

## Jahrestagung

### Bildungsökonomischer Ausschuss im Verein für Socialpolitik

2./3. März 2017

Tagungsort: Leibnizhaus Hannover, Holzmarkt 4, 30159 Hannover

Generalthema: „**Bildung und Wohlstand**“

#### Mittwoch, 1. März 2017

- 17.00 Uhr **Stadtführung** (Treffpunkt: Leibnizhaus)  
19.00 Uhr **Get-together**, Brauhaus Ernst August (Schmiedstr. 13)

#### Donnerstag, 2. März 2017

- 09.00 – 09.10 Uhr Begrüßung und Einführung (Ludger Wößmann, Stephan Thomsen)  
09.10 – 10.00 Uhr **Pia Pinger** (University of Bonn):  
*Take me on Your Shoulders! The Effect of Child Mentoring on Education Outcomes* (with Fabian Kosse, Armin Falk, Hannah Schildberg-Hörisch)  
10.00 – 10.50 Uhr **Felix Weinhardt** (DIW Berlin):  
*ICT and Education: Evidence from Student Home Addresses* (with Benjamin Faber (UC Berkeley), Rosa Sanchis-Guarner (LSE))  
10.50 – 11.20 Uhr *Kaffeepause*  
11.20 – 12.10 Uhr **Agnes Bäker** (University of Zurich):  
*Leadership in Universities*  
12.10 – 13.00 Uhr **Daniel D. Schnitzlein** (Leibniz University Hannover, DIW Berlin):  
*The Protective (?) Effect of Education on Mental Health* (with Sarah Dahmann (DIW Berlin))  
13.00 – 14.00 Uhr *Mittagessen*  
14.00 – 14.50 Uhr **Philipp Lergetporer** (Ifo Institute at the University of Munich):  
*Misperceptions of Educational Inequality and Public Policy Preferences: Evidence from a Representative Survey Experiment* (with Katharina Werner, Ludger Wößmann)  
14.50 – 15.40 Uhr **Poster Session** (siehe nächste Seite)  
15.40 – 16.10 Uhr *Kaffeepause*  
16.10 – 17.10 Uhr *Keynote Lecture:*  
**David N. Figlio** (Northwestern University):  
*Long-Term Orientation and Educational Performance*  
17.15 – 18.15 Uhr **Mitgliederversammlung**  
19.30 Uhr **Abendessen**, Centralhotel Kaiserhof (Ernst-August-Platz 4)

## Freitag, 3. März 2017

- 09.00 – 09.50 Uhr **C. Katharina Spieß** (DIW and FU Berlin):  
*Information Provision and Post-Secondary Education: Does Information Help Decreasing the Education Gap?*  
(with Frauke Peter, Vaishali Zambre)
- 09.50 – 10.40 Uhr **Bernd Fitzenberger** (Humboldt-University Berlin):  
*Additional Career Assistance and Educational Outcomes for Students in Lower Track Secondary Schools* (with Stefanie Lickleder)
- 10.40 – 11.10 Uhr *Kaffeepause*
- 11.10 – 12.10 Uhr *Keynote Lecture:*  
**Monika Jungbauer-Gans** (Deutsches Zentrum für Hochschul- und Wissenschaftsforschung (DZHW) und Leibniz Universität Hannover)
- 12.10 – 13.00 Uhr *Verleihung des Wissenschaftlichen Förderpreises des BÖA:*  
**Preis für die beste bildungsökonomische Dissertation 2015/16**
- 13.00 – 13.30 Uhr *Kleiner Imbiss*

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### Poster Session (Donnerstag 14:50 Uhr):

**Silke Anger** (IAB and Bamberg University), Gerrit Müller (IAB): *Personality and Educational Attainment*

Christian Eggenberger, Miriam Rinawi, **Uschi Backes-Gellner** (University of Zurich): *Labor Market Outcomes with More or Less Specific Occupational Training: An Analysis based on Skill Bundles*

**Christina Felfe** (University of St. Gallen): *Integration of Immigrant Children: Experimental Evidence*

**Katja Görlitz** (FU Berlin), Marcus Tamm, Merlin Penny: *The Long-term Effects of Age at School Entry*

Sabine Gralka, **Alexander Kemnitz** (TU Dresden): *Persistent Inefficiency in the Higher Education Sector: Evidence from Germany*

