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ABSTRACT

This paper discusses the need for a school price index for Canadian schools rather than use of the current government expenditure index to measure price effects on school costs. It discusses four effects on the amount of money spent by school boards, namely, enrollment, quality of schooling, efficiency of use of resources, and current market prices. While enrollments are the driving force behind school costs, the real crisis lies in the decrease in financial support, the paper says. Thus the need to expose the true nature of school costs endorses the need for a specific, well-constructed school price index. The paper concludes that the continued imposition of austerity measures will result in an inferior school system. (Author/LD)

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THE AUSTERITY FAD
AND
CANADIAN SCHOOLS

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INTRODUCTION

Economy is nothing new to school trustees. Declining, or at best constant, levels of provincial support, together with reluctant and recalcitrant ratepayers conspire to make it more and more difficult to maintain desirable and expected standards in public schools. Unfortunately, there appears little improvement ahead. Brian Sharples (1978), in a presentation to this assembly last year, noted that "The continued increase in educational spending, despite a decline in enrolment, has provided a rallying point for many of education's critics." In addition to this, we appear to face a period wherein increased efficiency and enforced economies will dominate government budgets. The rallying cry of "restraint" is being voiced across the nation and having obvious political effect, as recent events bear witness. A recent edition of the Canadian Imperial Bank of Commerce *Commercial Newsletter* (1970) is indicative of the current mood. It maintains that "Proper control of government spending is ... of overriding importance," and claims that "The present juncture appears particularly favourable to slowing the rise of government spending because programs in many areas such as education and health have achieved many of their objectives."

These two forces, a widespread belief that school costs are continuing to escalate and that restraint in government spending is highly desirable, may well mean that enforced economies in public finance will be the coming fashion. Although this may be well justified at higher government levels, it would be inappropriate and quite probably disastrous if forced on school boards. Trustees do not have the financial options available to provincial and federal governments. They are required to always balance

budgets, they are restricted to a notoriously inelastic and saturated tax base and are heavily dependent on higher government for the bulk of their revenue. Furthermore, as every trustee knows who has endured marathon budget trimming meetings, school boards have been practising economy for some considerable time. Nevertheless, harder times may be ahead. The efficiency fashion in public finance could well become the austerity fad in the public schools.

UNDERSTANDING SCHOOL COSTS

In seeking to understand school costs, we can concentrate on either the amount of money spent by school boards or the drain on the resources of society which these monies entail. Each of these approaches will be taken in turn.

School Board Spending

There are perhaps four factors that affect the amount of money expended by school boards:

(1) Number of students. Enrolment provides the basic unit cost of school boards and trustees have very little control over numbers of students for all eligible members of the population must be accommodated. This means that public schooling will always be an expensive proposition for society at large. Enrolments may fluctuate with fertility and migration patterns, but the six to seventeen age cohort of the national population will always be large. Presently, the media, and many educators, seem obsessed with declining enrolments, but this is only a temporary phenomenon and could be well managed by competent administrators provided with adequate resources.

We should also remember that enrolments will likely begin to increase in the mid-eighties and that by 2001 there will be perhaps five to six million individuals between the ages of five and seventeen (Statistics Canada, 1979:108). This increase will certainly bring increases in costs, and if our schools are forced to endure the austerity fad in the years ahead, the costs will be that much greater.

(2) Quality. Numbers of students and the amount of education they receive define the quantity of schooling. Such things as variety and depth of program, ability of teachers, class size and the extent and efficiency of special service and support programs are all part of the quality of schooling. This is an area in which trustees may have the greatest possibilities to economise and it is the area where the austerity fad could wreak havoc. Some observers including the late Dr. Jackson (1978) have pointed to clear indicators of the effect on quality produced by current economies. Multi-grade classes, abandoned programs, twinned schools and the firing of special education teachers, may all spell a decreasing quality in our public schooling.

(3) Efficiency. The resources necessary for attaining required objectives need to be obtained and deployed in an effective and non-wasteful fashion. This is an administrative concern and trustees can best ensure efficiency of operation by employing competent administrators and clearly specifying the goals they are to pursue. There is probably little room for increased efficiencies in contemporary public school operations but we should be aware that efficiency is not necessarily attained by reducing budgets. Attempting to attain necessary objectives with overworked or insufficient resources is less efficient than adopting a realistic approach.

(4) Market prices. Both quality and efficiency are heavily dependent upon the prices that school boards have to pay in purchasing required goods and

TABLE 1

VISIBLE GROWTH IN EXPENDITURE BY CANADIAN
GOVERNMENTS AND GROWTH IN EXPENDITURE FOR

(1) Year	(2)	(3)	(4)	(5)	(6)
	Expenditures by governments (a) Megadollars	Growth from previous period %	Total elementary & secondary expenditures (b) Megadollars	Growth from previous period %	Schools as proptn. of govt. expenditures %
1978	96,415	12	11,574	7	12.0
1977	86,406	12	10,801	8	12.6
1976	77,121	13	10,004	19	13.0
1975	68,249	22	8,434	17	12.3
1974	55,961	24	7,191	14	12.9
1973	45,045	13	6,313	12	14.0
1972	39,738	13	5,625	5	14.2
1971	35,205	13	5,389	11	15.3
1970	31,148	15 (88) (c)	4,881	12 (103) (c)	15.7
1965	16,554	46	2,411	82	14.6
1960	11,380	52	1,328	97	11.7
1955	7,498	84	675	88	9.0
1950	4,030	-	359	-	8.8
Total growth:					
	1950-1978	2,261		3,123	
	1970-1978	210		137	

For sources, see references.

