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Speakers and abstracts (alphabetical by surname)

Clément Brébion, Paris School of Economics

Comparative analysis of apprenticeship training in France and Germany

This paper is a comparative analysis of apprenticeship training in France and Germany. It relies on the German Socio-Economic Panel and the Enquêtes Génération. I find that apprenticeship training is associated with a stronger advantage over full-time students in France than in Germany at the secondary education level while no causal effect can be evidenced among students exiting higher education in both countries. I bring elements of proof suggesting that, at the secondary level, the average apprentices' advantage on the labour market follows a divergent pattern in the two countries. In Germany, it mostly stems from a high retention rate from the training firms' part whereas, in France, the advantage of apprentices is also rooted in their position on firms' external labour market. These results allow me to discuss the literature of the Aix School and of the Varieties of Capitalism.

Chiara Cavaglia, Centre for Economic Performance, London School of Economics (CVER)

Apprenticeships for young people in England: Is there a payoff?

The importance of apprenticeships for early labour market transitions varies across countries and over time. In recent times, there has been a policy drive to increase the number of people undertaking apprenticeships in England and there are plans to dramatically change the post-16 system, which would include making apprenticeships a more important part of it. This raises the question as to how beneficial apprenticeships are to young people currently. In this paper, we use administrative data in England to track students through their schooling and into the labour market. We analyse the payoff to apprenticeships for young people in the short term (when they are around 23 years old) and after a few years in the labour market (when they are around 28 years old). We ask whether there is a payoff for young men and women in terms of employment and earnings. We also consider the earnings gender differential for apprentices and non-apprentices. Our results suggest that payoffs vary over time and differ dramatically for men and women. It would appear that the choice of sector in which men and women specialise plays an important contributory role.

Andrew Dickerson, University of Sheffield (CVER)

The changing patterns of skills demand in the UK

We present estimates of changes in skills utilisation and in the returns to skills in the UK using new measures of skills derived from a detailed matching between UK SOC and the US O*NET system. A decomposition analysis suggests strongly increasing utilisation of both analytic skills and interpersonal skills, and declining use of physical skills over the period 2002-2016. Most of the changes in skills utilisation are within occupations rather than between occupations, indicating that the changes are pervasive throughout employment. The wage returns to skills are estimated using a standard Mincerian earnings function. We find significantly positive and increasing returns to analytic skills over time, suggesting that the demand for such skills is increasing even more strongly than the growth in their utilisation. In contrast, the returns to interpersonal skills, while positively trended, are small and statistically insignificant in most years once we account for the other factors which impact upon earnings. One possible interpretation of this finding is there has been a corresponding growth in the supply of these skills to match the increase in their utilisation in the labour market. Finally, the returns to physical skills are small and statistically insignificant over the whole period, and appear to be unaffected by the strong secular decline in the utilisation of these kinds of skills. Our results are robust to both changes in the definitions and measurement of the skills variables, and to the empirical specification of the earnings function.

Shaun Dougherty, University of Connecticut

The Effect of Career and Technical Education on Human Capital Accumulation: Causal Evidence from Massachusetts

Earlier work demonstrates that career and technical education (CTE) can provide long-term financial benefits to participants, yet few have explored potential academic impacts with none in the era of high-stakes accountability. In this paper I investigate the causal impact of participating in a specialized high school-based CTE delivery system on high-school persistence, completion, earning professional certifications, and standardized test scores with a focus on individuals from low-income families, a group that is overrepresented in CTE and high-school non-completers. Using administrative data from Massachusetts I combine OLS with a regression-discontinuity design that capitalizes on admissions data at three schools that are oversubscribed. All estimates suggest that participating in a high-quality CTE program boosts the probability of on-time graduation from high school by seven to ten percentage-points for higher income students and suggestively larger effects for their lower income peers, and for students on the margin of being admitted to oversubscribed schools. This work informs an understanding of the potential impact of specific CTE program participation on the accumulation of human capital even in a high-stakes policy environment. This evidence of a productive CTE model in Massachusetts may inform the current policy dialogue related to improving career pathways and readiness

Emma Duchini, University of Warwick

Does Employment Protection Legislation Affect Training Investments? Evidence from the United Kingdom

In this paper we study how employment protection legislation affects firms and workers' decisions to invest in human capital. To do so, we exploit a reform implemented in the United Kingdom that reduces expected firing costs for workers with 1 to 2 years of tenure. To study the impact of this intervention, we use a difference-in-difference strategy exploiting the variation in its implementation over time and across workers' tenure. Our findings show that, by enhancing both job creation and job destruction, this reform decreases training investment for workers with more than 1 year of tenure by 8 to 14 percent, depending on the tenure group considered. These results are further validated via the estimation of a competing-risks model where separating from a firm and being trained are treated as competing risks.

