



FEBRUARY 2012

**EXPENDITURE
NEED**



**EQUALIZATION'S
OTHER HALF**

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EXECUTIVE SUMMARY

Canada's Equalization program distributes payments to provincial governments with below average capacity to raise their own revenues. It makes no allowance for differences in what provinces have to spend. This paper explores the consequences of recognizing gaps in *expenditure need* as well as revenue-raising potential. It suggests that doing so may make Equalization fairer to provinces and bring it more in line with its constitutionally mandated purpose.

Expenditure need is not new. It features in other countries' equalization systems, notably Australia's. It shows up in programs provinces use to set transfer payments for municipalities, school boards, and hospitals. It has been discussed in the Canadian Equalization context, though never adopted.

Many reasons have been advanced for rejecting expenditure need: too complicated, too many value judgements, too much federal interference with provincial decisions, too costly, too much trouble for too little difference in outcomes. This paper assesses these critiques and generally finds them wanting.

The greatest impediment to building expenditure need into Canadian Equalization may have been that, as long as it has remained a theoretical concept, the objections put forward by opponents have carried the day by default. It is difficult to refute the idea that expenditure need is too complicated, too intrusive, etc., without having a real life, operational, dollars and cents specimen to put to the test. This paper constructs a prototype system, reflecting both revenue potential and expenditure need, and inserts actual data to shed light on how expenditure need would work in practice in a test year, 2008-09. The paper does not claim that this prototype system is ideal, but rather that it provides a basis for evaluating expenditure need critiques and a target to refocus critics' attention towards making constructive suggestions for improvement.

The paper reports that, while the prototype system would have relatively little impact on overall Equalization support for provinces, it would substantially alter the provincial distribution of payments. For example, Ontario would match Quebec as the province receiving the largest amount, at least in the test year.

The paper acknowledges the practical challenge of introducing any change that has such large and divergent financial consequences for provinces. However, it finds that the disruption is less alarming when expressed in the terms that really matter—its proportional impact on provincial budgets. Nevertheless, getting general approval for an initiative that shifts billions of dollars among provinces is no mean feat. The paper offers some suggested mitigating measures that may help the expenditure need medicine go down.

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EXPENDITURE NEED

EQUALIZATION'S OTHER HALF

PETER GUSEN

INTRODUCTION

Parliament and the government of Canada are committed to the principle of making equalization payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation.

- Constitution Act, Section 36.2

The Constitution describes a specific task for Canada's Equalization program. In its current form, Equalization does only half the job assigned to it.

Equalization takes great pains to measure the amount of revenue each provincial government can raise on its own. Provinces less able to generate funds receive Equalization payments from the federal government to help fill the gap.

Revenue, however, is only one side of the story. Provinces also differ in their ability "to provide reasonably comparable levels of public services" because they have to spend different amounts to offer similar services; in other words, because they have different *expenditure needs*. Expenditure needs vary across provinces for many reasons. For example, there are differences in the characteristics of the population to be served (e.g. age, health, income), in environmental factors (e.g. adversity of terrain, severity of climate, remoteness of communities), and in the prices provincial governments must pay for the inputs they use in delivering public services. Canada's Equalization system ignores such differences and, thus, does not fully satisfy its constitutional mandate.

This paper is designed to reconsider the question of expenditure need in Equalization. To do so, it:

- takes a brief look at Equalization, how the current system works and how expenditure need could be grafted on to it;
- lists the reasons commonly offered for omitting expenditure need, challenges them, and finds them unconvincing;

- describes a system for adding Equalization’s other half, one that avoids the pitfalls described by critics, such as potential manipulation by recipients;
- tests the prototype with real-world data, and thereby demonstrates that expenditure need is not only desirable but also technically feasible; and
- explores the quantitative consequences of such a change, finding that:
 - the cost of the program might well be less than it is at present;
 - a very different provincial distribution of payments would result, one that is arguably fairer than today’s outcome; and
 - raises for consideration some mitigating measures that might have to accompany expenditure need, since disruptions to the status quo distribution of payments are politically fraught.

A BRIEF LOOK AT EQUALIZATION

CURRENT SYSTEM

The Equalization program assesses provinces’ abilities to raise revenues, which are known as their *fiscal capacities*.¹ These are determined by measuring the amount a *representative tax system* (RTS) would gather if applied to each province. This RTS reflects the typical taxes that provinces and local governments impose—personal income taxes, business taxes, consumption taxes, natural resource levies, and property taxes—at the tax rates they typically use.

The total amount of revenue that each province could raise with this RTS is expressed in per capita terms. This puts large and small provinces on the same basis when it comes to comparing their revenue-raising ability.

The average per capita fiscal capacity across the ten provinces is called the *standard*. Provinces with per capita fiscal capacity below the standard receive Equalization payments. The amount they receive is equal to their shortfall vis-à-vis the standard, multiplied by the population of the province.

This is a simplified description of the system, but it illustrates clearly that a province’s Equalization payments depend exclusively on its ability to raise revenues relative to other provinces (Box 1 lists additional Equalization features). The extra amount a provincial government needs to spend because, for example, it serves an older population, more geographically dispersed clients, or must pay higher prices, plays no role in determining its Equalization payments.

Box 1 Additional Equalization features

In the interests of simplicity, a number of features have been omitted from the foregoing description:

1. Capacity to raise natural resource revenues is not fully ascribed to provinces.
2. Equalization payments are “capped” for provinces where such payments would raise their fiscal capacity above a stipulated level.
3. Overall equalization payments are constrained to grow no faster than national GDP.
4. Equalization payments are computed using fiscal capacity measured not for a single year, but on a lagged, three-year weighted average basis.

ADDING EXPENDITURE NEED

The approach taken in this paper to recognize provincial differences in expenditure need is to preserve Equalization's existing revenue side apparatus and mirror it with an expenditure need component (see Box 2). It involves:

- developing a *representative expenditure system* (RES) to reflect the typical spending mix of provinces and local governments;
- measuring what each province would spend per capita under the RES;
- comparing this to an *expenditure need standard* to determine the amount of excess or shortfall (i.e. expenditure need above or below the standard);
- combining a province's excess or shortfall from each of the two standards, expenditure need and fiscal capacity;²
- determining which provinces have a positive combined amount of above average expenditure need and below average fiscal capacity (only those provinces would qualify for Equalization payments);
- computing a per capita Equalization payment equal to that combined amount for qualifying provinces; and
- converting the per capita amount to a total Equalization payment through multiplication by the province's population.

Box 2 Equalization with expenditure need

FISCAL CAPACITY		+ EXPENDITURE NEED	= COMBINED SYSTEM (CURRENT SYSTEM) (PROPOSED EXTENSION)
Measuring provincial differences			
Fiscal capacity per capita measured with representative tax system	Expenditure need per capita measured with representative expenditure system		
Comparing to a standard			
Province compared to the ten province revenue standard to determine its relative per capita fiscal capacity	Province compared to the ten province need standard to determine its relative per capita expenditure need		Net position of province = fiscal capacity deficiency/excess plus expenditure need deficiency/excess.
Provinces that receive Equalization			
Provinces with per capita fiscal capacity below the ten province revenue standard are entitled to Equalization payment equal to deficiency multiplied by population			Provinces with a positive net position are entitled to Equalization payments equal to net position multiplied by population.
Provinces that do not receive Equalization			
Provinces with per capita fiscal capacity above the ten province revenue standard get no Equalization			Provinces with a negative per capita net position get no Equalization

Box 3 Above and below the standard

In the current system, below average fiscal capacity signals a need for Equalization.

In the proposed system, above average expenditure need has the same implication.

This means that it is important to pay attention to direction—above or below average—and how its significance changes from the fiscal capacity to the expenditure need context.

