

**A TALE OF TWO PROVINCES:  
WHO MAKES STRONGER VERTICAL EQUITY EFFORTS?**

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Policy makers in Ontario and Alberta provide financial assistance to disadvantaged students. Three special allocations in 2006–2007 school year for disadvantaged students in grades one to eight in the two provinces are compared to answer the question: Who makes stronger vertical equity efforts? The three compared allocations are: the allocation for special education students, for English as Second Language students, and for students from low socio-economic status families. Since stronger measures are needed for equal educational opportunity, measuring how strong vertical equity efforts are is a highly relevant topic. The results indicate that Ontario provides more assistance through these allocations. The answer to the question is, “Ontario makes stronger vertical equity efforts.”

**Introduction**

This study compares the elementary education funding formula in two Canadian provinces, Ontario and Alberta, with a focus on vertical equity from the students’ perspective. The author has studied and worked in Ontario for twelve years and is familiar with the Ontario funding formula. It is natural that Ontario is one of the two provinces being compared. Alberta is selected because it is more like Ontario with regard to education funding than any other province. Its funding mechanism is similar to Ontario’s in that funding is determined provincially according to a funding manual (Alberta Education, 2006).

The foundation allocation and three special allocations for disadvantaged students in grades one to eight for 2006–2007 in Ontario with those in Alberta are compared to ascertain which funding formula was more equitable. These grades were selected because the relevant information was available. In addition, there is a difference between the Ontario formula and the Alberta formula. In Ontario funding for students in grades one to eight is the same, but students in grades nine to twelve receive more funds. In Alberta funding for students in grades one to nine is the same, but students in grades ten to twelve receive more funds. Including all students in this comparison would make the study far more complicated.

### **Conceptual Framework**

The two most important issues in education finance are adequacy and equity. Both will continue to be an important part of policy and action agendas (Guthrie, 2006). For Canadians equity remains an important issue that attracts public notice and support (Lawton, 1996). With regard to equity, various measurements have been used, but the two most commonly discussed concepts are horizontal equity and vertical equity. The principle of horizontal equity suggests that governments should treat equals equally. The criterion of vertical equity refers to the determination of how to treat persons with different levels of well-being (Boadway & Kitchen, 1999).

Horizontal equity, as applied to education from the students' perspective, means that all students with similar learning needs are treated equally, regardless of their family status and wealth. Vertical equity, on the other hand, means that students with different learning needs are treated differently in such a way that they are able to achieve equal educational outcomes (Baker & Green, 2008). Since treating all students with similar needs in the same way is much easier

than looking at students with different needs, measuring how different their needs are, and deciding how much assistance is needed to help disadvantaged students achieve the required standards, efforts to establish a method of financial vertical equity for students are more difficult than those needed for horizontal equity (Garner, 2004).

Brimley and Garfield (2005) contend that if the funding gap between expenditures per pupil in high-poverty districts and low-poverty districts is smaller than 10 percent, then equity is within acceptable limits. Measured with this standard, seven Canadian provinces' elementary and secondary education funding can be considered equitable, since those seven determine their education funding provincially according to student enrolment, student characteristics, and school board characteristics, regardless of difference in local wealth. The other three provinces determine their education funding both provincially and locally. But in the provincial portion of funding there is always an equalizing grant to reduce the variations among school jurisdictions caused by local differences in wealth.

Equity in general means fairness. It does not necessarily mean equal. In terms of horizontal equity, it seems that Ontario is already equitable in funding elementary education, since all 72 school boards in the province are funded according to the same formula based on student enrolment, student characteristics, and board characteristics. Wealth neutrality has been achieved, at least from the provincial perspective. According to the formula, every student receives the same pupil foundation allocation. In addition, in 2006–2007, there were 13 other allocations determined by the provincial government according to different school boards' and students' characteristics. Of these 13 allocations, 1 was a provincial initiative to reduce class sizes, 8 were distributed according to boards' characteristics, 1 was for adult education, and 3 were based on students' characteristics (Ontario Ministry of Education, Spring 2006a).

