

Session ASSA I: Child Outcomes (Chair: Le Wang, University of Oklahoma)

1. Alessandro Toppeta (UCL, alessandro.toppeta.15@ucl.ac.uk), "Skill Formation with Siblings"

Abstract

This paper studies how skills are formed in families with siblings during childhood when most children grow up with at least one sibling. I use data from the Millennium Cohort Study on the frequency of quality interactions between siblings, such as experiencing enjoyable time together, to measure the bond formed between them. This allows to open the black box of siblings' spillover and presents evidence that differences in the quality of the sibling bond are associated with persistent inequalities across households in the United Kingdom. I document a socio-economic gradient in the quality of the sibling bond and show that a stronger sibling bond at age 5 predicts better developmental, educational and health outcomes across adolescence. Building on this motivating evidence, I formalize the structural process of the joint production of skills in families with siblings and estimate the contribution of the sibling bond and parental investment to the formation of the younger and older sibling's skills. The structural estimates of the skill formation technology show that a high-quality bond between siblings matters over and beyond parental investment, contributing to the younger as well as the older sibling's development.

2. Osaretin Olurotimi (University of Wisconsin-Madison, Wisconsin, olurotimi@wisc.edu), "The Effect of Conflict on Children's Learning Outcomes: Evidence from Uganda"

Abstract

I estimate the effect of conflict on learning and schooling outcomes for children living in Uganda between 2010-2015. Using a difference-in-differences approach, I find that the Lord's Resistance Army's (LRA) activities in a neighborhood reduced learning outcomes in both math and English for the cohort of children exposed to armed conflict. Surprisingly, I find that exposure to LRA did not significantly affect other schooling outcomes, such as the probability of dropping out and being at the right age for a grade. Further, I find that the effect of conflict is worse those who were babies or in-utero when exposed to conflict. In addition, I provide evidence that a mechanism through which conflicts affect learning outcomes is neither physical disability nor school infrastructure, but teacher absenteeism. Results from this paper imply the need to distinguish between schooling and learning when measuring the effect of shocks on children.

3. Richard Cole Campbell (University of Illinois at Chicago, rcampb25@uic.edu), "Need for Speed: Fiber and Student Achievement"

Abstract

This paper studies the broad effects of the introduction of fiber broadband, through the lens of student achievement. I link granular data on new fiber con-

struction and advertised download speeds with administrative test score data and local labor market data. Exploiting variation in the introduction of fiber at the census block group level, I implement a difference-in-differences design and find a modest effect on educational outcomes, roughly on par with lowering class sizes by one student. In addition, I show fiber increases local employment and search intensity for supplementary educational materials (e.g., Khan Academy). Last, I show that increased competition from fiber providers drives quality improvements in other available technology.

4. Silvia Griselda (Bocconi University, silvia.griselda@unibocconi.it), "The Gender Gap in Math: What are we Measuring?"

Abstract

Standardized tests are widely used to compare and select students and candidates, and by policy-makers as measures of human capital. But, do differences in these tests reflect underlying differences in knowledge, or do such exams reinforce education inequalities? I employ data from the largest standardized test in the world, the PISA test, and reveal that the gender gaps in performance largely depend on the format of exams students are randomly allocated to. Exams with an additional 10 percentage points of multiple-choice questions increase women's under-performance in mathematics by 0.025 standard deviations and male under-performance in reading by 0.035 standard deviations. I document that multiple-choice questions create a cognitive load on students with a low level of self-efficacy, which affect students' level of effort and performance in subsequent parts of the exam.

5. Vinitha Rachel Varghese (University of Illinois Chicago, vvargh2@uic.edu), "Impact Of School Consolidation On Enrollment and Achievement: Evidence From India"

Abstract

I study the impact of school consolidation on enrollment and achievement, using its staggered roll out in the Indian state of Rajasthan. Across the years 2014, 2016 and 2017, Rajasthan merged many of its grade 1-5 schools to grade 6-10 schools to create grade 1-10 'model' schools. 23% of the government schools got eliminated in the process. Media reports suggested that consolidation led to declining enrollment levels and teacher layoffs. Combining the government orders on consolidation and administrative data on schools, I rule out that consolidation had a negative impact on enrollment or number of teachers. I find that consolidation decreased the number of schools in a village by one, increased the proportion of children studying in a school with a principal by 0.1 and increased the number of teachers in a village by 0.7. I also find that consolidation increased school enrollment in a village by 2%, in particular girls' enrollment by 2%. I further show that consolidation decreased the proportion of high scorers among grade 5 students by 0.08 and did not decrease the proportion of high scorers among grade 8 students by more than 0.02. School consolidation is a policy worth pursuing in contexts which are concerned about a large number of schools.