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Editor: Gabriel Heller-Sahlgren

Table of Contents

Editor's Pick.....	1
Effects of Policy and Practice - Developed World.....	3
Effects of Policy and Practice - Developing World.....	5
General Education	7

Editor's Pick

Charter Schools and Labour Market Outcomes

By: Will S. Dobbie and Roland G. Fryer, Jr.

NBER Working Paper No. 22502 (August 2016)

[Published version](#)

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In the past couple of decades, the American charter school sector – comprising of autonomous schools similar to academies – has grown considerably. Today, about 5 percent of children in the US attend charter schools nationally, but there is considerable variation across states.

The best evidence on charter schools thus far appears mixed – while urban charter schools generate higher test scores, sub-urban charter schools appear to generate lower test scores. This difference, in turn, appears to be due to the prevalence of the No Excuse paradigm in the former schools – characterised by high behavioural expectations, strict discipline, and longer school days or years – and the more progressive approach that is often prevalent in the latter schools. Charter schools that employ the No Excuse paradigm have been found to improve test scores radically among disadvantaged children, and similar effect sizes have been obtained from injecting these practices into low-performing state schools. The No Excuse charter schools have also been found to raise university enrolment.

However, there is scant evidence on the longer-term effects of charter schools on labour market outcomes. In this paper, Will Dobbie and Roland Fryer seek to remedy this situation by analysing the effect of charter schools on test scores, longer-term educational outcomes, and labour market outcomes (at the age 24-26) in Texas. While the authors are not able to exploit admissions lotteries to obtain random variation in charter school attendance, they use other forms of non-experimental econometric techniques in order to tease out the causal effects.

The results are intriguing. While the authors find positive effects of No Excuse paradigm schools on test scores and university enrolment – which are especially pronounced among minority pupils – the impact on earnings and employment is small and not statistically significant. Meanwhile, regular charter schools have negative effects on both educational and labour market outcomes. In other words, whereas the negative regular charter school impact is apparent regardless of outcome studied (apart from employment where it is not statistically significant), the positive educational impact of No Excuse paradigm schools does not carry over to the labour market.

There are various potential reasons for these findings. One possibility is that No Excuse paradigm charter schools do not teach skills that are rewarded in the labour market, but only in the educational system. [Research](#) finds that there is little evidence of manipulation, such as teaching to the test, in similar charter schools elsewhere. This does not support the crowding-out theory, but the authors of this study cannot use a similar approach to study this issue due to the lack of data. Of course, No Excuse paradigm schools could also ignore certain subjects that may potentially be more valuable in the labour market, such as foreign languages, but the authors are not able to study whether or not this is the case with the available data either.

Nevertheless, it is also important to remember that the authors focus on early labour market success, which may mask a longer-term impact. This is a concern if, for example, pupils attending No Excuse paradigm schools are more likely to continue studying following their undergraduate education (for example to pursue medicine or law), which the authors do not investigate. When analysing labour market outcomes among people aged 28-30, which decreases the sample by over 50 per cent, the impact grows somewhat but is still statistically insignificant (and very imprecisely measured).

However, it may still take longer before the effects appear. For example, whereas smaller classes have been [found](#) to have no impact on earnings when pupils are 27 in America (despite having positive effects on university attainment), smaller classes have been [found](#) to have considerable positive effects in Sweden if they analyse individuals when they are 27-40 years old. Indeed, when analysing only outcomes at the age of 27, the Swedish researchers find no impact of class size on earnings either. This indicates that it may take longer before the positive educational effects of No Excuse paradigm charter schools spill over in the labour market.

Overall, therefore, the study provides an important first attempt to look at the labour-market effects of charter schools. While the authors do not provide an experimental evaluation, their method appears to capture causal effects reasonably well. Importantly, they provide evidence that regular non-hierarchical charter schools may in fact be harmful for both educational and labour-market outcomes. They also add to the evidence base indicating that hierarchical charter schools generate considerably higher educational outcomes – but also warn that they may not generate better labour-market outcomes. More research is necessary to determine what lays behind this finding and whether or not it can be detected elsewhere.

