



School Enrolment Is Down; Spending Is Up. What's Wrong With This Picture?

By Yvan Guillemette

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The aging of Canada's population in the coming decades will drive up the cost of many government programs, such as public health insurance and elderly benefits. In the area of primary and secondary education, though, the opposite should be true (Robson 2003). With a declining share of youngsters in the population, governments should be able to spend relatively less on their education and redirect resources to other programs. That reallocation of public funds should already be under way because in most provinces, kindergarten-to-grade 12 (K-12) enrolments have been falling significantly since the mid-1990s. With no corresponding decline in spending, however, falling enrolments have not freed up any margin in provincial budgets.

One cause of the phenomenon is that there are no mechanism to ensure that overall education budgets respond closely to changes in enrolment. Some budget envelopes are set as nominal global amounts — whatever was spent last year plus a given amount or percentage increase — amounts that are politically popular, while not reflecting variations in real funding requirements. For other parts of the budget, some education ministries simply add up budget recommendations from their local school boards as the basis for budgeting. Provinces that do make use of per-pupil formulas often use them to establish minimum levels of per-pupil expenditures to be met in a given year, which does nothing to constrain growth. In any case, many school boards are able to spend more than the prescribed minimum because they have access to the local property tax.

Effective use of per-pupil formulas for the bulk of primary and secondary education budgets would tailor expenditure changes to variations in the size of the student body. Any spending beyond the formula-set amounts should then be tied to explicit initiatives that have proven to enhance student achievement.

Because of modest enrolment growth in two large provinces, Alberta and Ontario, total K-12 enrolment for Canada as a whole declined only slightly between the 1996/1997 and the 2002/2003 school years. In the remaining provinces, however, enrolment fell by 10 percent on average over the eight-year period (Table 1). Total real (inflation-adjusted) spending in Ontario increased in line with enrolment, but in all other provinces spending either rose or fell less than

Table 1: *Total Enrolment and Real Expenditures* in Public Elementary and Secondary Schools between 1996-97 and 2004-05***

	Enrolment		Total Spending		Spending per pupil		
	Change from 1996-97 to 2004-05				1996-1997	2004-2005	Change
	<i>Percent</i>				<i>Dollars</i>		<i>Percent</i>
Canada	-1.6	11.3	7,221	8,165	13.1		
Newfoundland	-25.7	-7.9	6,302	7,807	23.9		
PEI	-8.5	34.0	5,608	8,212	46.4		
Nova Scotia	-11.4	4.9	6,026	7,136	18.4		
New Brunswick	-13.0	-4.8	7,430	8,122	9.3		
Quebec	-3.8	12.9	6,268	7,353	17.3		
Ontario	3.9	4.1	7,890	7,904	0.2		
Manitoba	-4.1	16.8	7,428	9,055	21.9		
Saskatchewan	-12.0	13.8	6,862	8,872	29.3		
Alberta	0.8	32.9	7,355	9,702	31.9		
British Columbia	-3.9	14.8	7,666	9,157	19.5		

Sources: François Nault (2004) *Summary public school indicators for the provinces and territories*, Statistics Canada Cat. No. 85-521 (no. 22), provincial economic accounts (CANSIM), provincial budgets and author's calculations.

* All figures based on constant 2004 dollars using provincial CPI inflation.

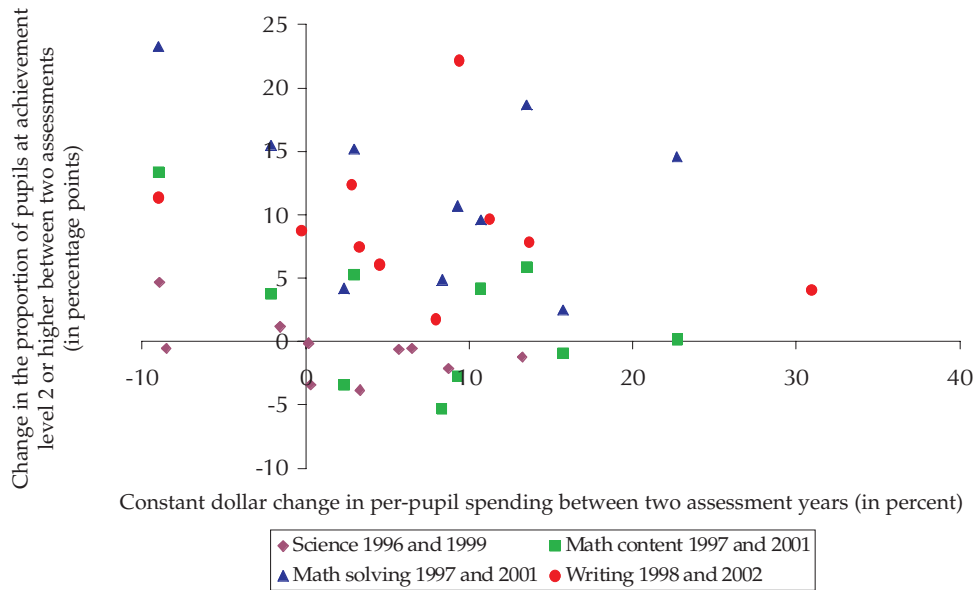
** 2004-05 figures are estimates.

