

Book of Abstracts

Analyzing Micro-Level Processes and Macro-Level Structures That Shape Educational Trajectories

Keynote by Prof. Dr. Kaspar Burger

In life-course scholarship, there are long-standing debates: on how individual trajectories evolve over time; on how personal characteristics, life events, and social institutions shape such trajectories; and on the relative importance of these factors. TREE offers the opportunity to examine questions relating to these debates from multi- and interdisciplinary perspectives. I analyze some of those questions with regard to educational trajectories, using a theoretical framework that considers different analytic levels ranging from micro to macro. In the talk, I address three main topics.

First, I examine how institutional structure and human agency influence educational trajectories. The education system partially channels educational trajectories along distinct educational tracks, leading otherwise similar students to quite different educational destinations. However, the boundaries between educational tracks are partly porous and, hence, the system allows for some mobility between tracks, providing a structure of opportunity for individuals to exert agency. With this in mind, I study the extent to which individuals can exert agency and beat their own paths within the institutional structure.

Second, I analyze the role of expectations about the future in educational trajectories. Expectations about the future are powerful inner resources that steer individuals' trajectories and ultimately influence what they can attain in life. At the same time, socioeconomic origins shape educational trajectories. I assess the relative predictive power of socioeconomic origins and subjective future expectations. I also take into account students' sense of belonging in school. Accumulating evidence indicates that it has a substantial positive effect on educational attainment. However, as life course theories suggest, this effect could be weakened by the channelling effects of education systems that sort students into different educational tracks. Against this background, I examine the extent to which sense of school belonging influences educational trajectories when considering the channelling effects of the system.

Third, extending discussions on ‘trajectories of failure’, I present a study that examines school dropout. This study considers longer-term vulnerabilities alongside temporary risk and protective factors for school dropout. It investigates to what extent dropout intentions and dropout can be predicted by negative life events, general self-efficacy, and perceived social support. The study distinguishes between time-averaged levels of self-efficacy and social support, and within-person change in self-efficacy and social support over time. This allows us to determine whether dropout intentions and dropout are sensitive to fluctuations in perceived self-efficacy and social support over time when controlling for person-specific levels of these psychosocial resources. The study underlines the need to further investigate person-specific and situational psychosocial drivers of school dropout in combination.

In sum, this talk will give insights into studies that adopt a life-course perspective on educational trajectories, illustrating micro-level processes and macro-level structures underlying these trajectories. It seeks to exemplify some of the manifold ways in which TREE data can be used to address questions pertaining to ongoing debates in life-course research.

Two decades of longitudinal research with TREE: Lessons (yet to be) learnt

Keynote by Prof. Dr. Irene Kriesi and Dr. Thomas Meyer

TREE is Switzerland’s first (and so far only) nationally representative panel survey on how students leaving compulsory school fare on their pathways through post-compulsory education, into employment and young to middle adulthood. TREE’s 20th anniversary offers the opportunity to assess, on the one hand, the relevance and adequacy of its scope and design in view of a research context which has changed dramatically over the past two decades. On the other hand, we aim at exploring the impact research based on TREE data has developed on both domestic and international research discourses.

Taking a life-course perspective, we will attempt to provide an overview of important insights regarding young people’s educational trajectories, early careers, family formation histories and life satisfaction. We will discuss the relevance of young people’s socio-economic and national background at different life stages and look at the development of gender inequalities between the end of compulsory school and early adulthood. We will summarize insights regarding the role of individual competencies and support structures in explaining young people’s development. Furthermore, we will put a special focus on research findings discussing the relationship between the structure of the educational system and individual attainment in education and the labour market.

The keynote also aims at identifying open questions and research gaps that should be addressed in the near future. Last but not least, we will conclude with an outlook on the future of longitudinal youth research based on survey methodology, which is increasingly hampered by deteriorating response rates and challenged by the changing modes of communication.

What quantitative life-course research can tell us about the puzzle of flexibilization: the case of working lives in (West) Germany

Keynote by Prof. em. Karl Ulrich Mayer

“That lives have become less predictable, less collectively determined, less stable, less orderly, more flexible, and more individualized has become one of the most commonly accepted perceptions of advanced societies” (Brückner and Mayer 2005: 28). This core tenet of the self-understanding of contemporary societies applies especially to the sphere of work and here to the degree of continuity and discontinuity of the trajectories of working lives. There is a multitude of good reasons to assume massive changes: de-industrialization and the rise of the service-economy, globalization, the decline of trade-union membership and power, the increasing share of the female labour force, automation and occupational restructuring, but also value changes in the direction of post-materialism and self-realization.

While the general idea of major changes in working lives has been readily accepted, it is much less clear whether these changes are merely strong beliefs or actual facts. It also has been often less transparent which specific changes are being postulated, e.g. the increase of inter- or intra-firm job shifts, of occupational mismatches and occupational changes, recurrent moves in and out of employment, or the increase of downward career mobility. Not least there is considerable confusion as to in which specific historical periods such changes occurred and what the shape of historical change is assumed to look like (e.g. continuous trends vs. period shocks).

The empirical evidence is scattered and non-conclusive. Many studies are cross-sectional or cover only short and diverse periods of time. Historians often rely more on actual discourses or selections of biographical material rather than on representative quantitative data. And data on the composition of the labour force is being used rather than longitudinal observations on working lives. Controversies about the stability and orderliness of working lives can only be resolved if we are focussing on longer observations both across life time and history, and if we carefully distinguish between specific aspects of work trajectories.

Our paper aims – after a rehearsal of the debate and some conceptual clarification – to review recently available empirical evidence on long-term changes in working lives in (West) Germany. It is based on various longitudinal sources for the life courses of women and men born between the 1920s and the 1980s, whose working lives we can observe for the time period from roughly 1940 to 2015. Our conclusion is that – at least for (West-) Germany - we do not find much support for the alleged trends. We finally reflect why we do not observe what seems so plausible.

Paper Session 1A: Vocational Education and Training

Discontinuity in Vocational Education and Training: Consequences for the subsequent educational pathway after premature termination

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Keywords: Vocational Training, educational pathways after premature termination, sequence and cluster analysis, cumulative disadvantages

In occupational labour markets returns to education strongly depends on the attainment of formal degrees. In Germany, Vocational Education and Training (VET) alongside higher education is a major sector of post-secondary education. Hence, preventing students from dropping out of vocational education before achieving the recognized level of educational attainment is an important societal task. Nevertheless, the proportion of apprentices prematurely terminate their training contracts with a training firm (26,5%, Bundesinstitut für Berufsbildung, 2020) indicates that a considerable number of young adults face frictional transitions. Even if premature termination (PT) in VET does not always lead to dropping out, it poses challenges for companies and trainees - invested resources are devalued, valuable training potential, lifetime and motivations are lost. Furthermore, the predicted shortage of skilled workers and changing professional demands makes PT relevant for educational policy.

We know from previous research that PT in VET depends on citizenship, educational level, sector, the characteristics of training occupations (e.g. Rohrbach-Schmidt and Uhly, 2015) as well as on quality aspects of the training process (e.g. Krötz & Deutscher, 2021; Nägele & Neuenschwander, 2016). Less is known about subsequent pathways after a PT (Beicht & Walden 2014, Wydra-Sommaggio 2021). However, given the long-term consequences of educational transitions, it is important to understand why some individuals master such discontinuities successfully, whereas others do less well.

The paper addresses this research gap by specifically analyzing educational trajectories 24 months after a first PT in full qualifying VET programs. Based on data of the so-called starting cohort 4 of the German National Educational Panel Study (NEPS, Blossfeld et al., 2011) we focus on the diversity of training paths within the group of young adults who experienced a PT in VET by explicitly analyzing the further educational path. As a result of a sequence and cluster analysis we can distinguish between clusters of trajectories in which individuals remain in educational institutions (direct or delayed transition into new VET programs, transition to general forms of schooling) and those who predominantly leave the education system and enter the labour market as unskilled workers or remain in unemployment. Multinomial logistic regressions indicate that low-skilled young people in particular not only have higher risks of prematurely terminating their vocational training but also are less likely to re-enter training which indicates cumulative disadvantages in the life course for them.