- Notes: (a) Expenditures of federal, provincial and municipal governments, including CPP but excluding inter governmental transfers.
 (b) Expenditures for federal, provincial and private schools from all sources
 (c) First figure is growth in 1969-1970. Figure in brackets is growth 1965-1970

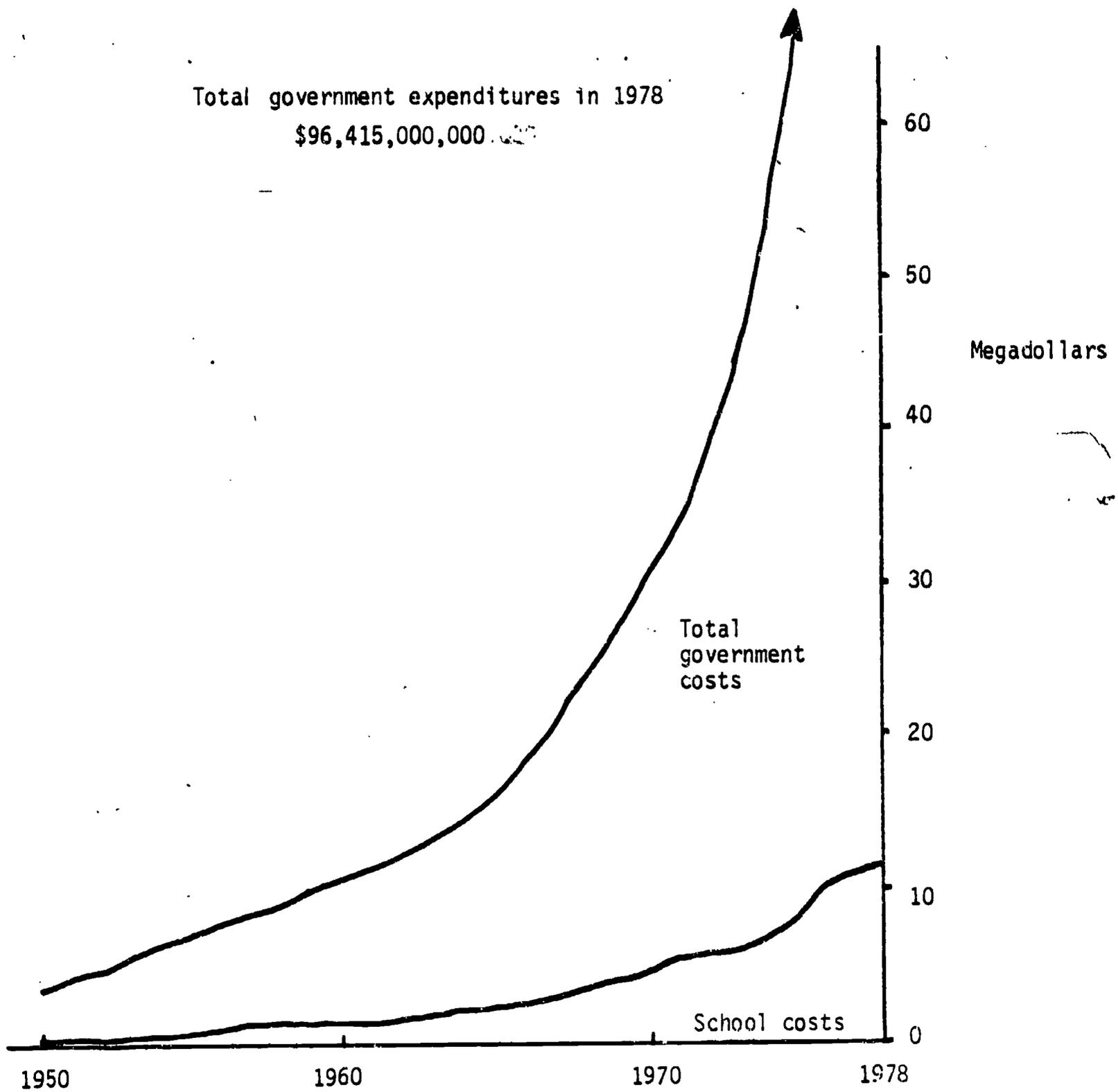
services. In this respect school boards are in a very poor position. In the first place, school boards purchase their resources within a market that is only partially free. They must purchase teaching services from among a restricted sector of the labour market: those persons who are qualified teachers. Furthermore, teacher associations ensure that salary levels rise more or less evenly within provinces and school trustees have little effective bargaining power. Nevertheless, teachers should not necessarily be cast as the villains of the piece. School boards must buy many commodities and services for which there are no substitutes or alternatives. Governments dictate text book lists, school buses must be leased, rented or bought and maintained in sufficient numbers and necessary supplies must be obtained from specialist suppliers. Admittedly, school boards can often enjoy bulk discounts and tax exemptions, but these are of little help over extended periods of time. Budgets are planned on the basis of past prices which include these advantages, and inflation ensures that most prices will rise before the next budget period.

To summarize, enrolments are the driving force behind school costs and prices directly affect quality and, to some extent, aspects of efficiency. With a given number of students and a set of objectives, school boards must buy a minimum set of goods and services. If the price of these resources rises faster than revenues, then quality must inevitably suffer once available economies have been effected.

Examining Increases in School Board Expenditures

The naive picture. Table 1 and the accompanying graph 1 present the commonly understood picture of school costs in Canada. The data sources





GRAPH 1

TOTAL GOVERNMENT AND ELEMENTARY-
SECONDARY SCHOOL EXPENDITURES 1950-1978

used for these and subsequent tabulations are not as specific as one could wish, as they include the expenditure for public, federal and private schools, but, as these latter two constituted 6.2 per cent of the total in 1975, (Statistics Canada, 1978a:12), they provide an acceptable representation of the costs of providing public schooling. The picture presented is one that is entirely familiar to us and others. School costs continue to increase each year and are currently running at over eleven billion dollars. However, this table does contain two suggestive items: school expenditures are increasing at a slower rate than those made by Canadian governments, and appear to have been decreasing over the last two years.