Effects of Policy and Practice – Developed World

Teacher Applicant Hiring and Teacher Performance: Evidence from DC Public Schools

By: Brian Jacob, Jonah E. Rockoff, Eric S. Taylor, Benjamin Lindy, and Rachel Rosen

NBER Working Paper No. 22054 (March 2016)

[Published version \(free\)](#)

Selecting more effective teachers among job applicants during the hiring process could be a highly cost-effective means of improving educational quality, but there is little research that links information gathered during the hiring process to subsequent teacher performance. The authors study the relationship among applicant characteristics, hiring outcomes, and teacher performance in the Washington DC Public Schools (DCPS). They take advantage of detailed data on a multi-stage application process, which includes written assessments, a personal interview, and sample lessons, as well as the annual evaluations of all DCPS teachers, based on multiple criteria. The authors identify a number of background characteristics (e.g., undergraduate grade point average) as well as screening measures (e.g., applicant performance on a mock teaching lesson) that strongly predict teacher effectiveness. Interestingly, they find that these measures are only weakly, if at all, associated with the likelihood of being hired, suggesting considerable scope for improving teacher quality through the hiring process.

Should We Increase Instruction Time in Low Achieving Schools? Evidence from Southern Italy

By: Erich Battistin and Elena Claudia Meroni

Economics of Education Review (December 2016)

[Published version \(free\)](#)

This paper investigates the short term effects of a large scale intervention, funded by the European Social Fund, which provides additional instruction time to selected classes of lower secondary schools in Southern Italy. Selection is addressed using institutional rules that regulate class formation: first year students are divided into groups distinguished by letters, they remain in the same group across grades at the school, and the composition of teachers assigned to groups is stable over time. Using a difference-in-differences strategy, the authors consider consecutive cohorts of first year students enrolled in the same group. They compare participating groups to non-participating groups

within the same school, as well as to groups in non-participating schools. They find that the intervention raised scores in mathematics for students from the least advantaged backgrounds. They also find that targeting the best students with extra activities in language comes at the cost of lowering performance in mathematics. They go beyond average effects, finding that the positive effect for mathematics is driven by larger effects for the best students.

Should Students Assessed as Needing Remedial Mathematics Take College-Level Quantitative Courses Instead? A Randomised Controlled Trial

By: A. W. Logue, Mari Watanabe-Rose, and Daniel Douglas

Educational Evaluation and Policy Analysis (September 2016)

[Published version](#)

[Working paper version \(free\)](#)

Many college students never take, or do not pass, required remedial mathematics courses theorised to increase college-level performance. Some colleges and states are therefore instituting policies allowing students to take college-level courses without first taking remedial courses. However, no experiments have compared the effectiveness of these approaches, and other data are mixed. The authors randomly assigned 907 students to (a) remedial elementary algebra, (b) that course with workshops, or (c) college-level statistics with workshops (co-requisite remediation). Students assigned to statistics passed at a rate 16 percentage points higher than those assigned to algebra ($p < .001$), and subsequently accumulated more credits. A majority of enrolled statistics students passed. Policies allowing students to take college-level instead of remedial quantitative courses can increase student success.

Effects of Policy and Practice – Developing World

Does Learning in Mother Tongue Matter? Evidence from a Natural Experiment in Ethiopia

By: Yared Said

Economics of Education Review (December 2016)

[Published version](#)

[Working paper version \(free\)](#)

This paper offers empirical evidence on whether learning in mother tongue improves educational outcomes in primary school. The author exploits the variation in changes in medium of instruction across schools located in different districts in Ethiopia following the 1994 education reform. This reform has provided opportunity for states in Ethiopia to choose the medium of instruction in primary schools located within their jurisdictions. Since the reform has affected only schools in some districts, but not in others, the authors assign children into *treatment* and *control* groups depending on whether the medium of instruction in the districts in which children live has changed following the reform. Using data from the 2% public-use microdata samples of the 1994 and 2007 Ethiopian population censuses as pre- and post-reform data, respectively, they estimate difference-in-differences models. The results from their preferred specification suggest that the 1994 education reform has increased the probabilities of both enrolment in primary school and whether a child attends the “right” grade for her/his age, and the effects are relatively stronger for kids in rural areas. Falsification tests suggest that the results are not confounded by other factors. This evidence supports the argument that mother-tongue instruction improves educational outcomes in primary school.

