Jahrestagung
Bildungsökonomischer Ausschuss
im Verein für Socialpolitik
7./8. März 2019

Generalthema: „Wissenschafts- und Hochschulforschung"

Mittwoch, 6. März 2019

17.20 Uhr	Get together und Führung: Ein Gang durch Göttingens Unterwelt – Geheimnisse alter Gewölbekeller *Treffpunkt: Vor der Tourist-Information, Markt 8, 37073 Göttingen*
19.30 Uhr	Abendessen (auf eigene Rechnung) *Bullerjahn im Ratskeller Göttingen, Markt 9, 37073 Göttingen*

Donnerstag, 7. März 2019

09.00 – 09.10 Uhr	Begrüßung und Einführung (Robert Schwager & Stefan C. Wolter)
09.10 – 10.00 Uhr	Jan Marcus (Universität Hamburg): "*The Effects of Tuition Fees on Study Duration and Completion in the Population of German Students*"
10.00 – 10.50 Uhr	Simon Janssen (IAB): "*Specificity of Skill Bundles and the Effects of Trade Shocks on Wages*"
10.50 – 11.20 Uhr	Kaffeepause
11.20 – 12.10 Uhr	Ulf Zoelitz (Universität Zürich): *"The Value of a Peer"*
12.10 – 13.00 Uhr	Simone Balestra (Universität St. Gallen): "*A Case for Mainstreaming? The Impact of Peers with Special Needs*"
13.00 – 14.30 Uhr	Mittagessen

14.30 – 15.30 Uhr	Keynote Lecture: Gianni De Fraja (University of Nottingham): *"Incentives and Careers in Academia: Theory and Empirical Analysis"*
15.30 – 16.00 Uhr	Kaffepause
16.00 – 16.15 Uhr	Verleihung des Preises für die beste Bildungsökonomische Dissertation
16.15 – 17.15 Uhr	Mitgliederversammlung
17.30 Uhr	Besichtigung Sternwarte *Treffpunkt: Sternwarte Innenhof (Richtung Keplerstraße)*
19.30 Uhr	Abendessen (auf eigene Rechnung) *Augusta Restaurant, Am Wilhelmsplatz 3, 37073 Göttingen*

Freitag, 8. März 2019

09.00 – 09.50 Uhr	Kerstin Schneider (Universität Wuppertal): „*Early Detection of Students at Risk - Predicting Student Dropouts Using Administrative Student Data and Machine Learning Methods*"
09.50 – 10.40 Uhr	Postersession
10.40 – 11.10 Uhr	Kaffeepause
11.10 – 12.00 Uhr	Malte Sandner (IAB): *"The Early Career Gender Wage Gap among University Graduates"*
12.00 – 13.00 Uhr	Keynote Lecture: Raimund Berg, Katharina Lerche (DLR Projektträger, Abteilung Hochschulstrukturen / Wissenschafts- und Hochschulforschung): *"Wissenschafts- und Hochschulforschung im Spannungsfeld zwischen Wissenschaft, Politik und Praxis "*
13.00 Uhr	Kleiner Imbiss

Poster

Silke Anger (IAB) / Sarah Bernhard (IAB) / Hans Dietrich (IAB) / Alexander Patzina (IAB) / Malte Sandner (IAB): *"Job Counseling Before Labor Market Entry – Concept of an Evaluation of Intensive Job Counseling in High Schools"*

Lutz Bellmann (IAB, FAU Erlangen-Nürnberg) / Harald Pfeifer (BiBB, ROA Maastricht) / Felix Wenzelmann (BiBB): *"The Incidence of Reductions of Regular Training Durations in Apprenticeship Contracts in Germany"*

Raphael Brade (Universität Erfurt, Universität Göttingen) / Oliver Himmler (Universität Erfurt) / Robert Jäckle (TH Nürnberg): *"Normatively Framed Relative Performance Feedback. Field Experiment and Replication"*

Katja Görlitz (FU Berlin): *"Labor Supply, Wages and Firm Sorting"*

Daniel Schnitzlein (Leibniz Universität Hannover) / Daniel Graeber (DIW): *"The Effect of Maternal Education on Children's Mental Health"*

Ludger Woessmann (LMU, ifo Munich) / Annika B. Bergbauer (ifo Munich) / Eric A. Hanushek (Stanford): *"Testing"*

Maria Zumbuehl (Universität Bern) / Stefanie Hof (SKBF) / Stefan C. Wolter (Universität Bern): *"Same Scores But Different Skills? Educational Success After Private Tutoring"*

Abstracts

Silke Anger (IAB) / Sarah Bernhard (IAB) / Hans Dietrich (IAB) / Alexander Patzina (IAB) / Malte Sandner (IAB): *"Job Counseling Before Labor Market Entry – Concept of an Evaluation of Intensive Job Counseling in High Schools"*

As part of the program "*Life Long Job Counseling (LBB)*", the German Federal Employment Agency (BA) has the mission to increase job counseling of young people in all German states in all types of secondary schools. The BA concentrates on college track high schools ("*Gymnasien*"), which give a qualification for university enrollment. LBB aims to activate the individual job search process and to improve the individual job and university degree choice in order to reduce apprenticeship and university dropout. To reach these aims the BA implements in all college track high schools an intensive job counseling in the two grades before graduation at the federal level starting in school year 2019/2020.

