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DISCUSSION PAPER NO. 85

The Impact of Federal Regional Economic
Expansion Policies on the Distribution
of Income in Canada

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Table of Contents

Preface and Acknowledgments

The authors' combined interests in questions of regional economic expansion policies, and the distribution and redistribution of income in Canada led, through a set of exploratory discussions, to an earlier proposal to examine the distributive aspects of the expenditures of the Department of Regional Economic Expansion. The simultaneous interest of the Economic Council of Canada in questions of regional economic expansion and the active participation of the Regional and Urban Policy Analysis Centre located at Carleton University in a number of research projects for the Council combined to provide the impetus for the present investigation. We are especially grateful to N.H. Lithwick who provided valuable assistance throughout the study. We are also grateful to the Economic Council which provided financial support and encouragement to carry out such an investigation.

The purpose of this investigation is described in Part I. Briefly, we examine the net impact of regional economic expansion expenditures on the distribution of income across regions and among income classes in Canada. Given the current interest in questions of the costs and benefits of Quebec separating from Canada, we caution the reader that our discussion of Quebec is in the context of an analysis which examines one item of federal spending only - DREE spending and its financing. Consequently no valid conclusions can be drawn concerning even the limited question of how total federal spending redistributes income across Canada's regions. And, of course, total federal spending and taxing activities are only one of many factors that one would analyse in attempting a study of the costs and benefits to one province or region of Confederation. In fact we know of no theory or model that would even permit one to estimate the total-economic and non-economic-benefits and costs of Quebec separating from the rest of the country.

We presented our findings at a seminar held by the Economic Council on June 3, 1976, and benefitted from the following discussion. The study was completed by July 1976. We are grateful for the thoughtful comments of several readers of our July 1976 draft. Our final revisions and adjustments were completed by April 1977.

We benefitted from the generous input of many people throughout the study. We are indebted to Bob Lang who assisted us in the gathering of information on DREE programs. We are especially appreciative of the untiring efforts of our research assistant, Mary Zamparo, who had the unenviable task of reconciling the suggestions of two authors. Most of the detailed calculations of the Appendices is the result of her care and attention. We acknowledge, with thanks, the helpful critical comments of

The views expressed here are those of the authors and
should not be interpreted as those of the institutions in which
they are employed.

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Abstract

Considerable economic disparities exist among the regions in Canada and have persisted through long periods of time and through many changes in the economic structure and political fabric of the country. The federal government has attempted to reduce income inequalities among families and among regions by providing subsidy payments to the provinces, to firms and to families directly.

We report in this study on our examination of the composition of a specific set of regional programs - those of the Department of Regional Economic Expansion (DREE) which was specifically charged in 1969 with encouraging a reduction in such disparities and reducing the inequalities in the distribution of wealth across the country.

The focus in our investigation is on the composition of DREE expenditures and their impact on the distribution of income across regions and among families in Canada.

The functional breakdown of DREE expenditures which we derive for each of the five regions in Canada demonstrates that expenditures for road construction have been equal in magnitude to the much more highly publicized incentives program. These categories, together with other industrial assistance and with sewage systems and other infrastructure, account for 75 percent of total DREE expenditures.

Our estimation of the regional income redistribution effects of DREE expenditures demonstrates that only the Atlantic Region has been a net beneficiary. Contrary to popular belief, Quebec receives little or no net benefit. Quebec and probably the Atlantic region as well would be better off with increased equalization payments than with the existing DREE program. Only when it is assumed that almost all of the benefits of DREE expenditures remain within the region of the initial spending is the Atlantic region better off with the DREE program rather than increased equalization grants; Quebec would still be better off with increased equalization payments.

Our findings also demonstrate that the lower income classes in all regions benefit from DREE expenditures to a much lesser extent than would be expected from the objectives of federal regional economic expansion policy. Only in the Atlantic region do representative lower income family units receive significant net benefits from the DREE program, and even in that region they receive smaller net benefits than do representative family units in higher income classes. The redistributive effect of DREE expenditures at the all-Canada level is, in general, away from representative family units in the upper-middle and upper income classes to representative family units in the lowest and richest income classes. In all regions the poor would be better off with increases in federal transfer payments to persons (perhaps in the form of a guaranteed annual income) rather than the present DREE program.

Résumé

Les importantes disparités économiques qui existent entre les régions du Canada persistent depuis longtemps et, ce, en dépit des nombreuses modifications apportées à la structure économique et au tissu politique du pays. Le gouvernement fédéral a tenté de réduire les inégalités de revenu entre les familles et entre les régions en versant des subventions directes aux provinces, aux entreprises et aux familles.

Dans cette étude, nous présentons les résultats de notre examen de la composition d'un groupe particulier de programmes régionaux, en l'occurrence ceux du ministère de l'Expansion économique régionale (MEER) qui, en 1969, s'est vu confier la tâche de réduire ces disparités et de diminuer les inégalités dans la répartition de la richesse au pays.

Notre travail est axé principalement sur la composition des dépenses du MEER et leur impact sur la répartition du revenu entre les régions et les familles au Canada.

La répartition fonctionnelle des dépenses du MEER établie pour chacune des cinq régions du Canada montre que les dépenses pour la construction de routes ont été d'une importance égale à celles du programme de subventions qui a été l'objet d'une publicité beaucoup plus considérable. Ces deux catégories, ajoutées aux autres types d'aide industrielle et à l'aide financière ayant trait aux systèmes d'égouts et

aux autres travaux d'infrastructure, représentent 75 pour-
cent de l'ensemble des dépenses du MEER.

Notre estimation des effets des dépenses du MEER
sur la redistribution du revenu régional montre que la seule
véritable bénéficiaire a été la région de l'Atlantique. Con-
trairement à l'opinion générale, le Québec n'en tire à peu
près aucun avantage net. Un accroissement des paiements de
péréquation serait plus avantageux au Québec, et probablement
aussi à la région de l'Atlantique, que le programme actuel du
MEER. Ce n'est qu'en supposant que presque tous les avantages
des dépenses du MEER échoient à la région où les dépenses pre-
mières ont été effectuées que la région de l'Atlantique est
mieux servie par le programme du MEER que par des paiements
de péréquation accrus; le Québec serait encore plus avantagé
par une hausse de ces paiements.

Nos constatations démontrent également que dans
toutes les régions, les familles à faible revenu bénéficient
beaucoup moins des dépenses du MEER qu'on pourrait s'y attendre
eu égard aux objectifs de la politique fédérale d'expansion
économique régionale. Ce n'est que dans la région de l'Atlan-
tique que des familles à faible revenu tirent des bénéfices
nets appréciables du programme du MEER et, même dans cette
région, ces bénéfices nets sont considérablement moindres que
ceux des familles à revenu plus élevé. Au niveau national,
l'effet redistributif des dépenses du MEER défavorise géné-
ralement les unités familiales des catégories moyenne supé-
rieure et supérieure, mais favorise les unités familiales des
catégories de revenus les plus faibles et les plus élevés.

Dans toutes les régions, les pauvres seraient mieux servis
par un accroissement des paiements de transfert fédéraux
aux particuliers (peut-être sous forme d'un revenu annuel
garanti) que par l'actuel programme du MEER.

List of Tables

List of Charts

PART I

INTRODUCTION

> The policies and programs of my
> Department ... bear very directly
> on the hopes of many thousands of
> Canadians and their families. I
> have a responsibility to ensure
> that these hopes are not misplaced,
> Mr. Speaker, a continuing and
> pressing responsibility to seek an
> even stronger and more effective set
> of policies and programs -- so that,
> in time, the great inequalities in
> wealth and opportunity which have
> persisted in this country for so
> long will be greatly reduced.
>
> The Honourable Jean Marchand,
> DREE Minister (1972a: 2)

PART I

Introduction

Regional Economic Disparities

Considerable economic disparities exist among the regions in Canada and have persisted through long periods of time and through many changes in the economic structure and political fabric of the country. Whether one chooses as an indicator of economic disparity across the regions earned income per capita, personal income per capita (or per family unit), value added, labour force participation rate, unemployment rate, or the investment rate per capita, one observes differences across the provinces and among regions within the provinces that have persisted.

The federal government has attempted to reduce income inequalities among family units and among regions by providing subsidy payments to the provinces, to firms and to families directly. Transfer payments by the federal government to the provinces permit those provinces to spend the funds on public goods and services. Transfers to low income provinces permit a reduction in disparities among per family public service levels among regions and among families although they by no means guarantee it. Subsidies to encourage firms to alter their investment decisions in favour of low income

regions could in theory help reduce income disparities.
Transfer payments to families, such as old age security
pensions, guaranteed income supplements for the elderly,
unemployment insurance benefit payments and others,
also permit a reduction in disparities among per family
personal income levels among families and among regions.
A negative income tax could go further in attempting to
reduce income differences among families and among
regions.

Subsidies to firms have become an important component -
along with federal conditional shared-cost subsidies to
provinces to finance infrastructure, social adjustment,
and economic development - of an array of specific
'regional economic expansion' policies that have emerged,
especially during the past two decades in Canada. The
development of these 'regional economic expansion'
policies is well-documented.[1]

Economic disparities in Canada are well-documented
elsewhere.[2] The recent behaviour of two widely used
indices of economic disparity is shown in the accompanying
chart. It is readily apparent that both the Atlantic
region and Quebec have been consistently below the
national average in terms of both personal income per
capita and earned income per capita. Since the early
1960's, per capita personal income in the Atlantic region

PERSONAL & EARNED INCOME PER CAPITA
(CANADA= 100)

ONTARIO

WEST

QUÉBEC

ATLANTIC

PERSONAL ⎯⎯⎯⎯
EARNED ⎯ ⎯ ⎯ ⎯

1961   1965   1970   1975

120   110   100   90   80   70   60

has slowly but quite steadily improved relative to the national average. During the latter half of the 1960's earned income per capita in the Atlantic region also showed a relative improvement, a trend that did not continue in the 1970 to 1975 period. In Quebec, while personal income per capita has approached the national level since 1970, there has been no improvement in the relative position in terms of earned income per capita.

Despite the efforts of federal regional economic expansion policies aimed at stimulating economic activity in these two regions, per capita earned income in the two regions did not move any closer to the national average. Any improvement in the relative positions of these regions in terms of personal income per capita resulted from the effects of increased transfer payments to persons (DREE, 1976: 34; Economic Council of Canada, 1975: 21-41). Furthermore at least some of the earned income in those regions derived from the expenditure effects resulting from transfer payments to the families and governments of those regions.

Study Objectives and Outline

Whatever the criterion which is chosen to measure economic disparities it is invariably expressed as an average for the persons or families of the regions examined. There is a presumption underlying some federal policies that a reduction in the disparities

in average per capita personal income across the regions
will be matched by some reduction in the inequality of
the distribution of personal income across persons
(Marchand, 1972 and 1972a). The assumption that federal
regional economic expansion expenditures will alter the
distribution of income in favour of the lower income
classes has never been examined.

We consider that distribution questions are one important
dimension of any government action. To date, research in the
area of regional economic expansion has focused on questions
of allocation of resources, growth rates of income across
regions and the efficacy of policy instruments in contributing
to expansion in output per head.[3] In this study we focus
directly on the redistribution of income effects of the
policies of the federal Department of Regional Economic
Expansion (DREE).

In Part II we discuss the instruments of federal
regional economic expansion policy. We begin with those
instruments that existed prior to the formation of DREE
and follow up with those instruments which have been
used extensively by the Department. We then derive a
functional classification of DREE expenditures. The
efficacy of these instruments is discussed with primary
emphasis being placed upon capital incentive grants.

Part III includes a discussion of the conceptual and
methodological framework within which the distribution

questions are posed. After a brief discussion of the
theory of fiscal incidence we analyse the instruments
of the Department of Regional Economic Expansion in a
general equilibrium setting. We treat these instruments
as though they were a 'new program' introduced in 1969[4]
and derive the long-run equilibrium effects of the
program's instruments on relative factor and product
prices. These effects are then translated into income
changes by region and by size classes of income. Since
both sides of the budget must be estimated in order to
arrive at a true measure of the redistributive impact
of any program we next examine the incidence of the
financing of DREE programs.

In Part IV we present the empirical results. Part V
summarizes our conclusions and suggests several areas of
further research.

Part II

Examination of The Instruments of Regional

Economic Expansion Policy

Do not speak only of the incentives
because you have all the other instruments
we are trying to use at the same time:
the special areas and the corporations
that we have set up.

> The Honourable Jean Marchand,
> DREE Minister (1972b: 22)

With respect to the RDIA program, it tends
to overshadow the other activities of the
department in many respects, and I think
this is a bit regrettable. It gets most
of the publicity. Nevertheless, it is a
very worthwhile tool for development.

> The Honourable D.C. Jamieson,
> DREE Minister (1975: 14)

Now it seems to me that we have perhaps
gone a bit too far in the area of infra-
structure. The signing of the general
development agreements has opened up for
the department virtually unlimited
possibilities in this area. I now wonder
whether, after two years, it will not be
necessary to curtail our action in this
area somewhat and to come back a bit more
to the actual industrialization that
creates jobs. Infrastructure is a good
thing... but it is not enough. If jobs
are not created by means of industrializ-
ation, these infrastructures will not
serve their purpose to the fullest.

> The Honourable Marcel Lessard,
> DREE Minister (1975: 1)

PART II

Examination of the Instruments of Regional Economic
Expansion Policy

When it was established in 1969 the Department of
Regional Economic Expansion was presented as a bold
new instrument for combatting regional disparities in
Canada. Most of the activities performed under the
new DREE umbrella had, however, been underway in one
form or another prior to the Department's organization.
To a large extent, DREE was simply a repackaging of
existing programs.

Following its 1973 Program Review, DREE unveiled a
new "multi-dimensional approach" under the heading of
General Development Agreements (GDA's). Examination
of the expenditures under these agreements shows them
to be primarily on the same types of projects carried
out under the existing programs. In several cases,
agreements have simply extended the funding of projects
initiated under earlier programs. In other words,
federal regional development efforts exhibit a much
greater continuity through the years when they are viewed
at the detailed expenditure level rather than at the
program level. Prior to the formation of DREE, in DREE's
early years and at present, expenditures on industrial
incentives, roads, sewers and other infrastructure

have predominated.

DREE Programs

The Prairie Farm Rehabilitation Act (PRFA) was passed in 1935 to assist in the rehabilitation of farm lands in Manitoba, Saskatchewan and Alberta which had been severely damaged by drought and soil drifting. In addition to the promotion of improved conservation methods, the program encouraged land use adjustment, primarily through conversion of marginal land to PFRA-operated pastures. PFRA has been active in water conservation and management programs through individual farm dugout construction and large scale irrigation projects. Most recently, emphasis has been shifted to assisting the development of water and sewage services in selected agricultural service centres in the three provinces.

Under the Maritime Marshland Rehabilitation Act (MMRA), passed in 1948, assistance was given to the protection of about 100,000 acres of salt-water marshland in the provinces of Nova Scotia, New Brunswick and Prince Edward Island. This took the form of dyke rebuilding and related activities. As of September 1972, responsibility for this program has been turned over to the provinces. Engineering services developed under this Act were extended to cover such activities as land use and

watershed planning, surveying, soil conservation and hydrology.

The Agricultural Rehabilitation and Development Act (ARDA, later the Agricultural and Rural Development Act), became operational in 1961 in response to recognition of the high incidence of low incomes in rural areas. There have been three sets of agreements under this program, the most recent for a five-year period ending in 1975. Costs of projects agreed on under the program were shared equally by the provinces and the federal government. In the first set of agreements, most expenditures were directed to soil and water conservation and land use conversion. In the second set of agreements there was greater emphasis on human resource development through retraining and re-establishment of people affected by other ARDA activities. Through regular and special ARDA programs assistance has been provided to projects intended to help native people. ARDA III continued the types of activities supported under the earlier agreements and it is now winding down.

The Atlantic Development Board (ADB) was created in 1962 to advise the Minister of Transport on the formulation of a comprehensive and systematic approach to regional development for the Atlantic Provinces. In 1963, the ADB became responsible for administering a development fund for the Atlantic Provinces. The projects supported were

primarily large infrastructure investments. The ADB

was disbanded following the creation of DREE, although

expenditures on outstanding commitments continued.

The Area Development Agency (ADA) was set up in 1963

to induce industry to locate in areas of chronic high

unemployment or underdevelopment. Until 1965, the ADA

administered an incentive program consisting of three

year income tax holidays and accelerated depreciation

allowances for firms locating in designated areas.

Beginning in 1965, when the Area Development Incentives

Act (ADIA) was introduced, firms had the option of

receiving capital grants on a specified sliding scale

based on capital cost instead of the tax holiday. In

1967 the tax holiday option was removed. Although the

Act itself would have allowed discretion in the awarding

of incentives, in practice ADIA was administered on a

non-discretionary basis. Qualifying firms automatically

received the maximum allowable incentive which was

based on a sliding percentage of capital costs. No

grant was to exceed $5,000,000. ADIA was discontinued

after the introduction of the Regional Development

Incentives Program (RDIA). While the cost of ADIA plus

the pre-1965 tax concessions is known to have been in

the hundreds of millions of dollars, a precise accounting

has never been published.

The ADIA program has been replaced by RDIA grants,

but commitments entered into prior to December 31, 1969

were still being honoured through 1973 and later
(DREE, 1973a: 20; and DREE, 1973). By 1973, however,
the bulk of capital incentive grants were RDIA grants,
provided in designated regions under terms of the Act
and in Special Areas.

The Regional Development Incentives Act came into
effect in 1969 following the establishment of DREE. The
objective of the program was to stimulate expansion of
manufacturing industry in designated regions of Canada.
The specific regions enjoying such designation have varied
somewhat during the period of RDIA operation. The
designated areas now include all of the Atlantic provinces,
Manitoba and Saskatchewan, most of Quebec (except for
the Montreal-Hull corridor) and a large part of Northern
Ontario. Parts of Alberta and British Columbia and
also the Montreal-Hull corridor had previously been
eligible for RDIA assistance. Incentive assistance could,
however, still be provided to these and other undesignated
areas under the General Development Agreements with the
respective provinces.

RDIA assistance took the form of grants to firms
starting a new manufacturing or processing operation
or expanding or modernizing an existing one. Depending
on the type of project and the period in which the grant
application was made, grant offers were based on a

percentage of capital costs and a specified amount per
direct new job created (later changed to a percentage
of the salary bill). Up to 80 percent of the incentive
is paid once the facility is in commercial production,
with the remainder being paid after a specified performance
period.

The establishment of the Fund for Rural Economic
Development (FRED) in 1966 was a significant step in
the direction of comprehensive development programming.
Agreements were signed with Prince Edward Island (covering
the whole province), New Brunswick (for the Mactaquac
and Northeast New Brunswick areas), Quebec (covering
the Gaspé), and Manitoba (for the Interlake area). Land
management, education, infrastructure investment and
industrial development especially in the traditional
primary sector, tourism and manufacturing were the major
activities funded. Each of the programs was tailored
to needs specifically identified in each of the agreement
areas.

Newstart and the Newfoundland Resettlement Program
were begun prior to DREE and then phased out by the
Department. Newstart was aimed at "preparing the
disadvantaged for useful employment" (DREE, 1973a: 46).
The Newfoundland Resettlement Program provided cash
grants to persons in outport communities which were
considered non-viable in order to permit such persons
to move to selected growth centres (Copes, 1972: 98).

The Special Areas infrastructure program, introduced
in 1969, has been geared to enhancing certain selected
areas as sites for future private investment expansion
(DREE, 1973a: 27). To this end, federal-provincial
development agreements are negotiated and federal
expenditures are made on: municipal services such
as water and sewer systems, transportation facilities,
schools, social development (manpower services, libraries,
housing and urban renewal), land acquisition and economic
development (industrial parks, service facilities to
industry and recreation and tourist developments). The
coverage of projects within the Special Areas is extremely
broad, encompassing almost all types of municipal public
services. The infrastructure expenditures are heavily
weighted in favour of roads, with expenditures on
municipal services such as water and sewer systems
ranking second in importance (APEC, 1971: 26-36, and
Appendix Tables C-4 through C-8).

The highways expenditures outside the Special Areas
are restricted to the Atlantic region and are a combination
of commitments for infrastructure and trunk highways
carried over from the Atlantic Development Board, and
new highway programs launched by DREE in the early 1970's.
These highway expenditures accounted for 30 per cent of
total expenditures of infrastructure assistance over

the early 1970's (DREE 1973a: 29).

DREE's review of its programs in 1973 argued that:

> "most of them were producing useful results
> at reasonable cost and should therefore be
> continued. However it also made clear that
> these existing programmes, each of which
> attacked primarily a single factor in the
> total problem of regional disparities, were
> not in themselves sufficient to enable full
> realization of development opportunities
> identified in the various regions" (DREE, 1973c).

DREE concluded that a new "multi-dimensional approach"
was required.

The response was to announce a new policy approach
embodied in a series of General Development Agreements (GDA)
and subsidiary agreements. Each GDA defines objectives,
a broad strategy to achieve them, the extent of the
activity and the types of co-operation and support that
will be required. The details of projects to be carried
out under these umbrella agreements are described in
various subsidiary agreements. GDA's have been signed
with all provinces except Prince Edward Island which
is covered by a comprehensive FRED plan.

Examination of the content of the various subsidiary
agreements signed to the end of 1974-75 shows that the
new multidimensional approach is more a cosmetic than a
real change from previous practice.[1] Most of the
expenditures covered by subsidiary agreements do not
differ from the sorts of projects carried out under

previously existing DREE programs. Some are in fact
continuations of projects begun under Special Areas
agreements or other programs. (For example, the
$10 million highways agreement signed with New Brunswick
in June, 1974, was primarily a continuation of work
begun under previous federal-provincial Special
Highways Agreements; similarly, the King's Landing GDA
agreement represented a continuation of work begun under
the FRED Mactaquac Agreement [Federal-Provincial Relations
Office, 1975: 295, 288]).

Functional Breakdown of DREE Expenditures

A functional classification of DREE expenditures is
considerably more illuminating than the program classification
provided in departmental publications (Appendix Table C-1).
The classification of expenditures utilized by DREE in
various publications provides little information on the
composition of these expenditures. Frequent changes
in classifications used in the Estimates and a
reduction in the information provided in the Department's
annual reports make the task of producing a meaningful
expenditure breakdown extremely difficult.

Based on our examination of DREE programs we concluded
that the most useful functional classification of DREE
instruments would group expenditures according to the

following categories: industrial incentive grants and
other industrial assistance, roads, sewers and other
infrastructure, agricultural assistance, manpower and
other social assistance, education, and developmental
planning and administration.

The industrial incentive grants category includes
payments under both ADIA and RDIA. Expenditures on
roads occur as part of almost every program (Special
Areas infrastructure, highways outside Special Areas,
FRED, PFRA and GDA). Expenditures on other infra-
structure such as sewage and water systems occur under
Special Areas agreements, FRED, PFRA, ARDA and GDA.
Expenditures on agricultural assistance, manpower and
other social assistance have been made under Special
Areas agreements, FRED, ARDA, Newstart, PFRA and GDA.
Finally, the expenditures on development planning, and
administration of the projects are less directly linked
to any one of the above-named functional categories
and are more in the nature of a general expenditure that
arises in the overall federal planning of regional
economic policy.

We have concentrated on the functional disaggregation
of grants and contributions since they account for 87 percent
of DREE budgetary expenditures. The functional breakdown
by region of DREE grants and contributions from the

establishment of the Department to March 31, 1975
is provided in Table 2.1.

We found it necessary to estimate this breakdown
using a variety of published sources.[2] (The methodology
of estimation is described in Appendix C). We are
confident that the resulting functional breakdown is
an accurate representation of the grants and contri-
butions made by DREE.

Particularly striking is the discovery that four
expenditure categories account for 75 percent of all
grants and contributions: incentives 30 percent,
other industrial assistance 9 percent, roads 30 percent,
and sewage and other infrastructure systems 6 percent.
The incidence of benefits from the DREE program as a
whole will thus depend primarily on the incidence of
these four categories of expenditure.

Evaluations of regional development programs in
Canada have focussed to a great extent on the RDIA
program. As we have seen above, industrial incentive
grants under RDIA and ADIA have been a major DREE
instrument, accounting for 30 percent of all grants and
contributions made by the Department during its first
six years. Although DREE expenditures for road
construction have equalled the incentive grants programs
in magnitude, there is almost no information available

TABLE 2.1

DREE Expenditures, by Function, for Regions and Canada

1969-70 to 1974-75,[1] millions of dollars

Functional Classification	Region					Canada Total	Canada Percentage
	Atlantic	Quebec	Ontario	Prairies	B. C.		
Incentive grants	144.1	164.7	53.1	77.0	21.8	460.7	30
Other industrial assistance[2]	53.8	87.9	8.3	1.4	–	151.4	9
Roads and highways	272.3	173.7	0.6	14.1	2.5	463.2	30
Sewers and other infrastructure[3]	53.6	36.9	4.1	0.9	–	96.5	6
Social assistance[4]	34.4	22.9	2.2	16.5	1.2	77.2	5
Manpower[5]	6.1	–	–	19.6	–	25.7	2
Agriculture	24.2	16.4	26.9	53.5	7.6	128.6	8
Education	45.9	0.4	–	1.3	–	47.6	3
Planning and administration	42.2	17.5	–	0.8	0.4	60.9	3
Other	38.1	2.5	1.8	5.5	–	47.9	3
TOTAL EXPENDITURES	714.7	522.9	96.9	190.6	33.5	1558.6	100
Percentage Distribution	46	34	6	12	2	100	

1. Functional classification for grants and contributions which account for 87 percent of DREE budgetary expenditures.
2. Other industrial assistance also includes: tourist-related industrial assistance.
3. includes sewers, water, power and industrial parks.
4. includes health, social assistance, housing and native people.
5. includes adult education and manpower assistance.

Source: Appendix Table C-3

on the impact of this spending. With few exceptions,
this is also true of the remainder of DREE programs.
DREE is not unique in this respect. Few federal
departments make available information that would
permit outside evaluation of their programs.

It is worth noting the explanation of this lack of
analysis that has been provided recently by the deputy
minister of DREE:

> "This program [RDIA] seems to have attracted
> more specific interest from the academic
> community than all of the other DREE activities
> put together - in spite of the fact that it
> currently accounts for less than 20 percent
> of our program expenditures. The explanation
> may be in the fact that, for some people at
> least, incentives to industry are inherently
> dangerous or just plain bad. Or it may be in
> the fact that the Minister is required by
> statute to make known to Parliament certain
> details about each action taken under the
> program, which means that a good deal of
> information is publicly available. To some
> extent, the information lends itself to
> quantitative examination. And, if economists
> have one basic failing, it is a tendency to
> focus on things that can be described by
> numbers"

(Love, 1975: 25)

Due to the absence of empirical evaluations of other
DREE expenditures, the discussion which follows concentrates
primarily on RDIA. The functional breakdown of DREE
expenditures that we have derived in this study can be
used to identify other major categories of spending whose
impact should be studied. Investigation of the effectiveness
of DREE expenditures on roads, sewers and other infra-

structure should receive the highest priority.

Efficacy of DREE Instruments

In this section we discuss available evidence on the effectiveness of various DREE programs. This exercise provides a guide for determining the extent to which DREE expenditures may be captured as windfall gains by various groups. It also assists with the determination of appropriate distributive series which is carried out in Part III.

Empirical evaluations of regional development policies outside Canada have concentrated on the extent to which an instrument of regional economic policy has been effective in influencing the location decision of firms; the results have supported the conclusion that such incentives have not been a primary factor in most firms' decisions about plant location, but have been a strong secondary factor in a small number of cases (Bridges, 1965 and 1965a; Gold, 1966; Hale, 1968 and 1969; and Stober and Falk, 1969).

Incentive Grants:
A Measure of Job and Capital Incrementality

It is extremely unlikely that of all jobs associated with RDIA - supported projects some would not have been

created in the absence of incentive grants (DREE, 1973: 38; Usher, 1975: 564-65). Job incrementality is the extent to which such grants are effective in calling forth new jobs.[3]

There have been very few published empirical investigations into the efficacy of DREE's capital incentive grants (APEC, 1971; Springate, 1972 and 1973; DREE, 1973; and Usher, 1975).[4] The Atlantic Provinces Economic Council in its Fifth Annual Review (APEC, 1971: 68-72) presented the findings of a mail survey of firms that had accepted capital incentive grants from DREE. Firms outside the Atlantic region were queried as to grants for new plant construction only, while firms receiving grants for projects inside the Atlantic region were queried as to all grants. Approximately 20 per cent of replying firms indicated that their capital projects would have proceeded in the absence of a grant. Of the remaining firms, the questionnaire was not sufficiently discriminating to determine the minimum size of grant that made operation a financial possibility; consequently somewhat less than 80 per cent of grants were effective in calling into place additional investment. Unfortunately the study was not able to determine the locational options open to the firms (DREE, 1973: 42).

Springate examined the business investment decisions of a sample of firms receiving incentive grants from DREE

during the period from DREE's creation to September 1971
(Springate, 1972 and 1973). Senior-level executives
responsible for investment decisions of the firm were
interviewed. They were questioned about how their firms
had reached the decision to build a new plant or expand
a facility and the extent to which the availability of
an incentive grant had influenced the location, timing
or size of the project. Springate found that, for the
limited sample of firms, the overall effectiveness of
incentive grants - the location, timing, size and
investment amount - ranged from 30 per cent for large
firms to 46 per cent for smaller firms (Springate,
1972: 155, 222-223, 285).

The location effect - the extent to which the grant
facilitated or caused the firm to select a location in a
designated region - was extremely small for large firms
(serving mostly to attract foreign investment to Canada)
and not much more substantial for small firms (in several
cases moving the location of the facility less than
seventy miles in order to qualify for the grant). In
large part this seemed to result from the firms' location
choice process: large firms considered many sites before
narrowing the range in terms of the most profitable; it
was only if these few preferred sites were thought to
be located where incentive grants were available that

the firm would seek out details of the available grants
(Springate, 1973: 33). Small firms, on the other hand,
considered first the existing plant location as a
possible site, and only if it were not suitable did
they look at other sites - usually only one or two
others not too far removed from the existing plant. In
such circumstances the firm considered the availability
of an incentive grant as an integral part of the location
choice decision (Springate, 1972: 229). Finally, for
the firms examined the grant had no effect in speeding
up the timing of the investment, although it had a
modest effect in augmenting the size of the facility
for small firms (Springate, 1972: 186, 275 and
1973: 40).

The Springate findings have come under critical
scrutiny because of the methodology of relying upon
unstructured subjective interviews and because of the
difficulty of discerning biased information given in
such interviews (DREE, 1973: 45). The Springate
methodology, if it were adhered to rigidly, was not
unstructured, although there were clearly situations
in which the judgement of senior level executives was
relied upon; it is not clear whether this would tend
to overvalue or undervalue the importance of incentive
grants in the location choice decision. It is possible

that any approach that relies upon extracting information from persons by discussion, and interview, or mail survey runs the risk of receiving biased information.

The Springate findings are based on a sample of thirty-one firms, recipients of grants as of September 31, 1971. Some may view this as too small a group of firms from which to draw general conclusions about efficacy of grants; we consider that it is necessary to be cautious about the weight to be attached to the findings. In addition it is possible that the early stage of development of DREE grants (and possibly limited information) at the time of the study reduced the number of firms that would have considered such grants as an integral part of the location choice decisions right from the beginning of the search - at least for small firms. It is difficult to judge whether this is a substantial reservation, especially in view of the fact that ADIA grants preceded the RDIA grants by a number of years, thereby providing extensive information on the existence of this type of grant.

The Department of Regional Economic Expansion carried out an analysis of incrementality - the extent to which jobs and capital investment would not have been put into place in the absence of a grant - in order to determine the efficacy of the grants (DREE, 1973).

The first stage of DREE's analysis attempted to determine the incidence of RDIA projects in which the firm has a choice of location. A sample of projects was chosen in an unspecified manner and the following criterion was applied to determine the existence of a location option. If the project involved natural resources and if less than two-thirds of production were for sale outside the region, the firm had no location option. If the project involved no use of natural resources or if it involved use of natural resources and more than two-thirds of production were for sale outside the region, then the firm had a location option.

The second stage involved relying upon the classification by DREE provincial offices of incentive grants according to whether they were believed to have had location effects, size effects, timing effects and viability threshold effects.

The projects of any firms classified as having a location option were assumed to be 100 per cent incremental to the region. It was assumed that 20 per cent of the jobs associated with size and timing effects were incremental while two-thirds of the jobs associated with viability threshold effects were incremental. The outcome of the analysis is shown in Table 2.2. DREE concluded that RDIA incentive grants were 70 per cent incremental with respect to jobs (DREE, 1973: 40, 41, 45).[5]

Table 2.2

DREE Determination of Job Incrementality

Effect	Percentage of Jobs Subject to each effect	Incrementality Weighting	Contribution of effect to total incrementality
location option	46.0	1.00	46.0
size changes	8.5	.20	1.7
timing changes	8.5	.20	1.7
timing and size change	8.5	.20	1.7
viability	28.5	.67	19.1
	100.0		70.2

Source: adapted from DREE, 1973:   40-42

As a result of the 1973 program review DREE concluded:

> "that the program was basically sound and
> was serving a useful purpose in the slow-
> growth areas of the country. I must say
> that, in the several academic pieces written
> on the subject, I have not seen convincing
> evidence to the contrary. Nor have I seen
> much evidence that the Departmental assess-
> ment report to which I have referred has
> been read" (Love, 1975:   26).

What can one conclude from these three studies? The
APEC findings suffer from a lack of discriminating questions
and analysis that could have probed efficacy more carefully.
The Springate findings are drawn from a very small sample,
although they do have the merit of being derived from the
investment decision-making process of the firms involved.

DREE's evaluation suffers from incorrect or arbitrary
assumptions, and an approach that lacks a specific
theoretical framework. The grants are found to be
effective from a low of 30 per cent (Springate) to a
high of 80 per cent (APEC). We reject the 70-80 per
cent effectiveness measures of DREE and APEC respectively
for reasons given above. We are also hesitant to
accept the Springate results because of the size of his
sample. In the following discussion we derive the
estimate of incrementality which will be used in this
study to help determine the distribution of RDIA
benefits. We begin with a discussion of some of the
shortcomings of the approach used by DREE to determine
incrementality.

DREE acknowledged the difficulty of evaluating
incrementality and of testing the assumption that existence
of a defined location option demonstrates an incremental
impact. These inherent difficulties are, in our view,
exacerbated by some parts of the methodology adopted
by DREE.

The criterion for determining the existence of a
location option through consideration of natural resource
and market factors is derived by assumption rather than
from any stated theoretical framework. Further, the
regions utilized to categorize market sales are left
undefined. The equating of a location option, however

derived, with complete incrementality is difficult
to accept. One would expect that some firms with several
location options would have chosen the designated region
even in the absence of a grant. The impact of DREE's
assumption is to bias the result by weighting all
projects with any location option as completely incremental.

These considerations led us to reduce the incrementality
weighting of cases with location options to 50 per cent
(ie, half the value assigned by DREE). This is the
sole adjustment to the DREE figures which is embodied
in the incrementality estimate which we used as our
standard working hypothesis. This adjustment alone
produces an estimate of total job incrementality of
48 per cent (compared to DREE's 70 per cent: see
Table 2.2). For the reasons set out below we believe
that this is a very conservative adjustment and that
the true incrementality figure is much less than 48 per cent.

This estimate of incrementality does not take into
account the possibility that even when a grant has an
incremental effect, the size of the grant may be larger
than would have been necessary to achieve that incremental
effect. For example, if the grants paid could have
been, on average, one third smaller and still have
achieved the same incremental effect, the non-incremental
proportion of grant monies paid would be about two-thirds.

In other words, if the objective of RDIA grants is to create incremental effects on jobs and investment, it is possible that one third or less of the amounts paid out have had genuinely incremental effects. This estimate is consistent with Springate's findings referred to earlier.

One additional factor which is not built into this estimate of incrementality is the "crowding-out" effect. If RDIA-supported projects cause reductions in investment and employment levels realized by firms not receiving DREE grants, then these reductions should be reflected in the net incrementality estimate. Such reductions could come about as a result of competition for limited resources (eg. fish stocks) or limited markets.

Furthermore, the sample of subsidized projects which DREE selected to determine the extent of the locational effect was not a representative one. Although it consisted of only one quarter of total net accepted offers these represented over half the total incentive commitments and expected jobs (DREE, 1973, 40). Thus the cases studied for locational effects were probably at least twice as large as the average RDIA project. If, as DREE argued, there was no evidence of location options for small projects (grants less than $50,000), and the incidence of locational options was greatest amongst the

cases receiving grants in excess of $500,000, the
sample's bias towards larger projects would produce an
estimate of incrementality due to location effects that
would be too high.

The determination of size, timing and viability
threshold effects by provincial offices is at best an
imprecise, subjective affair and quite possibly misleading,
without some idea of the datum on which such a selection
was made. In addition, even if a project were advanced
in time due to an incentive grant, the jobs created,
while beneficial to some workers in the short run, would
have been created anyway. The 20 per cent incremental
factor was assigned by DREE in an apparently arbitrary
fashion. There is also no theoretical substantiation
of the two-thirds fraction of incremental jobs due to
viability threshold effects.

One conclusion that follows out of this discussion
is that it is extraordinarily difficult to quantify the
genuine "incremental" jobs and capital investment attributable
to government-assistance programs. It is a difficulty
that faces regional-policy makers everywhere:

> "If a firm is to set up a branch in an area
> where it knows the government is ready to offer
> incentives, but that these incentives are
> available only to firms who would not
> otherwise have gone there, it is unlikely
> to present itself as other than a reluctant
> mover. In the same way, if incentives are

>available only for "additional" expansions,
>as for example, where a multi-branch national
>firm is encouraged to expand a branch in an
>assisted area rather than elsewhere, the
>expansion will be presented as "additional",
>and no government will find it easy to prove
>what the firm proposes is not undertaken
>for the reasons that it says" (EFTA, 1971: 95).

Our earlier stated belief that the 48 per cent incrementality figure used in this study is probably too high is also supported by the following analysis of investment levels.

Another approach to determining the probable job creation impact of incentive grants would be to examine aggregate investment and employment levels before and after the introduction of such grants. This approach was attempted in the 1973 DREE program review; however the claims for investment generation and job creation made by DREE are greater than would be justified by the statistical evidence. Examination of DREE's methodology reveals a peculiar logic.

Regression analysis was employed to determine the level of manufacturing investment in the Atlantic region, Quebec, Manitoba and Saskatchewan that would have been expected based on historic shares of national investment. Actual investment during the first three full years of RDIA activity was then compared to the "expected" value.

When investment in the Atlantic Region was found to be higher than predicted, DREE concluded that "it is reasonable to assume that the RDIA program made a substantial contribution" (DREE, 1973: 48). On the other hand, when manufacturing investment in Quebec was found to be less than predicted based on historical relationships, DREE argued, "It seems reasonable... to conclude from the estimates that, without the program, the province would have suffered from a more serious investment slump and would have been slower in showing signs of recovery" (DREE, 1973: 50). Similarly, when actual manufacturing investment in Manitoba and Saskatchewan fell short of expectations, DREE concluded that "although not insignificant, RDIA investment... was not sufficient to reverse a declining trend" (DREE, 1973: 52). We have serious reservations about this interpretation of the empirical results.

