	133.1	1368.1	110.7	15492.2	10194.4
TOTAL INPUT	47	63.7	1142.2	104.8	164.0	235.7	187.6	2018.3	129.5	32991.0	15473.4

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APPENDIX 1 TABLE 3

FLOW TABLE - PRINCE EDWARD ISLAND 1960

(000's)

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INDUSTRY COLS	COMMUNICAT	ELEC. POWER	DISTRIBUTN	AUTO	FINANCE,	DWELLING	HOTELS	PERSONAL	BUSINESS	PERSONAL
	IONS	WATER-GAS		OPERATION	R.F.	SERVICES	+ REST.	SERVICES	SERVICES	CONS.
INDUSTRY ROWS	21	22	23	24	25	26	27	28	29	30
AGRICULTURE	1	.0	.0	.7	.0	.0	.0	.0	.0	5103.3
FORESTRY	2	.0	.0	.0	.0	.0	.0	.0	.0	135.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	.0	.0	.0
QUARRIES	4	.0	.0	.0	.0	.0	.0	.0	.0	.0
MEAT, DAIRY, FRUIT	5	.0	.0	.0	.0	.0	.0	.0	.0	9305.4
SECONDARY FISHING	6	.0	.0	.7	.0	.0	.0	.0	.0	947.6
MISC. FOODS, NES	7	.0	.0	.0	.0	.0	.0	.0	.0	5755.2
S. DRINKS, BREWERS	8	.0	.0	.0	.0	.0	.0	.0	.0	2225.4
TEXTILES, CLOTHING	9	.0	.0	164.5	.0	.0	4.3	7.8	.0	4460.6
SAWMILLS, WOOD PR.	10	.0	.0	19.9	.0	.0	32.6	61.0	.0	600.0
PAPER PRODS.	11	.0	.0	71.6	.0	.0	.6	3.5	.0	.0
PRINTING	12	51.0	1.0	.0	.0	.0	15.6	9.0	530.0	650.0
METAL FABRIC.	13	.0	4.3	2.7	.0	.0	.0	.0	4.0	.0
MACH. + EQUIPT.	14	.0	4.5	77.1	45.0	200.0	.0	230.0	.0	.0
BOAT + SHIP BLDG.	15	.0	.0	.0	.0	.0	.0	.0	.0	.0
NONMET. MINERAL PR	16	.0	.0	.0	.0	.0	.0	.0	.0	.0
PAINT, SOAP PR.	17	.0	3.1	2.7	9.8	.0	11.1	64.0	4.6	.0
MISC. MANUF.	18	.0	.0	30.6	.0	.0	.0	130.8	.0	56.4
CONSTRUCTION	19	81.0	186.0	302.4	75.0	142.0	1400.0	14.0	93.0	.0
TRANSP. TRAVEL, ENT	20	39.1	104.6	1947.1	320.7	.7	.0	209.8	75.8	2162.8
COMMUNICATIONS	21	36.0	12.0	164.2	35.0	86.0	.0	67.2	61.5	664.0
E. POWER, WATER-GAS	22	27.5	5.0	199.9	15.0	4.5	.0	105.7	49.5	1249.8
DISTRIBUTION	23	21.8	86.7	907.5	283.3	.6	.0	81.2	61.2	14120.5
AUTO OPERATION	24	.0	.0	.0	.0	.0	.0	20.9	.0	5920.4
FINANCE, R.E.	25	41.0	12.0	1126.4	685.0	209.0	131.2	175.1	353.1	468.0
DWELLING SERVICES	26	.0	.0	.0	.0	.0	.0	.0	.0	8697.1
HOTELS, REST.	27	.0	.0	.0	.0	.0	.0	.0	.0	2404.8
PERSONAL SERVICES	28	3.0	.0	60.3	.0	.0	109.1	56.0	.0	5424.8
BUSINESS SERVICES	29	45.5	7.0	614.3	80.0	93.0	.0	122.5	5.0	.0
TOTAL INTER. INPU	30	345.9	426.2	5692.6	1548.8	735.8	1531.2	969.7	1261.2	70351.1
TAXES	31	230.7	136.5	273.8	517.0	457.1	660.5	113.2	196.5	12844.9
SUBSIDIES	32	.0	.0	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	33	137.6	290.2	603.9	3503.2	2241.2	.0	129.6	273.0	2616.4
WAGES + SALARIES	34	754.9	635.7	7524.2	830.0	1632.8	.0	786.7	1243.8	199.1
UNINCORP. BUS. INC.	35	.0	.0	3500.0	1600.0	.0	.0	439.3	1800.0	.0
PROFIT, RENT, INT.	36	237.9	927.1	2754.3	723.9	2654.3	3068.8	324.6	979.8	272.3
DEPRECIATION	37	286.0	378.0	1160.5	300.0	500.6	3432.6	144.1	96.8	.0
FACTOR INCOMES	38	992.8	1562.8	13778.5	3153.9	4287.1	3068.8	1550.6	4023.6	471.4
HOUSEHOLD INCOME	39	827.3	1084.7	12399.1	2661.9	2435.1	2568.8	1428.9	3807.5	316.5
EDUCATION + HOSP.	40	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	41	.0	.0	.0	517.0	252.1	.0	50.0	195.0	50.0
MUNICIPAL REVENUE	42	220.8	136.0	184.4	.0	204.0	660.5	58.0	.0	.0
FEDERAL REVENUE	43	79.9	300.5	461.1	73.1	1.0	.0	56.1	193.1	55.6
IMPORT LEAKAGE	44	233.1	468.3	1611.6	3922.1	4093.2	500.0	200.4	297.5	2716.7
EMPLOYMENT	45	300.0	200.0	3322.0	1011.0	500.0	25.0	460.0	1500.0	150.0
TOTAL PRIMARY	46	1647.1	2367.5	15816.7	7474.1	7486.0	7161.9	1937.5	4589.9	3146.8
TOTAL INPUT	47	1993.0	2793.7	21509.3	9022.9	8221.8	8693.1	2907.2	5851.1	4164.4

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APPENDIX 1 TABLE 1

FLOW TABLE PRINCE EDWARD ISLAND 1960

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INDUSTRY COLS		CAPITAL	INVENTORY	FED. GOVT.	FED. GOVT.	PROVINCIAL	MUNICIPAL	EDUCATION	HOSPITAL	EXPORTS-	EXPORTS-
		FORMATION	CHANGE	DEFENCE	CIVIL	GOVT.	GOVT.			FOREIGN	CANADA
INDUSTRY ROWS		31	32	33	34	35	36	37	38	39	40
AGRICULTURE	1	699.4	355.7	.0	8.6	55.9	5.9	.0	49.9	2698.0	8869.0
FORESTRY	2	.0	59.8	.0	.0	.0	.0	.0	.0	114.0	520.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
QUARRIES	4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MEAT, DAIRY, FRUIT	5	.0	1109.2	93.3	55.5	50.2	16.6	.0	119.5	805.8	824.5
SECONDARY FISHING	6	.0	.0	.0	1.6	2.5	1.0	.0	8.4	2433.1	3948.5
MISC. FOODS, NES	7	.0	85.1	.0	5.7	10.8	.0	.0	28.8	.0	.0
S. DRINKS, BREWERS	8	.0	-2.2	.0	.0	.0	.0	.0	.0	.0	.0
TEXTILES, CLOTHING	9	.0	-39.3	.0	3.6	6.6	3.8	.2	12.6	.0	.0
SAWMILLS, WOOD PR.	10	.0	32.7	3.2	8.3	.0	.0	89.0	40.0	2.1	.0
PAPER PRODS.	11	.0	21.6	.0	.5	.0	.0	10.0	.0	.0	.0
PRINTING	12	.0	-2.4	.0	.2	60.2	.0	137.7	30.0	.0	.0
METAL FABRIC.	13	78.0	.8	.0	.0	3.1	.0	.0	.0	.0	.0
MACH. + EQUIPT.	14	10151.0	.0	.0	114.0	.0	.0	52.9	47.0	.0	.0
BOAT + SHIP BLDG.	15	.0	-1.1	80.5	1720.1	4.6	62.4	.0	.0	.0	.0
NONMET. MINERAL PR	16	.0	-2.2	.0	.0	.0	31.3	.0	.0	.0	.0
PAINT, SOAP PR.	17	.0	74.4	.0	17.4	40.0	.0	19.0	.0	.0	252.7
MISC. MANUF.	18	.0	.0	.0	.2	7.2	4.4	2.9	.0	.0	.0
CONSTRUCTION	19	13457.5	.0	4221.0	2970.0	6565.0	261.0	1106.0	784.0	.0	.0
TRANSP. TRAVEL, ENT	20	.0	.0	167.6	701.3	1279.6	209.2	77.8	76.3	589.6	1181.2
COMMUNICATIONS	21	.0	.0	.0	20.8	30.5	6.6	15.1	8.0	.0	96.2
E. POWER, WATER-GAS	22	.0	.0	128.0	54.7	90.0	93.7	73.0	53.2	.0	.0
DISTRIBUTION	23	.0	.0	74.6	348.3	59.0	27.4	83.3	67.1	50.0	150.0
AUTO OPERATION	24	.0	.0	1.9	23.3	154.0	5.9	10.0	.0	.0	.0
FINANCE, R.E.	25	.0	.0	23.3	15.7	61.5	26.3	70.6	47.7	.0	.0
DWELLING SERVICES	26	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	27	.0	.0	.0	.0	.0	.0	19.0	.0	.0	.0
PERSONAL SERVICES	28	.0	.0	3.0	6.2	21.5	16.7	9.0	42.2	.0	.0
BUSINESS SERVICES	29	.0	.0	30.6	69.5	159.7	100.0	26.4	31.7	.0	.0
TOTAL INTER. INPU	30	24385.9	1696.1	4827.0	6145.5	8661.9	872.2	1801.9	1446.4	6692.6	15842.1
TAXES	31	.0	.0	.0	3.1	16.1	5.6	7.1	1.2	.0	.0
SUBSIDIES	32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	33	.0	.0	160.9	164.3	378.3	120.9	514.2	580.1	.0	.0
WAGES + SALARIES	34	.0	.0	4000.0	4965.0	2795.0	525.0	3004.0	1853.6	.0	.0
UNINCORP. BUS. INC.	35	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROFIT, RENT, INT.	36	.0	.0	.0	.0	1457.0	451.0	160.0	273.0	.0	.0
DEPRECIATION	37	.0	.0	.0	.0	.0	121.0	.0	199.0	.0	.0
FACTOR INCOMES	38	.0	.0	4000.0	4965.0	4252.0	976.0	3164.0	2126.6	.0	.0
HOUSEHOLD INCOME	39	.0	.0	4000.0	4965.0	3295.0	525.0	3004.0	1853.6	.0	.0
EDUCATION + HOSP.	40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MUNICIPAL REVENUE	42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
FEDERAL REVENUE	43	.0	.0	.0	3.1	16.1	5.6	7.1	1.2	.0	.0
IMPORT LEAKAGE	44	.0	.0	160.9	164.3	1335.3	571.9	674.2	853.1	.0	.0
EMPLOYMENT	45	.0	.0	800.0	1000.0	700.0	250.0	700.0	500.0	.0	.0
TOTAL PRIMARY	46	.0	.0	4160.9	5132.4	4646.4	1223.5	3685.3	2906.9	.0	.0
TOTAL INPUT	47	24385.9	1696.1	8987.9	11277.9	13308.3	2095.7	5487.2	4353.3	6692.6	15842.1

APPENDIX 1 TABLE 3

FLOW TABLE - PRINCE EDWARD ISLAND 1960
(000's)

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INDUSTRY COLS		EXPORTS- N.S. 41	EXPORTS- N.B. 42	EXPORTS- P.E.I. 43	EXPORTS- NFLD. 44	IMPORTS- N.S. 45	IMPORTS- N.B. 46	IMPORTS- P.E.I. 47	IMPORTS- NFLD. 48	IMPORTS- RESIDUAL 49	TOTAL PUB. SECTOR 50
INDUSTRY ROWS											
AGRICULTURE	1	2966.0	595.0	.0	1512.0	-136.0	-20.0	.0	.0	-1426.7	120.3
FORESTRY	2	224.0	48.0	.0	.0	.0	.0	.0	.0	-173.8	.0
PRIMARY FISHING	3	.0	683.0	.0	.0	.0	.0	.0	.0	-.1	.0
QUARRIES	4	.0	.0	.0	.0	-19.0	.0	.0	.0	-67.4	.0
MEAT, DAIRY, FRUIT	5	3630.0	1132.0	.0	2988.0	-99.0	-317.0	.0	.0	-5002.4	335.1
SECONDARY FISHING	6	387.0	.0	.0	.0	-335.0	-135.0	.0	-264.0	-266.7	13.5
MISC. FOODS, NES	7	.0	.0	.0	.0	-477.0	-4306.0	.0	.0	-1395.3	45.3
S. DRINKS, BREWERS	8	.0	.0	.0	.0	-481.0	-450.0	.0	.0	-827.7	.0
TEXTILES, CLOTHING	9	180.0	662.0	.0	119.0	-271.0	-5.0	.0	-4.0	-4406.8	26.8
SAWMILLS, WOOD PR.	10	.0	480.0	.0	.0	-673.0	-507.0	.0	.0	-1139.8	140.5
PAPER PRODS.	11	58.0	.0	.0	.0	-180.0	-413.0	.0	.0	-420.8	10.5
PRINTING	12	.0	.0	.0	.0	.0	-350.0	.0	.0	-80.8	228.1
METAL FABRIC.	13	.0	.0	.0	66.0	-453.0	-168.0	.0	.0	-2126.6	3.1
MACH. + EQUIPT.	14	.0	.0	.0	.0	-28.0	-1.0	.0	.0	-12065.6	213.9
BOAT + SHIP BLDG.	15	.0	.0	.0	.0	-1960.0	-11.0	.0	.0	-799.9	1867.6
NONMET. MINERAL PR	16	.0	.0	.0	.0	-86.0	-411.0	.0	-10.0	-1752.0	31.3
PAINT, SOAP PR.	17	.0	.0	.0	.0	-355.0	-886.0	.0	-163.0	-644.6	76.4
MISC. MANUF.	18	.0	.0	.0	.0	-12.0	-100.0	.0	.0	2.2	14.7
CONSTRUCTION	19	.0	.0	.0	.0	.0	.0	.0	.0	.0	15907.0
TRANSP. TRAVEL, ENT	20	.0	.0	.0	.0	.0	.0	.0	.0	.0	2511.8
COMMUNICATIONS	21	.0	.0	.0	.0	.0	.0	.0	.0	.0	81.0
E. POWER, WATER-GAS	22	.0	.0	.0	.0	.0	.0	.0	.0	.0	492.6
DISTRIBUTION	23	.0	.0	.0	.0	.0	.0	.0	.0	.0	659.7
AUTO OPERATION	24	.0	.0	.0	.0	.0	.0	.0	.0	.0	195.1
FINANCE, R.E.	25	.0	.0	.0	.0	.0	.0	.0	.0	.0	245.1
DWELLING SERVICES	26	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	27	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.0
PERSONAL SERVICES	28	.0	.0	.0	.0	.0	.0	.0	.0	.0	98.6
BUSINESS SERVICES	29	.0	.0	.0	.0	.0	.0	.0	.0	.0	417.9
TOTAL INTER. INPU	30	7445.0	3600.0	.0	4685.0	-5565.0	-8080.0	.0	-441.0	-32594.7	23754.9
TAXES	31	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.1
SUBSIDIES	32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	33	.0	.0	.0	.0	.0	.0	.0	.0	.0	1918.7
WAGES + SALARIES	34	.0	.0	.0	.0	.0	.0	.0	.0	.0	17142.6
UNINCORP. BUS. INC.	35	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROFIT, RENT, INT.	36	.0	.0	.0	.0	.0	.0	.0	.0	.0	2341.0
DEPRECIATION	37	.0	.0	.0	.0	.0	.0	.0	.0	.0	320.0
FACTOR INCOMES	38	.0	.0	.0	.0	.0	.0	.0	.0	.0	19483.6
HOUSEHOLD INCOME	39	.0	.0	.0	.0	.0	.0	.0	.0	.0	17642.6
EDUCATION + HOSP.	40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MUNICIPAL REVENUE	42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
FEDERAL REVENUE	43	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.1
IMPORT LEAKAGE	44	.0	.0	.0	.0	.0	.0	.0	.0	.0	3759.7
EMPLOYMENT	45	.0	.0	.0	.0	.0	.0	.0	.0	.0	3950.0
TOTAL PRIMARY	46	.0	.0	.0	.0	.0	.0	.0	.0	.0	21755.4
TOTAL INPUT	47	7445.0	3600.0	.0	4685.0	-5565.0	-8080.0	.0	-441.0	-32594.7	45510.3

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APPENDIX I TABLE 3

F L O W T A B L E - FRANCE EDWARD ISLAND 1980
(000's)

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INDUSTRY COLS		EXPORTS	EXPORTS	EXPORTS	TOTAL	TOTAL	TOTAL
		EX A.P.	TO A.P.	FROM A.P.	FINAL DEM.	INTER.DEM.	OUTPUT
INDUSTRY ROWS		51	52	53	54	55	56
AGRICULTURE	1	11567.0	5073.0	-156.0	21336.0	12106.6	33442.6
FORESTRY	2	634.0	272.0	.0	927.0	-205.5	721.5
PRIMARY FISHING	3	.0	683.0	.0	682.9	3956.6	4639.5
QUARRIES	4	.0	.0	-19.0	-86.4	203.1	116.7
MEAT, DAIRY, FRUIT	5	1630.3	7750.0	-416.0	14711.6	2481.5	17193.1
SECONDARY FISHING	6	6381.6	387.0	-734.0	6729.0	621.9	7350.9
MISC. FOODS, NES	7	.0	.0	-4783.0	-292.7	1922.7	1630.0
S. DRINKS, BREWERS	8	.0	.0	-931.0	466.5	60.6	527.1
TEXTILES, CLOTHING	9	.0	961.0	-280.0	722.3	572.9	1295.2
SAWMILLS, WOOD PR.	10	2.1	480.0	-1180.0	-1064.5	2603.2	1538.7
PAPER PRODS.	11	.0	58.0	-593.0	-923.7	987.4	63.7
PRINTING	12	.0	.0	-350.0	444.9	697.3	1142.2
METAL FABRIC.	13	.0	66.0	-621.0	-2599.7	2704.5	104.8
MACH. + EQUIPT.	14	.0	.0	-29.0	-1729.7	1893.7	164.0
BOAT + SHIP BLDG.	15	.0	.0	-1971.0	-904.4	1140.1	235.7
NONMET. MINERAL PR	16	.0	.0	-507.0	-2227.9	2415.5	187.6
PAINT, SOAP PR.	17	252.7	.0	-1404.0	-1645.1	3663.4	2018.3
MISC. MANUF.	18	.0	.0	-112.0	-38.7	171.4	132.7
CONSTRUCTION	19	.0	.0	.0	29364.5	3626.5	32991.0
TRANSP. TRAVEL, ENT	20	1770.8	.0	.0	6445.4	9028.0	15473.4
COMMUNICATIONS	21	96.2	.0	.0	841.2	1151.8	1993.0
E. POWER, WATER-GAS	22	.0	.0	.0	1742.4	1051.3	2793.7
DISTRIBUTION	23	200.0	.0	.0	14980.2	6529.1	21509.3
AUTO OPERATION	24	.0	.0	.0	6115.5	2907.4	9022.9
FINANCE, R.E.	25	.0	.0	.0	713.1	7508.7	8221.8
DWELLING SERVICES	26	.0	.0	.0	8693.1	.0	8693.1
HOTELS, REST.	27	.0	.0	.0	2423.8	483.4	2907.2
PERSONAL SERVICES	28	.0	.0	.0	5527.4	323.7	5851.1
BUSINESS SERVICES	29	.0	.0	.0	417.9	3746.5	4164.4
TOTAL INTER. INPU	30	22534.7	15730.0	-14086.0	111771.9	74353.3	186125.2
TAXES	31	.0	.0	.0	12878.0	4861.3	17739.3
SUBSIDIES	32	.0	.0	.0	.0	-3055.8	-3055.8
NON-COMP. IMPORTS	33	.0	.0	.0	18498.2	20260.8	38759.0
WAGES + SALARIES	34	.0	.0	.0	17142.6	35395.7	52538.3
UNINCORP. BUS. INC.	35	.0	.0	.0	.0	27629.0	27629.0
PROFIT, RENT, INT.	36	.0	.0	.0	2341.0	12759.5	15100.5
DEPRECIATION	37	.0	.0	.0	320.0	13918.3	14238.3
FACTOR INCOMES	38	.0	.0	.0	19483.6	75784.2	95267.8
HOUSEHOLD INCOME	39	.0	.0	.0	17642.6	70072.3	87714.9
EDUCATION + HOSP.	40	.0	.0	.0	633.0	.0	633.0
PROVINCIAL REVENUE	41	.0	.0	.0	6273.9	2436.8	8710.7
MUNICIPAL REVENUE	42	.0	.0	.0	406.0	2249.1	2655.1
FEDERAL REVENUE	43	.0	.0	.0	5565.1	-1144.1	4421.0
IMPORT LEAKAGE	44	.0	.0	.0	20339.2	24236.4	44575.6
EMPLOYMENT	45	.0	.0	.0	3950.0	15409.0	19359.0
TOTAL PRIMARY	46	.0	.0	.0	51179.8	111768.8	162948.6
TOTAL INPUT	47	22534.7	15730.0	-14086.0	162951.7	186122.1	349073.8