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Social selectivity on the (vocational) path to higher education

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Keywords: *Social selectivity, Disaggregation, Swiss educational system, Distribution*

The Swiss education system is characterised by a high degree of horizontal and vertical stratification and it has been repeatedly shown that educational trajectories are socially selective. Track allocation at the end of primary education and the choice between vocational and general education at upper secondary level are not determined only by academic achievement, but strongly influenced by social background and parental expectations. Resulting from these selective educational choices, access to the institutions of tertiary education is unequally distributed across social classes. While this prior research has typically focused on single transitions, this contribution approaches educational trajectories as a sequence of linked educational choices. Following Mare (1981) the process of educational attainment is disaggregated into a series of consecutive transitions. By analysing the social selectivity at these separate educational choices and taking into account the systems' distribution structure the overall stratification of opportunity can be evaluated. The institutional regulations of the educational system and the distribution of education across the population thereby form the context in which inequality is generated through the allocative mechanisms of primary and secondary effects. The aim of this contribution is to assess and disaggregate inequality of educational opportunity in the Swiss educational system. The effect of social background on transition probabilities at the three defining transitions is described and put into relation to the institutional structure of the educational system. This allows us to quantify the contribution of each transition to the overall level of inequality. This enables a substantive interpretation of the structural features of the Swiss educational systems and how they contribute to the overall level of inequality in educational attainment. The statistical method used to disaggregate the social selectivity of educational pathways and thus quantify the contribution of each step towards the overall stratification of the education system is the Multiple Pathways Sequential Logit Model. This approach was developed by Härkönen and Sirniö (2020) on the basis of Buis (2017) extension of Mare's (1981) sequential logit model of educational transitions. The basic idea is that the marginal effect of social background on educational attainment is the sum of weighted effects of passing each educational transition. These weights are a function of the conditional transition probabilities. Three components that represent distributional features of the educational system at each transition point k are specified: The population at risk of making the transition, the differentiating capacity of the transition and the expected educational gain of the specific alternative. To analyse the impact of specific educational transitions on overall social stratification of education data from two Swiss panel studies is used: TREE study (Transitions from Education to Employment) and the DAB panel study (Determinants of educational choices and vocational training opportunities). The first cohort of the TREE study follows the school leaving cohort of 2000, while the DAB study documents the educational and employment trajectory of the school leaving cohort of 2013.

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Long-term effects of occupational changes and non-employment episodes on occupational (in-) stability and prestige

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Keywords: *occupation, occupational mobility, occupational prestige, employment trajectories, non-employment*

A substantial part of the labor force, e.g., many men with academic or occupational training in unionized sectors or in otherwise high occupational echelons, keeps on experiencing occupational stability or upward-mobility. Other groups, however, face alterations of all kinds during their working lives. This contribution focuses on the phenomenon of changing occupation. This may be a voluntary, long-planned move to achieve occupational self-realization, a partly voluntary one in order to adapt to new individual or family needs and preferences; or workers are pushed to another occupation because of structural changes in their former occupational field. While the degree of voluntariness is not easy to establish validly, longitudinal quantitative analysis can well determine how the former occupation and the new one relate to one another in terms of their position in the vertical dimension of the occupational structure and whether a change of occupation goes along with respective upward, lateral, or downward mobility. Looking from a conceptual life-course perspective and referring to the CfP’s first topical focus, this paper generally seeks to investigate how earlier features of individuals’ employment career influence the likelihood of changing occupation per se and of changing it reaching a higher, similar or lower occupational position than in the previous occupation regarding its social prestige. The first influence investigated is that of previously accumulated occupational changes. In terms of a potentially self-enforcing mechanism, do the number and kinds of previously experienced changes of occupation influence later ones in negative way (downward-spiral of having to switch from one precarious occupation to another) or in a positive manner (upward-mobility due to a well-prepared move)? Regarding the second influence of the preceding employment trajectories, do the incidence and length of preceding unemployment or (in terms of the CfP’s second focus) non-employment episodes—unpaid care work, sick leave, full-time (further) training—impact the occurrence and the vertical modality of occupational change?

My analysis draws on standardized life-course data from the adult survey of the German National Educational Panel Study (NEPS), using both retrospective information and updated one from its ten panel waves. My analysis focuses on episodes starting at the ages 30 to 69, i.e., on employment well beyond initial school-to-work transitions, and the years 2000 to 2019, limiting the variance of historical contexts. Besides descriptive results, I will present fixed-effect multinomial logistic models (still work in progress) which predict the likelihood of staying in one and the same occupation (and firm) versus experiencing occupational change combined with a) an increase of occupational prestige regarding the previous one (> 10% of the latter’s ISEI), b) a similar occupational prestige, c) lower occupational prestige (< 10%) or d) starting a new employment episode without experiencing change of occupation on at least the 4th digit of the German classification of occupations (KldB 2010). The units of analysis are $N = 29,048$ employment episodes (at least one and six on average) longitudinally nested within $N = 11,491$ individuals. The NEPS allows to operationalize a number of other influences as controls which previous research has already analyzed in detail, e.g. the degree of occupations’ standardization or the level of occupational qualification. Yet, in general, publications on the vertical dimension of occupational change are still fairly rare.

Paper Session 1B Transitions, trajectories, pathways

Labor market integration: the effects of social background and educational trajectories. A quantitative analysis in Switzerland using the TREE Dataset and features extraction and selection techniques.

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Keywords: *labour market, educational pathways, sequence analysis, features extraction and selection, TREE1 survey*

This study follows a double aim. First, from a substantive point of view, this study analyzes labor market integration fourteen years after the end of compulsory education in Switzerland focusing on social background determinants such as cultural and economic capital. More precisely, it aims to understand the key role of educational trajectories in the reproduction of social inequalities. By looking at education trajectories instead of qualification, it aims to gain a more fine-grained view on these processes and documents potential effect of unconventional trajectories, such as delayed education or trajectories characterized by back-and-forth movement in education for instance. Two aspects of labor market integration are considered in this study: employment status at 30 years old and, for those who are working, the hourly wage at the same age.

Second, this study also aims to contrast two methodologies to estimate the relationships between educational trajectories and later life labor market integration. First, it uses sequence analysis to identify a typology of these educational trajectories that is later used in a regression model. This allows understanding the mediating effect of educational trajectories on the relationship between social-background and labor market integration. Second, it uses a newly proposed methodology based on data-mining feature selection technique proposed by Bolano and Studer (2020). This technique aims to identify more precisely which aspects of educational trajectories play a key role in the reproduction of social inequalities.

All the analyses are based on the longitudinal dataset provided with the first cohort of the “Transitions from Education to Employment” (TREE1) panel survey. This dataset (n = 2258) contains information on key educational and working life events from the end of compulsory school up to 30 years old (2000-2014) that are used to build the trajectories.

Social inequalities in the transition to adulthood in Catalonia: the influence of social origin, gender, and migration background.

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Keywords: transitioning to adulthood, life course, social inequalities, multichannel, Mixture Hidden Markov Models

Transition to adulthood in Europe has experienced some changes, according to scholars transitions happen at later ages (Cavalli & Galland, 1993; Billari & Liefbroer, 2010), the traditional order of events has been altered (Baizán et al., 2002) and it is possible to return to previous states (Machado, 2000), and there is more complexity and variability in the trajectories (Elzinga & Liefbroer, 2007). However, little is said about within country variability and how these changes vary across different social groups. Furthermore, academic scholarship usually focuses on a single life dimension, limiting the understanding of interdependencies between different life dimensions.

This paper analyses how individual characteristics (social origin, gender, and migration background) influence transitions to adulthood, considering multiple life domains and the interdependence among them. Following new methodological approaches for life course research (Helske & Helske, 2019), we apply Mixture Hidden Markov Models (MHMM) to analyse a set of 1470 life courses (Catalan Youth Survey, 2017), each one consisting on three life domains: education, work, and emancipation and family formation (mean age: 29.9 years; 48.7% males and 51.3% females; 76.1% born in Catalonia; 29% primary or less, 33.8% secondary, and 37.2% higher education). When applying MHMM to life course data, hidden states are regarded as unobserved mental processes that govern individuals' predisposition and generate with different probabilities the observable data in different domains (Han, Liefbroer & Elzinga, 2019).