In the case of Quebec, DREE estimated that RDIA-supported investment in 1972 was $332.2 million. Total manufacturing investment in Quebec in that year was $665.8 million (DREE, 1973: 51). If we were to accept the 79.7 per cent incrementality figure claimed by DREE with respect to investment, DREE is in effect arguing that without the RDIA program, manufacturing investment in Quebec in 1972 would have been $400.7 million

At this level, Quebec's share of total Canadian manufacturing investment would have been 13.4 per cent. This contrasts with Quebec's shares of 22.6 per cent and 23.5 per cent in the previous 5 and 10 year periods respectively. The share actually observed in 1972 of 22.2 per cent, would seem to be quite consistent with the historical averages. Without any evidence from DREE as to why Quebec manufacturing investment would in the absence of RDIA, have been two-fifths lower than the actual figure, it is difficult to accept the claim of 79.8 per cent incrementality.[6]

Usher advances a similar argument (Usher, 1975). However, his case is marred by his use of the "expected eligible capital cost" figures from DREE (1973: 16) rather than the annual "estimated RDIA-supported investment" data provided by DREE (1973: 49, 51 and 53). Only 43 per cent of the projects with net accepted offers as of the end of 1972 had actually commenced production, so it is unreasonable to assign, as Usher did, all of the "expected investment" to the pre-December 1972 period. Similarly, Usher's treatment of employment creation uses "expected" rather than actual numbers for RDIA job creation. Since DREE has only rarely provided data on the number of actual jobs created, it is difficult to estimate to what extent the Usher

results are biased. At any rate, even if more appropriate figures for DREE job creation claims could have been used, we think that the conclusions that can be drawn from Usher's analysis would remain valid. Available evidence on employment growth is inconsistent with DREE's claims of incremental job creation.

The DREE estimates of investment creation in Manitoba and Saskatchewan are similarly open to question. Actual eligible investment in the two provinces in 1971 and 1972 was only 79 per cent of the level predicted on the basis of the two provinces' historical share of national investment. If one were to use the 79.8 per cent investment incrementality figure, it would imply that manufacturing investment in the categories eligible for RDIA support was on average 60.7 per cent higher than it would have been in the absence of RDIA incentive grants. This is the basis of the conclusion that the incentives program "helped materially in...offsetting a lagging manufacturing investment in the Prairies" (DREE, 1973: 54). In the absence of supporting evidence the incremental investment impact claimed by DREE stretches the limits of credibility.[7] Even though some projects may have gone ahead with RDIA support that would not otherwise have done so, they may have displaced other investment.

The investment data provided in (DREE, 1973) for
the Atlantic region are also open to question because
although an increase over the historic shares is shown,
the data include large increases in investment in oil
refineries, a linerboard mill and other projects not
supported by RDIA grants (DREE, 1973: 48). If these
particular categories of investment were eliminated
from consideration, it is no longer apparent that the
data would unequivocally support DREE's conclusions
regarding investment stimulation.

In summary, based on the aggregate indicator
approach it is possible that none of the amounts paid
out have had genuinely incremental effects.

To the extent that RDIA grants are without
incremental effects they represent windfall gains to
the owners of the firms in receipt of the grants.
Where there is a location or a viability effect, the
gain to the owner of the firm is the increased rate of
return received due to the grant change. We are led
to conclude that DREE's incrementality estimates for
labour and capital are overestimates. It is most
unlikely that true incrementality amounts to more than
48 per cent, and it possible that it is as low as zero.
We have decided to select, for purposes of our standard
case in the empirical estimation of Part IV, an

incrementality estimate of 48 per cent, although
we think this is too high. We also examine the results
employing incrementality estimates ranging from
completely effective to one-third effective.

Other Programs

The literature on the efficacy of regional development
programs other than capital incentive grants is even
more limited than the literature on capital incentive
grants. The Atlantic Provinces Economic Council expressed
the view that the ADB "was not successful in establishing
a development plan that would coordinate [infrastructure]
expenditures toward specified targets" (APEC, 1971: 13).

In connection with the Newstart undertakings, many
of which were quite innovative, evaluation of the life
skills course showed that students developed greater
self-confidence and ability to discuss their problems.
However, Newstart activities demonstrated the extreme
difficulty of providing successful academic upgrading
to disadvantaged adults. The Newstart corporations
found that the jobs created by industrial and regional
development plans were not filled by the poor of the
development areas, "unless significant efforts are made
to motivate, train, place, counsel and sustain such
people in their preparation, entry and adjustment to
the work environment" (Saskatchewan Newstart, 1971: 10
as quoted in Kerr and Tienhaara, 1973).

Copes judged the Newfoundland Resettlement Program to be a mixed success (Copes, 1972). The employment opportunities were enhanced somewhat while over the longer term the fishing industry was to be rationalized. However, counselling services were judged less than adequate and the limitation of assistance to intra-provincial migration inhibited the success of the program (Copes, 1972: 170).

One of the few public evaluations of PFRA, MMRA and ARDA was provided by Buckley and Tihanyi, (1967). Despite the fact that their findings derive from the experience of the pre-DREE period, it appears likely that they would also apply to the bulk of the DREE expenditures on these programs. It is not clear whether any changes initiated in these programs since 1967 would alter substantively the findings of Buckley and Tihanyi.

They found that the early PFRA programs were highly effective in halting soil destruction and in improving farming methods. They concluded, however, that grain farmers received little income benefit although some improvement in non-monetary benefits (i.e., lawns, gardens and recreation) and municipal water supplies were enjoyed. They found that,

> "the income added through PFRA programs has been widely distributed among farmers but in relatively small amounts in most cases. There have been gains for larger operators

as well as small.......The fact is, the
smaller farmer has been in a weak position
to reap the benefits of PFRA programs because
his resources are few" (Buckley and Tihanyi,
1967: 11) .

Buckley and Tihanyi found "no evidence that the now

completed MMRA program has resulted in extensions to

marshland agriculture or in more intensive utilization

of the protected land," (Buckley and Tihanyi, 1967: 15).

They further concluded that the program had failed to

produce significant additions to farm income.

PFRA and MMRA were patterns for the initiatives

undertaken by ARDA, particularly in the early agreements

which concentrated on improvements in land use and the

development of agricultural soil and water resources.

Buckley and Tihanyi concluded that:

"Moreover, from such investments the poorest
segment of the rural population will seldom
benefit. The fragmented empirical evidence,
as well as logical analysis suggest that
few of the ARDA investments in land and water
would satisfy either the minimum criterion of
economic efficiency or the goal of income
redistribution in favour of the poor.......
Indeed, it is possible that ARDA has played a
part in prolonging undesirable farm situations:
the small addition to farm income that ARDA
promises could have influenced some farmers
to postpone or reject potentially better off-
farm solutions" (Buckley and Tihanyi, 1967: 16-17).

Conclusions

Part II has provided a brief overview of the instruments

of federal regional economic expansion. We have identified

the programs and agencies such as PFRA, MMRA, ARDA, ADB, ADIA, FRED, Newstart and the Newfoundland Resettlement which were in existence at the time DREE was established and were brought under the DREE umbrella.

We derived a functional breakdown of DREE expenditures for each of the five regions in Canada. It was discovered that DREE expenditures for road construction were equal in magnitude to the much more publicized incentives program. Expenditures for sewage systems and other infrastructure, agricultural assistance, and other industrial assistance were also major expenditure categories. Many of the programs established prior to DREE and during DREE's early years are being gradually phased out by the department. However, the types of expenditure made under these earlier programs continue to be made under the umbrella of the General Development Agreements.

Evidence available from a variety of sources suggests that the incremental job creation resulting from the RDIA program is much less than DREE has indicated. In fact, of the jobs associated with RDIA grants it seems most unlikely that more than half are incremental and quite possible that this proportion is as low as zero. Similarly, available evidence suggests that the RDIA program has had little effect on capital investment.

The absence of any publicly available analysis of the effectiveness of DREE spending on roads, sewers, or

any of its other major expenditure categories is unfortunate. The Department has even refused to provide details on the amounts it has actually spent on these types of expenditure. For this study it was necessary to derive estimates of these amounts based on the fragmentary evidence which DREE does release. This deficiency in information provided by DREE should be rectified.

Part III

Conceptual and Methodological Framework

> "Social reality is complex: too much
> concern for strict adherence to all
> aspects of reality and too much
> limitation on the development of
> a specialized language to deal
> with it may grind the scientific
> inquiry to a halt. Da Vinci was
> unable to construct a flying
> machine because he was trying to
> reproduce a bird. His planes
> resembled birds so much they
> could not fly. A bird with fixed
> wings and a propelling beak proved
> a much better "simulator" of the
> "real" thing than a straight copy.
>
> Gilles Paquet, 1971: 51.

Part III

Conceptual and Methodological Framework
The Conceptual Dimension of the Framework

In this Part we develop a framework within which existing data can be utilized to examine the effect of DREE expenditures on the redistribution of income by region and income class in Canada.

Fiscal incidence is a measure of the change in relative real income positions of family units in response to the taxation and public expenditure policies of the public sector. Theoretically it is a general equilibrium problem par excellence - the impact of the public sector on the redistribution of real income. Any instrument of budgetary policy - be it a tax instrument or an expenditure instrument - has the potential to affect the flow of income from its sources to a family unit relative to other family units and the uses to which such income can be put by a family unit relative to other family units. Analysis of the budgetary instruments in terms of these two effects provides the foundation upon which can be developed the redistributive effects of the public sector (Dodge, 1975; Gillespie, 1967 and 1975; and Johnson, 1968).[1] This methodology is adopted in analysing the redistributive impact of DREE's major program instruments, enumerated above in Table 2.1.

Our approach in the following discussion is to analyse the general equilibrium effects of a DREE expenditure instrument within the context of a specific neo-classical model. Following

Musgrave (1958, chs. 15 and 16); Harberger (1962); Mieszkowski (1967 and 1969);and McLure (1971, 1972 and 1974);we derive, where possible, the predicted qualitative changes in the relative factor prices and relative product prices that permit one to discuss the income sources and income uses effects of fiscal incidence analysis, noted earlier. These predicted results provide theoretical guidelines for choosing the magnitudes which form the working assumptions of our standard case.

It is important to be clear about our methodology; we are not testing the derived hypotheses against the data in an econometric sense. Rather, we are arguing that if the economy behaves in the manner of our model then certain hypotheses can be derived about the direction of the changes in relative factor and product prices. We then choose magnitudes that are consistent with these derived hypotheses. This last step, while not based on actual empirical evidence, is necessary given the lack of solid information on such matters. The working assumptions of our standard case are subjected to a sensitivity analysis (see Part IV) in order to determine to what extent variations in the chosen magnitudes alter the general conclusions of the standard case. Given the small variation in results, we are confident that our methodology and findings are reasonable.

Capital incentive grants

We assume a two sector economy (a high income sector and a low income sector) with fixed total supplies of capital, labour

and land, perfect competition in the factor and product markets, and equal marginal propensities to consume, but not average propensities to consume, across demanders. There exists perfect mobility of capital, complete immobility of labour and land. For some reason, labour is not fully employed in the low income sector; for example, if a legal minimum wage law prevents the wage rate from falling sufficiently far to equilibrate with the value of the marginal product at a full employment level.

A subsidy or incentive grant to capital used in the low income sector is introduced.[2] On the income sources side, the price of capital, the mobile factor, is increased as capital flows from the non-grant - receiving sector to the grant - receiving sector in search of the higher net returns attributable to the grant. These net returns to capital are equalized at a higher price. The price of the immobile factor, labour, in the non-grant - receiving sector will fall because the outflow of capital lowers the marginal productivity and thus the value of the marginal product of labour.[3] As capital flows into the grant-receiving sector, the marginal productivity of labour is increased and this effect may both bid up the price of labour and lead to increased employment of previously unemployed labour. This output effect has a positive impact on labour. What happens next depends on the degree of factor substitution.

If the degree of factor substitutability is low, there is little substitution of capital for labour, and the total effect is higher employment at the given wage rate in the grant-receiving

sector.   In the grant-receiving sector, relative factor prices
have changed in favour of capital owners, but relative factor
incomes must have changed less in favour of capital owners,
and may have not changed at all or changed in favour of labour.

If, on the other hand, the degree of factor substitutability
is high, there could be considerable substitution of the lower
priced capital for labour in response to the inflow of capital;
this reduced demand for labour puts downward pressure on the
wage rate and tends to release some labour into unemployment.
In other words, the factor substitution effect works in the
opposite direction to the output effect noted above, and it
could swamp it, resulting in a total effect of lower employment
at the given wage rate.[4]   Under these circumstances, relative
factor prices have changed in favour of capital owners, and
relative factor incomes have changed even more in favour of
capital owners (as the amount of unemployed labour has increased).

On the income uses side, the product price in the grant-
receiving industrial sector will fall relative to the product
price in the non-grant-receiving sector, since the gross price
of capital used in that sector has fallen. The relative change
in product prices depends on the degree of factor substitution
in the two sectors, and the relative uses effect depends on
the consumption propensities of households across the products
of the two sectors.

Given the context of regional economic expansion policy in
Canada - the long-run persistence of per capita income differences

across regions, the immobility of land and the apparent
immobility of labour (at least in response to considerable
wage rate differentials across regions), considerable un-
employment of labour in some regions while there is full
employment in others - we think that this set of assumptions
merits the major focus of attention.[5] We acknowledge that
labour is not perfectly immobile across regions over the long
period (Courchene, 1974) but note that DREE policy is aimed
at inhibiting such mobility rather than encouraging it. A
relaxation of the assumption of complete labour immobility
would, among other things, result in decreasing the benefits
to the Atlantic region and increasing the benefits to Ontario
(see Part IV).

The assumptions of a fixed total supply of labour and
capital are convenient for analytical purposes, but as well,
are not at variance with empirical evidence on the response
of labour to variation in the net wage rate (Break, 1957;
Barlow, 1966;and Fields and Stanbury, 1970). Given the
instruments available and utilized to affect capital at the
margin only, these assumptions are likely to be realistic
for capital as well. It is unlikely that an incentive subsidy
to additional capital that locates in designated regions

would have an impact sufficiently large that it would call forth an increase in the supply of total capital in the economy. The subsidies would simply alter the location of capital.

We are not unaware of the possibility that capital incentive grants will so alter the rate of return to call forth an increased inflow of foreign capital into the economy. For the purpose of this investigation we have assumed that such effects are sufficiently minor so as not to alter significantly the total stock of capital. In the empirical work discussed later we also ignore the possibility that some of the relative gains to capital might accrue to foreign capital, and we distribute the benefits entirely to family units located in Canada. In reality some income benefits are received by foreign owners of capital; hence some benefits of DREE spending spill out of the country, thus reducing the efficacy of DREE spending as a vehicle for improving the regional distribution of income. Our investigation does not deal with these aspects, and thus overstates the extent to which federal spending on regional economic expansion benefits Canadians.

We do not think that the assumption of perfect competition in product and factor markets is particularly restrictive especially in view of the way things tend to work out in the long run. Imperfect competition can be integrated into the analysis with relative ease and little variation in major conclusions so long as all economic agents continue to maximize utility or profits as their overriding objective. The prices of factors of production would no longer be equal to the value of the marginal product - economic profits could exist on either side of the market - but the earlier general conclusions would still hold.[6]

Finally, the industrial subsidies offered by DREE under the Regional Development Incentives Act (RDIA) can be analysed as subsidies that favour capital relative to labour (see Usher, 1975; Woodward, 1974, 1974a and 1975; and Appendix D).

In summary, the major effects of inserting a capital subsidy into the low income sector of our specified neoclassical model are as follows. On the income sources side, capital incomes

rise relative to labour incomes provided factor substitutability is high, or, if factor substitutability is low they may still rise. If factor substitutability is very low in the grant-receiving sector, and if the effect on the price of capital is less than the effect on the employment of labour, then labour incomes rise relative to capital incomes in that sector. On the income uses side the price of output of the grant-receiving sector falls relative to the price of output of the non-grant-receiving sector.

These results still fall short of a set of simplifying hypotheses that could be used to empirically allocate the differential benefits of the capital subsidy instrument of federal regional economic expansion policy. They do, however, suggest avenues for reducing the alternatives. Information on the degree of factor substitutability would guide a selection of the low or high factor substitution alternative for the low income sector. In the absence of such information we assumed low factor substitutability below. Information on the structure of industries in the low income sector which receive the capital incentive grants would permit us to conclude if the fall in the price of the output of that sector relative to the price of the output of the high income sector has any differential effect on the income uses side. Such differential effects could then be translated into consumption effects, depending on the consumption characteristics of households. We derived the differential consumption effects from the underlying data for our series on

grant-financed output below.

We judge that the major long run general equilibrium effects of a capital subsidy occur on the income sources side of the picture, and only minor effects can be traced through to the income uses effects. Consequently we adopt the following set of working hypotheses in order to render manageable the empirical estimations of the standard case. Total benefits are allocated between income sources and income uses effects, 75 percent and 25 percent respectively. We assume low factor substitutability and allocate two-thirds of the income sources benefits to capital everywhere and one third to labour in the low income sector. The income uses benefits are allocated to consumers of output of the grant-receiving sector and, given the mobility of output, this results in attributing the consumption benefits to all such consumers, regardless of where they live.

Our model predicts that some of the benefits of capital subsidies will accrue to family units outside of the regions or sectors in which the subsidies are initially provided. Many of the owners of subsidized capital reside outside the region in which the initial subsidy is provided, and the owners of capital that does not receive a subsidy benefit because the price of capital has been bid up everywhere. Similarly, many of the consumers of subsidized products reside outside of the region in which the subsidy is received and, given competitive conditions, consumers of substitutable output everywhere benefit as product prices are bid down.

We believe that this set of assumptions provides a reasonable model in the Canadian environment. Nevertheless, to test the sensitivity of our results to extreme variations in the share of benefits exported we also calculate the incidence of DREE spending on the assumption that all benefits remain within the region of initial spending (see Part IV). In addition we vary some of these magnitudes in order to provide a sensitivity analysis of the results based on the standard set of working hypotheses.[7] The full detail of the allocation procedure is found in Part IV.[8]

Expenditures on Roads

Many DREE programs provide expenditures on roads as part of the package of expenditures on the infrastructure of the designated regions and Special Areas.

Expenditures on roads can be considered as costs incurred on behalf of road users - the users of passenger vehicles and the consumers of the services of commercial vehicles - and non-users (Dodge, 1975; Johnson 1968). The benefits flowing to non-highway use are related to the direct access provided by highways, roads and streets to the owners and renters of property.[9] Accordingly the expenditure share of costs incurred on behalf of non-users can be allocated to property owners and renters. We rely upon the cost allocation between users and non-users as derived in Gillespie, (1975: IV, 13), which allocates 32 percent to non-users and 68 percent to users at the all-Canada level.[10]

The benefits flowing to users from an improved or new road are related directly to the amount of use by passenger vehicle users, and, less directly, to the consumers of products and services that use transportation as an input in their production process. For the latter, given a perfectly competitive setting and a general equilibrium approach, a reduction in transportation cost associated with the increased time and maintenance saving attributable to the improved road system would operate similar to a product subsidy, benefitting the consumers of transported products relative to consumers of non-transported products. For the allocation of highway user costs between users of passenger vehicles and consumers of transported products we rely upon the results of Gillespie (1975: IV, 14), based upon the incremental cost technique used extensively in transportation economics (Pancoast, 1953; U.S. Congress, 1961; and U.S. Congress House Ways and Means Committee, 1961). The incremental cost technique results in an allocation of 67 percent to passenger vehicle users and 33 percent to consumers of transported products at the all-Canada level.[11]

The above orthodox approach is based on the assumption of perfect mobility of labour and capital in a general equilibrium setting. The increased road expenditures are similar to a subsidy to the output of road passenger travel and road transportation in the low income region. The long run distributional effects are neutral on the income sources side; and on the income uses side relative product prices change in favour of road-passenger travel

and road-transported products relative to other product prices.
The distributional implications depend upon the consumption
characteristics of road-passenger travel and road-transported
products (Musgrave, 1958: 357-359).

Our standard case, however, assumes that capital is complete-
ly mobile, while land and labour are completely immobile in a
perfectly competitive setting. We assume that the nature of the
immobility of labour assumption is such that labour is immobile
across regions, but perfectly mobile within a region across
industries (the pertinent industrial sectors being, in this
analysis, the travel and transportation sector and the non-travel
and transportation sector).[12] In addition, for some reason,
labour is not fully employed in the low income region. A subsidy
to travel and transportation is provided in the low income sector.

A subsidy to travel and transportation in the low income
region, which increases the attractiveness of this output relative
to other output, encourages the mobile factor, capital, to flow
from the high income region and from the non-subsidized sector
in the low income region into the subsidized sector in the low
income region. This results in an increase in the equilibrium
return to capital, i.e., the price of capital everywhere rises
(McLure, 1971: 38-40). The price of labour in the high income
region falls as its value of marginal product is lowered by the
outflow of capital. The value of marginal product of labour in
the non-subsidized sector of the low income region also falls,
but due to our employment assumptions, the price of labour

remains fixed while employment decreases in that sector. For similar reasons the value of the marginal product of labour in the subsidized sector rises, the price of labour remains fixed and employment in the sector rises. The inflow of capital from the high income region assures that the net result of the employment changes will be an increase in employment in the low income region and the mobility of labour within the latter region will assure that some of the labour released from the non-subsidized sector will find employment in the subsidized sector. On the income sources side, then, the price of capital rises everywhere, while the price of labour falls in the high income region and remains steady in the low income region. Income from capital rises, while labour income falls in the high income region and rises in the low income region provided the degree of factor substitutability is low. Given the relative factor shares of the two regions there is a presumption that income from capital will rise relative to the income from labour in both regions. However the presence of very low factor substitutability may lead to labour income rising relative to capital income in the low income sector.

On the income uses side the equilibrium adjustment effects are similar to the orthodox approach. The output price of the subsidized sector in the low income region falls relative to the output price of the non-subsidized sector in both regions and, given our competitive assumption, the output price of travel and transportation in the high income region adjusts as well.

Consequently the product price of travel and transportation falls relative to the product price of non-travel and transportation, and consumers of the former are better off relative to consumers of the latter.

This alternative formulation is our standard case and, in allowing for the immobility of labour, results in some distributional implications on the income sources side as well as the income uses side. Given our presumption that the bulk of effects are still to be found on the income uses side and the absence of any quantitative breakdown of the relative sources and uses shares, we allocate one quarter of the benefits to the sources side and three-quarters to the uses side. The low factor substitutability case is employed (as in the incentive grants case) and this results in allocating two-thirds of the income sources benefits to capital and one-third to labour in the low income sector. The full detail of the allocation procedure is found in Part IV. We also examine several alternative working hypotheses, employing the high factor substitutability case in order to provide a range of empirical results.[13]

Expenditures on Sewage Sanitation and Other Infrastructure

Several DREE programs provide expenditure on infrastructure broadly defined - sewage and sanitation facilities, water facilities, power installations and industrial park facilities.

Expenditures on infrastructure can be considered as costs

incurred in the process of providing services for residential users and commercial users (Dodge, 1975; Gillespie, 1975; and Johnson, 1968). The benefits flowing to residential users are related to the flow of services from the improved sewer, water and power facilities that are provided to the owners and renters of residential property; accordingly, the expenditure share of costs incurred on behalf of such users can be allocated to property owners and renters. We rely upon the cost allocation between residential users and commercial users as derived in Gillespie (1975: IV, 22) which allocates 67 per cent to the former and 33 per cent to the latter, in the region subsidized.

The benefits flowing to commercial users are related to the reduced costs of the infrastructure input in their production processes, and would operate similarly to a product subsidy, benefitting the consumers of products using the improved infrastructure relative to consumers of other products. Provided that the improved infrastructure is available to a representative line of goods and services, the general product subsidy would accrue to all consumers in relation to their consumption expenditures.

This orthodox approach derives long run distributional implications that are neutral on the income sources side. On the income uses side relative product prices change in favour of residential users in the region receiving the improved infrastructure and in favour of consumers in both regions.

Our standard case, however, assumes that labour is completely immobile. This alternative formulation results in some distribu- tional implications on the income sources side as well as the income uses side (the analysis is similar to the discussion on roads and does not need to be repeated).[14] We allocate 25 per- cent of total benefits to the sources side and 75 percent to the uses side. The benefits on the sources side are allocated to capital income (and distributed accordingly); and the benefits on the uses side are allocated to residential users in the recipient regions and consumers of infrastructure-subsidized products in all regions.

Expenditures on Agricultural Assistance

We noted earlier that several DREE programs provide expendi- tures on assistance to agriculture, broadly defined. These can range from FRED plans to foster land use control, to develop forestry and inshore fishery industries through ARDA programs to "improve opportunities for increased income and employment of people in rural regions" (DREE, 1973a: 32). [15]

One can treat the allocation of benefits from such agricul- tural assistance programs as a benefit to farm family units, proportional to farm family income (Dodge, 1975; Gillespie, 1967; and Johnson, 1968). The support of agricultural research projects, and the provision of production and marketing services aimed at generating a supply of farm products competitive with an alternative but cheaper source of supply, operate as a subsidy

to agriculture, benefitting farm family units relative to non-farm family units.

One can argue that the bulk of agricultural assistance expenditures accrue in relation to agricultural income, benefitting low income farmers proportionately just as much as high income farmers. It is arguable, however, whether the thrust of most DREE-related agricultural assistance programs - a thrust that focuses on low income agricultural regions and attempts to improve the agricultural income base of low income farmers - is randomly distributed across income classes among farm family units. Based on our examination of the agriculture-related programs it seems probable to us that the package of benefits accrues more heavily, especially within Quebec, to low income family units.

The practical difficulty we face is extracting a series of beneficiaries that approximates this presumed distributional pattern. In the absence of any clear-cut distributional series we have decided to assume that farm family units benefit by an equal amount per family unit, realizing that this may overstate some benefits to upper income farmers. On the other hand, such assistance programs as PFRA irrigation projects accrue in proportion to farm income, and as a result our allocation methodology may not be too wide of the mark.

Our standard case, then, allocates the benefits of expenditures on agricultural assistance to the farm community and distributes them by a series on farm family units. Given our

assumption of immobile labour, the benefits of such expenditures remain within the region expended.

Expenditures on Manpower and Social Assistance

Several DREE programs provide expenditures on manpower training assistance and social welfare expenditures, aimed at improving the health, housing, and job skills of family units in low income regions. One can treat such expenditures - both the transfer component and the purchase of goods and services - as beneficial to the recipient family units and allocate the benefits accordingly (Dodge, 1975; Gillespie, 1975; and Johnson, 1968). We intend to follow the same procedure here. Given our assumption of immobile labour, the benefits of such expenditures remain within the region expended and are allocated by a series on manpower trainees.[16]

Expenditures on Education

Several DREE programs provide expenditures on education and education-related facilities as part of a wider set of expenditures on the infrastructure of the designated regions and Special Areas. Fiscal incidence studies have consistently allocated the benefits of education expenditures at the provincial level to students (Gillespie, 1967; Johnson, 1968; Dodge, 1975); and occasionally they have allowed for a more extended treatment where some of the benefits accrue to the general public via externalities (Gillespie, 1975). It is preferable, in our view,

to examine the DREE-related expenditures on education in a similar vein. Whether education expenditures are made by a provincial department of education or partially subsidized by a federal department of regional economic expansion is not relevant to their ultimate beneficiaries, although it may be relevant to the distribution of benefits across Canada.

Expenditures on education provide personal benefits to the students educated by increasing their expected lifetime income compared with students receiving a lesser quality education or compared with non-students. These purely private benefits are distributed by a series on elementary and secondary students. Public expenditures on education may also provide benefits to others than the student. Whether through the existence of merit want preferences or pareto-relevant external-ities in consumption, there can be a public good component in addition to the private consumption benefits generally associated with education.[17] We assume here that there is a public good component of education expenditures. Given our assumption of relatively immobile labour, the public benefits of such education expenditures remain within the region. Therefore we assume that the pure public or general benefits of education expenditures are regional in scope, and they are allocated equally to all within the region according to general expenditure assumption B of Gillespie, (1975).[18] We adopt, as a working hypothesis, the case in which the benefits of education are divided equally between private benefits and public benefits.[19]

The Methodological Dimension of the Framework

Financing Incidence

Regional economic expansion policies have to be financed and this requires us to note the tax side of fiscal incidence estimates. We do not intend to raise here the question of the shifting of various taxes since it has been dealt with extensively elsewhere (Gillespie, 1967 and 1975; Johnson, 1968; Maslove, 1972; and Dodge, 1975). We rely upon the set of shifting assumptions found in Gillespie (1975) for the purposes of this study (see Appendix Table B-1). Rather, our concern is focussed upon which tax or which mix of taxes can be taken as the means of financing the new government program.

There is no convincing theoretical reason to believe that the federal government prefers one tax over another in the financing of a new program. Taxes are not earmarked in Canada, and, short of earmarking of all taxes, this knowledge is of little help anyway. The major federal taxes seem equally flexible in an upward or downward direction; consequently any one could be a candidate for the financing source. In the light of this, it is probably acceptable to assume that regional economic expansion policies are financed out of general federal revenues and attribute this to a proportionate increase in the entire federal tax structure. We adopt this assumption as our standard case.

The importance of the personal income tax in the federal tax structure has long been acknowledged. It is the one federal

tax with a progressive set of statutory rates, and it has a considerable elasticity of response to changes in its underlying base. The latter characteristic can be cited as a favourable feature of the tax. Given these circumstances it is not unreasonable to consider the personal income tax as an alternative financing vehicle of regional economic expansion policies.

Governments need not rely upon increasing taxes to finance a new program; rather, they can reduce spending on program x in order to increase spending on program y. In such a case, the financing of y is effected by a reduction in expenditures (or a retardation in the rate of increase in expenditures) elsewhere. It is possible, therefore, that federal regional economic expansion policies could have been financed by cutbacks in other federal expenditures. The most general case would be to assume a proportionate decrease in the entire federal expenditure structure.

Regional economic expansion policies are often seen as a source of expansion in real output, an aid in reducing unemployment and a boost to incomes in the region assisted (Bird, 1968 and 1970; Brewis, 1971: 52-45; and Alonso, 1969). In this vein, then, such policies are seen as a long-term substitute for policies devoted to raising poverty-level incomes and sustaining incomes from temporary interruptions such as unemployment. One could assume, therefore, as an alternative vehicle of financing regional economic expansion policies, that federal

personal transfer payments are reduced.

The link between federal regional economic expansion policies and federal equalization payments to the provinces is a close one. The latter is a transfer payment which the recipient provinces can spend in any manner they choose. There is no necessary link between the transfer received and spending on regional concerns within the province, but it is likely that some of the funds go to increase personal incomes, reduce unemployment and provide social amenities within the province. In fact, the federal government argues that equalization payments primarily benefit lower income people in a receiving province (Turner, 1972). To this extent, then, regional economic expansion policies could be treated as a partial substitute for federal equalization payments, the former being financed via a reduction in expenditures on the latter. One could therefore assume, as an alternative vehicle of financing, that federal equalization payments to the provinces are reduced; this could result in either a proportionate increase in provincial taxation or a proportionate reduction in provincial expenditures.

These alternative financing assumptions are summarized in Table 3.1 below. All six alternative assumptions are derived and utilized in Appendix A (see Table A-4). Alternative A is chosen as the standard case. In addition, in Part IV we present differences that can occur when any one of the other alternatives is used.

Table 3.1

Alternative Methods of Financing Federal

Regional Economic Expansion

Expenditures

Alternative	Method of Finance
A	Proportionate increase in federal tax structure
B	Increase in federal personal income tax
C	Proportionate reduction in federal expenditure structure
D	Proportionate reduction in federal personal transfer payments
E	Reduction in equalization payments to provinces; proportionate increase in provincial tax structure of affected provinces
F	Reduction in equalization payments to provinces; proportionate reduction in provincial expenditure structure of affected provinces

Expenditure Incidence

The distribution of the benefits of regional economic expansion policies - expenditure incidence - is the focus of this study. We have analysed the conceptual framework of the treatment of such benefits above, and we present here the general methodological approach. We provided in Part II a detailed discussion of the instruments of federal regional economic expansion policies.

The expenditures of DREE are first allocated to beneficiaries according to the analysis above. These expenditures are then

distributed by region and by income class according to distributive series for the various beneficiary groups. Expenditure benefits attributed to each income class for different groups are then summed to result in an aggregate distribution of expenditure benefits by region and by income class. The elements in this distribution, when expressed as a percent of total DREE expenditures, result in the expenditure incidence estimates for the standard case.

Fiscal Incidence

When the distribution of tax payments by region and by income class is subtracted from the distribution of expenditure benefits by region and by income class, the result is the net fiscal amount. The net fiscal amount expressed as a percent of total DREE expenditures results in fiscal incidence estimates. The share of total DREE expenditures either gained or contributed by each income class in each region is our measure of redistribution attributable to DREE. The bulk of the empirical evidence presented and discussed in Part IV uses this measure of fiscal incidence.

Conclusions

Part III has explored two major points. First, we examined the effects of capital incentive grants, expenditures on roads, education, sewers and other infrastructure, agriculture, manpower and social assistance, on the distribution of income, deriving

conclusions as to their most probable impact. In addition, we emphasized that the financing of regional economic expansion policies is as important as the benefits derived from such policies. Of the six alternate hypotheses that could be defended, we chose a proportionate increase in the federal tax structure as our standard case.

Part IV

The Empirical Results

"I am ill at these numbers"

Hamlet, Shakespeare

"And, if economists have one basic
failing, it is a tendency to focus
on things that can be described by
numbers"

J.D. Love, Deputy Minister
DREE, (1975: 25)

Part IV

The Empirical Results

In this part of the study we estimate the redistributional effects of DREE expenditures by region and by income class. We first discuss the empirical findings for our standard case. Next we consider alternative experiments for the financing of DREE expenditures. Finally, we examine the sensitivity of our results to alternative hypotheses regarding the incidence of benefits from DREE expenditures.

The Standard Case

The hypotheses which we have referred to throughout as the standard case are summarized in Table 4.1. For example, with respect to the capital incentive grants we have adopted the moderate conclusions of Part II that such grants are only 48 percent effective in generating new jobs and additional capital investment. The residual accrues as a windfall gain to capital owners. The remaining general equilibrium effects for the income sources and income uses aspects were derived in Part III for the standard case. The reader is referred to Appendix A for a detailed discussion of the distributive series.

Expenditure Incidence Results

Table 4.2 provides the empirical results of allocating federal regional economic expansion expenditures according to

Table 4.1

The Distributional Hypotheses of the Standard Case

Experiment Designation (1)	Item (2)	Distributional Hypotheses (3)	Distributive Treatment and Series (4)
B.8	Capital Incentive Grants[1]	Grants partially (48%) effective; major impact (75%) on income sources side, with remainder on income uses side; low factor substitutability results in 6% of income sources effect attributable to capital, the remainder to labour	76% to capital income (dividends received) 12% to labour income (wages and salaries) 12% to uses (consumption of grant-financed output)
D.13	Highway Expenditures	Grants partially (67%) effective; major impact (75%) on income sources side, with remainder on income sources side; low factor substitutability results in 67% of income sources effect attributable to capital, the remainder to labour; within income uses, non-users receive 32% of benefits, while passenger vehicle users and consumers of transported products receive 67% and 33% respectively of the remainder (national pattern: see Table B-2 for regional allocations)	33% windfall to provincial taxpayers 11% to capital income (dividends received) 6% to labour income (wages and salaries) 16% to non-users (property users) 23% to passenger vehicle users 11% to consumers of transported products
E.16	Sewers and other infra-structure	Grants partially (67%) effective; major impact (75%) on income sources side; within income uses, residential users in the region and all consumers receive 67% and 33% respectively	33% windfall to provincial-municipal taxpayers 17% to capital income (dividends received) 34% to residential users (property users) 16% to consumers (total consumption)
H.21	Manpower and Social Assistance	All expenditures benefit recipients within the region	100% to recipients (manpower trainees)
G.19	Agricultural Assistance	All expenditures benefit farm family units within the region	100% to farm family units
C.11	Education Expenditures	Benefits equally divided between private benefits within the region and pure public benefits within the region	50% to students (children 5-17 years) 50% to all families (broad income)
F.17	Planning and Administration	All expenditures are treated as national pure public goods	100% to all families (broad income)
M.24	Operating and Capital Expenditures	Proportional to the aggregate distributive effects of all other instruments	
H.A	Financing of Program	Total federal tax structure is increased.	100% to total federal taxes
J.23	Income Base Methodology	Lorenz distribution of fiscal amounts (B* + R* - T*) for the given percentage distribution of family unites and for each percentile within the distribution	

Source: Parts II and III, passim; and see Appendix A for description of derivation of allocation procedure. The experiment designation refers to the original experiment designation as found in Appendix A.

1. The instrument, capital incentive grants, encompasses the two categories: (1) capital incentive grants, and (2) other industrial assistance.

TABLE 4.2

Incidence of Federal Regional Economic Expansion Expenditures

Canada and Regions, 1969-1975

Region	Family Money Income Class									
	Under $2000	$2000-2999	$3000-3999	$4000-4999	$5000-5999	$6000-6999	$7000-9999	$10000-14999	$15000 & over	Total
PANEL A: EXPENDITURE INCIDENCE (Percent of total Expenditures)										
1. Atlantic Region	1.44	2.20	3.09	2.75	2.93	2.91	6.99	5.65	2.80	30.97
2. Quebec	.77	.76	1.06	1.41	1.43	2.06	5.16	5.40	5.88	23.94
3. Ontario	.46	.52	.47	.68	.45	1.00	2.46	3.41	9.74	19.25
4. Prairie Region	1.32	1.28	1.43	1.29	.88	.73	2.33	2.09	5.19	16.49
5. B.C.	.09	.07	.39	.37	.19	.67	.81	1.34	5.44	9.35
6. CANADA	4.08	4.83	6.45	6.49	5.88	7.37	17.75	17.89	29.13	100.00
PANEL B: FAMILY UNIT EXPENDITURE INCIDENCE (Percent of Expenditures received by percentile of family units)										
7. Atlantic Region	1.03	3.67	3.43	3.06	3.26	3.64	4.99	6.28	14.00	3.73
8. Quebec	.25	.35	.46	.64	.57	.86	.89	1.32	2.67	.90
9. Ontario	.13	.21	.22	.28	.16	.37	.30	.41	2.50	.52
10. Prairie Region	.49	.75	.89	.99	.68	.56	.67	.84	4.72	.96
11. B.C.	.06	.09	.43	.53	.32	.84	.28	.61	6.80	.84
12. CANADA	.33	.60	.83	.85	.74	.93	.81	.98	3.51	1.00

Note: details may not add to totals due to rounding

Source: Appendix Table A-3(b)

the distributive hypotheses of Table 4.1. The distribution of dollar expenditures by region and by income class (See Appendix Table A-3) is converted into a percentage distribution for easier analysis in Table 4.2. The results describe the income gains for each income class in each region attributable to DREE expenditures.[1]

The regional pattern of expenditure benefits is straight-forward: the Atlantic region gains the most, followed by Quebec. Of passing interest is the relative size of the gain to Ontario, the third largest and not too far behind Quebec. This result is not unexpected, as several of the distributive hypotheses predict gains to capital, the bulk of whose owners reside in Ontario. Similarly,some of the consumers of subsidized products reside outside of the region in which the subsidy is received.[2] It follows that due to these leakages the regional distribution of benefits from DREE expenditures will differ from the initial regional distribution of spending by DREE. The extent of the leakages implied by the model is indicated in Table 4.5 below by comparing the initial spending pattern incidence (line 4) with the regional distribution of expenditure benefits (line 1).