Suppose the provincial average fiscal capacity is \$10,000 per capita, but a particular province can raise only \$9,000. Its Equalization entitlement under the current system is \$1,000 per capita because its fiscal capacity is below the ten province average.

Suppose now that the provincial average expenditure need is \$11,000 per capita, but that the province described above must spend \$13,000 to provide comparable services to its residents. That province would qualify for a \$2,000 per capita Equalization payment in an expenditure need system because its needs are above the ten province average.

In the combined system the province's below average fiscal capacity of \$1,000 is added to its above average expenditure need of \$2,000 to determine its Equalization payment of \$3,000.

It would appear that the Constitution calls for recognition of expenditure need in Equalization. It can be argued that fairness among provinces requires it. Furthermore, adding expenditure need seems straightforward, at least at the basic and somewhat abstract level just described. The feasibility of taking expenditure need into account has been demonstrated in equalization systems elsewhere, such as Australia, as well as in many of Canada's provincial transfer payment programs to municipalities, school boards, and health authorities.

Why then has expenditure need been left out of Equalization?

EXPENDITURE NEED CRITIQUES AND REBUTTALS

The usual starting position of expenditure need critics is that recognizing differences in provincial needs is, in principle, the right thing to do.

It is hard to argue against the principle that provinces with greater expenditure needs deserve additional revenues (Courchene 1998, 29).

Even the recent *Expert Panel on Equalization and Territorial Formula Financing*, (the O'Brien Report) which ultimately recommended against expenditure need, began its consideration of the issue with this observation.

Some interpret this objective to mean taking into account not only the differences in fiscal capacity (revenue-raising ability) of provincial governments, but also their expenditure need. Two jurisdictions with very different program needs for their population (e.g. different healthcare, education, and social services pressures) may not be able to provide comparable levels of public services if their Equalization entitlements only take into account the differences in their ability to raise revenues (O'Brien 2006, 86).

Why then does Canada's Equalization system not recognize provincial differences in expenditure need? Six common arguments raised against expenditure need are laid out and assessed below. None of them is very convincing.

CRITICISM 1: Expenditure need would add too much complexity—extra data, extra calculations, less transparency—into an already complex Equalization system.

Consistency would require common standards of acceptable complexity for the revenue and expenditure sides of Equalization (see Box 4). The existing, revenue side, is very complex. The federal and provincial governments, the

custodians of Equalization, have judged that a simpler revenue side system would not be up to the task of distributing \$15 billion accurately and fairly among the provinces. In some ways however, the current program is not doing its job properly because it looks at only half the picture. Perhaps some additional complexity is warranted.

The problem with complexity, either in the existing system or in one extended with expenditure need, is not that it makes Equalization particularly onerous to operate or subject to error. Those concerns are addressed by electronic data bases, computerized calculation, automated quality checks, and close scrutiny by experts from interested parties. Rather, complexity concerns stem from the difficulty Parliament, analysts, and taxpayers experience in understanding how Equalization payments are being determined and, thus, how tax dollars are being spent. Complexity hinders the system's transparency.

The solution, up to now, has not been to strip Equalization down to a simplified, bare bones system. On the contrary, Equalization has generally become more complex over time so that it can do a better job. Transparency has been served in other ways. Finance Canada's website provides publicly accessible, broad-strokes explanations of how the program works. For those who want more detail, Equalization legislation and regulations spell out the precise rules. Academics, think tanks, and government panels support their more intense scrutiny of Equalization by providing in-depth descriptions of the finer nuances.

The same approach can be taken with expenditure need. As it happens, the prototype system described in this paper is relatively simple and transparent.

Box 4 Consistency when criticizing expenditure need

Equalization's approach to recognizing and measuring provincial differences in revenue-raising capacity has met with general approval.

Most of the criticisms directed at expenditure need could as easily be aimed at Equalization's existing revenue side. The fact that expenditure need detractors approve of the existing system places a strong onus on them to justify their objections to adding on a quite similar expenditure need mechanism.

CRITICISM 2: The expenditure need-enhanced Equalization program proposed here is based on a representative expenditure system. This RES would apply unwarranted pressure on provincial governments. Ottawa would be seen as telling provinces how much to spend on health, education, etc., and how to spend it. Provinces would be told how many hospital beds to provide, the maximum wait times to allow, the school courses to offer, etc.

The validity of this criticism depends on the nature of the RES. A very prescriptive RES might, for example, cost out a healthcare system based on a “best practice” number of hospital beds. A more policy-neutral RES might, by contrast, be based on average provincial health costs and give no guidance and apply no pressure as to how a province is to allocate its healthcare budget.

Furthermore, a RES to gauge expenditure need is no more intrusive on provincial authority than the existing RTS used to assess fiscal capacity. British Columbia’s budget relies on income taxes for just over 20 per cent of its budget, while Ontario, Quebec, and Nova Scotia tap this source for 30 per cent. PEI counts on consumption taxes for 30 per cent of its revenue, while Alberta does not even have a provincial sales tax. Based on the observed provincial variation in taxing practices, provinces apparently do not feel excessive pressure from the RTS to use a particular revenue mix. Why would an RES be different?

The prototype system described here uses indicators of provincial differences in expenditure need that are non prescriptive.

CRITICISM 3: The O’Brien Report suggested that “needs should be taken into account in targeted transfers to provinces such as the Canada Health Transfer [CHT] or the Canada Social Transfer [CST], but not for general purpose transfers such as Equalization payments” (2006, 38).

The report is being disingenuous. Its authors were well aware that the CHT and CST do not take expenditure need into account. Nor is there any prospect that they will be modified to do so. The current trend is to erase any aspects of these transfers that treat provinces differently.³

If expenditure need is to be recognized, Equalization is a more promising candidate than targeted transfers.

CRITICISM 4: Under an expenditure need system, provincial governments would have a perverse financial incentive to distort their policies to make themselves appear needier and, thus, eligible for higher Equalization payments. Provinces might be less inclined to improve the well-being of their residents or to moderate their employees’ wages if they knew it would impinge on their transfer payments.

A similar spectre has been raised on the revenue side. Specifically, some fear that with Equalization providing financial protection, provinces would be less inclined to raise taxes, collect revenues, or promote growth in their tax bases.

The designers of the Equalization program recognized the danger of inadvertently fostering such perverse behaviour. When it comes to measuring fiscal capacity, Equalization doesn’t look at how much provinces *actually* collect. Rather, it looks at how much they *could* raise assuming they ran their tax

systems efficiently and set tax rates typical of other provinces.⁴ As much as possible, it measures a province's fiscal capacity in ways that cannot be influenced by that province's policies.

This criticism does not imply a rejection of expenditure need, but rather a careful approach to measuring it.

The prototype system described in this paper proceeds accordingly. It uses measures of need that are largely beyond the reach of provincial or local government policies, such as the age distribution of the population and the average wage paid by all employers in the province.

CRITICISM 5: Implementing expenditure need would raise design issues that could not be resolved in an objective, fact-based, manner. The resulting judgement calls would be controversial and would undermine the credibility of the system.

There may be some validity to this point, although it is impossible to judge without looking at an actual expenditure need system. Only with a "real life" specimen to examine can one determine whether judgement calls are required, how many, and how troubling.

Moreover, the existing revenue side Equalization framework is by no means free of judgement calls. For example, the property tax component, which makes up one-quarter of the RTS, is a compromise among divergent views of the correct way of measuring fiscal capacity. The half-in/half-out treatment of resource revenues reflects a sawoff between those who want them all counted and those who want none. Introducing expenditure need clearly would not sully an otherwise pristinely value-free mechanism.