**Jens Mhrenweiser** (Bournemouth University), Tina Hinz: *The Effect of Regional Competition and Company-sponsored Training on the Productivity-Wage Wedge*

**Regina Riphahn** (University Erlangen-Nürnberg): *The Causal Effect of Age at Migration on Youth Educational Attainment*

Tim Ehlers, **Robert Schwager** (University of Goettingen): *Academic Achievement and Tracking: A Theory Based on Grading Standards*

Lisa Leschnig, **Guido Schwerdt**, Katarina Zigova (University of Konstanz): *Central School Exams and Adult Skills: Evidence from PIAAC*

**Simon Wiederhold** (KU Eichstätt-Ingolstadt and Ifo Institute), Alexander Patt, Jens Ruhose, Miguel Flores: *The Occupational Selection of Emigrants*

Franziska Kugler, Marc Piopiunik, **Ludger Wößmann** (Ifo Institute at the University of Munich): *Educational Degrees and Income over the Lifecycle: New Evidence for Germany*

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## **Abstracts**

### **Donnerstag**

#### **Take me on Your Shoulders! The Effect of Child Mentoring on Education Outcomes**

Pia Pinger (University of Bonn), Fabian Kosse, Armin Falk, Hannah Schildberg-Hörisch

We show that a low-intensity mentoring program can boost education outcomes among school children from low socioeconomic status backgrounds. Elementary school children who were assigned a mentor for the duration of one year are 11 percentage points (20 percent) more likely to be tracked into the highest German track in grade 5. The effect is particularly pronounced among children who are younger at the time of the treatment and who grow up in poverty. Moreover, the treatment is more effective if and at least one of the parents has obtained an upper secondary school degree and if a student is at the margin of attending the highest school track. Our results suggest that a low intensity mentoring program during a critical decision period can have marked implications for child education outcomes. It closes around 1/3 of the gap in education outcomes between high and low SES children.

#### **ICT and Education: Evidence from Student Home Addresses**

Benjamin Faber (UC Berkeley), Rosa Sanchis-Guarner (LSE), Felix Weinhardt (DIW Berlin)

Governments are making it a priority to upgrade information and communication technologies (ICT) with the aim to increase available internet connection speeds. This paper presents a new empirical strategy to estimate the causal effects of these policies, and applies it to the questions of whether and how ICT upgrades affect educational attainment. We draw on a rich collection of microdata that allow us to link administrative test score records for the population of English primary and secondary school students to the available ICT at their home addresses. To base estimations on plausibly exogenous variation in ICT, we notice that the boundaries of usually invisible telephone exchange station catchment areas give rise to substantial and essentially randomly placed jumps in the available ICT across neighboring residences. Using this design across more than 20,000 boundaries in England, we find that even large changes in available broadband connection speeds, including zero/one variation in broadband accessibility, have a precisely estimated zero effect on educational attainment. Guided by a simple model we then bring to bear additional microdata on student time and internet use to quantify the potentially opposing mechanisms underlying the zero reduced form effect. While jumps in the available ICT appear to increase student consumption of online content, we find no significant effects on student time spent studying online or offline, or on their learning productivity.

#### **Leadership in Universities**

Agnes Bäker (University of Zurich)

The presentation examines leadership in universities from two perspectives. First it looks at the effect deans or heads of departments have on the job satisfaction of their fellow academics. Artz, Goodall and Oswald (forthcoming) show that the strongest predictor of workers' job satisfaction is the core business expertise of the boss. I present results from a survey of academics in UK and Sweden confirming this to hold in academia as well: Academics with a distinguished researcher as immediate head were more satisfied than those with a less distinguished head. Potential mechanisms driving this positive relationship are examined. Second, the presentation reports results on the effects of taking on a leadership position in a university for the individual researcher, using a dataset on German speaking researchers. It is analyzed whether research productivity affects selection into deanship, and whether deanship affects subsequent research output. The results on these two perspectives of leadership in universities allow implications for the selection of deans and may motivate academics to take on leadership positions in universities.