Throughout the discussion of the empirical results we designate income classes according to the 1969 money income distribution. These designated income classes and the percentage distribution of family units for each region and Canada are presented in Table 4.3. As discussed in note 1, the relative shares of the income classes have remained virtually constant

Table 4.3

The Distribution of Family Units, By Income Class, Canada and Regions, 1969

percentages

Family Money Income Class	Designated Income Class	Distribution of Family Units					
		Atlantic	Quebec	Ontario	Prairies	British Columbia	Canada
Under $2,000	Poorest	1.4	3.1	3.6	2.7	1.4	12.3
$2,000- 4,999	Lower	2.4	6.7	7.0	4.6	2.4	23.4
5,000- 5,999	Lower-middle	0.9	2.5	2.8	1.3	0.6	8.0
6,000- 6,999	Middle	0.8	2.4	2.7	1.3	0.8	7.9
7,000- 9,999	Upper-middle	1.4	5.8	8.3	3.5	2.9	22.0
10,000- 14,999	Upper	0.9	4.1	8.4	2.5	2.2	18.2
15,000 and over	Richest	0.2	2.2	3.9	1.1	0.8	8.3
Total		8.3	26.7	36.8	17.1	11.1	100.0

Source: Appendix Tables A-1(a) through A-1(f)

Note: Details may not add to totals due to rounding.

during the time period studied.[3]

The distribution of expenditure benefits by income class at the all-Canada level is skewed towards the middle-upper and upper income classes. The richest income class, including 8.3 per cent of family units, receives 29 per cent of the expenditure benefits. Their share exceeds that of the five lowest income classes (44 percent of family units) combined.

If one's interest rests on relative income benefits to regions and/or to income classes, then the relevant ranking variable is the 'income class' measure of panel A. If one's interest rests on relative benefits to family units then the relevant ranking variable is the measure used in Panel B. Panel B normalizes the results and presents them in terms of the percentage of expenditure benefit received by a representative percentile of family units within each cell of the table. The Panel B results permit us to discuss the relative gains or contributions of a representative family unit within an income class or in a region, whereas the Panel A results permit us to discuss only the gains or contributions to an entire income class or to an entire region.[4] For example, the richest income group in Quebec received 5.88 percent of total DREE expenditure benefits. Since this group constitutes 2.2 percent of all family units in Canada, a percentile, representative of family units within this income class, receives 2.67 percent of total DREE expenditure benefits.

Within each region a family unit in the poorest income class

Chart 4.1 Family Unit Expenditure Incidence, by Region

Percentages

Atlantic
Quebec
Ontario
Prairies
B.C.

Income in thousands of dollars.

Source: Table 4.2, Panel B.

benefits least and a rich family unit benefits most from DREE expenditures. Representative family units by income class in the Atlantic region benefit relatively more than comparable representative family units in the other regions. The variation in benefits to representative family units across the five regions is highlighted in chart 4.1 (the chart presents the Panel B incidence measures of Table 4.2).

Fiscal Incidence Results

Table 4.4 presents the fiscal incidence estimates. The distribution of taxes required to finance federal regional economic expansion policies are subtracted from the distribution of expenditure benefits, and the resulting fiscal amounts are expressed as a percent of total DREE expenditures (see Appendix Table A-3). The results describe the percentage of DREE expenditures that emerges as a net fiscal gain or a net fiscal contribution for each income class in each region.

The regional redistribution of income effects are gathered together for easier comparison in Table 4.5. We discuss here the standard case results, and examine the rest of the table later. The fiscal incidence estimates are provided in line 3.

The Atlantic and Prairie regions are net gainers whereas Ontario, British Columbia and Quebec are net contributors. The Atlantic Region is the big gainer, with 25 percent of DREE expenditure showing up as a net gain. Ontario's net contribution is 23 percent of DREE expenditures. Given the possible imprecision

TABLE 4.4

Fiscal Incidence of Federal Regional Economic Expansion Expenditures

Canada and Regions, 1969-1975

Region	Family Money Income Class									
	Under $2000	$2000-2999	$3000-3999	$4000-4999	$5000-5999	$6000-6999	$7000-9999	$10000-14999	$15000 & over	Total

PANEL A: FISCAL INCIDENCE (Percent of total Expenditures)

	Under $2000	$2000-2999	$3000-3999	$4000-4999	$5000-5999	$6000-6999	$7000-9999	$10000-14999	$15000 & over	Total
1. Atlantic Region	1.31	2.00	2.71	2.31	2.31	2.31	5.26	4.19	2.07	24.67
2. Quebec	.50	.39	.39	.42	-.01	-.02	-1.31	-1.29	.06	-.84
3. Ontario	.08	.02	-.24	-.32	-1.35	-1.34	-6.78	-9.31	-3.36	-22.60
4. Prairies Region	1.01	.89	.96	.59	.04	-.38	-1.44	-1.96	1.32	.90
5. B.C.	-.05	-.13	.14	-.06	-.20	-.07	-2.33	-2.05	2.47	-2.23
6. CANADA	2.85	3.17	3.96	2.93	.78	.52	-6.61	-10.42	2.56	0.00

PANEL B: FAMILY UNIT FISCAL INCIDENCE (Percent of expenditures received(+) or contributed(-) by percentile of family units)

	Under $2000	$2000-2999	$3000-3999	$4000-4999	$5000-5999	$6000-6999	$7000-9999	$10000-14999	$15000 & over	Total
7. Atlantic Region	.94	3.33	3.01	2.57	2.57	2.89	3.76	4.66	10.35	2.97
8. Quebec	.16	.18	.17	.19	-	-.01	-.23	-.31	.03	-.03
9. Ontario	.02	.01	-.11	-.13	-.48	-.50	-.82	-1.11	-.86	-.61
10. Prairies Region	.37	.52	.60	.45	.03	-.29	-.41	-.78	1.20	.05
11. B.C.	-.04	-.16	.16	-.09	-.33	-.09	-.80	-.93	3.09	-.20
12. CANADA	.23	.40	.51	.39	.10	.07	-.30	-.58	.31	.00

Note: details may not add to totals due to rounding

Source: Appendix Table A-3(b)

Table 4.5

Regional Expenditure, Tax and Fiscal Incidence of Federal Regional
Economic Expansion Expenditures, The Standard Case and Alternative
Experiments, Canada, 1969-1975

percentages

Line	Item	Atlantic Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Canada
	STANDARD CASE						
1.	Expenditure benefit incidence	31	24	19	17	9	100
2.	Tax incidence	6	25	42	16	12	100
3.	Fiscal incidence	25	-1	-23	1	-2	0
	ALTERNATIVE EXPERIMENTS[1]						
	Initial DREE Spending Experiment						
4.	Initial DREE spending pattern incidence	46	34	6	12	2	100
5.	Initial DREE spending pattern fiscal incidence[1]	40	9	-36	-4	-10	0
	Financing Experiments: Fiscal Incidence[2]						
6.	Increase in federal personal income tax payments	26	0	-26	1	-2	0
7.	Proportionate decrease in federal expenditures	22	-2	-17	-2	-1	0
8.	Decrease in federal transfers to persons	21	-3	-16	0	-2	0
	Equalization Payments Experiment						
9.	Equalization payments expenditure incidence	40	51	0	9	0	100
10.	Equalization payments fiscal incidence[1]	35	26	-42	-7	-12	0
	Expenditure Experiments: Fiscal Incidence[1]						
11.	Pro-Rich experiment	18	-3	-16	2	0	0
12.	Pro-Poor experiment	27	2	-26	0	-3	0

Source: Appendix Tables A-3, A-3(b), A-5(a), A-5(c), A-5(d) and A-5(3)
Note: Details may not sum to 100 or zero due to rounding; (+) net gain; dollar items are expressed as
a percentage of total DREE expenditures.
1. financing hypothesis is for the standard case
2. expenditure hypotheses are for the standard case

in a study of this nature we can reasonably conclude that
Quebec, the Prairies and British Columbia are neither net gainers
from nor net contributors to the redistributive aspects of DREE
programs.

It is interesting to note that, in terms of regional
distribution of income effects, the Atlantic region and Quebec
are net beneficiaries to a much lesser extent from the DREE
program than is commonly supposed. Quebec in particular receives
little or no net benefit. One of the major reasons is that
Quebec and the Atlantic region contribute a substantial share
towards the financing of DREE programs. In addition many of the
benefits resulting from DREE expenditures flow outside of the
recipient regions.

The income class pattern of fiscal incidence is found in
the body of Table 4.4. Some of the values in Panel A are not
substantially different from zero and are ignored in the follow-
ing discussion. The redistribution is towards all income classes
in the Atlantic region, the lowest income classes in Quebec and
the Prairies and the richest income classes in the Prairies and
British Columbia. The redistribution is at the expense of the
upper-middle and upper income classes in all but the Atlantic
region, with the range of contributing classes being broader in
Ontario.

The normalized 'family unit' results are presented in Panel
B of Table 4.4 and in Chart 4.2. In the Atlantic region a rich
family unit enjoys a net gain that is larger than the net gain

Table 4.5

Regional Expenditure, Tax and Fiscal Incidence of Federal Regional

Economic Expansion Expenditures, The Standard Case and Alternative

Experiments, Canada, 1969-1975

percentages

		Region				
Line	Item	Atlantic Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Canada
	STANDARD CASE						
1.	Expenditure benefit incidence	31	24	19	17	9	100
2.	Tax incidence	6	25	42	16	12	100
3.	Fiscal incidence	25	-1	-23	1	-2	0
	ALTERNATIVE EXPERIMENTS[1]						
	Initial DREE Spending Experiment						
4.	Initial DREE spending pattern incidence	46	34	6	12	2	100
5.	Initial DREE spending pattern fiscal incidence[1]	40	9	-36	-4	-10	0
	Financing Experiments:						
	Fiscal Incidence[2]						
6.	Increase in federal personal income tax payments	26	0	-26	1	-2	0
7.	Proportionate decrease in federal expenditures	22	-2	-17	-2	-1	0
8.	Decrease in federal transfers to persons	21	-3	-16	0	-2	0
	Equalization Payments Experiment						
9.	Equalization payments expenditure incidence	40	51	0	9	0	100
10.	Equalization payments fiscal incidence[1]	35	26	-42	-7	-12	0
	Expenditure Experiments: Fiscal Incidence						
11.	Pro-Rich experiment	18	-3	-16	2	0	0
12.	Pro-Poor experiment	27	2	-26	0	-3	0

Source: Appendix Tables A-3, A-3(b), A-5(a), A-5(c), A-5(d) and A-5(3)
Note: Details may not sum to 100 or zero due to rounding; (+) net gain; (-) net contribution; dollar items are expressed as a percentage of total DREE expenditures.
1. financing hypothesis is for the standard case
2. expenditure hypotheses are for the standard case

in a study of this nature we can reasonably conclude that
Quebec, the Prairies and British Columbia are neither net gainers
from nor net contributors to the redistributive aspects of DREE
programs.

It is interesting to note that, in terms of regional
distribution of income effects, the Atlantic region and Quebec
are net beneficiaries to a much lesser extent from the DREE
program than is commonly supposed. Quebec in particular receives
little or no net benefit. One of the major reasons is that
Quebec and the Atlantic region contribute a substantial share
towards the financing of DREE programs. In addition many of the
benefits resulting from DREE expenditures flow outside of the
recipient regions.

The income class pattern of fiscal incidence is found in
the body of Table 4.4. Some of the values in Panel A are not
substantially different from zero and are ignored in the follow-
ing discussion. The redistribution is towards all income classes
in the Atlantic region, the lowest income classes in Quebec and
the Prairies and the richest income classes in the Prairies and
British Columbia. The redistribution is at the expense of the
upper-middle and upper income classes in all but the Atlantic
region, with the range of contributing classes being broader in
Ontario.

The normalized 'family unit' results are presented in Panel
B of Table 4.4 and in Chart 4.2. In the Atlantic region a rich
family unit enjoys a net gain that is larger than the net gain

Chart 4.2 Family Unit Fiscal Incidence, by Region

Percentages

Atlantic ———
Quebec ·········
Ontario ‒ ‒ ‒
Prairies — — —
B.C. —·—·—

Income in thousands of dollars

Source: Table 4.4, Panel B.

of any other family unit and much larger than the net gain of
a poor family unit. In Quebec there is no income class in
which a representative family unit is a significant net gainer
or net contributor. In Ontario representative family units in
the upper four income classes make relatively significant net
contributions. In the Prairies and British Columbia a rich
family unit enjoys the largest net gain, and a representative
family unit in the next highest income class is a significant
net contributor.

Our findings are based on an assumption that there is a
benefit-cost ratio of one for DREE expenditures. We expect that
there would be some projects for which the value would be greater
than one and others for which the value would fall short of one.
We have not seen any evidence to suggest that over all the ratio
would exceed one.

It could be argued that the longer run developmental effects
of DREE programs reduce the value of examining their static
impact on the regional distribution of income. However, to the
extent that such programs generate windfall gains to capital
owners or provincial governments, and crowd out investment or
employment elsewhere in the economy, they do not generate future
growth gains. Recent evidence demonstrates little or no
developmental impact from DREE activities (Springate, 1972;
Usher, 1975; and DREE, 1976).

Alternative Financing Experiments

The standard case has been developed with the hypothesis that DREE expenditures are financed by total federal taxes because it seemed to us the most reasonable hypothesis to make. Moreover, the notion of financing expenditures out of the general revenue fund is widely understood and accepted. However, the federal government is faced with a choice in financing any expenditure. It can increase a particular tax or decrease a particular expenditure. In order to test the sensitivity of the results to variations in our standard assumptions we estimated the results for the alternative financing experiments of Table 3.1 discussed in Part III. The detailed empirical results are found in Appendix Table A-5; we report here briefly on the major conclusions that can be drawn.

Regional Redistribution of Income

The fiscal incidence measures across the regions for the alternative financing hypotheses are provided in Table 4.5 above. The alternative of an increase in federal personal income taxes (line 6), a reduction in other federal expenditures (line 7), or a reduction in federal transfer payments to persons (line 8) results in no substantial change in the pattern of regional redistribution of income effected by DREE spending. There is, however, some change in the pattern of regional redistribution for the latter two financing experiments.

The regional pattern of redistribution is, however, most sensitive to the financing experiment that hypothesizes a substitution of DREE expenditures for equalization payments. This finding may be illustrated by comparing the regional distribution of benefits from increased DREE spending (line 1) with the regional distribution of benefits from increased equalization payments (line 9) for a given level of financing by total federal taxes. The comparison may be of some interest given the extent to which it is commonly argued that DREE expenditures and equalization payments are alternative instruments to foster greater regional equality across Canada's five regions.

The regional redistribution of income effected by DREE expenditures and equalization payments is given in lines 3 and 10 respectively. It is clear that Quebec and the Atlantic provinces would be better off with increased equalization payments rather than increased DREE spending. Quebec is a net gainer to the extent of 26 percent of equalization payments, and receives no net gain from DREE spending.

We consider that our standard case, which predicts that some of the income benefits of DREE spending will accrue to family units outside of the regions of initial spending, is a reasonable model. Many of the owners of subsidized capital and consumers of subsidized products live outside the region in which the original subsidy occurs. Nevertheless, to test the sensitivity of our results to extreme variations in the share

of benefits exported we calculated the incidence of DREE spending
on the assumption that all benefits remain within the region of
initial spending. The assumption of zero benefit leakages
results in the regional distribution of benefits from increased
DREE spending being equal to the regional distribution of initial
DREE spending (line 4). The regional redistribution of income
that would be effected by such a benefit pattern is given in line
5. This polar case now predicts that the Atlantic provinces would
be better off with increased DREE spending than with increased
equalization payments, while Quebec would still be better off
with the latter. Even with this extreme assumption the net benefit
to Quebec is less than 10 percent of total DREE expenditures.

Redistribution of Income by Income Class

Financing federal regional economic expansion expenditures by
an increase in personal income taxes rather than an increase in
total federal taxes (the standard case) results in no significant
change in the distribution of fiscal incidence in the regions.
The lower income classes in all regions are slightly better off
(compared with the standard case) and the upper income classes
and the rich in Quebec, Ontario and the Prairies are slightly
worse off.[5] The aggregate effect of these changes at the all-
Canada level can be seen in Table 4.6, line 2: the richest
income class is now a net contributor, albeit by less than the
upper-middle and upper income classes.

TABLE 4.6

Fiscal Incidence of Federal Regional Economic Expansion Expenditures

Alternate Financing Experiments, Canada, 1969-1975

Financing Experiment	Family Money Income Class									
	Under $2000	$2000-2999	$3000-3999	$4000-4999	$5000-5999	$6000-6999	$7000-9999	$10000-14999	$15000 and over	Total
FISCAL INCIDENCE, ALL CANADA LEVEL (Percent of total expenditure)										
1. Increase in total federal taxes	2.85	3.17	3.96	2.93	.78	.52	-6.61	-10.42	2.56	0
2. Increase in federal income taxes	6.01	4.38	5.32	5.59	2.23	1.93	-5.23	-14.26	-3.23	0
3. Decrease in federal expenditures	-3.86	-2.67	-.87	-.37	-1.13	-.08	-1.76	-1.36	10.34	0
4. Decrease in federal transfers	-11.46	-8.27	-4.33	-2.00	-2.14	-.15	.60	4.08	21.27	0
5. Decrease in federal equalization payments (increase in provincial taxes)	2.49	2.11	1.96	1.11	-1.39	-1.63	-7.91	-7.87	11.55	0
6. Decrease in federal equalization payments (decrease in provincial expenditures)	-2.06	-1.55	-1.43	-2.05	-3.67	-2.17	-6.32	-.09	18.71	

Note: details may not add to totals due to rounding

Source: Appendix Table A-5(a)

Financing DREE expenditures by a proportionate decrease in federal expenditures redistributes away from all income classes with incomes less than $15,000 to the income class $15,000 and over (line 3). In other words the lower income classes would be better off with an expansion of total federal expenditures than with an increase in DREE expenditures. The Atlantic region differs from this national pattern with all income classes receiving net gains from DREE expenditures relative to their share of federal expenditures. The richest income class in every region gains more from DREE than from a proportionate increase in federal expenditures.

Financing DREE expenditures by a decrease in federal transfer payments to persons is most favourable to the richest income classes and least favourable to the poorest income classes (line 4). In other words, the lower income classes would be much better off with an increase in federal transfers to persons than with increased DREE expenditures. Even in the Atlantic region the lowest income class benefits less from DREE expenditures than it would from a proportionate increase in federal transfers to persons.[6]

Financing DREE expenditures by a decrease in federal equalization payments can have a very different impact on the distribution of income within each region and at the all-Canada level, depending on whether the provinces respond by increasing taxes or by decreasing expenditures in order to compensate for the loss of revenues. If the recipient provinces respond by

increasing taxes the results demonstrate that the lower income classes would be slightly better off with equalization payments than with DREE expenditures.[7] If the provinces respond to the loss of equalization payments by decreasing expenditures, the lower income classes would be considerably better off with equalization payments than with DREE expenditures. The higher income classes are better off with DREE expenditures than with increased equalization payments for both methods of provincial compensation.

Alternative Expenditure Benefit Experiments

We are confident that our standard case provides a good approximation of the general pattern of fiscal incidence attributable to DREE expenditures. Throughout this study we have referred to a number of circumstances in which alternative hypotheses might be entertained. In the absence of empirical verification, we test the sensitivity of our results to variations in the set of underlying expenditure hypotheses.

The alternative expenditure experiments are summarized in Table 4.7.[8] In each experiment the standard case is assumed to hold for all instruments except the instrument(s) designated in the experiment. Three major kinds of alternative hypotheses are considered. First, we varied the effectiveness of an instrument, with consequent implications for the amounts of windfall gain. Second, we varied the degree of factor substitutability, which altered the relative gains between labour and

TABLE 4.7

Alternative Expenditure Experiments

Experiment Number (1)	Item (2)	Distributional Hypotheses (3)	Distributive Treatment and Series (4)
1.	Capital Incentive Grants¹ (B.3)	Grants completely effective; major effect on income sources side (75%), with remainder on income uses side; high factor substitutability results in capital gaining relative to labour on income sources side.	75% to capital income (dividends received) 25% to uses (consumption of grant-financed output)
	Highway Expenditures (D.12)	Grants completely effective; major impact on income uses side (75%), with remainder on income sources side; high factor substitutability results in capital gaining relative to labour; income uses allocation identical to standard case.	25% to capital income (dividends received) 24% to non-users (property users) 34% to passenger vehicle users 17% to consumers of transported products
2.	Capital Incentive Grants (B.5)	Grants partially effective (35%); major effect on income sources side (75%), with remainder on income uses side; high factor substitutability results in capital gaining relative to labour on income sources side.	92% to capital income (dividends received) 8% to uses (consumption of grant-financed output)
	Highway Expenditures (D.12)	Identical to experiment 1 above	
3.	Capital Incentive Grants (B.7)	Grants completely effective; major effect on income sources side (75%), with remainder on income uses side; low factor substitutability results in 67% of income sources effect attributable to capital, the remainder to labour	50% to capital income (dividends received) 25% to labour income (wages and salaries) 25% to uses (consumption of grant-financed output)
4.	Manpower and Social Assistance (4.22)	All expenditures benefit recipients within the region	100% to recipients (social welfare expenditures)
5.	Agricultural Assistance (G.20)	All expenditures provide benefits proportional to farm income within the region.	100% to farm income (net farm income)
6.	Sewers and other infrastructure (E.16a)	Grants partially effective (67%); major impact on income uses side (75%), with remainder on income sources side; low factor substitutability results in 67% of income sources effect attributable to capital, the remainder to labour; income uses allocation identical to standard case.	33% windfall to provincial-municipal taxpayers 11% to capital income 6% to labour income (wages & salaries) 34% to residential users (property users) 16% to consumers (total consumption)
7.	Operating and capital expenditures (M.25)	All expenditures are treated as national pure public goods.	100% to all families (broad income)
8.	Operating and capital expenditures (M.26)	Expenditures 67% effective and treated as national pure public goods; windfall accrues to bureau members within DREE	67% to all families (broad income) 33% to bureau members (wages and salaries)
	Planning and administration (F.18)	Expenditures 67% effective and treated as national pure public goods; windfall accrues to bureau members with DREE	67% to all families (broad income) 33% to bureau members (wages and salaries)
9.	All instruments (A.2)	All instruments are defined as output and treated as a national pure public good	100% to family units (broad income)
10.	Pro-Rich limit case	Experiments 2, 4, 5, 7	
11.	Pro-Poor limit case	Experiments 3, 6	

Source: Appendix A, Table A-4 for description of derivation of allocation procedure. Bracketed designation following each instrument item refers to the original experiment designation as found in Appendix A.

1. The instrument, capital incentive grants, encompasses the two categories: (1) capital incentive grants, and (2) other industrial assistance of Table 2.1

capital. We also developed alternative series to distribute
the benefits for several instruments.

Regional Redistribution of Income

The results of the first nine alternative experiments did
not substantially alter the regional redistribution of income
effected by DREE spending as developed for our standard case.

Experiments 10 and 11 differ from the other experiments in
that they combine those hypotheses that seem to be most pro-
rich and most pro-poor respectively, in order to provide a
set of limits bracketing the results for our standard case.
We report here on the results for these limiting experiments;
the reader can find the results for all eleven experiments in
Appendix Tables A-5(c), A-5(d) and A-5(e). The regional
redistribution of income effects for the limiting experiments
is summarized in Table 4.5 (lines 11 and 12).

The pro-poor experiment results in no substantial change
in regional redistribution compared with the standard case.
The regional pattern of redistribution is more sensitive to the
pro-rich experiment: the net gain of the Atlantic region and
the net contribution of Ontario both fall, while the net
contribution rate of Quebec increases marginally. These results
follow because experiment 10 encompasses those hypotheses that
allocate relatively larger gains to capital which benefits
family units in Ontario and British Columbia relative to family
units in Quebec and the Atlantic region.

We think it unlikely that either of the limiting cases is
a more accurate description of reality than our standard case.
However, the empirical results do suggest that there is scope
for some variations in regional redistribution as one entertains
progressively more favourable-to-the-rich hypotheses. In other
words, to the extent that we have overestimated the effectiveness
of capital incentive grants and underestimated the degree of
factor substitutability (among other things), our standard case
will overestimate the degree of regional redistribution effected
by DREE expenditures - especially between Ontario and the Atlantic
region. Empirical work on both the degree of factor substitut-
ability in grant-financed firms and the effectiveness of such
grants in generating incremental expenditures on capital and
labour would aid in confirming the standard case or moving towards
either of the two limiting cases. Empirical work on the benefits
of highway and infrastructure expenditure and on the extent to
which DREE contributions are substituted for similar planned
expenditures would also be desirable.

Redistribution of Income by Income Class

The empirical results of the first nine experiments did not
substantially alter the redistribution by income class within
each region or at the all-Canada level derived for our standard
case (see Appendix Tables A-5(c) and A-5(d)).

The distribution of fiscal incidence by income class for
the pro-rich limiting case and the pro-poor limiting case is

Table 4.8

Fiscal Incidence of Federal Regional Economic Expansion:

Expenditures, For the Pro-Rich Experiment, Regions and Canada, 1969-1975

		Family Money Income Class									
Line	Region	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
PANEL A: FISCAL INCIDENCE (Percent of Total Expenditures received (+) or contributed (-)											
1.	Atlantic region	1.03	1.23	1.96	1.48	1.58	1.62	3.30	3.36	1.55	17.76
2.	Quebec	.31	.16	.06	.17	-.25	-.43	-1.96	-1.72	.24	-3.25
3.	Ontario	-.07	-	-.28	-.31	-1.21	-1.04	-5.64	-7.66	-.13	-16.29
4.	Prairie region	.26	.44	.38	.39	-.04	-.35	-.80	-1.01	2.60	1.95
5.	B.C.	-.10	-.11	.16	-.02	-.20	-.06	-1.95	-1.52	3.60	-.05
6.	CANADA	1.43	1.72	2.28	1.71	-.12	-.14	-7.05	-8.55	7.86	0.0
PANEL B: FAMILY UNIT FISCAL INCIDENCE (Percent of expenditures received (+) or contributed (-) by a percentile of family units)											
7.	Atlantic region	.74	2.05	2.18	1.64	1.76	2.03	2.36	3.73	7.75	2.14
8.	Quebec	.10	.07	.03	.08	-.10	-.18	-.34	-.42	.11	-.12
9.	Ontario	-.02	-	-.13	-.13	-.43	-.39	-.68	-.91	-.03	-.44
10.	Prairie region	-.10	.26	.24	.56	-.07	-.44	-.28	-.46	3.25	.11
11.	B.C.	-.07	-.14	.18	-.03	-.33	-.08	-.67	-.69	4.50	--
12.	CANADA	.12	.22	.29	.23	-.02	-.02	-.32	-.47	.95	0.0

Source: Appendix Table A-5(d)

Note: Details may not add to totals due to rounding.

Table 4.9

Fiscal Incidence of Federal Regional Economic Expansion Expenditures

For the Pro-Poor Experiment, Regions and Canada, 1969-1975

Line	Regions	Under $2,000	$2,000 2,999	$3,000 3,999	$4,000 4,999	$5,000 5,999	$6,000 6,999	$7,000 9,999	$10,000 14,999	$15,000 & over	Total
					Family Money Income Class						
	PANEL A: FISCAL INCIDENCE (Percent of Total Expenditures Received (+) or Contributed (-)										
1.	Atlantic region	1.35	2.09	2.89	2.53	2.61	2.62	5.99	4.79	2.06	27.01
2.	Quebec	.49	.48	.51	.54	.30	.25	-.20	-.45	-.03	1.91
3.	Ontario	.05	-.05	-.27	-.38	-1.35	-1.48	-6.96	-9.61	-5.62	-25.66
4.	Prairie region	1.03	.91	.97	.56	.59	-.30	-1.32	-1.84	.09	.21
5.	B.C.	-.05	-.13	.12	-.08	-.21	-.11	-2.37	-2.14	2.04	-2.83
6.	CANADA	2.87	3.30	3.96	3.17	1.44	.96	-4.86	-9.25	-1.46	0.0
	PANEL B: FAMILY UNIT FISCAL INCIDENCE (Percent of Total Expenditures Received (+) or Contributed (-) by a Percentile of Family Units)										
7.	Atlantic region	.96	3.48	3.19	2.81	2.90	3.28	4.28	5.32	10.30	3.25
8.	Quebec	.16	.22	.24	.25	.12	.10	-.03	-.11	-.01	.07
9.	Ontario	.01	-.02	-.13	-.16	-.48	-.55	-.84	-1.14	-1.44	-.70
10.	Prairie region	.20	.54	.61	.43	.07	.23	-.38	-.74	.82	.01
11.	B.C.	-.04	-.16	.13	-.11	-.35	-.14	-.82	-.97	2.55	.26
12.	CANADA	.23	.41	.51	.42	.18	.12	-.22	-.51	-.18	0.0

Source: Appendix Table A-5(d)

Note: Details may not add to totals due to rounding.

summarized in Tables 4.8 and 4.9 respectively. These empirical results should be compared with the empirical results for the standard case of Table 4.4.

The empirical results of Table 4.8 demonstrate that the general pattern of fiscal incidence by income class for the pro-rich limiting case at the all-Canada level is similar to the standard case, but with increased net benefits for the richest income class, mostly at the expense of the income classes in the bottom half of the income distribution. There is some variation on this national pattern within the regions.[9]

The normalized 'family unit' results are much as one would expect, given the Panel A results. At the all-Canada level, a family unit in the richest income class receives a net gain that is larger than that received by any other representative family unit (see Table 4.8). The general pattern of net gains to a representative family unit in all income classes in the Atlantic region shifts downward (particularly significantly for a representative in the richest income class family unit). A representative rich family unit in each of the remaining regions is better off. In Ontario such a family unit is still a very small net contributor (small enough, given the imprecision in a study of this nature, to be assumed to just break even). Finally, a representative family unit in the upper income class is worse off in Quebec and the Atlantic region but better off in Ontario, the Prairies and British Columbia (see Table 4.3 for our characterized income classes). These results are illustrated in chart 4.3.

Chart 4.3 Family Unit Fiscal Incidence by Region, Pro-rich Experiment

Percentages

Atlantic
Quebec
Ontario
Prairies
B.C.

11
10
9
8
7
6
5
4
3
2
1
0
-1
-2

1.0 25 35 45 55 65 85   125   30.0

Income in thousands of dollars

Source: Table 4.8 , Panel B.

The empirical results of Table 4.9 demonstrate that the general pattern of fiscal incidence by income class for the pro-poor limiting case at the all-Canada level is similar to the standard case, but with increased net benefits for income classes between the lower middle to upper income classes mostly at the expense of the richest income class which becomes a net contributor.

The normalized 'family unit' results of Panel B reflect these results and show little variation from the standard case. At the all-Canada level a family unit in the richest income class now is a net contributor while the net contribution rate of a family unit in the next highest income class decreases. This pattern masks some variation at the regional level. A representative rich family unit in Quebec and the Atlantic region experiences no change from the standard case, whereas a rich family unit in the remaining regions experiences a decrease in its fiscal incidence rate. There is very little change for representative family units in lower income classes. These results are illustrated in chart 4.4.

Conclusions

Our estimation of the regional income redistribution effects of DREE expenditures demonstrates that only the Atlantic region has been a net beneficiary. Contrary to popular belief, Quebec receives little or no net benefit. One of the major reasons for this is that these regions contribute a substantial share

Chart 4.4 Family Unit Fiscal Incidence by Region, Pro-poor Experiment

Percentages

Atlantic
Quebec
Ontario
Prairies
B.C.

11
10
9
8
7
6
5
4
3
2
1
0
-1
-2

1.0   25   35   45   55   65   85   125   300

Income in thousands of dollars

Source: Table 4.9 , Panel B.

towards the financing of DREE. Secondly, many of the benefits resulting from DREE expenditures flow outside of the recipient regions. Quebec and probably the Atlantic region as well would be better off with increased equalization payments than with the existing DREE program. Only when it is assumed that almost all of the benefits of DREE expenditures remain within the region of the initial spending is the Atlantic region better off with the DREE program rather than increased equalization grants; Quebec would still be better off with increased equalization payments.

The empirical results also demonstrate that the lower income classes benefit to a much lesser extent from DREE expenditures than would be expected from the policy objectives of the program. The richest tenth of family units receive about the same total share of expenditure benefits as do the lowest half of family units. Only in the Atlantic region do representative low income family units receive significant net benefits from the DREE program, and even in that region they receive smaller net benefits than do representative family units in higher income classes.

We noted earlier that one of DREE's objectives is that the "great inequalities in wealth and opportunity which have persisted in this country for so long will be greatly reduced" (Marchand, 1972a:2). What now seems clear is that the federal government's chosen instruments for regional economic expansion cannot achieve that objective. In all regions the relative economic position of the poor would improve much more with increased federal transfers to

persons (perhaps in the form of a guaranteed annual income) than
it does with the existing DREE program.

Part V

Summary and

Conclusions

The reduction of regional disparities
-- or better put, the growing equality
of economic opportunity -- has been a
high priority of this government. The
policies pursued by my colleague, the
Minister of Regional Economic Expansion,
are bearing fruit.

> The Honourable John Turner,
> Minister of Finance, (1974: 4)

The search for more effective mechanisms
to reduce regional disparities has involved
the Department of Regional Economic Expansion
in a major policy review and evaluation and
has resulted in a renewed resolve to make
existing and future programs more effective.
These initiatives have placed DREE at the
forefront in the attempt to achieve a more
equitable distribution of wealth, people and
opportunity across Canada.

> DREE, Annual Report, (1974-1975: 2)

Summary and Conclusions

The existence of regional economic disparities in Canada has led to federal government attempts to reduce such disparities through a variety of policies and to the creation of DREE, specifically charged with the task of encouraging a reduction in such disparities and a reduction in the inequalities in the distribution of wealth across the country. That the effects of such policies have been modest in reducing per capita income differences among the regions was recently documented in evidence published by DREE (DREE, 1976: 34). In this study we have briefly described the development of these policies and programs.

We derived a functional breakdown of DREE expenditures for each of the five regions in Canada (Part II). It was discovered that DREE expenditures for road construction have been equal in magnitude to the much more highly publicized incentives program. Expenditures for sewage systems and other infrastructure, agricultural assistance, and other industrial assistance were also major expenditure categories. Many of the programs established prior to DREE and during DREE's early years are being gradually phased out by the Department. However, the types of expenditures made under these earlier programs continue to be made under the new label of General Development Agreements.

Evidence available from a variety of sources demonstrates that the incremental job creation resulting from the RDIA program is much less than DREE has indicated (DREE, 1973). In fact the incremental jobs are likely no more than half of the

number of jobs associated with RDIA grants and it is possible
they are as low as zero. Similarly, available evidence suggests
that the RDIA program has had little effect on capital investment.
The absence of any publicly available analysis of the effective-
ness of DREE spending on roads, sewers or any of its other major
expenditure categories is unfortunate. This deficiency and the
absence of comprehensive information on the amounts spent on
these categories are omissions that should be rectified.

In Part III we examined the general equilibrium effects of
the major DREE instruments (capital incentive grants, expenditures
on roads, sewers and other infrastructure, etc.,) on the income
uses and income sources side of a family unit's budget. We
estimated the income redistribution effects of DREE expenditures
by region and by size classes of income (Part IV). The empirical
results demonstrate that the Atlantic Region and Quebec are net
beneficiaries from the DREE program to a much lesser extent than
is commonly supposed. Quebec receives little or no net benefit.
Quebec and the Atlantic region would be better off with increased
equalization payments rather than the existing DREE program.
Only when it is assumed that almost all of the benefits of DREE
expenditures remain within the region of the original expenditure
is the Atlantic region better off with the DREE program rather
than increased equalization grants; Quebec would still be better
off with increased equalization payments.

The results also demonstrate that the lower income classes in all regions benefit from DREE expenditures to a much lesser extent than would be expected from the objectives of federal regional economic expansion policy. Only in the Atlantic region do representative lower income family units receive significant net benefits from the DREE program, and even in that region they receive smaller net benefits than do representative family units in higher income classes. The redistributive effect of DREE expenditures at the all-Canada level is, in general, away from representative family units in the upper-middle and upper income classes to representative family units in the lowest and richest income classes. In all regions the poor would be better off with increases in federal transfer payments to persons (perhaps in the form of a guaranteed annual income) rather than the present DREE program.

Our investigation has provided partial answers to questions concerning the distribution of income effects of federal regional economic expansion expenditures in Canada. Throughout we have noted areas of investigation where further research work is needed. The incrementality measures of new job creation and new capital formation that follow from the capital incentive grants are still open to debate. We tried a range of incremental-ity ratios with little effect on the distributive conclusions of our standard case. More substantive research in this area would be required to determine the effectiveness of the incentives program.

Empirical work on the degree of factor substitution between labour and capital in grant-financed firms and also within the non-subsidized sector is needed. The same can be said for interindustry factor substitutability within the low income regions resulting from expenditures on roads, sewers and other infrastructure.

More attention should be focussed on the impact of infrastructure expenditures and other social adjustment expenditures on the distribution of income across regions and family units. DREE has correctly pointed to the absence of such analysis in the work of academic researchers who have examined the RDIA incentive grant program in detail. However, the absence of a disaggregated functional breakdown of DREE expenditures until now has rendered any empirical work impossible. We have employed our estimates of DREE expenditures in the analysis of infrastructure and other social adjustment expenditures. We would be the first to point out, however, that our examination is a very limited one. Further work is urgently needed on several counts — the extent to which DREE-financed activities at the municipal and provincial level are substituted partly or wholly for planned expenditures by those governments; the extent to which DREE-financed activities of such governments so change relative prices as to divert provincial and municipal spending from other expenditures to the areas of subsidized spending; the derivation of distributive series that are more appropriate to the spending function than several used in our study; and estimation of the

developmental impact of these expenditures.

Further work is needed on comparing the income distribution impact of DREE programs with alternative federal fiscal choices. We examined a limited number of such fiscal choices and found considerable variation in impact, both by region and by size classes of income. Specifically, further analysis of the effects of particular federal transfers to persons and responses to changes in equalization payments (either formula changes, revenue changes or changes in responses of recipient governments) would be useful information in choosing among expanding or cutting back various federal government activities.

Our findings illuminate some of the outcomes of federal regional economic expansion policies as effected by DREE. These results, if even approximately accurate, raise more interesting questions in light of the government's commitment to reduce regional disparities in Canada.

Why have DREE programs provided little or no net benefit to Quebec? Has the concentration of DREE expenditures on subsidies to firms and on road and sewer construction been appropriate? Why have DREE programs not had any significant effects on regional economic disparities?

What is needed in order to answer these questions adequately is a theory of federal government behaviour with respect to regional economic expansion policies. We suggest this to others as a challenge that merits attention.

Footnotes

Part I

1. See, for example: Atcheson, Cameron and Vardy (1974: 53-59), Atcheson and Kerr (1972), Brewis (1975), Buckley and Tihanyi (1967), DREE (1969, 1973a and 1973b), Economic Council of Canada (1968), Francis and Pillai (1971), and Springate (1973: 11-28).

2. See, for example: Atcheson and Kerr (1972: 1-9), Brewis (1969), Chernick (1966), Economic Council of Canada (1965 and 1975), Green (1967) and McInnis (1968).

3. APEC, (1971), Brewis (1969), Chernick (1966), DREE (1973 and 1976), Springate (1972 and 1973), and Woodward (1974, 1974a and 1975). Usher (1975: 569-570) raises the possibility that the subsidy program of the Regional Development Incentives Act may act to transfer income from the rich region to the poor region while transferring it, on average, from poor to rich people, but this is a minor example in his paper.

4. In reality the formation of DREE in 1969 was a consolidation of ongoing activities with substantial revisions to the incentive grant program. The details are discussed in Part II.

Part II

1. This can be verified by reference to Federal-Provincial Relations Office (1975), and Tables C-4 through C-8.

2. The absence of any public data on DREE expenditures by functional classification seemed to us to be a serious deficiency in information that would be crucial for purposes of policy analysis. DREE has recently estimated a functional breakdown of expenditures by region, but the Department was not willing to make the information available to us for use in this investigation. We doubt that there would be much variation between our estimates and DREE's estimates (if and when the latter become public information).

