

Issue of 2021–02–08
ten papers chosen by
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1. The Globalization of Postsecondary Education: The Role of International Students in the US Higher Education System By [John Bound](#); [Breno Braga](#); [Gaurav Khanna](#); [Sarah Turner](#)
2. Ethnic Capital and Class Reproduction: Comparing the Impact of Socio-Economic Status on Children's Educational Attainment across Ethno-Religious Groups in Israel By [Miaari, Sami H.](#); [Khattab, Nabil](#); [Kraus, Vered](#); [Yonay, Yuval P.](#)
3. School Starting Age, Maternal Age at Birth, and Child Outcomes By [Fredriksson, Peter](#); [Huttunen, Kristiina](#); [Öckert, Björn](#)
4. Lead Exposure Reduces Academic Performance: Intensity, Duration, and Nutrition Matter By [Alex Hollingsworth](#); [Mike Huang](#); [Ivan J. Rudik](#); [Nicholas J. Sanders](#)
5. School indiscipline and crime By [Tony Beaton](#); [Michael P. Kidd](#); [Matteo Sandi](#)
6. A systematic review of statistical methods for estimating an education production function By [Ogundari, Kolawole](#)
7. Teaching in Times of COVID-19: Determinants of Teachers' Educational Technology Use By [Matthias Dincher](#); [Valentin Wagner](#)
8. How can a college's admissions policies help produce future business leaders? By [Kenjiro Hirata](#); [Shinpei Sano](#); [Katsuya Takii](#)
9. The Elephant in the Room: Why Transformative Education Must Address the Problem of Endless Exponential Economic Growth By [Chirag Dhara](#); [Vandana Singh](#)
10. Gender differences in tertiary education: what explains STEM participation? By [Sandra McNally](#)

1. The Globalization of Postsecondary Education: The Role of International Students in the US Higher Education System

By: [John Bound](#); [Breno Braga](#); [Gaurav Khanna](#); [Sarah Turner](#)

Abstract: In the four decades since 1980, US colleges and universities have seen the number of students from abroad quadruple. This rise in enrollment and degree attainment affects the global supply of highly educated workers, the flow of talent to the US labor market, and the financing of US higher education. Yet, the impacts are far from uniform, with

significant differences evident by level of study and type of institution. The determinants of foreign flows to US colleges and universities reflect both changes in student demand from abroad and the variation in market circumstances of colleges and universities, with visa policies serving a mediating role. The consequences of these market mechanisms impact global talent development, the resources of colleges and universities, and labor markets in the United States and countries sending students.

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2. Ethnic Capital and Class Reproduction: Comparing the Impact of Socio-Economic Status on Children's Educational Attainment across Ethno-Religious Groups in Israel

By: Miaari, Sami H. (Tel Aviv University); Khattab, Nabil (Doha Institute for Graduate Studies); Kraus, Vered (University of Haifa); Yonay, Yuval P. (University of Haifa)

Abstract: This article investigates the relationships between ethnicity, class, and prospects of educational success. For this purpose, we compared the effects of family socio-economic characteristics on children's educational attainment in four ethno-religious groups in Israel (Muslim, Christian, and Druze Palestinians; Jews). Information from the 1995 census on the households with at least one child born in the cohort of 1975-1985 is matched with Ministry of Education records on all those who achieved matriculation certificates and academic degrees between 1995 and 2012. The results show that the educational outcomes of Christian and Druze children are less dependent on their family characteristics compared to Muslim and Jewish children. We suggest that the disadvantage of Palestinian schools in a Jewish-dominated state is offset by the tougher competition Jewish children from disadvantaged strata face in schools attended by those from affluent strata. Family background is more important for academic degrees than for the matriculation certificate. Furthermore, the education and occupation of mothers and fathers both have an equally important impact on child outcomes.