Nevertheless, Table 1 presents a naive image. It shows only gross costs and takes no account of quantity, quality, efficiency and price factors. Quality and efficiency factors are beyond measurement at this time, although we may guess at their impact. We can, however, control for quantity and estimate the impact of price increases.

Declining enrolments. Table 2 and the accompanying graph takes account of enrolment, although adjustments are ^{not} made for increases and decreases in school year, hours of instruction and other elements of quantity. The table appears to bear out the worst attacks of the critics. Per pupil costs are shown as increasing at double digit rates with a total percentage increase from 1970 to 1978 of 165%, while total enrolment declined over the same period by 10.5%. These data are those with which an austerity fad in our schools will likely be justified and they look convincing. Nevertheless, the gradual decrease in expenditure growth in the past two years, noted in Table 1, is again evident. These two tables represent gross expenditures by Canadian school boards and expenditures as adjusted by enrolment. We now need to account for

TABLE 2

VISIBLE EXPENDITURES PER PUPIL
ENROLED IN CANADIAN
ELEMENTARY AND SECONDARY SCHOOLS
1950-1978

(1) Year	(2) Total expenditures ^a Kilodollars	(3) Total enrolments ^a 000's	(4) Cost per pupil Dollars	(5) Growth per year %
1978	11,573,609	5,220.7	2,217	10
1977	10,800,603	5,351.5	2,018	11
1976	10,003,888	5,492.9	1,821	21
1975	8,433,773	5,590.3	1,509	18
1974	7,190,845	5,631.7	1,277	15
1973	6,312,881	5,679.7	1,112	14
1972	5,642,565	5,768.3	978	6
1971	5,393,823	5,822.6	926	11
1970	4,880,426	5,832.3	837	13(79) ^b
1965	2,410,798	5,159.6	467	48
1960	1,328,294	4,201.6	316	54
1955	674,446	3,295.3	205	48
1950	359,124	2,518.0	143	-
Total growth in percent from				
1950-1978	3,123%	107%	1,450%	
1970-1978	137%	-10.5%	165%	

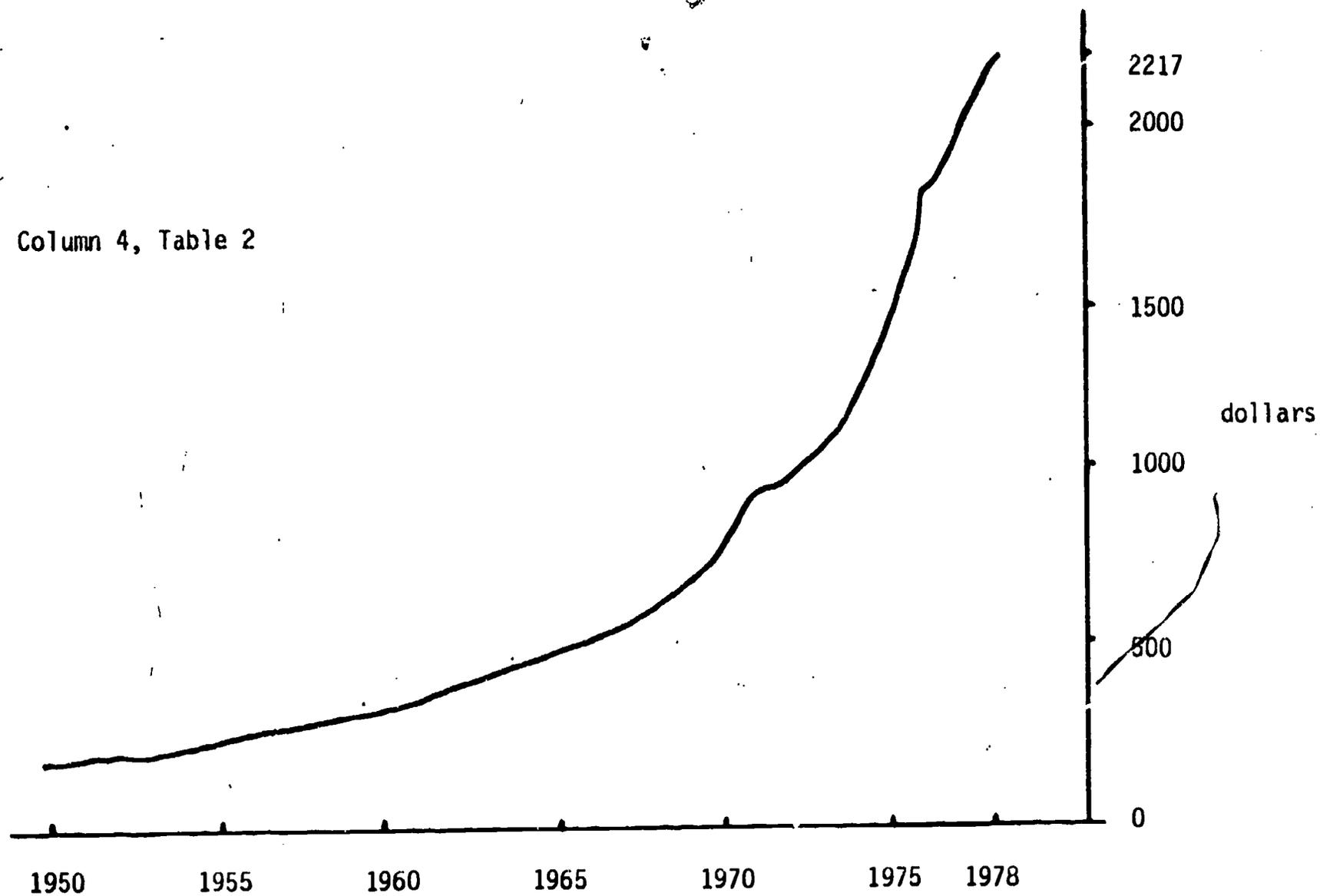
For sources, see references.