School boards receive revenues from both the provincial government and their own municipal governments. However, municipal governments across Ontario provide the same percentage of their income to boards. This percentage is decided by the provincial finance minister; according to the funding formula, the balance is provided by the provincial government. In 2006–2007 across the province, municipal property tax accounted for about 36 percent of the funding for elementary and secondary education (L. Lowe from Ontario Ministry of Education, personal communication, April 8, 2008).

In Alberta the situation is somewhat similar. Funding for elementary and secondary education is provided from the provincial Alberta School Foundation Fund according to the number of eligible students, and local wealth has no impact on how much money school jurisdictions—called “divisions” or “districts”—receive from the Alberta School Foundation Fund. All revenues from property taxes for education are now deposited in the Alberta School Foundation Fund (Alberta Education, 2006). School divisions in Alberta receive the same amount of base funding for each eligible student in addition to other allocations to meet students’ and school divisions’ particular needs.

It seems that the two provinces have achieved horizontal equity at the provincial level. But what about vertical equity? As finance structures enable school jurisdictions to provide different educational services to students with special needs, vertical equity has emerged as a strong concern (King, Swanson & Sweetland, 2003). This is harder to achieve, because it is very difficult for people to agree on what different needs students have and how much assistance disadvantaged students require to achieve the desired learning outcomes. It costs more to educate students with disabilities, students from low-income families, and students from families where English is not the first language (Imazeki & Reschovsky, 2006). Policy makers in both Ontario

and Alberta recognize that it costs more to educate some students than others, and both provinces provide assistance to students who face challenging learning conditions. Since the assistance is there, the question is how much, and for how long, the assistance is provided to students with disadvantages.

This study attempts to answer the question: Which province makes stronger vertical equity efforts? The relationship between resources and outcomes is contentious, and the implications for the funding of schools are not straightforward (Belfield & Levin, 2002). No one has determined exactly how unequally those students with unequal needs should be treated (Brimley & Garfield, 2005). Since “stronger measures are needed if educational equality of opportunity is the goal” (Wilson, Lambright & Smeeding, 2006, p. 420), measuring how strong vertical equity efforts are is a highly relevant topic. It is useful to examine differences in funding mechanism components across jurisdictions with an emphasis on how they encourage equity (Neu, Peters & Taylor, 2002).

The comparison is made in the foundation allocation and three special allocations: the allocations for special needs students, for ESL students, and for students of low socio-economic status. These three allocations have been selected because they are the three most commonly considered equal-opportunity grants (Wilson, Lambright & Smeeding, 2006). In addition, among all the special allocations, these three are distributed entirely according to student characteristics.

### **Comparison and Results**

In 2006–2007 in Ontario, the pupil foundation allocation was \$3,744 for each student in grades one to eight (Ontario Ministry of Education, Spring 2006a). In Alberta the base funding was \$5,291 for each student in the same grades (Alberta Learning, 2006).

Clearly, Alberta (\$5,291) provided more base funding than Ontario did in pupil foundation allocation (\$3,744). Note, however, that most Canadians live in cities and that cost of living is higher in Ontario cities than in Alberta cities (National Association of Realtors, 2006).

The first comparison of special allocations regards the funding of special needs students. In Ontario, there was an enrolment-based special education amount (SEP) of \$623 per pupil, counting all students from junior kindergarten to grade three, and \$470 per pupil counting all students in grades four to eight.

In addition to SEP, the province provided special needs students with extra funding at four levels. The first level was the special equipment amount (SEA). In 2006–2007 the average elementary special equipment amount was \$6,608 for each claim approved by the Ministry of Education (J. Lewis from Ontario Ministry of Education, personal communication, May 16, 2008).

The second level was high needs amount (HNA). The average high needs amount was \$559 for each elementary student, counting all students (L. Lowe from Ontario Ministry of Education, personal communication, April 8, 2008). The third level was special incidence amount (SIA). A board received on average \$20,862 for each elementary special incidence claim approved by the Ministry of Education (author's calculation based on information provided by J. Lewis from Ontario Ministry of Education, personal communication, May 16, 2008).