Analysis is performed in statistical software R (R Core Team, 2013), using the package seqHMM (Helske & Helske, 2021) for modeling MHMM, and TraMineR (Gabadinho, et al., 2011) for data visualization. MHMMs start with random starting values, and are left-to-right models. Estimation of the unknown parameters for the MHMM is done with 1000 random restarts of the Expectation-Maximization (EM) algorithm. MHMM are fit both without and with covariates and their BIC are compared to select the best model. Preliminary results indicate that there are six ways to become an adult among Catalan youth (see figure 1 and 2). The use of multi dimensional life course data allows us to observe the interdependence between the different life domains (see figure 3). Additionally, preliminary results suggest that these interdependencies are clearly influenced by individual characteristics. For instance, females, young people of immigrant origin and young people from low educated families have higher probability to experience the vulnerable trajectories. In contrast, males, young people born in Catalonia, and from highly educated families have higher probability to transit to adulthood in a more traditional and less complex way. We conclude that transitions to adulthood cannot be understood without considering the socio-economic and demographic profile of the young people. This paper contributed to the scholarship on transitions to adulthood, showing within-country variability in the development of youth life courses. The use of longitudinal data on different life domains, and the use of recent methodological developments for life course research have allowed us to portrait social inequality in the Catalan context.

Gendered immigrant optimism: ethnic choice effects at the transition to upper secondary education in Switzerland

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Keywords: immigrant optimism, gender, transition, upper secondary education

Aspirations for upward social mobility among children of immigrant origin are observed in many countries. These aspirations often translate into positive ethnic choice effects in terms of a higher likelihood of attaining more demanding educational tracks compared to their native origin peers when controlling for social origin and school performance. However, research on this topic often ignores gendered trajectories through education. Based on data from German-speaking Switzerland on two school-leaver cohorts, we focus on ethnic choice effects for female and male students whose parents were born in the Balkans, Turkey or Portugal. To disentangle direct and indirect effects of migration background on educational attainment at upper secondary level, we apply the reformulated KHB method and operationalise the aspiration for social mobility as the difference in status between the desired occupation of the child and the parents' occupations. In line with previous findings, our results reveal that aspirations for upward mobility are highest among youth from the ethnic groups of interest who belong to the lower tail of the social strata. However, our finding that ethnic advantages are only observed for men in both cohorts is particularly important.

Paper Session 1C: Life Course

Challenging initial conditions and individual development: How do social and individual risk factors cumulate in individuals at the end of primary education?

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Keywords: students at risk, educational inequality, cumulative disadvantages, cumulative risk factors

In recent years, empirical findings for tracked education systems in different European countries have revealed differences in educational success due to social origin. This applies especially to disadvantages of students from less privileged social backgrounds or with challenging initial conditions in early track choices (e.g. Dumont/Klinge/Maaz 2019), academic achievement (e.g. McElvany/Becker/Luedke 2009), and related post-school education (e.g. Gaupp/Hupka-Brunner/Geier 2016) (see also: Blossfeld/Blossfeld/Blossfeld 2019; Autorengruppe Bildungsberichterstattung 2020). Education is a fundamental prerequisite to social participation, success, health and well-being, and it is therefore important to consider students from disadvantaged or challenging backgrounds in their educational development (OECD 2011; Quenzel/Hurrelmann 2019). With respect to the link between social conditions, participation and development in education, various forms of challenging initial conditions have been studied – also termed risk situations. Hence, economically or socially disadvantaged families (in terms of parental education, income or employment) (Autorengruppe Bildungsberichterstattung 2020), challenging situations in terms of psychosocial burdens (Dobinger 2018), or a low level of competency acquisition (Baumert et al. 2017) can be related to different educational outcomes. From a developmental psychological perspective, especially cumulative challenging initial situations can hinder successful coping with perceived stress, possibly resulting in negative developmental outcomes (e.g. Tetzner 2015). To the best of our knowledge, there is still a need for research in this field for the German-speaking educational context.

Focusing on educational trajectories of students with challenging backgrounds, the present study investigates two research questions: How can educationally challenging initial conditions be defined and operationalized? To what extent are different possible facets of educationally challenging initial conditions interrelated and cumulative? This study examines initial conditions from sixth grade, at the end of elementary school in Berlin, before the transition to the tracked secondary school system. Based on developmental psychological theories on the effect of risk factors and sociological models of education, risk factors are differentiated according to family structural characteristics (e.g. family socioeconomic status, parental education), family process characteristics (e.g. family school-related support options, intra-family communication), individual school-related and psychosocial characteristics (e.g. perception of stress at school, self-efficacy) (Scheithauer/Petermann 1999; Baumert/Watermann/Schümer 2003; McElvany/Becker/Lüdtke 2009). Data from N = 3935 sixth grade students at the end of primary education in Berlin who participated in the representative BERLIN study were analyzed, an evaluation study regarding the structural reform of Berlin’s secondary school system (Maaz et al. 2013). Different constellations of challenging initial conditions are investigated by means of group comparisons, in order to find out more about the proportions of students with possibly disadvantaged initial conditions. Preliminary findings indicate that a substantial number of students at the end of primary school are faced with at least one possibly educationally challenging initial condition. This refers to family structural or process characteristics as well as to individual characteristics.

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More than a social background? Family support during postsecondary education (online)

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Keywords: school-to-work-transition ; family support, parental involvement

There is a large body of empirical evidence for parental involvement's impact on school success and positive individual development during childhood and early adolescence. It is also well known that parents and the wider family often play an important supporting role in school-to-work transitions. This is particularly true for times of economic crisis when the risk of failing access into the labor market is high and the emotional, social and financial solidarity of the family is urgently needed.

In recent years, a growing number of empirical studies have focused on the maintenance of connections to parents during emerging adulthood and in the context of postsecondary education, especially during higher education. The findings indicate the importance of family support and parental involvement for both the young people's successful completion of postsecondary education as well as their acquisition of autonomy. Moreover, some studies find evidence that the support of an almost grown-up child is more effective when parents develop more indirect support or involvement strategies. This underpins the assumption that there is a development process for both young people during the phase of emerging adulthood, as well as for their parents. From a theoretical point of view, this assumption refers to life course theory and the dual dynamic model of family relationships, both emphasizing the linkages between family members' life trajectories.

However, such tentative strategy adaptations, as well as the maintenance of parent-child relations, are more likely for middle-class families than for working-class parents, who associate their child's school completion with his or her entrance into full adulthood. Given that, we are exploring in our paper the various possible changes in family support activities and the impact of these changes on youth self-efficacy and their individual satisfaction with their postsecondary education. Our analysis is based on the longitudinal data of the nationwide survey "Growing up in Germany", conducted by the German Youth Institute in 2009 and in 2013. We are using the data of a subsample of youth who still visited a school in 2009, and in 2013 were attending vocational training or study at a university. In total, there are 687 respondents in our sample.

Educational Inequality: A Life-Course Outcome of Poor Welfare State Policy

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Keywords: education, inequality, cross-national, welfare, early-childhood

Research consistently finds children's educational outcomes to be strongly linked to their socioeconomic background (Van de Werfhorst and Mijs 2010; Breen and Goldthorpe 1997). Inequality in cognitive achievement manifests itself before children enter mandatory schooling, indicating non-school factors to play a critical role (Von Hippel et al. 2018; Nobel et al. 2015; Skopek and Passaretta 2018). From a life course perspective, a lack of crucial investment in a child early on has lifelong consequences in terms of academic and social outcomes (Esping-Andersen 2008; Reardon 2012; Chetty et al. 2011; Heckman 2013). The social investment perspective argues that state services and spending targeted at families can supplement the resources available to families, reducing some of the negative consequences associated with social disadvantage (Esping-Andersen 2015). Researchers have argued that welfare state policies such as early childhood education and care (ECEC), maternity leave and direct spending on families can lessen the influence of socioeconomic background on educational achievement, by providing a supplementary source of early life investment and support (Busemeyer and Trampusch 2011; Nolan et al. 2010; Esping-Andersen 2015; Bonoli 2012). However, how such welfare policies interact with socioeconomic achievement gaps remains unclear. Against that background, we pose the following research question: Do welfare state policies moderate the positive effect of socioeconomic background (measured here in terms of parental educational attainment) on educational achievement? Specifically, we analyze how the welfare state context in which children grew up from age 0 to age 5 moderates the degree to which parental education is linked to educational achievement at age 10 in grade four (following: Merry 2020; Rözer and Van de Werfhorst 2019). This paper uses a pseudo-panel approach (Hanushek and Woessmann 2006; Rözer and Van de Werfhorst 2019), meaning country- and individual- level indicators are matched temporally to a larger country cohort. We merged the three latest Trends in International Mathematics and Science Study (TIMSS) assessment waves containing 28 countries and 344'548 students. Our outcome variable was math achievement (5 plausible values), our key independent variable was parental education; we control for age, gender, and migration background. To capture welfare state policies, we used indicators for ECEC spending, weeks of protected parental leave and family benefits spending. For most countries, the contextual data was gathered from the OECD, UNESCO, and the World Bank databases. Since students are nested in countries, we used a multilevel model to address our research question. Moreover, this allowed us to estimate cross-level interactions to estimate to what extent welfare state policies moderate the link between parental education and a child's achievement. The results indicate a significant positive cross-level interaction between parental education and paid maternity. In countries with longer paid maternity, the effect of parental education on a child's math achievement was stronger. The ECEC spending interaction with parental education shows a significant negative moderation effect. ECEC spending weakened the parental education effect on math achievement. Lastly, family benefits spending showed no significant interaction effect. While ECEC spending seemed to disproportionately benefit the achievement of children of lesser educated parents, maternity leave mostly benefitted the achievement of children of more highly educated parents. Overall, this study provides empirical evidence confirming the importance of early life contexts on social inequality in achievement.