Notes:

a. Federal, provincial and private schools

b. First figure for 1969-1970; figure in brackets for 1965-1970

Source: Column 4, Table 2



GRAPH 2

PER PUPIL EXPENDITURE IN CANADIAN ELEMENTARY
AND SECONDARY SCHOOLS 1950-1978

increases in prices.

Inflation in Schools

Inflation is a widespread rise in prices which serves to lower the purchasing power of money within an economy. The most commonplace contemporary measure is the Consumer Price Index which does an excellent job of estimating the impact of rising prices on household budgets. But, inflation is a selective phenomenon affecting major sectors of the economy in a different manner. Nonetheless, the CPI can be used to deflate school board costs and take some account of rising prices. This is done in Table 3 which provides a vehicle for understanding the use and misuse of price indexes.

Deflating with the CPI. Table 3 deflates the visible cost of elementary and secondary schools by converting all per pupil amounts from Table 2 into "1971" consumer dollars. This is achieved by dividing the visible or "current" dollar figure by one hundredth of the CPI index number for the same year. The CPI, as shown in Table 3, provides a series of increasing numbers with 100 appearing for 1971. This means that 100 dollars in 1971 could purchase a "basket" of goods and services worth 100 dollars at that time. The index numbers for 1960 and 1978 are 74.3 and 175.2 respectively. This is interpreted as meaning that \$74.30 of paper money in 1960 would allow consumers to purchase the same amount and quality of things that could have been bought for \$100 in 1971, while \$175.20 would be required in 1978 to purchase this "basket" of commodities and services. We divide by one hundredth of the CPI index numbers because our per pupil costs are given in one dollar, rather than 100 dollar units.

Table 3 controls for enrolments and one measure of inflation and

TABLE 3

VISIBLE PER PUPIL COSTS DEFLATED
BY THE CONSUMER PRICE INDEX

(1) Year	(2) Visible per pupil cost	(3) CPI ^a 1971=100	(4) Deflated costs using CPI	(5) Adjusted growth
	\$	Index	1971 \$	%
1978	2 217	175.2	1 260	0.9
1977	2 018	160.8	1 255	2.6
1976	1 821	148.9	1 223	12.2
1975	1 509	138.5	1 090	6.7
1974	1 277	125.0	1 022	3.6
1973	1 112	112.7	987	5.8
1972	978	104.8	933	0.8
1971	926	100	926	7.6
1970	837	97.2	861	9.1 (49)
	(742)			
1965	467	80.5	580	36
1960	316	74.3	427	
<hr/>				
Total percentage growth				
1960-1978	602%	195%	Cumulative growth	
1970-1978	165%	47%	49.3%	

Notes:

a. This is the 'old' or 1967 basket of goods and services.

For sources, see references.

suggests that school costs are not as high as would appear from a naive appreciation. The increase in costs is shown as less than 1% between 1977-78. However, Table 3 also presents an inaccurate picture due to our use of the Consumer Price Index. This index is calculated by measuring the changes in price of a large number of goods and services *purchased by households*. These include items classified as food, housing, clothing, transportation, health and personal care and tobacco and alcohol. The list of items is highly detailed, with bacon, bread, butter and baked beans being some of the food items (Statistics Canada, 1978b). The price of items is weighted to reflect the proportion of a household's resources commonly devoted to purchasing these. The resulting index is thus an estimate of the rise in prices of those items included in the "basket" of commonly purchased consumer items.

It is obvious that school boards do not purchase the same goods and services that households do, and if they do, they purchase them in differing proportions and under different terms. Canadian school boards spent about 358 millions of dollars in 1975 on transportation, which was about five percent of their total expenditure (Statistics Canada, 1978a:69). Canadian households spent almost 16% of their resources on transportation in 1974 (Statistics Canada, 1978b:74) and not only do we have this disparity in proportions, but school boards enjoy economies of scale and advantageous price schedules that are denied to households, while families operate cars and school boards fleets of buses, a completely different proposition.

Inflation in schools. The CPI is quite unsuitable for estimating the impact of inflation on school boards. Trustees do not generally buy quantities of bacon, bread and beans, or tobacco and alcohol for their schools,

and families do not purchase teacher or administrator services. What is required is a specific educational, or even better, school price index, but, despite recommendations by the OECD examiners (1976:105) after their inspection of our educational system, and despite long range plans held by the Education Division of the Dominion Bureau of Statistics in 1967 (Atherton, 1968:7), such an index is not available. However, there have been a number of operational and scholarly studies of the effect of price increases on school boards which suggest how inflation could be better accounted for. Studies by Hirsch (1959), Vaizey (1958) and Atherton are particularly notable. Vaizey's (1958:63) study led him to conclude that "... educational prices shift in a way which is not necessarily the same as that of prices in general." Hirsch's study (1959:11) of educational costs in the United States over the 1900-1958 period suggests that "... over the 58 years an overall decline of about 3 percent was registered in terms of daily expenditure per pupil."

Atherton (1968:172) found that visible Alberta school expenditures rose by 146 percent between 1957 and 1965, but once enrolment was controlled and his especially prepared education price indexes were applied, then the real expenditure increase was in the order of thirteen to eighteen percent. In Atherton's (1968:173) words, his specially prepared indexes deflated school costs by demonstrating what "expenditures on operation would have been ... had enrolments and price levels remained at the 1957 level." Thus, he managed to control enrolment and inflation, two of the four cost components we have discussed, leaving the school increase in real expenditures to be attributed to changes in quality and management procedures. His price indexes were specially prepared to measure changes in the prices of goods and services bought by school boards during the 1957-65 period and weight these according to characteristic patterns of school board expenditure at that time.