Silvia Duranti, Irpet, Regional Institute for the Economic Planning of Tuscany

What training for the unemployed? An impact evaluation for targeting training courses

In the last years, the trend towards activation has been one of the major issues in welfare and labour market reforms in Europe. Italy has lacked for a long time a strong net of activation policies for the unemployed, but the latest reforms have placed great emphasis on the need to invest in Public Employment Services to make labour market more inclusive. At the same time the European Union, through the European Social Fund, has made available the necessary financial resources to promote active policies, especially those related to training, considering them crucial for the development of human resources in a knowledge-based economy.

Italian Regions play a major role in the planning and managing of training activities for the unemployed and this role became strategic with the upsurge of the economic crisis and the increasing needs of reskilling jobseeker.

The increasing relevance placed on training and activation policies calls for a need to develop a culture of evaluation that with reliable statistical methods can identify the effects of the interventions and provide guidance on how to target them. In particular, in the case of training courses for the unemployed, an impact evaluation by type of users can provide guidance for the development of users segmentation systems in order to direct every unemployed person to the more effective training program for his rapid (re-) employment placement.

This paper proposes an impact evaluation of training courses for the unemployed financed in an Italian region (Tuscany) by the European Social Fund. In particular, the evaluation is carried out for four different types of users, identified on the basis of a profiling system which summarizes each jobseeker's distance from the labour market. The aim is to identify, for each profiling group, if the attendance of different types of training courses improves the chances of re-employment.

Malcolm Greig, Centre for Work Based Learning, Scotland, UK

Factors affecting Modern Apprenticeship completion rates in Scotland

Completing an apprenticeship has been shown to be a critical to an individual's future employment, earnings and career development when compared with apprentices who do not complete.

International research, notably in England, Australia and Germany, has identified factors specific to the apprentice, employer and training provision that are associated with a higher chance of completion. However to date there has been no comparable research in Scotland, which operates its own distinct and well-established apprenticeship system. Based on the broad factors identified in other countries, logistic regression was conducted on records of apprenticeship leavers in Scotland, covering the period 2007 to 2015. A total of 78,952 leavers were analysed, consisting of 59,737 completers and 19,215 non-completers. A positive relationship with completion was found for female apprentices, those from less deprived areas, those employed by a large employer, those receiving training from public sector organisations and those in selected technical frameworks. A higher local unemployment rate was also positively associated with completion. The paper considers the reasons why some apprentices are more likely to complete than others and discusses implications for apprenticeship policy in Scotland and beyond.

Bibi Groot, Institute of Education, University College London

“I get by with a little help from my friends”: Two field experiments on social support and attendance in further education colleges in the UK

In recent years, there has been an increasing recognition that broader socioeconomic and environmental conditions such as school climate and the availability of peer, parental, and tutor support shape motivation and educational success as much as, or more than, individual-level factors such as personality. Whether a student grows up feeling nurtured and supported by their family and peers is strongly correlated with their emotional and physical well-being (Scales & Taccogna, 2001; Wentzel & Caldwell, 1997). However, few studies provide causal evidence that social network interventions can influence students' success. We investigate, through two randomised field experiments, whether providing students' social networks with personalised information about upcoming exams and course content leads to improvements in class attendance. Students nominated two 'Study Supporters' and were subsequently individually randomised into two arms: in one arm the Study Supporters receive weekly text messages, in the other arm they do not receive any. We consistently find positive effects of this intervention, particularly for students who are studying towards GCSE exams. We also find that the intervention appears to be particularly effective for students at the lower end of the distribution of attendance. We discuss this result in the context of the broader social support literature.