School-to-Work Transition in Europe. Good Practices and Initiatives in Italy and Malta (online, tbc)

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Keywords: education, work, training, early school leavers, employment

The purpose of this text is to present the school-to-work transition, through review of the situation in Italy and Malta. In the past few years the Italian regulatory framework related to the school-to-work transition system has followed two different directions: to increase and stabilize the “alternanza scuola-lavoro” and to reform the apprenticeship. In Malta, vocational education is provided by the Malta College of Arts, Science and Technology and the Institute of Tourism Studies. Besides these two colleges, the state run Employment and Training Corporation (ETC), which includes: public employment service for managing VET, youth guarantee scheme, numerous employment and training schemes, traineeships, work trial, work and training exposure, apprenticeship etc.

One of the main challenges for both countries is transition from school to work for early school leavers (the progress report by the European Commission states that Italy and Malta have been specifically called upon to address the problem of early school leaving). Data show that those who leave school early have comparatively low skills and low educational attainment and face the greatest challenges in the labour market compared to their peers who stayed in education longer.

This paper presents challenges and recommendations on how to tackle school-to-work transition, focusing on successful education action and transferring best practices and innovative approaches. The methodology used in the paper is a combination of analysis of the legal framework, strategic documents, international project and relevant reports combined with original examples and recommendations from personal practice in working with young people and experts. It’s obvious that great efforts are being made in Italy and Malta, but the process of transition from school to work needs to continue and constantly improve.

Paper Session 2A; Labour Market & Wages

Do wage scarring effects depend on the type of workers' skills?

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Keywords: VET, general skills, unemployment, wage scarring, endogenous treatment effects

Unemployment episodes and negative labour market conditions can both have detrimental effects on later wage development (Brunner & Kuhn, 2014; Di Nallo & Oesch, 2020). However, earning losses after unemployment are more pronounced for low educated than highly educated workers (Farber, 2005; Schmelzer, 2011), and wage scarring due to low labour demand is more persistent for workers in blue-collar occupations than for those in white-collar occupations (Brunner & Kuhn, 2014). A possible explanation is that highly educated workers in white collar occupations have more general skills, which are highly transferable, while less educated workers in blue collar occupations have more specific skills, which are less transferable between jobs and occupations. However, there is limited research on how the type of workers' skills affect wage scarring, and existing studies seldom consider the heterogeneity of skill acquisition within education levels. However, Swiss training occupations at upper-secondary level differ regarding the amount of general and specific skills they impart. We therefore investigate whether different types of general skills imparted during vocational education and training (VET) moderate the wage scarring effect of unemployment and low labour demand.

We apply an institutional approach, assuming that differences between training occupations influence VET diploma holders human capital development (Müller & Shavit, 1998). We argue that general skills are more transferable and depreciate more slowly than specific skills (Becker, 1964; Estévez-Abe, 2009). Therefore, diploma holders with general skills can retain a high productivity level even if they enter a job in a different occupational field (Schmelzer, 2011), which is more likely to occur after unemployment episodes or when jobs in their field are scarce. General skills and knowledge should thus mitigate negative consequences of unemployment and low occupation-specific labour demand. Our analysis is based on a sample of employees with upper secondary VET. We use the longitudinal Swiss Labour Force Survey (SLFS) and combine it with objective skill measures derived from occupation-specific training curricula and occupation-specific skill demand measures from the Swiss labour market monitor (SMM). The around 230 different Swiss VET programmes vary greatly in how much general skills and knowledge, and what type of general skills and knowledge they impart. We differentiate between four areas of general skills and knowledge: digital literacy skills, interpersonal skills, language skills and basic general knowledge (e.g. economics, ethics, law and politics). We address potential causality problems, by applying an endogenous treatment effects model (Vella & Verbeek, 1999). We also make use of the longitudinal structure of the SLFS to include lagged individual level explanatory variables. Our results confirm previous findings that unemployment has a negative effect on wages. Furthermore, low occupation-specific labour demand has a negative effect on wages. Irrespective of unemployment experiences and labour demand, wages are higher for workers with a lot of digital literacy skills. Our main hypotheses on the moderating effect of general skills on wage scarring can be confirmed with regard to labour market demand. Interpersonal skills, language lessons and general education lessons attenuate the negative effect of low occupation-specific labour demand on wages. This supports our assumption that workers with general skills are more flexible than those with less of these skills when the job opportunities in the trained occupation are low.

Growth of income of holders of basic vocational education and training certificates in the five years after obtaining certificate

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Keywords: income, VET, transition into labour market

Around two-thirds of young people in Switzerland obtain a basic vocational education and training certificate (VET). The analysis of insertion pathways into the labour market as well as income growth following VET is therefore very important in steering the Swiss education system.

Income after obtaining the certificate is not only one of the main indicators for the professional integration of young people, it also provides precious information about their economic and social integration at an important point in their life course.

This publication complements the two FSO publications from 2018 and 2020 on the integration of young people into working life with an overview on the growth of standardised income in the first five years of their professional career.

The results presented are based on the application of the new method of income construction through the linkage of Central Compensation Office data and FSO Structural Survey data (FSO, 2021). The contribution shows income growth according to various analytical dimensions (sex, language region or learned occupation) as well as in relation to the subsequent education and training trajectory. Using quantile regression methods, the publication illustrates the interrelationship between the different factors that determine the evolution of income.

FSO 2018, *Übergänge nach Abschluss der Sekundarstufe II und Integration in den Arbeitsmarkt* - Ausgabe 2018, Neuenburg

FSO 2020, *Berufliche Laufbahn der Absolventinnen und Absolventen einer beruflichen Grundbildung in den fünf Jahren nach dem Abschluss*, Neuenburg

FSO 2021, *Constructing an income from employment on the basis of the CCO and the Structural Survey (LABB)*, Neuenburg

Vocational Education Training and Entrepreneurship (online)

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Keywords: Vocational Education, Entrepreneurship

How does vocational education affect entrepreneurship? The paper investigates the role of vocational education in the decision to become an entrepreneur over the life cycle. Previous literature shows that the completion of vocational education significantly enhances the chances of running a business (Arum et.al, 2004) in some countries. Little is known about how cognitive and non-cognitive skills together with vocational education shape transitions into self-employment. We examine the role of vocational education and individual skills in the decision to become an entrepreneur using the TREE study data. We develop a dynamic Roy model in which a decision to become an entrepreneur depends on a type of education, non-pecuniary benefits of entrepreneurship, career-specific entry costs, a prior work experience, cognitive and non-cognitive skills, and other labor market opportunities (salaried employment and non-employment). The empirical model is a dynamic mixed multinomial logit model that captures unobserved heterogeneity across individuals. We estimate a model using detailed TREE study data, which allows us to track individuals' characteristics, education, and labor market decisions over time.

By estimating a model of the labor market and education decisions, we find a heterogeneous impact of vocational education on individuals' labor market decisions based on the agent's skills (low and high types of abilities). Our empirical findings are in line with Jack-of-All-Trade's theory (Lazear, 2005) that individuals who acquire a more balanced set of skills and change between different types of education are more likely to become entrepreneurs. Individuals with a high level of skills benefit from attending the vocational education training program and more likely to become entrepreneurs for all occupation groups when individuals with a low level of skills more likely to prefer salary employment. Thus, this paper delivers a nuanced characterization of vocational education training, investigates the role of skills in entrepreneurship, and provides a framework for understanding the consequences of different education regulations. Also, we highlight the practical implications of our estimates by evaluating policies design to promote entrepreneurship, such as an extension of vocational education for different occupation groups.