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APPENDIX 1 TABLE 4

FLOW TABLE - NEWFOUNDLAND 1960

A31

		(000's)									
INDUSTRY COLS		AGRI- CULTURE	FORESTRY	PRIMARY FISHING	METAL MINING	NONMETALS, QUARRIES	MEAT, DAIRY FRUIT	SECONDARY FISHING	MISC. FOODS NES	SOFT DRINKS, BREWERIES	TEXTILES, CLOTHING
INDUSTRY ROWS		1	2	3	4	5	6	7	8	9	10
AGRICULTURE	1	1079.0	260.0	.0	.0	.0	891.0	142.5	29.9	.0	.0
FORESTRY	2	45.0	-80.3	226.3	130.1	18.5	.0	.0	.0	.0	.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	12478.4	.0	.0	.0
METAL MINING	4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NONMETAL QUARRIES	5	.0	.0	700.0	.0	.0	.1	79.9	8.3	.5	.0
MEAT, DAIRY, FRUIT	6	.0	.0	.0	.0	.0	339.5	.2	104.3	.0	36.9
SECONDARY FISHING	7	.0	.0	353.4	.0	.0	.0	59.5	.0	.0	.0
MISC. FOODS, NES	8	701.6	.0	.0	.0	.0	91.0	14.8	544.6	561.1	.0
SOFT DRINK MANUF.	9	.0	.0	.0	.0	.0	.0	.0	2.8	50.3	.0
TEXTILES, CLOTHING	10	65.0	4.3	515.7	.0	.0	10.1	29.9	9.2	.0	405.6
SAWMILLS, WOOD PR.	11	48.3	84.3	310.8	94.1	44.5	.0	132.3	.0	6.8	4.7
PULP + PAPER	12	3.4	.0	.0	.0	.0	148.3	785.7	524.3	226.3	17.6
PRINTING	13	.0	.0	.0	.0	.0	11.6	80.0	16.2	55.3	2.5
METAL FABRIC.	14	39.5	30.0	202.7	270.1	2.6	.0	46.3	.4	.0	.0
MACH. + EQUIPT.	15	.0	110.7	230.7	769.0	32.6	28.1	156.6	71.5	158.6	53.3
TRANSP. EQUIPT.	16	.0	.0	345.9	.0	.0	.0	.0	.0	.0	.0
ELEC. WIRE, CABLE	17	.0	48.3	40.4	.0	7.9	.0	.0	.0	.0	.0
NONMET. MINERAL PR	18	51.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0
FERTILIZERS	19	221.8	.0	161.2	224.0	40.6	.0	10.4	.0	91.0	.0
MISC. MANUF.	20	.0	.0	.0	.0	.0	9.1	.0	.0	.0	.0
CONSTRUCTION	21	367.0	294.0	164.0	805.0	107.0	9.6	225.3	37.8	58.0	39.0
TRANSP. TRAVEL, ENT	22	204.2	459.9	546.0	15281.4	93.4	179.5	1043.5	487.2	353.5	107.7
COMMUNICATIONS	23	40.0	269.6	79.1	269.5	22.5	4.6	110.1	27.3	12.8	3.5
E. POWER, WATER, GAS	24	100.0	5.8	.0	869.2	63.7	31.3	264.3	46.5	103.5	14.9
DISTRIBUTION	25	216.1	186.3	373.8	697.7	39.3	87.5	423.5	211.1	128.1	50.1
AUTO OPERATION	26	234.0	397.5	.0	93.4	1.0	4.8	.0	34.7	4.3	1.0
FINANCE, R.E.	27	138.0	538.4	412.9	1919.0	253.0	25.8	233.0	127.0	189.0	26.8
DWELLING SERVICES	28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	29	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	30	.0	17.1	.0	65.3	.0	1.4	46.0	5.3	7.7	.3
BUSINESS SERVICES	31	.0	206.7	.0	2121.0	34.1	18.0	131.9	193.2	236.6	21.3
TOTAL INTER. INPU	32	3553.9	2832.6	4662.9	24213.0	760.7	1891.3	16494.1	2481.6	2243.4	785.2
TAXES	33	69.0	135.5	597.7	1646.0	101.7	19.1	215.9	65.1	109.8	15.2
SUBSIDIES	34	-110.2	.0	-894.2	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	35	191.1	557.3	406.3	5519.8	232.0	58.5	649.5	2526.8	734.3	411.6
WAGES + SALARIES	36	870.0	19347.2	7167.5	20216.4	1501.2	709.2	6138.8	1595.8	1382.1	698.4
UNINCORP. BUS. INC.	37	2607.2	3085.2	6306.6	.0	300.0	.0	500.0	400.0	800.0	.0
PROFIT, RENT, INT.	38	-700.0	3423.5	2287.9	22687.6	944.7	603.9	590.6	660.2	3244.4	-31.3
DEPRECIATION	39	480.0	2732.2	1001.0	5360.0	75.0	53.7	456.9	202.2	276.6	11.9
FACTOR INCOMES	40	2777.2	25855.9	15762.0	42904.0	2745.9	1313.1	7229.4	2656.0	5425.5	667.1
HOUSEHOLD INCOME	41	2777.2	22955.9	14962.0	20210.4	2140.5	1000.4	7118.9	2427.0	4719.6	650.1
EDUCATION + HOSP.	42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	43	-24.0	106.4	211.0	1214.0	20.0	10.1	201.4	19.4	12.5	1.1
MUNICIPAL REVENUE	44	5.0	20.1	11.7	420.0	40.0	8.0	.0	37.7	94.6	12.7
FEDERAL REVENUE	45	-22.2	1509.0	280.3	2822.9	441.7	113.7	125.0	129.8	609.6	1.4
IMPORT LEAKAGE	46	191.1	2057.3	406.3	25390.5	437.4	258.5	649.5	2634.0	834.3	428.6
EMPLOYMENT	47	400.0	5450.0	5000.0	3561.0	409.0	227.0	2754.0	521.0	363.0	299.0
TOTAL PRIMARY	48	3407.1	29280.9	16872.8	55429.8	3154.6	1444.4	8551.7	5450.1	6547.2	1105.8
TOTAL INPUT	49	6961.0	32113.5	21535.7	79642.8	3915.3	3335.7	25045.8	7931.7	8790.6	1891.0

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INDUSTRY CODES		CONSTRUCTION		TRANSPORTATION		COMMUNICATIONS		ELECTRICITY		WATER-GAS		DISTRIBUTION		AUTOMOBILE OPERATION		FINANCE, R.E.		DWELLING SERVICES		HOTELS + REST.		PERSONAL SERVICES	
INDUSTRY ROWS		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
1	AGRICULTURE	13.7	.0	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2	FORESTRY	122.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3	PRIMARY FISHING	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4	METAL MINING	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5	NONMETAL GUARRIES	1282.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6	MEAT, DAIRY, FRUIT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	SECONDARY FISHING	.0	.0	.0	.0	54.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8	VISC. FOODS, FINE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
9	SOFT DRINK MANUF.	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10	TEXTILES, CLOTHING	.0	10.3	.0	.0	99.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11	SAWMILLS, WOOD PR.	9986.1	29.7	.0	.0	70.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	PULP + PAPER	1275.8	.0	.0	.0	256.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13	PRINTING	.0	6.0	6.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
14	METAL FABRIC.	7153.1	50.2	.0	.0	13.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
15	MACH. + EQUIPT.	2164.4	272.1	75.6	.0	361.9	100.0	807.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
16	TRANSP. EQUIPT.	.0	3354.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17	ELEC. WIRE, CABLE	2056.0	80.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
18	NONMET. MINERAL PR	9227.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
19	FERTILIZERS	2393.2	22.5	.0	.0	10.1	25.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20	MISC. MANUF.	50.1	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
21	CONSTRUCTION	26.0	784.4	184.0	.0	541.0	150.0	149.0	9600.0	15.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22	TRANSP. TRAVEL, RET	15092.9	4173.3	142.5	.0	8846.9	801.7	3.6	.0	783.2	225.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23	COMM. UNIC. TICS	383.3	401.7	245.0	.0	685.0	100.0	224.5	.0	112.4	53.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
24	POWER, HEAT, GAS	276.0	577.2	82.0	.0	564.1	40.0	13.0	.0	318.4	89.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
25	DISTRIBUTION	7586.1	338.9	32.6	.0	259.5	409.7	1.8	.0	92.4	92.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26	AUTO OPERATION	121.0	4261.3	.0	.0	.0	.0	.0	.0	102.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
27	FINANCE, R.E.	7906.9	5294.4	146.0	.0	4237.1	2240.0	686.0	429.7	905.6	502.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
28	JEWELLING SERVICES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
29	HOTELS, REST.	.0	754.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
30	PERSONAL SERVICES	75.8	169.6	7.5	.0	233.1	.0	.0	.0	319.2	15.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
31	BUSINESS SERVICES	4744.9	390.3	198.0	.0	2003.1	80.0	130.0	.0	570.7	20.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
32	TOTAL INFERS. INPU	71946.8	21778.3	1119.9	1281.4	1839.1	3947.0	2014.9	10029.7	3568.5	2305.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33	TAXES	3094.5	3495.8	140.9	187.5	688.7	1351.0	1039.5	1394.1	330.5	157.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
34	SUBSIDIES	.0	-P+20.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
35	NON-COMP. IMPORTS	13970.2	4003.4	244.6	220.8	1356.2	4125.0	5091.0	.0	1357.8	468.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
36	WAGES + SALARIES	45746.2	30779.3	3917.0	2550.0	40678.5	5200.0	4618.9	.0	2567.0	6309.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
37	UNINCORP. BUS. INC.	2700.0	4130.7	.0	.0	12000.0	3000.0	500.0	.0	1126.8	3000.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
38	PROFIT, REVENUE, INT.	4985.2	11371.1	1442.1	5440.8	6235.5	1868.5	14804.9	10959.9	553.2	2925.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
39	DEPRECIATION	3670.2	8209.5	726.0	2252.0	3430.3	800.0	3156.0	10235.9	705.7	261.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
40	FACTOR INCOMES	33433.4	54281.1	5755.1	7990.8	5915.0	10068.6	19923.8	10959.9	4253.0	12234.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41	HOUSEHOLD INCOME	16000.9	45281.1	4282.8	2940.0	56035.2	4994.4	8618.9	8959.9	3904.5	11582.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
42	EDUCATION + HOSP.	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
43	PROVINCIAL REVENUE	1720.0	2460.3	5.0	74.0	85.0	1351.0	737.0	.0	179.0	155.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
44	MUNICIPAL REVENUE	120.0	602.7	14.0	11.0	264.4	.0	300.0	1394.1	125.9	525.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
45	FEDERAL REVENUE	950.0	4387.4	311.0	667.8	1210.8	172.0	1314.9	.0	70.1	599.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
46	IMPORT DUTY	13470.4	13603.4	1491.8	4703.3	3364.5	9027.2	15083.5	2000.0	1657.8	4000.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
47	EMPLOYMENT	11100.0	10000.0	1400.0	700.0	12432.0	2425.0	1000.0	55.0	1420.0	13122.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
48	TOTAL PRIMARY	11391.3	62469.2	3208.6	1665.1	64990.2	20344.6	29210.3	22599.9	6648.0	15428.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49	TOTAL INPUT	143340.1	84247.5	4024.5	11941.3	83828.3	24291.6	31225.2	32619.6	10216.5	15428.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	

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APPENDIX 1 TABLE 4

FLOW TABLE NEWFOUNDLAND 1960

INDUSTRY COLS	BUSINESS SERVICES	PERSONAL CONSUMPTION	CAPITAL FORMATION	CHANGE IN INVENTORY (000's)	EXPENSES				REVENUES				EDUCATION	HOSPITAL
					31	32	33	34	35	36	37	38		
INDUSTRY ROWS														
1 AGRICULTURE	0.0	10970.2	52.0	0.0	0.0	12.3	26.8	6.0	0.0	0.0	0.0	0.0	0.0	205.8
2 FORESTRY	0.0	2449.2	0.0	745.1	0.0	0.0	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0
3 PRIMARY FISHING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 METAL MINING	0.0	0.0	717.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 NONMETAL MINING	0.0	0.0	0.0	-77.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 MEAT, DAIRY, FRUIT	0.0	34178.5	0.0	12.0	54.3	19.7	66.5	18.1	0.0	0.0	0.0	0.0	0.0	712.5
7 SECONDARY FISHING	0.0	4428.3	0.0	11.5	9.0	15.7	52.1	0.0	0.0	0.0	0.0	0.0	0.0	40.8
8 MISC. FOODS	0.0	18098.3	0.0	-12.1	0.0	8.5	37.0	7.2	0.0	0.0	0.0	0.0	0.0	113.1
9 SOFT DRINK MANUF.	0.0	10184.4	0.0	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 TEXTILES, CLOTHING	0.0	20819.3	0.0	40.2	137.4	19.3	100.7	34.1	0.0	0.0	0.0	0.0	0.0	61.7
11 SAWMILLS, WOOD PR.	0.0	3350.0	0.0	-124.9	7.9	47.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	113.8
12 PULP + PAPER	0.0	0.0	0.0	537.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13 PRINTING	0.0	2162.0	0.0	-7.2	0.0	7.6	579.8	43.1	0.0	0.0	0.0	0.0	0.0	141.6
14 METAL FABRIC.	0.0	0.0	0.0	13.2	0.0	17.3	1072.2	0.0	0.0	0.0	0.0	0.0	0.0	22.7
15 MACH. + EQUIPT.	0.0	0.0	28691.0	-1.9	35.7	276.5	245.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8
16 TRANSP. EQUIPT.	0.0	0.0	117.9	-0.7	0.0	2351.3	101.1	0.0	0.0	0.0	0.0	0.0	0.0	12.9
17 ELEC. WIRE, CABLE	0.0	270.0	0.0	0.0	0.0	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.3
18 NONMET. MINERAL PR.	0.0	0.0	0.0	-112.2	0.0	62.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19 FERTILIZERS	0.0	0.0	0.0	0.8	0.0	51.7	24.3	17.5	0.0	0.0	0.0	0.0	0.0	164.3
20 MISC. MANUF.	0.0	193.5	0.0	-1.9	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21 CONSTRUCTION	0.0	0.0	75536.4	0.0	3772.0	13784.0	22329.0	2675.0	0.0	0.0	0.0	0.0	0.0	3295.0
22 TRANSP. TRAVEL, FIT	0.0	30606.4	0.0	0.0	160.9	1103.9	1198.8	415.6	0.0	0.0	0.0	0.0	0.0	515.3
23 COMMUNICATIONS	0.0	2072.0	0.0	0.0	0.0	96.0	99.0	20.3	0.0	0.0	0.0	0.0	0.0	32.4
24 POWER, WATER, GAS	0.0	4364.2	0.0	0.0	119.5	363.5	251.6	124.4	0.0	0.0	0.0	0.0	0.0	141.0
25 DISTRIBUTION	0.0	67484.2	0.0	0.0	78.7	642.2	627.3	81.6	0.0	0.0	0.0	0.0	0.0	457.2
26 AUTO OPERATION	0.0	18493.2	0.0	0.0	141.6	0.0	154.5	89.0	0.0	0.0	0.0	0.0	0.0	101.7
27 FINANCE, I.E.	0.0	2082.0	0.0	0.0	0.0	206.2	864.4	59.1	0.0	0.0	0.0	0.0	0.0	157.3
28 JEWELLING SERVICES	0.0	32619.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29 HOTELS, REST.	0.0	9430.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 PERSONAL SERVICES	0.0	12689.0	0.0	0.0	0.0	145.0	364.6	0.0	0.0	0.0	0.0	0.0	0.0	225.6
31 BUSINESS SERVICES	0.0	0.0	0.0	0.0	0.0	536.6	1173.4	94.1	0.0	0.0	0.0	0.0	0.0	60.6
32 TOTAL INTER. INPU	3162.6	290245.9	105114.4	7903.2	4517.0	18992.6	29381.2	3699.4	5227.5	11.1	5.8	0.0	0.0	0.0
33 TAXES	73.9	33020.0	0.0	0.0	0.0	13.0	129.4	8.1	0.0	0.0	0.0	0.0	0.0	0.0
34 SUBSIDIES	0.0	0.0	-1050.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35 NON-COMP. IMPORTS	0.0	50940.7	0.0	4.5	129.5	525.9	1325.4	201.5	635.3	15.0	0.0	0.0	0.0	1860.5
36 WAGES + SALARIES	1546.7	0.0	0.0	0.0	5000.0	17711.0	10150.0	1551.0	12876.0	0.0	0.0	0.0	0.0	7559.5
37 VINCORP. BUS. INC.	700.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38 PROFIT, RET. INT.	434.3	0.0	0.0	0.0	0.0	0.0	3347.0	767.0	1717.0	0.0	0.0	0.0	0.0	135.8
39 DEPRECIATION	54.0	0.0	0.0	0.0	0.0	0.0	611.0	197.0	0.0	0.0	0.0	0.0	0.0	527.3
40 FACTOR INCOMES	2672.0	0.0	0.0	0.0	5.000.0	17711.0	13507.0	2315.0	14593.0	0.0	0.0	0.0	0.0	7698.3
41 HOUSEHOLD INCOME	2451.5	0.0	0.0	0.0	5.000.0	17711.0	11150.0	1551.0	12876.0	0.0	0.0	0.0	0.0	7559.5
42 EDUCATION + HOSP.	0.0	2329.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43 PROVINCIAL REVENUE	70.9	20952.0	-1050.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44 MUNICIPAL REVENUE	0.0	505.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45 FEDERAL REVENUE	23.0	9074.0	0.0	0.0	0.0	13.0	129.4	8.1	11.1	0.0	0.0	0.0	0.0	5.0
46 EXPORT LEAKAGE	1117.9	50940.7	0.0	4.5	129.5	525.9	3672.4	908.5	2352.3	0.0	0.0	0.0	0.0	1999.3
47 EMPLOYMENT	500.0	0.0	0.0	0.0	1100.0	1200.0	2500.0	600.0	3500.0	0.0	0.0	0.0	0.0	2000.0
48 TOTAL PRIVATE	10727.3	91460.7	-1050.0	4.5	5129.5	17249.0	15572.8	2724.6	15239.4	0.0	0.0	0.0	0.0	10991.1
49 TOTAL INPUT	13869.9	382206.6	107054.4	7955.1	9465.5	35132.5	44954.0	6424.0	20467.0	0.0	0.0	0.0	0.0	16592.9

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APPENDIX 1 TABLE 4

FLOW TABLE - REEFUNDLAND 1960

(000's)

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INDUSTRY COLS	SAWMILLS,	PULP +	PRINTING	METAL	MACH.	TRANSP.	ELEC.	NON-MET.	PAINT.	MISC.
	WOOD PROD.	PAPER		FABRIC.	+ EQUIPT.	EQUIPT.	WIRE, CABLE	MINERAL PR	COAT PR	MANUF.
INDUSTRY ROWS	11	12	13	14	15	16	17	18	19	20
AGRICULTURE	1	.0	.0	.0	.0	.0	.0	.0	.0	18.6
FORESTRY	2	1098.0	19674.1	.0	.0	1.8	.0	.1	.0	.0
PRIMARY FISHING	3	.0	.0	.0	.0	.0	.0	.0	.0	.0
METAL MINING	4	.0	.0	.0	.0	.0	.0	.0	.0	.0
NONMETAL QUARRIES	5	.0	88.9	.0	3.1	.0	.0	240.8	.0	.0
MEAT, DAIRY, FRUIT	6	.0	.0	.0	.0	.0	.0	.0	.0	.0
SECONDARY FISHING	7	1.2	46.3	1.7	.0	.0	.0	16.5	.4	.0
MISC. FOODS, NES	8	.0	.0	.0	.0	.0	.0	.0	.0	.0
SOFT DRINK MANUF.	9	.0	.0	.0	.0	.0	.0	.0	.0	.0
TEXTILES, CLOTHING	10	25.1	198.4	2.3	.0	.0	.0	.0	.0	43.6
SAWMILLS, WOOD PR.	11	1216.6	5.5	.0	10.4	33.8	3.1	.0	.0	14.8
PULP + PAPER	12	3.5	374.8	259.0	0.3	.0	.0	529.7	12.2	3.6
PRINTING	13	.0	18.0	95.5	.0	.0	.0	.0	18.2	.5
METAL FABRIC.	14	7.2	964.6	5.6	41.1	31.2	.0	.0	95.3	-86.0
MACH. + EQUIPT.	15	100.8	5275.0	45.8	43.8	129.5	1.3	248.4	72.2	5.1
TRANSP. EQUIPT.	16	.0	.0	.0	31.8	220.7	.0	.0	.0	.0
ELEC. WIRE, CABLE	17	.0	.0	.0	.0	69.5	.0	.0	.0	.0
NONMET. MINERAL PR	18	.0	274.5	.0	.0	.5	.0	243.2	.0	.0
FERTILIZERS	19	60.8	.0	.0	1.3	21.6	.4	.0	-9.3	5.9
MISC. MANUF.	20	.0	.0	.0	.0	.0	.0	.0	.0	96.0
CONSTRUCTION	21	21.0	570.0	5.0	8.3	141.1	.0	116.0	14.0	.0
TRANSP. TRAVEL, EIT	22	403.2	2486.3	71.3	131.6	124.8	3.3	293.2	83.9	31.3
COMMUNICATIONS	23	31.6	156.7	17.7	8.4	5.5	.2	7.9	6.0	2.0
E. POWER, WATER, GAS	24	59.2	2465.9	35.1	25.5	19.4	2.3	114.0	12.5	3.3
DISTRIBUTION	25	190.8	1214.7	25.5	63.5	59.2	1.3	139.3	31.9	14.0
AUTO OPERATION	26	17.6	12.8	3.6	2.9	6.7	.1	9.0	1.3	1.0
FINANCE, R.E.	27	150.2	680.1	50.8	34.3	37.6	.6	48.7	29.9	9.0
DWELLING SERVICES	28	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	29	.0	.0	.0	.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	30	1.1	25.0	1.3	1.4	.3	.0	.9	.4	.2
BUSINESS SERVICES	31	28.9	643.4	21.2	10.7	7.3	.6	31.8	44.7	5.1
TOTAL INTER. INPU	32	5416.8	35675.7	641.4	420.4	904.2	13.1	2039.5	422.9	158.0
TAXES	33	59.0	512.5	46.7	24.0	38.5	.8	47.5	10.7	6.7
SUBSIDIES	34	.0	.0	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	35	223.9	3303.3	250.3	667.5	172.9	10.1	276.4	534.5	113.7
WAGES + SALARIES	36	1219.5	17709.5	1370.7	786.3	1289.5	29.0	1112.5	266.0	206.0
UNINCORP. BUS. INC.	37	401.8	.0	500.0	.0	.0	.0	.0	.0	.0
PROFIT, RET., INT.	38	115.8	4892.3	357.5	50.6	-519.3	-12.2	276.7	446.3	18.4
DEPRECIATION	39	130.1	6223.1	29.0	30.3	99.6	2.2	527.3	33.1	9.8
FACTOR INCOMES	40	1737.1	22601.9	2228.2	830.9	770.2	16.8	1389.2	712.3	224.4
HOUSEHOLD INCOME	41	1707.1	17709.5	2070.7	790.9	1219.4	16.8	1319.4	515.4	224.4
EDUCATION + HOSP.	42	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	43	11.3	.8	10.4	2.9	1.5	.1	22.1	.7	1.1
MUNICIPAL REVENUE	44	43.9	507.8	23.3	20.2	36.4	.5	23.8	8.6	4.9
FEDERAL REVENUE	45	3.8	2003.9	113.0	10.9	.6	.2	56.6	58.8	.7
IMPORT LEAKAGE	46	253.9	6195.6	307.8	697.5	-276.3	10.1	291.2	674.0	113.7
EMPLOYMENT	47	693.0	3082.0	412.0	183.0	369.0	9.0	285.0	67.0	74.0
TOTAL PRIMARY	48	2150.1	32640.7	2554.2	1560.7	1081.2	29.9	2240.4	1290.6	354.6
TOTAL INPUT	49	5566.9	68315.7	3195.6	1990.1	538.9	43.0	4279.9	1713.5	512.6

