From: John Richards and Parisa Mahboubi
To: Provincial Ministers of Education
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Re: Canada Has Three Other Education Problems in Addition to Teaching During the Pandemic

Once provincial governments, parents, and teachers decide how best to teach kids during the pandemic, here are three other problems to tackle. Although Canada continues to rank among the best OECD countries for quality of schools, learning outcomes have declined over the last two decades, the gap between top and lowest performing provinces has widened, and gaps between advantaged and disadvantaged students are large.

The OECD’s Program for International Student Assessment (PISA) has become a widely respected means to assess student outcomes in reading, mathematics, and science in national school systems at the upper secondary level. PISA also provides disaggregated results at the provincial level for Canada.

In each ‘round’, starting in 2000 and including the latest in 2018, Canadian schools have performed well above the relevant OECD PISA averages in all three subjects. Our schools are good—but there are weaknesses.

Since ‘benchmarking’ of grading in the 2000s, average scores among the original OECD countries have been relatively stable over successive rounds. On the other hand, Canadian PISA scores in all three subjects have experienced statistically significant declines since benchmarking. Benchmarking means that the average international student performance was set at 500 for each subject for the benchmarking year—2000 for ready, 2003 for math, and 2006 for science—to allow comparisons over time and across countries.

The largest decline has been in mathematics. Relative to the other provinces, Quebec is a positive outlier. One explanation is that Quebec’s mathematics curriculum is more rigorous and secondary level math teachers receive more intensive training than in other provinces. Another explanation may be that private schools are more prevalent in Quebec than in other provinces and private school students perform significantly better than their counterparts, mostly due to family supports. Nonetheless, Quebec public school scores are above the national average, outperforming all other provinces.

A second problem is that average PISA subject scores have consistently been lower in the six small provinces than in the four large provinces, and the gap between the two groups is slowly increasing. The most troubling trend in PISA scores is in Manitoba. In all three subjects, it has experienced the largest provincial declines since benchmarking.

Two probable explanations for lower small-province scores are inability to realize scale economies accessible by the large provinces and somewhat lower socio-economic conditions among participating students in the six small provinces.

The third problem is the equity gaps in the education system—gaps that are likely to widen due to the COVID-19 school closures. A country in which virtually all upper-secondary students can read, use mathematics, and understand science at a reasonably high level is likely to be more prosperous and enjoy more social trust than a country with the same average PISA scores but more polarized results in terms of socio-economic conditions. An implicit goal of Canadian education policy is not only achieving high average scores, but also minimizing the decline in outcomes among students as socio-economic conditions decline from advantaged to disadvantaged. Although Canada has more equitable outcomes than most other OECD countries, the Canadian difference in PISA scores between advantaged and disadvantaged students is still considerable and needs special attention.

An important dimension of equity policy is closing the gap between Indigenous and Non-Indigenous student scores. Based on fragmentary evidence, this gap is probably of similar size to that between advantaged students from the top quartile of students, ranked by family socio-economic characteristics, and disadvantaged students from the bottom quarter. Six of 10 provinces—the four western provinces plus two Atlantic provinces—agreed to add a voluntary question in the 2018 PISA round, inviting Indigenous students to self-identify. Despite availability of the identifier in six provinces, the agency responsible for administering the Canadian PISA sample decided not to release the Indigenous results, claiming they were “not representative.” Without explanation, it is hard to know what “not representative” means. The decision to withhold results flouts the fundamental rationale of PISA surveys, namely providing a better empirical foundation for discussion of education policy.

Provincial government goals should include both reversing declines in core subjects and targeting low-income and disadvantaged communities—including Indigenous students. Early childhood education and intense tutoring and mentoring among secondary-school students are programs worth funding—because they succeed. Provinces other than Quebec should also put greater emphasis on mathematics in teacher training, and consider adopting mathematics curricula akin to Quebec’s. Finally, smaller provinces, particularly Manitoba and Saskatchewan, can benefit from partnering with other more successful provinces, sharing curricula and encouraging their university education faculties to develop complementary specialties.

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