Arum, Richard, and Walter Müller (2004). "The reemergence of self-employment." *A Comparative Study of Self-employment*.

Lazear, E.P. (2005) "Entrepreneurship". *Journal of Labor Economics*, 23, 649-680

Paper Session 2B: Structures, Institutions & Policy

Regional Youth Welfare Policies and Leaving Parental Home in Switzerland

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Keywords: Leaving home, age, youth welfare policy, Switzerland

Leaving the parental home and its timing are considered important aspects of the transition to adulthood: leaving home early may reduce education aspirations and attainments, whereas leaving home at a later age may delay marriage and childbearing (Rossignon et al. 2016). Comparative research has shown that the education system, labour market structures, welfare systems and social norms matter for leaving the parental home (Chevalier 2016). In Switzerland, integration into the labour market occurs early due to the dominant apprenticeship-based vocational education and training (VET) system, unmarried cohabitation has emerged as a frequent form of living arrangements, and leaving home occurs relatively early (Thomsin et al., 2004). However, there is considerable cantonal variation in educational paths (Scharenberg et al. 2016). How VET promotes the economic independence and the autonomy of young people (Wernli & Henchoz, 2015) may vary from canton to canton. Moreover, Bertogg (2020) points out that cantonal welfare systems, regional labour markets and local family norms impact on how young adults negotiate relationships with their parents. Finally, Armingeon et al. (2004) point out that Swiss cantons constitute own worlds of welfare, and Bonoli (2008) is able to show that this affects fertility behaviour. It is thus plausible to assume that patterns of leaving home also vary between the Swiss cantons. Whereas the individual-level determinants (e.g., material resources, gender, ethnic origin, parental background and family structure, see Rossignon et al. 2016) are well-documented, little is known whether and how regional characteristics matter for leaving the parental home. This paper thus contributes to the emerging literature on regional influence on life course decisions. We aim at testing, at the cantonal level, Thomsin et al.’s (2004) assumption that the dual education system promotes patterns of earlier leaving home. Theoretically, we refer to Chevalier’s (2016) youth welfare citizenship typology to conceptualise the contextual level, and to push and pull factors of leaving home to link contexts and agency at the individual level (Mazzarol and Soutar 2020). We therefore ask: (1) Are there cantonal differences in temporal leaving-home patterns? (2) To what extent can such cantonal differences be explained by canton-specific education policies? TREE1 longitudinal data allows for modelling temporal leaving home patterns and its cantonal variation in the first decade of the 21st century. We calculate multilevel binary logistic regression models (growth models) by taking into account three levels: time (age, leaving home), time constant individual characteristics (gender, ethnic origin, parental background, education) and the cantonal context (share of youth in VET training, university canton, youth unemployment rate). Preliminary results confirm considerable cantonal variation of leaving-home temporalities. The median age of leaving home varies by three years (age 20.4 to 23.4) between the cantons, even when holding time-stable individual characteristics constant. In a next step, the cantonal variation will be analysed by taking educational variables at both the individual and cantonal level into account.

Armingeon, K., Bertozzi, F., & Bonoli, G. (2004). Swiss worlds of welfare. *West European Politics*, 27 (1), 20-44.

Bertogg, A. (2020). Regional Chances, Regional Constraints? Transition to Adulthood and Intergenerational Ties in Regional Context. *Emerging Adulthood*, 8(2). 159-167.

Bonoli G. (2008). The impact of social policy on fertility: evidence from Switzerland. *Journal of European Social Policy*, 18 (1), 64-77.

Chevalier, T. (2016). Varieties of Youth Welfare Citizenship: Towards a Two-Dimension Typology. *Journal of European Social Policy* 26 (1), S. 3–19.

Mazzarol, T., Soutar, G.N. (2002). ‘Push-Pull’ Factors Influencing International Student Destination Choice. *International Journal of Educational Management*, 16 (2), 82–90.

Scharenberg, K., Wohlgemuth, K., Hupka-Brunner, S. (2017). Does the Structural Organisation of Lower-Secondary Education in Switzerland Influence Students’ Opportunities of Transition to Upper- Secondary Education? A Multi-level Analysis. *Swiss Journal of Sociology*, 43 (1), 63-87.

Thomsin, L., Le Goff, J.-M., & Sauvain-Dugerdil, C. (2004). Genre et étapes du passage à la vie adulte en Suisse. *Espace populations sociétés*, 2004/1, 81-96.

Wernli, B. & Henchoz, C. (2015). Les conséquences financières du départ du foyer parental: une analyse longitudinale des données du Panel suisse de ménages. *Swiss Journal of Sociology*, 41(2), 311-328.

Entry into and completion of vocational baccalaureate school in Switzerland: Do differences in regional admission regulations matter?

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Keywords: vocational baccalaureate, cantonal differences, admission regulations, opportunity structures

Switzerland’s educational system is strongly tracked and federally organized by 26 different cantons. Upper secondary education is divided into a general and vocational path. Nationwide, approximately 70% of adolescents attend dual or school-based vocational education. An increasing number of VET learners combine VET with a federal vocational baccalaureate (FVB), enabling them to enter universities of applied sciences. Vocational baccalaureate school can be attended during vocational education and training (FVB1) or after successful completion (FVB2). However, the proportion of VET learners and vocational baccalaureate holders of both types vary considerably between regions (i.e., cantons). The same holds for admission criteria to vocational baccalaureate school. Previous literature assigns differences in the proportion of (vocational) baccalaureate holders to regional supply and opportunity structures (Kost et al., 2017), regional labour market variations (Glauser & Becker, 2016), and regional specificities in the assigned value of different education pathways (Hägi, 2019). It remains unclear, however, how cantonal variations in admission criteria affect the likelihood to begin and successfully complete a vocational baccalaureate. In this contribution we investigate whether different admission regulations between cantons affects both, the transition to and successful completion of a vocational baccalaureate. We argue that the decision to pursue a vocational baccalaureate is jointly influenced by individual and institutional factors (Heinz, 2009). Admission criteria provide opportunity structures that set the scope for individual education decisions by influencing adolescents’ cost-benefit calculations (Becker 2007). In some cantons access to vocational baccalaureate school is regulated by admission examinations. In other cantons admission depends on school grade averages, teacher recommendations or on passing a preparatory course. Students consider these opportunity structures when developing their educational aspirations and professional goals (Heckhausen & Buchmann, 2019). Mandatory admission exams are likely to pose the highest access hurdles for vocational baccalaureate school, thus reducing young people’s chance to enter this type of school.

We use longitudinal register data from the Federal Statistical Office (LABB data) and include all individuals into our analysis who completed compulsory school in 2012 and entered a regular three or four-year upper secondary VET training programme. We combine the register data with indicators of cantonal admission criteria to vocational baccalaureate schools. Results confirm the significance of admission criteria for the transition to vocational baccalaureate school. Especially mandatory admission exams reduce the likelihood that VET learners begin a vocational baccalaureate. The effect of admission exams is weaker, albeit still manifest, for successful graduation. High entry barriers, such as admission exams, may thus fail in selecting the most able students. Furthermore, our results reveal differences between the two types of FVB. Admission criteria are more influential for the transition to and completion of FVB2 than FVB1. In sum, the findings indicate that cantonal differences in admission criteria affect young people’s chances to earn a vocational baccalaureate and enter a university of applied sciences.

Graduates of dual study programs in Germany – the impact of institutional and organisational frameworks for career entry and labour market opportunities

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Keywords: dual study programs, transitions, work-based higher education, vocational education and training

Dual study programs in Germany are enjoying an ever-increasing demand both from companies to secure junior staff and from qualified school graduates as an attractive opportunity for an early career entry. The number of dual study programs has been risen over the years in different disciplines (i.e., engineering, economics, health science). Between 2004 and 2019 not only dual study programs (512 – 1.662), but also the number of cooperating companies (18.168 – 51.060) has increased and gained popularity (AusbildungPlus 2019).

The interplay of higher educational learning processes and operational experiences as a special feature of the dual study programs has an impact for career entry and labour market opportunities of the graduates (Krone/Ratermann-Busse 2017). This interlinking generates the specific competence profile of the students: an academic-operational type of education (Krone 2015; Ratermann/Mill 2015; Ratermann 2015; Hähn/Krone/Ratermann-Busse 2019; Krone/Nieding/Ratermann-Busse 2019). At the same time, this implies that both institutional and organisational frameworks of universities and those of the companies create different types of dual study programs.