The highest level was the facilities amount (FA) for each qualifying education program provided by a school board under an agreement with a facility. These facilities included psychiatric facilities, hospitals, and correctional institutions. In addition to the salaries and benefits for teachers and teacher assistants providing programs in a facility, for each teacher there was \$2,666 and for each teacher assistant \$1,302. There was also a furniture amount, with

the maximum being \$3,523 (Ontario Ministry of Education, Spring 2006a). A board received on average \$15,359 for each elementary facilities amount claim approved by the Ministry of Education in 2006–2007 (author’s calculation based on information provided by J. Lewis, Ontario Ministry of Education, personal communication, May 16, 2008). The actual average facilities amount was lower than the average special incidence amount, because some facilities amounts were for the whole school year, but others were for summer only.

The legislative grants for the 2006–2007 School Board Fiscal Year, Section 43, subsection 1, stipulate that “a district school board shall ensure that the amount it spends in the fiscal year on special education for pupils of the board is not less than the amount of the board’s special education allocation for the fiscal year.” Subsection 2 states that if a board’s net expenditure on special education is less than the amount required, “the board shall place the difference in the board’s special education reserve fund” (Ontario Ministry of Education, Spring 2006a). There have been times when the special education allocation has arrived at boards too late to be spent in the intended fiscal year.

In 2006–2007 Alberta provided students with special needs with two levels of extra support. School divisions received extra funding of \$2,241 for each child with mild or moderate disabilities in an early childhood service; this funding would be provided for a maximum of two years. School divisions received extra funding of \$15,292 for each student with severe disabilities (Alberta Education, 2006).

Ontario provided extra funding of \$6,608 for each approved special equipment amount claim, \$559 for each student in the high needs amount, \$20,862 for each approved special incidence claim, and \$15,359 for each approved facilities amount claim. This was in addition to SEP of \$623 per pupil from junior kindergarten to grade three, and \$470 per pupil in grades four

to eight. Alberta provided extra funding of \$2,241 for each child with mild or moderate disabilities in an early childhood service for a maximum of two years and \$15,292 for each student with severe disabilities. If we compare the extra funding for special needs students, it appears that Ontario provided more assistance. There is another difference between the two provinces: Ontario's legislative grants stipulated that the special education allocation could only be used for special education, whereas in the Alberta funding manual there was no such specification.

Over the past decade, on average, more than 200,000 immigrants have entered Canada every year. Among these immigrants the number of native English speakers has been declining over the past 25 years (Citizenship and Immigration Canada, Spring 2005). Most immigrants entering Canada today do not speak English as their first language. Canada received 251,649 immigrants in 2006 (Citizenship and Immigration Canada, 2007). Among these immigrants about one-fifth were school-age children between the ages of 4 and 18.

In 2006 Ontario was the destination of 125,914 immigrants, and Alberta received 20,717 immigrants (Citizenship and Immigration Canada, 2007). The school-age immigrants who did not speak English at home needed assistance in school to catch up with their Canadian-born peers academically. According to Cummins's research (2000), at least five years is typically required for students who do not speak English as their native tongue to catch up academically.

In 2006–2007 both provinces provided assistance to immigrant children who were considered English as Second Language (ESL) students, but there was a difference in the assistance. Ontario provided assistance to ESL students for four years. School boards received \$3,349 for each ESL student who was in the Ontario school system for the first time. Boards received 70 percent of \$3,349 for each ESL student in the system for the second year. They



received 50 percent of \$3,349 for each ESL student for the third year, and 25 percent of \$3,349 for each ESL student for the fourth year. If one totaled the 2006–2007 ESL funding for four years, the result would be \$8,205 for each ESL student. In addition to the above ESL allocation, another ESL amount was calculated based on Statistics Canada data on the number of children in each board whose language spoken most often at home was not English (Ontario Ministry of Education, Spring 2006a).

