Jahrestagung

Bildungsökonomischer Ausschuss 2023
9./10. März 2023

Generalthema:
Bildung und Digitalisierung

Organisation:
Kerstin Schneider und Conny Wunsch

Tagungsort:
Sitzungszimmer S1 HG.31, Wirtschaftswissenschaftliche Fakultät, Universität Basel, Peter Merian-Weg 6, 4052 Basel, Wegbeschreibung: https://wwz.unibas.ch/de/fakultaet/kontakt/

Programm (Stand 23.02.2023)

Mittwoch, den 8. März 2023 ab 19 Uhr:

Informelles Treffen **im Restaurant Bundesbahn** https://www.bundesbaehnli.ch/

Donnerstag, den 9. März 2023

09:00 Uhr	**Begrüßung und Vorstellung Universität Basel** (Grußwort **Andrea Schenker-Wicki**, Rektorin der Universität Basel)
09:30 Uhr	**Camila Cygan-Rehm** *Lifetime Consequences of Lost Instructional Time in the Classroom: Evidence from Shortened School Years*
10:30 Uhr	Kaffeepause
10:45 Uhr	**Markus Nagler** *New evidence on the determinants of field of study choice*
11:45 Uhr	**Guido Neidhöfer** *Intergenerational Returns to Migration: Evidence from Italian Migrants Worldwide*
12:45 Uhr	Mittagspause
13:30 Uhr	**Keynote 1: David Schiller** *Mehr als die Summe seiner Teile: das erweiterte Potenzial von Bildungsdaten*
14:30 Uhr	**Keynote 2: Andreas Klausing** *Daten zum Bildungssystem Schweiz und technologischer Wandel*
15:30 Uhr	**Dissertationspreis**
15:50 Uhr	Kaffeepause

16:10 Uhr	**Mitgliederversammlung**
18:00-19:00 Uhr	**Stadtführung** Treffpunkt vor der Barfüsserkirche (Barfüsserplatz) Max. 20 Personen, Anmeldung bis Ende Februar erforderlich
19:30 Uhr	**Abendessen** im Restaurant Steinbock auf eigene Kosten https://www.restaurantsteinbock.ch

Freitag, den 10. März 2023

09:00 Uhr	***Fabian Kosse*** *Digital Skills: Socioeconomic Differences and Social Inequality*
09:45 Uhr	**Ulf Zölitz** *Digitalizing Higher Education – The Impact of Shifting Education Online on Students' Performance and University Experience*
10:30 Uhr	**Poster Session/**Kaffee
11:30 Uhr	**Katarina Werner** *Does knowledge about the substitutability potential of jobs affect worker's labor market expectations?*
12:15 Uhr	**Frauke Peter** *A Library in the Palm of your Hand? Inequalities in Reading Literacy and Educational Attainment*
13:00 Uhr	Verabschiedung

Keynote 1: David Schiller

David Schiller ist seit März 2019 als Dozent für Dateninfrastrukturen und betriebliches Datenmanagement im Institut für Informationswissenschaft an der FH Graubünden tätig. Nach seinem Studium war er in den Bereichen «Data Warehouse» und «Methoden» des Nationalen Bildungspanels an der Universität Bamberg tätig. Von dort wechselte er zum Forschungsdatenzentrum der Bundesagentur für Arbeit im Institut für Arbeitsmarkt- und Berufsforschung, wo er in internationalen Projekten für die Konzeptionierung und Weiterentwicklung von Infrastrukturen für die Sozialwissenschaften zuständig war. Anschließend war er bei GESIS – Leibniz Institut für Sozialwissenschaften im «Datenarchiv für Sozialwissenschaften» Bereich «Data Linking and Data Security» sowie bei «Survey Design and Methodology» Bereich «Survey Operations» beschäftigt. Seit 2020 leitet er operativ das Projekt „*Mehr als die Summe seiner Teile: das erweiterte Potenzial von Bildungsdaten*".

Keynote 2: Andreas Klausing

Andreas Klausing ist Mitglied der Geschäftsleitung von Educa, der Fachagentur für den digitalen Bildungsraum Schweiz. Educa wird durch das Staatssekretariat für Bildung, Forschung und Innovation (SBFI) und die Schweizerische Konferenz der kantonalen Erziehungsdirektoren (EDK) getragen. Sein besonderes Interesse gilt dem Wandel der Governance-Strukturen des Bildungssystems Schweiz aufgrund digitaler Transformation. Zuvor hat er u.a. die Geschäfte der PISA-Studien der OECD in der Schweiz geleitet und war Beauftragter für Digitalisierung der Schweizerischen Konferenz der kantonalen Erziehungsdirektoren (EDK). Er hat in Zürich und Toulouse Soziologie und Politologie studiert.