Because of few empirically based data on dual study programs in the past, the Institute for Work, Skills and Qualification at the University of Duisburg-Essen explores since 2010 in different research projects the special features of this hybrid form of education as an interface between vocational and higher education. In the scope of the two central studies “Development conditions, interests and implementation experiences in dual study programs” (BMBF, period 2010-2013) and “Career paths for students of dual study programs” (HBS, period 2015-2017), quantitative and qualitative empirical results are available which provide insights about the implementation of dual study programs, characterize the dual students and describe their transition to work. With a particular focus on the results of the extensive survey of dual students and graduates in Germany (n=9.125) from 2015 to 2017, the aim of the presentation is to outline several topics relevant to the forum for the group of dual students and the graduates.

Firstly, it will be revealed that companies assume a gatekeeper function in access to dual study programs, which entails the risk of a limited equal opportunity in view of participation at this work-based higher education. Secondly, it will be illustrated how students and graduates assess this combination of academic learning contents and company experiences in preparation for a successful transition from university to work. In this context, the relevance of organisational and institutional frameworks of companies and universities will also be examined. Thirdly, the outcomes (individual and labour market) of dual study programs will be elaborated: higher job security compared to other graduates, a high degree of fit between graduates' skills and future fields of work and finally differences in the design and regulation of dual study programs, which lead to a lack of transparency in the quality of dual study degrees.

Paper Session 2C: Peers & Context

Schools as differential environments for students' development: How tracking and school composition influence students' transition after the end of compulsory education

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Keywords: Transition, tracking, school composition, differential environments for learning and development

The Swiss education system at lower-secondary level is characterized by external differentiation into tracks with different educational requirements. As known for other education systems, external differentiation can lead to social stratification or segregation (e.g., Baumert et al., 2006) and may provide students with different developmental opportunities. This might result in unequal educational opportunities and can – in case of lower tracks – impede students' individual development (ibid.).

Effects of differential environments were repeatedly demonstrated regarding students' learning achievement (e.g., Baumert et al., 2006; Becker et al., 2012; Gröhlich et al., 2010; Scharenberg et al., 2014): Corresponding effects of school composition and track affiliation demonstrated, for example, for students in Germany a widening achievement gap between basic and academic tracks or a favoring of students at schools with a more privileged composition. Similarly, a study in Switzerland (Neumann et al., 2007) showed that students' language achievement development was significantly higher in academic tracks than in basic tracks. There was also evidence of advantages due to a higherperforming and socially more privileged school composition. However, these effects were confounded with institutional effects of tracking. Thus, the interplay of the effects of tracking and student composition is still a matter of scientific debate.

We addressed three research questions: 1.) Does tracking affect students' probability of transition to post-compulsory education? 2.) To what extent are track-specific transition rates due to differences in the composition of the student body? 3.) Are effects of tracking and school composition confounded or independent effects? Analyses based on data from the TREE panel survey (cohort 1, n=4,192 students, 217 schools). Multilevel logistic regression analyses (HLM 7.01; Raudenbush et al., 2013) were specified at student and school level and controlled for gender, language spoken at home, social background (HISEI; Ganzeboom et al., 1992), and PISA Reading literacy (Adams & Wu, 2002) as indicators of schools' differential intake selectivity. At school level, we controlled for achievement-related, social, and ethnic school composition (schools' average) as well as for students' track affiliation (basic vs. academic requirements).

29.8% of basic-track students failed to directly enter certifying education programs at upper-secondary level. This proportion was significantly lower (13.2%) for those from academic tracks ($\chi^2=126.16$, $p<.001$). Beyond this, there were significant differences in social, ethnic and achievement-related school composition in favor of academic tracks. Multilevel analyses revealed higher transition rates for academic-track students (OR=1.44, $p<.05$). However, compositional and tracking effects were confounded, with the main effect of school tracking being fully explained by the main effect of schools' social composition. Beyond this, we found an interesting interaction effect between school track and social composition within the tracks indicating that academic tracks with a socially more privileged student composition provide better conditions for students' development (OR=4.85, $p<.001$).

Our analyses extend the so far existing empirical knowledge on differential environments for learning and development by examining a key indicator of students' educational biography as dependent variable. Our findings underscore the importance of compositional and institutional characteristics for students' developmental trajectories into (young) adulthood. Further analyses will also draw cohort comparisons.

The role of students’ sense of belonging in moving up to higher education

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Keywords: Life course, Academic achievement, Sense of belonging, Socioeconomic status, Structural equation model

The need to belong has long been identified as a fundamental psychological motivation, which applies in particular to the educational environment. Students’ sense of belonging in school has been shown to positively affect students’ persistence and to be a strong predictor of retention, thus influencing student’s educational trajectories. At the same time, parental socioeconomic status (SES) as well as students’ self-expected SES increase students’ chances for academic success. This raises the question how students’ sense of belonging, their parental SES, and self-expected SES interplay when it comes to educational trajectories up to higher education.

This study examines the role of these variables at the two main junctures in the Swiss education system. In particular, this study addresses the following research questions:

- (1) How does the students’ sense of belonging in lower secondary school in interaction with their self-expected SES and their parents’ SES affect the probability to transition to academic upper secondary school?
- (2) How does the students’ sense of belonging in upper secondary school in interaction with their self-expected SES and their parents’ SES affect the probability to transition to university?

This study considers a subsample of the TREE data set of $n = 1989$ students who attended a high track in lower secondary school and for whom information was available about whether they attended a university later in life. The original sample of $N = 6343$ students has on average a lower parental SES (50.4 vs. 56.4) and a lower self-expected SES (54.1 vs. 63.2) and contains more male students (45.8% vs. 41.1%) than the analytic sample.

The two dichotomous dependent variables are academic upper-secondary education (vs. vocational education) and university attendance (0=no, 1=yes). We used the following predictors: the sense of belonging in school during lower respectively upper secondary school, both modelled as a latent construct and each measured by three items (e. g., “I feel like I belong” or “My school is a place I like to be at” assessed on a four-level Likert scale). Further predictors are parent’s SES, and students self-expected SES. We control for students’ reading skills, immigrant status, gender and age.

Structural equation modelling is used to estimate the extent to which the sense of belonging, parental SES and self-expected SES are related to individuals’ probability to transition to academic upper-secondary education; and to estimate the extent to which these variables are related to individuals’ probability to eventually transition to university. Missing data is handled using multiple imputation by chained equations ($m = 50$).

The results of the structural equation model show that (1), for the transition to academic upper-secondary school, the self-expected and parents’ SES play a dominant role whereas the sense of belonging in lower-secondary school has only a moderate effect. And (2), for the transition to university, self-expected and parent’s SES play less of a role than they did for the transition to academic upper-secondary school, but the sense of belonging in upper-secondary school proves to be a very important factor.

How does being tenured affect the job satisfaction of doctoral graduates? (online)

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Keywords: tenure, temporary employment, job satisfaction, doctoral graduates, Germany

Previous research has shown that temporary employment is negatively associated with many psychological and job-related outcomes, such as well-being, health, wages, organisational commitment, and job satisfaction. Among recent doctoral graduates, the proportion of temporary contracts is particularly high. However, research on the association between contract type and job satisfaction specifically among recent doctoral graduates is scarce. Therefore, the effect of being tenured on doctoral graduates' job satisfaction remains a notable research gap that we intend to narrow by using panel data from a recent doctoral graduation cohort and by adopting a panel research design. Based on social comparison theory (Festinger, 1954), effort-reward imbalance theory (Siegrist, 1996), and a rational choice perspective, we assume that being tenured increases recent doctoral graduates' job satisfaction. For our analyses, we use panel data that is representative of the 2014 doctoral graduation cohort in Germany and their career trajectories up to five years after graduation. We apply fixed-effects regression to approximate the within-effect of being tenured on job satisfaction. The analyses confirm that being tenured increases doctoral graduates' job satisfaction substantially and statistically significantly and that this increase is not driven by time-varying confounders. We also find that doctoral graduates' labour market sector moderates the effect of being tenured: the increase in job satisfaction is highest in the academic sector and statistically significantly different from the private sector. Overall, the presentation offers new insights into the effect of being tenured on the job satisfaction of recent doctoral graduates throughout their first years after graduation, when they are particularly often employed on temporary contracts.

Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations*, 7(2), 117–140.

Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1(1), 27–41.

Paper Session 3A: Parents and Family

Parents’ Life Course Characteristics and Family Attitudes as Predictors of the Uptake of Child-care Arrangements

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Keywords: childcare; life course; family values; panel data; Switzerland

Departing from a life course perspective, this study assesses the challenging and competitive pressures linked with the midlife period and the difficulty to combine work and family roles for young working parents. To reconcile the professional and the family sphere, they can use a variety of potential child-care arrangements. However, the uptake of a childcare arrangement depends on the availability and proximity of childcare providers, the position and characteristics of parents’ life course but also on their values, such as gender attitudes and the perception of gender equality. Particularly, on the latter little is known. Therefore, the aim of this study is twofold: we shed light on how parents’ life course characteristics and position as well as their gender attitudes and perception of equality relate to the uptake of a specific childcare arrangement. We use data from 11 waves from the Swiss Household Panel (SHP). The SHP allows the differentiation of a large array of childcare types: parental care, care provided by relatives, institutional care, as well as mixes of these arrangements. Moreover, the dataset provides information on both mothers and fathers, while most existing studies rely on data obtained from women only. The results from multinomial multilevel models suggest that for women and men different aspects drive the selection of a childcare arrangement. The results further show that, besides economic resources, individuals’ life course characteristics and position are crucial in the uptake of a childcare arrangement: higher educated mothers and those who are more involved in the labor market tend to rely particularly on institutional childcare. Moreover, mothers and fathers with less traditional values regarding gender attitudes and the perception of equality privilege institutional care over other arrangements. The choice of one form of childcare over another reflects a certain representation of the family. Our study highlights that policies on early childhood education should consider parents’ preferences and needs.

On the pervasive myth of “analytical” males and “caring” females. Investigating supply-side mechanisms of gendered field of study choice

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Keywords: education, gender, field of study choice, gender segregation, mathematical ability

Occupational gender segregation is one of the most persistent gender inequalities in the labor market with women disproportionately working in occupations with fewer promotion possibilities, more precarious job opportunities, and less pay. One likely reason for this phenomenon is the gendered choice of fields of study and vocational training opportunities. In particular, the lower proportion of women in male-dominated subjects might be detrimental to women, as these credentials yield high returns in the labor market. Despite the importance of the topic, research struggled to identify the main mechanisms, as the explanatory contribution of ability and preferences remains low. One possible reason for this result is that most previous research had to rely on secondary datasets that did not directly measure individuals’ field of study preferences and are subject to additional data limitations. To circumvent these problems, I conducted a choice experiment in the Swiss panel study TREE2, which allows for a more direct measurement of field of study preferences. The results show that women and men have distinct preferences regarding the characteristics of their potential field of study and that these preference differences cannot be explained by academic ability differences. Further, preferences only explain a small part of the gender segregation in field of study plans compared to academic ability, grades, and confidence.

Gender inequality during the Covid-19 pandemic: Changes in work and family organisation

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Keywords: Covid-19, time use, employment, unpaid work, couples

During the first wave of the Covid-19 pandemic, confinement measures produced important changes in the organization of work and family life. To what extent have these confinement measures affected men and women differently during the first semi-confinement period as well as after?

This study will present findings from the Covid-19 study carried out as part of the Swiss Household Panel to show changes in the employment situation and in the time spent on paid and unpaid work comparing three time points: before the pandemic (the fall of 2019), during the first confinement (spring of 2021) and during the fall of 2020. The focus of the study is on couples with and without children with particular attention for the role of the socio-economic position of the household. Findings from the first two time points show that women’s employment situation was affected more than men’s, with women experiencing a larger decrease in working hours. With an increase among mothers in unpaid work hours, the relative share of total work spent on unpaid work increased among mothers, increasing gender inequality during the semi-lockdown. However, changes depended on the way paid and unpaid work were divided among couples prior to the pandemic, with a more egalitarian division of paid and unpaid work prior to the pandemic among parents being associated with a larger increase in time spent on care work during the first semi-confinement among fathers. Adding the third time point will provide insight into the extent to which the observed changes were temporary or longer lasting.

Labour market trajectories of teenage mothers- and fathers – a sibling comparison study (online)

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Keywords: teenage parenthood; sequence analysis; sibling models; labor market outcomes

Teenage parenthood is feared to have long term consequences for the life trajectory of young parents. The event, falling outside of the expected social time tables of timing and ordering of education, work and family formation, is feared to hinder human capital acquisition and putting financial strain onto the young parents. In this study, we combine sequence analysis and sibling models, using Swedish register data. We look at a number of complete population cohorts, born in the late 1980s to the early 1990s, and follow them until their early thirties. While previous studies indeed show negative impacts of young parenthood on labour market outcomes, we make three main contribution to a further understanding of the consequences of teen parenthood. First, we look at long term labour market trajectories of teenage parents and their siblings, following them from ages 20 to 31. These 12-year trajectories allows teenage parents to experience the first years of parenthood, while still having time to “catch up” to their siblings, after the early childhood years. Further, using sequences of labour market states, instead of single point in time estimates, allows us to capture patterns of combination of work, study or unemployment, as well as the relative stability or complexity of the trajectory, giving a more nuances picture of the labour market pathway. We illustrate the different types of labor market sequences using established clustering techniques. Second, as there are substantial selection effects in who becomes a teenage parent, with overrepresentation of young people from low socioeconomic backgrounds which is later reflected in their later life outcomes, we use multinomial sibling models to compare young parents to their non-teenage parent siblings. This allows us to compare labour market trajectories of teenage parents to those of individuals with the same familiar background, controlling for all join family characteristics. Lastly, while the teenage parenthood literature is dominated by young mothers, we look both young men and women, where teenage mothers are compared to non-parenting sisters, and teenage fathers to non-parenting brothers. This allows us compare the gendered impacts of teenage parenthood on labour market trajectories. Preliminary analysis indicates that teenage parenthood is still connected to more precarious labour market paths, and that these impacts are more substantial for women than for men even in the gender equal context of Sweden.

Session 3B: Health / Covid 19

Overwhelmed by Learning in Lockdown: Effects of Covid-19-enforced Home-schooling on Parents’ Wellbeing

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Keywords: Covid-19; homeschooling; parental involvement; social inequalities; wellbeing

With the closure of schools due to the Covid-19-pandemic, parents of school-children had to quickly adapt their daily schedules by taking over responsibilities of homeschooling for their children, while arranging their own schedule. This study first identifies the parents who are most challenged by having to ensure homeschooling responsibilities and then assesses how homeschooling affects different dimensions of parents’ wellbeing. Analyzing data from a large general population-representative panel survey in Switzerland, we compare subjective wellbeing before the Covid-19-outbreak to wellbeing at the end of the semi-lockdown. Almost a fifth of parents report being sometimes overwhelmed by homeschooling obligations for their children. Women, mid-aged and lower-educated individuals as well as those with young children and a lower income are particularly overwhelmed. Moreover, the responsibility to provide homeschooling does not cause changes in parents’ subjective wellbeing in terms of general life satisfaction, stress and positive and negative affect. We derive recommendations for educational and public health policies.