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APPENDIX 1 TABLE 4
FLOW TABLE NEW FOUNDLAND 1960
(000's)

A 35

INDUSTRY COLS		EXPORTS- FOREIGN	EXPORTS- CANADA	EXPORTS- N.S.	EXPORTS- N.B.	EXPORTS- P.E.I.	EXPORTS- N.F.L.	IMPORTS- N.S.	IMPORTS- N.B.	IMPORTS- P.E.I.	IMPORTS- N.F.L.
INDUSTRY ROWS		41	42	43	44	45	46	47	48	49	50
AGRICULTURE	1	341.0	223.0	56.0	.0	.0	.0	-1068.0	-234.0	-1512.0	.0
FORESTRY	2	1289.0	.0	.0	.0	.0	.0	.0	-17.0	.0	.0
PRIMARY FISHING	3	.0	.0	9057.0	.0	.0	.0	.0	.0	.0	.0
METAL MINING	4	64925.0	7000.0	7000.0	.0	.0	.0	.0	.0	.0	.0
NONMETAL GUARRIES	5	252.0	1831.7	492.0	.0	.0	.0	-427.0	.0	.0	.0
MEAT, DAIRY, FRUIT	6	250.0	.0	.0	.0	.0	.0	-1289.0	-1084.0	-2989.0	.0
SECONDARY FISHING	7	16612.0	4010.0	119.0	591.0	264.0	.0	-422.0	-577.0	.0	.0
MISC. FOODS, NES	8	.0	.0	500.0	.0	.0	.0	-1143.0	-3473.0	.0	.0
SOFT DRINK MANUF.	9	.0	.0	.0	.0	.0	.0	-1.0	.0	.0	.0
TEXTILES, CLOTHING	10	.0	311.1	.0	.0	.0	.0	-792.0	-46.0	-119.0	.0
SAWMILLS, WOOD PR.	11	75.2	.0	.0	.0	.0	.0	-2461.0	-1129.0	.0	.0
PULP + PAPER	12	67739.5	.0	.0	26.0	.0	.0	-43.0	-2023.0	.0	.0
PRINTING	13	.0	.0	.0	.0	.0	.0	-1000.0	.0	.0	.0
METAL FABRIC.	14	.0	.0	.0	.0	.0	.0	-843.0	-134.0	-66.0	.0
MACH. + EQUIPT.	15	.0	.0	.0	.0	.0	.0	-233.0	.0	.0	.0
TRANSP. EQUIPT.	16	.0	67.5	.0	.0	.0	.0	-1247.0	-20.0	.0	.0
ELEC. WIRE, CABLE	17	.0	.0	.0	.0	.0	.0	-3.0	-166.0	.0	.0
NONMET. MINERAL PR	18	.0	404.3	640.0	40.0	10.0	.0	-242.0	.0	.0	.0
FERTILIZERS	19	.0	326.0	.0	237.0	163.0	.0	-410.0	-135.0	.0	.0
MISC. MANUF.	20	.0	76.5	.0	.0	1.0	.0	-37.0	-65.0	.0	.0
CONSTRUCTION	21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TRANSP. TRAVEL, ENT	22	757.4	70.5	.0	.0	.0	.0	.0	.0	.0	.0
COMMUNICATIONS	23	.0	673.9	.0	.0	.0	.0	.0	.0	.0	.0
E. POWER, WATER, GAS	24	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
DISTRIBUTION	25	400.0	40.0	.0	.0	.0	.0	.0	.0	.0	.0
AUTO OPERATION	26	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
FINANCE, R.E.	27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
JEWELLING SERVICES	28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOTELS, REST.	29	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PERSONAL SERVICES	30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
BUSINESS SERVICES	31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INTER. INPU	32	152641.1	15034.5	17864.0	902.0	442.0	.0	-11661.0	-9103.0	-4685.0	.0
TAXES	33	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SUBSIDIES	34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NON-COMP. IMPORTS	35	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
WAGES + SALARIES	36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
UNINCORP. BUS. INC.	37	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROFIT, RENT, INT.	38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
DEPRECIATION	39	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
FACTOR INCOMES	40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HOUSEHOLD INCOME	41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
EDUCATION + HOSP.	42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PROVINCIAL REVENUE	43	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MUNICIPAL REVENUE	44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
FEDERAL REVENUE	45	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
IMPORT LEAKAGE	46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
EMPLOYMENT	47	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL PRIMARY	48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INPUT	49	152641.1	15034.5	17864.0	902.0	442.0	.0	-11661.0	-9103.0	-4685.0	.0

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APPENDIX 1 TABLE 4

FLOW TABLE NEWFOUNDLAND 1960

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INDUSTRY CODES		1-PORT - T TAL PUB.		EXPORTS	EXPORTS		TOTAL		TOTAL	TOTAL
INDUSTRY CODES		RESIDUAL	SECTOR	EX A.P.	TO A.P.	FROM A.P.	FINAL DEM.	INTER. DEM.	OUTPUT	
		01	52	53	54	55	56	57	58	
(000's)										
AGRICULTURE	1	-4450.3	251.9	564.0	50.0	-2314.0	4523.8	2437.2	6961.0	
FORESTRY	2	-316.6	11.4	1239.0	.0	-17.0	10872.5	21241.0	32113.5	
PRIMARY FISHING	3	.3	.0	.0	9057.0	.0	9057.3	12478.4	21535.7	
METAL MINING	4	.8	.0	71925.0	7000.0	.0	79642.8	.0	79642.8	
NONMETAL MINERALS	5	-565.4	2.5	2093.7	492.0	-427.0	1508.2	2407.1	3915.3	
MEAT, DAIRY, FRUIT	6	-27115.8	491.1	250.0	.0	-5361.0	2854.8	480.9	3335.7	
SECONDARY FISHING	7	-641.7	117.6	20622.0	974.0	-999.0	24512.7	533.0	25045.7	
MISC. FOODS, NES	8	-8123.4	171.8	.0	500.0	-4616.0	6018.6	1913.1	7931.7	
SOFT DRINK MANUF.	9	-1509.1	.0	.0	.0	-1.0	8728.2	62.4	8790.6	
TEXTILES, CLOTHING	10	-20147.4	353.2	311.1	4.0	-957.0	429.4	1461.6	1891.0	
SAWMILLS, WOOD PR.	11	-6793.0	216.3	75.2	.0	-3590.0	-6866.4	12433.3	5566.9	
PULP + PAPER	12	-2868.1	5.0	67739.5	20.0	-2066.0	63373.8	4941.9	68315.7	
PRINTING	13	-354.4	1177.2	.0	.0	-1000.0	1975.6	1220.0	3195.6	
METAL FABRIC.	14	-7297.8	1122.2	.0	.0	-1043.0	-7084.4	9074.5	1990.1	
MACH. + EQUIPT.	15	-40603.5	528.8	.0	.0	-233.0	-11518.6	12057.5	538.9	
TRANSP. EQUIPT.	16	-3344.2	2465.3	67.5	.0	-1267.0	-1967.2	3952.6	1985.4	
ELEC. WIRE, CABLE	17	-5467.4	93.3	.0	.0	-169.0	-2273.1	2316.1	43.0	
NONMET. MINERAL PR	18	-6318.4	62.2	404.3	690.0	-242.0	-5508.1	9854.9	4346.8	
FERTILIZERS	19	-2200.2	295.9	326.0	400.0	-545.0	-1722.5	3436.0	1713.5	
MISC. MANUF.	20	-80.9	16.5	76.5	1.0	-102.0	102.7	409.9	512.6	
CONSTRUCTION	21	.0	48988.0	.0	.0	.0	127524.4	15815.6	143340.0	
TRANSP. TRAVEL, ENT	22	-4059.8	3636.9	827.9	.0	.0	31411.4	52836.4	84247.8	
COMMUNICATIONS	23	.0	274.9	673.9	.0	.0	3020.8	5003.7	8024.5	
E. POWER, WATER-GAS	24	.0	1356.0	.0	.0	.0	5720.2	6220.3	11940.5	
DISTRIBUTION	25	.0	2162.1	440.0	.0	.0	70086.3	13742.0	83828.3	
AUTO OPERATION	26	.0	486.9	.0	.0	.0	18980.8	5310.8	24291.6	
FINANCE, R.E.	27	.0	1480.0	.0	.0	.0	3562.0	27663.3	31225.3	
JEWELLING SERVICES	28	.0	.0	.0	.0	.0	32619.6	.0	32619.6	
HOTELS, REST.	29	.0	31.0	.0	.0	.0	9461.9	754.6	10216.5	
PERSONAL SERVICES	30	.0	755.1	.0	.0	.0	13644.1	1731.0	15375.1	
BUSINESS SERVICES	31	.0	1976.1	.0	.0	.0	1976.1	11913.8	13889.9	
TOTAL INTER. INPU	32	-142252.2	69229.6	167675.6	19200.0	-25449.0	494667.8	243702.8	739370.6	
TAXES	33	.0	166.6	.0	.0	.0	33186.6	12906.4	46093.0	
SUBSIDIES	34	.0	.0	.0	.0	.0	-1050.0	-9425.3	-10475.3	
NON-COMP. IMPORTS	35	.0	4678.1	.0	.0	.0	63668.3	60597.8	124266.1	
WAGES + SALARIES	36	.0	54857.5	.0	.0	.0	54857.5	235815.9	290673.4	
UNINCORP. BUS. INC.	37	.0	.0	.0	.0	.0	.0	42058.3	42058.3	
PROFIT, RENT, INT.	38	.0	5969.8	.0	.0	.0	5969.8	101434.4	107404.2	
DEPRECIATION	39	.0	1335.3	.0	.0	.0	1335.3	51265.9	52601.2	
FACTOR INCOMES	40	.0	60827.3	.0	.0	.0	60827.3	379308.6	440135.9	
HOUSEHOLD INCOME	41	.0	55857.5	.0	.0	.0	55857.5	309373.8	365231.3	
EDUCATION + HOSP.	42	.0	.0	.0	.0	.0	2329.0	.0	2329.0	
PROVINCIAL REVENUE	43	.0	.0	.0	.0	.0	19902.0	7594.4	27496.4	
MUNICIPAL REVENUE	44	.0	.0	.0	.0	.0	665.0	4265.0	4930.0	
FEDERAL REVENUE	45	.0	166.6	.0	.0	.0	9240.6	5121.7	14362.3	
IMPORT LEAKAGE	46	.0	2647.9	.0	.0	.0	64638.1	117032.6	185670.7	
EMPLOYMENT	47	.0	13900.0	.0	.0	.0	13900.0	69271.0	83171.0	
TOTAL PRIMARY	48	.0	67007.3	.0	.0	.0	157967.5	494653.4	652620.8	
TOTAL INPUT	49	-142262.2	136236.9	167675.6	19200.0	-25449.0	652635.3	738356.2	1390991.4	

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INDUSTRY COLS		AGRI- CULTURE	FORESTRY	PRIMARY FISHING	QUARRIES	MEAT, DAIRY FRUIT	SECONDARY FISHING	MISC. FOODS	SOFT DRINK MANUF.	TEXTILES, CLOTHING	SAWMILLS, WOOD PROD.	PAPER PRODS
INDUSTRY ROWS		1	2	3	4	5	6	7	8	9	10	11
AGRICULTURE	1	.987309	.961595	.074488	.000029	.305654	.018770	.018982	.000741	.001309	.061743	.000000
FORESTRY	2	.002004	.701489	.056993	.000017	.000705	.011516	.000059	.000010	.000005	.045034	.000000
PRIMARY FISHING	3	.000017	.000017	1.022773	.000000	.000438	.202824	.000200	.000008	.000000	.000109	.000000
QUARRIES	4	.000219	.000332	.000088	.574629	.000158	.000378	.000297	.000021	.000002	.000061	.000000
MEAT, DAIRY, FRUIT	5	.001020	.000994	.000037	.000000	.644170	.001033	.004996	.000192	.000001	.000063	.000000
SECONDARY FISHING	6	.000032	.000032	.042360	.000000	.000814	.376832	.000372	.000014	.000000	.000202	.000000
MISC. FOODS	7	.010266	.009999	.000816	.000000	.003445	.000195	.213756	.008196	.000014	.000642	.000000
S. DRINKS, BREWERS	8	.000026	.000026	.000002	.000000	.000009	.000000	.000545	.235029	.000000	.000002	.000000
TEXTILES, CLOTHING	9	.000496	.000489	.001130	.000013	.000250	.000231	.000215	.000013	.066589	.000318	.000000
SAWMILLS, WOOD PR.	10	.001568	.003098	.000505	.000110	.000913	.000603	.000000	.000052	.000019	.326908	.000001
PAPER PRODS.	11	.000016	.000019	.000004	.000004	.000068	.000002	.000007	.000001	.000000	.000007	.005601
PRINTING	12	.001296	.002302	.000500	.000995	.002988	.000943	.000550	.000797	.000106	.000480	.000050
METAL FABRIC.	13	.000111	.000144	.000144	.000004	.000212	.000154	.000006	.000002	.000002	.000051	.000000
MACH. & EQUIPT.	14	.000154	.000948	.000239	.000346	.000223	.000082	.000052	.000049	.000003	.000089	.000004
BOAT & SHIP BLDG.	15	.000258	.000328	.001120	.000144	.000233	.000364	.000087	.000062	.000024	.000122	.000002
NONMET. MINERAL PR	16	.000512	.000702	.000080	.000019	.000174	.000038	.000019	.000009	.000004	.000061	.000001
PAINT, SOAP PR.	17	.038469	.037844	.006103	.008981	.011980	.001414	.000781	.001652	.000061	.013402	.000001
MISC. MANUF.	18	.000044	.000059	.000038	.000022	.000226	.000019	.000015	.000012	.000004	.000018	.000000
CONSTRUCTION	19	.030878	.068854	.009880	.003571	.012608	.005907	.002327	.001713	.000583	.007519	.000024
TRANSP, TRAVEL, ENT	20	.049100	.062326	.043189	.028058	.042935	.034951	.016956	.012173	.004678	.023254	.000357
COMMUNICATIONS	21	.005345	.008808	.002475	.006492	.003400	.006760	.001131	.001249	.000256	.002461	.000179
E. POWER, WATER-GAS	22	.007472	.007710	.001568	.029220	.007742	.002480	.002955	.001821	.000396	.003185	.000019
DISTRIBUTION	23	.047719	.055575	.040890	.023027	.036961	.015338	.013904	.009892	.003888	.018169	.000299
AUTO OPERATION	24	.054234	.053919	.007161	.002038	.019158	.003498	.002299	.001461	.000540	.005624	.000026
FINANCE, R. E.	25	.032613	.056231	.033222	.034968	.020521	.018957	.005364	.007576	.001623	.014250	.000374
DWELLING SERVICES	26	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000
HOTELS, REST.	27	.001534	.001947	.001349	.000877	.001341	.001092	.000530	.000380	.000146	.000726	.000011
PERSONAL SERVICES	28	.000437	.001140	.000442	.000233	.000645	.000538	.000192	.000326	.000048	.000248	.000012
BUSINESS SERVICES	29	.012701	.022829	.004662	.009299	.007821	.007378	.003940	.008248	.000967	.004629	.000498

APPENDIX 1
TABLE 5
PRINCE EDWARD ISLAND [I-A+β]⁻¹
MODEL

PRINTING 12	METAL FABRIC. 13	MACH. & EQUIPT. 14	BOAT & SHIP BLDG 15	NON-MET. MINERAL PR 16	FERTILIZER 17	MISC. MANUF. 18	CON- STRUCTION 19	TRANSP. TRAVEL, ENT 20	RADIO, TEL. TELEG. 21	ELEC. POWER WATER-GAS 22
.000028	.000012	.000001	.001144	.000002	.000029	.040893	.005402	.000311	.000245	.000383
.000017	.000009	.000000	.000833	.000001	.000017	.000087	.003365	.000210	.000151	.000237
.000000	.000000	.000000	.000002	.000000	.000000	.000001	.000007	.000001	.000000	.000001
.000011	.000000	.000000	.000009	.001115	.001375	.000012	.003061	.000055	.000133	.000210
.000000	.000000	.000000	.000001	.000000	.000000	.000042	.000006	.000000	.000000	.000000
.000000	.000000	.000000	.000004	.000000	.000000	.000001	.000014	.000001	.000001	.000001
.000000	.000000	.000000	.000012	.000000	.000000	.000425	.000056	.000003	.000003	.000004
.000000	.000000	.000000	.000000	.000000	.000000	.000001	.000000	.000000	.000000	.000000
.000017	.000001	.000000	.000041	.000002	.000011	.000025	.000063	.000040	.000011	.000022
.000110	.000064	.000002	.006047	.000009	.000113	.000094	.020662	.001458	.000933	.001464
.000361	.000000	.000000	.000001	.000013	.000155	.000001	.000072	.000003	.000014	.000006
.730020	.000018	.000018	.000207	.000035	.000491	.001164	.006546	.001802	.021607	.001206
.000011	.013783	.000009	.000045	.000000	.000004	.000006	.000834	.000026	.000037	.000079
.000168	.000002	.013384	.000020	.000015	.000099	.000027	.000216	.000075	.000025	.000043
.000150	.000810	.000006	.078423	.000020	.000159	.000062	.000568	.005346	.000147	.000257
.000019	.000000	.000000	.000003	.077381	.000019	.000025	.005287	.000091	.000230	.000361
.000075	.000029	.000002	.002711	.000023	.488847	.001618	.008878	.001015	.000437	.001189
.000023	.000001	.000001	.000004	.000003	.000021	.547225	.000079	.000120	.000036	.000037
.003532	.000048	.000046	.000432	.000181	.003619	.002095	1.005720	.017312	.043740	.068590
.020254	.001159	.001005	.005008	.003993	.030949	.012111	.101477	1.043886	.028343	.049339
.013043	.000076	.000112	.000539	.000318	.002599	.002359	.008763	.012009	1.021056	.005985
.011036	.000114	.000156	.001581	.000660	.001694	.006026	.005080	.008924	.015011	1.002892
.014205	.000924	.000667	.003645	.002979	.020478	.009335	.078295	.024345	.016942	.038918
.004611	.000098	.000097	.000436	.000495	.002363	.002979	.008759	.075413	.002182	.003664
.020430	.000428	.000421	.003073	.001458	.015083	.007414	.087358	.093069	.029431	.016093
.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000
.000914	.000036	.000031	.000156	.000125	.000967	.000378	.003170	.032612	.000885	.001541
.000932	.000009	.000016	.000074	.000031	.000307	.000099	.001203	.005816	.001794	.000419
.013795	.000175	.000173	.002117	.000311	.004725	.012044	.068675	.015498	.027645	.008911

DISTRIBUTN 23	AUTO OPERATION 24	FINANCE, R.E. 25	DWELLING SERVICES 26	HOTELS & REST. 27	PERSONAL SERVICES 28	BUSINESS SERVICES 29
.000291	.000075	.000095	.000871	.000842	.001681	.000030
.000122	.000045	.000062	.000543	.000577	.000542	.000018
.000007	.000000	.000000	.000001	.000002	.000001	.000000
.000057	.000036	.000056	.000494	.000044	.000073	.000013
.000000	.000000	.000000	.000001	.000001	.000002	.000000
.000013	.000001	.000000	.000002	.000003	.000003	.000000
.000003	.000001	.000001	.000009	.000009	.000017	.000000
.000000	.000000	.000000	.000000	.000000	.000000	.000000
.000538	.000019	.000001	.000010	.000126	.000101	.000014
.000814	.000285	.000375	.003333	.004143	.003850	.000115
.000023	.000002	.000002	.000012	.000008	.000008	.000047
.003344	.001254	.001442	.001076	.008850	.001744	.094123
.000019	.000010	.000010	.000135	.000013	.000017	.000018
.000082	.000100	.000330	.000040	.000057	.000561	.000035
.000523	.000215	.000014	.000092	.000430	.000094	.000136
.000098	.000059	.000097	.000853	.000065	.000100	.000020
.000367	.000674	.000170	.001432	.002454	.005762	.000603
.000863	.000033	.000002	.000013	.000501	.012365	.000024
.018605	.011277	.018380	.162246	.012296	.018911	.003875
.101924	.041606	.002561	.016381	.083911	.018212	.026409
.011735	.006206	.011740	.001588	.028617	.012203	.053254
.010972	.002531	.000863	.000831	.038465	.009308	.003758
1.048938	.034966	.001963	.012639	.035494	.013987	.023672
.007408	1.003040	.000210	.001414	.013345	.001439	.002234
.067953	.084702	1.028376	.029589	.077129	.067011	.034098
.000000	.000000	.000000	1.000000	.000000	.000000	.000000
.003184	.001306	.000080	.000512	1.002621	.000569	.000825
.003556	.000343	.000040	.000194	.038509	1.009832	.000386
.033496	.012208	.013180	.011259	.046852	.004101	1.004431

