

CMRE Research Digest 2016-04 (3)

Editor: Gabriel Heller Sahlgren



Table of Contents

Effects of Policy and Practice - Developed World Effects of Policy and Practice - Developing World General Education	1	
		7



Editor's Pick

Wealth, Health, and Child Development: Evidence from Administrative Data on Swedish Lottery Players

By: David Cesarini, Erik Lindqvist, Robert Östling, and Björn Wallace

Quarterly Journal of Economics (forthcoming)

Published version (free)

The correlation between family income and educational achievement is well established worldwide. This correlation is often interpreted in causal terms, leading to calls for income redistribution and other social policy interventions that could improve pupil outcomes. There is a limit, some argue, what education policy can achieve without social programmes that improve the broader life situation of youngsters.

However, the link between family income and educational achievement could be due to several 'unseen' variables that affect both pupils' socio-economic conditions and their achievement – including heritable factors – and it has been difficult to credibly establish that causality runs from the former to the latter.

In this paper, Cesarini et al. shed new light on the issue by studying lottery players in Sweden. Conditional on a couple of factors, which the authors observe and control for, prize winnings are randomly assigned, which gives them a unique opportunity to compare like for like. The lottery prizes are relatively high – 75% of them are in the range of between 1 and 40 Swedish median annual disposable incomes.

The authors analyse a range of outcomes of winning the lottery, including health among both adults and children, but, from an educational standpoint, the most interesting ones are grades and test scores at the age of 15 as well as cognitive and non-cognitive skills among males at the age of 18.

The results are striking. The correlation between family income and pupil outcomes entirely disappears when analysing the effect of winning the lottery. If anything, the effect is in fact marginally negative. This holds true both for children who were under nine years old and those who were older at the time of the win.

In other words, the authors provide causal evidence that the impact of income on pupil outcomes is in fact zero – and that the correlations generally observed are due to 'unseen' variables that generate both higher family income and pupil outcomes.



Lottery players are about 10 years older than the average Swede, but once adjusting for age, they are similar to a representative sample of the Swedish population in terms of baseline characteristics. It would therefore appear as if the results could be extrapolated to a larger population than just the lottery players, at least to similar developed countries with publicly-funded education systems.

Certainly, one could always argue that the windfalls were not large enough to improve pupil outcomes, or that they must occur very early in (or before) children's lives to generate higher achievement. This may of course be true. But this would also imply that social policy interventions and income redistribution, as methods to generate higher achievement, would be wasted as long as children are past a certain cut-off age.

Nevertheless, this is all speculation – anybody can play the God of the Gaps. Overall, the paper is a great example of how important good research design is to unveil causal effects in education research. Indeed, displaying results that fly in the face of much correlational and anecdotal evidence appears the only way to do so.



Effects of Policy and Practice – Developed World

The Effects of School Spending on Educational and Economic Outcomes: Evidence from School Finance Reforms

By: C. Kirabo Jackson, Rucker C. Johnson, and Claudia Persico

Quarterly Journal of Economics (February 2016)

Published version

Working paper version (free)

Since the Coleman Report, many have questioned whether public school spending affects student outcomes. The school finance reforms that began in the early 1970s and accelerated in the 1980s caused dramatic changes to the structure of K-12 education spending in the United States. To study the effect of these school finance reform-induced changes in public school spending on longrun adult outcomes, the authors link school spending and school finance reform data to detailed, nationally representative data on children born between 1955 and 1985 and followed through 2011. They use the timing of the passage of court-mandated reforms and their associated type of funding formula change as exogenous shifters of school spending, and compare the adult outcomes of cohorts that were differentially exposed to school finance reforms, depending on place and year of birth. Event study and instrumental variable models reveal that a 10% increase in per pupil spending each year for all 12 years of public school leads to 0.31 more completed years of education, about 7% higher wages, and a 3.2 percentage point reduction in the annual incidence of adult poverty; effects are much more pronounced for children from low-income families. Exogenous spending increases were associated with notable improvements in measured school inputs, including reductions in student-to-teacher ratios, increases in teacher salaries, and longer school years.

The effect of school starting age policy on crime: Evidence from U.S. microdata

By: John M. McAdams

Economics of Education Review (forthcoming)

Published version

Working paper version (free)



Does school starting age policy have an impact on the propensity of individuals to commit crime as adults? Using micro-data from the US Census, the author finds that a higher school starting age cut-off leads to lower rates of incarceration among both those directly affected by the laws and those only indirectly affected. However, the reduction in incarceration among those directly affected is smaller in magnitude, implying that the delay itself was harmful with respect to crime outcomes. These findings provide further support for early childhood interventions influencing future criminal activity.

