## SAVE OUR SCHOOLS

## **Education Research Brief**

## Groundbreaking Study Confirms Positive Impacts of Increased School Funding

At a time when the future funding of public schools is being determined by negotiations between the Commonwealth and state/territory governments, a groundbreaking new research paper shows that increasing funding for public schools has positive impacts on student achievement and attainment. Higher school funding, especially for disadvantaged schools increases student test scores, school completion, tertiary participation and improves equity in education. It also shows that capital funding has similar effects. The study shows that these effects are valid in a variety of circumstances and provide a reliable guide for policy makers.

The new research is published in the latest issue of the American Economic Journal: Applied Economics. Its lead author is Professor C. Kirabo Jackson of Northwestern University in Chicago who was recently appointed to President Biden's Council of Economic Advisors. Jackson is a leading scholar in what has become known as the "new literature" on school funding. A series of studies over the last ten years has demonstrated that money matters in education because of its positive effects on student achievement and attainment.

Despite these positive findings they have been dismissed by some policy makers because the studies vary in time, policy context, populations and locations. This new study makes an a very significant contribution to the existing literature by attempting to overcome these limitations and give policy makers a more reliable guide about the impacts of school expenditure. As Jackson and his co-author state:

We shed light on what range of policy impacts can be expected in a new context, and how marginal effects may differ by spending type, population, geography, and baseline spending levels.

It is the first study ever to undertake such a project and its findings are highly significant for policy making in different settings.

The study conducted a meta-analysis of 31 studies that have established causal effects between school expenditure and student outcomes to explore the distribution of these effects. It estimates the average impact of a US\$1000 increase in per-student school spending sustained over four years and the range of plausible impacts across settings.

The authors found that an increase in spending of US\$1000 per-student sustained over four years in an average setting would increases test scores by a small to moderate amount. They estimated that the impact would be positive 90 per cent of the time in different average settings. The spending increase would increase high school graduation by two percentage points and tertiary education participation by 2.8 percentage points. There would be positive effects over 97 per cent of the time.

The study also compared the size of the effect of the school spending increases with the impact of other educational polices. It concluded that the school spending impact on test scores is

equivalent to reducing class size by 1.8 students and that the impact on tertiary education participation is equivalent to reducing class size by between 10 and 7.3 students. The impacts are also similar to significant increases in teacher quality (0.26 and 3.4 standard deviations, respectively).

In benchmarking the effect of an increase in school spending against other policy interventions, the authors noted that the effect of school spending on completing high school and tertiary participation was twice as large as the effect on test scores. They said this suggests that just analysing the impact of school spending on test scores may understate the benefits of school spending.

As with many other studies, this study found significantly larger effects of increased school spending on achievement by low income students than for economically advantaged students, especially for high school completion and tertiary participation. It found that a US\$1000 increase in school spending would increase the test scores of low income students by double that of high income students. The impact on low income students is small to moderate increase in test scores. The spending increase would improve test scores for low income groups about 90 percent of the time but just over 70 percent of the time for non-low-income groups.

The difference in impact between income groups is even more pronounced for education attainment as the impact on the educational attainment is more than three times as large for low-income students than for non-low-income students. Low income students would see an increase 99 per cent of the time compared to 79 per cent of the time for non-low-income students. The spending increase would increase tertiary participation by two percentage points among low-income groups about 90 percent of the time, compared to less than 30 percent of the time for higher-income groups.

The study found similar impacts of the spending increase on students in both regional and urban city locations.

In another important new funding, the study also found no evidence of diminishing returns to school spending. It found similar effects on student achievement and attainment across a wide range of baseline spending levels. There is little evidence that the effects are smaller at higher levels of per student expenditure.

The evidence from previous studies on the impact of capital expenditure on student achievement is mixed. However, the authors of this study noted that most individual studies of capital spending are "under-powered" to detect the pooled effect which explains why the literature on capital spending appears mixed. In contrast, they found that the average effects on test scores of a similar increase in capital spending are smaller than those of non-capital-specific spending, but the difference was not statistically significant.

This is not just another "money matters" study that adds to over 30 studies during the last 15-20 years showing positive effects of increases in school funding. It is a study co-authored by one of the leading education economists in the world. It shows that money matters absolutely in a variety of circumstances. It matters in average settings, it matters in different locations, it matters at different funding levels and it matters whether it is recurrent or capital. Above all, it matters for low income students, with effects three times that for higher income students.

It is a study that education ministers in Australia should closely consider in their negotiation's over the next national school funding agreement. Low income students in Australia are four to five years of leaning behind their high income pers at age 15 and over 80 per cent of low income students attend public schools that are massively under-funded. Better recurrent and capital funding of public schools will make a difference to the lives of many, not to mention increasing work force skills, productivity and general economic prosperity.

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