INDUSTRY COLS		AGRI- CULTURE	FORESTRY	PRIMARY FISHING	QUARRIES	MEAT, DAIRY FRUIT	SECONDARY FISHING	MISC. FOODS	SOFT DRINK MANUF.	TEXTILES, CLOTHING	SAWMILLS, WOOD PROD.	PAPER PRCDS
INDUSTRY ROWS		1	2	3	4	5	6	7	8	9	10	11
AGRICULTURE	1	1.040872	1.062440	.151300	.037454	.335205	.041547	.025992	.009174	.003676	.081381	.000188
FORESTRY	2	.003059	.703476	.058427	.000754	.001287	.011964	.000197	.000176	.000052	.045421	.000004
PRIMARY FISHING	3	.001307	.002445	1.024527	.000901	.001150	.203372	.000369	.000211	.000057	.000582	.000005
QUARRIES	4	.000292	.000468	.000187	.574680	.000198	.000409	.000306	.000032	.000005	.000088	.000000
MEAT, DAIRY, FRUIT	5	.040342	.075025	.053415	.027474	.665864	.015688	.010141	.006382	.001739	.014480	.000138
SECONDARY FISHING	6	.002428	.004543	.045617	.001675	.002136	.377851	.000686	.000392	.000106	.001081	.000008
MISC. FOODS	7	.018976	.026397	.012656	.006086	.008251	.003899	.214896	.009567	.000399	.003835	.000031
S. DRINKS, DIST, BREW	8	.003460	.006490	.004670	.002399	.001903	.001461	.000995	.235570	.000152	.001261	.000012
TEXTILES, CLOTHING	9	.002534	.004326	.003901	.001436	.001375	.001098	.000482	.000334	.066679	.001065	.000007
SAWMILLS, WOOD PR.	10	.003480	.006699	.003105	.001446	.001968	.001416	.000340	.000354	.000104	.327609	.000008
PAPER PRODS.	11	.000026	.000038	.000017	.000011	.000073	.000006	.000009	.000003	.000001	.000010	.005601
PRINTING	12	.005413	.010053	.006096	.003871	.005259	.002694	.001089	.001445	.000288	.001989	.000064
METAL FABRIC.	13	.000141	.000200	.000185	.000025	.000229	.000167	.000010	.000007	.000003	.000062	.000000
MACH. & EQUIPT.	14	.000215	.001062	.000322	.000389	.000256	.000108	.000060	.000059	.000006	.000111	.000004
BOAT & SHIP BLDG.	15	.000439	.000669	.001366	.000271	.000333	.000441	.000111	.000091	.000032	.000189	.000002
NONMET. MINERAL PR	16	.000611	.000889	.000215	.000088	.000229	.000080	.000032	.000025	.000008	.000098	.000000
FERTILIZERS	17	.041037	.042679	.009594	.010776	.013397	.002506	.001117	.002056	.000174	.014344	.000010
MISC. MANUF.	18	.000791	.001466	.001054	.000544	.000639	.000337	.000113	.000130	.000037	.000292	.000003
CONSTRUCTION	19	.046204	.097709	.030714	.014280	.021064	.012425	.004333	.004126	.001260	.013138	.000078
TRANSP, TRAVEL, ENT	20	.083934	.127909	.090541	.052397	.062153	.049764	.021514	.017657	.006218	.036025	.000479
COMMUNICATIONS	21	.012881	.022996	.012720	.011757	.007558	.009965	.002117	.002436	.000589	.005224	.000206
E. POWER, WATER-GAS	22	.018882	.029192	.017078	.037192	.014037	.007332	.004448	.003617	.000900	.007368	.000059
DISTRIBUTION	23	.153087	.253955	.184124	.096649	.095093	.060146	.027694	.026480	.008544	.056801	.000668
AUTO OPERATION	24	.098302	.136887	.067066	.032828	.043471	.022237	.008066	.008399	.002487	.021781	.000181
FINANCE, R.E.	25	.055117	.098600	.063814	.050692	.032937	.028527	.008310	.011119	.002617	.022500	.000453
DWELLING SERVICES	26	.056707	.106765	.077086	.039622	.031286	.024115	.007421	.008928	.002506	.020791	.000199
HOTELS, REST.	27	.018309	.033531	.024153	.012698	.010596	.008226	.002725	.003021	.000887	.006877	.000070
PERSONAL SERVICES	28	.037324	.070589	.050585	.026006	.020995	.016224	.005019	.006133	.001678	.013772	.000141
BUSINESS SERVICES	29	.019568	.035757	.013996	.014097	.011609	.010298	.004838	.009329	.001271	.007147	.000522
HOUSEHOLD INCOME	30	.751081	1.414091	1.021000	.524787	.414375	.319399	.098293	.118248	.033191	.275371	.002634

APPENDIX 1
TABLE 6
FORWARD ISLAND (I-A-A)
MODEL II

PRINTING 12	METAL FABRIC. 13	MACH. EQUIPT. 14	BOAT & SHIP BLDG 15	NON-MET. MINERAL PR 16	FERTILIZER 17	MISC. MANUF. 18	CON- STRUCTION 19	TRANSP. TRAVEL, ENT 20	RADIO, TEL, TELEG. 21
.042376	.000571	.000653	.004840	.004688	.007053	.087240	.049947	.064249	.048112
.000851	.000020	.000013	.000906	.000094	.000156	.001000	.004242	.001469	.001094
.001020	.000013	.000016	.000091	.000113	.000169	.001117	.001080	.001540	.001153
.000068	.000001	.000001	.000014	.001121	.001384	.000074	.003122	.000142	.000198
.031088	.000410	.000479	.002715	.003440	.005156	.034066	.032707	.046937	.035140
.001895	.000025	.000029	.000169	.000210	.000315	.002075	.002007	.002862	.002142
.006886	.000091	.000106	.000613	.000762	.001147	.007961	.007299	.010400	.007785
.002715	.000036	.000042	.000237	.000300	.000450	.002972	.002856	.004099	.003069
.001628	.000022	.000025	.000182	.000180	.000270	.001788	.001758	.002472	.001832
.001622	.000084	.000026	.006179	.000176	.000364	.001750	.022253	.003741	.002643
.000369	.000000	.000000	.000002	.000014	.000150	.000010	.000080	.000015	.000023
.733275	.000061	.000068	.000491	.000306	.001031	.004726	.009970	.006716	.025286
.000035	.000373	.000010	.000047	.000003	.000007	.000032	.000859	.000062	.000064
.000216	.000003	.013385	.000025	.000020	.000107	.000079	.000266	.000148	.000079
.000294	.000812	.000008	.078435	.000036	.000182	.000219	.000719	.005563	.000309
.000097	.000001	.000001	.000010	.077390	.000032	.000112	.005370	.000210	.000319
.002105	.000056	.000033	.002888	.000248	.489183	.003841	.011014	.004080	.002732
.000614	.000009	.000010	.000055	.000068	.000110	.547872	.000700	.001011	.000704
.015649	.000208	.000232	.001489	.001521	.005629	.215357	1.018466	.035607	.057436
.056794	.001523	.001430	.007411	.007040	.035517	.042252	.130446	1.085466	.059473
.019001	.000155	.000204	.001059	.000977	.003587	.008880	.015030	.021005	1.027790
.020057	.000233	.000295	.002368	.001658	.003100	.015900	.014568	.022543	.025307
.097510	.002022	.001950	.010916	.012197	.034295	.100508	.165924	.150125	.111105
.039451	.000557	.000634	.003477	.004350	.008142	.041110	.045408	.128016	.041564
.038222	.000663	.000695	.004626	.003427	.018034	.026887	.106074	.119932	.049542
.044834	.000591	.000691	.003913	.004961	.007436	.049068	.047160	.067690	.050677
.014177	.000211	.000236	.001314	.001592	.003167	.014894	.017121	.052636	.015877
.030096	.000394	.000465	.002619	.003258	.005144	.032017	.031880	.049848	.034758
.019224	.000246	.000256	.002590	.000912	.005627	.017986	.074386	.023695	.033782
.593818	.007329	.009147	.051829	.065708	.098489	.549898	.624633	.896551	.671211

ELEC. POWER WATER-GAS 22	DISTRIBUTN 23	AUTO OPERATION 24	FINANCE, R.E. 25	DWELLING SERVICES 26	HOTELS & REST. 27	PERSONAL SERVICES 28	BUSINESS SERVICES 29	HOUSEHOLD INDUSTRY 30
.046061	.068821	.036311	.031178	.037207	.064105	.071984	.018568	.097098
.001137	.001472	.000759	.000674	.001259	.001823	.001926	.000383	.001913
.001101	.001657	.000873	.000749	.000876	.001525	.001694	.000447	.002338
.000272	.000150	.000085	.000098	.000543	.000130	.000168	.000038	.000131
.033534	.050309	.026602	.022816	.026675	.045443	.051612	.013609	.071281
.002045	.003079	.001622	.001391	.001628	.002833	.003148	.000830	.004344
.007432	.011146	.005893	.005055	.005917	.010296	.011449	.003015	.015789
.002928	.004393	.002323	.001992	.002329	.004056	.004507	.001188	.006225
.001760	.003145	.001398	.001184	.001393	.002533	.002776	.000719	.003694
.003096	.003262	.001579	.001488	.004631	.005402	.006360	.000777	.003467
.000015	.000035	.000009	.000008	.000018	.000020	.000021	.000051	.000018
.004717	.008611	.004039	.003831	.003869	.013713	.007147	.095547	.007463
.000104	.000058	.000030	.000033	.000155	.000049	.000056	.000028	.000054
.000095	.000160	.000141	.000374	.000081	.000129	.000064	.000056	.000110
.000412	.000755	.000337	.000119	.000215	.000644	.000332	.000199	.000329
.000445	.000225	.000127	.000154	.000920	.000182	.000231	.000055	.000180
.003380	.003653	.002412	.001660	.003175	.005487	.009133	.001492	.004656
.000674	.001819	.000538	.000436	.000519	.001383	.013345	.000282	.001354
.081660	.038214	.021645	.027273	.172643	.030398	.039027	.009179	.027783
.079046	.146492	.065371	.022773	.040011	.125054	.063933	.038465	.063147
.012414	.021377	.011304	.016113	.006701	.037518	.022094	.055862	.031661
1.012622	.025569	.010250	.007484	.008571	.051941	.024283	.007707	.020683
.128777	1.183749	.106249	.063102	.084117	.155945	.152286	.060139	.191009
.041122	.063790	1.032852	.025786	.031308	.065344	.059280	.017486	.079885
.035285	.096745	.099926	1.041434	.044856	.103700	.026548	.041887	.040795
.048360	.072553	.038363	.032904	1.038468	.065977	.074430	.019626	.102798
.015847	.024647	.012655	.009814	.011842	1.022435	.022587	.006631	.030410
.031876	.050751	.025298	.021450	.025217	.082076	1.058248	.013152	.066868
.014767	.042282	.016854	.017169	.015917	.054963	.013114	1.006807	.012448
.640522	.960962	.508120	.435805	.509508	.887108	.985823	.259944	1.361547

INDUSTRY COLS		AGRI-	FORESTRY	PRIMARY	COAL	NONMETALS,	MEAT, DAIRY	SECONDARY	MISC.	S. DRINKS	TEXTILES,	SAWMILLS,
INDUSTRY ROWS		CULTURE		FISHING	MINING	QUARRIES	FRUIT	FISHING	FOODS	DIST. BREW.	CLOTHING	WOOD PROD.
		1	2	3	4	5	6	7	8	9	10	11
AGRICULTURE	1	.869536	.214855	.036494	.051891	.018650	.148987	.022446	.022877	.022146	.001936	.063757
FORESTRY	2	.007584	.774310	.017820	.016019	.005352	.002772	.008571	.002855	.003802	.000255	.173778
PRIMARY FISHING	3	.000959	.001644	.735233	.001742	.000633	.000476	.233395	.000609	.000741	.000068	.000972
COAL MINING	4	.005823	.008335	.006372	1.023963	.016104	.004164	.004931	.003054	.006214	.000675	.005741
NONMETAL QUARRIES	5	.000506	.000473	.007532	.000619	.851770	.000257	.004095	.000417	.000225	.000015	.000230
MEAT, DAIRY, FRUIT	6	.017137	.029236	.020786	.030900	.011160	.412303	.012239	.013238	.014883	.001200	.016482
SECONDARY FISHING	7	.002269	.003891	.020654	.004122	.001499	.001126	.552370	.001441	.001753	.000162	.002300
MISC. FOODS	8	.062292	.031441	.015523	.022897	.008265	.016576	.010020	.505907	.037229	.000885	.014341
S. DRINKS, BREWERS	9	.006716	.011763	.008397	.012474	.004505	.003257	.005131	.003318	.670971	.000484	.006645
TEXTILES, CLOTHING	10	.002001	.003103	.003253	.003240	.001170	.000891	.001714	.000819	.001353	.082425	.002340
SAWMILLS, WOOD PR.	11	.017943	.012838	.012882	.016209	.004529	.004980	.011060	.002671	.006229	.000507	.679469
PULP-PAPER & PR.	12	.002981	.002744	.002181	.002596	.017278	.006449	.006893	.014505	.012754	.000520	.001828
PRINTING	13	.005270	.006835	.004418	.006573	.003660	.003046	.004177	.006659	.011765	.000543	.003985
IRON-STEEL MILLS	14	.001778	.001746	.002792	.025011	.001264	.001642	.001496	.000639	.001725	.000117	.001513
METAL FABRIC.	15	.003879	.003392	.010735	.020748	.002282	.009201	.005322	.001064	.008021	.000221	.004736
MACH. & EQUIPT.	16	.000589	.000727	.000607	.003653	.001087	.000565	.000458	.000912	.001622	.000227	.000963
TRANSP. EQUIPT.	17	.002375	.002796	.016830	.004156	.001668	.001956	.006594	.001686	.002273	.000269	.002277
COMMUN. EQ. EL. WIRE	18	.000287	.000397	.000404	.000618	.000168	.000111	.000202	.000094	.000155	.000014	.000206
NONMET. MINERAL PR	19	.002199	.001439	.001100	.001094	.000632	.000522	.000572	.000281	.000381	.000038	.000615
PAINT, SOAP PR.	20	.024507	.025760	.031485	.023752	.014168	.010201	.016635	.008516	.012672	.001125	.015746
FERT, PAINT, SOAP	21	.003067	.000979	.000549	.000472	.000436	.000667	.000285	.000315	.000776	.000147	.002140
MISC. MANUF.	22	.000653	.001050	.003976	.001097	.000452	.000400	.002238	.000399	.000681	.000052	.000605
CONSTRUCTION	23	.048599	.060469	.056180	.044642	.031534	.015490	.028550	.012382	.017610	.001838	.027832
TRANSP. TRAVEL, ENT	24	.069744	.080760	.081328	.106651	.048531	.054843	.064547	.051531	.063125	.003035	.065873
COMMUNICATIONS	25	.015625	.030890	.013329	.021939	.012087	.007277	.011671	.008203	.012752	.002040	.015441
E. POWER, WATER-GAS	26	.023319	.024699	.017026	.070328	.030911	.012052	.016068	.010510	.019765	.001764	.017799
DISTRIBUTION	27	.109271	.152069	.125845	.172465	.068140	.064025	.079669	.055542	.079297	.008791	.095591
AUTO OPERATION	28	.084599	.073449	.047934	.071563	.032701	.027159	.029894	.020207	.030878	.002892	.041888
FINANCE, R. E.	29	.045582	.052245	.071103	.076770	.068611	.025025	.037931	.025042	.050182	.003165	.044238
DWELLING SERVICES	30	.052966	.093081	.066476	.098754	.035668	.025679	.040615	.024272	.041173	.003835	.052598
HOTELS, REST.	31	.016043	.027641	.020053	.029603	.010824	.008056	.012448	.007610	.012589	.001201	.015887
PERSONAL SERVICES	32	.029205	.050983	.036353	.054487	.019825	.014551	.023832	.014415	.024861	.002204	.029275
BUSINESS SERVICES	33	.016713	.017079	.009670	.014564	.012783	.008272	.009511	.019614	.039973	.001697	.010315
HOUSEHOLD INCOME	34	.586930	1.031462	.736647	1.094331	.395255	.284555	.450065	.268962	.446251	.042500	.582853

APPENDIX 1
TABLE 7
NO. 1 SECTION [I-A-10]
MODEL 1

PULP-PAPER & PRODS 12	PRINTING 13	IRON-STEEL MILLS 14	METAL FABRIC. 15	MACH. & EQUIPT. 16	TRANSP. EQUIPT. 17	COMMUN.EQ. EL.WIRE 18	NON-MET. MINERAL PR 19	PETROLEUM REF. 20	FERT.PAINT & SOAP PR 21	MISC. MANUF. 22	CON- STRUCTION 23
.029486	.041899	.024714	.016366	.002074	.031877	.001606	.009738	.003804	.002634	.034590	.042753
.061452	.010353	.003555	.001853	.000205	.004719	.000133	.001284	.000494	.000409	.005861	.018465
.000672	.001505	.000864	.000578	.000073	.001115	.000057	.000342	.000134	.000242	.001204	.001403
.005618	.008455	.096405	.013542	.000809	.012259	.000307	.006841	.001581	.001511	.012366	.009771
.000548	.000324	.007750	.001057	.000040	.000571	.000010	.027951	.000137	.000346	.000752	.006377
.010259	.025309	.015283	.010191	.001296	.019695	.001007	.006038	.002359	.001625	.021269	.024635
.001590	.003562	.002046	.001369	.000174	.002639	.000134	.000810	.000316	.000572	.002848	.003320
.008353	.018722	.011269	.007508	.000954	.014523	.000741	.004451	.001739	.001199	.015694	.018336
.004138	.010217	.006170	.004114	.000523	.007951	.000407	.002438	.000952	.000656	.008587	.009945
.001085	.002688	.001603	.001070	.000136	.002068	.000105	.000633	.000248	.000171	.002298	.002633
.004874	.007530	.005873	.004009	.000462	.011845	.000283	.001888	.001290	.000544	.014791	.061772
.491640	.059016	.003019	.001705	.000136	.001748	.000090	.003279	.000260	.001445	.008062	.006537
.003972	.988380	.004159	.002699	.000370	.004833	.000266	.001652	.000636	.000641	.007167	.010577
.001119	.001405	.692897	.059735	.002314	.015951	.000065	.002901	.004350	.012061	.026301	.014317
.003785	.003044	.006567	.513969	.003383	.015130	.000164	.001165	.001086	.001259	.013787	.030271
.001291	.001033	.001999	.001451	.049188	.004197	.000045	.000855	.000379	.000295	.000700	.001216
.002221	.003039	.003173	.013786	.003464	.803527	.000144	.001283	.000479	.000396	.003213	.005749
.000128	.000295	.000212	.000132	.000018	.000884	.049200	.000074	.000035	.000020	.000250	.000909
.000923	.000769	.004605	.000636	.000045	.000732	.000025	.282127	.000288	.000131	.000698	.018963
.012288	.020032	.019838	.010850	.001155	.017859	.000771	.009588	.583821	.002329	.018778	.025013
.000199	.000338	.000701	.000362	.000130	.001723	.000016	.000092	.000117	.126942	.002296	.002359
.000447	.000960	.000586	.000492	.000051	.000730	.000039	.000229	.000091	.000071	.810086	.001115
.017085	.034512	.034560	.013818	.001538	.031212	.001222	.009506	.014073	.003121	.026638	1.030278
.065808	.090115	.092744	.071328	.007354	.101881	.004329	.038586	.013735	.011152	.089959	.160164
.011578	.057441	.014738	.012664	.001195	.027850	.001025	.005095	.004715	.001638	.019114	.023638
.022513	.030143	.024121	.013768	.001666	.022346	.001020	.009907	.005564	.003234	.044239	.024551
.074453	.127770	.107053	.076294	.008556	.128345	.005658	.042926	.016373	.011751	.122686	.181231
.025937	.056960	.037075	.025676	.003189	.046246	.002347	.015468	.005576	.004020	.050052	.059836
.048260	.052539	.032623	.028398	.003413	.041523	.003183	.014846	.020040	.005164	.048503	.086545
.032760	.080889	.048846	.032573	.004141	.062947	.003219	.019299	.007540	.005192	.067077	.078729
.010222	.024284	.015171	.010242	.001279	.019317	.000976	.006020	.002334	.001630	.020596	.024593
.018651	.044862	.027349	.018818	.002352	.035044	.001787	.010706	.004372	.002933	.038304	.043757
.015280	.017557	.012471	.007779	.001145	.012725	.000776	.004725	.001814	.002325	.025073	.043167
.363027	.896354	.541285	.360955	.045884	.697541	.035673	.213860	.083550	.057535	.753279	.872419

TRANSP. TRAVEL, ENT 24	RADIO, TEL. TELEG. 25	ELEC. POWER WATER-GAS 26	DISTRIBUTN 27	AUTO OPERATION 28	FINANCE, R.E. 29	DWELLING SERVICES 30	HOTELS & REST. 31	PERSONAL SERVICES 32	BUSINESS SERVICES 33	HOUSEHOLD INDUSTRY 34
.037862	.039250	.037124	.047871	.026860	.028134	.024009	.043383	.047967	.039099	.063835
.003906	.003876	.005113	.004338	.002293	.002321	.004837	.005500	.005308	.004476	.005008
.001333	.001380	.001300	.001860	.000951	.000992	.000826	.001517	.001684	.001390	.002253
.010644	.008048	.100606	.009541	.005544	.004955	.004562	.019354	.009316	.008233	.010806
.000482	.000493	.000646	.000317	.000197	.000183	.001325	.000290	.000318	.000298	.000319
.023629	.024518	.022986	.029950	.016830	.017641	.014638	.026878	.029888	.024341	.040063
.003155	.003267	.003076	.004401	.002251	.002348	.001956	.003589	.003985	.003289	.005331
.017402	.018054	.016946	.022050	.012389	.012984	.010813	.019813	.022016	.017932	.029484
.009539	.009898	.009280	.012091	.006795	.007122	.005910	.010851	.012066	.009827	.016174
.002482	.002566	.002412	.003240	.001762	.001844	.001541	.002552	.003229	.002571	.004186
.009404	.009085	.010718	.009235	.005003	.004989	.014638	.016046	.013695	.007124	.010458
.002172	.002530	.002212	.003980	.001421	.001441	.002028	.003008	.002715	.011848	.003057
.006686	.012259	.005895	.011062	.004099	.004367	.003900	.016211	.007400	.174072	.007415
.005209	.001668	.004310	.001800	.000974	.000796	.003161	.001881	.001765	.003822	.001474
.004564	.003098	.005444	.002680	.001522	.001429	.006571	.002529	.002575	.003304	.002665
.000973	.000829	.001055	.001085	.000532	.000936	.000369	.000544	.001070	.000579	.000496
.032033	.002354	.004068	.007433	.002677	.001454	.001881	.003569	.002910	.003596	.003087
.000336	.000309	.000374	.000354	.000198	.000203	.000288	.000319	.000344	.000403	.000450
.001160	.001366	.001763	.000787	.000509	.000472	.003898	.000724	.000801	.000685	.000783
.047958	.017603	.027465	.026517	.013097	.012196	.011625	.034609	.021909	.019497	.027467
.000492	.000397	.000502	.000408	.000406	.000226	.000577	.000899	.001487	.000583	.000473
.000999	.000972	.000977	.001285	.000618	.000644	.000551	.002767	.010022	.008163	.001357
.058588	.070888	.091729	.038334	.025233	.023174	.210436	.035233	.038678	.032355	.036939
1.108291	.067561	.123498	.163410	.082444	.040310	.052949	.109341	.084475	.108904	.088230
.029742	1.033564	.015745	.032382	.015823	.018355	.009818	.040866	.031841	.132733	.020683
.031436	.031607	1.026045	.033978	.021430	.014685	.011986	.060970	.033770	.029349	.029213
.136976	.124985	.150020	1.155039	.108103	.086715	.083236	.148903	.153764	.158795	.194975
.113961	.053082	.060743	.069638	1.038580	.037601	.032572	.070633	.064806	.055352	.085141
.102585	.044021	.047334	.101505	.102685	1.041140	.042078	.109625	.106894	.076826	.045486
.075520	.078362	.073465	.095724	.053792	.056382	1.046785	.085906	.095525	.077797	.128048
.036206	.023264	.022606	.029488	.016447	.016629	.014056	1.025970	.028388	.023649	.037722
.045096	.044100	.055089	.054972	.029532	.030605	.025567	.079734	1.053406	.042914	.069389
.019383	.025018	.014930	.041731	.010920	.011891	.011633	.042809	.012787	1.014735	.012696
.836863	.868358	.814091	1.060751	.596089	.624789	.518439	.951949	1.058548	.862090	1.418941