This is not to argue that introducing expenditure need should be cavalier in using value judgements. The prototype system proposed in this paper tries to select measures for which accurate data are available and which have well-established and widely-accepted influences on the need for provincial/local public services. Examples include, for health and education, the age structure of a province's population, or, for social assistance, the prevalence of low income.⁵

CRITICISM 6: It makes no sense to introduce expenditure need because it will not make a significant difference in how Equalization funds are distributed among provinces. The O'Brien Report states that if the amounts paid are unaffected, "there is no point in devoting public funds to the expensive conceptual and data investments required" (2006, 88).

Whether or not expenditure need makes a significant difference is an empirical question, best answered by constructing a "test" Equalization system that

includes expenditure need and comparing its resulting cost with one that does not.

Another, often unstated, criticism takes the opposite view—expenditure need makes too much difference. Adopting it is inadvisable because it would result in too much being paid out to provinces and greatly increase the cost to the federal government. Here again, the best way to judge is to derive a cost estimate of an expenditure need augmented system.

Results from the prototype model suggest that incorporating expenditure need might well reduce rather than increase the cost of Equalization. However, based on the system developed in this paper, expenditure need does significantly affect the distribution of payments among provinces.

In conclusion, the criticisms of expenditure need are either logically wanting, inconsistent with accepting the admittedly imperfect existing system, or subject to empirical verification.⁶ With this in mind, the paper now turns to the more detailed description of an Equalization system with expenditure need.

A PROTOTYPE SYSTEM WITH EXPENDITURE NEED

The following section of the paper describes a prototype Equalization program with expenditure need (see Box 5). Full accounts of Equalization mechanics are unavoidably detailed and technical. To keep this paper short and accessible, a supplementary paper explains the proposed system more precisely.⁷ Bear in mind that this is “a” method of measuring expenditure need, not “the” method. It is presented for the reasons cited in Box 5, not to convince the reader that this is necessarily the best, and certainly not the only, way to implement expenditure need.

Box 5 Why build a prototype?

The paper's prototype system was developed to demonstrate the possibility of designing a reasonably simple, common sense way to add expenditure need to Equalization—not just in theory, but in practice—with concrete dollar results. Doing so serves three purposes:

1. It provides an empirical basis for assessing the common arguments against expenditure need (e.g. too complex, too costly, or involving too many value judgements).
2. It sets up a target that can serve as a basis for informed criticism and for improvement.
3. It gives a sense of the possible provincial distribution effects of expenditure need and the factors giving rise to them, and, therefore, to the aspects that need particular scrutiny.

The guiding principle of the proposed method for incorporating expenditure need is to mirror closely the existing revenue side of Equalization (see Table 1). This avoids re-opening issues that have already been resolved. In particular, expenditure need will follow the path blazed by the revenue side with regard to:

- a standard based on the average of the ten provinces;
- consolidation of provincial and local finances; and
- weights for different budgetary categories based on what provincial/local governments as a group actually do—how they actually allocate their expenditures.

Other features of the current system could be easily retained, such as:

- RTS inputs expressed as three year weighted moving averages; and
- caps on growth in province-specific and aggregate Equalization payments.

While these features could be built into the new system, it is more convenient and revealing for the current exposition to focus on the construction and results of a “clean” system based on a single year’s information (2008-09) and without imposing caps.

Table 1 Simplified prototype system

FEATURE	CURRENT SYSTEM	PROTOTYPE
Fiscal capacity	✓	✓
Expenditure need	✗	✓
Ten province standard	✓	✓
Consolidated provincial/local governments	✓	✓
Weights based on actual P/L budgets	✓	✓
Three year weighted moving averages for inputs*	✓	✗
Caps on growth in Equalization payments*	✓	✗

* Omitted from prototype to simplify description. Could be added.

EXPENDITURE CATEGORIES

The first step in setting up an expenditure need component for Equalization is to determine the spending categories to include in the system.⁸

There are good arguments for looking at just a few major, broad expenditure need areas. It results in a system that is:

- economical when it comes to data collection and computation;
- more transparent to the public due to its simplicity; and
- more tractable for decision-makers who must approve its design and defend its outcome.

There are limits, however, to how simple a system can be if it is to give an accurate impression of the needs of individual provinces.

In selecting the spending areas to be considered, it is helpful to consider the activities on which Canada's provincial and local governments spend the bulk of their money (see Table 2).

Table 2 confirms the common impression that, while the range of provincial and local functions is broad, three areas dominate:

1. Health alone represented 30 per cent of total non-debt⁹ spending (\$116 billion out of \$388 billion) in 2008-09
2. Education accounted for 24 per cent
3. Social services absorbed 16 per cent

A "big three" approach is taken in the prototype system presented here. It looks at differences among provinces in the need for spending on health, education, and social services only.

The paper's expenditure need calculations for education and social services are carried out in finer detail here:

- The education category is divided into "elementary and secondary" and "post-secondary" components because the factors contributing to provincial differences in expenditure need are dissimilar in the two cases.

Elementary and secondary education is mainly influenced by a province's population under the age of 16 or 18, while post-secondary education is affected more by older population groups.

A small amount of the education spending of provincial and local governments is omitted from consideration (special retraining, other) because no obvious indicator of provincial expenditure need differences was identified.

Table 2 Consolidated provincial/local government expenditures, all provinces, \$ billion, 2008-09

Total expenditures	415
General government services	13
Protection of persons and property	23
Transportation and communication	29
Health	116
Social services	63
Education	92
Resource conservation and industrial development	14
Environment	15
Recreation and culture	12
Labour, employment, and immigration	1
Housing	5
Regional planning and development	2
Research establishments	1
General purpose transfers to other government subsectors	1
Debt charges	27
Other expenditures	1

Source: Statistics Canada, 2009a

Note on consolidation: Transfers from provinces to their municipalities, school boards, health authorities, etc. appear as expenditures on provincial/territorial books, and again as spending by the local authorities when they disburse the funds they receive. The consolidated accounting in Table 1 eliminates such duplication.

Note on year of data: Data for 2009-10 are available (CANSIM table 385-0032) but not in the form required. Expenditures in that source are presented by object (e.g. wages, goods and services, subsidies) rather than by functional area. Furthermore, figures do not consolidate provincial and local expenditures.

- In the social services area, the Statistics Canada sub-components are:
 - “workers’ compensation benefits”;
 - “employee pension plan benefits and changes in equity”;
 - “motor vehicle accident compensation”;
 - “social assistance”; and
 - “other social services.”

The first three sub-components are omitted from expenditure need consideration here.¹⁰ As for the remaining two, they are treated separately because, whereas the need for social assistance is strongly associated with low income, need for other social services relates more to the prevalence of various client groups (children, the elderly, people with disabilities) who may or may not be poor.¹¹

The stress on health, education, and social services should not be interpreted as implying that variations in provincial need are unimportant elsewhere. There is no compelling case for why the coverage could not be expanded to a big four,

five, or six to increase the percentage of provincial and local spending areas covered. However, it is necessary to start somewhere, and for this paper expenditure need will be measured in the three largest provincial and local expenditure areas. This captures about two-thirds of provincial and local government non-debt outlays.