Student Selection, Attrition, and Replacement in KIPP Middle Schools

By: Ira Nichols-Barrer, Philip Gleason, Brian Gill, and Christina Clark Tuttle

Educational Evaluation and Policy Analysis (March 2016)

Published version

Working paper version (free)

Sceptics of the KIPP (Knowledge Is Power Program) charter school network argue that these schools rely on selective admission, attrition, and replacement of students to produce positive achievement results. The authors investigate this using data covering 19 KIPP middle schools. On average, KIPP schools admit students disadvantaged in ways similar to other local students, and attrition patterns are typically no different at KIPP than at nearby schools. Unlike district schools, however, KIPP schools tend to replace students who exit with higher achieving students, and fewer students are replaced in the later years of middle school. Overall, KIPP's positive achievement impacts do not appear to be explained by advantages in the prior achievement of KIPP students, even when attrition and replacement patterns are taken into account.

Teacher Quality and Learning Outcomes in Kindergarten

By: M. Caridad Araujo, Pedro Carneiro, Yyannú Cruz-Aguayo, and Norbert Schady

Quarterly Journal of Economics (forthcoming)

Published version

Working paper version (free)

The authors assigned two cohorts of kindergarten students, totalling more than 24,000 children, to teachers within schools with a rule that is as-good-as-random. They collected data on children at the beginning of the school year, and



applied 12 tests of math, language and executive function (EF) at the end of the year. All teachers were filmed teaching for a full day, and the videos were coded using a well-known classroom observation tool, the Classroom Assessment Scoring System (or CLASS). We find substantial classroom effects: A one-standard deviation increase in classroom quality results in 0.11, 0.11, and 0.07 standard deviation higher test scores in language, math, and EF, respectively. Teacher behaviours, as measured by the CLASS, are associated with higher test scores. Parents recognise better teachers, but do not change their behaviours appreciably to take account of differences in teacher quality.



Effects of Policy and Practice – Developing World

Education as Liberation?

By: Willa Friedman, Michael Kremer, Edward Miguel, and Rebecca Thornton

Economica (January 2016)

Published version (free)

This paper studies the political and social impacts of increased education by utilising a randomized girls' merit scholarship programme in Kenya that raised test scores and secondary schooling. Consistent with the view that education empowers the disadvantaged to challenge authority, the authors find that the programme reduced the acceptance of domestic violence and political authority. Young women in programme schools also increased their objective political knowledge. They find that this rejection of the status quo did not translate into greater perceived political efficacy, community participation or voting intentions. Instead, there is suggestive evidence that the perceived legitimacy of political violence increased.

English Language Premium: Evidence from a Policy Experiment in India

By: Tanika Chakraborty and Shilpi Kapur Bakhsi

Economics of Education Review (February 2016)

Published version

Working paper version (free)

In this paper, the authors estimate the English premium in a globalising economy, by exploiting an exogenous language policy intervention in India that abolished teaching of English in public primary schools. The results indicate that a 10% lower probability of learning English in primary schools leads to a decline in weekly wages by 8%. On an average, this implies 26% lower wages for cohorts exposed to the policy change. They find supporting evidence that occupational choice played an important role in determining this wage-gap.



General Education

The Value of Postsecondary Credentials in the Labour Market: An Experimental Study

By: David J. Deming, Noam Yuchtman, Amira Abulafi, Claudia Goldin, and Lawrence F. Katz

American Economic Review (March 2016)

Published version (free)

The authors study employers' perceptions of the value of postsecondary degrees using a field experiment. They randomly assign the sector and selectivity of institutions to fictitious CVs and apply to real vacancy postings for business and health jobs on a large online job board. The authors find that a business bachelor's degree from a for-profit online institution is 22 per cent less likely to receive a call-back than one from a non-selective public institution. In applications to health jobs, we find that for-profit credentials receive fewer callbacks unless the job requires an external quality indicator such as an occupational license. (JEL I23, I26, J24, J44, J63, M51)

Gender differences in preferences for taking risk in college applications

By: Perihan Ozge Saygin

Economics of Education Review (forthcoming)

Published version

Working paper version (free)

College admissions in Turkey are based entirely on nationwide standardized test scores and standardised high school grades. Using detailed administrative data from the centralized system, the author studies the impact of gender differences in preferences on the allocation of students to colleges. Controlling for test score, high school grades, and high school attended, the author finds that females are more likely to apply to lower-ranking universities, whereas males set a higher bar, revealing a higher option value for retaking the test and applying again next year. These differences in willingness to be unassigned are also found to have implications for major choices.