ATTENDIX 2
TABLE 1
CHANGES IN DEFENCE EXPENDITURES

A 40

VECTOR d^1 CHANGE IN FEDERAL GOVERNMENT DEFENCE EXPENDITURES, PRINCE EDWARD ISLAND (000'S)		VECTOR d^2 CHANGE IN FEDERAL GOVERNMENT DEFENCE EXPENDITURES, NOVA SCOTIA (000'S)	
AGRICULTURE		AGRICULTURE	
FORESTRY		FORESTRY	
PRIMARY FISHING		PRIMARY FISHING	
QUARRIES		COAL MINING	+81
MEAT, DAIRY, FRUIT	-176	NONMETAL, QUARRIES	
SECONDARY FISHING		MEAT, DAIRY, FRUIT	+56
MISC. FOODS		SECONDARY FISHING	
S. DRINKS		MISC. FOODS	
TEXTILES, CLOTHING		S. DRINKS, BREWERS	
SAWMILLS, WOOD PR.	-14	TEXTILES, CLOTHING	
PAPER PRODUCTS		SAWMILLS, WOOD PR.	
PRINTING		PULP-PAPER & PR.	
METAL FABRICATING		PRINTING	
MACH. & EQUIPT.		IRON-STEEL MILLS	
BOAT & SHIP BLDG.		METAL FABRICATING	
NONMET. MINERAL PR.		MACH. & EQUIPT.	
PAINT, SOAP PR.		TRANSP. EQUIPT.	
MISC. MANUF.		COMMUN. EQ.	
CONSTRUCTION	-538	NONMET. MINERAL PR.	
TRANSP., TRAVEL, ENT.	-182	PAINT, SOAP PR.	
COMMUNICATIONS	-50	FERT. PAINT, SOAP	
E. POWER, WATER-GAS	-294	MISC. MANUF.	
DISTRIBUTION	-106	CONSTRUCTION	
AUTO OPERATION	-12	TRANSP., TRAVEL, ENT	+81
FINANCE, R.E.	-344	COMMUNICATIONS	+9
DWELLING SERVICES		E. POWER, WATER-GAS	+93
HOTELS, REST.		DISTRIBUTION	
PERSONAL SERVICES	-4	AUTO OPERATION	
BUSINESS SERVICES	-43	FINANCE, R.E.	
HOUSEHOLD INCOME	-10,714	DWELLING SERVICES	
		HOTELS, REST.	
		PERSONAL SERVICES	
		BUSINESS SERVICES	
		HOUSEHOLD INCOME	+2917

APPENDIX 2
TABLE 2
CHANGES IN INDUSTRY OUTPUT
DUE TO CHANGES IN DEFENCE SPENDING
PRINCE EDWARD ISLAND AND NOVA SCOTIA

A41

PRINCE EDWARD ISLAND INDUSTRY OUTPUT CHANGES (000'S) [I-A + ρ] d'			NOVA SCOTIA INDUSTRY OUTPUT CHANGES (000'S) [I-A + ρ] d'	
INDUSTRY	MODEL I OUTPUT CHANGE	MODEL II OUTPUT CHANGE	INDUSTRY	MODEL II OUTPUT CHANGE
AGRICULTURE	-58	-1,180	AGRICULTURE	+204
FORESTRY	-3	-24	FORESTRY	+16
PRIMARY FISHING		-26	PRIMARY FISHING	+7
QUARRIES	-2	-3	COAL MINING	+125
MEAT, DAIRY, FRUIT	-113	-937	NONMETAL QUARRIES	+1
SECONDARY FISHING		-49	MEAT, DAIRY, FRUIT	+147
MISC. FOODS	-1	-183	SECONDARY FISHING	+16
S. DRINKS		-73	MISC. FOODS	+92
TEXTILES, CLOTHING		-43	S. DRINKS, BREWERS	+50
SAWMILLS, WOOD PR.	-16	-57	TEXTILES, CLOTHING	+12
PAPER PRODUCTS			SAWMILLS, WOOD PR.	+34
PRINTING	-12	-95	PULP-PAPER & PR.	+9
METAL FABRIC.		-2	PRINTING	+25
MACH. & EQUIPT.		-1	IRON-STEEL MILLS	+6
BOAT & SHIP BLDG.	-1	-6	METAL FABRIC.	+12
NONMET MINERAL PR.	-3	-5	MACH. & EQUIPT.	+1
PAINT, SOAP PR.	-7	-59	TRANSP. EQUIPT.	+12
MISC. MANUF.		-15	COMM. EQ. EL. WIRE	+1
CONSTRUCTION	-578	-899	NONMET. MINERAL PR.	+2
TRANSP., TRAVEL, ENT.	-367	-1,096	PETROLEUM REF.	+90
COMMUNICATIONS	-69	-230	FERT. PAINT, SOAP	+1
E. POWER, WATER-GAS	-303	-544	MISC. MANUF.	+4
DISTRIBUTION	-178	-2,390	CONSTRUCTION	+128
AUTO OPERATION	-42	-966	TRANSP., TRAVEL, ENT.	+371
FINANCE, R.E.	-446	-815	COMMUNICATIONS	+74
DWELLING SERVICES		-1,188	E. POWER, WATER-GAS	+190
HOTELS, REST.	-12	-363	DISTRIBUTION	+613
PERSONAL SERVICES	-7	-778	AUTO OPERATION	+271
BUSINESS SERVICES	-98	-241	FINANCE, R.E.	+152
HOUSEHOLD INCOME		-15,699	DWELLING SERVICES	+396
			HOTELS, REST.	+117
			PERSONAL SERVICES	+216
			BUSINESS SERVICES	+41
			HOUSEHOLD INCOME	+4,396

APPENDIX 2
TABLE 3
CHANGES IN IMPORTS-PRINCE EDWARD ISLAND

A 4 2

	DECREASE IN OUTPUT OF P.E.I. INDUSTRY	IMPORT CO-EFFICIENT NOVA SCOTIA	DECREASE IN IMPORTS FROM NOVA SCOTIA	IMPORT CO-EFFICIENT NEW BRUNSWICK	DECREASE IN IMPORTS FROM NEW BRUNSWICK	IMPORT CO-EFFICIENT NEWFOUNDLAND	DECREASE IN IMPORTS FROM NEWFOUNDLAND
AGRICULTURE	1180	.008	9	.001	1		
FORESTRY	24						
PRIMARY FISHING	26						
QUARRIES	3	.164					
MEAT, DAIRY, FRUIT	937	.013	12	.041	38		
SECONDARY FISHING	49	.576	28	.232	11	.454	22
MISC. FOODS	183	.293	54	2.642	483		
SOFT DRINKS, MANUF.	73	.913	67	.854	62		
TEXTILES, CLOTHING	43	.811	35	.015	1	.012	1
SAWMILLS, WOOD PR.	57	.637	36	.480	27		
PAPER PRODUCTS		36.000		82.600			
PRINTING	95			.306	29		
METAL FABRIC.	2	11.921	24	4.211	8		
MACH. & EQUIPT.	1	.171		.006			
BOAT & SHIP BLDG.	6	8.340	50	.047			
NONMET. MINERAL PR.	5	.457	2	2.186	11	.053	
PAINT, SOAP PR.	59	.201	12	.501	30	.092	5
MISC. MANUF.	15	.093	1	.775	12	.008	
CONSTRUCTION	899						
TRANSP, TRAVEL, ENT.	1096						
COMMUNICATIONS	230						
E. POWER, WATER-GAS	544						
DISTRIBUTION	2390						
AUTO OPERATION	966						
FINANCE R.E.	815						
DWELLING SERVICES	1188						
HOTELS, REST.	363						
PERSONAL SERVICES	778						
BUSINESS SERVICES	241						
HOUSEHOLD INCOME	15699						

APPENDIX 2
TABLE 4
CHANGES IN IMPORTS-NOVA SCOTIA

A43

	INCREASE IN OUTPUT OF NOVA SCOTIA INDUSTRY	IMPORT CO-EFFICIENT NEW BRUNSWICK	INCREASE IN IMPORTS FROM NEW BRUNSWICK	IMPORT CO-EFFICIENT PRINCE EDWARD ISLAND	INCREASE IN IMPORTS FROM PRINCE EDWARD ISLAND	IMPORT CO-EFFICIENT NEWFOUNDLAND	INCREASE IN IMPORTS FROM NEWFOUNDLAND
AGRICULTURE	204	.005	1	.061	12	.001	
FORESTRY	16	.002		.016			
PRIMARY FISHING	7					.376	3
COAL MINING	125						
NONMETAL, QUARRIES	1					.174	
MEAT, DAIRY, FRUIT	147	.214	31	.129	19		
SECONDARY FISHING	16	.085	1	.090	1	.028	
MISC. FOODS	92	.406	37			.024	2
S. DRINKS, BREW.	50	.023	1				
TEXTILES, CLOTHING	12	.451	5	.058	1		
SAWMILLS, WOOD PR.	34	.036	1				
PULP-PAPER & PR.	9	.676	6	.010			
PRINTING	25						
IRON-STEEL MILLS	6						
METAL FABRIC	12	.083	1				
MACH. & EQUIPT.	1	.022					
TRANSP. EQUIPT.	12	.002					
COMMUN. EQ. EL. WIRE	1	2.295	2				
NONMET. MINERAL PR.	2	.317	1			.132	
PETROLEUM REF.	90	.285	26				
FERT, PAINT, SOAP	1	.791	1				
MISC. MANUF.	4	.134	1				
CONSTRUCTION	128						
TRANSP, TRAVEL, ENT.	371						
COMMUNICATIONS	74						
E. POWER, WATER-GAS	190						
DISTRIBUTION	613						
AUTO OPERATION	271						
FINANCE, R.E.	152						
DWELLING SERVICES	396						
HOTELS, REST.	117						
PERSONAL SERVICES	216						
BUSINESS SERVICES	41						
HOUSEHOLD INCOME	4396						

INDUSTRY COLS		AGRI-	FORESTRY	PRIMARY	COAL	NONMETALS,	MEAT, DAIRY	SECONDARY	MISC.	S.DRINKS	TEXTILES,	SAWMILLS,
INDUSTRY ROWS		CULTURE		FISHING	MINING	QUARRIES	FRUIT	FISHING	FOODS	DIST.BREW.	CLOTHING	WOOD PROD.
		1	2	3	4	5	6	7	8	9	10	11
AGRICULTURE	1	1.128049	.225705	.050234	.051891	.021901	.377518	.041238	.047268	.033638	.023864	.103847
FORESTRY	2	.009838	.813412	.024529	.016019	.006285	.007024	.015747	.005899	.005775	.003143	.283050
PRIMARY FISHING	3	.001244	.001727	.001727	.001742	.000743	.001206	.428793	.001258	.001126	.000838	.001583
COAL MINING	4	.007554	.008756	.008771	.023963	.018911	.010551	.009059	.006310	.009438	.008320	.009351
NONMETAL, QUARRIES	5	.000656	.000497	.010368	.000619	.000233	.000651	.007523	.000862	.000342	.000185	.000375
MEAT, DAIRY, FRUIT	6	.022232	.030712	.028612	.030900	.013105	1.044734	.022485	.027352	.022606	.014792	.026846
SECONDARY FISHING	7	.002944	.004087	.028430	.004122	.001760	.002853	1.014814	.002977	.002663	.001997	.003746
MISC. FOODS	8	.080811	.033029	.021367	.022897	.009706	.042002	.018409	1.045305	.056547	.010909	.023359
S.DRINKS, BREWERS	9	.008713	.012357	.011558	.012474	.005290	.008253	.009427	.006857	1.232707	.005966	.010823
TEXTILES, CLOTHING	10	.002596	.003260	.004478	.003240	.001374	.002257	.003149	.001692	.002055	1.016003	.003811
SAWMILLS, WOOD PR.	11	.023277	.013486	.017732	.016209	.005318	.012619	.020319	.005519	.009461	.006249	1.139295
PULP-PAPER & PR.	12	.003867	.002883	.003002	.002596	.020290	.016341	.012664	.029970	.019372	.006410	.002977
PRINTING	13	.006837	.007180	.006081	.006673	.004298	.007718	.007674	.013759	.017870	.006693	.006491
IRON-STEEL MILLS	14	.002307	.001834	.003843	.025011	.001484	.004161	.002748	.001320	.002620	.001442	.002464
METAL FABRIC.	15	.005032	.003563	.014777	.020748	.002680	.023314	.009778	.002198	.012183	.002724	.007714
MACH. & EQUIPT.	16	.000764	.000764	.000835	.003653	.001276	.001432	.000841	.001884	.002464	.002798	.001569
TRANSP. EQUIPT.	17	.003081	.002937	.023166	.004156	.001959	.004956	.012114	.003484	.003452	.003316	.003709
COMMUN. E.Q.	18	.000372	.000417	.000556	.000618	.000197	.000281	.000371	.000194	.000235	.000173	.000336
NONMET. MINERAL PR	19	.002853	.001512	.001514	.001094	.000742	.001323	.001051	.000581	.000579	.000468	.001002
PAINT, SOAP PR.	20	.031793	.027061	.043339	.023752	.016637	.025848	.030562	.017596	.019248	.013867	.025647
FERT. PAINT, SOAP	21	.003979	.001028	.000756	.000472	.000512	.001690	.000524	.000651	.001179	.001812	.003486
MISC. MANUF.	22	.000847	.001103	.005473	.001097	.000531	.001014	.000824	.001034	.000641	.000685	.000985
CONSTRUCTION	23	.063047	.063523	.077332	.044642	.037030	.039250	.052452	.025584	.026748	.022656	.045333
TRANSP, TRAVEL, ENT	24	.090478	.084838	.111948	.106651	.056990	.138967	.118586	.106473	.095881	.099043	.107294
COMMUNICATIONS	25	.020270	.032450	.018347	.021939	.014194	.018439	.021442	.016949	.019369	.025146	.025150
E. POWER, WATER-GAS	26	.030252	.025946	.023436	.070328	.036299	.030539	.029520	.021716	.030021	.021744	.028991
DISTRIBUTION	27	.141757	.159748	.173226	.172465	.080017	.162233	.146368	.114761	.120444	.108361	.155699
AUTO OPERATION	28	.109750	.077158	.065981	.071563	.038401	.068818	.054921	.041752	.046901	.035648	.068227
FINANCE, R.E.	29	.059134	.054883	.097873	.076770	.080570	.063411	.069687	.051742	.076221	.039013	.072055
DWELLING SERVICES	30	.068713	.097782	.091504	.098754	.041885	.065068	.074618	.050151	.062538	.047272	.085672
HOTELS, REST.	31	.020813	.029037	.027603	.029803	.012711	.020413	.022869	.015724	.019121	.014804	.025877
PERSONAL SERVICES	32	.037888	.053552	.050040	.054487	.023280	.036871	.029784	.029784	.037761	.027167	.047683
BUSINESS SERVICES	33	.021682	.017941	.013311	.014564	.015011	.020960	.017474	.040526	.051602	.020918	.016801
HOUSEHOLD INCOME	34	.761424	1.083551	1.013995	1.094331	.464148	.721034	.826859	.555729	.693000	.523872	.949351

APPENDIX 2
TABLE 5
NOVA SCOTIA [I-A+2]¹ [I-A]

PULP-PAPER & PRODS 12	PRINTING 13	IRON-STEEL MILLS 14	METAL FABRIC. 15	MACH. EQUIPT. 16	TRANSP. EQUIPT. 17	COMMUN.EQ. 18	NON-MET. MINERAL PR 19	PETROLEUM REF. 20	FERT.PAINT & SOAP PR 21	MISC. MANUF. 22	CON- STRUCTION 23
.062858	.043474	.036134	.033716	.041962	.041469	.032802	.035625	.006641	.020840	.060155	.042753
.131003	.010742	.005198	.003817	.004148	.006139	.002716	.004697	.000862	.003236	.010189	.018465
.001433	.001562	.001263	.001191	.001477	.001451	.001164	.001251	.000234	.001915	.002093	.001403
.011976	.008773	.140954	.027898	.016368	.015948	.006270	.025027	.002760	.011955	.021498	.009771
.001168	.000336	.011331	.002178	.000809	.000743	.000204	.102256	.000239	.002737	.001307	.006377
.021870	.026261	.022345	.020994	.026221	.025621	.020568	.022089	.004118	.012857	.036976	.024635
.003300	.003696	.002991	.002820	.003520	.003433	.002737	.002963	.000552	.004526	.004551	.003320
.017807	.019426	.016476	.015467	.019302	.018893	.015135	.016284	.003036	.009486	.027284	.018336
.008821	.010601	.009021	.008475	.010581	.010343	.008313	.008919	.001662	.005190	.014628	.009945
.002313	.002789	.002344	.002204	.002752	.002690	.002145	.002316	.000433	.001353	.003995	.002633
.010390	.007813	.008587	.008259	.009347	.015409	.005780	.006907	.002252	.004304	.025714	.061772
1.048078	.061235	.004414	.003512	.002274	.002274	.001838	.011996	.000454	.011433	.014016	.006537
.008458	1.025543	.006081	.005560	.007486	.006287	.005433	.006044	.001110	.005071	.012460	.010577
.002335	.001458	1.013084	.123060	.046818	.020751	.001328	.010613	.007594	.095424	.045724	.014317
.008069	.003158	.009602	1.058827	.068446	.019683	.003350	.004262	.001896	.009961	.023909	.030271
.002752	.001072	.002923	.002989	.995186	.005450	.000919	.003128	.000662	.002334	.001217	.001216
.004735	.003153	.004639	.028401	.070085	1.045308	.002941	.004694	.000836	.003133	.005586	.005749
.000273	.000306	.000310	.000272	.000364	.001150	1.004900	.000271	.000061	.000158	.000435	.000909
.001968	.000798	.006733	.001310	.000910	.000952	.000511	1.032133	.000503	.001036	.001213	.018963
.026196	.020785	.029005	.022352	.023368	.023233	.015748	.035077	1.019176	.018427	.032646	.025013
.000424	.000351	.001025	.000746	.002630	.002241	.000327	.000337	.000204	1.004340	.003992	.002359
.000055	.000996	.000857	.001014	.001032	.000550	.000797	.000838	.000159	.000562	1.408335	.001115
.036424	.035810	.050530	.028466	.031117	.040604	.024959	.034777	.024567	.024693	.046410	1.030278
.140280	.093503	.135601	.146943	.148788	.132537	.088419	.141163	.023977	.088232	.156394	.160164
.024802	.059601	.021548	.026089	.024178	.036240	.020935	.018640	.008231	.012960	.032230	.023638
.047904	.031276	.035267	.028363	.033768	.029070	.020833	.036244	.009713	.025587	.076910	.024551
.158777	.142950	.156522	.157173	.173108	.166964	.115564	.157040	.028582	.092972	.213200	.181231
.051244	.059102	.054207	.052895	.064521	.060161	.047937	.056588	.009734	.031205	.087015	.059836
.102821	.054514	.047698	.058503	.069053	.054617	.065012	.054313	.034984	.040864	.084322	.086545
.069838	.083930	.071418	.067104	.083782	.081288	.065747	.070603	.013163	.041078	.118173	.078729
.021791	.025197	.022182	.021100	.025877	.025179	.019935	.022024	.004074	.012896	.035206	.024593
.039760	.046549	.039987	.038767	.047586	.045589	.036499	.039167	.007632	.023205	.066592	.043757
.032574	.018217	.018234	.016026	.023166	.016554	.017286	.017286	.003167	.018395	.043589	.043167
.773901	.930057	.791413	.743603	.928339	.907431	.728614	.782385	.145853	.455205	1.306570	.872419