There is a good precedent for this “starting small” approach. It was used in developing the revenue side of Equalization, which was introduced in 1957 with just a few revenue sources. Coverage was gradually expanded as experience, data, and time permitted. So it might be with expenditure need.¹²

To summarize, the prototype system measures expenditure need in five areas:

1. Healthcare
2. Elementary and secondary education
3. Post-secondary education
4. Social assistance
5. Other social services

MEASURING NEED

This section of the paper describes how differences in need are to be measured in each of the identified spending areas. Before addressing them individually, it is helpful to distinguish among three aspects of expenditure need that apply generally:

1. Provincial and local governments face different volumes of service requirements or **workloads**. Depending on the spending area, workload might involve the number of healthcare clients and how sick they are, or the number of students enrolled at various levels of education.
2. Expenditure need in a province is greater if it **costs** more to deliver a given amount of service there than elsewhere, even with similar workloads.
3. Expenditure need also differs from province to province due to **geographic circumstances**. If much of the population to be served lives in remote regions, or the clients are geographically dispersed, or the climate or topography is particularly severe, provincial and local governments may have to spend more to deliver equivalent services.¹³

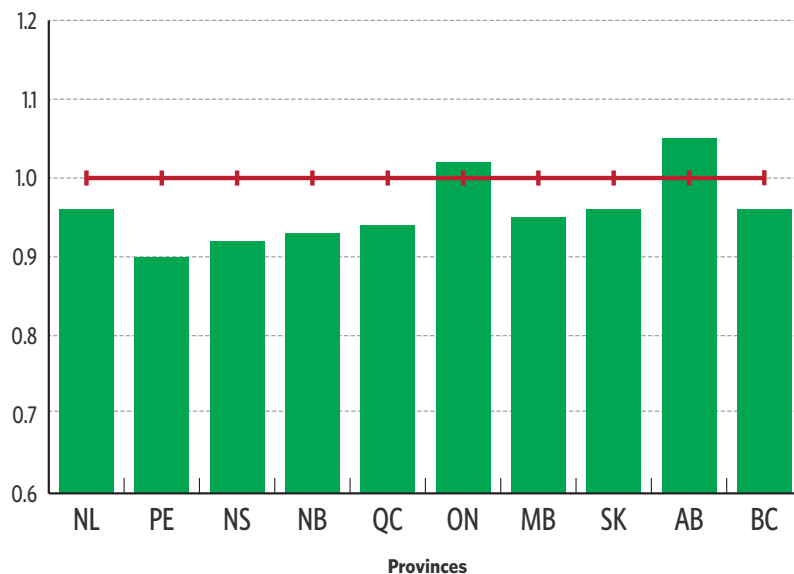
Work load indicators, which are unique to each of the five expenditure areas, require individual discussion. Cost and geographic circumstance indicators as used in this paper are more generic and will be treated first.

COSTS: A PROVINCIAL-LOCAL GOVERNMENT EXPENDITURE PRICE INDEX

The cost measure required for expenditure need purposes must compare, across provinces, the prices of the goods and services that provincial and local governments typically purchase to provide public services (e.g. salaries for nurses/teachers/police officers; cost of contracting for provision of various services such as physicians' care, construction of infrastructure, support for information technology systems, maintaining roads; and buying goods such as drugs for hospital patients, books for students). Since no off-the-shelf price index filling this requirement is available,¹⁴ one has been constructed for use in this paper (see Chart 3). It is described in detail in the technical background paper.¹⁵

The indicator is a general one, used as required in each of the expenditure areas considered.¹⁶

Chart 1 Provincial/local government expenditure price index, all province average = 1, 2009



Source: Author's compilation (see Technical Background Paper).

Chart 1 shows how the provinces line up in terms of the prices that their provincial and local governments pay for the inputs they purchase to provide public services. The chart demonstrates that:

- Provincial and local government prices are highest in Alberta and above average in Ontario. This result is largely explained by wages, which are the main contributor to the provincial price index differences. Employee remuneration directly absorbs over 40 per cent of

provincial and local government budgets, and indirectly drives the prices of many of the other goods and services that governments purchase.

- Most of the provinces that qualify for payments under the existing Equalization system due to their low fiscal capacity, pay less than average for the goods and services they must buy (PEI, Nova Scotia, New Brunswick, Quebec, and Manitoba). These provinces, therefore, have less expenditure need, at least in terms of costs. This lower need may offset, in whole or in part, the below average fiscal capacity that currently qualifies those same provinces for Equalization.

GEOGRAPHIC CIRCUMSTANCES

It is more difficult to supply provincial and local services in places remote from population centres. The indicator used here to capture this expenditure need factor is Statistics Canada's *Metropolitan Influenced Zone* (MIZ) measure (Statistics Canada 2006).

Under the MIZ criteria, individuals are assigned to one of three categories according to where they live:

1. Within a metro area
2. "Strongly influenced" by a metro area (e.g. within commuting distance)
3. "Not strongly influenced" by a metro area

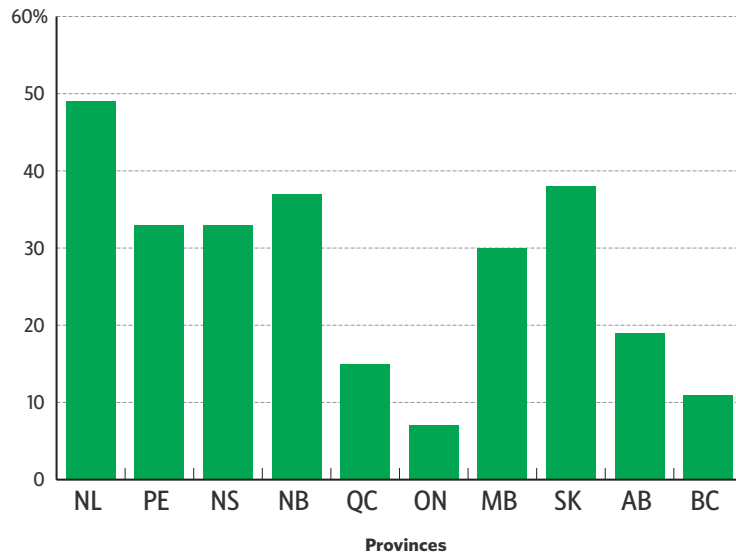
Provinces display pronounced differences in terms of the "remoteness" of their populations:

- Half of Newfoundland and Labrador's residents live in remote, difficult to serve locations, increasing the expenditure need of the province's provincial and local governments.
- People in Quebec, BC, and Ontario, by contrast, are concentrated in or near service centres, making them less costly to serve.

The proportion of each province's population "not strongly influenced" (see Chart 2) is used as the "remoteness" measure in this study as required.

Newfoundland and Labrador does not receive Equalization payments under the current fiscal capacity system, but on this geographic measure appears to be quite "needy." Ontario's situation is the opposite—currently an Equalization recipient, but one that has relatively low need in terms of its geographic circumstances.

Chart 2 Population living in remote locations, per cent of total, 2006



Source: Author's compilation (see Technical Background Paper).

WORK LOAD: NEED INDICATORS FOR EXPENDITURE CATEGORIES

i) Health

The bulk of provincial and local government healthcare expenditures, as one would imagine, is on hospitals, provincial medical care insurance plans, and public health services. Residential care facilities for the elderly and individuals with physical or mental impairment are part of “other social services” unless they are primarily for delivering medical treatment.

Provinces with older populations face greater demands on their healthcare systems. Table 3 clearly illustrates the strong influence of age on need for healthcare. For example, a person aged 85 and older on average consumed over \$22,000 of provincial government health services in 2008, as compared with less than \$2,000 for those aged one to 64. Reflecting this association, provincial differences in the need for healthcare expenditure are measured here by the age distribution of their populations, with corrections for factors that raise the needs of particular age-defined groups.¹⁷

Each province's population, distributed by age, is multiplied by the national average healthcare expenditure for that age group, as shown in Table 3.¹⁸ Note that national average expenditures are used. A province will, therefore, have a higher expenditure need because its population has a greater proportion of seniors, but not because it has a policy of spending more per senior. As a result, the expenditure need measure has the desirable property of being independent of a province's own spending decisions.

These resulting healthcare expenditures ranged from \$2,515 per capita in Alberta, a “young” province with consequently low per capita healthcare costs, to \$3,052 in Saskatchewan, an “older” province.

These figures, and those in Table 3, are “basic” amounts for residents of the indicated age groups. This basic work load measure is adjusted upward to reflect the proportion of a province’s male and female population of various ages in two groups with above average health costs: aboriginals and those with low incomes.¹⁹

The adjusted values are further modified to capture the extra healthcare costs of serving each province’s remote and dispersed population²⁰ and are “inflated” or “deflated” by each province’s provincial and local government expenditure price index.