Alberta provides assistance to ESL students usually for three years, to a maximum of seven. The annual ESL amount was \$1,061 per eligible student in 2006–2007. That year from early childhood services to grade twelve the total number of ESL-funded students was 41,741. Of these 41,741 students, 11,451 (27%) were in their fourth year of ESL funding, 9,534 (23%) were in their fifth year of ESL funding, 5,391 (13%) were in their sixth year, and 4,640 (11%) were in their seventh year (B. Smith from Alberta Ministry of Education, personal communication, March 18, 2008). Even if a student was entitled to ESL funding for seven years, the school division would receive at most \$7,427 for that student.

It is obvious that Ontario (\$8,205) would provide more funding for each ESL student than Alberta (at most \$7,427). Note also that the gradually decreasing funding for four years in Ontario is more appropriate than the flat rate for three, or four, five, six, or even seven years in Alberta. It is reasonable to expect that as ESL students continue their studies, their English improves and less assistance is required.

Both Ontario and Alberta provide extra funding for students of low socio-economic status, and both use Statistics Canada's low-income cut-off, low parent education, and lone-parent information in determining assistance (Alberta Education, 2006; Ontario Ministry of Education, Spring 2006a, Spring 2006b). In Ontario, recent immigration status is another factor

considered, since Ontario receives more immigrants than all other provinces combined, and most immigrants tend to have low-income jobs (Statistics Canada, January 30, 2007).

In Ontario the extra funding is called the learning opportunities allocation. Calculations for this allocation are extremely complicated. It is impossible to calculate on average how much school boards receive for each student of low socio-economic status, because no such data exist. The learning opportunities allocation is provided mainly according to a demographic amount and a demographic factor. Both are calculated based on Statistics Canada's low-income cut-off, low parent education, lone-parent status, and immigration status information in areas covered by corresponding school boards. In 2006–2007 the demographic factor among school boards varied between 0.3807 and 0.0003. The higher the demographic factor, proportionately the greater a learning opportunities allocation a school board received. However, the determination of the allocation also considered other factors, such as literacy and numeracy assistance and student success.

Alberta also provides school divisions with money to help them assist students of low socio-economic status. This funding is provided according to a socio-economic status incidence rate. In 2006–2007 the incidence rate among school divisions varied between 1 and 0.128. The higher the incidence rate, the more a school division received from this particular fund. If a school division's incidence rate was 1, the division received \$424 extra for each student from the fund. If a division's incidence rate was 0, it received nothing from that fund.

To compare how much assistance each province provided, the author examined the demographic factor of the 72 school boards in Ontario, calculated the average demographic factor, and took out 11 boards that had an above-average demographic factor. Since the higher the demographic factor, the more a board received from the learning opportunities allocation, the

author considered these 11 boards to have received extra assistance from that allocation. The author divided the allocation these 11 boards received for 2006–2007 by their enrolment. On average, these 11 boards received \$285 extra assistance from the learning opportunities allocation for each student (Ontario Ministry of Education, 2006a, Summer 2007).

Turning to Alberta, the author examined the low socio-economic status incidence rate among the 76 school divisions and calculated the provincial average. He then took out 21 divisions that had a higher-than-average incidence rate. Since the higher the rate, the more a division received from the socio-economic status funding, the author considered these 21 divisions to have received extra financial assistance according to the funding manual. He calculated the average incidence rate for these 21 divisions. The average incidence rate of the 21 divisions was then multiplied by the socio-economic status funding rate of \$424. On average, these 21 divisions received about \$125 extra funding for each student (Alberta Education, 2006).

On average the 11 Ontario boards with an above-average demographic factor received \$285 extra assistance from the learning opportunities allocation for each student. On average the 21 Alberta divisions with an above-average incidence rate received about \$125 extra for each student. Either Ontario had a higher incidence rate of low socio-economic status students, or, on average Ontario provided more funding to each student of low socio-economic status. It is difficult to determine which is the case, because there are no statistics indicating the number of students of low socio-economic status in each province. In either event, proportionately Ontario provided more funding to students of low socio-economic status in 2006–2007.