TRANSP. TRAVEL, ENT 24	COMMUNI- CATIONS 25	ELEC. POWER WATER-GAS 26	DISTRIBUTN 27	AUTO OPERATION 28	FINANCE, R.E. 29	DWELLING SERVICES 30	HOTELS & REST. 31	PERSONAL SERVICES 32	BUSINESS SERVICES 33	HOUSEHOLD INDUSTRY 34
.037862	.039250	.037124	.047871	.026860	.028134	.024009	.043383	.047967	.039099	.063835
.003906	.003876	.005113	.004338	.002293	.002321	.004837	.005900	.005308	.004476	.005008
.001333	.001380	.001300	.001860	.000951	.000992	.000826	.001517	.001684	.001390	.002253
.010644	.008048	.100606	.009541	.005544	.004955	.004562	.019354	.009316	.008233	.010806
.000482	.000493	.000646	.000317	.000197	.000183	.001325	.000290	.000318	.000298	.000319
.023629	.024518	.022986	.029950	.016830	.017641	.014638	.026878	.029888	.024341	.040063
.003155	.003267	.003076	.004401	.002251	.002348	.001956	.003589	.003985	.003289	.005331
.017402	.018054	.016946	.022050	.012389	.012984	.010813	.019813	.022016	.017932	.029484
.009539	.009898	.009280	.012091	.006795	.007122	.005910	.010851	.012066	.009827	.016174
.002482	.002566	.002412	.003240	.001762	.001844	.001541	.002952	.003229	.002571	.004186
.009404	.009085	.010718	.009235	.005003	.004989	.014638	.016046	.013695	.007124	.010458
.002172	.002530	.002212	.003980	.001421	.001441	.002028	.003008	.002715	.011848	.003057
.006686	.012259	.005895	.011062	.004099	.004367	.003900	.016211	.007400	.174072	.007415
.005209	.001668	.004310	.001800	.000974	.000796	.003161	.001881	.001765	.003822	.001474
.004564	.003098	.005444	.002680	.001522	.001429	.906571	.002529	.002575	.003304	.002665
.000973	.000829	.001055	.001085	.000532	.000936	.000369	.000544	.001070	.000579	.000496
.032033	.002354	.004068	.007433	.002677	.001454	.001881	.003569	.002910	.003596	.003087
.000336	.000309	.000374	.000354	.000198	.000203	.000288	.000319	.000344	.000403	.000450
.001160	.001366	.001763	.000787	.000509	.000472	.003898	.000724	.000801	.000685	.000783
.047958	.017603	.027465	.026517	.013097	.012196	.011625	.034609	.021909	.019497	.027467
.000492	.000397	.000502	.000408	.000406	.000226	.000577	.000899	.001487	.000583	.000473
.000999	.000972	.000977	.001285	.000618	.000644	.000551	.002767	.010022	.008163	.001357
.058588	.070888	.091729	.038334	.025233	.023174	.210436	.035233	.038678	.032355	.036939
1.108291	.067561	.123498	.163410	.082444	.040310	.052949	.109341	.084475	.108904	.088230
.029742	1.033564	.015745	.032382	.015823	.018355	.009818	.040866	.031841	.132733	.020683
.031436	.031607	1.026045	.033978	.021430	.014685	.011986	.060970	.033770	.029349	.029213
.136976	.124985	.150020	1.155039	.108103	.086715	.083236	.148903	.153764	.158795	.194975
.113961	.053082	.060743	.069638	.038580	.037601	.032572	.070633	.064806	.055352	.085141
.102585	.044021	.047334	.101505	.102685	1.041140	.042078	.109625	.106894	.076826	.045486
.075520	.078362	.073465	.095724	.053792	.056382	1.046785	.085906	.095525	.077797	.128048
.036206	.023264	.022606	.029488	.016447	.016629	.014056	1.025970	.028388	.023649	.037722
.045096	.044100	.055089	.054972	.029532	.030605	.025567	.079734	1.053406	.042914	.069389
.019383	.025018	.014930	.041731	.010920	.011891	.011633	.042809	.012787	1.014735	.012696
.836863	.868358	.814091	1.060751	.596089	.624789	.518439	.951949	1.058548	.862090	1.418941

INDUSTRY COLS		AGRI- CULTURE	FORESTRY	PRIMARY FISHING	METAL MINING	COAL MINING	NONMETALS, QUARRIES	MEAT, DAIRY FRUIT	SECONDARY FISHING	MISC. FOODS	S.DRINKS, BREWERIES	TEXTILES, CLOTHING
INDUSTRY ROWS		1	2	3	4	5	6	7	8	9	10	11
AGRICULTURE	1	1.122465	.185011	.052212	.185863	.037083	.046379	.470300	.039549	.035904	.032619	.075946
FORESTRY	2	.008020	.900694	.034809	.024383	.008758	.012321	.007763	.014646	.005870	.007434	.004085
PRIMARY FISHING	3	.001125	.001301	1.012313	.004980	.000976	.001222	.000998	.285626	.000788	.000858	.000790
METAL MINING	4	.000000	.000000	.000000	.999998	.000000	.000000	.000000	.000000	.000000	.000000	.000000
COAL MINING	5	.001813	.001556	.001543	.008648	1.002654	.003838	.002263	.001909	.001557	.001886	.003172
NONMETAL, QUARRIES	6	.000807	.000471	.000473	.001059	.000241	.994152	.000949	.002164	.000541	.000324	.000226
MEAT, DAIRY, FRUIT	7	.025014	.029741	.029138	.114207	.022413	.027903	1.063194	.018416	.014795	.019517	.018168
SECONDARY FISHING	8	.004009	.004638	.043995	.017758	.003483	.004356	.003557	1.018750	.002813	.003059	.002833
MISC. FOODS	9	.073022	.034966	.028473	.110609	.021734	.027101	.047561	.021116	1.034198	.052122	.019687
SOFT DRINK MANUF.	10	.010910	.012978	.012733	.049840	.009781	.012176	.010126	.009428	.006353	1.019483	.007924
TEXTILES, CLOTHING	11	.003773	.003916	.008437	.014795	.002901	.003617	.003337	.004199	.002022	.002534	1.001220
SAWMILLS, WOOD PR.	12	.017302	.011790	.009222	.050799	.007207	.008942	.012211	.008409	.004080	.009377	.005902
PULP-PAPER & PR.	13	.005541	.003274	.003566	.010962	.002205	.061045	.019216	.018496	.030667	.027600	.006836
PRINTING	14	.005991	.006553	.005892	.023204	.004498	.006593	.008636	.008768	.007560	.011461	.005337
METAL FABRIC.	15	.002478	.001565	.008480	.025895	.016832	.002474	.002041	.022740	.000756	.004934	.000893
MACH. & EQUIPT.	16	.000369	.000535	.000451	.019395	.005086	.001923	.000738	.000682	.000686	.001374	.001016
TRANSP. EQUIPT.	17	.002837	.002428	.009222	.016890	.002573	.002645	.004273	.006353	.003225	.002848	.002977
APPL. MFG. & WIRE	18	.003361	.004042	.003369	.014524	.004618	.003259	.002863	.002562	.001419	.002320	.002166
NONMET. MINERAL PR	19	.010225	.002823	.001665	.004573	.000976	.001350	.004877	.001309	.000935	.000978	.001273
PAINT, SOAP PR.	20	.020685	.017971	.027843	.156254	.016380	.020586	.018847	.018529	.011547	.014096	.011896
FERT, PAINT, SOAP	21	.015610	.003124	.002324	.004969	.001660	.001961	.006860	.001414	.000875	.003749	.001735
MISC. MANUF.	22	.001055	.001218	.003221	.004475	.000889	.001183	.001307	.003486	.000663	.001071	.000842
CONSTRUCTION	23	.055016	.050931	.046191	.114302	.025143	.031380	.043569	.035374	.020782	.024386	.024501
TRANSP, TRAVEL, ENT	24	.098549	.084515	.115985	.582274	.083088	.091809	.149306	.155984	.113007	.097927	.104285
COMMUNICATIONS	25	.022258	.029105	.019976	.174037	.016203	.025778	.021370	.027886	.023963	.030316	.016094
E. POWER, WATER-GAS	26	.028791	.023292	.022273	.103142	.041387	.039539	.029599	.027754	.013696	.025703	.028155
DISTRIBUTION	27	.157686	.151359	.168813	.675598	.122473	.147672	.161472	.126059	.093461	.112485	.115484
AUTO OPERATION	28	.109684	.073888	.066655	.277931	.065966	.069443	.077325	.054313	.036140	.048755	.046220
FINANCE, R.E.	29	.062960	.055613	.060350	.163235	.057822	.069268	.077325	.061289	.037275	.049695	.047175
DWELLING SERVICES	30	.081414	.097395	.095620	.374290	.073453	.091435	.073472	.070809	.036867	.063541	.059502
HOTELS, REST.	31	.019880	.023388	.023353	.092924	.017867	.022105	.018655	.018121	.009810	.015764	.014914
PERSONAL SERVICES	32	.047603	.056892	.055635	.218547	.043108	.053387	.044122	.043033	.022843	.038376	.035330
BUSINESS SERVICES	33	.017399	.016760	.011532	.043169	.009244	.019388	.019845	.019963	.024422	.036695	.018999
HOUSEHOLD INCOME	34	.873392	1.044840	1.025791	4.015330	.787989	.980894	.788205	.759622	.395502	.068173	.638337

APPENDIX 2
TABLE 6
NEW JERSEY (I-A) (I-B)

SAWMILLS, WOOD PROD. 12	PULP-PAPER & PRODS 13	PRINTING 14	METAL FABRIC. 15	MACH. & EQUIPT. 16	TRANSP. EQUIPT. 17	APPL.MFG. ELEC.WIRE 18	NON-MET. MINERAL PR 19	PETROLEUM REF. 20	FERT, PAINT & SOAP PR 21	MISC. MANUF. 22	CON- STRUCTION 23	TRANSP. TRAVEL, ENT 24
.076467	.049121	.050842	.036998	.046252	.035550	.028868	.034818	.016167	.012969	.055551	.029692	.043530
.242722	.130467	.011705	.004958	.005731	.007279	.003764	.014253	.002063	.005222	.012902	.014915	.005823
.001265	.000999	.001353	.000991	.001253	.000944	.000944	.000894	.000434	.000335	.000982	.001023	.001165
.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000
.002152	.028217	.003042	.003718	.002756	.004084	.002559	.033375	.000733	.001402	.003653	.002267	.001893
.000313	.000637	.000281	.001380	.000282	.000286	.000221	.037994	.000252	.002230	.000332	.0007636	.000715
.024691	.018296	.030760	.022725	.028465	.021592	.017746	.020460	.009935	.007634	.065189	.023311	.026732
.004511	.003208	.004822	.003534	.004415	.003364	.002758	.003193	.001546	.001197	.003502	.003649	.004156
.025549	.019237	.029856	.022008	.027557	.020929	.017180	.021585	.009621	.007432	.022788	.022690	.025887
.010775	.007984	.013423	.009915	.012432	.009422	.007740	.008925	.004335	.003329	.009773	.010167	.011663
.003472	.002521	.003996	.002963	.003695	.002849	.002303	.002659	.001304	.000995	.004745	.003039	.003469
1.126880	.017724	.009065	.008276	.010835	.020364	.006886	.006631	.003950	.003868	.040142	.051217	.011987
.002912	1.025492	.053320	.005874	.003163	.002296	.002303	.036323	.001154	.031150	.015903	.005751	.002854
.005356	.004967	1.070856	.005593	.006858	.004662	.005820	.005244	.002590	.002649	.006582	.008225	.006786
.002202	.003498	.002213	1.033132	.002693	.015861	.001870	.001642	.000833	.000505	.005092	.020753	.002755
.001025	.002685	.000822	.001618	.995632	.005787	.004999	.002573	.000223	.001365	.001699	.000943	.000554
.003292	.003109	.002811	.019667	.003695	1.036395	.003622	.003769	.003509	.001725	.003502	.004506	.032243
.003017	.002513	.003368	.002799	.119812	.003089	1.014772	.002622	.001331	.001062	.002703	.012916	.003738
.001512	.003480	.001285	.001403	.001159	.001190	.000920	1.023182	.000980	.000560	.001290	.027952	.002786
.015503	.015569	.016237	.017903	.016910	.012740	.012713	.020078	1.008863	.006494	.013145	.019370	.041504
.006251	.001520	.001263	.004353	.007860	.005655	.001308	.001056	.000926	1.049097	.007373	.005800	.001806
.001017	.000796	.001242	.000996	.001221	.000884	.000903	.000958	.000398	.000446	1.000998	.001229	.001229
.033639	.028353	.028286	.036440	.028747	.029948	.025430	.026104	.031605	.014336	.030353	1.026739	.090400
.114660	.107736	.097702	.245166	.128204	.110354	.126492	.131774	.123052	.060417	.120881	.149401	1.133423
.021714	.020800	.023365	.022115	.025365	.016016	.018128	.018747	.018659	.010810	.022273	.026336	.034267
.026717	.040707	.032687	.026161	.032818	.024069	.020275	.063385	.016877	.014007	.033614	.022425	.028184
.145116	.131610	.159513	.199658	.159456	.130993	.122036	.136212	.136729	.051863	.135178	.175986	.156193
.062514	.046124	.069317	.063113	.070772	.051411	.044763	.053293	.028402	.020046	.055338	.057906	.131156
.056454	.050867	.051503	.063080	.065699	.044001	.048628	.046554	.057322	.038637	.055144	.099833	.098760
.080897	.059934	.100803	.074460	.093256	.070756	.058130	.067009	.032554	.025002	.073281	.076351	.087584
.019953	.015051	.024328	.020015	.022954	.017570	.014858	.016961	.008937	.006463	.018275	.019317	.033528
.048156	.035948	.059054	.044904	.054739	.041552	.034958	.040278	.020007	.015046	.043542	.045218	.055417
.013289	.013568	.015213	.017372	.021232	.011708	.026119	.017468	.008227	.012091	.017843	.039101	.020685
.867854	.642959	1.081401	.798793	1.000549	.759061	.623610	.718861	.349242	.268210	.786152	.819082	.939593

COMMUNI- CATIONS 25	ELEC. POWER WATER-GAS 26	DISTRIBUTN 27	AUTO OPERATION 28	FINANCE, R.E. 29	DWELLING SERVICES 30	HOTELS & REST. 31	PERSONAL SERVICES 32	BUSINESS SERVICES 33	HOUSEHOLD INDUSTRY 34
.040330	.031860	.051260	.027734	.025204	.024703	.042756	.049789	.037966	.065896
.004997	.004507	.005989	.003126	.002792	.003940	.006338	.006503	.005032	.007079
.001081	.000852	.001380	.000745	.000677	.000659	.001142	.001330	.001013	.001771
.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000
.001584	.021978	.001805	.000894	.000781	.000864	.006889	.001690	.001497	.001951
.000581	.000484	.000319	.000205	.000164	.001008	.000351	.000299	.000271	.000287
.024807	.019551	.031562	.017091	.015538	.015095	.026263	.030859	.023645	.040642
.003855	.003038	.004921	.002656	.002414	.002349	.004072	.004742	.003612	.006314
.024020	.018924	.030552	.016547	.015043	.014630	.025356	.029548	.022491	.039352
.010823	.008525	.013768	.007458	.006780	.006587	.011421	.013310	.010128	.017737
.003210	.002536	.004308	.002215	.002008	.001954	.003546	.004076	.003042	.005251
.009108	.009526	.009738	.005101	.004440	.009427	.014504	.013294	.007337	.010737
.002985	.002134	.004394	.001691	.001492	.001822	.003385	.003345	.008046	.003729
.015115	.005999	.009688	.003870	.003695	.003265	.015588	.007755	.123728	.007486
.002612	.003158	.001221	.000702	.000566	.002824	.001412	.001073	.001616	.001055
.003037	.000861	.000817	.000349	.000719	.000221	.000477	.000837	.000711	.000331
.002567	.003336	.004362	.002137	.001012	.001302	.005828	.002488	.003861	.003508
.003512	.002663	.003551	.001943	.001779	.002848	.003070	.003374	.003533	.004261
.002285	.001890	.001381	.000861	.000705	.003776	.001453	.001361	.001146	.001328
.012574	.023375	.018512	.008790	.007029	.007806	.026579	.014799	.013362	.018092
.001266	.001595	.001352	.001165	.000635	.001167	.002791	.004859	.001647	.001544
.001119	.001169	.001551	.000710	.000654	.000616	.003178	.009605	.011150	.001544
.072823	.060600	.035875	.023716	.018679	.132918	.041034	.032071	.030743	.029692
.089006	.115878	.152733	.074759	.035221	.044472	.204285	.086832	.135004	.087448
1.034838	.016247	.037732	.016620	.021472	.010500	.051855	.037142	.153272	.023743
.033154	1.065305	.032882	.014473	.012229	.011392	.056665	.030315	.024737	.028695
.133022	.122956	.176756	.110116	.074040	.079018	.148107	.150682	.149418	.191176
.055914	.056082	.073674	1.039333	.033509	.033367	.075320	.067081	.055883	.087286
.044449	.043562	.107254	.101639	1.039091	.037792	.110119	.107045	.074410	.044880
.081279	.064020	.103392	.056005	.050915	1.049467	.085771	.099953	.076056	.133203
.019736	.016087	.025573	.013758	.012121	.011897	1.022131	.024004	.019079	.031654
.049112	.057593	.063098	.032634	.029450	.028694	.078625	1.061845	.044901	.076894
.022469	.020562	.040521	.010557	.010689	.008354	.052055	.012743	1.012753	.011792
.871951	.686799	1.109180	.600814	.546208	.530670	.920137	1.072286	.815916	1.428979

INDUSTRY COLS		AGRI-	FORESTRY	PRIMARY	QUARRIES	MEAT, DAIRY	SECONDARY	MISC.	SOFT DRINK	TEXTILES,	SAWMILLS,	PAPER
INDUSTRY ROWS		CULTURE		FISHING		FRUIT	FISHING	FOODS	MANUF.	CLOTHING	WOOD PROD.	PRODS
		1	2	3	4	5	6	7	8	9	10	11
AGRICULTURE	1	1.138920	.068952	.151300	.065222	.567670	.112933	.124507	.039778	.055250	.260094	.038277
FORESTRY	2	.003347	.045656	.058427	.001313	.002180	.032521	.000944	.000763	.000782	.145166	.000814
PRIMARY FISHING	3	.001430	.000150	1.024527	.001569	.001948	.552806	.001768	.000915	.000857	.001860	.001018
QUARRIES	4	.000320	.000030	.000187	1.000748	.000335	.001112	.001466	.000139	.000075	.000281	.000000
MEAT, DAIRY, FRUIT	5	.044142	.004869	.053415	.047843	1.127641	.042643	.048577	.027672	.026137	.046278	.028097
SECONDARY FISHING	6	.002657	.000295	.045617	.002917	.003617	1.027075	.003286	.001700	.001593	.003455	.001629
MISC. FOODS	7	.020764	.001713	.012656	.010598	.013973	.010598	1.029395	.041482	.005997	.012257	.006312
S. DRINK, DIST, BREW	8	.003786	.000441	.004670	.004178	.003223	.003971	.004766	.021408	.002285	.004030	.002443
TEXTILES, CLOTHING	9	.002773	.000281	.003901	.002501	.002329	.002985	.002300	.014448	1.002179	.003404	.001425
SAWMILLS, WOOD PR.	10	.003808	.000455	.003105	.002518	.003333	.003840	.001620	.001535	.001563	1.047038	.001629
PAPER PRODS.	11	.000028	.000002	.000017	.000019	.000124	.000016	.000044	.000013	.000015	.000032	1.140364
PRINTING	12	.005923	.000654	.006096	.006741	.008906	.007323	.005217	.006265	.004329	.006357	.013030
MEAL FABRIC.	13	.000154	.000013	.000185	.000044	.000388	.000454	.000048	.000030	.000045	.000198	.000000
MACH. & EQUIPT.	14	.000235	.000009	.000322	.000677	.000434	.000294	.000287	.000256	.000090	.000355	.000814
BOAT & SHIP BLDG.	15	.000480	.000043	.001366	.000472	.000564	.001199	.000537	.003395	.000481	.000604	.000407
NONMET. MINERAL PR	16	.000669	.000079	.000215	.000153	.000388	.000217	.00015	.000108	.000120	.000313	.000000
FERTILIZERS	17	.044903	.002770	.009594	.018765	.022688	.006812	.005351	.008915	.002715	.045843	.002036
MISC. MANUF.	18	.000866	.000095	.001054	.000947	.001082	.000016	.000544	.000564	.000556	.000933	.000611
CONSTRUCTION	19	.050556	.006341	.030714	.024867	.035672	.033774	.020756	.017890	.018938	.041989	.015881
TRANSP. TRAVEL, ENT	20	.091841	.008301	.090541	.091244	.105256	.135269	.103050	.076559	.093456	.115136	.097524
COMMUNICATIONS	21	.014094	.001492	.012720	.020474	.012799	.027087	.010141	.010562	.008853	.016696	.041942
E. POWER, WATER-GAS	22	.020661	.001895	.017078	.064766	.023772	.019930	.02130	.015683	.013527	.023548	.012012
DISTRIBUTION	23	.167508	.016480	.184124	.168305	.161040	.163489	.13266	.114815	.128415	.181536	.136005
AUTO OPERATION	24	.107562	.008884	.067066	.057167	.073618	.060445	.038637	.036417	.037379	.069612	.036852
FINANCE, R.E.	25	.060309	.006300	.063814	.088275	.055779	.077542	.03980	.048211	.039333	.071910	.092231
DWELLING SERVICES	26	.062049	.006929	.077086	.068998	.052983	.065549	.03554	.038711	.037665	.066448	.040516
HOTELS, REST.	27	.020034	.002170	.024153	.021938	.017944	.022360	.01305	.013099	.013332	.021979	.014252
PERSONAL SERVICES	28	.040840	.004591	.050585	.045287	.035555	.044100	.02404	.026592	.025220	.044015	.028707
BUSINESS SERVICES	29	.021411	.002340	.013996	.024549	.091660	.027092	.02317	.040450	.019103	.022842	.106279
HOUSEHOLD INCOME	30	.821833	.001775	.021000	.913864	.701744	.868190	.470845	.512712	.498357	.880086	.536282