Abstracts der Vorträge

(Vortragende sind hervorgehoben)

Camila Cygan-Rehm

Lifetime Consequences of Lost Instructional Time in the classroom: Evidence from Shortened School Years

This study estimates the lifetime effects of lost instructional time in the classroom on labor market performance. For identification, I use historical shifts in the school year schedule in Germany, which substantially shortened the duration of the affected school years with no adjustments in the core curriculum. The loss in-school instruction was mainly compensated for by assigning additional homework. Applying a difference-in-differences design to social security records, I find adverse effects of the policy on earnings and employment over nearly the entire occupational career. Unfavorable impacts on human capital are a plausible mechanism behind the deteriorated labor market outcomes.

Markus Nagl*er*

New Evidence on the Determinants of Field of Study Choice

We investigate field of study choice across groups in a large German university. We elicit preferences and personality traits, information about study motives, expected earnings and amenities, and perceived relative ability for 50-60% of students from consecutive entering cohorts and merge this information to students' administrative data. Preliminary results suggest that ability, traits, and expectations if anything only partially explain differences between men and women and between high- and low-SES students, with differences in preferences likely playing a substantial role. We will link this data to administrative data on students' academic achievement and to administrative labor market data in the future.

Guido Neidhöfer

Intergenerational Returns to Migration: Evidence from Italian Migrants Worldwide

The main rational motivation understood to be behind migration decisions is to improve opportunities and future life chances, both for the migrants themselves and for their offspring. Using unique administrative data on Italians living abroad, we estimate the effect of parental migration on the education, employment and income opportunities of descendants in the host country, by comparing Italian second-generation immigrants with Italians residing in Italy having similar characteristics, such as age, sex, Italian region of origin and parental background. To account for self-selection on unobservable characteristics, we apply a multinomial selection bias correction framework. We find heterogeneous returns to migration across destination countries, higher returns in terms of estimated income than education, and observe important gender differences. These heterogeneities are associated with certain characteristics of the host country's education system and labour market. Finally, we test whether the expectations of better opportunities for both migrants and their children indeed play an important role for the migration choice.

Tim Leffler, Arna Wommel, **Fabian Kosse**

Digital Skills: Socioeconomic Differences and Social Inequality

With the technological transformation of the economy, digital skills are becoming a key labor requirement for the future workforce. While their labor market returns are already dramatically surging today - as demonstrated by recent empirical evidence on associated increases in employment possibilities and wage premia - their significance for labor market success is expected to accelerate even further in the near future, particularly affecting job prospects for today's younger generations. As a growing human capital, digital skills can be positively transformative for some young people, in terms of their career, education and social life, though they can be a crucial marker of disadvantage for those without them. Despite these concerns, to date, there is no comprehensive study systematically measuring the level of digital skills, along with their socioeconomic determinants and consequences, in the German context.

In this study, we investigate young people's (i) actual level of digital skills; (ii) self-perceived level in their digital skills (measure of confidence); and (iii) subjective beliefs on the personal implications of the progressing digitalization in five life domains, using panel data from two established household surveys in Germany: the SOEP Innovation Sample (N = 2,800 households with about 4,000 respondents) and the briq Family Panel (N = 700 households with children born between September 2002 and August 2004, i.e. subjects which are now between 18-20 years old and about to enter the labor market). The combination of both panels provides us with an ideal resource for our research objective as it contains detailed information on a large set of socioeconomic factors and background characteristics, as well as more specific aspects relevant to this research, including access to technologies at home and in schools. Moreover, the longitudinal structure of the panel data involving future panel waves allows us to investigate the relationship between digital skills endowment and labor market returns in a clean and rigorous way. We measure digital skills using 13 questionnaire items provided by the youth Digital Skills Indicator (yDSI), a unique, extensively validated measurement tool, distributed over digital skills and digital knowledge questions, that can be used for large-scale population research. The yDSI is the only measurement tool for youth digital skills that has been tested using the full range of practical validation practices. The data collection will be completed by spring 2023. The results of this study could reveal potential sources of inequality beyond those of a purely academic nature, implying clear policy implications. As such, it could inform targeted policy interventions on the digital education to close potential skills gaps across socioeconomic groups. Moreover, this

study's findings could also hint at potential upcoming labor skill gaps in connection with the progressing technological transformation of the labor market.

Ulf Zölitz, Uschi Backes-Gellner, Xiaoyue Shan

Digitalizing Higher Education – The Impact of Shifting Education Online on Students' Performance and University Experience

We experimentally study how online education affects student university performance, evaluations of teaching and social interactions. Our RCT randomizes students into live and online lectures based on a rotating attendance schedule. Contrary to expert predictions and the majority of existing studies, online classes have no detectable impact on course dropout or exam performance. Live versus online attendance also has no impact on student evaluations of teaching – perceptions of the lecture, the professor or enjoyment of the class. Online lectures, however, cause students to build a smaller social network.