Alberta's cost of living is lower than Ontario's, yet in 2006–2007 Alberta provided its students in grades one to eight with base funding of \$5,291—more than the \$3,744 Ontario provided through its pupil foundation allocation. However, when it came to providing assistance

to students with three selected disadvantages, the story was different. It seems that Ontario provided school boards with more assistance for special education students. For each ESL student, Ontario would provide school boards with \$8,205 on a sliding scale over four years. By contrast, Alberta provided school divisions with \$1,061 per year for each ESL student often for three years, with some for seven years receiving at most \$7,427. Clearly, Ontario provided more assistance to ESL students. Ontario also provided more assistance (\$285) than Alberta (\$125) in jurisdictions with more than average low socio-economic status families.

The following table displays the comparison results for 2006–2007:

	Foundation	Special education	Learning opportunities	ESL
Ontario	\$3,744	SEA \$6,608 HNA \$559/pupil SIA \$20,862 FA \$15,359 + SEP \$623/pupil, JK to grade 3 \$470/pupil, grades 4–8 Only used for special ed.	\$285/pupil	\$8,205 in 4 years + ESL amount
Alberta	\$5,291	Mild/moderate disabilities, \$2,241, maximum 2 years; Severe disabilities \$15,292	\$125/pupil	at most \$7,427 in 7 years

Sources: Ontario Ministry of Education, 2006a, 2006b, Summer 2007; Alberta Education, 2006; J. Lewis, pers. comm., May 16, 2008; B. Smith, pers. comm., March 18, 2008.

In summary, in 2006–2007, Ontario provided less than Alberta in the pupil foundation allocation but provided more assistance to students with disadvantages in three grants: special education allocation, ESL allocation, and learning opportunities allocation.

### **Discussion and Conclusion**

According to the Program for International Student Assessment, Canadian 15-year-olds are among the best in the world when it comes to mathematics, reading, and science. Alberta 15-year-olds are Canada's top-performing students (Statistics Canada, December, 2007). This study has found that in 2006–2007 school divisions in Alberta received more base funding than school boards in Ontario received through the pupil foundation allocation, even though the cost of living in Alberta was lower. Other things being equal, money matters. Is there a relationship between Alberta students' better performance than that of Ontario and Alberta's more generous base funding?

“It is not enough to simply have equity of expenditures and inputs; it is equally (and perhaps more) important to focus on equity of outcomes for all students” (Plecki, 2006, p. 170). To ensure equity of outcomes for all students, more support must be provided for some students. The special needs of children less prepared for school must be taken into greater account by school funding formulas (Wilson, Lambright & Smeeding, 2006).

This study compares the policies Ontario and Alberta have for meeting the needs of students in three categories. The findings indicate that in 2006–2007, for grades one to eight, Ontario made stronger efforts to bring equal learning opportunities to these disadvantaged students. In a report for Statistics Canada, Willms (2005) noted that the gap in reading performance between students from advantaged families and students from less advantaged

families is greater in Alberta than in Ontario. Do the differences between these two provinces relating to special allocations play a role in the differences in reading performance? With so many variables affecting students' learning outcomes, more comprehensive research needs to be conducted to test the findings of this study and to determine whether differences in special allocations play a role in students' performance.

In 2007–2008, Ontario and Alberta use the same funding formulas as in 2006–2007, with minor revisions (Alberta Education, 2007; Ontario Ministry of Education, Spring 2007). Since Ontario provides more assistance to disadvantaged students, can we say that the Ontario funding formula is more vertically equitable? The answer depends on how we define vertical equity. Wilson, Lambright and Smeeding (2006) believe that in the United States stronger measures are needed if equality of educational opportunities is the goal. Though there is less inequality in funding methods in Canada, Canadians also need stronger vertical equity measures, given the gap in performance between average students and disadvantaged ones (Willms, 2005). Would it be more vertically equitable to provide more assistance to disadvantaged students? If it is more equitable to provide more assistance to disadvantaged students for the purpose of narrowing the gap in performance, then the Ontario funding formula is more equitable.

Before the current funding formula was introduced in 1998, Ontario's elementary and secondary education funding model was a guaranteed tax-base grant plan in which local municipalities and the provincial government determined revenues for school boards (Lawton, 1996). Under that plan the grants from the provincial government had an equalizing effect; but there were significant differences in funding per pupil among different school boards owing to variations in wealth among municipalities. Since 1998, after the reform by the Progressive Conservative government of the day, education has been funded entirely according to a

provincial formula, under which the provincial government calculates how much funding each school board needs based on student enrolment, characteristics, and board characteristics.