## **The Protective (?) Effect of Education on Mental Health**

Sarah Dahmann (DIW Berlin), Daniel D. Schnitzlein (Leibniz University Hannover, DIW)

This paper analyzes whether education has a protective effect on mental health. To estimate causal effects, we employ an instrumental-variable (IV) technique with two different instruments to estimate local average treatment effects (LATE) at different parts of the educational distribution: (i) a reform extending compulsory schooling by one year implemented between 1949 and 1969 in West German federal states, and (ii) the individual availability of higher education measured by the spatial distance to the nearest university at age 19. We use rich individual data on adults aged 50 to 85 from the German Socio-Economic Panel (SOEP) study, augmented by detailed information on universities from the German Rectors' Conference. We complement analyses on the Mental Component Summary (MCS) score as a generic measure of overall mental health by disorder-specific diagnoses. Results support existing evidence on a positive relationship between completed years of secondary schooling and mental health in standard OLS estimations. In contrast however, the IV estimations reveal no such causal protective effect. If any, the estimates point toward a negative effect among the lower-educated. These results are confirmed when explicitly modeling effect heterogeneity through marginal treatment effects.

## **Misperceptions of Educational Inequality and Public Policy Preferences: Evidence from a Representative Survey Experiment**

Philipp Lergetporer, Katharina Werner, Ludger Wößmann (Ifo Institute at the University of Munich)

Educational inequality is a central determinant of societal inequality. This study examines how the German public misconceives the inequality of educational opportunity and how resolving these misconceptions by providing information affects policy preferences. We find that the public severely underestimates the extent to which socioeconomic background is related to children's educational performance. Providing a random treatment group with correct information on this relationship has a large effect on the public's awareness of the problem but only slightly shifts preferences towards several policies which may reduce educational inequality. We show that the small treatment effects cannot be rationalized by respondents' failure to connect educational inequality with these policies. Instead, the lack of treatment effects is likely due to high support for many reforms in the control group, which also indicates political leeway for equity-enhancing policies.

## **Long-Term Orientation and Educational Performance**

David N. Figlio (Northwestern University)

We use remarkable population-level administrative education and birth records from Florida to study the role of Long-Term Orientation on the educational attainment of immigrant students living in the US. Controlling for the quality of schools and individual characteristics, students from countries with long term oriented attitudes perform better than students from cultures that do not emphasize the importance of delayed gratification. These students perform better in third grade reading and math tests, have larger test score gains over time, have fewer absences and disciplinary incidents, are less likely to repeat grades, and are more likely to graduate from high school in four years. Also, they are more likely to enroll in advanced high school courses, especially in scientific subjects. Parents from long term oriented cultures are more likely to secure better educational opportunities for their children. A larger fraction of immigrants speaking the same language in the school amplifies the effect of Long-Term Orientation on educational performance. We validate these results using a sample of immigrant students living in 37 different countries.

## **Poster Session**

### **Personality and Educational Attainment**

Silke Anger (IAB and Bamberg University), Gerrit Müller (IAB)

This paper examines the effects of various personality traits (Big Five, locus of control) on educational outcomes such as obtaining a university-entrance degree and graduating from university for a sample of young men and women followed by the German Socio-Economic Panel (SOEP). It shows that personality is associated with educational attainment, but that different traits have different effects on educational outcomes depending on individuals' family background. For example, males from disadvantaged families have the greatest benefit from openness to experience and internal locus of control, while for males from high-SES families, personality traits are not equally important in determining graduation from high school or university. Women in the highest SES-group benefit from being open to experience and from having a high internal locus of control, a low external locus of control respectively. In contrast, for women from families with a low socio-economic status, there is not such a clear pattern. The results for Germany are broadly in line with findings on disadvantaged young males in the United States (Lundberg 2013), but do not support previous findings on advantaged children.

### **Labor Market Outcomes with More or Less Specific Occupational Training: An Analysis based on Skill Bundles**

Christian Eggenberger, Miriam Rinawi, Uschi Backes-Gellner (University of Zurich)

The poster presents a new measurement for the specificity of human capital based on Lazear's (2009) skill weights approach and investigates labor market outcomes for more or less specific occupations. Using detailed information from occupational training curricula and the bundles of single skills in each occupation, the paper calculates specificity degrees for each training occupation. It finds that workers who are trained in occupations with more specific skill bundles receive a specificity wage premium when staying in their original training occupation. At the same time workers trained in more specific occupations are less mobile and have longer unemployment durations in case they get unemployed. Thus, results point at important trade-offs between the returns and risks of more or less specific occupational training curricula.