Keywords: ethnic capital, class, inequality, educational attainment, Israel
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URL: <http://d.repec.org/n?u=RePEc:iza:izadps:dp14053&r=edu>

3. School Starting Age, Maternal Age at Birth, and Child Outcomes

By: Fredriksson, Peter (Uppsala University); Huttunen, Kristiina (Aalto University); Öckert, Björn (IFAU)

Abstract: This paper analyses the effects of maternal school starting age and maternal age-at-birth on children's short and long-term outcomes using Finnish register data. We exploit a school-starting-age rule for identification. Mothers who are born after the school entry cut-off give birth at higher age, but total fertility and earnings are unaffected. Being born after the cut-off reduces gestation and, hence, child birth weight. The effects on birth weight and gestation are rather small, however, suggesting that the long-run impacts are limited. Accordingly, we find no impacts on longer-term child outcomes, such as educational attainment and adolescent crime rates. Overall, we interpret this evidence as saying that there are no favorable effects of maternal age at birth on child outcomes.

Keywords: school starting age, fertility, maternal age, birth outcomes, education, crime

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4. Lead Exposure Reduces Academic Performance: Intensity, Duration, and Nutrition Matter

By: Alex Hollingsworth; Mike Huang; Ivan J. Rudik; Nicholas J. Sanders

Abstract: We leverage a natural experiment, where a large national automotive racing organization switched from leaded to unleaded fuel, to study how ambient lead exposure and nutrition impact learning in elementary school. The average race emitted more than 10 kilograms of lead — a quantity similar to the annual emissions of an airport or a median lead-emitting industrial facility in the United States. Increased levels and duration of exposure to lead negatively affect academic performance, shift the entire academic performance distribution, and negatively impact both younger and older children. We provide quasi-experimental evidence linking measured quantities of lead emissions to decreased test scores, information essential for policies addressing ambient lead and emission sources. Exposure to 10 additional kilograms of lead emissions reduces standardized test scores by 0.07 standard deviations. This corresponds to an average income reduction of \$9,000 per treated student in present value terms, an effect of similar magnitude as improving teacher value added by one standard deviation, reducing class size by 10 students, or increasing school spending per pupil by \$2,500. The marginal impacts of lead are larger in impoverished, non-white counties, and among students with greater duration of exposure, even after controlling for total exposure. Factors correlated with better nutrition — most notably consumption of calcium-rich foods like milk — help mitigate the link between lead exposure and reduced educational outcomes. These results show that improved child nutrition can help combat the negative effects of lead, addressing several prominent social issues including racial test gaps,

human capital formation across income groups, and disparities in regional environmental justice.

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Date: 2020–12

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5. School indiscipline and crime

By: Tony Beaton; Michael P. Kidd; Matteo Sandi

Abstract: This paper studies the impact of compulsory schooling on violent behaviour and victimization in school using individual-level administrative data matching education and criminal records from Queensland (Australia). Exploiting a legislative increase in the minimum dropout age in 2006, this study defines a series of regression-discontinuity specifications to show that compulsory schooling reduces crime but increases violent behaviour in school. While police records show that property and drugs offences decrease, education records indicate that violence and victimization in school increase. Thus, prior studies that fail to consider in-school behaviour may over-estimate the short-run crime-reducing impact of compulsory education.

Keywords: youth crime, minimum dropout age, school attendance

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Date: 2020–11

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6. A systematic review of statistical methods for estimating an education production function

By: Ogundari, Kolawole

Abstract: The quality of administrative or longitudinal data used in education research has always been an issue of concern since they are collected mainly for recording and reporting, rather than research. The advancement in computational techniques in statistics could help researchers navigate many of these concerns by identifying the statistical model that best fits this type of data for research. The paper provides a comprehensive review of the statistical methods important for estimating education production function to recognize this. The article also provides an extensive overview of empirical studies that used the techniques identified. We believe a systematic review of this nature provides an excellent resource for researchers and academicians in identifying critical statistical methods relevant to educational studies.