3. For a discussion of job erosion - the difference between the number of jobs announced at the time of an RDIA grant offer by DREE and the number of jobs that actually materialize when the subsidized firm is fully geared up for commercial production - see Appendix D.

4. It has also been demonstrated in Woodward (1974a) that RDIA
    grants - which, due to their capital bias, are similar to
    capital subsidies - create fewer new jobs per firm and fewer
    new jobs per dollar of grant than other alternatives, such
    as, a labour subsidy and a production subsidy. In this
    sense capital incentive grants are an inefficient method of
    generating new employment opportunities. Our focus here
    is a different one, examining the extent to which the grant
    assisted in calling forth new jobs and new capital invest-
    ment in the designated regions.

5. DREE goes beyond the analysis of incremental jobs and
    capital investment to mention the effect of "economic
    multiplier and job spinoffs" in magnifying the total economic
    impact of RDIA grants (DREE, 1973: 46). Given the large
    propensity to import for small areas and the small magnitude
    of such multipliers for development areas as a whole, it is
    unlikely that such secondary effects are at all substantial
    (Wilson, 1968: 390). This proposition is consistent with
    our approach below.

6. As it turns out the observed level of Quebec manufacturing
    investment during 1972 would be consistent with an assumption
    of zero incrementality.   In other words, our revised
    estimate of 48 per cent incrementality may still be much too
    high.

7. No details are provided of the economic situation in Manitoba
    and Saskatchewan that would suggest that without RDIA grants
    investment would have been so far below the actual or
    historical trend levels as would be required to satisfy the
    79.8 per cent incrementality estimate. As with the Quebec
    investment levels, there is little evidence to suggest that
    incentive grants had any net incremental effect on investment.

Part III

1. The income sources: income uses dichotomy is drawn from
    Musgrave's seminal discussion of general equilibrium effects
    of budget policy (Musgrave, 1958: chs. 15-16). For a more
    complete discussion of the theory of fiscal incidence as
    derived from such general equilibrium analysis, see Gillespie
    (1967 and 1975) and Johnson (1968).

2. The discussion of general equilibrium effects draws heavily
    upon the seminal contribution of Musgrave (1958: chs. 15 and
    16) and the literature that developed thereafter; see,
    Harberger (1962), Mieszkowski (1967 and 1969) and McLure
    (1971, 1972 and 1974).

3. There have been several instances identified in which firms
    closed plants in non-subsidized regions while receiving
    DREE incentive grants in subsidized regions (eg. Union
    Carbide, Acme Seely, etc.).

4. Many of the RDIA grants given for plant modernization
    provide examples of high factor substitutability in which
    the factor substitution effect works in the opposite
    direction to the employment effect and little or no
    additional employment is created.

5. In an earlier version of this paper we examined the results
    for several other sets of assumptions in greater detail
    (perfect mobility of all factors; perfect mobility of
    capital and complete immobility of labour and land with no
    wage inflexibility; and perfect mobility of capital, complete
    immobility of land and partial mobility of labour). The
    small differences in predicted results for these alternative
    cases and the added realism of the assumptions discussed in
    the text led us to concentrate our attention solely on the
    standard case.

6. Musgrave (1959: 361-364) and Mieszkowski (1969: 1115).

7. See Part IV. Empirical support of our chosen ratios or
    other ratios would be a valuable aid in fiscal incidence
    studies of this nature. With the alternative
    magnitudes that we test in Part IV there does not seem to
    be a major effect on the conclusions derived using the
    standard case.

8. We have analysed the effects of capital subsidies throughout
    Part III on the presumption that they are completely effective
    (i.e., do call forth changes in regional resource allocation
    and relative gains to capital and/or labour). The standard case is
    based on this presumption, as is the working hypothesis that
    allocates the impact of the grants between labour and capital.
    We discussed in Part II the effectiveness of capital incentive
    grants and the allocation of any windfall gains that accrue.
    Both effects are combined in empirical calculations of Part
    IV.

9. It may well be that these benefits are captured as increased
    capitalized values of land; if this is so the beneficiaries
    would be property owners.

10. See Appendix, Table B-2, for the detailed results of alloca-
    tion of costs between users and non-users for the regions as
    well as Canada.

11. See Appendix, Table B-2, for the detailed results of allocation of user costs between passenger vehicle users and consumers of transported products for the regions as well as Canada.

12. The alternative would have been to assume that labour was immobile across regions and industries. This seemed to us a too rigid framework within which to work. The output, road passenger travel and road transportation, has been shortened to the term, travel and transportation for convenience sake.

13. See Part IV. We have analysed the effects of DREE expenditures on roads on the presumption that they are completely effective (i.e., do call forth changes in provincial resources devoted to highway expenditures). Given the substitution effect available in provincial governments' reaction function to the receipt of such grants, and given the likelihood that at least some of the road spending would have occurred in the absence of DREE financing, the grants are unlikely to be completely effective. The empirical results of Part IV utilize a range of effectiveness measures to provide the reader with a range of results that could follow from such diverse assumptions.

14. The benefits accruing to capital owners may be greater than we have assumed if the expenditure benefits are capitalized in increased land values.

15. The instruments of regional economic expansion are discussed in greater detail in Part II.

16. See Part IV, where we consider the effect of substituting a series on social assistance benefits for the series on manpower trainees, with little substantive effect on the results.

17. For a discussion of the merit want principle, see Culyer (1971), Head (1966 and 1968), McLure (1968) and Musgrave (1958:14); and for a discussion of pareto-relevant externalities, see Buchanan and Stubblebine (1962), Hettich (1972) and Turvey (1965).

18. One problem remains. If labour is immobile in the low-income region, then the public or general benefits would seem to accrue to family units within the low-income region. However, federal funding of some education expenditures through DREE implies that family units beyond the low-income region, via the merit want principle or via externalities of consumption, are benefitting. In short, a case can be made that the

public or general benefits are more national in scope. The tendency of education to increase the mobility of labour enhances the possibility that the external consumption benefits associated with education will extend beyond the boundaries of the low-income region. In view of these considerations it is possible that the public benefits are national, rather than regional, in scope.

We originally intended to consider an alternative experiment that would treat the public benefits as national in scope. However, the change in the distribution of education benefits generated by such an assumption was so small that we decided not to work out a completely new experiment (see Appendix Table A-4).

19. Experiments with variations in the ratio of private benefits to public benefits of provincially-financed education resulted in very little effect on the overall pattern of expenditure incidence (Gillespie, 1975: Table IV.12).

Part IV

1. The empirical results are carried out using a fiscal incidence study for 1969 (Gillespie, 1975), the last year for which such data are available. Consequently the family money income brackets for all tables are for incomes in 1969. While average incomes increased during the period, the distribution of income remained relatively stable. (Love and Wolfson, 1976; - The richest twenty percent of family units had 42.6 percent of total income in 1969 and 42.4 percent in 1974). Therefore observations concerning 1969 can be applied to the entire period with little loss of accuracy, if one identifies income groups according to their relative positions rather than their absolute dollar amounts of income (e.g., one focuses upon the richest 8.3 percent of family units, rather than family units with incomes $15,000 and over: see Table 4.3).

See Appendix Table A-3 for detailed information on the distribution of expenditure benefits for each functional category in each region for the standard case. It can be noted in passing that the slightly more attractive expenditure benefit shares over the lower income classes in the Atlantic and Prairie regions are primarily accounted for by manpower and social assistance expenditures in the former and agricultural assistance, manpower and social assistance expenditures in the latter. The significantly more attractive benefit shares over the richest income classes in

Ontario, the Prairies and British Columbia are partly accounted for by the benefit to capital owners, primarily located in these three regions, of the capital incentive grants, other industrial assistance and expenditures on highways and roads.

2. The subsidized products include grant-financed products, transported products, infrastructure-subsidized products, etc.

3. We note in passing that since at least 1951 the distribution of income shares in Canada has not changed significantly (Love and Wolfson, 1976).

4. Throughout the discussion of the empirical results we use the terminology 'income class' to refer to gains (contributions) that accrue to (are made by) the group of family units in a given income class (usually panel A results). We use 'family unit' to refer to the gains (contributions) that accrue to (are made by) a representative family unit in a given income class (usually, panel B results).

5. See Appendix Table A-5 for the detailed results by regions and by income class. We intend to review briefly the major conclusions only in the text; for the detailed regional variation the Appendix tables should be consulted.

6. See Appendix Table A-5 for the fiscal incidence share in each region.

7. Compare lines 1 and 5, Table 4.6. The lowest income class gains less from DREE spending financed by reduced federal equalization payments (2.49 percent) than it does when financed by increased total federal taxes (2.85 percent). Therefore, for a given level of total federal taxes, the lowest income class loses more through foregone equalization payments than it gains through DREE spending. Thus the poor would be better off with increased equalization payments rather than increased DREE spending.

8. We initially considered a much longer list of alternative hypotheses, especially within the important incentive grant category, but in view of the trivial differences (when compared with the standard case) that were emerging in the preliminary empirical results, we pared our final set of experiments to the contents of Table 4.7.

9. The reader is referred to Appendix Table A-5(d) for the details of these experiments in the regions.

APPENDIX A

Calculation of Expenditure

Incidence and Fiscal Incidence

TABLE A-1(a)

Distributive Series,

Canada, 1969, percentages

Line	Item	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
1.	Total federal taxes	1.6	1.8	2.9	4.0	5.3	6.6	23.1	27.8	26.7	100.0
2.	Personal income tax	0.1	0.4	1.3	3.1	3.8	5.2	21.8	31.7	32.2	100.0
3.	Total federal expenditures	7.8	7.4	7.4	6.9	6.8	6.9	19.6	18.9	18.5	100.0
4.	Federal personal transfers	15.4	13.3	10.9	8.7	8.1	7.5	16.9	12.7	6.7	100.0
5.	Total provincial taxes	2.2	2.5	3.6	4.4	5.6	6.9	23.3	27.4	24.0	100.0
5a.	Total provincial taxes changed in response to equalization payments	1.6	2.7	4.5	5.4	7.3	9.0	25.7	25.6	17.4	100.0
6.	Total provincial expenditures	6.1	5.6	6.4	6.9	7.6	8.3	24.2	21.2	13.8	100.0
6a.	Total provincial expenditures changed in response to equalization payments	6.2	6.4	7.9	8.5	9.5	9.5	24.1	18.0	10.2	100.0
7.	Dividends income	1.3	1.3	2.5	3.1	1.2	5.0	8.3	14.3	62.9	100.0
8.	Consumption of grant-financed output	3.8	3.6	4.5	5.4	6.5	7.4	24.8	26.8	18.0	100.0
9.	Wages and salaries	0.6	1.1	2.3	3.7	5.6	6.9	26.3	31.8	21.5	100.0
10.	Children, age 5-17	0.9	2.5	4.6	5.8	7.4	9.9	32.2	25.4	11.3	100.0
11.	Broad income	0.9	1.8	3.1	4.1	5.4	6.5	23.1	27.0	27.0	100.0
12.	Family units (number in thousands)	792.2	518.4	500.2	488.2	518.2	512.1	1416.1	1171.5	533.4	6450.2
13.	Family units (percentage distribution)	12.3	8.0	7.8	7.6	8.0	7.9	22.0	18.2	8.3	100.0
14.	Property users	16.3	5.9	7.7	6.7	6.6	7.0	23.4	22.8	13.6	100.0
15.	Miles driven	1.2	2.0	2.3	4.0	5.8	7.7	25.7	31.9	19.4	100.0
16.	Consumption of transported commodities	3.8	3.7	4.6	5.5	6.6	7.6	25.0	26.7	16.5	100.0
17.	Total current consumption	4.0	3.7	4.6	5.5	6.6	7.5	24.9	26.4	16.9	100.0
18.	Manpower trainees	16.4	17.0	18.7	15.7	11.4	7.6	10.6	1.4	1.4	100.0
19.	Total provincial-municipal taxes	2.8	3.0	3.9	4.6	5.7	6.9	23.3	26.8	22.8	100.0
20.	Net farm income	0.8	4.4	8.3	8.4	6.4	3.8	14.6	16.2	37.5	100.0
21.	Farm family units	14.2	12.6	14.4	12.2	8.6	5.7	12.9	10.8	8.6	100.0
22.	Social assistance expenditures	12.1	9.2	8.9	8.1	8.6	8.0	20.8	16.8	8.2	100.0
23.	Original adjusted broad income, ABY (millions of dollars)	1676.4	2089.6	2717.9	3157.9	3750.5	4208.5	14043.9	15585.4	14458.2	61662.3
24.	New adjusted broad income, ABY* (millions of dollars)	1683.8	2098.7	2728.5	3165.4	3752.2	4210.8	14027.8	15555.6	14465.2	61662.3

Family Money Income Class

Note: Details may not add to totals, due to rounding.

TABLE 4-1(b)

Distributive Series.

Atlantic Provinces, 1969, percentages

Line	Item	Family Money Income Class									Total
		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	
1.	Total federal taxes	2.0	3.2	6.2	7.0	9.9	9.4	27.6	23.3	11.6	100.0
2.	Personal income tax	0.2	1.2	2.7	3.9	6.9	8.7	30.4	31.1	14.9	100.0
3.	Total federal expenditures	11.0	9.7	10.0	8.9	9.7	8.2	19.3	15.1	8.5	100.0
4.	Federal personal transfers	19.2	15.0	11.9	10.1	9.5	7.1	14.7	9.4	3.3	100.0
5.	Total provincial taxes	1.8	3.6	6.7	7.0	9.6	9.7	25.2	23.7	10.6	100.0
6.	Total provincial expenditures	6.0	6.8	9.7	9.8	10.9	10.1	23.9	16.8	6.8	100.0
7.	Dividends income	0.8	0.7	10.8	2.7	2.9	0.6	8.6	23.8	49.1	100.0
8.	Consumption of grant-financed output	2.5	5.8	8.1	8.3	10.6	10.6	27.8	19.5	6.4	100.0
9.	Wages and salaries	1.5	2.5	4.3	7.8	10.9	11.0	26.6	25.5	9.9	100.0
10.	Children age 5-17	1.4	6.0	9.6	11.0	12.6	12.3	27.4	16.2	3.4	100.0
11.	Broad income	1.9	2.7	5.2	7.3	9.1	8.6	24.8	24.1	15.0	100.0
12.	Family units (number in thousands)	90.7	41.2	55.2	57.9	57.3	48.4	92.8	58.4	15.3	537.3
13.	Family unit (percentage distribution)	16.9	7.7	10.3	10.8	10.7	9.0	17.3	10.9	2.8	100.0
14.	Property users	4.8	7.2	9.2	7.7	9.4	10.3	26.1	19.2	6.0	100.0
15.	Miles driven	1.2	3.3	6.8	8.7	11.3	11.1	30.4	21.8	5.4	100.0
16.	Consumption of transported commodities	3.2	6.3	8.7	8.1	8.9	10.5	28.1	19.8	6.4	100.0
17.	Total current consumption	3.2	5.8	8.4	8.2	10.3	10.2	27.6	19.9	6.4	100.0
18.	Manpower trainees	16.4	17.0	18.7	15.7	11.4	7.6	10.6	1.4	1.4	100.0
19.	Total provincial-municipal taxes	2.2	4.0	7.2	7.1	9.5	9.6	25.2	23.3	10.3	100.0
20.	Net farm income	5.4	7.7	24.2	6.0	0.0	5.6	17.6	32.8	0.7	100.0
21.	Farm family units	2.7	18.9	21.9	8.9	0.0	8.7	16.2	14.5	3.2	100.0
22.	Social assistance expenditures	13.4	10.4	12.3	10.4	10.8	8.7	18.6	12.5	4.4	100.0
23.	Adjusted broad income ABY (millions of dollars)	213.8	216.2	291.5	351.0	399.2	395.2	932.0	861.4	545.1	4186.9
24.	New adjusted broad income ABY* (millions of dollars)	217.7	222.2	299.6	357.9	406.1	402.1	947.8	874.0	551.3	4260.9
25.	Family units as per cent of all-Canada	1.4	0.6	0.9	0.9	0.9	0.8	1.4	0.9	0.2	8.3

Note: Details may not add to totals, due to rounding.

TABLE A-1(c)

Distributive Series,

Quebec, 1969, percentages

Line	Item	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
1.	Total federal taxes	1.1	1.5	2.7	4.0	5.8	8.4	26.1	27.0	23.5	100.0
2.	Personal income tax	0.1	0.4	1.3	2.3	4.6	6.5	24.9	30.4	29.6	100.0
3.	Total federal expenditures	7.6	6.9	6.9	7.5	8.4	8.0	19.5	17.6	17.6	100.0
4.	Federal personal transfers	14.2	11.9	9.6	9.4	9.5	8.3	17.8	12.2	7.5	100.0
5.	Total provincial taxes	1.2	1.9	2.7	4.1	5.6	8.7	26.3	27.5	22.2	100.0
6.	Total provincial expenditures	6.2	6.1	6.5	7.7	8.7	9.3	24.3	18.7	12.6	100.0
7.	Dividends income	3.8	0.4	1.3	3.3	0.9	7.7	7.0	19.8	55.5	100.0
8.	Consumption of grant-financed output	2.1	2.9	4.0	5.4	6.7	9.4	28.1	25.9	15.6	100.0
9.	Wages and salaries	0.6	1.3	3.2	4.2	6.6	8.1	26.5	27.3	22.3	100.0
10.	Children, age 5-17	0.5	2.1	5.2	6.7	9.4	12.3	32.2	22.2	8.9	100.0
11.	Broad income	0.9	1.6	3.2	4.5	6.5	7.5	23.2	25.8	26.9	100.0
12.	Family units (number in thousands)	197.9	138.7	148.0	143.7	158.5	153.6	374.1	265.8	140.2	1721.4
13.	Family units (percentage distribution)	11.5	8.1	8.6	8.3	9.2	8.9	21.7	15.5	8.1	100.0
14.	Property users	3.4	4.0	5.4	7.8	7.0	9.3	26.7	25.3	13.3	100.0
15.	Miles driven	0.4	1.5	2.4	4.8	5.8	10.8	32.1	28.9	13.3	100.0
16.	Consumption of transported commodities	2.2	3.2	4.1	5.6	6.0	8.1	28.8	25.9	16.1	100.0
17.	Total current consumption	2.4	3.2	4.1	5.5	6.8	9.6	28.0	25.4	15.1	100.0
18.	Manpower trainees	16.4	17.0	18.7	15.7	11.4	7.6	10.6	1.4	1.4	100.0
19.	Total provincial-municipal taxes	1.6	3.9	3.1	4.5	5.9	8.8	26.3	26.6	21.2	100.0
20.	Net farm income	1.6	5.4	6.9	13.7	15.7	3.4	6.0	8.8	39.2	100.0
21.	Farm family units	7.2	8.9	11.7	17.0	16.9	8.1	13.9	5.6	10.8	100.0
22.	Social assistance expenditures	10.6	9.2	8.0	8.4	8.5	8.8	22.6	15.0	8.1	100.0
23.	Original adjusted broad income, ABY (millions of dollars)	498.9	546.2	766.2	934.3	1233.1	1233.8	3488.0	3585.7	3800.4	16078.1
24.	New adjusted broad income, ABY* (millions of dollars)	500.4	547.4	767.4	935.6	1233.1	1233.8	3484.1	3561.8	3800.6	16075.6
25.	Family units as per cent of all Canada	3.1	2.2	2.3	2.2	2.5	2.4	5.8	4.1	2.2	26.7

Note: Details may not add to totals, due to rounding.

TABLE A-1(d)

Distributive Series,

Ontario, 1969, percentages

Line	Item	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
						Family Money Income Class					
1.	Total federal taxes	0.9	1.2	1.7	2.4	4.3	5.6	22.1	30.4	31.3	100.0
2.	Personal income tax	0.1	0.3	0.8	1.3	2.9	4.1	19.9	33.0	37.7	100.0
3.	Total federal expenditures	6.8	6.6	6.1	5.2	6.0	6.6	18.9	22.0	21.6	100.0
4.	Federal personal transfers	14.1	12.6	10.1	7.2	7.6	7.5	17.6	15.5	7.8	100.0
5.	Total provincial taxes	1.5	2.0	2.3	2.7	4.9	6.4	22.8	29.5	26.5	100.0
6.	Total provincial expenditures	5.3	4.2	4.3	4.7	6.1	7.5	25.0	25.2	17.3	100.0
7.	Dividends income	1.1	2.1	1.1	2.3	0.9	4.8	9.0	13.9	64.4	100.0
8.	Consumption of grant-financed output	2.3	2.3	2.8	3.1	5.4	6.7	24.8	30.3	22.1	100.0
9.	Wages and salaries	0.4	0.7	1.3	2.9	4.8	5.6	24.2	35.7	24.3	100.0
10.	Children age 5-17	0.8	1.5	2.1	3.0	4.4	7.7	32.6	29.7	15.7	100.0
11.	Broad income	0.7	1.3	1.8	3.2	4.5	5.4	21.6	31.5	29.9	100.0
12.	Family units (number in thousands)	233.5	162.2	134.2	154.8	180.2	174.7	535.9	544.9	253.5	2373.9
13.	Family units (percentage distribution)	9.8	6.8	5.7	6.5	7.6	7.4	22.6	23.0	10.7	100.0
14.	Property users	4.0	5.2	7.6	4.2	5.7	6.6	24.0	26.1	16.7	100.0
15.	Miles driven	0.8	1.7	1.7	3.1	5.2	8.1	26.7	32.8	19.8	100.0
16.	Consumption of transported commodities	2.2	2.3	2.9	3.2	5.6	6.9	25.1	30.4	21.4	100.0
17.	Total current consumption	2.4	2.4	2.9	3.2	5.5	6.8	25.0	30.0	21.7	100.0
18.	Manpower trainees	16.4	17.0	18.7	15.7	11.4	7.6	10.6	1.4	1.4	100.0
19.	Total provincial-municipal taxes	1.9	2.4	2.7	2.9	5.0	6.4	23.1	29.2	25.7	100.0
20.	Net farm income	1.4	2.4	4.2	3.8	0.9	3.7	13.8	9.8	60.1	100.0
21.	Farm family units	12.0	7.3	10.1	12.5	5.1	5.6	15.8	15.9	15.6	100.0
22.	Social assistance expenditures	11.0	8.1	7.1	6.2	7.4	7.5	21.2	20.1	10.8	100.0
23.	Original adjusted broad income, ABY (millions of dollars)	541.8	617.6	676.9	970.3	1186.1	1378.1	5145.4	7042.1	6345.1	23925.3
24.	New adjusted broad income, ABY* (millions of dollars)	542.1	617.7	676.2	969.3	1182.1	1374.1	5125.1	7014.2	6335.0	23857.5
25.	Family units as per cent of all Canada	3.6	2.5	2.1	2.4	2.8	2.7	8.3	8.4	3.9	36.8

Note: Details may not add to totals, due to rounding.

TABLE A-1(e)

Distributive Series,

Prairies, 1969, percentages

Line	Item	Under $2,000	$2,000– 2,999	$3,000– 3,999	$4,000– 4,999	$5,000– 5,999	$6,000– 6,999	$7,000– 9,999	$10,000– 14,999	$15,000 & over	Total
					Family Money Income Class						
1.	Total federal taxes	2.0	2.5	3.0	4.5	5.4	7.1	24.2	26.0	24.8	100.0
2.	Personal income tax	0.3	0.7	1.5	2.7	4.1	6.3	24.1	31.0	29.2	100.0
3.	Total federal expenditures	8.6	8.9	8.4	7.8	6.9	6.4	18.8	17.0	17.0	100.0
4.	Federal personal transfers	18.0	14.6	12.3	9.3	8.0	7.1	15.4	9.7	5.6	100.0
5.	Total provincial taxes	2.9	3.6	4.5	5.3	5.9	7.4	23.9	25.2	21.5	100.0
6.	Total provincial expenditures	6.4	6.0	7.2	7.6	7.9	8.2	23.5	19.4	12.7	100.0
7.	Dividends income	1.1	1.3	2.7	4.6	1.3	2.2	11.8	12.2	63.0	100.0
8.	Consumption of grant-financed output	4.4	5.2	5.2	6.0	6.7	8.0	25.3	25.0	13.9	100.0
9.	Wages and salaries	1.1	1.7	3.3	4.0	5.5	7.9	28.0	29.7	18.8	100.0
10.	Children Age 5-17	2.0	3.6	6.3	6.9	8.9	9.7	29.2	23.3	9.5	100.0
11.	Broad income	1.8	3.9	4.2	4.7	5.3	6.8	23.7	25.0	26.0	100.0
12.	Family units (number in thousands)	175.6	109.3	105.9	85.1	82.8	84.6	225.9	162.0	70.3	1101.3
13.	Family units (percentage distribution)	15.9	9.9	9.6	7.7	7.5	7.7	20.5	14.7	6.4	100.0
14.	Property users	16.8	6.6	7.2	6.5	6.7	8.3	25.4	21.6	11.2	100.0
15.	Miles driven	3.1	4.1	5.5	7.1	7.7	9.0	26.1	25.7	11.7	100.0
16.	Consumption of transported commodities	4.5	5.2	5.5	6.0	6.7	8.1	25.2	24.8	13.6	100.0
17.	Total current consumption	4.2	5.2	3.5	6.1	6.8	8.0	25.3	24.4	18.9	100.0
18.	Manpower trainees	16.4	17.0	18.7	15.7	11.4	7.6	10.6	1.4	1.4	100.0
19.	Total provincial-municipal taxes	3.5	4.2	4.9	5.5	6.1	7.4	24.0	24.6	19.9	100.0
20.	Net farm income	2.9	10.3	10.7	10.0	8.5	2.8	17.2	21.7	15.9	100.0
21.	Farm family units	19.9	17.2	16.7	10.3	7.4	3.6	10.8	10.1	4.0	100.0
22.	Social assistance expenditures	11.9	9.7	9.0	8.7	8.1	8.1	20.6	15.3	7.4	100.0
23.	Original adjusted broad income, ABY (millions of dollars)	395.5	605.1	602.9	609.3	627.0	712.3	2347.4	2308.4	2327.6	10443.2
24.	New adjusted broad income, ABY* (millions of dollars)	398.5	607.8	605.8	611.1	627.1	711.2	2343.1	2302.5	2331.6	10445.9
25.	Family units as per cent of all-Canada	2.7	1.7	1.6	1.3	1.3	1.3	3.5	2.5	1.1	17.1

Note: Details may not add to totals, due to rounding.

TABLE A-1(f)

Distributive Series,

British Columbia, 1967, percentages

Line	Item	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
						Family Money Income Class					
1.	Total federal taxes	1.2	1.7	2.2	3.7	3.4	5.4	27.1	29.2	25.6	100.0
2.	Personal income tax	0.2	0.5	0.9	0.5	2.6	6.2	27.1	34.9	26.3	100.0
3.	Total federal expenditures	8.1	7.0	7.7	5.8	4.2	6.5	21.2	19.8	20.0	100.0
4.	Federal personal transfers	16.3	13.6	12.5	7.7	4.5	6.8	19.0	13.5	5.9	100.0
5.	Total provincial taxes	1.6	2.0	2.8	4.0	3.8	6.9	26.9	28.5	23.4	100.0
6.	Total provincial expenditures	5.3	4.8	5.1	5.7	7.2	7.4	27.9	24.3	14.3	100.0
7.	Dividends income	0.4	0.3	3.7	3.0	4.6	7.0	4.6	11.7	68.2	100.0
8.	Consumption of grant-financed output	3.3	3.4	3.5	5.1	5.4	7.3	30.6	29.8	12.6	100.0
9.	Wages and salaries	0.7	0.9	1.8	3.2	3.6	5.6	31.8	34.0	18.3	100.0
10.	Children Age 5-17	0.9	2.1	3.1	4.9	2.9	7.3	38.1	31.3	12.7	100.0
11.	Broad income	0.8	1.0	2.8	3.5	3.0	5.8	26.4	29.0	27.8	100.0
12.	Family units (number in thousands)	92.7	48.4	56.9	46.8	39.4	50.9	187.4	139.3	54.1	716.4
13.	Family units (percentage distribution)	12.9	6.8	7.9	6.5	5.5	7.1	26.2	19.4	7.6	100.0
14.	Property users	3.1	2.9	7.4	18.1	8.5	8.7	29.3	16.1	5.9	100.0
15.	Miles driven	0.8	2.9	2.3	4.3	5.0	6.8	36.8	29.9	12.1	100.0
16.	Consumption of transported commodities	2.7	3.4	3.2	5.0	4.4	7.2	30.6	30.1	12.9	100.0
17.	Total current consumption	2.8	3.4	3.3	4.8	4.5	7.3	30.8	29.9	13.2	100.0
18.	Manpower trainees	16.4	17.0	18.7	15.7	11.4	7.6	10.6	1.4	1.4	100.0
19.	Total provincial-municipal taxes	2.0	2.5	3.2	4.3	4.0	7.0	27.4	28.2	21.8	100.0
20.	Net farm income	-7.5	2.2	5.7	7.3	0.9	9.4	17.5	26.3	38.3	100.0
21.	Farm family units	6.1	2.6	13.4	13.3	9.0	12.4	13.3	13.5	16.4	100.0
22.	Social assistance expenditures	10.3	8.2	7.3	6.9	5.9	7.5	25.7	20.7	7.7	100.0
23.	Original adjusted broad income, ABY (millions of dollars)	179.8	166.2	293.1	286.1	286.1	413.1	1781.7	1855.5	1769.8	6960.1
24.	New adjusted broad income, ABY* (millions of dollars)	179.7	165.8	293.5	285.9	285.5	412.9	1774.7	1849.4	1777.2	6953.4
25.	Family units as per cent of all-Canada	1.4	0.8	0.9	0.7	0.6	0.8	2.9	2.2	0.8	11.1

Note: Details may not add to totals, due to rounding.

TABLE A-2(a)

Distributive Series by Region, 1969

percentages

Line	Item	Atlantic Region	Quebec	Ontario	Prairie Region	British Columbia	Canada
1.	Total federal taxes	6.3	24.8	41.9	15.6	11.6	100.0
2.	Federal personal income tax	4.7	24.0	45.1	15.1	11.1	100.0
3.	Total Federal expenditures	9.1	26.3	35.9	18.9	10.9	100.0
4.	Federal personal transfers	10.2	26.9	35.0	16.4	11.6	100.0
5.	Total provincial taxes	6.4	28.4	40.7	13.8	10.7	100.0
6.	Total provincial expenditures	8.3	31.0	34.5	16.1	9.8	100.0
7.	Dividends income	4.7	14.5	38.3	20.6	21.9	100.0
8.	Consumption of grant-financed output	26.7	49.2	7.5	14.3	2.3	100.0
9.	Wages and salaries	6.1	26.0	42.6	14.2	11.1	100.0
10.	Children age 5-17	9.8	29.6	38.0	15.3	7.3	100.0
11.	Broad income	6.0	25.3	41.1	15.8	11.6	100.0
12.	Family units (number in thousands)	537.3	1721.4	2373.9	1101.3	716.4	6450.2
13.	Family units (percentages)	8.3	26.7	36.8	17.1	11.1	100.0
14.	Property users	4.8	21.4	46.3	15.9	12.3	100.0
15.	Highway users and non-users	12.0	23.0	37.6	18.3	9.5	100.0
16.	Total consumption	6.8	26.1	41.0	15.5	10.8	100.0
17.	Manpower trainees	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18.	Total provincial-municipal taxes	5.8	27.3	41.9	14.5	10.5	100.0
19.	Net farm income	3.9	17.6	35.4	38.8	4.4	100.0
20.	Farm family units	4.9	20.3	21.6	47.2	5.9	100.0
21.	Social assistance expenditures	6.1	36.0	33.0	14.9	9.8	100.0
22.	Original adjusted broad income, ABY	6.8	26.1	38.8	16.9	11.3	100.0
23.	New adjusted broad income ABY*	6.9	26.1	38.7	16.9	11.3	100.0

Note: Details may not add to total due to rounding

TABLE A-2(b)

Distributive Series by Region, 1969

millions of dollars

Line	Item	Atlantic Region	Quebec	Ontario	Prairies	British Columbia	Canada
1.	Total federal taxes	838.3	3305.2	5591.0	2078.6	1546.8	13359.6
2.	Federal personal income tax	262.6	1341.1	2520.2	843.8	620.3	5556.1
3.	Total federal expenditures	1128.2	3254.8	4442.5	2341.6	1351.5	12335.7
4.	Federal personal transfers	494.6	1302.9	1696.4	796.3	562.9	4849.2
5.	Total provincial taxes	534.6	2380.8	3414.7	1157.1	899.9	8361.1
6.	Total provincial expenditures	796.8	2969.5	3304.3	1540.8	939.7	9579.2
7.	Dividends income	85.9	264.9	699.8	376.4	400.1	1827.2
8.	Consumption of grant-financed output	20.5	37.8	5.7	11.0	1.7	76.7
9.	Wages and salaries	2628.8	11204.7	18358.4	6119.4	4784.0	43095.0
10.	Children age 5-17	215.0	650.5	833.7	335.5	160.4	2195.2
11.	Broad income	3569.7	15122.6	24594.7	9435.3	6953.0	59839.6
12.	Family units (number in thousands)	537.3	1721.4	2373.9	1101.3	716.4	6450.2
13.	Family units (percentages)	8.3	26.7	36.8	17.1	11.1	100.0
14.	Property users	51.3	290.9	438.2	139.6	119.8	1039.3
15.	Highway users and non-users	11.2	21.5	35.1	17.1	8.9	93.4
16.	Total consumption	5.0	19.1	30.0	11.3	7.9	73.1
17.	Manpower trainees	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18.	Total provincial-municipal taxes	5749.5	333.7	1567.5	2410.2	834.6	5749.5
19.	Net farm income	58.9	265.9	534.9	586.3	66.5	1511.0
20.	Farm family units (number in thousands)	18.6	76.6	81.1	177.7	22.3	376.2
21.	Social assistance expenditures	244.1	1431.8	1309.7	591.3	387.5	3971.8
22.	Original adjusted broad income, ABY	4186.9	16078.1	23925.3	10443.2	6960.1	61662.3
23.	New adjusted broad income, ABY*	4260.9	16075.6	23857.5	10445.9	6953.4	61662.3

Note: Details may not add to totals, due to rounding

TABLE A-2

Distribution of Expenditures, Tax Payments and Local Amounts, Regions and Canada, standard case, millions of dollars

Line	Item		Family Money Income Class								
		Under $2,000	$2,000–2,999	$3,000–3,999	$4,000–4,999	$5,000–5,999	$6,000–6,999	$7,000–9,999	$10,000–14,999	$15,000 & over	Total
	EXPENDITURES										
	ATLANTIC REGION										
1.	Capital Incentive Grants (B.8)	.12	.23	.52	.49	.65	.60	1.69	1.86	1.80	2.08
2.	Highways (D.13)	.97	1.73	2.79	2.89	3.78	3.88	10.10	8.40	3.21	38.07
3.	Other Industrial Assistance (B.8)	.05	.08	.22	.17	.24	.22	.60	.55	.60	2.79
4.	Manpower and Social Assistance (H.21)	2.13	2.21	2.43	2.04	1.48	.99	1.38	1.18	.18	13.00
5.	Agriculture (G.19)	.11	.76	.88	.36	—	.35	.65	.54	.13	4.00
6.	Sewers and Other Infrastructure (E.16)	.23	.35	.51	.46	.59	.63	1.61	1.74	.56	6.33
7.	Planning and Administration (F.17)	.01	.02	.03	.04	.06	.06	.15	.15	.09	.61
8.	Education (C.11)	.12	.33	.57	.70	.83	.84	2.00	1.35	.71	7.63
9.	Sub-total	3.74	5.71	8.05	7.15	7.63	7.57	18.18	14.71	7.28	80.56
10.	Operating and Capital (M.24)	.58	.88	1.24	1.10	1.17	1.16	2.80	2.26	1.12	12.31
11.	TOTAL Expenditures	4.32	6.59	9.29	8.25	8.80	8.73	20.98	16.97	8.40	92.07
	QUEBEC										
12.	Capital Incentive Grants (B.8)	.44	.20	.40	.66	.60	1.35	2.73	3.75	6.14	16.28
13.	Highways (D.13)	.37	.51	.79	1.21	1.44	2.32	6.86	6.73	4.93	25.19
14.	Other Industrial Assistance (B.8)	.15	.07	.16	.24	.24	.49	1.08	1.42	2.16	6.02
15.	Manpower and Social Assistance (H.21)	.71	.74	.81	.68	.49	.33	.46	.06	1.06	4.35
16.	Agriculture (G.19)	.19	.24	.31	.45	.45	.22	.37	.15	.29	2.67
17.	Sewers and Other Infrastructure (E.16)	.13	.18	.21	.30	.32	.47	1.32	1.49	1.03	5.20
18.	Planning and Administration (F.17)	.02	.04	.08	.12	.17	.19	.60	.66	.69	2.57
19.	Education (C.11)	—	—	—	—	—	—	—	—	—	—
20.	Sub-total	2.01	1.98	2.76	3.66	3.71	5.37	13.42	14.05	15.30	52.26
21.	Operating and Capital (M.24)	.31	.30	.42	.56	.57	.82	2.05	2.15	2.34	9.52
22.	TOTAL Expenditures	2.32	2.28	3.18	4.22	4.28	6.19	15.47	16.20	17.64	71.78

TABLE A-7 (Con'd.)

Distribution of Expenditures, Tax Payments and Fiscal Amounts.

Regions and Canada, standard case, millions of dollars.