### **The Long-term Effects of Age at School Entry**

Katja Görlitz (FU Berlin), Marcus Tamm, Merlin Penny

This study analyzes the effects of being younger or older when starting school relative to one's cohort. It has been shown that older students perform better in school test scores. However, the few studies estimating long-term effects find mixed results, even showing that the younger are able to outperform the older in some respects. This paper provides new evidence on a more comprehensive set of outcomes including the whole employment biography, lifetime earnings and cognitive competency tests measured in adulthood. The findings suggest heterogeneity by gender. While there is no long-term effects for males, females being older during school start are better educated resulting in an initial employment disadvantage.

### **Persistent Inefficiency in the Higher Education Sector: Evidence from Germany**

Sabine Gralka, Alexander Kemnitz (TU Dresden)

Evaluations of the Higher Education Sector are receiving increased attention, due to the rising expenditures and the absence of efficiency enhancing market pressure. To what extent universities are able to eliminate inefficiency is a question that has only partially been answered. This paper argues that heterogeneity among universities as well as persistent

inefficiency hinder the institutions to achieve full efficiency - at least in the short run. Two standard and one novel specification of the Stochastic Frontier Analysis are applied to a new, comprehensive set of panel data to show how the standard efficiency evaluation changes when both aspects are taken into account. It is the first time that the idea of persistent inefficiency is considered in the analysis of the German Higher Education Sector. The comparison reveals that the disregard of heterogeneity distorts the estimation results towards lower efficiency values. The newly introduced specification improves the accuracy of the heterogeneity assumption and exposes that inefficiency tends to be long term and persistent rather than short term and residual. This implies that increasing efficiency requires a comprehensive change of the university structure.

### **The Effect of Regional Competition and Company-sponsored Training on the Productivity-Wage Wedge**

Jens Mohrenweiser (Bournemouth University), Tina Hinz

The new training literature argues that a compressed wage structure, that is productivity increases stronger in skills than wages, allows firms to invest in general skills of employees. We apply recent advancements in the joint estimation of production and wage functions to show a compressed wage structure in Germany. We also use regional and sectoral variation in labour market competitiveness and show that the productivity-wage wedge increases in skills if the regional labour market becomes less competitive.

### **The Causal Effect of Age at Migration on Youth Educational Attainment**

Regina Riphahn (University Erlangen-Nürnberg)

We investigate the causal effect of youths' age at immigration on subsequent educational attainment in the destination country. To identify the causal effect we compare the educational attainment of siblings at age 21, exploiting the fact that they typically migrate at different ages within a given family. We consider several education outcomes conditional on family fixed effects. We take advantage of long running and detailed data from the German Socio-Economic Panel, which entails an oversample of immigrants and provides information on language skills. We find significant effects of age at migration on educational attainment and a critical age of migration around age 6. We find that the educational attainment of female immigrants responds more strongly to a high age at immigration than that of males. We can exclude that the causal effect is determined only by language abilities.

### **Academic Achievement and Tracking: A Theory Based on Grading Standards**

Tim Ehlers, Robert Schwager (University of Goettingen):

We present a theory explaining the impact of ability tracking on academic performance based on grading policies. Our model distinguishes between initial ability, which is mainly determined by parental background, and eagerness to extend knowledge. We show that achievements of low ability students may be higher in a comprehensive school system, even if there are no synergy effects from teaching different students together. This arises because the comprehensive school sets a compromise standard which exceeds the standard from the low ability track. Moreover, if students with lower initial ability have higher eagerness to learn, merging classes will increase average performance.

### **Central School Exams and Adult Skills: Evidence from PIAAC**

Lisa Leschnig, Guido Schwerdt, Katarina Zigova (University of Konstanz)

Centralized exit exams are often hypothesized to favorably affect incentive structures in schools. Previous research indeed provides vast evidence on positive effects of centralized exams on student test scores, but critics warn that these effects may arise through strategic behavior of students and teachers, which may not affect human capital accumulation in the

long-run. Exploiting variation in examination types across school systems and over time, we document for the first time that central exams are also associated with higher adult skills. This finding is in line with true productivity-enhancing effects of central exit exams.