Marcel Jansen, Universidad Autónoma de Madrid

The impact of dual vocational training on the labor market insertion of youth: Evidence from Madrid

In response to the dismal performance of the youth labor market during the crisis, Spain introduced a new system of dual vocational training. The legal basis for the system was created in 2012 and since that time many regions have started to roll out the system. The new vocational training tracks are part of the regular schooling system and the essential feature of the system is that students obtain a substantial part of their training in firms.

In this paper we provide the first evaluation of the impact of the new dual vocational tracks on the speed and the stability of the school-to-work transition of the students who finished a dual vocational track at the tertiary level (nivel superior) in 2014 and 2015. To that aim we compare the school-to-work transitions of graduates from regular (school-based) vocational education to that of graduates who studied the same field in a dual vocational track.

Our dataset matches detailed information about the graduates from vocational training at the tertiary level, including their entire educational history from lower-level secondary education, the field of study, the school, training firm and the academic performance during dual vocational training from the regional education authorities to administrative records from the Social Security Administration. The latter information allow us to reconstruct the entire working history of the graduates in our sample. Apart from the start and end of each employment spell, the administrative records contain information on salary (the social security tax base), the type of contract, the part-time or full-time nature of the contract, occupation, the reason for dismissal and basic plant-level and firm-level information such as total number of employees and sector. The current sample is composed of over 14,000 individuals for 22 different specialities of whom 1.039 students have finished a dual track. Our aim is to measure the causal impact of dual vocational training on the speed, quality and stability of the school-to-work on the basis of a range of indicators such as accumulated time in employment during the first 12 to 24 months after graduation, accumulated earnings, total number of contracts, the time elapsed until the first “regular job”, defined as jobs that last for at least three months, the percentage of graduates who obtain a permanent job, and last-but-not least the percentage of graduates who obtain a job at their training firm.

To guarantee a causal interpretation of our results, our basic difference-in-differences specifications include exhaustive controls for possible selection effects. Entry into the dual tracks is voluntary and firms are often given the right to select their preferred candidate. Hence, the dual vocational tracks may attract students who are different from the ones who study the same field under the previously existing school-based system and not all of these differences need to be observable in the data. Moreover, schools also have a choice to decide whether they wish to offer dual tracks and if so in which fields. Hence, the most innovative schools may be over-represented among the schools who offer dual tracks and they may have selected fields where they expect dual vocational training to offer the largest gains. To deal with these potential selection problems our empirical specifications include a wide range of controls for differences in observable and unobservable characteristics of the individuals, the centres and the firms.

The preliminary results of our analysis offer promising insights. During the first year after graduation, the students from dual vocational training accumulate on average 4 more months of employment than similar students who graduated in the same field under the traditional system. Similarly, the chances to obtain a regular job are almost 14 percentage points higher for those who finish a dual track and since their contracts last longer the difference in accumulated earnings is in the range of 60%.

Andreas Kuhn, Swiss Federal Institute for Vocational Education and Training, University of Bern

Public Attitudes Towards the Role of the State and the Private Provision of Training: Evidence from the Swiss Apprenticeship System

Existing empirical research shows that a substantive fraction of Swiss training firms is willing to incur considerable net training costs. One potential explanation for such behavior is that firms act in accordance with the norms and expectations they are faced with in the local labor market they are operating in. In the research described in this paper we ask whether the norm towards the private, rather than the public, provision of public goods influences the probability that a firm is willing to offer apprenticeship positions. In line with our hypothesis, we find that the training incidence is higher in communities which are characterized by a stronger norm towards the private, rather than the public, provision of public goods, which we measure using local results from several national-level votes which explicitly dealt with the proper role of the state in the context of the apprenticeship system. This finding turns out to be robust to a series of robustness checks as well as to an instrumental-variable strategy that tackles the issue of potential endogeneity of public attitudes.

Deni Mazrekaj, Katholieke Universiteit Leuven (KU Leuven)

Returns to Vocational Education in the Netherlands Skills at Work

This paper questions the widespread view that having an upper secondary diploma results in higher earnings. Using unique and complete administrative panel data from vocational education in the Netherlands, we compare the earnings of high school graduates to the earnings of high school dropouts. Hereby, we exploit an educational policy reform in 2007 in which the compulsory education age was extended from the age of 17 until the age of 18 years. In contrast to the widespread view, our findings suggest that obtaining a vocational diploma does not lead to significantly higher earnings. We find a small effect of 2.4% that is not statistically significant. We suggest modularization as a potential mechanism to explain zero returns to schooling. A modular vocational system may result in students enhancing their productivity in some parts of the curriculum needed to reside in the labour market, without obtaining the actual qualification.