Philipp Lergetporer, Katharina Wedel, **Katharina Werner**

Does Knowledge about the Automation Potential of Jobs Affect Worker's Labor Market Expectations?

We study the effect of providing personalized information about the automation potential of people's occupations on their labor market expectations and their likelihood to participate in further training and retraining. For this purpose, we conduct an online survey experiment among employees, sampled to represent the adult German population. We find that, on average, respondents underestimate the automation potential of their own occupation. Information provision about the factual automation potential of one's occupation leads to increased worry about job prospects in the future. Information also increases the stated likelihood to participate in further training by 2.3 percentage points and the willingness to participate in retraining by 3.4 percentage points. Further results show that effects are more pronounced for those in occupations with high automation potential.

Silke Anger, Bernhard Christoph , Agata Galkiewicz , Shushanik Margaryan , **Frauke Peter**, Malte Sandner, Thomas Siedler

A Library in the Palm of your Hand? Inequalities in Reading Literacy and Educational Attainment

Children from disadvantaged households read less than their non-disadvantaged peers. Reading skills correlate with overall academic achievement, suggesting that insufficient reading may be one of the causes of achievement gaps by socioeconomic background. This paper evaluates the effects of a randomized reading intervention that distributed E-readers to students from disadvantaged backgrounds in grades five and six. We examine reading time, reading competence, and educational outcomes. We find that the intervention significantly increases students' reading. Our results suggest that a relatively inexpensive intervention, which directly targets children, can have a large effect on an important educational activity.

Postersession

Larissa Zierow

An Age of Opportunity: The Influence of Economics Education in School on Entrepreneurial Behavior

Many countries that seek to boost their economy share the goal of promoting entrepreneurship. Whereas there is ample research on the predictors of entrepreneurial behavior during adulthood, we know little about how pre-adulthood experiences influence entrepreneurial behavior later in life. However, recent research suggests that early adolescence is an ``age of opportunity'' where educational interventions have especially unusually strong and long-lasting effects. Using a natural experiment, this paper thus examines whether introducing economics classes in school during early adolescence enhances entrepreneurial behavior in adulthood. Our difference-in-differences approach exploits curricula reforms across German states that introduced compulsory economics education classes in secondary schools. Using information on school and labor market careers for more than 10,000 individuals from 1984 to 2019, we find that the reform increases students' entrepreneurial activities by four percentage points. Examining gender differences, we find that economics classes equally benefit female and male students. Our results advance our understanding of how pre-adulthood experiences shape individuals' entrepreneurial behavior.

Helena Baier, **Philipp Lergetporer**, Katharina Wedel

Barriers to Firms' Investment in Training – Experimental Evidence from Firm Managers

Workforce training is key to counteracting the loss of human capital value and keeping pace with technological change. Yet many companies underinvest in training their employees. To investigate potential barriers to firms' training activities, we conduct a randomized vignette experiment with a planned sample size of > 2,000 managers of small and medium-sized enterprises in Germany. Managers are presented with hypothetical scenarios of an employee who wishes to participate in a continuing education program. The scenarios differ randomly in two main aspects: First, whether the training aims to increase general or company-specific human capital. Second, whether the worker is an unskilled helper or a skilled specialist. Managers will then be asked about their likelihood of facilitating the described training activity and about secondary outcomes such as their perceptions of how training affects worker productivity, satisfaction, and the likelihood of quitting. The experimental results will provide new causal insights into the barriers to workforce training activities.

Sarah Gust, Eric A. Hanushek, **Ludger Woessmann**

Global Universal Basic Skills: Current Deficits and Implications for World Development

How far is the world away from ensuring that every child obtains the basic skills needed to be internationally competitive? And what would accomplishing this mean for world development? Based on the micro data of international and regional achievement tests, we map achievement onto a common (PISA) scale. We then estimate the share of children not achieving basic skills for 159 countries that cover 98.1% of world population and 99.4% of world GDP. We find that at least two-thirds of the world's youth do not reach basic skill levels, ranging from 24% in North America to 89% in South Asia and 94% in Sub-Saharan Africa. Our economic analysis suggests that the present value of lost world

economic output due to missing the goal of global universal basic skills amounts to over $700 trillion over the remaining century, or 11% of discounted GDP.

Francesco La Russa, Renate Strobl, **Conny Wunsch**

Students' Perceived Returns to Skills

We study students' perceived returns to digital, social and management skills in terms of wages and job search duration after graduation based on a survey experiment we conducted with master's and PhD students from all fields at the University of Basel. We are particularly interested in the following questions: (i) To which extent are different skills perceived as complementary? (ii) How do perceptions differ by student characteristics? (iii) Are they consistent with students' assessment of their own skills? (iv) How do they compare to actual returns? (v) How do biases in expected returns differ by student characteristics?