It is interesting to note that while his school price index rose by 45 percent over the measured period, the CPI rose by only 14 percent in the same period. That is to say, while the price of purchasing a \$100 consumer basket of goods and services rose by \$13.70, the price of school resources rose by \$45.50 for each \$100. This is as strong an indictment of the use of the CPI to deflate school expenditure as I know of.

As mentioned previously, we do not possess appropriate school price indexes similar to those generated by Atherton. However, one of his (1968:156-9) many conclusions was that the "Implicit price index for current government expenditures is more appropriate" in estimating real cost increases incurred by school boards. This is logical for, of all the price indexes maintained by Statistics Canada, this above all others deals with the purchase of goods and services similar to those bought by school boards. Nevertheless, it should be noted that this index rose by 35 percent during the period studied by Atherton, while his education price index rose 46 percent. Thus, the Government Current Expenditures Index probably does not provide an acceptably accurate measure for our purposes, but it is the best currently available.

Deflating by the CGE index. The Current Government Expenditure (CGE) index is part of a series contained in estimates related to the National Accounts which combine to produce the GNP Implicit Price Index (IPI). Both of these have been used to deflate school costs in Table 4. The IPI gives a good measure of general inflation in the economy as a whole and when used to deflate school expenditures produces generally lower real costs than the CPI. This suggests that general inflation has been running slightly higher than consumer inflation. Column 4 in Table 4 tabulates the figures of most interest. These are visible per pupil school costs deflated by the CGE and these figures

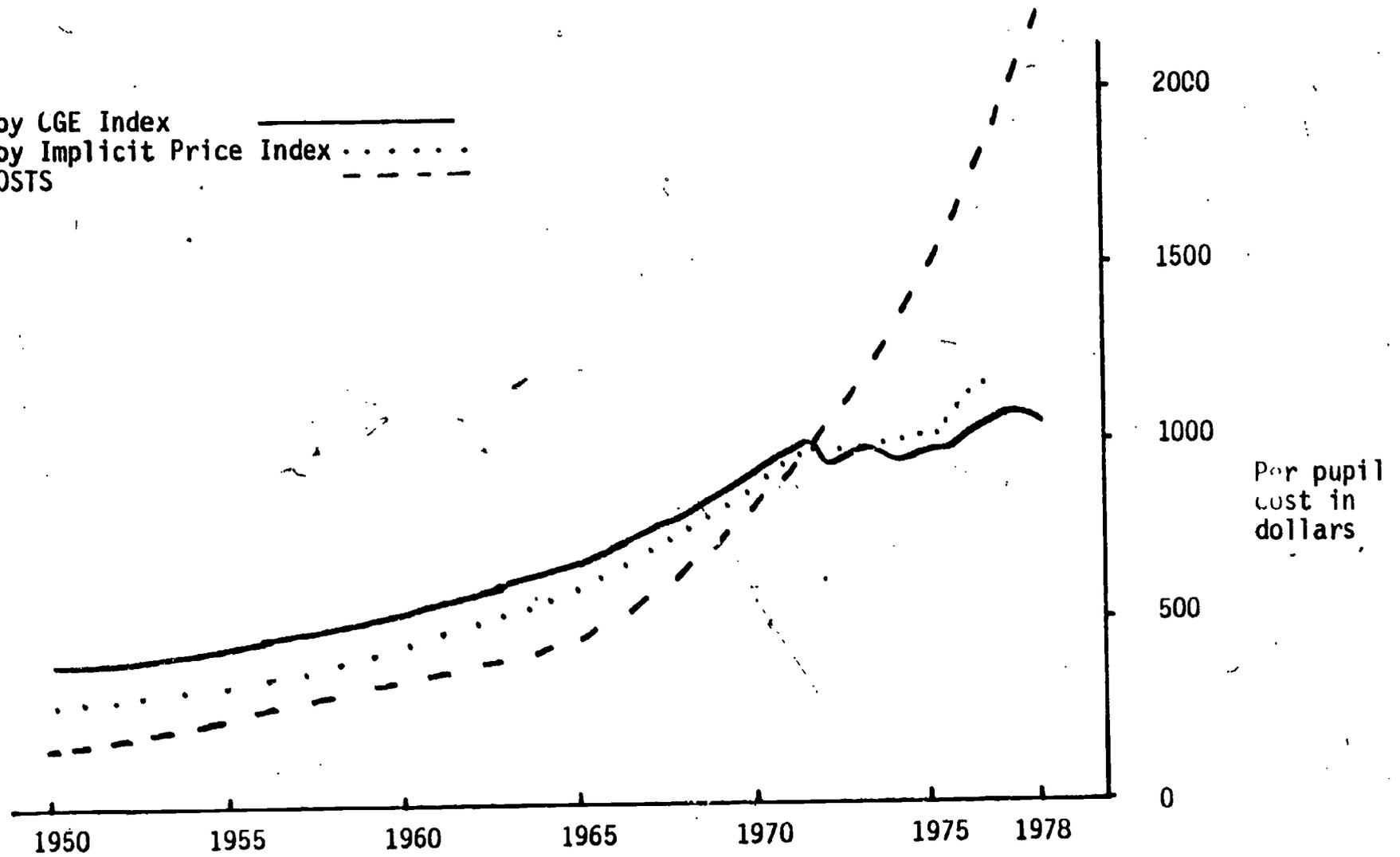
TABLE 4

VISIBLE PER PUPIL COSTS DEFLATED BY
GNP IMPLICIT PRICE INDEX AND
GOVERNMENT CURRENT EXPENDITURE INDEX

(1) Year	(2) Visible per pupil cost inflated \$	(3) Deflated by GNP IPI 1971 \$	(4) Deflated by GCEI 1971 \$	(5) Adjusted growth %
1978	2 217	1 212	1 050	- 1.6
1977	2 018	1 177	1 067	4.3
1975	1 821	1 135	1 023	5.6
1975	1 509	1 032	969	2.5
1974	1 277	967	945	- 1.1
1973	1 112	970	955	4.7
1972	978	932	912	- 1.5
1971	926	926	926	4.2
1970	837	864	889	6.6 (29.9)
1965	467	590	684	24.1
1960	316	438	551	24.1
1955	205	315	444	11.5
1950	143	261	398	
<hr/>				
Total growth:				
1950-1978	1450%	364%	164%	
1970-1978	165%	40%	18%	

For sources, see references.