Pietro Patrignani, London Economics (CVER)

The earnings differentials associated with vocational education and training using the Longitudinal Education Outcomes data

For the first time, the matched Longitudinal Education Outcomes has been made available for analysis of qualification attainment and labour market outcomes in England. Using comprehensive information from different school, Further Education and Higher Education data sources, we estimated the effect of achieving vocational qualifications at different levels within the National Qualification Framework on labour market outcomes (earnings, employment and benefits dependency) at the age of 26 for the cohorts of students undertaking Key Stage 4 schooling between 2001/02 and 2003/04. The analysis was undertaken separately for males and females and across different specifications, exploiting the richness of the information available in the matched dataset. The findings suggest that the effect of attaining vocational qualifications is positive, large and statistically significant for most qualification aims compared with individuals holding their highest qualification at the level immediately below in the National Qualification Framework.

John Sessions, University of Bath

Worker Training and Quality Competition

We uniquely examine the relationship between firm-sponsored training and product quality competition. Using a quality-augmented model of monopolistic competition, we identify the conditions under which an increase in the sensitivity of demand to quality increases firm training. Cross section, panel and instrumental variable estimations confirm that UK establishments provide more intensive training when their competitive position is more sensitive to product quality. A variety of robustness checks and changes in variable definitions leave this confirmation in place.

Melline Somers, Maastricht University

Why Do Students Enrol in Science, Technology, Engineering, and Mathematics (STEM)?

Science, Technology, Engineering, and Mathematics (STEM) are fields of study in vocational education and training (VWT) that suffer from low student enrolment, while, at the same time, many job opportunities are available for STEM graduates on the Dutch labour market. This study examined the effectiveness of a five-day study choice programme conducted in the Amsterdam metropolitan area from 2015 to 2016. The goal of this intervention was to encourage students from preparatory vocational secondary education (VMBO) to choose for a STEM study programme by providing them accurate information about STEM careers. It is the idea that students can make more deliberate decisions about courses of study and career paths when being fully informed. The intervention consisted mainly of an occupation-specific part, which offered students the opportunity to explore which occupation in the STEM field 'matched' the students' skills. The intervention also consisted of a small generic part, in which students gained insights into their math, language, and occupation-specific skills. The students of the schools that participated in the programme were identified in a rich administrative dataset, namely the BON data (BasisRegister Onderwijs). The BRON data contains information on all students enrolled in Dutch education. Based on the BRON data, we were able to construct an appropriate control group by applying propensity score matching. The results suggest that students who participated in the study choice programme were more likely to enrol in a STEM study programme.

Stefan Thomson, Leibniz Universitat, Hannover

Non-Monetary Benefits of Continuous Training

This paper studies the effects of participating in work-related continuous training on non-monetary outcomes such as satisfaction, worries, and civic participation (measured by social, cultural, and political participation). There is an extensive literature studying the monetary returns to continuous training. Meanwhile, wider benefits of continuous training beyond monetary returns have become a top priority on the European political agenda, while the empirical evidence about these benefits is still scarce. Using rich panel data from the German SOEP, we find evidence that continuous training increases life satisfaction, reduces worries about the own economic and job situation (even after controlling for labor market effects), and increases civic participation in some domains. To mitigate selection bias, we employ a regression-adjusted difference-in-differences matching approach that accounts for selection on observables and for time-invariant unobservables.

Maria Zumbuehl, University of Bern

The native-migrant gap in progressing into and through upper secondary education

In this paper we follow the students that took the PISA 2012 test in Switzerland and analyze the transition into and progress in upper secondary education. We find a substantive difference in the rate of progress between natives and students with a migration background. Two years after leaving compulsory school the gap between natives and migrants being on-track amounts to 17% points. While observable differences in cognitive and non-cognitive skills can explain the gap in the success rate in upper secondary education, these differences cannot explain the full difference in the transition rate into upper secondary education. More refined analyses show results that are consistent with the hypotheses of differences in tastes, aspirations and incomplete or inaccurate information on the education system explaining the gap in the transition into post-compulsory education.