The Institute for Employment Research (IAB) conducts a causal evaluation study on the intensive job counseling in the college track high schools. To identify the effect of the intensive job counseling on young people's occupational orientation, the study implements a randomized controlled trial in eight German federal states. From a sample of 300 schools, half of the schools randomly receive the intensive job counseling in school year 2019/2020 (treatment group) while the other half does not receive the intensive job counseling before school year 2021/2022 (control group). In all schools, the study will survey students in the two grades before graduation at the beginning of school year 2019/2020. In the time until graduation and after graduation follow-up-surveys will measure changes in behaviors, expectations, and realized educational and occupational decisions.

The poster presents the design of the randomized field experiment and invites to discuss the current stage of the baseline questionnaire. The questionnaire includes instruments to capture demography, determinates for educational decisions (e.g. aspirations and expectations), job choice activities (e.g. active job search behavior), educational biography and school performance, socio-emotional skills and well-being.

Simone Balestra (University of St. Gallen) / Beatrix Eugster (University of St. Gallen) / Helge Liebert (University of St. Gallen): *"A Case for Mainstreaming? The Impact of Peers with Special Needs"*

This paper evaluates the impact of exposure to special needs peers on student achievement, postcompulsory education choices, and labor market outcomes. We combine administrative data on standardized test scores in secondary school with psychological examination records, career path after compulsory education, and individual employment and earning histories. We find that higher proportions of classroom peers with special needs lower student performance. There is distinct effect heterogeneity: special needs students themselves and students at the lower end of the achievement distribution suffer the most from higher inclusion. In the long-run, we find that exposure to more special needs peers during secondary school decreases the probability of entering high-quality post-compulsory education and slightly reduces earnings at age 17-25. We finally show that inclusion is preferable over segregation in terms of maximizing average test scores and that teacher quality is key to alleviate negative classroom externalities, while financial resources are not.

Lutz Bellmann (IAB, FAU Erlangen-Nürnberg) / Harald Pfeifer (BiBB, ROA Maastricht) / Felix Wenzelmann (BiBB): "*The Incidence of Reductions of Regular Training Durations in Apprenticeship Contracts in Germany*"

The dual system of apprenticeship training is highly standardized and regulated on the occupational level. Each training occupation has a regulation, which, apart from training contents and desired outcomes, contains the regular duration of training. Depending on the occupation, the regular duration can vary between 2 and 3.5 years of training.

However, despite the high degree of standardization, some flexibility exists with respect to the duration of training. Firms and apprentice may agree to shorten the regular training duration by up to one year if a.) the apprentice has achieved a high-school degree (Abitur) prior to the start of the training or b.) if the apprentice (independent from the secondary school degree) achieves good grades in the mid-term exams at the vocational school. The reduction needs to be formally approved by the regional chambers that are responsible for administering apprenticeships.

While a large body of literature has analysed the functioning of German apprenticeship training, little is known about extend and motivation of firms to make use of the duration flexibility. Our poster is going to display first information about the incidence and distribution of the reduction of regular training durations on the basis on the cost-benefit survey of apprenticeship training and the German Vocational Training Statistics with respect to gender, economic sectors, firm size and export activities.

Our analyses reveal that the use of the optional shortening of the training duration is more frequent than expected. Approximately 15 percent of all apprenticeship contracts are concluded for a shorter duration prior to the start of the training. Another 8 percent of the apprentices reduce their training duration due to the achievement of good grades in the vocational school. These numbers suggest a further in-depth analysis of the motives and framework conditions for using the shortening of training duration.

Raphael Brade (Universität Erfurt, Universität Göttingen) / Oliver Himmler (Universität Erfurt) / Robert Jäckle (TH Nürnberg): „*Normatively Framed Relative Performance Feedback. Field Experiment and Replication*"

In a randomized field experiment, we investigate conditions under which feedback can be effective in eliciting performance gains. We give first-year students in higher education normatively framed feedback on their relative academic performance and show that the type of feedback matters for the effects on behavior: Positive feedback increases performance relative to control whereas negative feedback has no effect. We reproduce all results in a replication experiment and investigate the mechanism behind this pattern of effects. The data suggest that positive feedback is particularly effective when individuals initially underestimate their relative performance. Shedding light on the lack of a behavioral response to negative feedback, we find that consistent with a mechanism of selective information processing, individuals focus on good news to adjust their beliefs.