Table 3 Provincial government health expenditure by age group, \$ per capita, 2008

AGE	\$ PER CAPITA
<1	8,294
1-4	1,257
5-14	1,102
15-44	1,317
45-64	1,984
65-74	6,772
75-84	12,341
85+	22,505
0-85+	2,839

Source: CIHI National Health Expenditure Database, Appendix E.

Adjusted to exclude extra costs of high-needs populations, which are recognized elsewhere in the prototype model.

Excludes Territorial governments.

Results

The resulting expenditure need indicator is a per capita spending amount. The values for the indicator range from a low of \$3,357 per capita in relatively youthful Alberta to a high of \$3,936 in Newfoundland and Labrador, where much of the population is remote from healthcare service centres and where there is a greater prevalence of low income (see Table 4).

Table 4 Health care expenditure need indicator, expenditure standardized for age, \$ per capita, 2009

NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	AVG.
3,936	3,461	3,784	3,829	3,536	3,584	3,575	3,892	3,357	3,774	3,598

Source: Author’s compilation (see Technical Background Paper).

ii) Elementary and secondary education

The number of children in a province is a good indicator of the student population to be served, hence the number of teachers and classrooms required, and ultimately the amount that must be spent on education by the provincial and local government.

Acknowledging this relationship, expenditure need for elementary and secondary education in the model used in this paper is a function of the age distribution of a province's population. A province's population in school-going age groups is multiplied by the associated national average enrolment rate for that age group (see Table 5). National average enrolment rates are used, rather than province-specific values, to ensure that the measure is unaffected by provincial policy decisions, such as the starting age for kindergarten or the minimum leaving age.

Table 5 Enrolment in primary and secondary education by age, Canada, 2008-09

AGE	PER CENT OF AGE GROUP POPULATION ENROLLED
0-4 years	10.9
5-9 years	89.5
10-14 years	90.7
15-19 years	54.5
20-24 years	1.8

Source: Statistics Canada 2010c, Student information system (SIS).

The resulting enrolment figures are adjusted to account for students living in remote areas or dispersed widely from one another. They are assumed to require above average educational inputs because they must be bussed longer distances and frequently have to be grouped into smaller classes, increasing the number of teachers and classrooms needed per student. Similarly, enrolment figures are adjusted to acknowledge the extra resources required to teach immigrant students who do not speak either official language.²¹ A further adjustment is introduced by applying the provincial and local government expenditure price index. This is designed to reflect provincial differences in the unit cost of delivering education, due to local price conditions.

Results

Alberta has the highest expenditure need in the field of elementary and secondary education, in line with its relatively young population, and Nova Scotia the lowest (see Table 6).

Table 6 Elementary and secondary education expenditure need indicator, adjusted enrolment as a percentage of provincial population, 2008-09

NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	AVG.
13.9	14.1	13.1	13.5	13.2	15.4	16.3	16.7	17.2	13.7	14.8

Source: Author's compilation (see Technical Background Paper).

iii) Post-secondary education

Post-secondary enrolment is highly concentrated in the 18 to 24 age group (see Table 7). Provinces with a large share of their population in those ages will, therefore, be under the greatest pressure to provide college and university places.

Table 7 Enrolment in post-secondary education by age, Canada, 2008-09

AGE	PER CENT OF AGE GROUP POPULATION ENROLLED
15 - 17	3.4
18 - 21	41.1
21 - 24	24.5
25 - 29	10.1
30 - 34	5.1
35 - 39	3.3
40 and older	0.8

Source: Statistics Canada 2010c, Postsecondary student information system (PSIS).

The expenditure need measure used here is determined by the age distribution of the provinces' populations. Once again, national average enrolment rates are used to remove the influence of provincial policies (e.g. programs offered, tuition fees, entrance requirements) from the determination of measured provincial need.

The provincial PSE enrolment estimates derived in this manner are adjusted for student "migration" (i.e., students who live in one province but who attend college or university in another and thus increase the expenditure need in the province of attendance).

No adjustment is made for interprovincial differences in remoteness and dispersion. These factors play a small role in differential PSE costs because students assemble in a limited number of centralized sites to receive their education, rather than having the education delivered by provincial and local governments to their scattered and/or remote home locations.

The resulting enrolment estimates are further adjusted for differences in the costs facing the various provincial governments, based on the provincial and local government expenditure price index.

Results

Alberta's adjusted enrolment is highest among the provinces as a share of its population, owing both to the high concentration of its population in the relevant age group and the large number of PSE students Alberta attracts from other provinces (see Table 8). Prince Edward Island is in the opposite position, mainly because it "exports" a good many students to other provinces.

Table 8 Post-secondary education expenditure need indicator, adjusted enrolment as a percentage of provincial population, 2009

NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	AVG.
4.7	3.9	5.2	4.3	4.7	5.2	4.8	4.8	6.5	4.8	5.1

Source: Author's compilation (see Technical Background Paper).

iv) Social assistance

Provincial and local governments make social assistance payments to people whose incomes are below a threshold amount.²² The amount of assistance provided typically tops up the income the recipient receives from other sources. An indicator of social assistance expenditure need would therefore measure provincial differences in the prevalence and "depth" of low income—how many poor people there are and how poor they are.

The indicator used here is a province's *aggregate low income gap* (Statistics Canada 2009b) measure derived as follows:

- The Market Basket Measure (MBM), developed by Human Resources and Skills Development Canada and computed by Statistics Canada, determines the low income threshold by calculating "the cost of a [minimal] basket of goods and services that are deemed essential to maintain physical health and to moderately participate in community activities" (Statistics Canada 2010d). The amount by which a low income household's revenues fall short of this threshold is its *low income gap*.
 - While the MBM basket contains the same goods and services across the country, the thresholds are community specific, reflecting price differences across communities.
 - The thresholds also vary according to household size.
 - The thresholds are based on a common basket of goods and services

for all locations. This means they do not differ because provinces have different standards with regard to what makes a family eligible for social assistance (i.e. what constitutes “poverty”).

- Summing the income gaps of all low income households in a province produces the *aggregate low income gap* for that province.

The aggregate low income gap indicates the amount of assistance that a province would have to distribute to its low income households to raise them all to their MBM thresholds.²³

In this paper’s application of the aggregate low income gap, incomes are measured so as to exclude provincial social assistance payments before provincial income tax has been deducted. In this way, measured needs are independent of provinces’ social assistance and income tax policies.

There is no remoteness or price adjustment in this case, as the work load measure already captures interprovincial/intercommunity cost differences.

Results

Newfoundland and Labrador and New Brunswick had the largest proportional social assistance expenditure need in 2009, given the higher prevalence and severity of low income in those provinces. Alberta had the lowest per capita need among provinces, roughly half that of Newfoundland and Labrador and New Brunswick (see Table 9).

Table 9 Social assistance expenditure need indicator, aggregate low income gap, \$ per provincial resident, 2008

NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	AVG.
1,101	736	978	1,092	1,046	909	692	780	548	978	907

Source: Author’s compilation (see Technical Background Paper).

v) Other social services

This expenditure category covers a broad range of activities (see Box 6), from retirement homes, to legal aid, to centres for treatment of substance abuse, to transfers to non-government social service agencies. Expenditure need here is measured by looking at variations among provinces in the population of clients for the various types of other social services.

Provincial government public accounts and other sources of information reveal that other social service outlays are concentrated in the following areas:

1. Government support for residential care facilities and home care for the elderly constitutes about 40 per cent of total spending.
2. Child, youth, and family services such as intervention and counseling, foster care, adoption services, and subsidies for child care make up approximately 30 per cent.
3. Services for people with disabilities such as residential care facilities, support programs, and subsidies for adaptive equipment represent some 15 per cent.