APPENDIX 2
TABLE 7
PRINCE EDWARD ISLAND

PRINTING 12	METAL FABRIC. 13	MACH. EQUIPT. 14	BOAT & SHIP BLDG 15	NON-MET. MINERAL PR 16	FERTILIZER 17	MISC. MANUF. 18	CON- STRUCTION 19	TRANSF. TRAVEL. ENT 20	COMMUNI- CATIONS 21	ELEC. POWER WATER-GAS 22
.058321	.041848	.048808	.061890	.061019	.015227	.165014	.049947	.064249	.048112	.046061
.001171	.001466	.000972	.011585	.001224	.000337	.001892	.004242	.001469	.001094	.001137
.001400	.000953	.001196	.001164	.001471	.000365	.002113	.001080	.001540	.001153	.001101
.000094	.000073	.000075	.000179	.014591	.002488	.000140	.003122	.000142	.000198	.000272
.042753	.030049	.035802	.034717	.044775	.011132	.064436	.032707	.046937	.035140	.033534
.002608	.001832	.002168	.002161	.002733	.000680	.003925	.002007	.002862	.002142	.002045
.000400	.006669	.007523	.007839	.009918	.002466	.015058	.007299	.010400	.007786	.007432
.003007	.002638	.003139	.003031	.003905	.000972	.005622	.002856	.004059	.003069	.002928
.002100	.001612	.001869	.002327	.002343	.000600	.003382	.001758	.002472	.001832	.001760
.002000	.006156	.001943	.079012	.002291	.000786	.003310	.022253	.003741	.002643	.003096
.000500	.000000	.000000	.000026	.000182	.000337	.000019	.000080	.000015	.000023	.000015
1.009300	.004471	.005083	.006279	.005154	.002226	.003939	.009970	.006716	.025286	.004720
.000000	1.010149	.000747	.000601	.000039	.000025	.000061	.000859	.000062	.000069	.000104
.000200	.000220	1.000447	.000320	.000260	.000231	.000149	.000266	.000148	.000079	.000095
.000400	.059511	.000598	1.002964	.000469	.000393	.000414	.000719	.005563	.000309	.000412
.000100	.000073	.000075	.000128	1.007382	.000009	.000212	.005370	.000210	.000319	.000445
.002000	.004104	.002467	.036929	.003228	1.056146	.007265	.011014	.004080	.002732	.003380
.000000	.000660	.000747	.000703	.000885	.000257	1.036300	.000700	.001011	.000704	.000674
.021000	.015244	.017341	.019040	.019797	.012153	.029048	1.018466	.035607	.057436	.081660
.078000	.111620	.106884	.094766	.091633	.076681	.079920	.130446	1.085466	.059473	.079046
.026100	.011360	.015248	.013542	.012717	.007044	.016797	.015030	.021005	1.027790	.012412
.027000	.017076	.022049	.030280	.021581	.006987	.030075	.014568	.022543	.025207	1.012622
.134000	.148191	.145751	.139585	.158756	.074043	.190111	.165924	.150125	.111105	.128775
.054000	.040822	.047388	.044461	.056620	.017579	.077760	.045408	.128016	.041564	.841240
.052000	.048591	.051947	.050154	.044606	.038935	.050857	.106074	.119932	.049542	.035285
.061000	.043314	.051648	.050036	.064572	.016054	.092812	.047160	.067690	.050677	.048360
.010000	.015464	.017640	.016802	.020721	.006838	.028172	.017121	.052636	.015877	.015847
.041400	.028876	.034756	.033490	.042406	.011106	.060560	.031880	.049848	.034758	.031876
.026000	.018020	.019134	.033119	.011871	.012147	.034021	.074386	.023695	.033782	.014767
.217000	.573783	.683682	.662748	.855255	.212638	1.229282	.624633	.896551	.671211	.640522

DISTRIBUTN 23	AUTO OPERATION 24	FINANCE, R.E. 25	DWELLING SERVICES 26	HOTELS & REST. 27	PERSONAL SERVICES 28	BUSINESS SERVICES 29	HOUSEHOLD INDUSTRY 30
.068821	.036311	.031178	.027207	.064105	.071984	.018568	.097098
.001472	.000759	.000674	.001259	.001823	.001926	.000383	.001913
.001657	.000873	.000749	.000876	.001525	.001694	.000447	.002338
.000150	.000085	.000098	.000543	.000130	.000168	.000038	.000131
.050309	.026602	.022816	.026675	.046443	.051612	.013609	.071281
.003079	.001622	.001391	.001628	.002833	.003148	.000830	.004344
.011146	.005893	.005055	.005917	.010296	.011449	.003015	.015789
.004393	.002323	.001992	.002329	.004056	.004507	.001188	.006225
.003145	.001398	.001184	.001393	.002533	.002776	.000719	.003694
.003262	.001579	.001488	.004631	.006402	.006360	.000777	.003467
.000035	.000009	.000008	.000018	.000020	.000021	.000051	.000018
.008611	.004039	.003831	.003869	.013713	.007147	.095547	.007463
.000058	.000030	.000033	.000155	.000049	.000056	.000028	.000054
.000100	.000141	.000374	.000081	.000129	.000641	.000056	.000110
.000755	.000337	.000119	.000215	.000644	.000332	.000199	.000329
.000225	.000127	.000154	.000920	.000182	.000231	.000055	.000180
.003653	.002412	.001660	.003175	.005487	.009133	.001492	.004656
.001819	.000538	.000436	.000519	.001383	.013345	.000282	.001354
.038214	.021645	.027273	.172643	.030398	.039027	.009179	.027783
.146492	.065371	.022773	.040011	.125054	.063933	.038465	.063147
.021377	.011304	.016113	.006701	.037518	.022094	.055862	.013661
.025569	.010250	.007484	.008571	.051941	.024283	.007707	.020683
1.183749	.106249	.063102	.084117	.159945	.152286	.060139	.191009
.063790	1.032852	.025786	.031308	.065393	.059280	.017486	.079885
.096745	.099926	1.041434	.044856	.103709	.096548	.041887	.040795
.072553	.038363	.032904	1.038468	.066977	.074430	.019626	.102798
.024647	.012655	.009814	.011892	1.022435	.022587	.006631	.030410
.050751	.025298	.021450	.025217	.082076	1.058248	.013152	.066868
.042282	.010554	.017169	.015917	.054963	.013114	1.006807	.012448
.960962	.508120	.435805	.509508	.887108	.985823	.259944	1.361547

INDUSTRY COLS		AGRI- CULTURE	FORESTRY	PRIMARY FISHING	METAL MINING	NONMETALS, QUARRIES	MEAT, DAIRY FRUIT	SECONDARY FISHING	MISC. FOODS	S.DRINKS, BREWERIES	TEXTILES, CLOTHING	SAWMILLS, WOOD PROD.
INDUSTRY ROWS		1	2	3	4	5	6	7	8	9	10	11
AGRICULTURE	1	1.088398	.017949	.014411	.007695	.011535	.143715	.016503	.009573	.011459	.008232	.011804
FORESTRY	2	.006943	1.004551	.018644	.005607	.011272	.006374	.013828	.005640	.006454	.004490	.216031
PRIMARY FISHING	3	.001450	.003584	1.009305	.001985	.002972	.002144	.505309	.001933	.002947	.002072	.002911
METAL MINING	4	.000000	.000000	.000000	1.001046	.000000	.000000	.000000	.000000	.000000	.000000	.000000
NONMETAL, QUARRIES	5	.000354	.000324	.019129	.000234	1.000094	.000277	.011572	.000806	.000319	.000288	.000263
MEAT, DAIRY, FRUIT	6	.002871	.007068	.007294	.003909	.005856	1.013312	.006919	.004978	.005829	.005800	.005568
SECONDARY FISHING	7	.002911	.007195	.018630	.003984	.005966	.004311	1.014197	.003881	.005914	.004159	.005843
MISC. FOODS	8	.028860	.017354	.017750	.009513	.014253	.025843	.017169	1.035337	.038367	.009930	.013584
SOFT DRINK MANUF.	9	.008306	.020563	.021222	.011376	.017051	.012287	.020129	.011357	1.021817	.011829	.016215
TEXTILES, CLOTHING	10	.001793	.003516	.005316	.001942	.002905	.002421	.004367	.001973	.002880	1.017077	.003111
SAWMILLS, WOOD PR.	11	.004020	.005409	.010123	.003197	.008479	.003204	.009285	.002451	.003943	.003957	1.085617
PULP & PAPER	12	.000383	.000368	.000419	.000226	.000334	.004876	.003571	.007046	.003112	.001209	.000373
PRINTING	13	.001932	.004694	.004576	.003654	.004071	.005475	.006879	.004975	.009378	.004044	.003839
METAL FABRIC.	14	.001133	.000610	.002316	.001040	.000729	.000438	.001800	.000293	.000414	.000446	.000714
MACH. & EQUIPT.	15	.000056	.000129	.000241	.000199	.000205	.000184	.000254	.000185	.000320	.000432	.000353
TRANSP. EQUIPT.	16	.000815	.001454	.006572	.003072	.001392	.001533	.004415	.001498	.001581	.001497	.002047
ELEC. WIRE, CABLE	17	.000029	.000076	.000082	.000038	.000071	.000035	.000072	.000035	.000053	.000043	.000055
NONMET. MINERAL PR	18	.002400	.000929	.000931	.000710	.001222	.001026	.001042	.000540	.000766	.000892	.000743
PETROLEUM REF.	19	.005181	.000927	.002570	.001097	.003253	.001475	.001691	.000304	.003163	.000374	.003530
MISC. MANUF.	20	.000310	.000747	.000732	.000627	.000653	.002674	.000747	.000546	.000753	.000504	.000616
CONSTRUCTION	21	.043580	.038858	.039299	.029845	.053403	.029451	.043927	.022347	.032241	.039273	.031372
TRANSP. TRAVEL, ENT	22	.066351	.118497	.135495	.252867	.113657	.125964	.160614	.123026	.129360	.122697	.167721
COMMUNICATIONS	23	.008449	.019448	.014863	.014095	.016025	.009971	.017908	.012592	.013130	.009901	.018253
E. POWER, WATER-GAS	24	.014723	.014720	.015609	.020535	.028571	.021002	.025745	.014785	.024343	.017024	.023827
DISTRIBUTION	25	.087794	.122415	.189919	.103908	.149530	.131877	.190043	.118181	.152738	.124481	.170618
AUTO OPERATION	26	.040798	.062950	.052900	.038612	.042956	.039052	.051862	.034708	.043667	.032380	.049588
FINANCE, R.E.	27	.032191	.053611	.059178	.059463	.098350	.038637	.059775	.042674	.055133	.041489	.069119
DWELLING SERVICES	28	.030900	.076769	.079196	.042457	.063608	.045853	.075127	.041238	.063012	.044166	.060483
HOTELS, REST.	29	.009529	.023256	.024111	.014540	.019408	.014385	.023159	.013026	.019377	.013873	.018990
PERSONAL SERVICES	30	.013153	.032616	.033194	.026594	.026856	.019964	.033563	.018224	.027492	.018938	.026027
BUSINESS SERVICES	31	.006122	.015888	.010360	.033640	.017842	.012806	.015766	.031282	.035959	.018377	.015961
HOUSEHOLD INCOME	32	.425272	1.056560	1.089961	.584328	.875421	.631041	1.033963	.567571	.867225	.607900	.832417

APPENDIX 2
TABLE 8
NEWFOUNDLAND $(1-A+\rho)^1 (1+\rho)$

PULP & PAPER 12	PRINTING 13	METAL FABRIC. 14	MACH. & EQUIPT. 15	TRANSP. EQUIPT. 16	ELEC. WIRE, CABLE 17	NON-MET. MINERAL PR 18	PAINT. SOAP PR 19	MISC. MANUF. 20	CON- STRUCTION 21	TRANSP. TRAVEL, ENT 22	COMMUNI- CATIONS 23
.010907	.013047	.009095	.014381	.014066	.009377	.008382	.007078	.031457	.009837	.011972	.011045
.284445	.008722	.004989	.007075	.009525	.009905	.008161	.003740	.008021	.011072	.005963	.005527
.002751	.003551	.002352	.003691	.003636	.002377	.003523	.001910	.002797	.002559	.003091	.002850
.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000
.001057	.000279	.001116	.000385	.000718	.000264	.033847	.000208	.000196	.006060	.000326	.000357
.004974	.006632	.004625	.007306	.007149	.004755	.004251	.003600	.005512	.004962	.006090	.005617
.005522	.007127	.004724	.007460	.007295	.004887	.007071	.003834	.005613	.005136	.006202	.005720
.012141	.016140	.011259	.017842	.017398	.011622	.010346	.008871	.014171	.012079	.014820	.013670
.014461	.019295	.013460	.021302	.020813	.013867	.012366	.015121	.016017	.002477	.017718	.016343
.002673	.003341	.002294	.003614	.003550	.002377	.002115	.001789	.009540	.002477	.003030	.002785
.003632	.003989	.004926	.004537	.012810	.029980	.003542	.002416	.015564	.029192	.004192	.003961
1.001896	.008655	.000670	.000385	.000463	.000264	.013142	.001002	.001098	.001455	.000325	.000324
.003779	1.025735	.003146	.004922	.004752	.003566	.003085	.011018	.004752	.004626	.004134	.005200
.003182	.000719	1.004292	.060215	.004306	.000396	.000623	.011056	.036372	.010002	.000564	.000513
.001067	.000276	.000358	.998206	.000991	.000528	.000869	.000609	.000220	.000317	.000152	.000200
.001439	.001474	.006556	.002307	1.035925	.001849	.001737	.001346	.001679	.002345	.013827	.001203
.000049	.000060	.000042	.000077	.000347	1.000033	.000043	.000034	.000050	.000155	.000066	.000053
.002184	.000736	.000607	.000846	.002441	.000528	1.036226	.000571	.000664	.022284	.000878	.001100
.000409	.000430	.000524	.000461	.003789	.002906	.000522	.999193	.004014	.004857	.000578	.000470
.000588	.000703	.000509	.000769	.000783	.000528	.000503	.000526	1.132999	.001038	.000708	.000727
.035247	.030154	.025680	.033991	.104931	.024829	.049924	.024532	.025487	1.023926	.037277	.047897
.118654	.120159	.138299	.163266	.181302	.152805	.142024	.106040	.152394	.188943	1.142245	.098149
.013850	.016095	.012614	.016380	.015087	.014396	.010500	.012202	.014607	.015541	.020404	.047475
.047103	.025140	.023090	.023532	.025691	.064318	.038166	.015492	.019242	.014442	.020240	.022163
.139902	.164174	.142005	.194950	.203841	.144484	.136978	.105027	.161176	.173493	.155272	.137688
.041614	.048982	.037583	.066906	.054340	.037904	.036207	.028813	.045243	.041858	.096195	.040326
.044790	.050291	.047010	.065983	.065614	.045828	.044390	.041397	.053919	.093851	.103997	.049141
.054960	.072039	.050249	.079595	.077648	.051771	.046167	.039094	.059734	.053894	.066146	.061013
.016951	.021904	.015765	.024455	.024074	.016377	.014619	.012251	.018635	.017274	.029355	.018519
.024070	.030691	.022098	.034145	.033159	.022584	.020155	.016845	.025696	.023516	.030153	.026615
.018975	.015568	.012713	.018457	.016670	.021659	.015954	.032057	.019550	.042297	.014311	.033611
.756462	.991470	.691545	1.095950	1.068666	.711856	.635383	.538019	.822107	.741736	.910358	.839711

ELEC. POWER WATER-GAS 24	DISTRIBUTN 25	AUTO OPERATION 26	FINANCE, R.E. 27	DWELLING SERVICES 28	HOTELS & REST. 29	PERSONAL SERVICES 30	BUSINESS SERVICES 31	HOUSEHOLD INDUSTRY 32
.005548	.014461	.008127	.005400	.008064	.009946	.015075	.005632	.018559
.003145	.007235	.003999	.002656	.005769	.006133	.008325	.002820	.009014
.001433	.003945	.002100	.001393	.002086	.002558	.003860	.001436	.004787
.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000	.000000
.000516	.000335	.000199	.000133	.001882	.000232	.000544	.000124	.000354
.002819	.007347	.004134	.002747	.004090	.005037	.007604	.002810	.009443
.002876	.007918	.004215	.002796	.004187	.005134	.007747	.002882	.009607
.006861	.017881	.010062	.006686	.009955	.012259	.018511	.006843	.022980
.008203	.021376	.012030	.007993	.011906	.014660	.022132	.008177	.027473
.001400	.003728	.002051	.001361	.002032	.002689	.003882	.001442	.004678
.003540	.004904	.002635	.001746	.010135	.009505	.009596	.001806	.005537
.000228	.000694	.000221	.000144	.000558	.000400	.000491	.000499	.000468
.002033	.005595	.002738	.001882	.002972	.010754	.005465	.044287	.005773
.001021	.000482	.000275	.000195	.003063	.000280	.000527	.000257	.000427
.000071	.000255	.000135	.000373	.000125	.000108	.000333	.000065	.000095
.000786	.002606	.001164	.000496	.001153	.001887	.001592	.000833	.001662
.000033	.000067	.000038	.000025	.000069	.000047	.000072	.000033	.000084
.001811	.000925	.000571	.000383	.006820	.000688	.002799	.000345	.000935
.000554	.000552	.000573	.000194	.001592	.001802	.002174	.000457	.000581
.000409	.000901	.000440	.000299	.000565	.002752	.007515	.006164	.000929
.081338	.038823	.024289	.016321	.312126	.027396	.068385	.014498	.038474
.064023	.213773	.095349	.040371	.093329	.154908	.129947	.068226	.135400
.005107	.022492	.011583	.011813	.008231	.025784	.014947	.100466	.012750
1.007017	.022498	.010427	.006032	.009511	.042629	.021524	.008193	.018861
.074523	1.177219	.114560	.064728	.112578	.130047	.186703	.082428	.220863
.021048	.057051	1.030839	.019331	.030768	.049594	.054490	.021198	.066238
.021812	.095118	.117526	1.035836	.053244	.125146	.073045	.046261	.043608
.030621	.079806	.044907	.029841	1.044427	.054708	.082599	.030525	.102568
.009426	.024988	.013837	.008980	.013681	1.017204	.025045	.009437	.030867
.025265	.036431	.018890	.012461	.018829	.054735	1.035587	.012980	.042757
.007499	.034316	.009693	.007949	.015664	.064035	.012436	1.006904	.011325
.421428	1.098353	.618048	.410698	.611447	.752935	1.136791	.420116	1.411625

APPENDIX 2
TABLE 9
CHANGES IN INDUSTRY OUTPUT
DUE TO CHANGES IN EXPORTS
NOVA SCOTIA AND NEW BRUNSWICK

A48

NOVA SCOTIA INDUSTRY OUTPUT CHANGES (FIRST ROUND OF REGIONAL TRADE) [I-A] [I-X] EXPORTS (000'S)		NEW BRUNSWICK INDUSTRY OUTPUT CHANGES (FIRST ROUND OF REGIONAL TRADE) [I-A] [I-X] EXPORTS (000'S)	
INDUSTRY	OUTPUT CHANGE	INDUSTRY	OUTPUT CHANGE
AGRICULTURE	-29	AGRICULTURE	-24
FORESTRY	-10	FORESTRY	-8
PRIMARY FISHING	-12	PRIMARY FISHING	-3
COAL MINING	-3	METAL MINING	
NONMETAL, QUARRIES		COAL MINING	-1
MEAT, DAIRY, FRUIT	-21	NONMETAL, QUARRIES	-7
SECONDARY FISHING	-28	MEAT, DAIRY, FRUIT	-10
MISC. FOODS	-65	SECONDARY FISHING	-11
S. DRINKS, BREWERS	-84	MISC. FOODS	-466
TEXTILES, CLOTHING	-36	S. DRINKS, BREWERS	-65
SAWMILLS, WOOD PR.	-44	TEXTILES, CLOTHING	+3
PULP-PAPER & PR.	-3	SAWMILLS, WOOD PR.	-32
PRINTING	-2	PULP-PAPER & PR.	-13
IRON-STEEL MILLS	-5	PRINTING	-36
METAL FABRIC.	-27	METAL FABRIC.	-7
MACH. & EQUIPT.		MACH. & EQUIPT.	
TRANSP. EQUIPT.	-53	TRANSP. EQUIPT.	-1
COMMUN. EQ. EL. WIRE		APPL. MFG. EL. WIRE	+1
NONMET. MINERAL PR.	-2	NONMET. MINERAL PR.	-10
PETROLEUM REF.	-6	PETROLEUM REF.	+20
FERT., PAINT, SOAP	-12	FERT., PAINT, SOAP	-30
MISC. MANUF.	-1	MISC. MANUF.	-1
CONSTRUCTION	-11	CONSTRUCTION	-11
TRANSP., TRAVEL, ENT.	-37	TRANSP., TRAVEL, ENT.	-66
COMMUNICATIONS	-8	COMMUNICATIONS	-13
E. POWER, WATER-GAS	-8	E. POWER, WATER-GAS	-11
DISTRIBUTION	-44	DISTRIBUTION	-59
AUTO OPERATION	-16	AUTO OPERATION	-25
FINANCE, R.E.	-20	FINANCE, R.E.	-22
DWELLING SERVICES	-22	DWELLING SERVICES	-32
HOTELS, REST.	-7	HOTELS, REST.	-7
PERSONAL SERVICES	-12	PERSONAL SERVICES	-14
BUSINESS SERVICES	-8	BUSINESS SERVICES	-13
HOUSEHOLD INCOME	-238	HOUSEHOLD INCOME	-253

APPENDIX 2
TABLE 10
CHANGES IN INDUSTRY OUTPUT
DUE TO CHANGES IN EXPORTS
PRINCE EDWARD ISLAND AND NEWFOUNDLAND

A49

PRINCE EDWARD ISLAND INDUSTRY OUTPUT CHANGES (FIRST ROUND OF REGIONAL TRADE) $[I-A+\frac{1}{2}]^{-1} [I+\frac{1}{2}] \times \Delta$ EXPORTS (000's)		NEWFOUNDLAND INDUSTRY OUTPUT CHANGES (FIRST ROUND OF REGIONAL TRADE) $[I-A+\frac{1}{2}]^{-1} [I+\frac{1}{2}] \times \Delta$ EXPORTS (000's)	
INDUSTRY	OUTPUT CHANGE	INDUSTRY	OUTPUT CHANGE
AGRICULTURE	+25	AGRICULTURE	
FORESTRY		FORESTRY	
PRIMARY FISHING	+1	PRIMARY FISHING	-8
NONMETAL QUARRIES		METAL MINING	
MEAT, DAIRY, FRUIT	+22	NONMETAL, QUARRIES	
SECONDARY FISHING	+1	MEAT, DAIRY, FRUIT	
MISC. FOODS		SECONDARY FISHING	-22
S. DRINKS, MANUF.		MISC. FOODS	+2
TEXTILES, CLOTHING	+1	S. DRINKS, BREWERS	
SAWMILLS, WOOD PR.		TEXTILES, CLOTHING	-1
PAPER PRODUCTS		SAWMILLS, WOOD PR.	
PRINTING		PULP-PAPER PR.	
METAL FABRIC.		PRINTING	-1
MACH. & EQUIPT.		METAL FABRIC.	-1
BOAT & SHIP BLDG.		MACH. & EQUIPT.	
NONMET. MINERAL PR.		TRANSP. EQUIPT.	
FERT., PAINT, SOAP	+1	COMMUN. EQ. EL. WIRE	
MISC. MANUF.		NONMET. MINERAL PR.	
CONSTRUCTION	+2	PETROLEUM REF.	-5
TRANSP., TRAVEL, ENT.	+3	MISC. MANUF.	
COMMUNICATIONS		CONSTRUCTION	-1
E. POWER, WATER-GAS		TRANSP., TRAVEL, ENT.	-5
DISTRIBUTION	+5	COMMUNICATIONS	
AUTO OPERATION	+2	E. POWER, WATER-GAS	-1
FINANCE, R.E.	+2	DISTRIBUTION	-4
DWELLING SERVICES	+2	AUTO OPERATION	-1
HOTELS, REST.		FINANCE, R.E.	-1
PERSONAL SERVICES	+1	DWELLING SERVICES	-2
BUSINESS SERVICES		HOTELS, REST.	-1
HOUSEHOLD INCOME	+24	PERSONAL SERVICES	-1
		BUSINESS SERVICES	
		HOUSEHOLD INCOME	-23