Family Money Income Class

Line	Item	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	ONTARIO										
23.	Capital Incentive Grants (B.8)	.27	.50	.28	.56	.29	1.18	2.44	3.70	14.80	24.10
24.	Highways (D.13)	.11	.14	.13	.17	.20	.37	1.07	1.40	2.76	6.37
25.	Other Industrial Assistance (B.8)	.09	.16	.09	.18	.09	.38	.76	1.15	4.81	7.72
26.	Manpower and Social Assistance (H.21)	.11	.11	.13	.11	.00	.05	.07	.01	.01	.67
27.	Agriculture (G.19)	.54	.33	.45	.56	.23	.25	.71	.71	.70	4.50
28.	Sewers and Other Infrastructure (E.16)	.05	.07	.07	.07	.09	.15	.46	.58	1.00	2.54
29.	Planning and Administration (F.17)	.03	.05	.08	.13	.19	.23	.90	1.32	1.25	4.18
30.	Education (C.11)	--	--	--	--	--	--	--	--	--	--
31.	Sub-total	1.20	1.36	1.23	1.78	1.17	2.61	6.41	8.86	25.33	50.08
32.	Operating and Capital (M.24)	.18	.21	.19	.27	.18	.40	.98	1.36	3.87	7.65
33.	TOTAL Expenditures	1.38	1.57	1.42	2.05	1.35	3.01	7.39	10.22	29.20	57.73
	PRAIRIE REGION										
34.	Capital Incentive Grants (B.8)	.21	.26	.44	.69	.33	.49	2.18	2.26	8.04	14.88
35.	Highways (D.13)	.13	.15	.19	.25	.22	.26	.92	.91	1.55	4.58
36.	Other Industrial Assistance (B.8)	.06	.07	.13	.21	.08	.12	.58	.60	2.54	4.39
37.	Manpower and Social Assistance (H.21)	1.18	1.22	1.34	1.13	.82	.54	.76	.10	.10	7.17
38.	Agriculture (G.19)	1.79	1.55	1.50	.93	.69	.32	.97	.91	.36	9.00
39.	Sewers and Other Infrastructure (E.16)	.03	.03	.04	.05	.04	.04	.21	.21	.45	1.06
40.	Planning and Administration (F.17)	.03	.06	.07	.08	.09	.11	.38	.40	.42	1.61
41.	Education (C.11)	--	--	.01	.01	.01	.02	.05	.04	.03	.17
42.	Sub-total	3.43	3.34	3.72	3.35	2.28	1.90	6.05	5.43	13.49	42.86
43.	Operating and Capital (M.24)	.52	.51	.57	.51	.35	.29	.93	.83	2.06	6.55
44.	TOTAL Expenditures	3.95	3.85	4.29	3.86	2.63	2.19	6.98	6.26	15.55	49.47

TABLE A-5 (con'd)

Distribution of Expenditures, Tax Payments and Fiscal Accounts

Regions and Canada, standard case, millions of dollars

Line	Item	Under $2,000	$2,000 – 2,999	$3,000 – 3,999	$4,000 – 4,999	$5,000 – 5,999	$6,000 – 6,999	$7,000 – 9,999	$10,000 – 14,999	$15,000 & over	Total
						Family Money Income Class					
	BRITISH COLUMBIA										
45.	Capital Incentive Grants (B.8)	.05	.04	.48	.40	.16	.92	.80	1.72	8.85	13.43
46.	Highways (D.13)	.03	.04	.11	.09	.09	.22	.47	.57	1.44	3.08
47.	Other Industrial Assistance (B.8)	.02	.01	.16	.13	.04	.30	.21	.51	2.87	4.26
48.	Manpower and Social Assistance (H.21)	.03	.03	.03	.03	.02	.01	.02	--	--	.17
49.	Agriculture (G.19)	.08	.03	.18	.18	.12	.16	.18	.18	.22	1.33
50.	Sewers and Other Infrastructure (E.16)	.01	.01	.03	.03	.02	.06	.12	.16	.45	.58
51.	Planning and Administration (F.17)	.01	.01	.03	.04	.04	.07	.31	.34	.33	1.18
52.	Education (C.11)	--	--	--	--	--	--	--	--	--	--
53.	Sub-total	.23	.17	1.02	.95	.49	1.74	2.11	3.48	14.16	24.33
54.	Operating and Capital (M.24)	.04	.03	.16	.15	.08	.27	.32	.53	2.16	3.72
55.	TOTAL Expenditures	.27	.20	1.18	1.10	.57	2.01	2.43	4.01	16.32	28.05
56.	CANADA: Total Expenditures	12.24	14.49	19.36	19.48	17.63	22.13	53.25	53.66	87.11	299.86
	TAXES : Increase Federal Taxes										
57.	Atlantic Region	.38	.60	1.17	1.32	1.87	1.77	5.21	4.40	2.19	18.87
58.	Quebec	.82	1.11	2.01	2.97	4.31	6.24	19.39	20.06	17.46	74.30
59.	Ontario	1.13	1.51	2.13	3.01	5.40	7.03	27.74	38.15	39.28	125.53
60.	Prairie Region	.93	1.17	1.40	2.10	2.52	3.52	11.31	12.15	11.59	46.74
61.	B.C.	.42	.59	.76	1.29	1.18	2.22	9.42	10.15	8.90	34.75
62.	CANADA	3.68	4.98	7.47	10.69	15.28	20.58	73.07	85.91	79.42	299.86

TABLE 4-3 (Cont'd.)

Distribution of Expenditures, Tax Payments and Fiscal Amounts

Regions and Canada, standard case, millions of dollars

Line	Item	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
						Family Money Income Class					
	FISCAL AMOUNTS										
63.	Atlantic Region	3.94	5.99	8.12	6.93	6.93	6.96	15.77	12.57	6.21	74.00
64.	Quebec	1.50	1.17	1.17	1.25	.03	.05	-3.92	-3.86	0.18	-2.52
65.	Ontario	.25	.06	-.71	-.96	-4.05	-4.02	-20.35	-27.93	-10.08	-67.80
66.	Prairie Region	3.02	2.68	2.89	1.76	.11	-1.13	-4.33	-5.89	3.96	2.69
67.	B.C.	-.15	-.39	.42	-.19	-.61	-.21	-6.99	-6.14	7.42	-6.70
68.	CANADA	8.56	9.51	11.89	8.79	2.35	1.55	-19.82	-31.25	7.69	0.00

Note: Details may not add to totals due to rounding.

TABLE A-3(a)

Distribution of Expenditures, Tax Payments and Fiscal Amounts

Canada (using National Series), Standard Case, millions of dollars

Line		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	Family Money Income Class										
	Expenditures										
1.	Capital incentive grants (B.8)	1.17	1.19	2.08	2.65	1.82	4.24	9.54	13.75	40.35	76.78
2.	Other industrial assistance (B.8)	.38	.39	.69	.86	.60	1.39	3.13	4.51	13.22	25.17
3.	Highways (D.13)	2.01	2.20	2.99	3.56	4.20	5.38	17.42	20.41	18.97	77.17
4.	Sewers and other infrastructure (E.16)	.63	.61	.82	.82	.86	1.07	3.37	3.73	4.08	16.00
5.	Manpower and social assistance (H.21)	4.18	4.34	4.77	4.00	2.91	1.94	2.70	.3?	.36	25.50
6.	Agriculture (G.19)	3.05	2.71	3.10	2.62	1.85	1.23	2.77	2.32	1.85	21.50
7.	Education (C.11)	.13	.17	.30	.39	.50	.64	2.17	2.0?	1.50	7.84
8.	Planning and administration (F.17)	.09	.18	.32	.42	.55	.6?	2.35	2.75	2.75	10.17
9.	Operating and capital	1.62	1.92	2.56	2.58	2.33	2.93	7.06	7.11	11.58	39.75
10.	Total	13.26	13.71	17.63	17.90	15.62	19.48	50.51	57.00	94.66	299.86
11.	Taxes: Increase federal taxes	4.80	5.40	8.70	12.00	15.90	19.80	69.30	83.?0	80.10	299.86
12.	FISCAL AMOUNT	8.46	8.31	8.93	5.90	-.28	-.32	-18.79	-26.?0	14.56	0.00

Note: Details may not add to totals due to rounding.

Table A-3(c)

Expenditure Incidence and Fiscal Incidence, Regions and
Canada, Standard Case, percentages

Line	Region	Family Money Income Class									
		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	Expenditure Incidence (percent of total expenditures)										
1.	Atlantic region	1.44	2.20	3.09	2.75	2.93	2.91	6.99	5.65	2.80	30.97
2.	Quebec	.77	.76	1.06	1.41	1.43	2.06	5.16	5.46	5.88	23.94
3.	Ontario	.46	.52	.47	.68	.45	1.00	2.46	3.41	9.74	19.25
4.	Prairie region	1.32	1.28	1.43	1.29	.88	.73	2.33	2.09	5.19	17.49
5.	B.C.	.09	.07	.39	.37	.19	.67	.81	1.34	5.44	9.35
6.	CANADA	4.08	4.83	6.45	6.49	5.88	7.37	17.75	17.89	29.13	100.00
	Family Unit Expenditure Incidence (percent of expenditures received by percentile of family units)										
7.	Atlantic region	1.03	3.67	3.43	3.06	3.26	3.64	4.99	6.28	14.00	3.73
8.	Quebec	.25	.35	.46	.64	.57	.86	.89	1.32	2.67	.90
9.	Ontario	.13	.21	.22	.28	.16	.37	.30	.41	2.50	.52
10.	Prairie region	.49	.75	.89	.99	.68	.56	.67	.84	4.72	.96
11.	B.C.	.06	.09	.43	.53	.32	.84	.28	.61	6.80	.84
12.	CANADA	.33	.60	.83	.85	.74	.93	.81	.98	3.51	1.00

Table A-3(b)

Expenditure Incidence and Fiscal Incidence Ratios and

Canada, Standard Case, percentages

Line	Region	Under $2,000	$2,000- 2,999	$3,000- 3,999	$4,000- 4,999	$5,000- 5,999	$6,000- 6,999	$7,000- 9,999	$10,000- 14,999	$15,000 & over	Total
						Family Money Income Class					
	Fiscal Incidence (percent of total expenditures received (+) or contributed (-)										
13.	Atlantic region	1.31	2.00	2.71	2.31	2.31	2.31	5.26	4.19	2.07	24.67
14.	Quebec	.50	.39	.39	.42	-.01	-.02	-1.31	-1.29	.06	-.84
15.	Ontario	.08	.02	-.24	-.32	-1.35	-1.34	-.78	-9.31	-3.36	-22.50
16.	Prairie region	1.01	.89	.96	.59	.04	-.38	-1.44	-1.96	1.32	.00
17.	B.C.	-.05	-.13	.14	-.06	-.20	-.07	-2.33	-2.05	2.47	-2.23
18.	CANADA	2.85	3.17	3.96	2.93	.78	.52	-6.61	-10.42	2.56	0
	Family Unit Fiscal Incidence (percent of expenditures received (+) or contributed (-) by percentile of family units										
19.	Atlantic region	.94	3.33	3.01	2.57	2.57	2.89	3.76	4.66	10.35	2.97
20.	Quebec	.16	.18	.17	.19		-.01	-.23	-.31	.03	.03
21.	Ontario	.02	.01	-.11	-.13	-.48	-.50	-.82	-1.11	-.86	-.61
22.	Prairie region	.37	.52	.60	.45	.03	-.29	-.41	-.78	1.20	.05
23.	B.C.	-.04	-.16	.16	-.09	-.33	-.09	-.80	-.93	3.09	-.20
24.	CANADA	.23	.40	.51	.39	.10	.07	-.30	-.58	.31	1.00

Note: details may not add to totals due to rounding.

TABLE A-4(a)

Distribution of Amounts for Alternative Financing and Expenditure

Experiments, Atlantic Region, millions of dollars

Line	ALTERNATIVE EXPERIMENT	Family Money Income Class									
		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	FINANCING EXPERIMENTS										
1.	Increase total federal taxes	.38	.60	1.17	1.32	1.87	1.77	5.21	4.40	2.19	18.87
2.	Increase federal personal income tax	.03	.17	.38	.55	.97	1.22	4.28	4.38	2.10	14.08
3.	Decrease total federal expenditures	3.00	2.64	2.73	2.43	2.64	2.24	5.26	4.12	2.32	27.26
4.	Decrease federal personal transfers	5.87	4.58	3.64	3.09	2.90	2.17	4.49	2.87	1.01	30.56
5.	Increase equalization payments [increase provincial taxes]	2.21	4.43	8.24	8.61	11.81	11.93	31.00	29.15	13.04	123.00
6.	Decrease equalization payments [decrease provincial expenditures]	7.38	8.36	11.93	12.05	13.41	12.42	29.40	20.66	8.36	123.00
	INCENTIVE GRANTS										
7.	B.3 High factor substitutability (100% effective)	.15	.32	.71	.50	.62	.56	1.66	1.64	1.66	7.84
8.	B.4 High factor substitutability (48% effective)	.09	.16	.54	.29	.35	.28	.95	1.22	1.72	5.64
9.	B.5 High factor substitutability (33% effective)	.07	.12	.49	.23	.27	.19	.65	1.11	1.73	4.96
10.	B.6 High factor substitutability (no price effect)	.03	.03	.39	.10	.10	.02	.31	.86	1.77	3.61
11.	B.7 Low factor substitutability (100% effective)	.23	.46	.88	.95	1.25	1.20	3.19	3.01	1.81	12.95
12.	B.9 Low factor substitutability (33% effective)	.09	.17	.54	.37	.47	.40	1.23	1.53	1.78	6.59

TABLE A-? (a)

Distribution of Amounts for Alternative Financing and Expenditure

Experiments, Atlantic Region, millions of Dollars

Line	ALTERNATIVE EXPERIMENT	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
						Family Money Income Class					
	OTHER INDUSTRIAL ASSISTANCE										
13.	B.3 High factor substitutability (100% effective)	.05	.11	.24	.16	.21	.19	.55	.54	.55	2.57
14.	B.5 High factor substitutability (33% effective)	.02	.04	.16	.07	.09	.07	.24	.37	.57	1.63
15.	B.7 Low factor substitutability (100% effective)	.07	.16	.30	.34	.45	.43	1.12	1.04	.62	4.52
16.	B.9 Low factor substitutability (33% effective)	.03	.06	.18	.13	.17	.15	.43	.53	.59	2.25
	HIGHWAYS										
17.	D.12 High factor substitutability (100% effective)	1.01	1.72	2.61	2.51	3.14	3.27	8.75	6.44	2.22	31.56
18.	D.14 Neutral sources effect (100% effective)	1.32	2.24	3.31	3.29	4.11	4.30	11.29	8.20	2.33	40.39
	MANPOWER AND SOCIAL ASSISTANCE										
19.	H.22 Using social assistance series	1.74	1.35	1.60	1.35	1.40	1.13	2.42	1.63	.57	13.00
	AGRICULTURE										
20.	G.20 Using farm income series	.22	.31	.97	.24	--	.22	.70	1.31	.03	4.00

TABLE A-4(e)

Distribution of Amounts for Alternative Financing and Expenditure Experiments, Atlantic Region, millions of dollars

Line	ALTERNATIVE EXPERIMENT	Family Money Income Class									
		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	SEWERS AND OTHER INFRASTRUCTURE										
21.	E.15 High factor substitutability (100% effective)	.23	.34	.45	.37	.45	.48	1.26	.96	.38	4.96
22.	E.16a Low factor substitutability (67% effective)	.24	.36	.53	.50	.65	.69	1.75	1.47	.59	6.82
	PLANNING AND ADMINISTRATION										
23.	F.18 Benefits as pure public good	.04	.07	.12	.21	.29	.29	.71	.69	.29	2.72
	EDUCATION										
24.	C.10 Public benefits are national	.05	.24	.38	.44	.50	.49	1.11	.66	.17	4.08
	OPERATING AND CAPITAL										
25.	M.25 Benefits as pure public good	.05	.06	.12	.17	.22	.23	.59	.58	.36	2.39
26.	M.26 Benefits as pure public good (67% effective)	.08	.13	.24	.40	.54	.55	1.36	1.31	.60	5.22

Note: Details do not add to totals due to rounding.

Table A-4(b)

Distribution of Amounts for Alternative Financing and
Expenditure Experiments, Quebec, millions of dollars

Alternative Experiment	Family Money Income Class									
	Under $2,000	$2,000–2,999	$3,000–3,999	$4,000–4,999	$5,000–5,999	$6,000–6,999	$7,000–9,999	$10,000–14,999	$15,000 & over	Total
FINANCING EXPERIMENTS										
1. Increase total federal taxes	.82	1.11	2.01	2.97	4.31	6.24	19.39	20.06	17.46	74.30
2. Increase federal personal income tax	.07	.29	.93	1.65	3.31	4.67	17.90	21.86	21.50	71.90
3. Decrease total federal expenditures	5.99	5.44	5.44	5.91	6.62	6.30	15.36	13.87	12.87	78.79
4. Decrease federal transfer payments	11.44	9.59	7.74	7.58	7.66	6.69	14.35	9.83	6.04	80.59
5. Decrease equalization payments [increase provincial taxes]	1.84	2.91	4.13	6.27	8.57	13.31	40.24	42.08	33.97	153.00
6. Decrease equalization payments [decrease provincial expenditures]	9.49	9.33	9.95	11.78	13.31	14.23	37.18	28.61	19.28	153.00
INCENTIVE GRANTS										
7. B.3 High factor substitutability (100% effective)	.52	.30	.49	.79	.71	1.53	3.24	4.10	6.10	17.80
8. B.4 High factor substitutability (48% effective)	.47	.37	.31	.56	.39	1.18	1.96	3.11	6.15	14.33
9. B.5 High factor substitutability (33% effective)	.45	.13	.25	.50	.29	1.07	1.57	2.81	6.15	13.23
10. B.6 High factor substitutability (no price effect)	.42	.04	.14	.37	.10	.86	.78	2.20	6.18	11.13
11. B.7 Low factor substitutability (100% effective)	.45	.38	.67	.98	1.13	1.87	4.86	5.39	6.01	21.73
12. B.9 Low factor substitutability (33% effective)	.43	.16	.31	.56	.43	1.08	2.08	3.23	6.15	14.58

Table A-4(c)

Distribution of Amounts for Alternative Financing and
Expenditure Experiments, Quebec, millions of dollars

Alternative Experiment	Family Money Income Class									
Line	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
OTHER INDUSTRIAL ASSISTANCE										
13. B.3 High factor substitutability (100% effective)	.17	.10	.16	.26	.23	.50	1.06	1.34	2.00	5.84
14. B.5 High factor substitutability (33% effective)	.15	.04	.08	.16	.10	.35	.52	.93	2.01	4.35
15. B.7 Low factor substitutability (100% effective)	.15	.15	.26	.38	.47	.73	1.97	2.16	2.32	8.59
16. B.9 Low factor substitutability (33% effective)	.15	.06	.12	.20	.18	.42	.80	1.19	2.11	5.23
HIGHWAYS										
17. D.12 High factor substitutability (100% effective)	.41	.49	.72	1.22	1.23	2.15	6.00	5.73	4.20	22.13
18. D.14 Neutral source effect (100% effective)	.40	.63	.90	1.47	1.57	2.53	7.62	6.82	3.48	25.41
MANPOWER AND SOCIAL ASSISTANCE										
19. H.22 Using Social assistance series	.46	.40	.35	.36	.37	.38	.98	.69	.35	4.33
Agriculture										
20. G.20 Using farm income series	.04	.14	.18	.37	.42	.09	.16	.23	1.05	2.67

Table A-4(b)

Distribution of Amounts for Alternative Financing and
Expenditure Experiments, Quebec, millions of dollars

Alternative Experiment	Family Money Income Class									
...ne	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Tot:.
SEWERS AND OTHER INFRASTRUCTURE										
21. E.15 High factor substitutability (100% effective)	.14	.15	.22	.32	.30	.43	1.15	1.09	.89	4.70
22. E.16a Low factor substitutability (67% effective)	.13	.18	.21	.32	.34	.49	1.41	1.35	1.03	5.44
PLANNING AND ADMINISTRATION										
23. F.18 Benefits as pure public good	.03	.04	.09	.12	.18	.21	.66	.71	.68	2.71
EDUCATION										
24. C.10 Public benefits are national	.01	.02	.03	.04	.06	.07	.23	.26	.27	.99
OPERATING AND CAPITAL										
25. M.25 Benefits as pure public good	.09	.16	.32	.45	.65	.75	2.33	2.58	2.69	10.06
26. M.26 Benefits as pure public good (67% effective)	.08	.14	.31	.41	.62	.73	2.27	2.47	2.41	9.42

Note: Details do not add to totals due to rounding

TABLE A-4(c)

Distribution of Amounts for Alternative Financing and Expenditure

Experiments, Ontario, millions of dollars

Alternative Experiments	Family Money Income Class									
	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total
OTHER INDUSTRIAL ASSISTANCE										
13. B.3 High factor substitutability (100% effective)	.09	.16	.09	.18	.10	.38	.77	1.14	4.76	7.70
14. B.5 High factor substitutability (33% effective)	.10	.19	.10	.20	.09	.44	.84	1.28	5.74	9.02
15. B.7 Low factor substitutability (100% effective)	.06	.11	.06	.13	.09	.28	.63	.93	3.29	5.63
16. B.9 Low factor substitutability (33% effective)	.09	.17	.09	.19	.09	.41	.80	1.22	5.28	8.36
HIGHWAYS										
17. D.17 High factor substitutability (100% effective)	.18	.26	.21	.31	.32	.67	1.80	2.39	5.73	11.89
18. D.14 Neutral source effect (100% effective)	.13	.13	.17	.18	.32	.41	1.47	1.79	1.26	5.88
MANPOWER AND SOCIAL ASSISTANCE										
19. H.22 Using social assistance series	.07	.05	.05	.04	.05	.05	.14	.13	.07	.67
AGRICULTURE										
20. G.20 Using farm income series	.06	.11	.19	.17	.04	.17	.62	.44	2.70	4.50

TABLE A-4(c)

Distribution of Amounts for Alternative Financing and Expenditure
Experiments, Ontario, millions of dollars

Line / Alternative Experiments	Family Money Income Class									
	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
SEWERS AND OTHER INFRASTRUCTURE										
21. E.15 High factor substitutability (100% effective)	.07	.09	.10	.10	.12	.20	.63	.79	1.41	3.50
22. E.1'a Low factor substitutability (67% effective)	.05	.06	.07	.07	.09	.13	.44	.54	.77	2.21
PLANNING AND ADMINISTRATION										
23. F.18 Benefits as pure public good (67% effective)	.02	.04	.05	.02	.13	.15	.60	.88	.84	2.80
EDUCATION										
24. C.10 Public benefits are national.	.01	.02	.03	.05	.07	.09	.35	.51	.48	1.61
OPERATING AND CAPITAL										
25. M.25 Benefits as pure public good	.11	.21	.29	.52	.74	.88	3.53	5.15	4.89	16.34
26. M.26 Benefits as pure public good (67% effective)	.10	.18	.27	.52	.76	.91	3.74	5.49	4.66	16.65

Note: Details do not add to totals due to rounding.

TABLE A-4(d)

Distribution of Amounts for Alternative Financing and Expenditure
Experiments, Prairie Region, millions of dollars

Alternative Experiments

Family Money Income Class

	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,299	$15,000 & over	Total
FINANCING EXPERIMENTS										
1. Increase total federal taxes	.93	1.17	1.40	2.10	2.52	3.32	11.31	12.15	11.59	46.74
2. Increase federal personal income tax	.14	.32	.68	1.22	1.85	2.85	10.90	14.02	13.21	45.24
3. Decrease federal expenditures	4.87	5.04	4.76	4.42	3.91	3.62	10.64	9.63	9.63	55.62
4. Decrease federal transfer payments	8.84	7.17	6.04	4.57	3.93	3.49	7.57	4.77	2.75	49.13
5. Decrease equalization payments [increase provincial taxes]	.70	.86	1.08	1.27	1.42	1.78	5.74	6.05	5.16	24.00
6. Decrease equalization payments [decrease provincial expenditures]	1.54	1.44	1.73	1.80	1.90	1.97	5.64	4.66	3.05	24.00
INCENTIVE GRANTS										
7. B.3 High factor substitutability (100% effective)	.25	.29	.46	.72	.33	.48	2.10	2.15	7.85	14.61
8. B.4 High factor substitutability (48% effective)	.21	.25	.45	.72	.27	.42	1.97	2.03	8.95	15.24
9. B.5 High factor substitutability (33% effective)	.20	.24	.44	.72	.25	.39	1.94	2.00	9.29	15.43
10. B.6 High factor substitutability (no price effect)	.17	.21	.43	.73	.21	.35	1.87	1.93	9.97	15.82
11. B.7 Low factor substitutability (100% effective)	.25	.29	.46	.66	.46	.66	2.53	2.61	5.96	13.87
12. B.9 Low factor substitutability (33% effective)	.20	.24	.44	.70	.29	.44	2.08	2.15	8.68	15.20

TABLE A-4(d)

Distribution of Amounts for Alternative Financing and Expenditure Experiments, Prairie Region, millions of dollars

Line	Alternative Experiments	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total
	OTHER INDUSTRIAL ASSISTANCE										
13.	E.3 High factor substitutability (100% effective)	.08	.10	.16	.23	.11	.16	.69	.70	2.58	4.79
14.	E.5 High factor substitutability (33% effective)	.06	.08	.15	.24	.08	.12	.63	.65	3.05	5.06
15.	E.7 Low factor substitutability (100% effective)	.07	.08	.12	.17	.09	.13	.55	.54	1.78	3.54
16.	E.9 Low factor substitutability (33% effective)	.06	.08	.14	.22	.08	.12	.58	.60	2.78	4.65
	HIGHWAYS										
17.	D.12 High factor substitutability (100% effective)	.60	.20	.27	.36	.25	.32	1.19	1.19	2.89	6.80
18.	D.14 Neutral sources effect (100% effective)	.17	.19	.21	.24	.25	.32	.96	.92	.47	3.73
	MANPOWER AND SOCIAL ASSISTANCE										
19.	H.22 Using social assistance series	.85	.70	.65	.62	.58	.58	1.48	1.10	.53	7.17
	AGRICULTURE										
20.	G.20 Using farm income series	.26	.93	.96	.90	.77	.25	1.55	1.95	1.43	9.00
	SEWERS AND OTHER INFRASTRUCTURE										
21.	E.15 High factor substitutability (100% effective)	.05	.05	.06	.08	.07	.08	.28	.27	.62	1.52
22.	E.16a Low factor substitutability (67% effective)	.02	.02	.03	.04	.03	.04	.18	.18	.33	.89

Family Money Income Class

TABLE A-4(d)

Distribution of Amounts for Alternative Financing and Expenditure
Experiments, Prairie Region, millions of dollars

Alternative Experiments	Family Money Income Class									
Line	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
PLANNING AND ADMINISTRATION										
23. F.12 Benefits as pure public good (67% effective)	.02	.04	.05	.05	.07	.07	.28	.29	.29	1.14
EDUCATION										
24. C.10 Public benefits are national	.01	.02	.04	.04	.04	.05	.18	.18	.17	.71
OPERATING AND CAPITAL										
25. M.25 Benefits as pure public good	.11	.24	.26	.30	.33	.43	1.49	1.57	1.63	6.28
26. M.26 Benefits as pure public good (67% effective)	.09	.18	.21	.24	.27	.36	1.26	1.33	1.27	5.15

Note: Details do not add to totals due to rounding.

TABLE A-4(e)

Distribution of Amounts for Alternative Financing and Expenditure
Experiments, British Columbia, millions of dollars

Alternative Experiments	Family Money Income Class									
	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
FINANCING EXPERIMENTS										
1. Increase total federal taxes	.42	.59	.76	1.29	1.18	2.22	9.42	10.15	8.90	34.75
2. Increase personal income tax	.07	.17	.30	1.17	.86	2.06	9.01	11.61	8.75	33.26
3. Decrease federal expenditures	2.65	2.29	2.51	1.89	1.37	2.12	6.92	6.47	6.53	32.66
4. Decrease federal transfer payments	5.66	4.73	4.34	2.68	1.60	2.36	6.60	4.69	2.05	34.75
5. Decrease equalization payments [increase provincial taxes]*	-	-	-	-	-	-	-	-	-	-
6. Decrease equalization payments [decrease provincial expenditures]*	-	-	-	-	-	-	-	-	-	-
INCENTIVE GRANTS										
7. B.3 High factor substitutability (100% effective)	.06	.05	.49	.40	.15	.91	.71	1.61	8.67	13.05
8. B.4 High factor substitutability (48% effective)	.07	.05	.56	.45	.16	1.06	.74	1.79	10.14	15.01
9. B.5 High factor substitutability (33% effective)	.06	.05	.57	.47	.16	1.09	.75	1.85	10.59	15.61
10. B. High factor substitutability (no price effect)	.07	.05	.62	.50	.17	1.18	.77	1.97	11.48	16.81
11. B.7 Low factor substitutability (100% effective)	.05	.05	.35	.30	.13	.67	.81	1.42	5.97	9.76
12. B.9 Low factor substitutability (33% effective)	.06	.04	.53	.44	.16	1.02	.78	1.79	9.72	14.56

TABLE A-4(e)

Distribution of Amounts for Alternative Financing and Expenditure Experiments, British Columbia, millions of dollars

Alternative Experiments	Family Money Income Class									
	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
OTHER INDUSTRIAL ASSISTANCE										
13. B.3 High factor substitutability (100% effective)	.02	.02	.15	.13	.05	.30	.24	.52	2.84	4.28
14. B.5 High factor substitutability (33% effective)	.02	.02	.19	.15	.05	.35	.25	.60	3.47	5.12
15. B.7 Low factor substitutability (100% effective)	.01	.01	.11	.09	.04	.20	.18	.36	1.91	2.90
16. B.9 Low factor substitutability (33% effective)	.02	.01	.17	.14	.05	.32	.23	.55	3.17	4.68
HIGHWAYS										
17. D.12 High factor substitutability (100% effective)	.06	.06	.21	.23	.12	.41	.64	.91	3.07	5.71
18. D.14 Neutral source effect (100% effective)	.05	.06	.07	.13	.10	.14	.61	.56	.23	1.95
MANPOWER AND SOCIAL ASSISTANCE										
19. H.22 Using social assistance series	.02	.01	.01	.01	.01	.01	.04	.04	.01	.17
AGRICULTURE										
20. G.20 Using farm income series	-.10	.03	.08	.10	.01	.13	.23	.35	.51	1.33

TABLE A-4(e)

Distribution of Amounts for Alternative Financing and Expenditure

Experiments, British Columbia, millions of dollars

Line		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	Family Money Income Class										
	SEWERS AND OTHER INFRASTRUCTURE										
21.	E.15 High factor substitutability (100% effective)	.01	.01	.04	.05	.03	.09	.17	.23	.66	1.31
22.	E.16A Low factor substitutability (67% effective)	.01	.01	.02	.02	.01	.05	.11	.14	.31	.67
	PLANNING AND ADMINISTRATION										
23.	F.18 Benefits as pure public good (67% effective)	.01	.01	.02	.03	.03	.05	.21	.23	.22	.79
	EDUCATION										
24.	C.10 Public benefits are national	--	--	.01	.02	.02	.03	.12	.13	.13	.45
	OPERATING AND CAPITAL										
25.	M.25 Bendfits as pure public good	.04	.05	.13	.16	.17	.27	1.22	1.34	1.28	4.61
26.	M.26 Bendfits as pure public good (67% effective)	.02	.03	.09	.12	.12	.19	.87	.95	.89	3.25

Note: Details do not add to totals due to rounding

* Because British Columbia does not receive equalization payments these experiments have no effect.

TABLE A-4(f)

Distribution of Amounts for Alternative Financing and

Expenditure Experiments, Canada, Millions of dollars

Line	Alternative Experiment	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	FINANCING EXPERIMENTS										
1.	Increase total federal taxes	3.68	4.98	7.47	10.69	15.38	20.58	73.07	84.91	79.42	299.8?
2.	Increase federal income tax	.45	1.36	3.37	5.35	10.89	16.34	68.97	96.45	96.49	299.8?
3.	Decrease federal expenditures	29.28	26.66	24.30	21.92	22.04	21.77	57.51	53.72	47.76	299.8?
4.	Decrease federal transfers	46.60	39.27	32.35	25.47	24.04	22.58	51.47	38.42	20.03	299.8?
5.	Decrease federal equalization payments [increase provincial taxes]	4.75	8.20	13.45	17.15	21.80	27.02	76.98	77.28	52.17	299.8?
6.	Decrease equalization payments [decrease prov. expenditures]	18.41	19.13	23.61	25.63	28.62	28.62	72.22	53.93	30.69	299.86
	INCENTIVE GRANTS										
7.	B.3 High factor substitutability (100% effective)	1.23	1.43	2.40	2.93	2.03	4.57	9.80	12.70	38.58	76.78
8.	B.4 High factor substitutability (48% effective)	1.14	1.39	2.16	2.64	1.44	4.26	8.13	12.02	44.23	76.78
9.	B.5 High factor substitutability (33% effective)	1.09	1.12	2.06	2.55	1.23	4.07	7.45	11.67	45.28	76.78
10.	B.6 High factor substitutability (no price effect)	1.01	.95	1.90	2.38	.84	3.82	6.38	11.05	48.34	76.78
11.	B.7 Low factor substitutability (100% effective)	1.16	1.52	2.56	3.30	3.23	5.26	13.34	15.39	29.85	76.78
12.	B.9 Low factor substitutability (33% effective)	1.06	1.14	2.11	2.67	1.62	4.20	8.67	12.52	42.51	76.78

Family Money Income Class

TABLE A-4(f)

Distribution of Amounts for Alternative Financing and
Expenditure Experiments, Canada, millions of dollars

Line	Alternative Experiment	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total
	Family Money Income Class										
	OTHER INDUSTRIAL ASSISTANCE										
13.	B.3 High factor substitutability (100% effective)	.41	.49	.81	.90	.70	1.53	3.31	4.24	12.73	25.17
14.	B.5 High factor substitutability (33¢ effective)	.35	.37	.68	.82	.41	1.33	2.48	3.83	14.84	25.17
15.	B.7 Low factor substitutability (100% effective)	.36	.51	.85	1.11	1.14	1.77	4.45	5.05	9.92	25.17
16.	B.9 Low factor substitutability (33¢ effective)	.35	.38	.70	.89	.57	1.42	2.84	4.09	13.93	25.17
	HIGHWAYS										
17.	D.12 High factor substitutability (100% effective)	1.82	2.73	4.02	4.63	5.06	6.82	18.38	16.66	18.09	77.17
18.	D.14 Neutral source effect (100% effective)	2.07	3.25	4.96	5.31	6.35	7.70	21.95	18.29	7.77	77.17
	MANPOWER AND SOCIAL ASSISTANCE										
19.	H.22 Using social assistance series	3.14	2.51	2.66	2.38	2.41	2.15	5.06	3.59	1.53	25.34
	AGRICULTURE										
20.	G.20 Using farm income series	.48	1.52	2.38	1.78	1.24	.86	3.26	4.28	5.72	21.50
	SEWERS AND OTHER INFRASTRUCTURE										
21.	E.15 High factor substitutability (100% effective)	.50	.64	.87	.92	.97	1.28	3.49	3.34	3.96	16.00
22.	E.16a Low factor substitutability (67¢ effective)	.45	.63	.86	.95	1.12	1.40	3.89	3.68	3.03	16.00

TABLE A-4(f)

Distribution of Amounts for Alternative Financing and

Expenditure Experiments, Canada, millions of dollars

Line	Alternative Experiment	Family Money Income Class									
		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-7,999	$10,000-14,999	$15,000 & over	Total
	PLANNING AND ADMINISTRATION										
23.	F.18 Benefits as pure public good (67% effective)	.12	.20	.33	.43	.69	.77	2.46	2.80	2.32	10.17
	EDUCATION										
24.	L.10 Public benefits are national	.08	.30	.49	.59	.69	.73	1.99	1.76	1.22	7.84
	OPERATING AND CAPITAL										
25.	M.25 Benefits as pure public good	.40	.72	1.12	1.60	2.11	2.56	9.16	11.12	10.85	39.75
26.	M.26 Benefits as pure public good (67% effective)	.37	.56	1.12	1.69	2.31	2.74	9.50	11.55	9.83	39.75

Note: Details do not add to totals due to rounding.

Table A-5

Fiscal Amounts and Fiscal Incidence for Alternative

Financing Experiments, Regions and Canada

Experiment and Region

Line		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	ATLANTIC REGION - FISCAL AMOUNTS (millions of dollars)										
1.	Increase federal income tax	4.29	6.42	8.91	7.70	7.83	7.51	16.70	12.59	6.30	78.79
2.	Decrease federal expenditures	1.32	3.95	6.56	5.82	6.16	6.49	15.72	12.85	6.08	65.61
3.	Decrease federal transfers	-1.55	2.01	5.25	5.16	5.90	6.54	16.49	14.10	7.39	62.31
4.	Decrease equalization grants [↑ provincial taxes]	2.11	2.16	1.05	-.36	-3.01	-3.20	-10.02	-12.18	-4.64	-30.13
5.	Decrease equalization grants [↓ prov. exp.]	-3.06	-1.77	-2.64	-3.80	-4.61	-3.69	-8.42	-3.59	.04	-30.13
	ATLANTIC - FISCAL INCIDENCE (percent of total expenditures)										
6.	Increase federal income tax	1.43	2.14	2.97	2.57	2.61	2.50	5.57	4.20	2.10	24.24
7.	Decrease federal expenditures	.44	1.32	2.19	1.94	2.05	2.16	5.24	4.28	2.03	21.37
8.	Decrease federal transfers	-.52	.67	1.88	1.72	1.97	2.19	5.50	4.06	2.46	20.77
9.	Decrease equalization grants [↑ prov. taxes]	.70	.72	.35	-.12	-1.00	-1.07	-3.34	-4.04	-1.55	-10.04
10.	Decrease equalization grants [↓ prov. exp.]	-1.02	-.59	-.88	-1.27	-1.54	-1.23	-2.81	-1.23	-.01	-10.04
	QUEBEC - FISCAL AMOUNTS (millions of dollars)										
11.	Increase federal income tax	2.25	1.99	2.25	2.57	.97	1.52	-2.41	-5.66	-3.86	-.12
12.	Decrease federal expenditures	-3.67	-3.16	-2.26	-1.69	-2.34	-.11	.13	2.33	3.77	-7.01
13.	Decrease federal transfers	-9.12	-7.31	-4.56	-3.36	-3.38	-.50	1.14	6.37	11.60	-8.81
14.	Decrease equalization grants [↑ prov.taxes]	-.48	-.63	-.95	-2.05	-4.29	-7.12	-24.75	-25.88	-16.33	-81.22
15.	Decrease equalization grants [↓ prov.exp.]	-7.17	-7.05	-6.77	-7.56	-9.03	-8.04	-21.69	-12.41	-1.64	-81.22

Family Money Income Class

Table A-5

Fiscal Amounts and Fiscal Incidence for Alternative

Financing Experiments, Regions and Canada

Experiment and Region	Family Money Income Class									
	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
QUEBEC - FISCAL INCIDENCE (percent of total expenditures)										
16. Increase federal income taxes	-.75	.66	.75	.86	.32	.51	-.80	-1.89	-1.29	-.04
17. Decrease federal expenditures	-1.22	-1.05	-.75	-.56	-.78	.34	.04	.78	1.26	-2.34
18. Decrease federal transfers	-3.04	-2.44	-1.52	-1.12	-1.13	-.17	-.38	2.12	3.87	-2.94
19. Decrease equalization grants [↑prov.taxes]	-.16	-.21	-.32	-.68	-1.43	-2.37	-8.25	-8.73	-5.44	-27.27
20. Decrease equalization grants [↓prov. exp.]	-2.39	-2.35	-2.26	-2.52	-3.01	-2.68	-7.23	-4.14	-.55	-27.27
ONTARIO - FISCAL AMOUNTS (millions of dollars)										
21. Increase federal income tax	1.24	1.16	.34	.29	-2.55	-2.53	-19.49	-34.36	-21.73	-77.59
22. Decrease federal expenditures	-5.94	-5.53	-5.14	-3.55	-5.11	-4.09	-12.95	-13.45	5.96	-50.03
23. Decrease federal transfer payments	-13.41	-11.65	-9.17	-5.50	-6.62	-4.86	-11.07	-6.04	21.02	-47.33
24. Decrease equalization grants [↑prov.taxes]	1.38	1.57	1.42	2.05	1.35	3.01	7.39	10.22	29.20	57.73
25. Decrease equalization grants [↓prov.exp.]	1.38	1.57	1.42	2.05	1.35	3.01	7.39	10.22	29.20	57.73
ONTARIO - FISCAL INCIDENCE (percent of total expenditures)										
26. Increase federal income tax	.41	.39	.11	.09	-.85	-.84	-6.50	-11.45	-7.24	-25.85
27. Decrease federal expenditures	-1.98	-1.84	-1.71	-1.18	-1.70	-1.36	-4.32	-4.48	1.99	-17.66
28. Decrease federal transfer payments	-4.47	-3.88	-3.06	-1.83	-2.21	-1.62	-3.69	-2.01	7.01	-15.78
29. Decrease equalization grants [↑prov.taxes]	.46	.52	.47	.68	.45	1.00	2.46	3.41	8.74	19.25
30. Decrease equalization grants [↓prov.exp.]	.46	.52	.47	.68	.45	1.00	2.46	3.41	7.74	19.25

Table A-5

Fiscal Amounts and Fiscal Incidence for Alternative
Financing Experiments, Regions and Canada

	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
Experiment and Region										

PRAIRIES - FISCAL AMOUNTS (millions of dollars)

	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
31. Increase federal income tax	3.81	3.53	3.?1	2.?4	.78	-.??	-3.92	-7.7?	2.04	4.19
32. Decrease federal expenditures	-.92	-1.19	-.47	-.5?	-1.28	-1.43	-3.??	-?.??	5.?2	-7.1?
33. Decrease federal transfer payments	-4.89	-3.32	-1.75	-.71	-1.30	-1.30	-.??	1.?9	12.50	.?0
34. Decrease equalization grants[↑prov.taxes]	3.25	2.99	?.21	2.59	1.21	.41	1.2?	.?1	10.09	25.43
35. Decrease equalization grants[↓prov.exp.]	2.41	2.41	2.5?	2.0?	.73	.22	1.34	1.?0	12.20	25.43

PRAIRIES - FISCAL INCIDENCE (percent of total expenditures)

	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
36. Increase federal income tax	1.27	1.18	1.20	.88	.2?	-.22	-1.31	-2.5?	1.?8	1.40
37. Decrease federal expenditures	-.31	-.40	-.i?	-.19	-.43	-.48	-1.22	-1.?2	1.?7	-2.40
38. Decrease federal transfer payments	-1.63	-1.11	-1.58	-.24	-.43	-.43	-.20	.?0	4.17	.10
39. Decrease equalization grants[↑prov.taxes]	1.08	1.00	1.07	.8?	.40	.14	.41	.07	3.3?	3.48
40. Decrease equalization grants[↓prov.exp.]	.80	.80	.85	.69	.24	.07	.45	.?3	4.07	3.48

B.C. - FISCAL AMOUNTS (millions of dollars)

	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
41. Increase federal income tax	.20	.03	.88	.93	-.29	-.05	-6.58	-7.??	7.57	-5.21
42. Decrease federal expenditures	-2.38	-2.09	-1.33	-.79	-.80	-.11	-4.49	-2.??	9.79	-4.?1
43. Decrease federal transfer payments	-5.39	-4.53	-3.16	-1.58	-1.03	-.35	-4.17	-?.??	14.27	-?.70
44. Decrease equalization grants[↑prov.taxes]	.27	.20	1.18	1.10	.57	2.01	2.43	?.01	16.32	28.05
45. Decrease equalization grants[↓prov.exp.]	.27	.20	1.18	1.10	.57	2.01	2.43	4.01	16.32	28.05

Family Money Income Class

Table A-5

Fiscal Amounts and Fiscal Incidence for Alternative

Financing Experiments, Regions and Canada

Experiment and Region		Family Money Income Class								
	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
B.C. - FISCAL INCIDENCE (percent of total expenditures)										
46. Increase federal income tax	.07	.01	.29	.31	.10	.02	-2.10	-2.53	2.52	-1.74
47. Decrease federal expenditures	-.79	-.70	-.44	-.2?	-.27	-.04	-1.50	-.82	3.19	-1.54
48. Decrease federal transfer payments	-1.80	-1.51	-1.05	-.53	-.34	-.12	-1.39	-.23	4.75	-2.23
49. Decrease equalization grants[↑prov.taxes]	.09	.07	.39	.37	.19	.67	.81	1.34	5.44	9.35
50. Decrease equalization grants[↓prov.exp.]	.09	.07	.39	.37	.19	.67	.31	1.34	5.44	9.35
CANADA - FISCAL AMOUNTS (millions of dollars)										
51. Increase federal income tax	11.79	13.13	15.99	14.13	6.74	5.79	-15.70	-42.79	-9.68	0.00
52. Decrease federal expenditures	-11.59	-8.02	-2.64	-.77	-3.37	-.75	-5.25	-4.10	31.22	0.00
53. Decrease federal transfer payments	-34.36	-24.80	-12.99	-5.99	-.43	-.45	1.80	15.24	66.78	0.00
54. Decrease equalization grants[↑prov.taxes]	7.49	6.29	5.91	3.33	-4.17	-4.89	-23.71	-23.62	34.74	0.00
55. Decrease equalization grants[↓prov.exp.]	-6.17	-4.64	-4.25	-6.15	-10.99	-6.49	-18.95	-.27	56.12	0.00
CANADA - FISCAL INCIDENCE (percent of total expenditures)										
56. Increase federal income tax	3.93	4.38	5.32	4.71	2.23	1.93	-5.23	-14.26	-3.23	0.00
57. Decrease federal expenditures	-3.86	-2.67	-.87	-.37	-1.13	-.08	-1.76	-1.36	10.34	0.00
58. Decrease federal transfer payments	-11.46	-8.27	-4.33	-2.00	-2.14	-.15	-.60	4.08	21.27	0.00
59. Decrease equalization grants[↑prov.taxes]	2.49	2.11	1.96	1.11	-1.39	-1.63	-7.91	-7.87	11.55	0.00
60. Decrease equalization grants[↓prov.exp.]	-2.06	-1.55	-1.43	-2.05	-3.67	-2.17	-6.32	-.09	18.71	0.00

Note: Details do not add to totals due to rounding.