The remaining 15 per cent of provincial and local other social service spending is aimed at clients who are more difficult to classify (e.g. legal aid, substance abuse clinics). Much of this, however, is directed at clients with low incomes.²⁴

Box 6 Defining “other social services”

Other social services - Accounts for expenses related to the provision of services to old age, to persons who are unable to lead a normal life due to a physical or mental impairment, to persons temporarily unable to work due to sickness, to households with dependent children, to persons who are survivors of a deceased person (spouse, children, etc.), and to other needy persons. It also includes direct expenditures of public institutions (hospitals, residential care facilities, other health and social services institutions) providing social services, and transfers to private organizations (e.g., residential care facilities) providing similar services.

Examples of services mentioned above include the operations of specialized institutions (i.e., residential care facilities) that provide lodging and board to elderly persons, children, and families; provision of legal aid; home care services; transport services; services and goods provided to elderly, disabled, and survivors to enable them to participate in leisure, cultural and social activities; counseling services; nursery and daycare services; essential goods such as food, clothing, fuel, etc.; rehabilitation services (for alcohol, drug, etc.); and other similar services (Statistics Canada 2009c).

A client population work load indicator was constructed for each province based on these spending patterns. It is the weighted sum of the:

- low income population 65 and older (seniors’ services);
- low income population aged 0-17 (child, youth, and family service clients);
- number of tax filers claiming the disability tax credit (disability services); and
- total low income population (non specific services).

The weights are the proportions of spending cited in the previous paragraph (40/30/15/15). Low income thresholds are determined using the Market Basket Measure mentioned under iv) Social assistance.

The resulting weighted clients figure for each province is adjusted for the population living in remote/dispersed locations. It is assumed that 10 per cent more resources are needed to serve each of these isolated clients, somewhat less than in the case of remote elementary and secondary school students. The client figures are further adjusted for provincial cost differences using the provincial and local expenditure price index.

Results

Newfoundland and Labrador has the highest proportional expenditure need for other social services and Quebec the lowest (see Table 10).

Table 10 Other social services expenditure need indicator, weighted clients, per cent of provincial population, 2009

NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	AVG.
3.9	2.7	3.6	3.1	2.3	2.8	2.9	2.8	3.0	3.3	2.8

Source: Author's compilation (see Technical Background Paper).

These results confirm the common impression that there are many low income residents in need of social services in Newfoundland and Labrador. Quebec's results are somewhat less intuitive, but can be explained. Recall that expenditure need in this area is a function of provinces' low income populations of various types. The proportion of Quebec's overall 2009 population with incomes below the low-income threshold is less than in any other province except PEI. Remember also that low income children are particularly important in this need indicator, since they constitute a disproportionate share of other social service clients. Quebec's proportion of children living in low income families is the lowest in the country, as is the percentage of its population claiming the disability credit.

FROM EXPENDITURE NEED INDICATORS TO EQUALIZATION ENTITLEMENTS: FINANCIAL IMPLICATIONS FOR PROVINCES

The expenditure need indicators just described are measured in a variety of units—spending (healthcare), clients (education, other social services), and income gaps (social assistance). When it comes to computing a province’s entitlement to Equalization payments, these disparate indicators of need must be expressed in a common dollar metric. The steps involved in this conversion are described in Annex 1.

Each column of Table 11 shows the expenditure need entitlements of a given province. The five spending areas are shown in successive rows. The overall expenditure need entitlement is shown in the last row (Annex 2 decomposes the total entitlement for each province into amounts associated with work load, costs, and geographic circumstances).

**Table 11 Expenditure need Equalization entitlements,
\$ million, 2008-09**

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
HEALTH	165	-19	167	165	-467	-178	-28	289	-848	752
ELEMENTARY AND SECONDARY EDUCATION	-43	-9	-154	-96	-1,242	753	191	195	896	-491
POST SECONDARY EDUCATION	-45	-39	16	-133	-783	286	-89	-70	1,141	-285
SOCIAL ASSISTANCE	63	-15	46	89	675	26	-160	-82	-821	179
OTHER SOCIAL SERVICES	170	-5	219	57	-1,300	-66	44	0	157	724
TOTAL EXPENDITURE NEED*	310	-86	294	83	-3,117	822	-42	332	526	879

*A province’s entitlement can be either positive or negative. Equalization payments, however, can be only positive or zero. Provinces do not have to repay negative entitlements.

Sum of positive entitlements (NL, NS, NB, ON, SK, AB, BC) = \$3,245 million

Sum of negative entitlements (PE, QC, MB) = -\$3,245 million

Source: Author’s compilation (see Technical Background Paper).

RESULTS AND OBSERVATIONS

- Table 11 shows that seven provinces have positive expenditure need Equalization entitlements. These total \$3,245 million, considerably less than the equivalent \$15,964 million²⁵ payout from Equalization's existing fiscal capacity (revenue) side (see Table 12). This may reduce concern that expenditure need would raise the cost of the Equalization program excessively.
- The additional cost of an expenditure need augmented Equalization program would, in fact, be far less than \$3,245 million.
 - In PEI, Quebec, and Manitoba, negative expenditure need Equalization entitlements would partially offset positive fiscal capacity entitlements.
 - In Saskatchewan, Alberta, and BC, positive expenditure need Equalization entitlements would not result in any Equalization payments, since their fiscal capacities are well above average.
- Table 12 takes these offset effects into account. Payments under the combined system (bottom row, \$14,227 million), would, in fact, be some \$1.7 billion less than the current fiscal capacity only system (middle row, \$15,964 million)

Table 12 Equalization entitlements, expenditure need & fiscal capacity, \$ million, 2008-09

EQUALIZATION ENTITLEMENTS	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	PROVINCES WITH POSITIVE ENTITLEMENTS
EXPENDITURE NEED ONLY	310	-86	294	83	-3,117	822	-42	332	526	879	3,245
FISCAL CAPACITY ONLY	0	322	1,319	1,406	7,632	3,713	1,572	-352	-11,527	-1,379	15,964
TOTAL COMBINED	310	235	1,613	1,489	4,515	4,534	1,530	0	0	0	14,227

Source: Author's compilation (see Technical Background Paper).

- Table 12 also shows that, while the change in overall payments is relatively small, there would be a major shift in the provincial distribution of payments:
 - Ontario and Quebec would receive equally large Equalization payments of just over \$4.5 billion each (bottom row). Under the current fiscal capacity only system, Quebec receives more than twice as much as Ontario, \$7.6 billion versus \$3.7 billion (middle row).
 - Nova Scotia would enjoy a 20 per cent increase in its payments, from \$1.3 billion to \$1.6 billion.
 - PEI would see a near 30 per cent drop, from \$322 million to \$235 million.

- Newfoundland and Labrador would become an Equalization recipient.²⁶

This significant redistribution undermines the critique of expenditure need that it would make little difference compared to a revenue-only system.

- If the GDP growth restriction on overall payments remained in effect in the combined system, payments to all provinces would be reduced proportionately by amounts that would depend on how the GDP limit was adapted to the inclusion of expenditure need. However, the relative distributional impact among provinces would remain much as described.
- Finally, the results show that an Equalization system capturing expenditure need can indeed be constructed, reframing the discussion of expenditure need from “it cannot be done because...” to “it can be done better if...”

The most significant conclusion of this exercise is probably the major redistribution of Equalization payments among provinces arising from expenditure need. It guarantees that discussions of expenditure need, or even the decision to put such discussions on the agenda, will be a contentious interprovincial issue.

The political repercussions of creating provincial winners and losers may dull the appetite for raising the topic of expenditure need in the upcoming discussions of Canada’s federal-provincial transfer payments. However, a good policy should not be abandoned just because it comes with political controversy.