APPENDIX 3
TABLE 1
NET OF CHANGES IN OUTPUT
NOVA SCOTIA

A50

	OUTPUT CHANGE DUE TO INITIAL INCREASE IN DEFENCE SPENDING (1969 000'S)	OUTPUT CHANGE ON FIRST ROUND OF TRADING (1969 000'S)	OUTPUT CHANGE ON SECOND ROUND OF TRADING (1969 000'S)	OUTPUT CHANGE ON THIRD ROUND OF TRADING (1969 000'S)	1 F 69 TOTAL (1969 000'S)	1 F 60 TOTAL (1960 000'S)
AGRICULTURE	+204	-29	-2		+173	+143
FORESTRY	+16	-10			+6	+5
PRIMARY FISHING	+7	-12			-5	-4
COAL MINING	+125	-3			+122	+104
NONMETAL, QUARRIES	+1				+1	+1
MEAT, DAIRY, FRUIT	+147	-21	-1		+125	+96
SECONDARY FISHING	+16	-28			-12	-8
MISC. FOODS	+92	-65	-38	-4	-15	-8
S.DRINKS, BREW	+50	-84	-7		-41	-31
TEXTILES, CLOTHING	+12	-36			-24	-21
SAWMILLS, WOOD PR.	+34	-44			-10	-8
PULP-PAPER & PR.	+9	-3	-1		+5	+4
PRINTING	+25	-2			+23	+21
IRON-STEEL MILLS	+6	-5			+1	+1
METAL FABRIC.	+12	-27			-15	-13
MACH. & EQUIPT.	+1				+1	+1
TRANSP. EQUIPT.	+12	-53			-41	-33
COMMUN EQ EL WIRE	+1				+1	+1
NONMET. MINERAL PR.	+2	-2				
PETROLEUM REF.	+90	-6	-1		+83	+75
FERT. PAINT, SOAP	+1	-12			-11	-10
MISC. MANUF.	+4	-1			+3	+3
CONSTRUCTION	+128	-11	-1		+116	+93
TRANSP. TRAVEL, ENT.	+371	-37	-5		+329	+275
COMMUNICATIONS	+74	-8	-1		+65	+61
E. POWER, WATER-GAS	+190	-8	-1		+181	+152
DISTRIBUTION	+613	-44	-5		+564	+564
AUTO OPERATION	+271	-16	-1		+254	+217
FINANCE, RE.	+152	-20	-2		+130	+104
DWELLING SERVICES	+396	-22	-2		+372	+277
HOTELS, REST.	+117	-7	-1		+109	+74
PERSONAL SERVICES	+216	-12	-1		+203	+130
BUSINESS SERVICES	+41	-8	-1		+32	+23
HOUSEHOLD INCOME	+4396	-238	-24	-2	+4132	

APPENDIX 3
TABLE 2
NET OF CHANGES IN OUTPUT
NEW BRUNSWICK

A51

	OUTPUT CHANGE ON FIRST ROUND OF TRADING (1969 000'S)	OUTPUT CHANGE ON SECOND ROUND OF TRADING (1969 000'S)	² F 69 TOTAL (1969 000'S)	² F 60 TOTAL (1960 000'S)
AGRICULTURE	-24	-5	-29	-24
FORESTRY	-8		-8	-6
PRIMARY FISHING	-3	-1	-4	-3
METAL MINING				
COAL MINING	-1		-1	-1
NONMETAL, QUARRIES	-7		-7	-6
MEAT, DAIRY, FRUIT	-10	-6	-16	-13
SECONDARY FISHING	-11	-2	-13	-9
MISC. FOODS	-466	-44	-510	-394
S. DRINKS, BREW.	-65	-2	-67	-52
TEXTILES, CLOTHING	+3	-16	-13	-13
SAWMILLS, WOOD PR.	-32	-2	-34	-27
PULP-PAPER & PR.	-13	-1	-14	-11
PRINTING	-36	-3	-39	-34
METAL FABRIC.	-7	-2	-9	-6
MACH. & EQUIPT.				
TRANSP. EQUIPT.	-1		-1	-1
APPL. MFG. EL. WIRE	+1		+1	+1
NONMET. MINERAL PR.	-10	-1	-11	-9
PETROLEUM REF.	+20	-2	+18	+16
FERT. PAINT, SOAP	-30	-9	-39	-35
MISC. MANUF.	-1		-1	-1
CONSTRUCTION	-11	-1	-12	-10
TRANSP. TRAVEL, ENT.	-66	-9	-75	-62
COMMUNICATIONS	-13	-1	-14	-13
E. POWER, WATER-GAS	-11	-1	-12	-10
DISTRIBUTION	-59	-7	-66	-66
AUTO OPERATION	-25	-3	-28	-24
FINANCE RE.	-22	-3	-25	-20
DWELLING SERVICES	-32	-3	-35	-26
HOTELS, REST.	-7		-7	-5
PERSONAL SERVICES	-14	-2	-16	-10
BUSINESS SERVICES	-13	-1	-14	-11
HOUSEHOLD INCOME	-253	-43	-296	

APPENDIX 3
TABLE 3
NET OF CHANGES IN OUTPUT
PRINCE EDWARD ISLAND

A52

	OUTPUT CHANGE DUE TO INITIAL DECREASE IN DEFENCE SPENDING (1969 000'S)	OUTPUT CHANGE ON FIRST ROUND OF TRADING (1969 000'S)	OUTPUT CHANGE ON SECOND ROUND OF TRADING (1969 000'S)	³ F 69 TOTAL (1969 000'S)	³ F 60 TOTAL (1960 000'S)
AGRICULTURE	-1180	+25	-4	-1159	-969
FORESTRY	-24			-24	-19
PRIMARY FISHING	-26	+1	-3	-28	-20
NONMETAL, QUARRIES	-3			-3	-3
MEAT, DAIRY, FRUIT	-937	+22	-3	-918	-709
SECONDARY FISHING	-49	+1	-3	-51	-36
MISC. FOODS	-183			-183	-141
S. DRINKS, MANUF.	-73			-73	-56
TEXTILES, CLOTHING	-43	+1	-2	-44	-40
SAWMILLS, WOOD PR.	-57			-57	-44
PAPER PRODUCTS					
PRINTING	-95			-95	-86
METAL FABRIC	-2			-2	-2
MACH. & EQUIPT.	-1			-1	-1
TRANSP. EQUIPT.	-6			-6	-5
NONMET. MINERAL PR.	-5			-5	-4
FERT. PAINT, SOAP	-59	+1		-58	-52
MISC. MANUF.	-15			-15	-13
CONSTRUCTION	-899	+2		-897	-720
TRANSP. TRAVEL, ENT.	-1096	+3		-1093	-913
COMMUNICATIONS	-226			-226	-211
E. POWER, WATER-GAS	-544			-544	-458
DISTRIBUTION	-2390	+5		-2385	-2385
AUTO OPERATION	-966	+2		-964	-823
FINANCE, R.E.	-915	+2		-913	-730
DWELLING SERVICES	-1188	+2		-1186	-882
HOTELS, REST.	-363			-363	-246
PERSONAL SERVICES	-778	+1		-777	-500
BUSINESS SERVICES	-241			-241	-178
HOUSEHOLD INCOME	-15699	+24	-8	-15683	

APPENDIX 3
TABLE 4
NET OF CHANGES IN OUTPUT
NEWFOUNDLAND

A53

	OUTPUT CHANGE ON FIRST ROUND OF TRADING (1969 000'S)	OUTPUT CHANGE ON SECOND ROUND OF TRADING (1969 000'S)	⁴ F 69 TOTAL (1969 000'S)	⁴ F 60 TOTAL (1960 000'S)
AGRICULTURE				
FORESTRY				
PRIMARY FISHING	-8	-1	-9	-7
METAL MINING				
NONMETAL, QUARRIES				
MEAT, DAIRY, FRUIT				
SECONDARY FISHING	-22	-1	-23	-24
MISC. FOODS	+2	-2		
S. DRINKS, BREW.				
TEXTILES, CLOTHING	-1		-1	-1
SAWMILLS, WOOD PR.				
PULP-PAPER				
PRINTING	-1		-1	-1
METAL FABRIC	-1		-1	-1
MACH. & EQUIPT				
TRANSP. EQUIPT.				
ELEC. WIRE, CABLE				
NONMET. MINERAL PR.				
PETROLEUM REF.	-5		-5	-5
MISC. MANUF.				
CONSTRUCTION	-1		-1	-1
TRANSP. TRAVEL, ENT.	-5		-5	-4
COMMUNICATIONS				
E. POWER, WATER-GAS	-1		-1	-1
DISTRIBUTION	-4		-4	-4
AUTO OPERATION	-1		-1	-1
FINANCE, R.E.	-1		-1	-1
DWELLING SERVICES	-2		-2	-1
HOTELS, REST.	-1		-1	-1
PERSONAL SERVICES	-1		-1	-1
BUSINESS SERVICES				
HOUSEHOLD INCOME	-23	-3	-26	

APPENDIX 3
TABLE 5
EMPLOYMENT VECTOR
NOVA SCOTIA AND NEW BRUNSWICK

A54

NOVA SCOTIA INDUSTRY	EMPLOYMENT VECTOR	NEW BRUNSWICK INDUSTRY	EMPLOYMENT VECTOR
AGRICULTURE	.046413	AGRICULTURE	.031016
FORESTRY	.167334	FORESTRY	.222521
PRIMARY FISHING	.221448	PRIMARY FISHING	.128238
COAL MINING	.181476	METAL MINING	.734349
NONMETAL, QUARRIES	.055081	COAL MINING	.100538
MEAT, DAIRY, FRUIT	.065704	NONMETAL, QUARRIES	.173269
SECONDARY FISHING	.070936	MEAT, DAIRY, FRUIT	.042358
MISC. FOODS	.074778	SECONDARY FISHING	.079683
S. DRINKS, BREW	.043903	MISC. FOODS	.038540
TEXTILES, CLOTHING	.126572	S. DRINKS, BREW.	.043176
SAWMILLS, WOOD PR.	.113186	TEXTILES, CLOTHING	.134154
PULP-PAPER & PR.	.060785	SAWMILLS, WOOD PR.	.094316
PRINTING	.113417	PULP-PAPER & PR.	.039905
IRON-STEEL MILLS	.065623	PRINTING	.135815
METAL FABRIC.	.073961	METAL FABRIC.	.073117
MACH. & EQUIPT.	.111466	MACH. & EQUIPT.	.112715
TRANSP. EQUIPT.	.128150	TRANSP. EQUIPT.	.119259
COMMON. EQ. EL. WIRE	.104478	APPL. MFG. EL. WIRE	.085725
NONMET. MINERAL PR.	.074081	NONMET. MINERAL PR.	.083022
PETROLEUM REF.	.006296	PETROLEUM REF.	.007430
FERT, PAINT, SOAP	.043341	FERT, PAINT, SOAP	.026249
MISC. MANUF.	.108989	MISC. MANUF.	.111444
CONSTRUCTION	.105687	CONSTRUCTION	.095964
TRANSP. TRAVEL, ENT.	.103293	TRANSP, TRAVEL, ENT.	.122280
COMMUNICATIONS	.135689	COMMUNICATIONS	.106248
E. POWER, WATER-GAS	.055292	E. POWER, WATER-GAS	.053286
DISTRIBUTION	.153440	DISTRIBUTION	.137483
AUTO OPERATION	.108755	AUTO OPERATION	.108823
FINANCE, R.E.	.067652	FINANCE, R.E.	.064869
DWELLING SERVICES	.002439	DWELLING SERVICES	.001933
HOTELS, REST.	.158276	HOTELS, REST.	.157670
PERSONAL SERVICES	.211165	PERSONAL SERVICES	.206561
BUSINESS SERVICES	.066413	BUSINESS SERVICES	.062504
HOUSEHOLD INCOME	.000000	HOUSEHOLD INCOME	.000000

APPENDIX 3
TABLE 6
EMPLOYMENT VECTOR
PRINCE EDWARD ISLAND AND NEWFOUNDLAND

A 55

PRINCE EDWARD ISLAND INDUSTRY	EMPLOYMENT VECTOR	NEWFOUNDLAND INDUSTRY	EMPLOYMENT VECTOR
AGRICULTURE	.032892	AGRICULTURE	.057463
FORESTRY	.097820	FORESTRY	.169711
PRIMARY FISHING	.172432	PRIMARY FISHING	.232173
QUARRIES	.179949	METAL MINING	.044712
MEAT, DAIRY, FRUIT	.035363	NONMETAL, QUARRIES	.104462
SECONDARY FISHING	.060265	MEAT, DAIRY, FRUIT	.068052
MISC. FOODS	.081595	SECONDARY FISHING	.109959
SOFT DRINKS, MANUF.	.066401	MISC. FOODS	.065686
TEXTILES, CLOTHING	.118901	S. DRINKS, BREW.	.041294
SAWMILLS, WOOD PR.	.128030	TEXTILES, CLOTHING	.158117
PAPER PRODUCTS	.062794	SAWMILLS, WOOD PR.	.124486
PRINTING	.154089	PULP-PAPER	.045114
METAL FABRIC.	.076336	PRINTING	.128927
MACH & EQUIPT.	.164634	METAL FABRIC	.092960
BOAT & SHIP BLDG.	.169707	MACH & EQUIPT.	.146622
NONMET. MINERAL PR.	.111940	TRANSP. EQUIPT.	.185857
PAINT, SOAP PR.	.020314	ELEC. WIRE, CABLE	.209302
MISC. MANUF.	.100386	NONMET. MINERAL PR.	.066590
CONSTRUCTION	.065169	PETROLEUM REF.	.039101
TRANSP. TRAVEL, ENT.	.122791	MISC. MANUF.	.144362
COMMUNICATIONS	.150527	CONSTRUCTION	.077438
E. POWFR, WATER-GAS	.071590	TRANSP. TRAVEL, ENT.	.118698
DISTRIBUTION	.154445	COMMUNICATIONS	.174466
AUTO OPERATION	.112048	E. POWER, WATER-GAS	.058624
FINANCE, R.E.	.060814	DISTRIBUTION	.148303
DWELLING SERVICES	.002876	AUTO OPERATION	.099829
HOTELS, REST.	.158228	FINANCE, R.E.	.032025
PERSONAL SERVICES	.256362	DWELLING SERVICES	.001686
BUSINESS SERVICES	.036020	HOTELS, REST.	.138991
HOUSEHOLD INCOME	.000000	PERSONAL SERVICES	.259269
		BUSINESS SERVICES	.035997
		HOUSEHOLD INCOME	.000000

APPENDIX 3
TABLE 7
CHANGES IN EMPLOYMENT
NOVA SCOTIA AND NEW BRUNSWICK

A56

NOVA SCOTIA INDUSTRY	EMPLOYMENT CHANGE	NEW BRUNSWICK INDUSTRY	EMPLOYMENT CHANGE
AGRICULTURE	+7	AGRICULTURE	-1
FORESTRY	+1	FORESTRY	-1
PRIMARY FISHING	-1	PRIMARY FISHING	
COAL MINING	+19	METAL MINING	
NONMETAL, QUARRIES		COAL MINING	
MEAT, DAIRY, FRUIT	+6	NONMETAL, QUARRIES	
SECONDARY FISHING	-1	MEAT, DAIRY, FRUIT	-1
MISC. FOODS	-1	SECONDARY FISHING	-1
S. DRINKS, BREW.	-1	MISC. FOODS	-15
TEXTILES, CLOTHING	-3	S. DRINKS, BREW.	-2
SAWMILLS, WOOD PR.	-1	TEXTILES, CLOTHING	-2
PULP-PAPER & PR.		SAWMILLS, WOOD PR.	-3
PRINTING	+2	PULP-PAPER & PR.	
IRON-STEEL MILLS		PRINTING	-5
METAL FABRIC.	-1	METAL FABRIC.	-1
MACH. & EQUIPT.		MACH. & EQUIPT.	
TRANSP. EQUIPT.	+4	TRANSP. EQUIPT.	
COMMON.EQ.EL.WIRE		APPL.MFG.EL.WIRE	
NONMET.MINERAL PR.		NONMET.MINERAL PR.	-1
PETROLEUM REF.		PETROLEUM REF.	
FERT, PAINT, SOAP		FERT, PAINT, SOAP	-1
MISC. MANUF.		MISC. MANUF.	
CONSTRUCTION	+10	CONSTRUCTION	-1
TRANSP, TRAVEL, ENT.	+28	TRANSP, TRAVEL, ENT.	-8
COMMUNICATIONS	+8	COMMUNICATIONS	-1
E.POWER, WATER-GAS	+8	E.POWER, WATER-GAS	-1
DISTRIBUTION	+87	DISTRIBUTION	-9
AUTO OPERATION	+24	AUTO OPERATION	-3
FINANCE, R.E.	+7	FINANCE, R.E.	-1
DWELLING SERVICES	+1	DWELLING SERVICES	
HOTELS, REST.	+12	HOTELS, REST.	-1
PERSONAL SERVICES	+27	PERSONAL SERVICES	-2
BUSINESS SERVICES	+2	BUSINESS SERVICES	-1
INTER-INDUSTRY CHANGE IN EMPLOYMENT	+236	TOTAL CHANGE IN NEW BRUNSWICK EMPLOYMENT	-62
FINAL DEMAND CHANGE IN EMPLOYMENT	+2		
TOTAL CHANGE IN NOVA SCOTIA EMPLOYMENT	+238		

APPENDIX 3
TABLE 8
CHANGES IN EMPLOYMENT
PRINCE EDWARD ISLAND AND NEWFOUNDLAND

A57

PRINCE EDWARD ISLAND INDUSTRY	EMPLOYMENT CHANGE	NEWFOUNDLAND INDUSTRY	EMPLOYMENT CHANGE
AGRICULTURE	-32	AGRICULTURE	-2
FORESTRY	-2	FORESTRY	
PRIMARY FISHING	-3	PRIMARY FISHING	-3
QUARRIES	-1	METAL MINING	
MEAT, DAIRY, FRUIT	-25	NONMETAL, QUARRIES	-1
SECONDARY FISHING	-2	MEAT, DAIRY, FRUIT	
MISC. FOODS	-12	SECONDARY FISHING	-1
SOFT DRINKS, MANUF.	-4	MISC. FOODS	
TEXTILES, CLOTHING	-5	S. DRINKS, BREW.	-1
SAWMILLS, WOOD PR.	-6	TEXTILES, CLOTHING	
PAPER PRODUCTS	-13	SAWMILLS, WOOD PR.	-1
PRINTING		PULP & PAPER	
METAL FABRIC.	-1	PRINTING	-1
MACH. & EQUIPT.		METAL FABRIC.	
BOAT & SHIP BLDG.	-1	MACH. & EQUIPT.	-1
NONMET. MINERAL PR.	-1	TRANSP. EQUIPT.	
PAINT, SOAP PR.		ELEC. WIRE, CABLE	-1
MISC. MANUF.	-1	NONMET. MINERAL PR.	
CONSTRUCTION	-47	PETROLEUM REF.	-1
TRANSP, TRAVEL, ENT.	-112	MISC. MANUF.	
COMMUNICATIONS	-32	CONSTRUCTION	-1
E. POWER, WATER-GAS	-33	TRANSP, TRAVEL, ENT.	
DISTRIBUTION	-368	COMMUNICATIONS	-1
AUTO OPERATION	-92	E. POWER, WATER-GAS	
FINANCE, R.E.	-44	DISTRIBUTION	-1
DWELLING SERVICES	-3	AUTO OPERATION	
HOTELS, REST.	-39	FINANCE, R.E.	-1
PERSONAL SERVICES	-128	DWELLING SERVICES	
BUSINESS SERVICES	-6	HOTELS, REST.	-1
		PERSONAL SERVICES	
		BUSINESS SERVICES	-1
INTER-INDUSTRY CHANGE IN EMPLOYMENT	-1012	TOTAL CHANGE IN NEWFOUNDLAND EMPLOYMENT	-6
FINAL DEMAND CHANGE IN EMPLOYMENT	-252		
TOTAL CHANGE IN PRINCE EDWARD ISLAND EMPLOYMENT	-1264		

APPENDIX 4

Abstract of The Effects on Output and Employment in the Atlantic Provinces Resulting From the Closure of Canadian Forces Base Summerside: An Application of Regional Input-Output Analysis.¹

In order to achieve economies in support staff the Canadian Armed Forces have favoured the closure of Canadian Forces Base Summerside, Prince Edward Island and moving operational units to Greenwood, Nova Scotia. The effect on output and employment in each of the Atlantic provinces of such a withdrawal of defence spending was investigated using a regional Input-Output table.

The industries most affected by the proposed reduction in defence expenditures are the foods and services industries, Travel, Transportation and Entertainment and Automobile Operation. In total, unemployment in Prince Edward Island could be expected to increase by 1,264 or 3.3 per cent of that province's 1969 labor force. The other Atlantic provinces experienced relatively minor changes in output and employment because of slender interregional flows of goods and services.

1 L. R. Kenward, master's thesis presented to the Department of Economics of the University of Ottawa, Ontario, August 1970.

If base Summerside were to close an economic support programme for Prince Edward Island should replace the defence spending. Such a programme should be labor intensive, concentrated in the Summerside area and not rely on fostering Prince Edward Island's export markets.