Gianni De Fraja (DEF, CEIS, Università di Roma "Tor Vergata", Nottingham School of Economics) / Daniele Checchi (University of Milan, IZA) / Stefano Verzillo (University of Milan): *"Incentives and Careers in Academia: Theory and Empirical Analysis"*

We study career concerns in Italian academia. We mould our empirical analysis on the standard model of contests, formalised in the multi-unit all-pay auction. The number of posts, the number of applicants, and the relative importance of the criteria for promotion determine academics' effort and output. In Italian universities incentives operate only through promotion, and all appointment panels are drawn from strictly separated and relatively narrow scientific sectors: thus the parameters affecting payoffs can be measured quite precisely, and we take the model to a newly constructed dataset which collects the journal publications of all Italian university professors. Our identification strategy is based on a reform introduced in 1999, parts of which affected different academics differently. We find that individual researchers respond to incentives in the manner described by the theoretical model: roughly, more capable researchers respond to increases in the importance of the publications for promotion and in the competitiveness of the scientific sector by exerting more effort; less able researchers do the opposite.

Katja Görlitz (FU Berlin): *"Labor Supply, Wages and Firm Sorting"*

This study analyzes the labor market consequences of an educational reform that reduced the number of high school graduates to zero in two states in one year, leading to a "missing graduation cohort". Consequently, firms that hire trainees usually from the pool of school leavers faced a decline in labor supply and a lower quality of applicants, measured in terms of their schooling. Using administrative data on the universe of trainees, this study explores how the graduation gap affect wages of newly hired trainees. It will also analyze how high and low wage firms adapt their hiring strategy to the gap. The results indicate that wages increased. While high wage firms stop hiring trainees as a reaction to the graduation gap, there are no effects for low wage firms.

Simon Janssen (IAB, IZA) / Christian Eggenberger (University of Zurich) / Uschi Backes-Gellner (University of Zurich): *"Specificity of Skill Bundles and the Effects of Trade Shocks on Wages"*

This paper examines whether and, if so, how workers' wage development after trade shocks depends on occupational specificity. We construct a measure for occupational specificity reflecting the degree of dissimilarity between the skill bundle in an occupation and the average skill bundle in the labor market. Exploiting cross-regional variation in industry structures, we find that rising import competition from China and Eastern Europe resulted in larger wage losses for workers with specific skill bundles than for workers with general skill bundles. However, with rising exports to these regions, workers with specific skill bundles had higher wages than workers with general skill bundles.

Jan Marcus (Universität Hamburg, DIW Berlin) / Jan Bietenbeck (Lund University Schweden) / Felix Weinhardt (Universität Hamburg): *"The Effects of Tuition Fees on Study Duration and Completion in the Population of German Students"*

This paper estimates the causal effects of tuition fees on study duration and completion rates based on administrative data for an entire country. Our empirical strategy exploits an unusual natural policy experiment, namely the introduction of modest fees of about 1000 Euro per year for university studies in several German states, which also applied to students who had already enrolled at university. By focusing on these incumbent students, we are able to study the effects of fees on the intensive margin, while holding constant extensive margin responses such as changes in the composition of the student body or migration responses that occur due to fees. Our difference-in-differences and event-study analyses show the fees substantially reduce study duration and increase completion rates at the intensive margin. Additional survey evidence suggests that students spend more time studying due to the introduction of fees. A small level of fees can thus induce positive behavioral effects. This result is relevant for countries not charging fees but debating their introduction as well as for countries charging fees considering their abolishment.

Malte Sandner (IAB) / Ipek Yükselen (IAB): *"The Early Career Gender Wage Gap among University Graduates"*

This paper analyzes the sources of the gender wage gap among university graduates at labor market entry using data of graduates from a German University linked with administrative employment records. The linked dataset includes detailed pre- and postgraduation information, such as grades, field of study, job and firm characteristics. This information gives us the possibility to account for many characteristics that prior studies miss, such as type of first job, time between graduation and the first job, working experience before graduation, as well as any job change. We find a significant gender wage gap at the first job after graduation. Surprisingly, after one year this gap decreases but increases thereafter. As an explanation for the findings, men may perform better in first salary negotiation or job interviews than girls but employers learn about employees productivity over time which decreases the gap. Additionally, estimations within different cohort groups reveal that the first job gender wage gap decreases over time.