If it is agreed that expenditure need is, in principle, the right thing to do, that it is technically feasible to do it, and that the standard objections to it may be dismissed, then the next order of business should be planning how to move forward, recognizing the trepidations of some parties.

MOVING FORWARD

Canada’s Equalization system currently acknowledges that provinces differ in their capacity to raise revenues. This paper has maintained that there is a good case for also reflecting how provinces vary with respect to how much they need to spend. If Equalization continues to ignore differences in expenditure need it will not be treating provinces fairly and it will not be fulfilling its constitutional mandate.

The paper has laid out common arguments mounted against expenditure need and has explained why they do not hold up.

- They are generally logically wanting since precisely the same criticisms could, in many cases, be lodged against the existing revenue side of the Equalization system. Yet, that system has been in place and met with broad acceptance for more than 50 years.
- They are based on claims that can only be assessed with knowledge of how expenditure need would be measured and how it would affect Equalization payments. This paper has shed empirical light that casts doubt on these criticisms.

The remaining argument against including expenditure need in Equalization is that it would be disruptive. Certainly the results presented here indicate a significant redistribution of Equalization payments among provinces. Making a change in federal policies that produces provincial winners and losers represents a political challenge to be sure, but perhaps not an overwhelming one.

- The amounts involved are large in absolute terms, in the billions of dollars in some cases. In terms of the adjustments that provinces would have to make, or be able to make, it is the impact relative to the size of their budgets that is important. For Quebec, provincial and local budgetary revenues would decline by three per cent. Ontario would see a one-half per cent increase in its revenues. Newfoundland and Labrador would have an extra four per cent in its budget and PEI would have roughly five and a half per cent less.
- Policy changes like expenditure need, which create winners and losers, are often introduced in ways that mitigate immediate, deleterious consequences. One technique is a “no loss” guarantee that accompanies the new policy, so that recipients are protected temporarily or permanently against consequential revenue declines. Another is a phase-in approach, whereby the full impact of the policy is spread out over several years. A third is to make the change as part of a larger, balanced package, including elements that appeal to provinces that are not attracted to expenditure need.
- The financial results presented here are for a specific program design. The expenditure need system sketched out here would not necessarily be the one adopted. Even if it were the starting point, it would almost certainly be modified over time. Federal and provincial officials and analysts outside government may find the idea of “an” expenditure need system worth exploring, even if they have objections to “this” expenditure need system.
- The Table 12 numbers show the implications of expenditure need for 2008-09. Experience has shown, however, that Equalization's outcome for individual provinces can change markedly over a

relatively short stretch of time. Provinces that see lower payments in 2008-09 thanks to expenditure need might anticipate a reversal in future years, based on foreseeable demographic and economic trends, making expenditure need an attractive proposition because it offers short term pain for long term gain. Provinces might even welcome the fairer system where predictable developments are not running in their favour, as insurance against unpredictable events.

Box 7 Expenditure need lessons

- The constitutional mandate for Equalization and fairness to Canadians would seem to require provincial differences in expenditure need to be recognized in Equalization as a complement to the current acknowledgement of differences in revenue raising potential.
- The common objections to expenditure need, when closely examined, do not hold water.
- The paper's prototype model for an Equalization system with expenditure need demonstrates that this change is a feasible and relatively straightforward task.
- The obstacle to introducing expenditure need is not that it violates principles of good policy, nor that it involves insurmountable technical challenges.
- What stands in the way is the difficult interprovincial politics of making a change that redistributes large sums of Equalization payments among provinces. There are, however, ways to help make the expenditure need medicine go down.

ENDNOTES

1. A province's fiscal capacity also includes the revenues that its local governments can raise.
2. Note that the amount by which a province is **above** the expenditure need standard is added to the amount by which it is **below** the fiscal capacity standard (see Box 3).
3. When the *Canada Health and Social Transfer*, predecessor of the CHT and CST, was introduced, provinces received different amounts of cash transfers per capita to offset differences in the value of tax points. Over the past few years, provincial pressure has successfully pushed for an end to such differences in cash transfers. Now CST cash transfers are equal per capita and CHT soon will be.
4. Natural resource revenues are an exception. Here, Equalization looks at actual collections, rather than potential revenues, to measure fiscal capacity. However, only fifty per cent of natural resource revenues (at most) are counted in provincial fiscal capacity. This "discount" for natural resources mutes any Equalization-based incentive for provincial governments to collect less than they otherwise would. It would not be in a province's financial interest to reduce its measured fiscal capacity by forsaking a dollar's worth of natural resource revenues, if such action had an Equalization payoff for the province of at most fifty cents. For example, if Quebec's provincial government instructed Hydro-Quebec to reduce its electricity rates, and to adjust its remittance to the provincial government by the resulting amount, Quebec's Equalization payment would go up. But that gain would be only about 40 per cent of the amount its remittance revenue from Hydro-Quebec went down (based on 2009-10 figures).
5. The O'Brien Report used the education field to illustrate where troubling judgement calls would be required to measure differences in expenditure need:

...if a province had more rural or remote areas, adjustments would have to be made for class size and the additional cost of transportation. If one province had been more generous in its wage settlements with teachers' unions, adjustments would have to be made to determine the wage costs to the province had it paid national average wages, adjusted for differences in the cost of living and supply and demand conditions (2006, 87).

This passage might persuade a reader that too much judgement is required, and that expenditure need should be left on the shelf. However, the proposal put forward in this paper for measuring expenditure need in education requires few subjective judgement calls. A dollars-per-student figure equal to the actual, ten province expenditures per student is determined. This is multiplied by the number of school age residents of each province. Using formulae employed by provincial education ministries to allocate grants among school districts, expenditure need is adjusted for the prevalence of remote areas.

6. The six criticisms cited here are the ones most frequently voiced, however, the list is not exhaustive. For example, some critics of expenditure need have suggested that results would be excessively sensitive to the assumptions made and data values used. This is largely an empirical issue best assessed by experimenting with an actual system using actual data.
7. *Technical Background Paper to Expenditure Need: Equalization's Other Half*, available at: http://www.mowatcentre.ca/general/Gusen_technical_ExpenditureNeed.pdf.
8. This is analogous to the revenue side of Equalization looking at five groupings: personal income tax, business taxes, consumption taxes, natural resource revenues, property taxes.
9. It is not appropriate to consider debt charges when measuring expenditure need. Provinces choose to finance their expenditures either by paying for them out of current revenues or by borrowing. Debt charges are the consequence of choosing to borrow. Expenditure need should not provide financial incentives in the form of Equalization payments for particular policy choices, such as financing expenditures with debt rather than current revenues.
10. These expenditure areas are not true public services. Rather, benefits go to private individuals who have paid into the respective plans. Recall that the Constitution calls for Equalization payments to allow for “reasonably comparable public services.”
11. Combining social assistance and other social services into a single category and gauging disparities by a single indicator might give an inaccurate picture of the need of particular provinces. While actual spending is not the same as expenditure need, it is interesting to note that some provinces (e.g. Quebec) spend a below average per capita amount on social assistance and an above average amount on other social services. Other provinces (e.g. Ontario) show the opposite tendency.
12. The 1940 Rowell-Sirois Report (*Royal Commission on Dominion-Provincial Relations*), which pioneered the concept of equalization in Canada, called for a “National Adjustment Grant” system that would finance comparable spending in just a few areas—education, social, and certain development services. See Book II of the Commission’s Report—Recommendations, page 125.
13. It may be argued that these geographic factors are not a separate aspect of expenditure need but in fact reflect differences in either workload or costs. In some cases, however, it is difficult to assign geographic factors neatly to workload or cost. For example, there are different ways of compensating government workers for having to live in isolated posts. In one province it may be by providing their housing (with the attendant extra workload of acquiring or building such housing), while in another it may be by paying an isolation premium in their salary (showing up as extra cost). It seems artificial and unnecessary to force such geographic expenditure needs into one category or the other. In this paper, they are treated as a third aspect of expenditure need.
14. Statistics Canada does produce some related price indices, but these are not suitable for the job at hand. Its *Inter-city Index of Consumer Price Differentials* compares prices across provinces, but for a basket of goods and services that households purchase, not governments (see Statistics Canada 2010a, Consumer Price Index, Catalogue no. 62-001-X, December 2010, Table 15). Statistics Canada government price indices show how prices evolve over time, as op-

posed to showing how they differ from place to place in a particular year (see Statistics Canada 2010b, *Education Price Index* at: <http://www.statcan.gc.ca/daily-quotidien/050311/dq050311c-eng.htm>).