A Better Vision for Development: Eyeglasses and Academic Performance in Rural Primary Schools in China

By: Paul Glewwe, Albert Park, and Meng Zhao

Journal of Development Economics (September 2016)

[Published version](#)

[Working paper version \(free\)](#)

About 10% of primary school students in developing countries have poor vision, but very few of them wear glasses. Almost no research examines the impact of poor vision on school performance, and simple OLS estimates could be biased

because studying harder may adversely affects one's vision. This paper presents results from a randomized trial in Western China that offered free eyeglasses to rural primary school students. The authors preferred estimates, which exclude township pairs for which students in the control township were mistakenly provided eyeglasses, indicate that wearing eyeglasses for one academic year increased the average test scores of students with poor vision by 0.16 to 0.22 standard deviations, equivalent to 0.3 to 0.5 additional years of schooling. These estimates are averages across the two counties where the intervention was conducted. They also find that the benefits are greater for under-performing students. A simple cost-benefit analysis suggests very high economic returns to wearing eyeglasses, raising the question of why such investments are not made by most families. The authors find that girls are more likely to refuse free eyeglasses, and that parental lack of awareness of vision problems, mothers' education, and economic factors (expenditures per capita and price) significantly affect whether children wear eyeglasses in the absence of the intervention.

General Education

Field of Study, Earnings, and Self-Selection

By: Lars J. Kirkeboen, Edwin Leuven and Magne Mogstad

Quarterly Journal of Economics

[Published version \(free\)](#)

This article examines the labour market payoffs to different types of postsecondary education, including field and institution of study. Instrumental variables (IV) estimation of the payoff to choosing one type of education compared to another is made particularly challenging by individuals choosing between several types of education. Not only does identification require one instrument per alternative, but it is also necessary to deal with the issue that individuals who choose the same education may have different next-best alternatives. The authors address these difficulties using rich administrative data for Norway's postsecondary education system. A centralised admission process creates credible instruments from discontinuities that effectively randomize applicants near unpredictable admission cut-offs into different institutions and fields of study. The admission process also provides information on preferred and next-best alternatives from strategy-proof measures of individuals' ranking of institutions and fields. The results from our IV approach may be summarized with three broad conclusions. First, different fields of study have substantially different labour market payoffs, even after accounting for institution and peer quality. Second, the effect on earnings from attending a more selective institution tends to be relatively small compared to payoffs to field of study. Third, the estimated payoffs to field of study are consistent with individuals choosing fields in which they have a comparative advantage. Comparing the estimates to those obtained from other approaches highlights the importance of using instruments to correct for selection bias and information on individuals' ranking of institutions and fields to measure their preferred and next-best alternatives.

Time Preferences, Study Effort, and Academic Performance

By: Arjan Non and Dirk Tempelaar

Economics of Education Review (October 2016)

[Published version](#)

[Working paper version \(free\)](#)

The authors analyse the relation between time preferences, study effort, and academic performance among first-year business and economics students. Time preferences are measured by stated preferences for an immediate payment over larger delayed payments. Data on study efforts are derived from an electronic learning environment, which records the amount of time students are logged in, the number of exercises generated, and the fraction of topics completed. Another measure of study effort is participation in an online summer course. The authors find no statistically significant relationship between impatience and study effort. However, they do find that impatient students obtain lower grades and fail final exams more often, suggesting that impatient students are of lower unmeasured ability. Impatient students do not earn significantly fewer study credits, nor are they more likely to drop out as a result of earning fewer study credits than required.