Kerstin Schneider (WIB, University of Wuppertal, CESifo) / Johannes Berens (WIB, University of Wuppertal) / Simon Oster (WIB, University of Wuppertal) / Julian Burghoff (WIB, University of Wuppertal): *"Early Detection of Students at Risk - Predicting Student Dropouts Using Administrative Student Data and Machine Learning Methods"*

High rates of student attrition in tertiary education are a major concern for universities and public policy, as dropout is not only costly for the students but also wastes public funds. To successfully reduce student attrition, it is imperative to understand which students are at risk of dropping out and what are the underlying determinants of dropout. We develop an early detection system (EDS) that uses machine learning and classic regression techniques to predict student success in tertiary education as a basis for a targeted intervention. The method developed in this paper is highly standardized and can be easily implemented in every German institution of higher education, as it uses student performance and demographic data collected, stored, and maintained by legal mandate at all German universities and therefore self-adjusts to the university where it is employed. The EDS uses regression analysis and machine learning methods, such as neural networks, decision trees and the AdaBoost algorithm to identify student characteristics which distinguish potential

dropouts from graduates. The EDS we present is tested and applied on a medium-sized state university with 23,000 students and a medium-sized private university of applied sciences with 6,700 students. Our results indicate a prediction accuracy at the end of the 1st semester of 79% for the state university and 85% for the private university of applied sciences. Furthermore, accuracy of the EDS increases with each completed semester as new performance data becomes available. After the fourth semester, the accuracy improves to 90% for the state university and 95% for the private university of applied sciences.

Daniel Schnitzlein (Leibniz Universität Hannover) / Daniel Graeber (DIW):
"*The Effect of Maternal Education on Children's Mental Health*"

We estimate the causal effect of maternal education on the mental health of their children in adulthood. Theoretical considerations are ambiguous about a causal effect of maternal education on the children's mental health. To identify the causal effect of maternal education, we exploit exogenous variation in maternal years of schooling, caused by a compulsory schooling law reform in Germany. The data we use is the Socio-Economic Panel and the outcomes for the children's mental health are the Mental Component Summary score as well as life satisfaction and an indicator for being at risk of a depression. We find no evidence of a causal protective effect of maternal education on the children's mental health. Instead, empirical results suggest a negative effect of maternal education on the daughters' mental health. One year of additional schooling for the mother decreases the Mental Component Summary score of the daughter by about 26 percent of a standard deviation and the likelihood of being at risk of a depression by about 11 p.p.s. We find no effects for the sons. Moreover, we provide suggestive evidence that maternal schooling improves maternal outcomes and that these outcomes are positively associated with the children's mental health. Thus, we can rule out these mediators as potential channels driving our results. Our results provide valuable evidence for politicians eager to alleviate the socioeconomic gradient in mental health that is transmitted across generations.

Ludger Woessmann (LMU, ifo Munich) / Annika B. Bergbauer (ifo Munich) / Eric A. Hanushek (Stanford): "*Testing*"

School systems regularly use student assessments for accountability purposes. But, as highlighted by our conceptual model, different configurations of assessment usage generate performance-conducive incentives of different strengths for different stakeholders in different school environments. We build a dataset of over 2 million students in 59 countries observed over 6 waves in the international PISA student achievement test 2000-2015. Our empirical model exploits the country panel dimension to investigate reforms in assessment systems over time, where identification comes from taking out country and year fixed effects along with a rich set of student, school, and country measures. We find that the expansion of standardized external comparisons, both school-based and student-based, is associated with improvements in student achievement. The effect of school-based comparison is stronger in countries with initially low performance. Similarly, standardized monitoring without external comparison has a positive effect in initially poorly performing countries. By contrast, the introduction of solely internal testing and internal teacher monitoring including inspectorates does not affect student achievement. Our findings point out the pitfalls of overly broad generalizations from specific country testing systems.

Ulf Zölitz (University of Zurich): *"The Value of a Peer"*

This paper introduces a new approach to peer effects: Peer value-added isolates the total contribution of an individual to the performance of others without relying on observable peer characteristics as measures of peer quality. Using data from a setting with repeated random assignment of students to peer groups we show that there is significant variation in peers' value-added. Peer observable characteristics, most notably previous performance, are poor predictors of individual spillovers. We validate our peer value-added measures in out-of-sample social interactions and show that peer value-added captures performance and earnings spillovers among randomly re-assigned peers. We establish that the ability to raise others' performance is a malleable trait. Students interacting with peers generating positive spillovers become a more valuable peer themselves.

Maria Zumbuehl (Universität Bern) / Stefanie Hof (SKBF) / Stefan C. Wolter (Universität Bern): *"Same Scores But Different Skills? Educational Success After Private Tutoring"*

Decisions on educational transitions typically rely on achievement measures. To reach a required achievement threshold, students may make use of additional resources, such as private tutoring. We investigate how the use of private tutoring relates to the transition probability to an academically demanding post compulsory school and the probability to successfully pass through this school, controlling for the students competencies after tutoring, but before the transition. Using PISA and linked register data from Switzerland, we find that students who had private tutoring before the transition are more likely to fail in post-compulsory education than students who had the same competencies without tutoring.