15. It is important to note even in this non-technical summary that as far as possible the price measures used are beyond the influence of provincial and local governments. For example, the cost of labour is measured by an all-industry wage index, not one for government employees alone.
16. Ultimately, it should be possible to construct separate price indices by spending area (e.g. an interprovincial price index for health, education, etc.). Each of these would be strongly influenced by wages, so in practice they may not differ too much from the overall index used here.
17. The Alberta government developed a sophisticated formula for funding its Regional Health Authorities (RHAs) based largely on age—*2007/2008 Regional Health Authority Global Funding Methodology and Funding Manual* at: <http://www.health.alberta.ca/documents/RHA-Funding-Manual-2007.pdf>. This formula serves as the guide for the approach followed here. Alberta eliminated its RHAs as of April 2009. Nevertheless, the funding process in place prior to that date still provides a good model for determining expenditure need in the healthcare area.
18. The information used here, and in the Alberta formula, is more detailed than in Table 3. Instead of seven age groups, 21 are used, with males and females distinguished for each age group.
19. Alberta's RHA funding formula provides information on how much higher costs are for members of these groups (see Alberta Funding Manual, page 10).
20. This modification adds 2.8 per cent to basic expenditure need in remote areas, a figure drawn from the Alberta formula where RHA funding is reallocated to reflect remoteness.
21. The extent of these immigrant and remoteness adjustments are determined by examining the Ontario Ministry of Education formula for funding school boards, which includes special allowances for students who do not speak English or French and for boards whose geographic circumstances make their students more difficult to serve (see Ontario Ministry of Education, 2009; 2011 at: <http://www.edu.gov.on.ca/eng/funding/1112/funding11.pdf>; <http://www.edu.gov.on.ca/eng/funding/0910/technical09.pdf>).
22. Income thresholds differ by province and locality, by family situation (single, families of different size) and according to other criteria such as disability or enrolment in education or training.
23. This should not be interpreted as saying that provinces “should” fill the aggregate low income gap with social assistance payments. Rather, the aggregate low income gap gives an impression of the relative prevalence and severity of low income, using a common metric among provinces.
24. Not all consumers of provincial and local other social services have low incomes. For example, government adoption services are more generally available. In Quebec, child care subsidies are universal. Provinces also differ with regard to income testing for some seniors and for disability benefits.
25. As mentioned in Table 1, a simplified version of Equalization has been used in this paper to focus attention on the unrestricted impact of introducing expenditure need. This \$15,964 million figure cited as the cost of a fiscal capacity Equalization system reflects this simplified system. The actual Equalization

payment figure announced in March 2011 for the year 2011-12 is \$14,659 million.

- The \$14,659 million figure reflects fiscal capacity indicators for 2007, 2008, and 2009, whereas the \$15,964 million in the paper uses only 2009 indicators.
 - The \$14,659 million figure incorporates the GDP growth restriction on total Equalization payments. The \$15,964 million figure does not.
 - Both the \$14,659 million and the \$15,964 million figures are affected by the Fiscal Capacity Cap, but its impact is different because of modifications to input data (see first bullet above).
 - An expenditure need augmented Equalization program could easily be designed to retain features of the current system like the three year weighted moving average for input data and the GDP growth cap.
26. Newfoundland and Labrador's situation would depend on how the Fiscal Capacity Cap was handled in the combined Equalization system. If the Fiscal Capacity Cap was modified to allow for negative Equalization entitlements on the revenue side, Newfoundland and Labrador would remain a non-receiving province.

ANNEX 1 CONVERTING EXPENDITURE NEED INDICATORS TO EQUALIZATION ENTITLEMENTS

Example Manitoba Health Care

Manitoba's health care expenditure need indicator is \$3,575 per capita (see Table 4).
 Manitoba's health care expenditure need entitlement is -\$28 million (see Table 11).
 How does \$3,575 become -\$28 million? (see below)

	MANITOBA	ALL PROVINCES
STEP 1. INDICATOR IN \$ PER CAPITA (TABLE 4)	\$3,575	\$3,598
STEP 2. POPULATION	1,219,600	33,610,600
STEP 3. INDICATOR IN \$ BILLION (= STEP 1 * STEP 2)		\$121 billion
STEP 4. EXPENDITURE (TABLE 2)		\$116 billion
STEP 5. NATIONAL AVERAGE EXPENDITURE RATE (= STEP 4 / STEP 3)		.958
STEP 6. EXPENDITURE @ NATIONAL AVERAGE RATE (= STEP 1 * STEP 5)	\$3,425 per capita	\$3,448 per capita
STEP 7. EXCESS/DEFICIENCY (= STEP 6 MANITOBA MINUS STEP 6 ALL PROVINCES)	-\$23 per capita	
STEP 8. EQUALIZATION ENTITLEMENT (= STEP 2 * STEP 7)	-\$28 million	

Source: Author's compilation (see Technical Background Paper).

ANNEX 2 CONTRIBUTION OF WORK LOAD, COSTS, AND GEOGRAPHIC CIRCUMSTANCES TO EXPENDITURE NEED

Provinces' expenditure needs differ due to variations in work loads (e.g. proportion of elderly residents), costs (e.g. wage rates for provincial and local employees), and geographic circumstances (e.g. proportion of residents remote from service centres). Each factor can make either a positive or negative contribution to a province's overall expenditure need, depending on whether the province's indicator of need is above or below the ten province average.

The table below reproduces from Table 11 the total Equalization entitlement from expenditure need for each province (first row) and converts it to dollars per capita terms for ease of comparison across provinces (second row). It then decomposes this per capita amount into contributions from work load, costs, and geographic circumstances factors (third, fourth, and fifth rows).

Expenditure need Equalization entitlements, total and contributions of work load, costs, and geographic circumstances

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
TOTAL (\$ MILLION)	310	-86	294	83	-3,117	822	-42	332	526	879
TOTAL (\$ PER CAPITA)	610	-611	313	110	-398	63	-35	323	143	197
CONTRIBUTION (\$ PER CAPITA)										
WORK LOAD	438	-83	643	287	-73	-7	74	222	-601	342
COSTS	-158	-696	-503	-378	-324	142	-258	-122	688	-103
GEOGRAPHIC CIRCUMSTANCES	329	168	173	201	-1	-71	149	223	57	-42

Source: Author's compilation (see Technical Background Paper).

Key observations:

- The relative contribution of the various factors differs from province to province. There is no single “major contributing factor.”
- Work load plays the largest role in three provinces—Newfoundland and Labrador, Nova Scotia, and BC.
 - Work load is also very important in Alberta where, unlike the three provinces mentioned above, it reduces expenditure need.

- Costs are the most important factor in six provinces.
 - New Brunswick, Quebec, Manitoba, and particularly PEI. The prices that provincial and local governments pay in these provinces are below the ten province average, thereby reducing expenditure need.
 - Ontario and Alberta, where above average costs for provincial and local governments raise expenditure need.

- Geographic circumstances contribute most to Saskatchewan's expenditure, just ahead of work load.
 - Geography is also a major factor in Newfoundland and Labrador and New Brunswick.

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