### **The Occupational Selection of Emigrants**

Simon Wiederhold (KU Eichstätt-Ingolstadt and Ifo Institute), Alexander Patt, Jens Ruhose, Miguel Flores

The current literature that investigates the selection of Mexican migrants to the United States focuses on selectivity in educational attainment and earnings. Notably absent from the literature is evidence on occupational selection, because it is unclear how to measure the skill content of Mexican occupations. However, any such research would yield important insights regarding the selection on labor-market skills that Mexicans carry with them to the United States. We use data from a representative Mexican worker survey—equivalent to the U.S. O\*NET—to develop novel measures of cognitive and manual skills for migrants based on their pre-migration occupational history, and compare them to the skills of Mexicans who do not migrate. Using detailed longitudinal micro-level data from two Mexican labor surveys, the Mexican Migration Project, and the Mexican Family Life Survey, our analysis consistently shows that migrants have lower cognitive and higher manual skills than non-migrants. This finding is robust to controlling for age, gender, and educational attainment and also holds within broader occupational groups. Despite substantial changes in emigration rates over time, we also document that occupational selection is highly persistent.

### **Educational Degrees and Income over the Lifecycle: New Evidence for Germany**

Franziska Kugler, Marc Piopiunik, Ludger Wößmann (Ifo Institute at the University of Munich)

This project applies a standard net present value method to calculate differences in lifetime earnings by educational degrees from current age-earnings profiles in Germany. To enable detailed subgroup analyses, we use data for over a million individuals in the German Microcensus 2011-2013, combined with information on the duration of and net income/cost associated with different educational degrees. We calculate differences in monthly income, unemployment rates, and lifetime income between individuals without a professional educational degree, with an apprenticeship degree, with a Meister/Techniker degree, with a Fachhochschule degree, and with a university degree (the latter two separately for the standard and the second-chance route). The rich data allow analysis of heterogeneity in these measures by gender, region, field of study, and for alternative assumptions on the duration, income, and cost associated with the different educational phases. We also calculate descriptive internal rates of return to different educational degrees based on the algebraic (rather than Mincer) method. Finally, the project documents changes in the educational composition of the population and in unemployment rates by educational degrees since 1976.

## **Freitag**

### **Information Provision and Post-Secondary Education: Does Information Help Decreasing the Education Gap?**

Frauke Peter; C. Katharina Spieß, Vaishali Zambre (DIW Berlin and FU Berlin)

Although access to university education has increased, students from non-academic family backgrounds are still underrepresented at universities. This contribution sheds light on whether a lack of information prevents students from enrolling in university. We investigate the causal relationship between information and post-secondary education using data from a German randomized controlled trial with more than 1.000 students. One year prior to the Abitur exams, we treated randomly selected schools in Berlin by giving an in-class presentation on the benefits of university education as well as on possible funding options for university enrollment. This information workshop was conducted within the school context during school hours to mimic a potential policy measure aiming at reducing inequality at the transition to university education. We surveyed students prior to the information intervention and followed up on them three months, one year, two years and three years after treatment. Thus, we are able to investigate short- and medium-term effects of information provision. We examine how students' intention to enroll in university, their application behavior as well as their actual transition behavior change as a result of improving their information set and how this actually affects the education gap. Results indicate that providing students with information alters their intentions as well as their behavior.

### **Additional Career Assistance and Educational Outcomes for Students in Lower Track Secondary Schools**

Bernd Fitzenberger (Humboldt-University Berlin), Stefanie Licklederer (University of Freiburg)

Using a quasi-experimental design, this paper estimates the causal effect of Additional Career Assistance (ACA) on educational outcomes for students in Lower Track Secondary Schools (LTSS) in the region of Freiburg (Germany). Compared to LTSS students in the surroundings of Freiburg, students in the City of Freiburg receive ACA through more intensive information, counselling, and mentoring regarding the school-to-work transition. Furthermore, LTSS students with good grades participate in additional general teaching (AGT). We find mostly insignificant effects of ACA on average educational outcomes, which, however, mask quite heterogeneous effects. ACA improves the grades for students, who do not participate in AGT. Furthermore, with ACA, students who participate in AGT are less likely to obtain a degree from a middle track secondary school (MTSS). In contrast, among students who do not participate in AGT, students without migration background are more likely to obtain an MTSS degree, while there is no significant effect for students with migration background.