Table 2: *Projection of Enrolment Growth in Public Elementary and Secondary Schools*

	2004-05 to 2008-09	2008-09 to 2012-13
	<i>% change</i>	
Canada	-4.0	-4.3
Newfoundland	-11.6	-9.4
PEI	-10.2	-11.0
Nova Scotia	-9.6	-9.3
New Brunswick	-8.1	-8.2
Quebec	-4.6	-6.3
Ontario	-1.7	-2.9
Manitoba	-4.6	-4.4
Saskatchewan	-8.0	-5.2
Alberta	-2.6	-0.9
British Columbia	-6.7	-5.8

Source: Author's calculations using the C.D. Howe Institute's demographic projection model.

Figure 1: Change in real K-12 per-pupil spending versus change in 13-year-olds SAIP student achievement by province



Sources: Provincial economic accounts (CANSIM), SAIP public reports and author's calculations.

enrolment. The bottom-line is an increase in real per-pupil spending in all provinces except Ontario. And the increases were substantial; in eight provinces real per-pupil spending rose by more than 15 percent over the eight-year period.

With no change in budget-setting practices, we can expect per-pupil funding to increase at a similar rate in the years ahead. In the next four school years to 2008/2009, K-12 enrolment is projected to drop by an average of 6.8 percent across provinces, and in the four years after that, by another 6.3 percent (Table 2). Thus, if provincial governments continue to increase nominal expenditures on primary and secondary education broadly in line with inflation, real per-pupil spending by province will rise by more than 12 percent on average, and by as much as 20 percent in the Atlantic Provinces, by 2012/2013. With per-pupil spending in Canada currently in the \$8,000 range, that amounts to spending an additional \$1,000 per child in only eight years.

Has the increase in spending so far produced better-educated children? If it has, the provinces that increased per-pupil spending the most in recent years should have seen the largest gains in student achievement.

Canadian experience since the mid-1990s, however, reveals no positive correlation between changes in per-pupil spending and improvements in student achievement on standardized tests. To illustrate, each dot on Figure 1 combines the change in the percentage of 13-year-olds in a given province who scored at achievement level two or above on a scale of five between two cycles of a particular test subject of the School Achievement Indicators Program (SAIP) and the increase in inflation-adjusted per-pupil spending in that same province between the two test years. Ontario, the only province where real per-pupil spending remained constant between 1996/1997 and 2004/2005, registered the largest gains in both science and mathematics scores and the third largest gain in writing scores, while P.E.I., with a 46-percent increase in per-student resources,

showed marginal changes in both science and mathematics results and only a modest gain in writing. Clearly, more money does not automatically equate to better student results. At current spending levels, how we spend is much more important than how much.

An extensive body of literature, summarized by Helen Raptis and Thomas Fleming in a 2003 C.D. Howe Institute Commentary, *Reframing Education: How To Create Effective Schools*, has identified class and school-level factors associated with improvements in learning. Among those are a strong school and classroom focus on academic achievement using specified curriculums and standards, as well as effective monitoring and assessment of how students perform against them.

Several studies have shown beneficial effects of standardized province-wide testing using curriculum-based exams and test scores that count toward the final grade. Some provinces, including Quebec and Alberta, have been testing both primary and secondary school students for a relatively long time. Others remain without such a system. They ought to invest in one.

Other critical factors in improving student achievement are school choice and competition. The three provinces with the consistently highest levels of student achievement — Alberta, Quebec and British Columbia — are also the ones that favour the greatest competition between independent and public schools (Hepburn and Van Belle 2003). Edmonton's initiative of offering as much school choice as possible within the public system itself has proven successful and is now in use in some U.S. jurisdictions, though few Canadian boards have adopted it.

In the last round of provincial budget-making in the spring of 2004 all provinces increased spending on education and announced plans to devote even more resources to elementary and secondary education in the years ahead. In this spring's budget cycles, provinces should recognize the steady increase in per-student dollars that their policy is producing and, for many, the lack of improvement in student outcomes they have to show for it.

To prevent demographic change from blindly increasing per-student spending even further, education ministries and school boards should enhance the role of per-pupil funding formulas in their budgetary framework so as to tie total spending closely to enrolment. Some provinces have shown that improving student achievement is entirely possible within current per-pupil spending levels. Those same provinces have established best practices in testing, school competition and school choice that the remaining provinces would be well advised to follow.

Reference

- Hepburn, Claudia R. and Robert Van Belle. 2003. "The Canadian Education Freedom Index." *Studies in Canadian Education Policy*. Vancouver: Fraser Institute.
- Raptis, Helen and Thomas Fleming. 2003. *Reframing Education: How To Create Effective Schools*. C.D. Howe Institute Commentary 188. Toronto: C.D. Howe Institute.
- Robson, William B.P. 2003. *Time and Money: The Fiscal Impact of Demographic Change in Canada*. C.D. Howe Institute Commentary 185. Toronto: C.D. Howe Institute.
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