Deflated by CGE Index —————
 Deflated by Implicit Price Index
 VISIBLE COSTS - - - - -



GRAPH 3
 VISIBLE AND REAL COSTS OF ELEMENTARY
 AND SECONDARY EDUCATION, IN CANADA 1950-1978

Source: Table 5

can be taken as providing a more accurate assessment of the real costs incurred by school boards. As can be seen, these figures suggest that the real cost of schools may have increased by only 18 percent over the 1970-78 period and eleven percent over the past five years. Furthermore, there are three years in which real school costs declined, including 1978.

It is stressed that these figures probably do not reflect the complete impact of rising prices on our schools. In reality, the impact has probably been higher and if we had a properly constructed School Price Index, then costs would likely show a steady decline over at least the last five or so years.

Summary. The CPI is a completely inappropriate deflator for estimating price increases borne by school boards and thus estimating real costs, for it is specifically concerned with non-school costs. The GNP-IPi also appears inappropriate by being too general. Special composite indexes such as that prepared by the Ontario Ministry of Education (OECD 1976:104) may be more appropriate but the findings of Boyle (1959), Hirsch (1959), Vaizey (1958), Wasserman (1963) and Atherton (1968) all argue strongly for special purpose indexes that take the actual price movements in schooling into direct account. Such analytical tools would also tell us much more about the impact of efficiency, quantity and quality cost factors in our schools. This strongly suggests that a properly developed and publicized index is urgently needed and the creation of such could be a worthwhile task from which both trustee and teacher groups, not to mention our young, could benefit. Furthermore, Table 3 helps to explain what has been happening in our schools over recent years. Real growth in school board expenditures has been modest or non-existent. This, coupled with re-organization brought about by declining enrolments has probably detrimentally affected school

quality. It could be the beginning of the austerity fad. Furthermore, we have presently examined only costs incurred by school boards. We turn now to the burden on society.

The Burden of Schooling

The previous pages concentrated on school board expenditures as one way of understanding school costs. In the remaining pages we deal with the overall financial costs to society, and once again we must take cognizance of inflation.

Costs to Society

A thorough account of social costs would deal with the opportunity costs of providing schools and take into account such things as the loss to our economic well-being that results from keeping youths in school who could be productively employed, or swelling the UIC rolls. The following analysis concentrates on only fiscal indicators. Three are particularly useful:

(1) Gross National Product, which is a measure of the total goods and services produced in our society and thus an indicator of total wealth; (2) Personal Income, which is an estimate of the total income received by households and thus an indication of wealth and the ability to pay taxes; and (3) Total Government Expenditure, which provides an indicator of the services provided by governments and can serve as a base for comparison with school costs.

Each of these indicators is of value in estimating the total burden of school costs to the nation as is indicated by Statistics Canada, which commonly compares schooling cost to these and other socio-economic indicators. However, we must be careful to make valid comparisons. Statistics Canada commonly uses current or visible dollar measures of GNP and personal income. In the

most recent detailed publication (Statistics Canada, 1978a:52-53) schools are shown as absorbing 5.1 percent of GNP in 1975, a slight decrease from 1970, which is when enrolments first began to decline. Elementary and secondary school expenditures are given as 6.2% of personal income in 1975, which is a decline of over one percent from 1970. All these figures are based on inflated values and require deflation to determine real costs.

The real burden of schooling. Table 5 and the accompanying graph shows the results of deflating the relevant indicators with appropriate measures of price increases. School costs are shown in inflated dollars and in terms of 1971 dollars, as yielded by the Current Government Expenditure Index. These amounts are then expressed as a proportion of an estimate of (1) real GNP, as deflated by the Implicit Price Indicator and published by the Department of Finance (1979), (2) government expenditure, as deflated by the CGE index, and (3) Personal Income as deflated by the CPI. In calculating these 'real' values, the price indexes used are those especially constructed for the task by Statistics Canada, except in the case of school costs, where the estimate provided by the CGE is the best obtainable as noted previously.

The results as given in columns 5, 7 and 8 are both impressive and consistent. In each case the share of real GNP and real Personal Income accorded to schools is shown as steadily declining since 1970 which was, of course, the year in which public elementary and secondary schools enrolled the largest number of students in their history (Statistics Canada, 1978c:31). The comparison with real government expenditures shows a similar picture with schools accounting for 15.8 percent of total government expenditures in 1971, and only 12 percent in 1978.