Keywords: Education, Production Function, Statistical Methods, Causal Analysis, Regression

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7. Teaching in Times of COVID-19: Determinants of Teachers' Educational Technology Use

By: Matthias Dincher (Johannes Gutenberg University); Valentin Wagner (Johannes Gutenberg University)
Abstract: We conduct a large and nationwide survey among German teachers to investigate the determinants of teachers' adaption to an increased use of educational technology during the COVID-19 school closures. We find that higher levels of technical affinity and higher perceived learning effectiveness of distance teaching are positively associated with using at least one (new) educational technology solution while teachers' age and the digital infrastructure of the school have no predictive power.
Keywords: School closures, educational technology, COVID-19, technical affinity
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Date: 2021-01-01
URL: <http://d.repec.org/n?u=RePEc:jgu:wpaper:2101&r=edu>

8. How can a college's admissions policies help produce future business leaders?

By: Kenjiro Hirata (Faculty of Economics, Kobe International University); Shinpei Sano (Graduate School of Economics, Kobe University); Katsuya Takii (Osaka School of International Public Policy, Osaka University)
Abstract: This paper examines the long run impacts of expanding the range of subjects in higher education admission examinations using a historical event, the reform of Japanese entrance examinations in 1979. Our results show that degree programs that are forced to increase the number of subjects increases the probability of graduates being appointed onto the board of directors of publicly traded companies despite reducing the measured average intellectual ability of students in the program. This suggests that by broadening the range of subjects, colleges can select students who can master a wide range of knowledge and transform them into future business leaders.
Keywords: Admission Policy, Business Leaders, Managerial Human Capital
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URL: <http://d.repec.org/n?u=RePEc:osp:wpaper:21e003&r=edu>

9. The Elephant in the Room: Why Transformative Education Must Address the Problem of Endless Exponential Economic Growth

By: Chirag Dhara; Vandana Singh

Abstract: A transformative approach to addressing complex social-environmental problems warrants reexamining our most fundamental assumptions about sustainability and progress, including the entrenched imperative for limitless economic growth. Our global resource footprint has grown in lock-step with GDP since the industrial revolution, spawning the climate and ecological crises. Faith that technology will eventually decouple resource use from GDP growth is pervasive, despite there being practically no empirical evidence of decoupling in any country. We argue that complete long-term decoupling is, in fact, well-nigh impossible for fundamental physical, mathematical, logical, pragmatic and behavioural reasons. We suggest that a crucial first step toward a transformative education is to acknowledge this incompatibility, and provide examples of where and how our arguments may be incorporated in education. More broadly, we propose that foregrounding SDG 12 with a functional definition of sustainability, and educating and upskilling students to this end, must be a necessary minimum goal of any transformative approach to sustainability education. Our aim is to provide a conceptual scaffolding around which learning frameworks may be developed to make room for diverse alternative paths to truly sustainable social-ecological cultures.

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10. Gender differences in tertiary education: what explains STEM participation?

By: Sandra McNally

Abstract: The share of women achieving tertiary education has increased rapidly over time and now exceeds that of men in most OECD countries. However, women are severely under-represented in maths-intensive science fields, which are generally referred to as STEM (science, technology, engineering, and maths). The under-representation of women in these subject areas has received a great deal of attention. This is because these fields are seen to be especially important for productivity and economic growth and are associated with occupations that have higher earnings. Subject of degree is an important part of the explanation for the gender wage gap. The aim of this paper is to review evidence on explanations for the STEM gap in tertiary education. This starts with statistics about background context and evidence on how well-prepared male and female students may be for studying STEM at a later stage. I then discuss what the literature has to say about the role of personal attributes: namely confidence, self-efficacy and competitiveness and the role of preferences and expectations. I go on to discuss features of the educational context thought to be important for influencing attributes and preferences (or mediating their effects): peers; teachers; role models; and curriculum.

I then briefly discuss broader cultural influences. I use the literature reviewed to discuss policy implications.

Keywords: STEM, gender gap, tertiary education

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