TABLE A-5(a)

Fiscal Incidence for Alternative Financing Experiments, By Region, Percentages

line	Experiment and Region Fiscal incidence [percent of total expenditures]	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total
	Increase Federal Income Tax										
1.	Atlantic region	1.43	2.14	2.97	2.57	2.61	2.50	5.57	4.20	2.10	26.26
2.	Quebec	.75	.66	.75	.86	.32	.51	.80	-1.89	-1.29	-.04
3.	Ontario	.41	.39	.11	.09	-.85	-.84	-6.50	-11.45	-7.24	-25.86
4.	Prairie region	1.27	1.18	1.20	.88	.26	.22	-1.31	-2.39	.58	1.49
5.	B.C.	.07	.01	.29	.31	-.10	-.02	-2.19	-2.03	2.02	-1.74
6.	CANADA	3.93	4.38	5.32	4.71	2.23	1.93	-5.23	-14.26	-3.23	0
	Decrease Federal Expenditures										
7.	Atlantic region	.44	1.32	2.19	1.94	2.05	2.16	5.24	4.28	2.03	21.87
8.	Quebec	-1.22	-1.05	-.75	-.56	-.78	-.36	.04	.78	1.26	-2.34
9.	Ontario	-1.98	-1.84	-1.71	-1.18	-1.70	-1.36	-4.32	-4.48	1.99	-16.68
10.	Prairie region	-.31	-.40	-.16	-.19	-.43	-.48	-1.22	-1.12	1.87	-2.40
11.	B.C.	-.79	-.70	-.44	-.26	-.27	-.04	-1.50	-.82	3.19	-1.54
12.	CANADA	-3.86	-2.67	-.87	-.25	-1.13	-.08	-1.76	-1.36	10.34	0
	Decrease Federal Transfers										
13.	Atlantic region	-.52	.67	1.83	1.72	1.97	2.19	5.50	4.70	2.46	20.77
14.	Quebec	-3.04	-2.44	-1.52	-1.12	-1.13	-.17	.38	2.12	3.87	-2.34
15.	Ontario	-4.47	-3.88	-3.06	-1.83	-2.21	-1.62	-3.69	-2.01	7.01	-15.78
16.	Prairie region	-1.63	-1.11	-.58	-.24	-.43	-.43	-3.20	-.50	4.17	-2.10
17.	B.C.	-1.80	-1.51	-1.05	-.53	-.34	-.12	-1.39	-1.23	4.76	-2.23
18.	CANADA	-11.46	-8.27	-4.33	-2.00	-2.14	-.15	.60	4.08	22.27	-1.40

Family Money Income Class

TABLE A-5(a)

Fiscal Incidence for Alternative Financing Experiments, By Region, percentages

Experiment and Region Fiscal Incidence [percent of total expenditure]	Family Money Income Class									
Line	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
Decrease Equalization Payments [increase provincial taxes]										
19. Atlantic region	.70	.72	.35	-.12	-1.00	-1.07	-3.34	-4.06	-1.55	-10.04
20. Quebec	.16	-.21	-.32	-.68	-1.43	-2.37	-8.25	-8.63	-5.44	-27.27
21. Ontario	.46	.52	.47	.68	.45	1.00	2.46	3.41	9.74	19.25
22. Prairie region	1.08	1.00	1.07	.86	.40	.14	.41	.07	3.36	8.48
23. B.C.	.09	.07	.39	.37	.19	.67	.81	1.34	5.44	9.35
24. CANADA	2.49	2.11	1.96	1.11	-1.39	-1.63	-7.91	-7.87	11.55	0
Decrease Equalization Payments [decrease provincial expenditures]										
25. Atlantic region	-1.02	-.59	-.88	-1.27	-1.54	-1.23	-2.81	-1.23	.01	-10.04
26. Quebec	-2.39	-2.35	-2.26	-2.52	-3.01	-2.68	-7.23	-4.14	-.55	-27.27
27. Ontario	.46	.52	.47	.68	.45	1.00	2.46	3.41	9.74	19.25
28. Prairie region	.80	.80	.85	.69	.24	.07	.45	.53	4.07	8.48
29. B.C.	.09	.07	.39	.37	.19	.67	.81	1.34	5.44	9.35
30. CANADA	-2.06	-1.55	-1.43	-2.05	-3.67	-2.17	-6.32	-.09	18.71	0

Note: Details may not add to totals due to rounding

TABLE 4-5(b)

Expenditure Amounts and Expenditure Incidence by Alternative

Expenditure Experiments, Regions and Canada

						Family Money Income Class					
Line	EXPERIMENT AND REGION	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total

ATLANTIC REGION

Total Expenditure Amount (millions of dollars)

Line	EXPERIMENT AND REGION	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
1.	Experiment 1 (B.3 and D.12)	4.45	6.79	9.31	7.90	8.09	3.04	19.55		7.24	65.??
2.	Experiment 2 (B.5 and D.12)	4.35	6.53	9.04	7.54	7.60	7.53	18.15		7.28	62.??
3.	Experiment 3 (B.7)	4.42	6.87	9.58	8.83	9.63	9.56	25.05		8.34	9?.??
4.	Experiment 4 (H.22)	3.86	5.59	8.32	7.45	8.70	8.89	22.21		8.84	92.??
5.	Experiment 5 (G.20)	4.43	6.06	9.38	8.19	8.86	8.58	21.01		8.83	92.??
6.	Experiment 6 (E.16a)	4.32	6.59	9.27	9.28	8.86	8.79	21.19		8.42	?.??
7.	Experiment 7 (M.25)	3.79	5.77	8.08	7.32	7.85	7.80	18.77		7.64	82.??
8.	Experiment 8 (M.26 and F.18)	3.85	5.89	8.38	7.72	8.40	8.35	20.10		8.08	87.??
9.	Experiment 9 (A.2)	.36	.51	.99	1.39	1.73	1.82	4.71		2.85	16.??
10.	Experiment 10 (Pro-Rich)	3.47	4.30	7.06	5.77	6.60	6.64	15.11		6.84	72.??
11.	Experiment 11 (Pro-Poor)	4.42	5.88	9.59	8.92	9.69	9.62	23.19		8.37	99.??

Expenditure Incidence (percent of total expenditures)

Line	EXPERIMENT AND REGION	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
12.	Experiment 1 (B.3 and D.12)	1.48	2.26	3.10	2.63	2.70	2.68	6.52		2.41	28.??
13.	Experiment 2 (B.5 and D.12)	1.48	2.18	3.01	2.51	2.52	?.51	6.05		2.43	27.??
14.	Experiment 3 (B.7)	1.47	2.29	3.19	2.96	3.21	3.19	7.68		2.78	33.??
15.	Experiment 4 (H.22)	1.29	1.86	2.77	2.48	2.90	2.96	7.30		2.95	30.??
16.	Experiment 5 (G.20)	1.48	2.02	3.13	2.70	2.93	2.86	7.00		2.76	30.??
17.	Experiment 6 (E.16a)	1.44	2.20	3.09	3.09	2.93	2.93	7.03		2.81	?1.??
18.	Experiment 7 (M.25)	1.26	1.92	2.69	2.44	2.62	2.60	5.26		2.55	27.??
19.	Experiment 8 (M.26 and F.18)	1.28	1.96	2.79	2.59	2.80	2.78	6.70		2.69	29.??
20.	Experiment 9 (A.2)	.18	.27	.33	.46	.58	.61	1.57		.95	6.??
21.	Experiment 10 (Pro-Rich)	1.16	1.43	2.35	1.92	2.20	2.21	5.04		2.28	24.05
22.	Experiment 11 (Pro-Poor)	1.47	2.29	3.20	2.97	3.23	3.21	7.73		2.79	33.31

TABLE A-5(b)

Expenditure Amounts and Expenditure Incidence For Alternative

Expenditure Experiments, Regions and Canada

Family Money Income Class

Line	EXPERIMENT AND REGION	Under $2,000	$2,000– 2,999	$3,000– 3,999	$4,000– 4,999	$5,000– 5,999	$6,000– 6,999	$7,000– 9,999	$10,000– 14,999	$15,000 & over	Total
	QUEBEC										
	Total Expenditure Amount (millions of dollars)										
23.	Experiment 1 (B.3 and D.12)	2.49	2.42	3.23	4.42	4.17	6.24	15.13	15.41	16.63	70.05
24.	Experiment 2 (B.5 and D.12)	2.42	2.18	2.90	4.03	3.58	5.62	12.75	13.65	16.95	64.00
25.	Experiment 3 (B.7)	2.29	2.54	3.56	4.68	5.07	6.96	18.69	18.65	17.39	79.80
26.	Experiment 4 (H.22)	2.03	1.89	2.65	3.85	4.14	6.25	16.09	16.92	17.97	71.78
27.	Experiment 5 (G.20)	2.14	2.17	3.03	4.13	4.24	6.04	15.25	16.28	18.49	71.78
28.	Experiment 6 (E.16a)	2.32	2.28	3.18	4.24	4.30	6.21	15.59	16.27	17.63	72.02
29.	Experiment 7 (M.25)	2.10	2.14	3.09	4.11	4.36	6.12	15.77	16.63	17.99	72.32
30.	Experiment 8 (M.26 and F.18)	.70	.71	1.03	1.36	1.45	2.04	5.26	5.52	5.90	23.94
31.	Experiment 9 (A.2)	.68	1.21	2.43	3.41	4.93	5.69	17.60	19.57	20.41	75.86
32.	Experiment 10 (Pro-Rich)	1.75	1.58	2.19	3.48	3.55	4.95	13.50	14.91	18.17	64.54
33.	Experiment 11 (Pro-Poor)	2.29	2.56	3.55	4.60	5.21	6.98	18.78	18.72	17.38	80.04
	Expenditure Incidence (per cent of total expenditures)										
34.	Experiment 1 (B.3 and D.12)	.83	.81	1.08	1.47	1.39	2.08	5.04	5.14	5.54	23.35
35.	Experiment 2 (B.5 and D.12)	.81	.73	.97	1.34	1.19	1.87	4.25	4.55	4.32	21.37
36.	Experiment 3 (B.7)	.76	.85	1.19	1.56	1.69	2.32	6.23	6.22	5.60	25.60
37.	Experiment 4 (H.22)	.68	.63	.88	1.28	1.38	2.08	5.36	5.64	5.99	23.93
38.	Experiment 5 (G.20)	.71	.72	1.01	1.38	1.41	2.01	5.03	5.43	6.16	23.93
39.	Experiment 6 (E.16a)	.77	.76	1.06	1.41	1.43	2.07	5.20	5.42	5.88	24.01
40.	Experiment 7 (M.25)	.70	.71	1.03	1.37	1.45	2.04	5.26	5.54	6.00	24.11
41.	Experiment 8 (M.26 and F.18)	.70	.71	1.03	1.36	1.45	2.04	5.26	5.52	5.90	24.11
42.	Experiment 9 (A.2)	.23	.70	.81	1.14	1.64	1.90	5.87	6.52	6.80	25.34
43.	Experiment 10 (Pro-Rich)	.58	.53	.73	1.16	1.18	1.65	4.50	4.97	6.06	21.51
44.	Experiment 11 (Pro-Poor)	.76	.85	1.18	1.53	1.74	2.33	6.26	6.24	5.79	25.68

TABLE 4-5(b)

Expenditure Amounts and Expenditure Incidence for Alternative

Expenditure Experiments, Regions and Canada

		Family Money Income Class									
Line	EXPERIMENT AND REGION	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total

ONTARIO

Total Expenditure Amount (millions of dollars)

Line	EXPERIMENT AND REGION	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$15,000 & over
45.	Experiment 1 (B.3 and D.12)	1.43	1.66	1.46	2.15	1.40	3.22	7.76	31.68
46.	Experiment 2 (B.5 and D.12)	1.49	1.79	1.52	2.26	1.42	3.51	8.25	36.00
47.	Experiment 3 (B.7)	1.28	1.36	1.33	1.87	1.35	2.60	6.86	22.66
48.	Experiment 4 (H.22)	1.34	1.50	1.33	1.97	1.31	3.01	7.47	29.27
49.	Experiment 5 (G.20)	.83	1.31	1.12	1.60	1.13	2.92	7.28	31.50
50.	Experiment 6 (E.16a)	1.38	1.56	1.42	2.05	1.35	2.99	7.37	28.96
51.	Experiment 7 (M.25)	1.31	1.57	1.52	2.30	1.91	3.49	9.94	30.22
52.	Experiment 8 (M.26 and F.18)	1.29	1.53	1.47	2.19	1.89	3.44	9.85	29.58
53.	Experiment 9 (A.2)	.86	1.60	2.22	3.94	5.55	6.65	26.26	36.65
54.	Experiment 10 (Pro-Rich)	.91	1.52	1.30	2.07	1.78	3.92	10.83	38.90
55.	Experiment 11 (Pro-Poor)	1.28	1.35	1.33	1.88	1.35	2.58	6.85	22.41

Expenditure Incidence (per cent of total expenditures)

Line	EXPERIMENT AND REGION	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$15,000 & over
56.	Experiment 1 (B.3 and D.12)	.48	.55	.49	.72	.47	1.07	2.59	10.56
57.	Experiment 2 (B.5 and D.12)	.50	.60	.51	.75	.47	1.17	2.75	12.00
58.	Experiment 3 (B.7)	.43	.45	.44	.62	.45	.87	2.29	7.55
59.	Experiment 4 (H.22)	.45	.50	.44	.66	.44	1.00	2.49	9.76
60.	Experiment 5 (G.20)	.28	.44	.37	.53	.38	.97	2.46	10.50
61.	Experiment 6 (E.16a)	.46	.52	.47	.68	.45	1.00	2.46	9.65
62.	Experiment 7 (M.25)	.44	.52	.51	.77	.64	1.16	3.31	10.07
63.	Experiment 8 (M.26 and F.18)	.43	.51	.49	.73	.62	1.15	3.28	9.69
64.	Experiment 9 (A.2)	.29	.53	.74	1.31	1.85	2.22	8.75	12.28
65.	Experiment 10 (Pro-Rich)	.30	.51	.43	.69	.59	1.31	3.61	12.63
66.	Experiment 11 (Pro-Poor)	.43	.45	.44	.63	.45	.86	2.28	7.47

TABLE A-5(b)

Expenditure Amounts and Expenditure Incidence For Alternative

Expenditure Experiments, Regions and Canada

Line	EXPERIMENT AND REGION	Family Money Income Class									
		Under $2,000	$2,000 – 2,999	$3,000 – 3,999	$4,000 – 4,999	$5,000 – 5,999	$6,000 – 6,999	$7,000 – 9,999	$10,000 – 14,999	$15,000 & over	Total

PRAIRIE REGION

Total Expenditure Amount (millions of dollars)

Line	EXPERIMENT AND REGION	Under $2,000	$2,000 – 2,999	$3,000 – 3,999	$4,000 – 4,999	$5,000 – 5,999	$6,000 – 6,999	$7,000 – 9,999	$10,000 – 14,999	$15,000 & over	Total
67.	Experiment 1 (B.3 and D.12)	4.03	3.95	4.41	4.02	2.68	2.28	7.27	6.53	16.44	51.78
68.	Experiment 2 (B.5 and D.12)	3.94	3.86	4.36	4.02	2.55	2.12	6.90	6.28	18.57	52.87
69.	Experiment 3 (B.7)	4.04	3.82	4.33	3.80	2.81	2.41	7.39	6.66	12.00	47.57
70.	Experiment 4 (H.22)	3.57	3.25	3.49	3.27	2.35	2.24	7.80	7.41	15.70	49.43
71.	Experiment 5 (G.20)	2.19	3.14	3.67	3.83	2.72	2.11	7.64	7.46	16.44	49.43
72.	Experiment 6 (E.16a)	3.94	3.84	4.28	3.85	2.62	2.19	6.94	6.23	15.07	49.24
73.	Experiment 7 (M.25)	3.54	3.58	3.98	3.65	2.61	2.33	7.54	7.00	14.82	49.16
74.	Experiment 8 (M.26 and F.18)	3.51	3.50	3.91	3.56	2.52	2.22	7.21	6.65	14.33	47.56
75.	Experiment 9 (A.2)	.85	1.85	1.99	2.23	2.51	3.22	11.23	11.85	12.32	47.38
76.	Experiment 10 (Pro-Rich)	1.70	2.48	2.85	3.28	2.40	2.26	8.92	9.11	19.40	52.60
77.	Experiment 11 (Pro-Poor)	4.03	3.91	4.32	3.79	2.80	2.41	7.36	6.63	11.87	47.38

Expenditure Incidence (per cent of total expenditures)

Line	EXPERIMENT AND REGION	Under $2,000	$2,000 – 2,999	$3,000 – 3,999	$4,000 – 4,999	$5,000 – 5,999	$6,000 – 6,999	$7,000 – 9,999	$10,000 – 14,999	$15,000 & over	Total
78.	Experiment 1 (B.3 and D.12)	1.34	1.32	1.47	1.34	.89	.76	2.42	2.18	5.48	17.26
79.	Experiment 2 (B.5 and D.12)	1.31	1.29	1.45	1.34	.85	.71	2.30	2.09	6.15	17.62
80.	Experiment 3 (B.7)	1.35	1.27	1.44	1.27	.94	.80	2.46	2.22	4.00	15.86
81.	Experiment 4 (H.22)	1.19	1.08	1.16	1.09	.78	.75	2.60	2.47	5.23	15.46
82.	Experiment 5 (G.20)	.73	1.05	1.22	1.28	.91	.70	2.55	2.49	5.48	16.43
83.	Experiment 6 (E.16a)	1.31	1.28	1.43	1.28	.87	.73	2.31	2.03	5.02	16.41
84.	Experiment 7 (M.25)	1.18	1.19	1.33	1.22	.87	.78	2.51	2.33	4.94	16.39
85.	Experiment 8 (M.26 and F.18)	1.17	1.17	1.30	1.19	.84	.74	2.40	2.22	4.78	15.85
86.	Experiment 9 (A.2)	.28	.62	.66	.74	.84	1.07	3.74	3.95	4.11	15.79
87.	Experiment 10 (Pro-Rich)	.57	.83	.95	1.09	.80	.75	2.97	3.04	6.47	17.53
88.	Experiment 11 (Pro-Poor)	1.34	1.30	1.44	1.26	.93	.80	2.45	2.21	3.96	15.79

TABLE A-5(b)

Expenditure Amounts and Expenditure Incidence For Alternative

Expenditure Experiments, Regions and Canada

Line	EXPERIMENT AND REGION	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total
						Family Money Income Class					

BRITISH COLUMBIA

Total Expenditure Amount (millions of dollars)

Line	EXPERIMENT AND REGION	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total
89.	Experiment 1 (B.3 and D.12)	.30	.24	1.29	1.24	.59	2.19	2.53	4.24	17.76	30.72
90.	Experiment 2 (B.5 and D.12)	.29	.24	1.39	1.33	.60	2.42	2.55	4.54	20.38	32.72
91.	Experiment 3 (B.7)	.29	.21	1.14	1.06	.56	1.90	2.32	3.75	15.15	26.34
92.	Experiment 4 (H.22)	.25	.17	1.15	1.07	.55	2.00	2.45	4.05	16.33	26.65
93.	Experiment 5 (G.20)	.06	.20	1.06	1.00	.44	1.97	2.49	4.21	16.70	23.95
94.	Experiment 6 (E.16a)	.27	.20	1.17	1.08	.55	2.00	2.42	3.99	16.22	27.04
95.	Experiment 7 (M.25)	.27	.22	1.15	1.11	.56	2.01	3.33	4.82	15.44	28.74
96.	Experiment 8 (M.26 and F.18)	.25	.20	1.10	1.06	.60	1.91	2.88	4.32	14.94	27.19
97.	Experiment 9 (A.2)	.28	.35	.97	1.22	1.25	2.02	9.19	10.09	9.67	34.76
98.	Experiment 10 (Pro-Rich)	.12	.27	1.25	1.24	.58	2.39	3.56	5.59	19.71	34.61
99.	Experiment 11 (Pro-Poor)	.27	.21	1.13	1.05	.55	1.89	2.31	3.73	15.02	26.10

Expenditure Incidence (per cent of total expenditures)

Line	EXPERIMENT AND REGION	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total
100.	Experiment 1 (B.3 and D.12)	.10	.08	.43	.41	.20	.73	.84	1.41	5.92	10.11
101.	Experiment 2 (B.5 and D.12)	.10	.08	.46	.44	.20	.81	.85	1.51	6.79	11.24
102.	Experiment 3 (B.7)	.10	.07	.38	.35	.19	.63	.77	1.25	5.05	8.79
103.	Experiment 4 (H.22)	.08	.06	.38	.36	.18	.67	.82	1.35	5.44	9.15
104.	Experiment 5 (G.20)	.02	.07	.35	.33	.15	.66	.83	1.40	5.57	9.00
105.	Experiment 6 (E.16a)	.09	.07	.39	.36	.18	.67	.81	1.33	5.41	9.08
106.	Experiment 7 (M.25)	.09	.07	.38	.37	.22	.67	1.11	1.01	5.15	9.05
107.	Experiment 8 (M.26 and F.18)	.08	.07	.37	.35	.20	.64	.96	1.44	4.98	9.08
108.	Experiment 9 (A.2)	.09	.12	.32	.41	.42	.67	3.06	3.76	3.22	11.54
109.	Experiment 10 (Pro-Rich)	.04	.09	.42	.41	.19	.80	1.19	1.86	6.57	11.54
110.	Experiment 11 (Pro-Poor)	.09	.07	.38	.35	.18	.63	.77	1.24	5.01	8.70

TABLE A-5(b)

Expenditure Amounts and Expenditure Incidence For Alternative

Expenditure Experiments, Regions and Canada

Line	EXPERIMENT AND REGION	Family Money Income Class									
		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
CANADA											
	Total Expenditure Amount (millions of dollars)										
111.	Experiment 1 (B.3 and D.12)	12.70	15.60	16.79	19.73	16.93	21.97	52.24	51.24	89.75	299.86
112.	Experiment 2 (B.5 and D.12)	12.49	14.60	19.21	19.18	15.75	21.20	48.61	49.63	99.18	299.85
113.	Experiment 3 (B.7)	12.32	14.80	19.94	20.29	19.42	23.43	58.31	56.97	75.54	299.86
114.	Experiment 4 (H.22)	11.05	12.40	16.94	17.61	17.05	22.39	55.96	57.37	88.11	299.86
115.	Experiment 5 (G.20)	9.65	12.88	18.26	18.66	17.32	21.62	53.67	55.65	91.41	299.65
116.	Experiment 6 (E.16a)	12.23	14.47	19.32	20.50	17.68	22.18	53.42	53.75	86.30	299.86
117.	Experiment 7 (M.25)	11.01	13.28	17.82	18.49	17.39	21.75	55.35	57.75	86.11	299.86
118.	Experiment 8 (M.26 and F.18)	11.00	13.24	17.95	18.50	17.73	22.04	55.81	58.01	84.63	299.86
119.	Experiment 9 (A.2)	3.03	5.52	8.60	12.19	15.97	19.40	68.99	84.91	82.10	299.85
120.	Experiment 10 (Pro-Rich)	7.95	10.15	14.65	15.84	14.91	20.16	51.92	59.27	103.02	299.86
121.	Experiment 11 (Pro-Poor)	12.29	14.91	19.92	20.24	19.60	23.48	58.49	57.09	75.05	299.86
	Expenditure Incidence (per cent of total expenditures)										
122.	Experiment 1 (B.3 and D.12)	4.23	5.02	5.60	6.58	5.64	7.32	17.41	17.08	29.92	100.00
123.	Experiment 2 (B.5 and D.12)	4.16	4.87	6.40	6.39	5.25	7.07	16.20	16.54	33.06	100.00
124.	Experiment 3 (B.7)	4.11	4.93	6.65	6.76	6.47	7.81	19.44	18.99	25.18	100.00
125.	Experiment 4 (H.22)	3.68	4.13	5.65	5.87	5.68	7.46	18.65	19.12	29.37	100.00
126.	Experiment 5 (G.20)	3.22	4.29	6.09	6.22	5.77	7.21	17.89	18.55	30.47	100.00
127.	Experiment 6 (E.16a)	4.08	4.82	6.44	6.83	5.89	7.39	17.81	17.92	28.77	100.00
128.	Experiment 7 (M.25)	3.67	4.43	5.94	6.16	5.80	7.25	18.45	19.25	26.70	100.00
129.	Experiment 8 (M.26 and F.18)	3.67	4.41	5.98	6.17	5.91	7.35	18.60	19.34	28.21	100.00
130.	Experiment 9 (A.2)	1.01	1.84	2.87	4.06	5.32	6.47	23.00	28.30	27.37	100.00
131.	Experiment 10 (Pro-Rich)	2.65	3.38	4.88	5.28	4.97	6.72	17.31	19.76	34.34	100.00
132.	Experiment 11 (Pro-Poor)	4.10	4.97	6.64	6.75	6.53	7.83	19.50	19.03	25.02	100.00

Note: Details may not add to totals due to rounding.

TABLE A-5(c)

Expenditure Incidence of Federal Regional Economic Expansion Expenditures

For Alternative Expenditure Experiments, by Region, percentages

Expenditure Incidence (percent of total expenditures)

Line		Family Money Income Class									
		Under $2,000	$2,000- 2,999	$3,000- 3,999	$4,000- 4,999	$5,000- 5,999	$6,000- 6,999	$7,000- 9,999	$10,000- 14,999	$15,000 & over	Total
	Experiment 1 (B.3 and D.12)										
1.	Atlantic region	1.48	2.26	3.10	2.63	2.70	2.68	6.52	4.84	2.41	28.65
2.	Quebec	.83	.81	1.08	1.47	1.39	2.08	5.04	5.14	5.54	23.35
3.	Ontario	.48	.55	.49	.72	.47	1.07	2.59	3.52	10.56	20.54
4.	Prairie region	1.34	1.32	1.47	1.34	.89	.76	2.42	2.18	5.48	17.26
5.	B.C.	.10	.08	.43	.41	.20	.73	.84	1.41	5.92	10.11
6.	CANADA	4.23	5.02	6.57	6.57	5.65	7.32	17.41	17.00	29.91	100.00
	Experiment 2 (B.5 and D.12)										
7.	Atlantic region	1.48	2.18	3.01	2.51	2.53	2.51	6.05	4.60	2.43	27.36
8.	Quebec	.81	.73	.97	1.34	1.19	1.87	4.25	4.55	4.32	21.33
9.	Ontario	.50	.60	.51	.75	.47	1.17	2.75	3.79	12.00	22.46
10.	Prairie region	1.31	1.29	1.45	1.34	.85	.71	2.30	2.09	6.19	17.62
11.	B.C.	.10	.08	.46	.44	.20	.81	.85	1.51	6.79	11.24
12.	CANADA	4.20	4.88	6.40	6.38	5.24	7.07	16.20	16.54	31.73	100.00
	Experiment 3 (B.7)										
13.	Atlantic region	1.47	2.29	3.19	2.96	3.21	3.19	7.68	6.13	2.78	38.16
14.	Quebec	.76	.85	1.19	1.56	1.69	2.32	6.23	5.22	5.80	22.60
15.	Ontario	.43	.45	.44	.62	.45	.87	2.29	3.12	7.55	16.29
16.	Prairie region	1.35	1.27	1.44	1.27	.94	.80	2.46	2.22	4.00	15.86
17.	B.C.	.10	.07	.38	.35	.19	.63	.77	1.25	5.05	8.77
18.	CANADA	4.11	4.93	6.64	6.76	6.48	7.81	19.43	18.00	25.18	100.00

TABLE A-5(c)

Expenditure Incidence of Federal Regional Economic Expansion Expenditures

For Alternative Expenditure Experiments, by Region, percentages

Expenditure Incidence (percent of total expenditures)

					Family Money Income Class					
Line		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	Experiment 4 (H.22)										
19.	Atlantic region	1.29	1.86	2.72	2.48	2.90	2.96	7.38	6.21	2.95	30.95
20.	Quebec	.68	.63	.88	1.28	1.38	2.08	5.36	5.64	5.99	23.93
21.	Ontario	.45	.50	.44	.66	.44	1.00	2.49	3.45	9.76	19.24
22.	Prairie region	1.19	1.08	1.16	1.09	.78	.75	2.60	2.47	5.23	16.48
23.	B.C.	.08	.06	.38	.36	.18	.67	.82	1.35	5.44	9.35
24.	CANADA	3.69	4.13	5.58	5.87	5.48	7.46	18.65	19.12	29.37	100.00
	Experiment 5 (G.20)										
25.	Atlantic region	1.48	2.02	3.13	2.70	2.93	2.86	7.00	5.90	2.76	30.96
26.	Quebec	.71	.72	1.01	1.38	1.41	2.01	5.08	5.43	6.16	23.93
27.	Ontario	.28	.44	.37	.53	.38	.97	2.43	3.30	10.50	19.24
28.	Prairie region	.73	1.05	1.22	1.28	.91	.70	2.55	2.49	5.48	16.48
29.	B.C.	.02	.07	.35	.33	.15	.66	.83	1.40	5.57	9.35
30.	CANADA	3.22	4.30	6.08	6.22	5.78	7.20	17.89	18.52	30.47	100.00
	Experiment 6 (E.16a)										
31.	Atlantic region	1.44	2.20	3.09	3.09	2.95	2.93	7.03	5.70	2.81	31.12
32.	Quebec	.77	.76	1.06	1.41	1.43	2.07	5.20	5.42	5.88	24.01
33.	Ontario	.46	.52	.47	.68	.45	1.00	2.46	3.39	9.65	19.13
34.	Prairie region	1.31	1.28	1.43	1.28	.87	.73	2.31	2.08	5.02	16.41
35.	B.C.	.09	.07	.39	.36	.18	.67	.81	1.33	5.41	9.28
36.	CANADA	4.07	4.83	6.44	6.82	5.88	7.40	17.81	17.92	28.77	100.00

TABLE A-5(c)

Expenditure Incidence of Federal Regional Economic Expansion Expenditures

For Alternative Expenditure Experiments, by Region, percentages

Expenditure Incidence (percent of total expenditures)

Family Money Income Class

Line		Under $2,000	$2,000- 2,999	$3,000- 3,999	$4,000- 4,999	$5,000- 5,999	$6,000- 6,999	$7,000- 9,999	$10,000- 14,999	$15,000 & over	Total
	Experiment 7 (M.25)										
37.	Atlantic region	1.26	1.92	2.69	2.44	2.62	2.60	4.26	5.10	2.55	27.65
38.	Quebec	.70	.71	1.03	1.37	1.45	2.04	5.26	5.54	6.00	24.14
39.	Ontario	.44	.52	.51	.77	.64	1.14	3.31	4.77	10.07	22.14
40.	Prairie region	1.18	1.19	1.33	1.22	.87	.78	2.51	2.33	4.94	16.35
41.	B.C.	.09	.07	.38	.37	.22	.57	1.11	1.71	5.15	9.45
42.	CANADA	3.67	4.41	5.94	6.17	5.80	7.25	18.45	19.25	28.71	100.00
	Experiment 8 (M.26 and F.18)										
43.	Atlantic region	1.28	1.96	2.79	2.57	2.80	2.78	4.70	5.52	2.69	29.30
44.	Quebec	.70	.71	1.03	1.36	1.45	2.04	5.26	5.52	5.90	23.94
45.	Ontario	.43	.51	.49	.73	.62	1.15	3.28	4.74	9.89	21.79
46.	Prairie region	1.17	1.17	1.30	1.19	.84	.74	2.40	2.22	4.78	15.85
47.	B.C.	.08	.07	.37	.35	.20	.64	.96	1.44	4.98	9.05
48.	CANADA	3.66	4.42	5.98	6.20	5.91	7.35	18.60	19.34	28.24	100.00
	Experiment 9 (A.2)										
49.	Atlantic region	.18	.27	.33	.46	.58	.61	1.57	1.53	.95	6.33
50.	Quebec	.23	.70	.81	1.14	1.64	1.90	5.87	4.52	6.80	25.29
51.	Ontario	.29	.53	.74	1.31	1.85	2.22	8.75	12.94	12.28	41.08
52.	Prairie region	.28	.62	.66	.74	.84	1.07	3.74	3.95	4.11	15.79
53.	B.C.	.09	.12	.32	.41	.42	.67	3.06	3.35	3.22	11.59
54.	CANADA	1.07	2.24	2.86	4.06	5.33	6.47	22.99	28.30	27.36	100.00

TABLE A-5(c)

Expenditure Incidence of Federal Regional Economic Expansion Expenditures
for Alternative Expenditure Experiments, by Region, percentages

Line	Expenditure Incidence (percent of total expenditures)	Family Money Income Class									
		Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total
	Experiment 10 (Pro-Rich)										
55.	Atlantic region	1.16	1.43	2.35	1.92	2.20	2.21	5.04	4.83	2.28	24.05
56.	Quebec	.58	.53	.73	1.16	1.18	1.65	4.50	4.97	5.06	21.51
57.	Ontario	.30	.51	.43	.69	.59	1.31	3.61	5.06	12.63	25.55
58.	Prairie region	.57	.83	.95	1.09	.80	.75	2.97	3.04	4.47	17.53
59.	B.C.	.04	.09	.42	.41	.19	.80	1.19	1.87	5.57	11.54
60.	CANADA	2.65	3.39	4.88	5.27	4.96	6.72	17.31	19.76	34.01	100.00
	Experiment 11 (Pro-Poor)										
61.	Atlantic region	1.47	2.29	3.20	2.97	3.23	3.21	7.73	6.23	2.79	33.31
62.	Quebec	.76	.85	1.18	1.53	1.74	2.32	6.26	6.24	5.79	26.68
63.	Ontario	.43	.45	.44	.63	.45	.86	2.28	3.11	7.47	16.18
64.	Prairie region	1.34	1.30	1.44	1.26	.93	.80	2.45	2.21	3.96	15.79
65.	B.C.	.09	.07	.38	.35	.18	.63	.77	1.24	5.01	8.70
66.	CANADA	4.09	4.96	6.64	6.74	6.53	7.83	19.49	19.03	25.02	100.00

Note: Details may not add to totals due to rounding.