TABLE 5
DECREASE IN REAL BURDEN OF CANADIAN
SCHOOLING

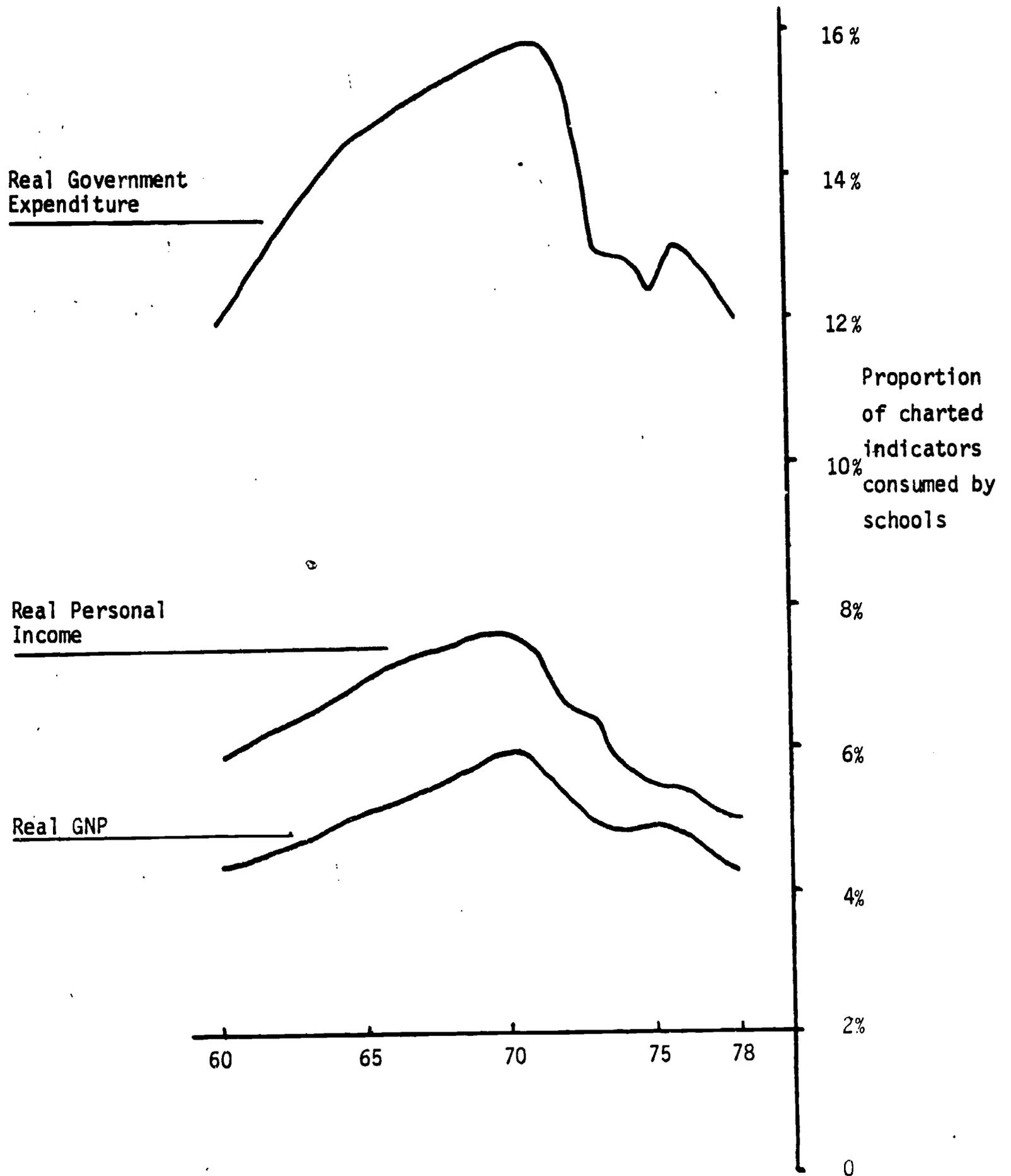
(1) Year	Total cost of E/S schools				Cost as a proportion of		
	(2) Visible	(3) growth	(4) Real	(5) growth	(6) Real GNP	(7) Real Govt. exp.	(8) Real P.I.
	Mega \$	%	1971 \$	%	1971 megadollars as base for comparison ^a		
1978	11 574	7.1	5 483	-1.0	4.3	12.0	5.0
1977	10 801	8.0	5 539	-1.4	4.5	12.5	5.2
1976	10 004	18.6	5 617	3.8	4.7	13.0	5.4
1975	8 434	17.3	5 413	1.7	4.9	12.4	5.5
1974	7 191	13.9	5 323	-1.9	4.8	12.9	5.7
1973	6 313	12.2	5 424	3.4	5.0	13.0	6.3
1972	5 625	3.3	5 247	-2.6	5.3	15.3	6.6
1971	5 389	10.4	5 389	4.0	5.7	15.8	7.3
1970	4 881	14.0 (103) ^b	5 182	7.7 (47) ^b	5.9	15.7	7.6
1965	2 411	81.6	3 535	53	5.1	14.6	6.9
1960	1 328	-	2 318		4.4	11.8	5.8
Total change:					Total change in percentage points:		
1960-1978					-0.1	-0.2	-0.8
1973-1978					-0.7	-2.0	-1.3

Notes:

a. Deflators: GNP - by GNP Implicit Price Index. Government Expenditure; Government Current Expenditure Index: Personal Income, C.P.I. See references.

b. Percentages in brackets for change over 1965-1970; 1970 change is from 1969-1970.

For sources, see references.



GRAPH 4

REAL BURDEN OF CANADIAN SCHOOLING 1960-78

2..

Source: Table 5

Conclusions

Austerity has its place in times of national emergency or economic depression. Despite the current tellers of doom, neither of these catastrophes is currently evident. There is no prospect of a major war and real GNP per capita continues to rise; but, the insensitive imposition of further enforced economies on school boards as part of a general program of government restraint could well produce stark and austere financial prospects for our schools. As has been shown here, rising prices have eaten the substance out of school revenues while school boards have apparently been practising greater restraint than their superior governments. Furthermore, the share of the nation's real resources devoted to schools has steadily declined since at least 1970. These observations suggest a number of conclusions.

Of prime importance is the over-riding need for a School Price Index for Canada and the provinces. The analyses presented here rest on the application of the Current Government Expenditure Index to deflate current school costs. Although the use of this index is strongly suggested by scholarly opinion and previous research, results can only be speculative and suspect. Both trustees and teachers could well consider cooperating in the development of a more appropriate measure.