Alberta's current funding formula was introduced in 1994, when the property tax was provincialized and deposited in the Alberta School Foundation Fund (Lawton, 1996). The funding system is based on a weighted-pupil model: an equal amount of base funding per eligible pupil from the Alberta School Foundation Fund is calculated, and all school divisions receive the same amount per eligible student. School divisions receive extra funding from the fund for special needs students, ESL students, and socio-economically disadvantaged students, all according to a weighting system.

It is worth noting that generally speaking, funding for elementary and secondary education in Canada is more equitable than in the United States, where there are still significant variations among school districts within each state. "The conflict in school finance is that equity in providing equal dollars per student has still not been attained in most states" (Brimley & Garfield, 2005, p. 64). It has been recommended that states play a greater role in funding education, but resistance to this is strong.

When the current funding formula was introduced in Ontario there was also very strong resistance. People who disagreed with the Conservative government saw at least three problems with the formula being implemented. First, overall funding to education was reduced. Second, one funding formula could not fit all school boards. Third, local autonomy was lost, which was undemocratic. The current Liberal provincial government, formed in October 2003, has invested more in education. According to the author's calculation, it has added \$2.85 billion to elementary and secondary education since 2003–2004—an increase of about 15 percent—even though enrolment has dropped approximately 1.6 percent since 2003–2004 (Ontario Ministry of

Education, Summer 2007). The consumer price index for Ontario indicates an increase of 11 percent from 2002 to August 2007 (Statistics Canada, September 19, 2007). People still debate whether the funding is adequate and whether one size can fit all, but there is less protest about lost local autonomy. It seems that no one can have both: local autonomy and funding equity across a province.

It is difficult to judge whether vertical equity has been achieved, but it is obvious that efforts have been made in both provinces to achieve it by providing extra funding to students with challenging conditions. It can also be stated that Ontario is doing more in three categories.

From the provincial perspective we can say that equity—both horizontal and vertical—has been achieved to a certain extent in Ontario. However, educators in Ontario point out that there is still inequity owing to the different abilities of school boards to raise funds from their communities. In 2005–2006, \$567 million—about 3 percent of the province’s education budget—was raised by school boards. Per student, Halton Public School Board raised more than double what Toronto Public School Board raised (People for Education, 2007). Also, within a single board some schools raise more money than others. As a consequence, schools that are better at fundraising have more money at their disposal. How do we deal with this inequity?

Some school boards in Ontario have noticed this difference in schools’ fundraising abilities. Several boards have asked schools to report the money they raise. It is to be expected that when school boards gather this information, they will do something with it. At this writing, it is difficult to predict what some boards will do to address inequities among schools in their jurisdictions. The author recommends that boards suggest to schools in wealthy communities that they voluntarily donate some of the monies they have raised to their boards, which will then distribute those funds to schools in poorer communities. The author also recommends that boards



set a percentage of the money that schools raise to be pooled at the board level for equal distribution among schools. The percentage should be decided by boards after consulting all schools, and it should be set at a level so that the negative impact on wealthier community schools is minimized. Boards and schools will decide whether these two recommendations are feasible. Similar recommendations relating to boards across the province could also be considered.

The 2007-2008 funding in the two provinces continues the policies discussed here. It is probably safe to say that this article has described patterns in providing assistance to disadvantaged students since 1998 and 1994, respectively. The answer to the question in the title is, Ontario has made stronger vertical equity efforts.

The issue of the strictness of student eligibility for special allocations is not dealt with in this study. The degree of assistance depends not only on the dollar amount but also on how students are classified. This is a limitation of the study. Future research needs to be conducted to make a more detailed comparison on this matter. Future research might also be conducted to establish a definition of vertical equity that can be accepted by most theorists, practitioners, and policy makers. An answer is needed for the question, How unequal is unequal enough?

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