TABLE A-5/6

Fiscal Amounts and Fiscal Incidence of Federal Regional Economic
Expansion Expenditures for the Pro-Rich Experiment, by Region

Region	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 & over	Total
					Family Money Income Class					
FISCAL AMOUNTS (millions of dollars)										
1. Atlantic region	3.09	3.70	5.89	4.45	4.73	4.87	9.90	10.08	4.65	53.29
2. Quebec	.93	.47	.18	.51	-.76	-1.29	-5.89	-5.15	-.71	-9.7?
3. Ontario	-.22	.01	-.83	-.94	-3.62	-3.11	-11.91	-22.97	-.38	-48.88
4. Prairie region	.77	1.31	1.45	1.18	-.12	-1.06	-2.39	-3.04	7.81	5.8?
5. B.C.	-.30	-.32	.49	-.05	-.60	.17	-5.86	-4.5?	10.81	-.14
6. CANADA	4.27	5.17	7.18	5.15	-.37	-.42	-21.15	-25.57	23.60	0.00
FISCAL INCIDENCE (Percent of total expenditure received(+) or contributed(-))										
7. Atlantic region	1.03	1.23	1.96	1.48	1.58	1.62	3.30	3.34	1.55	17.76
8. Quebec	.31	.16	.06	.17	-.25	-.43	-1.96	-1.72	.24	-3.25
9. Ontario	-.07	-1.-	-.28	-.31	-1.21	-1.04	-5.64	-7.66	-.13	-16.29
10. Prairie region	.26	.44	.38	.39	-.04	.35	-.80	-1.01	2.60	1.95
11. B.C.	-.10	-.11	.16	-.02	-.20	.06	-1.95	-1.52	3.60	-.05
12. CANADA	1.43	1.72	2.28	1.71	-.12	-.14	-7.05	-8.55	7.86	0.00

TABLE A-5'd)

Fiscal Amounts and Fiscal Incidence of Federal Regional Economic
Expansion Expenditures for the Pro-Rich Experiment, by Region

Region		Family Money Income Class								
	Under $2,000	$2,000- 2,999	$3,000- 3,999	$4,000- 4,999	$5,000- 5,999	$6,000- 6,999	$7,000- 9,999	$10,000- 14,999	$15,000 & over	Total
FAMILY UNIT FISCAL INCIDENCE (Percent of total expenditures received (+) or contributed (-) per percentile of family units)										
13. Atlantic region	.74	2.05	2.18	1.64	1.76	2.03	2.36	3.73	7.75	2.14
14. Quebec	.10	.07	.03	.08	.10	.18	.34	.42	.11	.12
15. Ontario	-.02	-	-.13	-.13	-.43	-.39	-.68	-.91	-.03	-.44
16. Prairie region	.10	.26	.24	.56	.07	.44	.28	.46	3.25	.11
17. B.C.	-.07	-.14	.18	-.03	-.33	.08	-.67	-.69	4.50	--
18. CANADA	.12	.22	.29	.23	-.02	-.02	-.32	-.47	.95	0.00

Line

Note: Details may not add to totals due to rounding.

TABLE A-5'e)

Fiscal Amounts and Fiscal Incidence of Federal Regional Economic
Expansion Expenditures for the Pro-Poor Experiment, by Region

Line	Region	Family Money Income Class									
		Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	FISCAL AMOUNTS (millions of dollars)										
1.	Atlantic region	4.04	6.28	8.62	7.60	7.82	7.85	17.98	14.23	6.18	81.09
2.	Quebec	1.47	1.45	1.54	1.73	.90	.74	.61	-1.34	.08	5.74
3.	Ontario	.15	-.16	-.80	-1.13	-4.05	-4.45	-20.89	-28.82	-16.87	-76.98
4.	Prairie region	3.10	2.74	2.92	1.69	.28	-.91	-3.95	-5.52	.28	.64
5.	B.C.	-.15	-.38	.37	-.24	-.43	-.33	-7.11	-6.42	6.12	-8.65
6.	CANADA	8.61	9.93	12.65	9.55	4.32	2.90	-14.58	-27.82	-4.37	0.00
	FISCAL INCIDENCE (percent of total expenditures received(+) or contributed(-))										
7.	Atlantic region	1.35	2.09	2.87	2.53	2.61	2.62	5.99	4.79	2.06	27.01
8.	Quebec	.49	.48	.51	.54	.30	.25	.20	-.45	-.03	1.91
9.	Ontario	.05	-.05	-.27	-.38	-1.35	-1.48	-6.96	-9.71	-5.62	-25.46
10.	Prairie region	1.03	.91	.97	.56	.09	-.30	-1.32	-1.84	.09	.21
11.	B.C.	-.05	-.13	.12	-.08	-.21	-.11	-2.37	-2.14	2.04	-2.88
12.	CANADA	2.87	3.30	3.96	3.17	1.44	.98	-4.86	-9.25	-1.46	0.00

TABLE A-5(e)

Fiscal Amounts to and Fiscal Incidence of Federal Regional Economic Expansion Expenditures for the Pro-Poor Experiment, by Region

Family Money Income Class

Line	Region	Under $2,000	$2,000-2,999	$3,000-3,999	$4,000-4,999	$5,000-5,999	$6,000-6,999	$7,000-9,999	$10,000-14,999	$15,000 & over	Total
	FAMILY UNIT FISCAL INCIDENCE (Percent of total expenditures received(+) or contributed(-) per percentile of family units)										
13.	Atlantic region	.96	3.48	3.19	2.81	2.90	3.28	4.28	5.32	10.30	3.25
14.	Quebec	.16	.22	.24	.25	.12	.10	-.03	-.11	-.01	.07
15.	Ontario	.01	-.02	-.13	-.16	-.48	-.55	-.84	-1.14	-1.44	-.70
16.	Prairie region	.20	.54	.61	.43	.07	-.23	-.38	-.74	.82	.01
17.	B.C.	-.04	-.16	.13	-.11	-.35	-.14	-.82	-.97	2.55	.26
18.	CANADA	.23	.41	.51	.42	.18	.12	-.22	-.51	-.18	0.00

Note: Details may not add to totals due to rounding.

Appendix A Source Notes

Table A-1 (a)

Except where otherwise noted, the source of the following explanatory notes for the A-1 distribution series is Gillespie, 1975: Appendix D for the all-Canada data, and Appendix A for the regional data. For the sake of clarification we have kept separate here the explanatory notes for the all-Canada data (Table A-1 (a) and the regional data (Tables A-1 (b) to (f) inclusive).

Line 1   The percentage distribution of total federal taxes is derived by converting to percentages the data in Table D-2, line 8.

Line 2   The percentage distribution of personal income tax is from Table D-1, line 1.

Line 3   The distribution of total federal expenditures is derived by expressing in percentages the data in Table D-5, line 12B.

Line 4   The federal personal transfers item is the sum of public health, housing, social security, and veterans expenditures. This distribution was arrived at by expressing in percentages the total of these items, the source being Table D-5, lines 4 and 5.

Line 5   The distribution of total provincial taxes is derived by converting to percentages the data in Table D-2, line 17.

Line 5a   This item is the total of the changes in the provincial taxes that would occur in the absence of federal equalization payments. The provincial taxes of the Atlantic region, Quebec, and the Prairies (as a region), would be increased by the amounts indicated in the following table, which is calculated by applying the provincial tax rate per income class (line 5 here) to the aggregate equalization grant received by the recipient regions. The source of these aggregate amounts is Kerr, 1975: table 4c. See Table 1 below.

Line 6a   Similarly, line 6a indicates the changes in provincial expenditures that would occur in the absence of equalization payments. It was calculated by applying the provincial expenditure rates per income class (line 6 here) to the aggregate equalization grants received by the recipient regions.

Table 1

CHANGES IN PROVINCIAL TAXES AND EXPENDITURES

THAT WOULD OCCUR IN THE ABSENCE OF EQUALIZATION GRANTS

millions of dollars

Family Money Income Class

	Under $2,000	$2,000 - 2,999	$3,000 - 3,999	$4,000 - 4,999	$5,000 - 5,999	$6,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 - & over	Total	%
Taxes											
Atlantic	5.0	9.9	18.5	19.3	26.5	26.8	69.6	65.4	29.3	276	41
Quebec	4.1	6.5	9.3	14.1	19.2	29.8	90.2	93.4	76.1	343	51
Prairies	1.6	1.9	2.4	2.9	3.2	4.0	12.9	13.6	11.6	54	8
Total, Canada	10.7	18.3	30.2	36.3	48.9	60.6	172.7	172.4	117.0	673	100
Can. %	1.6	2.7	4.5	5.4	7.3	9.0	25.7	25.6	17.4		100
Expenditures											
Atlantic	16.6	18.8	26.8	27.0	30.1	27.9	66.0	46.4	18.8	276	41
Quebec	21.3	20.9	22.3	26.4	29.8	31.9	83.3	64.1	43.2	343	51
Prairies	3.5	3.2	3.9	4.1	4.3	4.4	12.7	10.5	6.9	54	8
Total, Canada	41.4	42.9	53.0	57.5	64.2	64.2	162.0	121.0	68.9	673	100
Can. %	6.2	6.4	7.9	8.5	9.5	9.5	24.1	18.0	10.2		100

Line 6   The distribution of total provincial expenditure has as
          its source table D-5, line 23B.

Line 7   Dividends income is derived from table A-1(a), line 9.

Line 8   In this series we have grouped by region the net (active)
          RDIA incentives for 1973 according to the standard clas-
          sification in Family Expenditure in Canada (Statistics
          Canada, cat. no. 62-535). The steps in the creation
          of this series are as follows:

    i. The projects were grouped by region according to their
        product or process using the above-mentioned scheme of
        classification. A general category was added to accomo-
        date problematic types of cases, such as products which
        were inputs rather than end products (for example,
        machine parts), and cases where the RDIA Monthly Report's
        description was ambiguous or inadequate for our purposes
        (for example when the process of a firm was described
        simply as "sawmill").

   ii. The incentive grants of the firms were added for each
        of the consumption expenditure categories by region.
        These were then distributed by income class according
        to the corresponding percentage rates of consumption
        for each category, the source of the latter being
        table D-1, lines 21-37 for Canada, and tables A-2,
        lines 1 to 17 for the regions. The general category
        was allocated by the respective rates of total consump-
        tion in these sources.

  iii. The consumption expenditures per income class resulting
        from the allocation in step ii. were then added to give
        the total consumption for each income class for Canada
        and the regions.

   iv. These totals were then converted to percentages to re-
        flect the distribution among income classes of consump-
        tion of RDIA - subsidized products for Canada and the
        regions.

Line 9   The wages and salaries distribution is taken from table
          A-1, line 1.

Line 10   The distribution of children age 5 to 17 is taken from
          table A-1, line 27.

Line 11   The distribution of broad income is from Gillespie 1975:
          part 11, p. 30b, table 2.2.

Lines 12 The number of family units and the percentage distribu-
 and 13 tion are from table D-1, lines 18 and 20 respectively.

Line 14   The following steps are taken to create the distribu-
           tion of property users.

      i.   It is noted in Gillespie, 1975: Appendix notes, p. a-
           20 that the proportional breakdown of property-users
           is as follows:

           renters : 33 per cent

           owners : 67 per cent :

                              farm-owners 20% of 67% = 13.4 per cent
                              residential
                              owners   80% of 67% = 53.6 per cent

     ii.   These proportional percentages, 33 per cent, 13.4 per
           cent, and 53.6 per cent are then allocated among in-
           come classes according to the relevant rates in table
           D-1 for Canada and A-1 for the regions. That is to
           say, the percentage distribution of rent expenditures
           (table D-1, line 12) is used to distribute the 33 per-
           cent; the percentage distribution of the rental value
           of owned farm (table D-1, line 3) is used to distribute
           the 13.4 per cent; and the distribution rates of the
           rental value of owned home (D-1, line 4) are used to
           distribute the 53.6 per cent. For the regional tables
           the respective rates of allocation are to be found in
           tables A-1, lines 24, 14, and 15.

    iii.   For each income class, for Canada and the regions,
           these items are then added to give the percentage dist-
           ribution by income class of property-users.

Line 15   The distribution of miles driven is taken from table
           D-1. line 13.

Line 16   The distribution of consumption of transported products
           is taken from table D-1, line 40.

Line 17   The source of the distribution of total consumption is
           table D-1, line 2.

Line 18   The distribution of manpower trainees is taken from
           table A-1(a), line 29.

Line 19   The total provincial-municipal taxes distribution is an
           average of the sum of total provincial and total muni-
           cipal taxes. The source of the former is table D-2,
           line 17; the source of the latter is table D-2, line
           23. The averages that result are converted into per-
           centages.

Line 20   The farm income series is from table A-1 (a), line 4.

Line 21   The distribution of farm family units is derived from
          Income Survey data.

Line 22   The distribution of social assistance expenditures is
          derived by adding the provincial expenditures on public
          health and housing, social security and veterans to the
          municipal expenditures for these items. The resulting
          distribution is expressed here in percentages. The
          source of the expenditures is table D-5, line 16 and
          17 (provincial) and lines 25 and 26 (municipal).

Line 23   The distribution of original adjusted broad income is
          derived from Gilespie, 1975. Since Gillespie, 1975
          included an adjustment on the income base to allow for
          the treatment of DREE expenditures, this adjustment had
          to be subtracted out in order to result in an income
          base that would be consistent with this investigation
          in which we are assuming that DREE is a new program
          introduced in 1969. This adjustment procedure results
          in the original adjusted broad income base of line 23.

Line 24   The new adjusted broad income is derived by adding to
          the original adjusted broad income the actual DREE ex-
          penditures set out in tables A-3 and subtracting feder-
          al taxes sufficient to finance DREE, tables A-3, lines
          57-62.

                    Tables A-1 (b to f inclusive)

Line 1   The percentage distribution of total federal taxes is
          derived by converting to percentages the data in tables
          A-5, line 8.

Line 2   The source of the percentage distribution of personal
          income tax is tables A-1, line 12.

Line 3   The distribution of total federal expenditures is deriv-
          ed by converting to percentages the data in tables A-12,
          line 12B.

Line 4   The federal personal transfers item is the sum of ex-
          penditures on public health and housing, social secur-
          ity and veterans. This distribution is calculated by
          expressing in percentages the total of these items,
          the source of the expenditures being tables A-12, lines
          4 and 5.

Line 5   The distribution of total provincial taxes is derived

from tables A-5, line 17.

Line 6   The distribution of total provincial expenditures is calculated by converting to percentages the data in tables A-12, line 23B.

Line 7   Dividends income is derived from tables A-1, line 9.

Line 8   See explanatory note for table A-1 (a) here.

Line 9   The wages and salary distribution is taken from tables A-1, line 1.

Line 10   The distribution of children age 5 to 17 is taken from tables A-1, line 27.

Line 11   The percentage distribution of broad income is from Gillespie, 1975: part 11, p. 30b, table 2.2.

Lines 12   The number of family units is taken from tables A-4,
13   line 28. This is converted into percentages for line 13.

Line 14   See explanatory note for table A-1 (a) here.

Line 15   The distribution of miles driven is taken from tables A-1, line 30.

Line 16   The source of the distribution of transported products is tables A-2, line 20.

Line 17   The source of the distribution of total consumption is tables A-1, line 13.

Line 18   The distribution of manpower trainees is from table A-1 (a), line 29. We have used the all-Canada distribution for each of the regions because this series is not available at the regional level.

Line 19   See explanatory note for table A-1 (a). The source of the regions' distribution of provincial taxes is line 17 of the A-5 tables. The municipal taxes are found in the A-5 tables, line 23.

Line 20   The series on net farm income is from tables A-1, line 4.

Line 21   The distribution for the regions of farm family units are derived from the Income Survey.

Line 22   The social assistance series is derived for the regions as it is for the all-Canada table. The source for the expenditures is tables A-12, line 16, 17, 25, and 26.

Line 23   The original adjusted broad income base for the regions is derived by the same steps used in the all-Canada table.

Line 24   The new adjusted broad income base is derived by adding
           DREE expenditures (table A-3) and subtracting federal
           taxes used to finance DREE (table A-3) from the original
           adjusted broad income base of line 23.

Line 25   Family units as a per cent of all - Canada expresses
           the number of family units set out in line 12 of this
           table as a percentage of the total number of family
           units in Canada, found in table A-1 (a), line 12.

Table A-2

        Except where otherwise noted, the source of the following
explanatory notes for the A-2 Distributive Series by Region is
Gillespie, 1975: Appendix A. This information is presented in
percentages in table A-2 (a) and in millions of dollars in table
A-2 (b). Since the sources for corresponding data in both tables
are the same, we shall present here only explanatory notes for
table A-2 (a).

Line 1   The regional distribution of total federal taxes is
           derived by converting to percentages the data in table
           A-3 (c), line 14.

Line 2   The regional distribution of federal personal income
           tax is from table A-3 (c), line 1.

Line 3   The regional distribution of total federal expenditures
           is derived by expressing in percentages the data in
           tables A-12, a to e inclusive, line 12B.

Line 4   Federal personal transfers is the sum of public health
           and housing, social security and veterans expenditures.
           The regional distribution is derived by expressing the
           sums of these items in each region as a percentage
           rate of the all-Canada total. The source is tables
           A-12, a to e inclusive, line 4 and 5.

Line 5   The regional distribution of total provincial taxes is
           derived by converting to percentages of the all-Canada
           total the total provincial taxes within each region.
           These data are in tables A-5, a to e inclusive, line 17.

Line 6   The distribution of total provincial expenditures by
           region is derived by expressing in percentages the data
           in tables A-12, a to e inclusive, line 23B.

Line 7   The regional distribution of dividends income is derived
          by expressing the total dividends income in each region
          as a percentage of the all-Canada total. The source of
          the regional totals is tables A-4, a to e inclusive,
          line 15.

Line 8   The regional distribution of the consumption of grant-
          financed output reflects the totals, by region, of the
          net (active) RDIA incentive offers for 1973. These
          totals have been expressed as percentages of the all-
          Canada total. The source of this data is Report on
          Regional Development Incentives, January 1973 to March
          1975 inclusive. See explanatory note for line 8 of
          table A-1 (a) here.

Line 9   The regional distribution of wages and salaries ex-
          presses in percentage rates the data in table A-4,
          line 2.

Line 10   The regional distribution of children age 5 to 17 is
          a percentage distribution of the data in table A-11(b),
          Line 1.

Line 11   The distribution of broad income by region is a percent-
          age distribution of the data in table A-4, line 24.

Lines 12 The number of family units by region is taken from table
  and 13   A-4, line 28. This distribution is expressed in percent-
          ages in line 13.

Line 14   The steps used to create the regional distribution of
          property users are as follows:

     i.   It is indicated in Gillespie, 1975: Appendix notes,
          p. a-20, that the proportional breakdown of property
          users in Canada is the following:

          renters: 33 per cent

          owners : 67 per cent: farm owners: 20% of 67% = 13.4
                                                            per cent
                                 residential: 80% of 67% = 53.6
                                                            per cent

    ii.   The following regional distribution of rent expenditures
          is taken from Family Expenditure in Canada, 1969, vol.11,
          1969: tables 6, 19, 32, 45, and 58.

Region	No. of units in population	Average expenditure on rent
	'000	$
Atlantic	494	250
Quebec	1,596	498
Ontario	2,198	450
Prairies	1,008	312
British Columbia	635	428

From this information we can derive the total expenditure on rent per region and express this as percentages of the Canadian total. These calculations are performed in the following table.

Region	Total expenditure on rent	Per cent of all-Canada total
	$ millions	%
Atlantic	123.5	5.0
Quebec	769.9	31.2
Ontario	989.1	40.1
Prairies	314.5	12.7
British Columbia	271.8	11.0
Canada	2,468.8	100.0

These regional percentages are then expressed as percentages of 33 per cent, the proportion of renters noted in step i.

iii. The regional distribution of the rental value of owned farm home is derived by expressing in percentages the data in table A-4, line 11a. These rates are then expressed as percentages of 13.4 per cent, the proportion of farm owners indicated in step i.

iv. The regional distribution of residential home owners is a percentage distribution of the data in table A-4, line 11b. These rates are then expressed as percentages of 53.6 per cent, the proportion of residential home owners noted in step i.

v. These three percentage rates, that is, for renters, owners of farm homes, and owners of residential homes respectively, are then added for each region to yield the distribution by region of all property users.

- 173 -

Line 15   The regional distribution of highway users and non-
           users is derived by converting to percentages the
           data in table A-11(a), line 2.

Line 16   The distribution by region of total consumption is
           calculated by converting to percentages the data in
           table A-3(c), line 6iii.

Line 17   The regional breakdown of manpower trainees is un-
           available to us at this time.

Line 18   The regional allocation of provincial-municipal
           taxes is derived by expressing in percentages the
           averages of the total provincial and municipal taxes.
           The source of these is tables A-5, lines 17 and 23.

Line 19   Net farm income is calculated by expressing in per-
           centages the data in table A-4, line 5.

Line 20   The farm family units breakdown is derived from the
           Income Survey.

Line 21   The regional breakdown of social assistance expend-
           itures is derived by expressing in percentages the
           sums by region of provincial and local expenditures
           on public health and housing, social security and vet-
           erans. The source of these is tables A-12, lines 16,
           17, 25 and 26 respectively.

Line 22   The regional breakdown of original adjusted broad in-
           come sets out in percentage form the total original
           broad income for each region. The explanatory note
           for line 22 of table A-1(a) here describes the steps
           in the formation of this concept.

Line 23   The regional breakdown of new adjusted broad income
           sets out the regional totals for this item. The
           derivation of this concept is explained in the note
           for table A-1, line 24.

Table A-3

The basic methodology used in the derivation of the expend-
iture amounts is described in the explanatory note for line 1.
Only pertinent information concerning assumptions and sources is
given for lines 2 to 55 inclusive. Henceforth references to the
A-1 and A-2 tables should be understood to mean the A-1 and A-2
tables in this appendix, (i.e., not in the Gillespie, 1975, study.)

Line 1   In the standard case treatment of capital incentive
              grants we assume that factor substitutability is low
              and that the grants are 48 per cent effective, with
              75% of the impact on the sources of income and 25%
              on the uses. Within the 75% affecting the sources
              of income we assume 67% accrues to capital and the
              remaining 33% to labour. The overall breakdown of
              benefits is as follows:

              i.)   76% to capital income
              ii.) 12% to labour
              iii.) 12% to consumption of the grant-financed output.

              To distribute the 76% to capital which is mobile we
              allocate to the regions shares of the sum of 76% of
              each region's average annual expenditure on capital
              incentive grants. The regions' shares of this amount
              are in proportion to their share of dividends income.
              This information is taken from table A-2(a), line 7.
              The amount that results in each region is then distri-
              buted within the region according to the region's in-
              ternal distribution of dividends income. The source
              of this distribution is line 7, tables A-1.
                    The benefits allocated to labour we assume to
              remain within the region, so that 12% of the expend-
              iture in each region is distributed according to the
              distribution of wages and salaries in that region,
              found in the A-1 tables, line 9.
                    The benefits allocated to consumption of grant-
              financed output are assumed to be mobile benefits.
              The sum of 12 per cent of each region's average an-
              nual expenditure is allocated to the regions accord-
              ing to their share of consumption of grant-financed
              output, taken from table A-2(a), line 8. The share
              that results in each region is then distributed ac-
              cording to the region's internal distribution of
              consumption of grant-financed output. The source
              of this distribution is tables A-1, line 8.
                    The sum, for each income class, of these al-
              locations is the distribution shown here in line 1.

Line 2   The standard case treatment of highway expenditures
              assumes that factor substitutability is low and ex-
              penditures are 67% effective. The allocations that
              result are as follows:

              i.) 33% to the province as a windfall gain. The
              reasoning behind this assumption is that DREE is
              building some highways that the provincial govern-
              ment would otherwise have to build. Thus there is

a type of windfall gain to the province. This
gain is fixed within the region, so that 33% of
the expenditure in each region is distributed ac-
cording to the region's distribution of provincial
taxes, taken from the A-1 tables, line 5.

ii. 11% to capital. This is assumed to be mobile.
See above explanatory note for the description of
the treatment of a mobile factor. The share in
each region is distributed by the region's own
distribution of dividends income.

iii. 6% to labour. This type of benefit remains
within the region and is distributed to the income
classes by the region's distribution of wages and
salaries.

The remaining 50% we allocate to the uses
of income. Benefits received on the income uses
side fall into the following categories: highway
non-users, passenger vehicle users, and consumers
of transported products. The benefits flowing to
non-users of highways are fixed within the region
and are distributed by the series on property-
users, line 14 of tables A-1. Benefits accruing
to passenger vehicle users are fixed within the
region and are distributed by the region's own
distribution series on number of miles driven,
table A-1, line 15. The benefits accruing to
consumers of transported products are assumed to
be mobile, and are first allocated by the regional
breakdown of total consumption, table A-2(a), line
16 before being distributed by the region's intern-
al distribution of consumption of transported com-
modities, line 16 of tables A-1.
The proportions of these three categories
vary from region to region according to Appendix
Table B-2. For the standard case we pro-rate these
ratios to reflect proportional shares of 50% of the
average annual expenditure on highways and roads.

Line 3   Other industrial assistance is treated identically
to capital incentive grants. Readers should there-
fore consult the explanatory note for line 1.

Line 4   Average annual expenditures on manpower and social
assistance are assumed to remain within the region
and to benefit the direct recipients. The series
we use in the standard case to represent the bene-
ficiaries is the distribution of manpower trainees,
tables A-1, line 18.

Line 5   In the standard case we assume that expenditures on assistance to agriculture yield equal benefits to each farm assisted. The average annual expenditure in each region is distributed according to the series on farm family units from tables A-1, line 21.

Line 6   The sewers and other infrastructure expenditures are assumed to be 67% effective. A windfall gain of 33% is allocated to the provinces and municipalities. It does not seem unlikely that DREE's activity in this field enables the provincial and municipal governments to divert elsewhere resources they would have ordinarily directed to those projects now financed by DREE. Thirty-three per cent of the expenditure in each region is distributed according to the region's provincial-municipal tax average, tables A-1, line 19.

To capital we allocate 17 per cent. This is a benefit which need not remain within the region. After being adjusted for this mobility it is distributed by the region's distribution of dividends income, tables A-1, line 7.

The remaining 50% we assume accrues to income uses. To residential users we allocate 34% and to commercial users 16%. The benefits going to residential users are assumed to be fixed and are distributed by the region's distribution of property-users, tables A-1, line 14. The benefits to commercial users are assumed to be mobile. Regional shares are first allocated according to the regional breakdown of total consumption, table A-2(a), line 16. The shares that result are distributed by the region's series on total consumption, tables A-1, line 17.

Line 7   We assume that the benefits of planning and administrative expenditures are general benefits, that is, benefits which accrue equally to all families in the country. The total expenditure in this category is allocated to the regions according to their proportional share of broad income, table A-2(a), line 11. (This is general expenditure assumption B in Gillespie, 1975). The amount that results in each region is distributed by its own series on broad income, line 11 of tables A-1.

Line 8   In the standard case treatment of expenditures on education we assume that 50% of the benefits are private and accrue to the student. The remaining

50% we consider to be public benefits which
remain within the region. The former are distri-
buted by the region's series on children age 5 to
17, tables A-1, line 10. The latter benefits
are distributed according to the region's distri-
bution series on broad income. (general expendi-
ture assumption B)

Line 9   The sub-total is the total of expenditure amounts
            for each income class in each region.

Line 10   We allocate shares of DREE's operating and capital
            expenditures in proportion to the regional break-
            down of the expenditures discussed thus far. The
            amount in the "total" column in the sub-total
            distribution (line 9) is expressed as a percentage
            of the all-Canada total. These rates determine
            the proportional breakdown of the operating and
            capital expenditures, which we have treated here
            as a residual. The amount allocated to each re-
            gion is distributed to the income classes in pro-
            portion to the distribution of the sub-total, that
            is, line 9.

Line 11   Total expenditures shows the total expenditures
            for each income class which is the result of the
            allocations discussed in the above explanatory
            notes.

Lines 12-   These lines correspond to their respective counter-
      55   parts in lines 1 to 11.

Line 56   The total expenditures distribution for Canada is
            the sum of the total expenditures in the five re-
            gions. We prefer this method to carrying out the
            allocations using all-Canada data because the ad-
            ditive totals reflect the weighted averages and
            therefore seem more appropriate. The standard
            case using Canadian data is presented for compar-
            ison in table A-3(a). The operations used in that
            table are identical to those discussed here for
            lines 1 to 11.

Lines 57-   These distributions are the result of financing
      61   DREE through an increase in total federal taxes.
            The regional breakdown of total federal taxes,
            table A-2(a) line 1 is used to determine the a-
            mount to be distributed in each region, with the
            total amount for Canada being $299.86 million.
            The amount in each region shown in the total column

is distributed to the income classes according
to the region's distribution of total federal
taxes, tables A-1, line 2.

Line 62
The tax amounts for Canada are additive totals
for each income class. See the explanatory note
for line 56.

Lines 63-
67
The fiscal amounts shown for each region are the
net result of subtracting tax amounts (lines 57
to 61) from the corresponding total expenditure
amounts (lines 11, 22, 33, 44, 55). Fiscal a-
mount is the dollar value of the benefit from
(+) or contribution to (-) DREE expenditures for
each income class in each region.

Line 68
The distribution of fiscal amounts for Canada is
the additive total of the fiscal amounts for each
income class for the five regions. The distribution
of fiscal amounts using national data is calculated
in table A-3(a), line 12.

Table A-3 (a)

See explanatory note for line 56, table A-3.

Table A-3 (b)

Lines 1-5
Expenditure incidence expresses an expenditure as
a percentage of the total average annual expend-
iture of $299.86 million. The distributions in
lines 1 to 5 express as expenditure incidence
rates the total expenditure amounts in table A-3,
lines 11, 22, 33, 44, and 55.

Line 5
Canada's distribution of expenditure incidence is
the additive total of each region's expenditure
incidence for each income class.

Lines 7-
11
Expenditure incidence per family unit is a measure
of expenditures received by one percentile of fa-
mily units in each income class. It is calculated
by dividing, for each income class in each region,
the expenditure incidence by the corresponding
distribution of number of family units as a per
cent of the all-Canada total, tables A-1, line 25.

Line 12
For Canada, the procedure described for lines 7 to
11 is followed except that the distribution of fa-
mily units in line 13 of table A-1(a) is used as

the denominator.

Lines 13-17   Fiscal incidence expresses fiscal amounts as a percentage of total expenditure or \$299.86 million. The distributions of fiscal incidence thus express the fiscal amounts for each region in table A-3 as a percentage of total average annual expenditure.

Line 18   Fiscal incidence rates at the all-Canada level are the additive totals of fiscal incidence rates in each of the five regions.

Lines 19-23   Fiscal incidence per family unit is a measure which expresses the fiscal incidence of one percentile of family units in each income class. The rates of fiscal incidence in lines 13 to 17 are divided by the respective distributions of family units as a per cent of the all-Canada total, tables A-1, line 25.

Line 24   The procedure above is relevant for the all-Canada distribution of family unit fiscal incidence except that the denominator is line 13 of table A-1 (a).

Tables A-4 (a to f)

The A-4 tables contain the distributions that result when we experiment with our assumptions concerning the allocations of benefits from expenditures and the method of financing DREE expenditures. The distributions in these A-4 tables will be used selectively in the A-5 tables.

Line 1   In our standard case we suggest that DREE is financed through an increase in total federal taxes. This procedure is explained in the note for table A-3, lines 57 to 61.

Line 2   In this experiment we finance DREE through an increase in the federal personal income tax. The regional breakdown in table A-2, line 2 is applied to \$299.86 million to get the amounts per region, which are distributed according to the region's distributive series on federal personal income tax, tables A-1, line 2.

Line 3   In this experiment we finance DREE by decreasing total federal expenditures. The regional breakdown of shares of total federal expenditures, line 3 of table A-2 (a) are applied to Canada's total average annual expenditure. The amounts that result in each region are distributed by the region's series on total federal expenditures, tables A-1, line 3.

Line 4   A decrease in federal personal transfers is the method of financing shown in line 4. Here we allocate regional shares of $299.86 million according to the regional breakdown in table A-2 (a), line 4. The amount per region is distributed by the region's distribution of federal personal transfers, tables A-1, line 4.

Lines 5, 6   In these experiments we finance DREE by using part of the funds that finance the equalization grants scheme. In the explanatory notes for lines 5a and 6a of table A-1(a) we discuss the changes that would occur in the recipient regions' tax and expenditure rates if the equalization scheme were decreased. In lines 5 and 6 here for the receiving regions, i.e., the Atlantic, Quebec, and the Prairies, we apply the regional tax and expenditure rates respectively to the amounts which result per region when the proportional breakdown in the table just mentioned is applied to $299.86 million.

        Since Ontario (table A-4 (c)) and British Columbia (table A-4 (e)) do not receive equalization payments, there would be no effect in these regions, as far as their provincial tax and expenditure distributions are concerned, of financing DREE through funds of the equalization payments program.

        For Canada, table A-4(f), the distributions in lines 5 and 6 are the additive totals of the respective distributions of the receiving regions.

Line 7   In line 7 we present the first expenditure (B.3) experiment concerning capital incentive grants. In this experiment we assume high factor substitutability with expenditures being 100% effective. To income sources or capital we allocate 75%. To income uses we allocate the remaining 25%. Both of these types of benefits are assumed to be mobile. See the explanatory note for table A-3, line 1 for a description of the process of allocating shares to regions of benefits considered to

be mobile between regions. The amounts allocated to capital in each region are distributed by the region's distribution of dividends income, tables A-1, line 7. The amount allocated to uses in each region is distributed by the region's distribution of consumption of grant-financed output, tables A-3, line 8.

Line 8

In the B.4 experiment we assume that the grants expenditures are 48% effective, with high factor substitutability. To capital we allocate 88% of the benefits, and to uses, 12%. See the explanatory note for line 7 for relevant details.

Line 9

In the B.5 experiment we assume that the expenditures are 33% effective with high factor substitutability. We allocate 92% to capital and 8% to uses. See line 7's explanatory note for relevant details.

Line 10

In the B.6 experiment we assume high factor substitutability and no price effect. The total amount of the capital incentive grants is therefore allocated to capital, that is, by dividends income.

Line 11

In the B.7 experiment we assume low factor substitutability and 100% effectiveness. To capital we allocate 50%, to labour, 25%. The benefits allocated to capital are treated as elsewhere in this appendix. The benefits to labour are assumed to remain fixed within the region where the expenditure was made, and are distributed by the region's distribution of wages and salaries, line 9 of tables A-1. The remaining 25% we allocate to the uses of income. See the explanatory note for line 7 for relevant details.

Line 12

In the B.9 experiment we assume low factor substitutability and 33% effectiveness. To capital we allocate 84% and to labour 8%, both of these components making up the income sources side. To income uses goes the remaining 8 per cent. See explanations for lines 7 and 11 for relevant details.

Lines 13-16

Other industrial assistance is treated identically to the corresponding experiments for capital incentive grants, lines 7, 9, 11, and 12 respectively. The B.6 experiment discussed in the note for line 10 above was not conducted for other industrial assistance.

Line 17
In the D.17 experiment we allocate 25% to capital. See the explanatory note for line 7 for relevant details of this procedure. The remaining 75% is allocated to highway non-users, passenger vehicle users, and consumers of transported commodities. Table B-2 is pro-rated to reflect proportions of 75%. See the explanatory note for table A-3, line 2.

Line 18
In the D.14 experiment we assume that the expenditures on highways are 100% effective with a neutral effect on sources. The proportions in Table B-2 are applied at full value in this experiment. See the explanatory note for line 2 of table A-3 for relevant details.

Line 19
In the H.22 experiment we distribute the benefits of expenditures on manpower and social assistance, which we assume to remain fixed within the region, according to the region's series on social assistance expenditures, tables A-1, line 22.

Line 20
In the G.20 experiment we treat the benefits of expenditures on agricultural assistance as being fixed and in proportion to net farm income. The source of the latter series is tables A-1, line 20.

Line 21
In the E.15 experiment we assume that the expenditures on sewers and other such infrastructure are 100% effective with high factor substitutability. To the income sources side we allocate 25% which goes to capital. To the uses of income we allocate 75%: 50% to residential users and 25% to commercial users. See explanatory note for table A-3 line 6 for relevant details.

Line 22
The E.16a experiment is very similar to the standard case described in the explanatory note for line 6, table A-3. In the standard case we allocated the full income sources effect, 17%, to capital. Here, in the E.16a experiment, we break down the income sources side's benefits so that 11% of the total ex-

penditures in this category benefit capital and 6% benefit labour.

Line 23   In the F.18 experiment we assume that the expenditures on planning and administration are 67% effective. One third, or 33% of the expenditures, is allocated to the bureaucracy in the region where the expenditures are made. This amount is distributed by the region's distribution of wages and salaries. The remaining 67% is treated as a pure public good. See the explanatory note for table A-3 line 7 for relevant details.

Line 24   In the C.10 experiment, as in the standard case, we allocate 50% of the benefits to the student. The explanatory note for table A-3, line 8 should be consulted for relevant details. The remaining 50% is assumed in this experiment to yield public benefits which need not remain in the region in which the expenditure is made. The regional breakdown of broad income, table A-2(a), line 7, is used to determine the amounts that are distributed within the regions by the series on broad income, line 7 of the A-1 tables.

Line 25   In the M.25 experiment we allocate to the regions shares of the total average annual capital and operating expenditures which amount to $39.75 million. This allocation is done according to the regional breakdown of broad income, table A-2 (a), line 11. The amounts that result are then distributed within the regions by their internal distributions of broad income, line 11 of tables A-1.

Line 26   The M.26 experiment is very similar to the M.25 except that here we assume that these expenditures are only 67% effective. This 67% is treated as a pure public good in the same manner as described above.

The remaining 33% may be considered a benefit accruing to the bureaucracy. In the absence of the actual breakdown by region of DREE personnel we utilize the information in the 1974-75 Annual Report that 40% of the DREE personnel are in Ottawa and 60% in the regions. We allocate Ottawa's 40% to Ontario and break down the remaining 60% according to the original pattern of DREE expenditures given in Table C-3. The

amounts that result in each region are then
distributed according to the region's internal
distribution of wages and salaries.

Table A-4 (f)

At the all-Canada level the distributions are
the sums of the respective regional distribu-
tions. We conducted the experiments using
national data but do not present the results
here because we consider the additive method
conceptually a more accurate measure.

Table A-5

Lines 1-50

In this table we present the fiscal amounts and
fiscal incidence rates for financing experiments
discussed in the A-4 tables, lines 2-6. The
fiscal amounts in table A-5 are derived by hold-
ing the standard case total expenditures con-
stant and subtracting each successive financ-
ing distribution, i.e., lines 1 to 5. The
fiscal amounts are then converted to percentage
rates of $299.86 million to express the fiscal
incidence rates. For example, if DREE were
financed through an increase in federal income
tax the fiscal amounts and fiscal incidence
rates that would result in the Atlantic region
are those shown in lines 1 and 6 respectively.
     Note that in the cases of Ontario and
British Columbia the fiscal amount distributions
for the experiments concerning decreasing equal-
ization grants (lines 24, 25 and 44, 45) are
equal to the distribution of total expenditures
in table A-3, lines 33 and 55. Similarly, the
fiscal incidence rates for Ontario and British
Columbia for these experiments, lines 29, 30
and 49, 50) are identical to the total expend-
itures incidence rates in table A-3 (b), lines
3 and 5. This result follows because these
provinces, in contrast to the recipient regions,
would stand to gain the full amount of their
DREE expenditures if the DREE program were fin-
anced by reductions in equalization payments,
a scheme which they already support as contri-
butors of general taxes.

Lines 51-60

The fiscal amounts and fiscal incidence rates for

Canada as a whole represent the additive totals of the regions' fiscal amounts and fiscal incidence rates.

Table A-5(a)

This table organizes the fiscal incidence rates in table A-5 by region for each experiment.

Table A-5(b)

In this table we calculate expenditure amounts and expenditure incidence rates that would result if we altered some of our assumptions concerning the allocation of benefits from DREE expenditures. These experiments are carried out by holding constant the distributions in the standard case (table A-3) for which we do not adopt different assumption, and simultaneously adding the particular distributions that are the result of shifting assumptions in the expenditure categories we wish to experiment with. The distributions arising from shifting assumptions are in the A-4 tables. Since the experiments are conducted uniformly across all regions we discuss in these notes only the lines 1 to 22.

Line 1

In this experiment we subtract from the standard case total expenditure distribution (line 11, table A-3) the distributions concerning capital incentive grants (B.8), highways (D.13), other industrial assistance (B.8), and the operating and capital expenditures (M.24).