While we lack a specific indicator for measuring price effects on school costs, this should not prevent trustees, teacher groups and other concerned persons from making the strongest representations in attempting to halt what could easily become the onset of an austerity fad in our schools. There are lower limits to possible economies which, if exceeded will extensively harm the quality, and possibly the viability, of our public school systems. The myth that declining enrolments is a crisis must be

exploded and the real crisis of evaporating financial support recognised. To do this, the myth of increasing school costs must also be dealt with. The figures in this paper may help, but they are mainly speculative, and the pressing need to expose the true nature of school costs endorses the need for a specific and well constructed School Price Index. Whether this should come to pass or not, trustees would do well to take the offensive against those who demand further restraint. Point to the already evident indicators of declining quality in some of our schools; argue strongly for the maintenance of established programs, which took so long to implement; seek and point out the flaws in the arguments and statistics with which your critics assail you; and above all strive to make wise and courageous decisions, even if these run counter to community pressures, for it is in your hands, more than any others, that the future of the nation is entrusted.

Finally, there is the assumption that schools have achieved their policy objective and are no longer important as they once were. In the introduction to this paper, reference was made to the CIBC *Commercial Letter* which suggested this view, and it was discussed more fully by Sharples (.978) at the First Congress. The 1976 census findings are interesting in this context. These data (Statistics Canada, 1978d) reveal that 4.4 million Canadians in the over 15 years age group, or 26 percent, have less than a grade nine education, and only eleven percent of this age group has a secondary graduation diploma. If our goal in operating public schools is to produce a well educated population, then there is much that remains to be done for, and in, the future. We, and our critics, must realise that the task of public education will endure as long as children continue to be born. While the mere establishment and staffing of a network of public schools may

constitute an operational goal that has been, or is almost, achieved, we will still need new schools in newly settled areas and will need to keep curricula adapted to the times and, above all, need to maintain our present school system and prevent its decay through public neglect and the imposition of austerity measures. There will be something in the order of five to six million school age children in Canada in 1999, which is twenty years from now. This will equal the school age population during the peak enrolment years of 1970-71. Will they have to face an inferior schooling system because of general neglect and financial support that continued to decline through the eighties?

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DATA SOURCES AND EXTENDED
NOTES FOR TABLES

Table 1

Column

- 2 Government expenditures. *Economic Review*. April 1979. page 183. Figures in megadollars (units of 1,000,000 dollars.)
- 3 Percentage change calculated from previous year in column 2.
- 4 1950-1969. *Historical Compendium of Educational Statistics*. (Statistics Canada, 1978c:183)
1970-1975. *Elementary-Secondary Education Statistics 1975-76* Statistics Canada, (1978a:45). 1976-1978 estimates taken from *Advance Statistics of Education*. Statistics Canada (1977:47)
- 5 Percentage change in column 4, calculated from previously tabulated year in table.
- 6 Column 4 figures as a percentage of column 2.

Table 2

Column

- 2 Same sources for column 4, Table 1, expressed in kilodollars, (units of 1,000 dollars).
- 3 1950-1975. *Historical Compendium of Education Statistics*. Statistics Canada (1978c:34).
1976-78 estimates from *Advance Statistics of Education 1975-76*. Statistics Canada (1977:38)
- 4 Column 2 divided by column 4. Note: adjusted per pupil costs for 1970-1976 are given in *Elementary-Secondary Education Financial Statistics, 1975-76*. Statistics Canada (1978a:98). These are lower than those given in this table due to adjustments to exclude adult education expenditures by school boards and by limitation to school board expenditures and enrolments.
- 5 Percentage change from previous year in column 4.

Table 3

Column

- 2 "Visible cost per pupil". These figures are transferred from column 4, Table 2 and represent per pupil expenditures on elementary and secondary schools in Canada adjusted for enrolment.

Column

- 3 Consumer Price Index, all items. *Economic Review*, April 1979. Department of Finance (1979:76).
1960 data from *Elementary and Secondary Education Financial Statistics, 1974-1975*. Statistics Canada (1978a:52)
- 4 Column 2 divided by $\frac{\text{CPI index}}{100}$.
- 5 Percentage change from previous year in column 4.

Table 4

Column

- 2 Visible per pupil cost transferred from Table 2, column 4.
- 3 Real cost in 1971 dollars as obtained by deflating with Gross National Product Implicit Price Index, as given in *Economic Review*, April 1979. Department of Finance (1979:174).
- 4 Real cost in 1971 dollars obtained by deflating with Government current expenditure on goods and services component of GNP-IPI, obtained from *ibid.*
- 5 Percentage change from previous year in column 4.

Table 5

Column

- 2 Transfers from Table 1, column 4.
- 3 Percent change from previous year in column 2.
- 4 Column 1 deflated by Government current expenditure index on goods and services, *Economic Review*, April 1978. Department of Finance, (1970:174).
- 5 Percent change from previous year in column 4.
- 6,7,8 Figures in these columns are obtained by dividing real cost of schools (column 2) into data series given in reference tables A, B and C.

REFERENCE TABLES

	A Real GNP	B Government Expenditure	C Personal Income
1971 Megadollars			
1978	126 676	45 673	108 869
1977	122 561	44 311	107 195
1976	119 394	43 302	104 948
1975	113 133	43 806	98 432
1974	111 678	41 422	93 494
1973	107 812	38 699	86 807
1972	100 248	37 069	79 930
1971	94 450	35 20F	74 092
1970	88 390	33 066	68 553
1969	86 225	30 591	65 680
1965	69 981	24 273	51 020
1960	53 231	19 860	39 832

Sources:

- A *Economic Review, April 1979*. Department of Finance (1979:127). These figures are National GNP deflated by the GNP Implicit Price Index.
- B Current government expenditures as given in Table 1, column 2, deflated by CGE (current government expenditure on goods and services price index) as given in *Economic Review, April 1979*. Department of Finance (1979:174).
- C Personal Income from *Economic Review, April 1979*. Department of Finance (1979:135), deflated by CPI as given in Table 3, column 3. Personal income represents the total before tax income according to all Canadian households in the given year.