We insert the distributions that result from the assumptions of B.3 for capital incentive grants and other industrial assistance and of D.12 for highways. The source of the B.3 distributions are lines 7 and 13 of table A-4(a). The source of the D.12 distribution is line 17 of table A-4(a). Because we treat the operating and capital expenditures as a type of residual that shifts in relation to the sub-total of all other expenditures, we calculate a new distribution for that item.

We add this new residual to our new sub-total
to arrive at the new distribution of total
expenditures shown in line 1. The remaining
experiments follow this methodology, except
that lines 8 and 9 do not treat capital and
operating expenditure as a residual.

Line 2   In the second experiment we adopt the assump-
tions of B.5 concerning capital incentive
grants and other industrial assistance and
of D.12 concerning highways. The source of
these distributions is table A-4 (a), lines
9, 14, and 17.

Line 3   In the third experiment we adopt the assump-
tion of B.7 concerning capital incentive grants
and other industrial assistance. The source of
these is table A-4(a), lines 11 and 15.

Line 4   In the fourth experiment we adopt the assump-
tions of H.22 concerning manpower and social
assistance expenditures. The source of this
distribution is line 19 of table A-4(a).

Line 5   This experiment contains the assumptions G.20
concerning agriculture assistance expenditures,
the source of which is table A-4(a), line 20.

Line 6   In experiment six we adopt the assumptions
E.16a holds concerning expenditures on sewers
and other infrastructure. The E.16a distri-
bution may be found in table A-4(a), line 22.

Line 7   In this experiment we adopt M.25's assumption
that capital and operating expenditures are a
pure public good and are thus distributed ac-
cording to broad income. The M.25 distribu-
tion is taken from table A-4(a), line 25.

Line 8   In the eighth experiment we adopt the assump-
tion that the capital and operating expendi-
tures, along with the planning and administra-
tive expenditures are a pure public good but
are only 67% effective. The source of these
distributions is table A-4(a), lines 23 and 26.

Line 9   In this experiment we test the experiment that
the benefits of DREE expenditures, as a pure
public good, are in proportion to broad income.
To carry this out, we allocate shares of $299.86

million to the five regions according to the breakdown in table A-2(a), line 11. The amount in each region is distributed by that region's internal distribution of broad income, line 11 of the A-1 tables.

Line 10   In the pro-rich experiment we choose a set of assumptions favouring the upper income classes and insert this combination into our standard pattern. This distribution contains the assumptions of B.5, D.12, H.22, G.20, and M.25, all of which have been discussed in the explanatory notes for this table.

Line 11   In the pro-poor experiment we insert into our standard pattern the distributions of B.7 and E.16a, both of which have been discussed in the notes for this table. This distribution shows the result of holding assumptions that weigh the expenditures relatively heavily in favour of the lower income classes.

Lines 12-22   The expenditure incidence rates express the expenditure amounts above as percentages of $299.86, the total average annual expenditure amount.

Lines 111-132   The expenditure amounts and expenditure incidence rates for Canada are the sums of the regions' expenditure amounts and expenditure incidence rates.

Table A-5(c)

In this table we present the data which appeared in table A-5(b). In this table, however, we organize the data in such a way that the reader can readily compare the different results among regions of each experiment. Readers should therefore refer to table A-5 (b)'s explanatory notes for pertinent information.

Table A-5(d)

This table shows the fiscal amounts and fiscal

incidence rates for the regions and Canada
for the pro-rich experiment described in the
explanatory note for table A-5(b), line 10.
Canada's distributions are the sums of the
regions' respective distributions.

Table A-5(e)

In this table we show the fiscal amounts
and fiscal incidence rates for the pro-poor
experiment discussed in the note for line 11,
table A-5(b). Canada's fiscal amount and
fiscal incidence rates are the sums of the
regions' distributions.

APPENDIX B

Miscellaneous Tables

Shifting Assumptions For Fiscal Incidence Study,

Gillespie, 1975

Line	Item	Shifting Hypothesis	Distributive Series
	Tax Hypotheses		
	Federal Taxes		
1.	Individual income tax	not shifted	individual income tax payments
2.	Corporation income tax	capital owners (.5) consumers (.5)	dividend income total consumption
3.	General sales tax	consumers of taxed items	consumption of commodities subject to federal sales tax

4.	Selective excise taxes
	  i) alcohol
	  ii) tobacco
	  iii) other excises
		
		alcohol consumers
		tobacco consumers
		other consumers
			
			alcohol consumption
			tobacco consumption
			total consumption

5.	Social security taxes
	  i) unemployment insurance
	
	  ii) Canada/Quebec pension plans
	
	  iii) public service pensions contributions
		
		labour taxed
		
		labour taxed
		
		labour taxed
			
			unemployment insurance payments
			CPP/QPP covered wages and salaries
			other pension payments

6.	Customs import duties	consumers of imported items	consumption of imported commodities
7.	Succession and estate taxes	recipients	succession and estate income
	Provincial Taxes		
8.	Individual income tax	not shifted	individual income tax payments
9.	Corporation income tax	capital owners (.5) consumers (.5)	dividend income total consumption
10.	Provincial sales tax	consumers of taxed items	consumption of commodities subject to provincial sales tax

11.	Selective excise taxes
	  i) alcohol
	  ii) tobacco
	  iii) fuel oil
	  iv) other excises
		
		alcohol consumers
		tobacco consumers
		vehicle users
		other consumers
			
			alcohol consumption
			tobacco consumption
			number of miles driven
			total consumption

12.	Social security taxes
	  i) workmen's compensation
	
	  ii) public service pension contributions
		
		labour covered
		
		labour taxed
			
			workmen's compensation payments, covered wages
			other pension payments

13.	Medical-hospital premiums	unshifted	prepaid public health plan payments
14.	Succession and estate taxes	recipient	succession and estate tax income

15.	Other taxes
	  i) motor vehicle licenses
	
	  ii) taxes on premium income of life insurance companies
	  iii) natural resource revenues
	    a) royalties
	    b) rental payments
	  iv) amusement taxes
	  v) capital stock taxes
		
		commercial users (.5)
		passenger vehicle users (.5)
		policy owner
		
		consumers
		resource owners
		consumers
		capital owners
			
			total consumption
			automobile purchases
			personal insurance expenditures
			
			total consumption
			dividend income
			admission to events
			dividend income

Line	Item	Shifting Hypothesis	Distributive Series
	Municipal Taxes		
16.	General sales tax	consumers	admission to events
17.	Property tax		
	a) on land		
	i) business	capital owners	dividend income
	ii) farm	farm capital owners	farm income
	iii) residential	residential capital owners	rental income
	b) on improvements		
	iv) business	consumers	total consumption
	v) farm	consumers of food	consumption of food
	vi) residential: owner-occupied	owner (.67)	value of owned home
	renter-occupied	renter (.33)	rent expenditures
18.	Business taxes	consumers	total consumption
19.	Poll taxes	unshifted .	family units
20.	Other taxes	consumers	total consumption
	Expenditure Hypotheses		
	Federal Expenditures		
21.	Education	post secondary students	post secondary students
	Highways		
	i) non-user share	property owners (.67)	value of owned homes
		property renters (.33)	rent expenditures
	ii) passenger vehicles	passenger vehicle users	number of miles driven
	iii) transport vehicles	consumers of transported products	consumption of transported products
22.	Other transportation	passenger consumers (.5)	other transportation services, beyond the city
		consumers of transported products (.5)	consumption of transported products
23.	Public health and housing		
	i) general public health	family units	family units
	ii) hospital care	users of hospital services	hospital users
	iii) general housing expenditures	family units	family units
24.	Social security and veterans		
	i) unemployment insurance	unemployment insurance recipients	unemployment insurance benefit income
	ii) old age benefits	old age benefit recipients	old age pension income
	iii) family allowances	family units with children	family allowance income
	iv) veteran's benefits	veteran family units	veteran family units
	v) public service pensions	pension recipient	other retirement pensions
25.	Regional economic expansion		
	i) national unity share	family units (.25)	family units
	ii) real output gains	consumers (.09)	total consumption
		urban family units (.02)	urban family units
		labour in lagging regions (.14)	wages and salaries in lagging regions
	iii) inefficiency share	capital owners (.50)	dividend income
26.	Manpower		
	i) growth and stability gains	trainees (.37)	manpower trainees
		all family units (.38)	broad income
	ii) equity gains	trainees (.15)	manpower trainees
	iii) regional balance	all family units (.10)	broad income
27.	Agriculture	farm owners	farm income
28.	Interest on public debt	recipients	interest income on public debt
29.	General expenditures (pure public goods): Assumption B	all family units	broad income

Line	Item	Shifting Hypothesis	Distributive Series
	Provincial Expenditures		
30.	Education		
	i) elementary and secondary	students	children, 5-17 years
	ii) post-secondary	students	post-secondary students
31.	Highways		
	i) non-user share	property owners (.67)	value of owned homes
		property renters (.33)	rent expenditures
	ii) passenger vehicles	users	number of miles driven
	iii) transport vehicles	consumers of transported items	consumption of transported products
32.	Other transportation	passenger consumers (.5)	other transportation services, beyond the city
		consumers of transported items (.5)	consumers of transported items
33.	Public health and housing		
	i) general public health	family units	family units
	ii) hospital care	users of hospital services	hospital users
	iii) general housing expenditures	family units	family units
34.	Social security and veterans		
	i) Canada Assistance Plan and other social security	recipients of CAP benefits	other transfer income
	ii) public service pensions	pension recipient	other retirement pensions
35.	Manpower	trainees (.52)	manpower trainees
		all family units (.48)	broad income
36.	Agriculture	farm owners	farm income
37.	Interest on public debt	recipients	interest income on public debt
38.	General expenditures: Assumption B	all family units	broad income
	Municipal Expenditures		
39.	Education	elementary and secondary students	children, 5-17 years
40.	Public health and housing		
	i) general public health	family units	family units
	ii) hospital care	hospital users	hospital users
	iii) sanitation		
	a) commercial use (.33)	consumers of commercial services	total consumption
	b) residential use (.67)	property users	weighted average of value of owned home and rent expenditures
	iv) general housing expenditures	family units	family units
41.	Social security and veterans other social security benefits	recipients	other transfer income
42.	Interest on public debt	recipients	interest income on public debt
43.	General expenditures: Assumption B	all family units	broad income

Source: Gillespie, 1975: passim and Appendix A. For each item the assumptions of the standard
case have been chosen. The reader is referred to Gillespie, 1975: Tables 3.5 and 4.11
for alternative assumptions on both the tax and expenditure side of the analysis
respectively.

Table B-2

Allocation of Highway Costs Between Users

and Non-Users, and Between the Two Kinds of Users,

Canada and Regions, 1969

percentages

Region	Non-User: User Allocation		Within User Allocation	
	Non-User Proportion	User Proportion	Users of Passenger Vehicles	Consumers of Transported Products
	(1)	(2)	(3)	(4)
Maritimes	50	50	74	26
Quebec	26	74	66	34
Ontario	25	75	70	30
Prairies	25	75	56	44
British Columbia	47	53	71	29
Canada	32	68	67	33

Source: columns (1) and (2): Gillespie (1975:IV, 11-13), based
         upon Dalvi (1969)

         columns (3) and (4): Gillespie (1975:IV, 13-15), based
         upon U.S. Congress (1961) and U.S. Congress House Ways
         and Means, (1961).

APPENDIX C

DREE Expenditures, By Function,

1969-70 through 1974-75

TABLE C-1

TOTAL DREE BUDGETARY EXPENDITURES, BY PROGRAM, 1969-70 to 1974-75[1], millions of dollars

PROGRAM CLASSIFICATION	GRANTS AND CONTRIBUTIONS							TOTAL BUDGETARY EXPENDITURES						
	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	Total	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	Total
1. Development Planning and Administration	5.7	5.7	6.9	3.7	5.4	9.8	37.2	12.1	15.6	18.8	18.8	22.0	36.8	124.1
2. Industrial and Commercial Development (incentives)	54.5	60.4	102.0	85.9	101.9	99.0	503.7	56.2	62.0	105.5	91.0	106.6	99.0	520.3
3. Infrastructure Assistance	38.3	106.6	95.7	88.8	121.2	118.9	569.5	40.5	107.6	96.2	88.8	121.2	118.9	573.2
4. Social Adjustment and Rural Economic Development	54.3	61.5	73.4	83.8	90.8	96.1	459.9	71.2	76.3	88.2	101.6	109.9	123.9	571.1
5. Contributions to Superannuation	-	-	-	-	-	-	-	-	-	1.8	2.0	2.1	3.0	8.9
TOTAL EXPENDITURES	152.8	234.1	278.0	262.2	319.2	323.8	1570.1	180.0	261.5	310.5	302.1	361.7	381.6	1797.4

1. See source notes at end of the tables.

TABLE C-2

DREE Expenditures on Operating and Capital, By Program, 1969-70 to 1974-75, millions of dollars

Program Classification	OPERATING							CAPITAL						
	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	Total	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	Total
1. Developmental Planning and Administration	6.5	9.5	11.5	14.8	16.3	26.3	84.9	-	0.4	0.4	0.3	0.4	0.6	2.1
2. Industrial Development	1.7	1.6	3.5	5.0	4.8	-	16.6	-	0.1	0.1	-	-	-	0.2
3. Infrastructure Assistance	-	-	-	-	-	-	-	2.1	1.1	0.5	-	-	-	3.7
4. Social Adjustment and Rural Economic Development	10.0	11.4	11.3	11.6	13.7	13.9	71.9	6.9	3.4	3.5	6.1	5.4	13.8	39.1
5. Contributions to Superannuation	-	-	1.8	2.0	2.1	3.0	8.9	-	-	-	-	-	-	-
TOTAL	18.2	22.5	28.1	33.4	36.9	43.2	182.3	9.1	5.0	4.5	6.4	5.7	14.4	45.1

TABLE C-3

DREE Expenditures, by Function, for Regions and Canada
1969-70 to 1974-75,[1] millions of dollars

Functional Classification	Region					Canada Total
	Atlantic	Quebec	Ontario	Prairies	B.C.	
Incentive grants	144.1	164.7	53.1	77.0	21.8	460.7
Other industrial assistance[2]	53.8	87.9	8.3	1.4	-	151.4
Roads and highways	272.3	173.7	0.6	14.1	2.5	463.2
Sewers and other infrastructure[3]	53.6	36.9	4.1	0.9	-	96.5
Social assistance[4]	34.4	22.9	2.2	16.5	1.2	77.2
Manpower[5]	6.1	-	-	19.6	-	25.7
Agriculture	24.2	16.4	26.9	53.5	7.6	128.6
Education	45.9	0.4	-	1.3	-	47.6
Planning and administration	42.2	17.5	-	0.8	0.4	60.9
Other	38.1	2.5	1.8	5.5	-	47.9
TOTAL EXPENDITURES	714.7	522.9	96.9	190.6	33.5	1558.6

1. Functional classification for grants and contributions.
2. Other industrial assistance includes: other industrial assistance and tourist-related industrial assistance.
3. Sewers and other infrastructure includes: sewers, water, power and industrial parks.
4. Social assistance includes: health, social assistance, housing and native people.
5. Manpower includes: adult education and manpower assistance.

TABLE C-4

DREE Expenditures By Function and Program, Atlantic Region, 1969-70 to 1974-75;[1] millions of dollars

Program Classification

Functional Classification	Incentives	Special Area Agreements	Special & ADB Trunk Highways	ABD Infra- structure	GDA	FRED	ARDA	Other	Total
Incentive grants	144.1	-	-	-	-	-	-	-	144.1
Other industrial assistance	-	-	-	-	24.1	22.4	6.2	1.1	53.8
Roads and highways	-	116.8	98.1	7.7	35.6	14.1	-	-	272.3
Sewers and other infrastructure	-	32.4	-	8.1	4.0	8.7	0.4	-	53.6
Social assistance	-	-	-	-	0.1	22.2	5.4	6.7	34.4
Manpower	-	-	-	-	-	0.8	-	5.3	6.1
Agriculture	-	-	-	-	1.0	17.8	5.4	-	24.2
Education	-	36.1	-	-	0.8	8.8	-	0.2	45.9
Planning and administration	-	-	-	-	1.1	21.0	-	13.5	42.2
Other[2]	-	-	-	18.2	-	-	5.9	16.1	38.1
TOTAL EXPENDITURES	144.1	185.3	98.1	34.0	66.7	115.8	23.3	42.9	714.7

1. See notes to Table C-3.
2. $4.4 millions were added to the "other" category to account for amounts not accounted for at some point. (The amount was probably in ABD infrastructure since the provincial totals for this category are about $4 millions more than the functional breakdown total.)

TABLE C.5

DREE Expenditures, by Function and Program, Quebec, 1969-70 to 1974-75,[1] millions of dollars

Functional Classification	Program Classification						
	Incentives	Special Area Agreements	GDA	FRED	ARDA(c)[2]	ARDA(r)	Total
Incentive grants and other industrial assistance	164.7	9.6	14.5	43.4	20.4	-	252.6
Roads and highways	-	120.3	10.9	42.5	-	-	173.7
Sewers and other infrastructure	-	24.9	2.0	10.0	-	-	36.9
Social assistance	-	4.6	-	16.7	-	1.6	22.9
Agriculture	-	-	-	11.2	5.2	-	16.4
Education	-	0.4	-	-	-	-	0.4
Planning and administration	-	7.7	-	9.8	-	-	17.5
Other	-	1.0	0.9	0.6	-	-	2.5
TOTAL EXPENDITURES	164.7	168.5	28.3	134.0	25.6	1.6	522.9

1. See notes to table C-3.
2. ARDA(c) refers to shared cost programs, whereas ARDA(r) refers to grants to Indian Reserves.

TABLE C-6

DREE Expenditures, by Function and Program, Ontario, 1969-70 to 1974-75,[1] millions of dollars

Functional Classification	Program Classification			
	Incentives	GDA	ARDA	Total
Incentive grants	53.1	–	–	53.1
Other industrial assistance	–	–	8.3	8.3
Roads and highways	–	0.6	–	0.6
Sewers and other infrastructure	–	4.1	–	4.1
Social assistance	–	–	2.2	2.2
Agriculture	–	–	26.9	26.9
Other	–	–	1.8	1.8
TOTAL EXPENDITURES	53.1	4.7	39.2	96.9

1. See notes to Table C-3.

TABLE C-7

DREE Expenditures, by Function and Program, Prairie Region, 1969-70 to 1974-75, [1] millions of dollars

Functional Classification	Program Classification						
	Incentives	Special Areas	GDA	FRED	ARDA	Other	Total
Incentive grants	77.0	–	–	–	–	–	77.0
Other industrial assistance	–	0.9	0.3	0.2	–	–	1.4
Roads and highways	–	4.3	5.7	4.1	–	–	14.1
Sewers and other infrastructure	–	0.9	–	–	–	–	0.9
Social assistance	–	0.9	3.6	2.6	6.3	3.1	16.5
Manpower	–	2.6	0.4	4.7	–	11.9	19.6
Agriculture	–	–	–	6.7	37.1	9.7	53.5
Education	–	1.3	–	–	–	–	1.3
Planning and Administration	–	–	–	–	–	0.8	0.8
Other	–	2.1	1.1	3.3	–	–	5.5
TOTAL EXPENDITURES	77.0	15.4	11.1	21.6	43.4	25.5	190.6

1. See notes to Table C-3.

TABLE C-8

DREE Expenditures, by Function and Program, British Columbia, 1969-70 to 1974-75,[1] millions of dollars

Functional Classification	Program Classification				
	Incentives	GDA	ARDA	Other	Total
Incentive grants	21.8	-	-	-	21.8
Roads and highways	-	2.5	-	-	2.5
Social assistance	-	-	1.2	-	1.2
Agriculture	-	-	7.6	-	7.6
Planning and administration	-	-	-	0.4	0.4
TOTAL EXPENDITURES	21.8	2.5	8.8	0.4	33.5

1. See notes to Table C-3.

Appendix C-1: Source Notes

The amounts shown in the preceding tables (Tables C through C-8) account for $1559.4 millions of the total budgetary expenditures of $1797.4 from the Public Accounts (i.e. 86.8%). They also account for 99.3% of the grants and contributions made during this period ($1570.1). The remaining 13.2% of budgetary expenditures are accounted for by budgetary operating expenditures (10.0%), by budgetary capital expenditure, (2.5%) and by unallocated grants and contributions (0.7%; see Table C-2).

Incentives, special areas infrastructure, Special Highways, GDA, ADB infrastructure, FRED and ARDA cost-shared account for 94.5% of grants and contributions (82.4% of budgetary expenditures). Most of the remainder is accounted for by such social development programs as Newstart, Manpower Corps, ARDA on Indian Reserves and Special ARDA and by studies.

Tables C-1 and C-2 are also based on data derived from various issues of the Public Accounts. Table C-3 aggregates the functional breakdown of program expenditures for the five regions (as provided in Tables C-4 through C-8).

Table C-4, the distribution of DREE expenditures by function and by program activity for the Atlantic region is built up from a similar table (project worksheets) for each of the Atlantic provinces. The functional breakdown for program activities is derived in a similar manner for each province. For the Special Areas program, a functional allocation of planned commitments agreed to in the signed federal-provincial agreement is derived for each Special Area and summed to provide a total. Where possible, the percentage distribution of derived Special Areas spending by function was compared with information in DREE, 1973b as a cross check (we found, in most cases, a reasonably close correspondence of distributions). The percentage distribution derived from the agreements was then applied to actual expenditures in the Special Areas as provided in the Public Accounts, Annual Reports for various years, DREE, 1973b and Federal-Provincial Relations Office (1975), in order to derive a functional breakdown, in dollars, of actual Special Areas spending.

For the General Development Agreements signed with provincial governments, the actual expenditures as described in Federal-Provincial Relations Office (1975) were used to estimate our functional breakdown. Information provided in

the Annual Reports for various years, DREE, 1973b, and the
Public Accounts was used to derive estimates of the functional
breakdown of ARDA expenditures.

For FRED programs actual expenditures are provided in
some disaggregated functional detail in the Public Accounts,
although the method of classification changed in 1972-73.
We rearranged these data (with the assistance of the des-
criptions of various FRED commitments made in the signed
agreements) to match our functional breakdown.

The ADB infrastructure was derived from the Public
Accounts in the following manner.

Since a functional breakdown of these expenditures is
only given for the first three years of the period, it was
necessary to estimate the allocation of the expenditures in
the last three years. This was done by applying the break-
down for the first three years to the total expenditures in
the last three. Since 89% of the expenditures occurred in
the first period, the error will not likely be large.

Tables C-5 through C-8 are derived in a similar manner.

APPENDIX D

RDIA INCENTIVE GRANTS: JOB

EROSION AND CAPITAL BIAS

Appendix D

RDIA Capital Incentive Grants: Job Erosion and Capital Bias

A. Job Erosion

There can be a difference between the number of jobs expected
to be created as a result of an RDIA grant offer by DREE to a firm
and the number of jobs that actually materialize when the subsi-
dized firm is fully geared up for commercial production. One of
the more contentious issues prior to DREE's 1973 program review
was the reliability of departmental press releases announcing the
expected creation of new jobs as a result of RDIA grant offers to
firms.[1] DREE acknowledged, in its 1973 program review, substantial
erosion of announced expected jobs and attempted to quantify the
extent of this erosion under three headings: 1) offers accepted
and later withdrawn or declined, 2) closure of supported projects
and 3) scale and other adjustments. The Department argued that,
"experience with offers accepted in the earlier years of the
program [1969 and 1970] suggest [sic] that some 18 per cent are
either withdrawn or declined." (DREE, 1973: 34). DREE noted
that this figure may not apply to accepted offers in later years
because an improved economic climate would reduce the rate of
erosion; in addition

> "the rate of 'fall-out' should decline as
> techniques for processing applications are
> perfected and expertise accumulates ... Un-
> doubtedly there has been a learning process
> in the administration of the incentives pro-
> gram. ... Thus ... the adjustment made should
> be recognized as possibly unduly large." (DREE,
> 1973: 34).

Has the job erosion rate improved? To examine this we have
investigated the experience up to June 1975 with 'fall-out' from

RDIA offers announced during 1973. The results are shown in Appendix Tables D-2, D-3 and D-5. By June 1975, 16.3 per cent of the expected jobs announced during 1973 were no longer expected due to the fact that the associated offer had been declined or withdrawn. Since even in mid-1975 fall-out was still occurring with respect to offers announced during 1972, it is reasonable to expect that the erosion from the expected jobs announced in 1973 will continue for at least one year beyond the period covered by our analysis.[2] It thus appears quite likely that the final figure for job fall-out from the 1973 announcements will be at least 18 per cent. The expected effects of improvements in the economic climate and accumulation of expertise do not appear to have been realised.[3]

The second factor leading to a reduction of the number of jobs expected is the closure of RDIA-supported projects after firms have commenced production. Up to the end of 1972, 31 such closures had taken place (DREE, 1973: 35). The lost jobs associated with these closures represented 6.4 per cent of the "jobs paid". (Presumably jobs paid refers to jobs associated with projects on which partial or final payments had been made.) DREE argued that

> "with approximately half the projects now in commercial production, 31 have ceased operations or become bankrupt with a potential loss of 2,168 jobs. Assuming that a similar pattern emerges as the remaining half of the projects come into commercial production, another approximate 2,200 jobs could be lost. Combining these two figures would give - keeping in mind the adjustment of 123 jobs already contained in the parliamentary releases - a total adjustment on

behalf of closures of 4,250 or 5 per cent of
the December 31, 1972 figure of 81,752 jobs."
(Dree, 1973: 36)

Actually payments had been made in only 43.3 per cent of

projects; thus the total adjustment should have been 6.0

per cent of the December 1972 job total.[4]

The issue here is whether it is appropriate to use for

predictive purposes the jobs lost through the 31 closings

out of 847 projects which had begun commercial production

by the end of 1972. Our view is that to do so would be to

seriously underestimate job losses. An implicit assumption

underlying DREE's technique is that no more of the 847

projects would close. This is the same methodological error

that DREE made prior to its 1973 program review with respect

to offers subsequently declined or withdrawn. When this

methodological error is corrected for the estimate of lost

jobs due to closures rises to 13.8 per cent of paid jobs,

which is 11.3 per cent of announced jobs.[5]

A third source of job erosion is the scale adjustment

process, i.e., firms changing the scale of their operation

after the offer has been accepted. DREE experience at the

time of the 1973 program review suggested a 17 per cent

shortfall in the number of jobs actually in existence at the

time of final payment, compared to the expected jobs initially

announced when the offers were accepted by the recipient

firms (DREE, 1973: 36). It is not clear from the program

review whether this shortfall is only with respect to projects

in which the amount of the grant was dependent on the number of jobs created. It seems likely that this is the case since in the early years of the incentive grants program the effects of expansions and modernizations on job levels were not recorded.[6] It also seems likely that the shortfall in the number of jobs actually in existence at the time of final payment occurring in projects where the amount of the grant does not depend on job creation, would be greater than that occurring where the number of jobs created determines the amount of the grant. It will be shown in the following section that a very large proportion of the incentives offered are tied not to job creation but to capital investment.[7]

A further consideration is that DREE based its 17 per cent shortfall estimate on job counts at the time of final payment. It has been suggested at the time of the 1973 program review the average shortfall for cases in which only partial payment had been made was about one-third of the expected jobs.[8] A reasonable estimate of such shortfalls could quite well be between these boundaries for an average of 25 per cent, which would represent 20.5 per cent of initially announced jobs.

When the job erosion rates are combined for the effects of offers accepted and later declined or withdrawn, closure of supported projects, and scale and other adjustments, the total job erosion is 49.8 per cent of initially announced jobs.

In other words, of the jobs associated with DREE announcements of offers accepted, the likelihood is that half of them will never materialize. Jobs eroded due to (1) offers accepted and later declined or withdrawn and (2) scale and other adjustments do not, for the most part, attract grant funds, and therefore impose no substantive burden on the taxpayer. Jobs lost through closures and bankruptcies, on the other hand, do attract grant funds to the firm prior to closure and these impose a burden on the taxpayer.

B. The Capital Bias of Incentive Grants

Woodward has analysed in considerable detail possible labour or capital biases of RDIA grants and has dealt with the hypothetical effects of grants at the maximum allowable size. (Woodward, 1974, 1974a, and 1975). The actual incentive offers are, however, seldom equal to the amounts or proportions of the legal maxima. In this section, we compare the capital component and the labour component of incentive grants, using actual figures for accepted offers which occurred during 1973.

Incentive grants offered with respect to expansions and modernizations are based solely on a percentage of the eligible capital cost. Thus while a certain number of "expected new jobs" may be announced as associated with the offer, the full amount of the offer can be paid without any of these jobs actually being created. Indeed it is even possible for a firm in receipt of such an offer to reduce its employment

through modernization and still receive the full amount of the grant offered.

We have derived the amount of captial subsidy and labour subsidy in Appendix Table D-6. Section A presents, for incentive grant offers based solely on capital costs, the value of the incentive grant, the value of fixed costs to be subsidized and the expected number of jobs.[9]

In the case of proposals to establish a new facility or to expand a facility to produce a product not previously produced in the operation, the amount of the offer could be based on a percentage of capital cost and a certain number of dollars per eligible new job created. In this instance, the amount of the grant offer based on the capital cost could be paid without any jobs being created. Only the portion of the grant offer which was based on so many dollars per job would actually require that the full number of eligible jobs be created in order for the full amount to be paid. Section B of Table D-6 presents those offers accepted during 1973 in which the offer was based partly on a percentage of capital cost and partly on job creation. The amounts of money not actually tied to job creation are shown as are the jobs which were included in the expected job total but were not actually tied to grant.

Section C combines the information from Sections A and B to arrive at totals for 1973 of grants offered which are not dependant on job creation and also the number of jobs included

in the totals of "expected job" creation which were not actually tied to grants. The data support the conclusion that two thirds of the total value of incentives offered during 1973 were based on capital costs rather than job creation. Two fifths of the "expected jobs" announced during that year were not linked with offers in such a way that their creation was a requirement of grant payment. In other words, the RDIA grants had a relatively greater capital bias than labour bias.

Footnotes

1. An exchange between the Honorable Jean Marchand, the Minister for DREE, and Conservative MP James McGrath in February 1972 indicates the basis of the disagreement, McGrath charged that an analysis of incentives offered in 1969 and 1970 showed that "25 per cent of announced jobs did not materialize either because the department withdrew its offer, the company refused ti, or the company went bankrupt". (Globe and Mail, February 11, 1972). McGrath went on to question whether even the majority of jobs claimed by DREE would ever actually materialize and referred to "DREE's penchant for secrecy in this area (of actual job creation)". In his reply (Globe and Mail, February 25, 1972), Mr. Marchand concluded that Mr. McGrath's analysis "was prepared in great haste and with little thought". The Minister claimed that since DREE's monthly summaries of expected new jobs reflected reductions due to offers that had been withdrawn or declined up to that point, they were neither secretive nor misleading, and thereby ignored the effect that future withdrawals or declines, bankruptcies, etc. would have on these "expected jobs".

2. If we consider the job announcements during the first four months of 1973, (for which a longer period of study is available), the fall-out factor increases to 16.8 per cent.

3. Three - quarters of the job erosion took place within a one year period of announcement of the grant. Since the offers examined in this analysis were for 1973 the bulk of the job erosion took place while the economic climate was relatively favourable.

4. Payments had been made in 847 of 1957 projects, and the total adjustment should have been 4884 jobs (DREE, 1973: 15).

5. 393 firms had received payments as of January 31, 1972 (see following note). Thus 454 of the 847 projects (53.6%) received their initial payment in the last 11 months of 1972. In other words about half of the projects which had received payments, had been in production for less than a year. This is too short a period to judge their long-run viability. It seems quite probable that almost all of the 31 closings referred to above would be from the 454 projects which had received payments by January 31, 1972. If this is assumed, then a more reasonable estimate of the 'paid jobs' loss would be 13.8 per cent. It may be that some of the 31 closings were of projects receiving payments after February 1, 1972 and this would tend to reduce the 13.8 per

cent loss factor. On the other hand, it is almost certain that there have been further closings among the 393 projects which had received support by January 31, 1972. For this reason, we feel that 13.8 per cent is a reasonable estimate of paid jobs lost through closings.

6. Correspondence from W.J. Lavigne, Assistant Deputy Minister, Incentives Division of DREE to P. Nowlan, M.P., March 10, 1972.

7. DREE experience with the scale adjustment from 1969 through December 31, 1975 for firms for which the final payment had been made (not including some bankrupt firms) suggests that the job erosion rate for grants which are tied to job creation is 20.5 per cent. The scale adjustment factor for grants which are not dependent on job creation led to an increase in jobs of 9.5 per cent. The latter adjustment factor is less reliable because only during the last few months have efforts been made to improve the accuracy of this category of job data. Unfortunately, these data were provided too late to be integrated into the methodology of this study, (Correspondence from ADM, Planning and Coordination, DREE, received April 12, 1976).

8. In a conversation with one of the authors around the time of the 1973 DREE program review, a DREE official suggested that job counts at the time of initial payments (30 days after the start of commercial production) indicated an average shortfall of about one-third.

   There are several possible explanations of the discrepancy between the erosion factors of 17 per cent and 33 per cent. The firms in question may have temporarily increased their employment levels around the time of the final payment; certainly there was an incentive to do so. The firms in question at the time of initial payment might still be gearing up their production levels to planned capacity level. Then too, the difference in sample size between firms for which final payments had been made and the firms for which partial payments had been made (a larger sample) might account for the difference.

9. In DREE's publications, jobs expected to arise out of grants to finance expansions and modernizations are referred to as ineligible jobs; jobs expected to arise out of grants to finance new projects generate grant dollars and are thus referred to as eligible jobs.

RDIA Incentive Grants, 1973

Table D-1   Offers accepted by region, 1973

Table D-2   Expected direct new jobs by month, 1973

Table D-3   Expected direct new jobs by region, 1973

Table D-4   Amount of RDIA grants by region, 1973

Table D-5   Number of jobs and amount of grant for
                   1973 lost through offers subsequently declined
                   or withdrawn up to June 1975.

Table D-6   Capital and labour subsidies in net
                   RDIA offers, 1973

Sources and Notes for the Appendix D Tables

The source of the data in these tables is the Report on the
Regional Development Incentives, published monthly by the Department
of Regional Economic Expansion. The data was compiled on the basis
of the RDIA offers for 1973, but in order to reflect as much as
possible the current status of these offers, all revisions on the
1973 offers up to and including March 1975 have been carried out.

It should be noted that all of this data excludes a special
$12 million grant to Manitoba Forest Resources Inc. in March 1973.
This was excluded because of ambiguities in the rate structure of
the incentive offer.

Table D-1

Offers Accepted By Region, 1973

Region	Gross	D/W*	% Percent	Net
Atlantic	150	15	10.9	135
Quebec	450	87	19.3	363
Ontario	54	4	7.4	50
Prairies	84	10	11.9	74
B.C.	10	1	10.0	9
Total	748	117	15.6	631

* D/W is used throughout Appendix D to denote that the relevant offers, jobs, or incentive grants were subsequently declined or withdrawn.

Table D-2

Expected Direct New Jobs, By Month, 1973

Month	Gross	D/W	Net
January	2991	711	2280
February	1756	224	1527
March	2222	371	1847
April	2636	304	2332
May	3764	461	3303
June	3190	614	2576
July	3170	865	2305
August	2450	244	2206
September	2606	396	2210
October	2153	271	1882
November	1545	157	1388
December	1156	218	938
Total	29,634	4836	24,798
per cent	100.0	16.3	83.7

Table D-3

Expected Direct New Jobs By Region, 1973

Region	Gross	D/W	% Per cent	Net
Atlantic	4634	506	10.9	4128
Quebec	19,246	3513	18.3	15,733
Ontario	1738	125	7.2	1613
Prairies	3510	661	18.8	2849
B.C.	506	31	6.1	475
Total	29,634	4836	16.3	24,798

Table D-4

Amount of Grant By Region, 1973

Region	Gross	D/W	% Per Cent	Net
Atlantic	$23,554,337	$ 3,085,683	13.1	$20,468,654
Quebec	44,203,138	6,441,726	16.9	37,761,412
Ontario	6,060,131	319,115	5.3	5,741,016
Prairies	12,560,663	1,576,768	12.5	10,983,895
B.C.	1,958,879	229,653	11.7	1,729,226
Total	$88,337,148	$11,652,945	15.2	$76,684,203

Table D-5

Number Of Jobs And Amount Of Grant For 1973 Lost Through Offers
Subsequently Declined Or Withdrawn Up To June, 1975

Number of months	Number of jobs	Cumulative Total	Cumulative %	Amount of grant $	Cumulative total $	Cumulative %
1	192	192	4.0	372,617	372,617	3.2
2	403	595	12.3	850,593	1,223,210	10.5
3	347	942	19.5	1,630,954	2,854,164	24.5
4	192	1134	23.4	316,793	3,170,957	27.2
5	268	1402	29.0	848,301	4,019,258	34.5
6	361	1763	36.5	461,965	4,481,223	38.5
7	348	2111	43.7	935,842	5,417,065	46.5
8	339	2450	50.7	1,246,035	6,663,100	57.2
9	180	2630	54.4	523,542	7,186,642	61.7
10	876	3506	72.5	1,483,888	8,670,530	74.4
11	91	3597	74.4	149,714	8,820,244	75.7
12	80	3677	76.0	226,653	9,046,897	77.6
13	90	3767	77.9	267,200	9,314,097	79.9
14	186	3953	81.7	303,550	9,617,647	82.5
15	148	4101	84.8	138,350	9,755,997	83.7
16	64	4165	86.1	103,840	9,859,837	84.6
17	31	4196	86.8	36,120	9,895,957	84.9
18	49	4245	87.8	44,075	9,940,032	85.3
19	196	4441	91.8	225,687	10,165,719	87.2
20	134	4575	94.6	665,990	10,831,709	93.8
21	91	4666	96.5	426,208	11,257,917	96.6
22	15	4681	96.8	35,000	11,292,917	96.9
23	—	4681	96.8	—	11,292,917	96.9
24	—	4681	96.8	—	11,292,917	96.9
25	105	4786	99.0	342,778	11,635,695	99.9
26	50	4836	100.0	17,250	11,652,945	100.0
Total	4836	4836	100.0	11,652,945	11,652,945	100.0

Table D-6

Capital and Labour Subsidies in Net RDIA Offers, 1973

A: Offers Based Wholly On Capital Cost

Region	1. No. of Offers	2. No. of Jobs	3. Amount of Grant
Atlantic	84	1722	$ 8,644,860
Quebec	179	5364	8,868,707
Ontario	18	471	969,701
Prairie	42	929	5,463,210
B. C.	2	18	282,810
Total	325	8504	24,229,288

B: Offers Based On Jobs And On Capital Costs

Region	4. No. of Offers	5. No. of eligible jobs	6. Amt. of Grant associated with 5.	7. Number of ineligible jobs	8. Remaining amount of Grant
Atlantic	51	2323	$ 6,088,500	83	$ 5,735,294
Quebec	184	9403	14,531,225	966	14,361,480
Ontario	32	1112	2,229,200	30	2,542,115
Prairie	32	1666	2,679,550	254	2,841,135
B. C	7	388	785,400	69	661,016
Total	306	14,892	26,313,875	1402	26,141,040

C: Number Of Jobs And Amount Of Grant Not Based On Job Creation

Region	9.(2+7) Number of Jobs	10.(3+8) Amount of Grant
Atlantic	1805	$ 14,380,154
Quebec	6330	23,230,187
Ontario	501	3,511,816
Prairie	1183	8,304,345
B. C.	87	943,826
Total	9906	50,370,328

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