The Impact of the COVID-19 Pandemic on the Luxembourgish Education System: Differences between students based on background characteristics in elementary and secondary school

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Keywords: academic achievement; COVID-19 pandemic; perception of home-schooling; large-scale data

Policy responses to the COVID-19 pandemic (e.g., school closure, home-schooling) have affected students at various stages of education all over the world and were found to increase inequalities in academic achievement (OECD, 2021). The present study is based on fully representative large-scale data from the Luxembourg School Monitoring Programme (Épreuves Standardisées; ÉpStan; LUCET, 2021). The ÉpStan are assessing key competencies of primary and secondary school students in different subjects (e.g., German, French and Math). To allow a fair performance comparison, socio-economic and socio-cultural backgrounds of students (e.g., gender, migration and language background) are systematically taken into consideration. The ÉpStan 2020 entail data from approximately 25.000 students from five different grades (elementary and secondary school), from 15.000 parents (elementary school) and comparative data from 160.000 students from previous cohorts, thus providing key empirical findings on the pandemic’s impact on the Luxembourgish education system. In the present contribution, we analyze a) how the results of standardized achievement tests compare to previous cohorts and under consideration of students’ socio-economical and socio-cultural background, as well as b) how parents and students perceived home-schooling with regard to aspects such as coping, technical equipment, motivation or contact to teachers. First results indicate that in Grades 1, 5, 7 and 9, standardized achievement scores were generally stable in comparison to previous years. However, in Grade 3, students’ competency scores in German (primary language of instruction in elementary school) listening comprehension worsened substantially. Furthermore, third graders from socioeconomically disadvantaged households and/or students that do not speak Luxembourgish/German at home did worse in German reading comprehension than their peers from socio-economically advantaged households and/or speaking Luxembourgish/German at home. Concerning the perception of home-schooling, students coped rather well with the situation, with German being a bit more challenging in primary school and math in secondary school. Findings concerning motivation and enjoyment of home-schooling were mixed, with primary school students’ motivation being comparably to the regular school setting but approximately half of the secondary school students being less motivated than in the regular school setting. Furthermore, all households seem to have been well equipped, with the situation being slightly more favorable in socio-economically advantaged households. For the majority of students, the contact with teachers was frequent, with teachers having adapted their type of support to the needs of their students (e.g., more personal contact towards students from socioeconomically disadvantaged households). To conclude, it can be said that no systematic negative trend has been identified in students’ achievement scores. Only German listening comprehension in Grade 3 has worsened substantially and these skills should therefore be fostered as early as possible. Overall, students coped rather well with home-schooling without, however, particularly enjoying it. While students entering the pandemic with favorable background characteristics (e.g., higher socio-economic status, speaking a language of instruction at home) managed better both regarding competencies and perception of home-schooling, students with less favorable background characteristics have received more differentiated support. These findings underline that already existing inequalities in the Luxembourgish school system have in parts been intensified by the pandemic.

LUCET. (2021). *Épreuves Standardisées (ÉpStan)*. <https://epstan.lu>

OECD. (2021). *The State of School Education: One Year into the COVID Pandemic*. OECD Publishing. <https://doi.org/10.1787/201dde84-en>

The Role of Health, Personality Disorders and Work Attitudes for School to Employment Transitions: Evidence from German Apprentices

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Keywords: Health, Personality Disorders, Work Attitudes, School-to-work transitions, VET

An elaborated body of research analysed social, gender, and ethnic inequalities in the school-to-work transition (StWT). Moreover, research focuses on how networks and cognitive skills influence StWT outcomes. However, less is known on how health, personality disorders, and work attitudes influence transitions into the labour market. This study contributes to the StWT literature in analysing in how far mental and physical health, coping ability, cooperativeness, emotional instability, and attitudes towards work influence the transition from school to first employment.

The study takes two analytical steps. First, the study investigates transitions to regular employment. Second, the study takes the quality of employment into account and analysis transitions from apprenticeship training to high quality jobs. To this end, the study draws on a unique sample of 900 individuals from the apprenticeship training system in Germany. This sample contains rich information on health (SCL 10 a reduced form of the Hopkins Symptom Checklist (Derogatis et al. 1974), self-rated health, SF-12 a reduced form of the SF-36 (Radoschewski & Bellach 1999)), personality disorders (personality functioning according to Parker et al. (2004) and emotional instability), and work attitudes (Work Involvement Scale (Warr et al 1979)). These information stem from a baseline survey that took place in 2017 and that was conducted before individuals entered the labour market. To analyse transitions from apprenticeship training the survey data have been merged to the social security records from the Federal Employment Agency. The results from logistic regressions on employment transitions reveal that all health and personality predictors are only weakly associated with these transitions. However, when taking the quality of employment into account the constructs under study reveal to be important determinants. With increasing anxiety and depression symptoms, transitions to high quality jobs become increasingly unlikely. The influence of physical health appears to be important, too. However, the associations found are not statistically significant. Emotional instability is negatively associated with high quality transitions while good coping abilities and cooperativeness are positively associated with these transitions. Finally, work attitudes are in general important to find employment after an apprenticeship. In sum, the results reveal that the health and personality traits under study are rather important for horizontal differentiation processes at labour market entry than for vertical processes (i.e., finding employment at all). As the quality of a first job is highly important for the subsequent career, inequality in health and personality have the potential to cause long-term inequality in individuals' labour market careers.

Session 4A: Goals & Satisfaction

Agency in secondary school transitions in Switzerland: To what extent can children pursue their own path?

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Keywords: Agency/Structure, Educational transitions, Secondary school, Socio-economic background

Integrating the perspective of life-course sociology and life-span developmental psychology (e.g. Heckhausen & Buchmann, 2019), this paper examines how individual agency, socio-economic background, and the structure of the educational system shape secondary school transitions in Switzerland. Research suggests that agency tends to be particularly influential at the “windows of opportunities” left open by the education system at transition points (Schoon & Heckhausen, 2019). Prior studies found independent effects of agency on specific educational transitions, further showing that these transitions are also shaped by family SES (Schoon & Cook, 2020) and the structure of the education system (Burger, Conditionally accepted; Steinhoff & Buchmann, 2017). However, rarer are studies on how agency, socio-economic background, and the structure of the education system independently and jointly influence individuals’ educational transitions. This study aims to address this gap in the Swiss context by investigating 1) the role that agency plays in the transitions to lower- and upper-secondary school; 2) to what extent socioeconomic background moderates the effect of agency on these transitions; and 3) whether agency mediates the effect of lower-secondary attainment on the transition to upper-secondary school. We draw on data from the representative child cohort of the Swiss Longitudinal Survey of Children and Youth COCON (N=1273 first wave; 49% female). Agency is measured through the multi-item constructs of effort, perseverance, and volition, self-reported at age 12 and 15, respectively before the transitions to lower-secondary (age 13) and upper-secondary school (age 16). We analyse probabilities of transitioning 1] into low, intermediate or high tracks at the lower-secondary level; and 2] into academic or vocational tracks at the upper-secondary level, using structural equation modelling. Interaction terms are introduced to examine how parental SES (measured by education and income) moderates the effect of agency on educational transitions. Controls are added for gender, cognitive ability, parental education, and family income (measured at age 6). FIML estimation accounts for missing data (35% in the last wave analysed as compared to the first wave).

Findings show that 1) higher levels of volition at age 12 are significantly associated with higher probabilities of transitioning into a high track in lower-secondary school. However, effort, perseverance, and volition at age 15 are not significantly related to the probabilities of transitioning to academic or vocational tracks at the upper-secondary level. 2) The effect of volition on most transitions is moderated by parental education and income, albeit in a variety of ways, which will be discussed in the paper. 3) Finally, agency does not seem to significantly mediate the effects of lower-secondary attainment on the transition to upper-secondary education. Overall, findings are in line with prior research suggesting that the Swiss secondary school system leaves relatively limited opportunities for children to pursue their own path. Moreover, when the ‘power’ of agency is higher, this seems to be highly shaped by the socio-economic background, suggesting that other sources of inequality may fill in where “windows of opportunities” are left open by the education system.

Goals young people set for themselves in multiple life domains during young adulthood: How do they intersect and change over time? (online)

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Keywords: young people, personal and career goals, intersecting life domains

Goals are future-oriented mental representations of end states young people strive to achieve (Emmons, 1997). They reflect the institutional or structural expectancies about the content and timing of the tasks young people are expected to master, as well as what the young person believes to be attainable and to represent their image of their own self, and of what is valued by their social network (Heckhausen & Buchmann, 2019). By setting, pursuing and renegotiating goals, young people make choices and construct actions enabling them to take an active stance toward themselves and their envisioned futures, thus, to take ownership over their pathways through life and careers (Salmela-Aro, 2009). It is the aim of our study to investigate (1) the goals young people going through various interlinked transitions typical of the transition to adulthood set for themselves from the early to the late twenties, (2) the interdependencies that exist between the goals youth set in multiple life domains, and (3) how these goal patterns change over time. Data from 754 participants from the Finnish Educational Transitions Studies were collected 4 times between 2008 and 2016-2017: in 2008 (age 20-21 years), in 2011 (age 22-23), in 2013 (age 24-25), and in 2016 (age 28-29 years). The study captured the multiple transitions in various life domains participants experienced following the financial crisis of 2008, which greatly affected Finnish youth (OECD, 2019). First, a content analysis of participants' answers to a revised version of Little's 1983 Personal Project Analysis inventory was conducted using Atlas.ti8. At each measurement, participants filled in a revised version of Little's 1983 Personal Project Analysis inventory (Salmela-Aro, 2001). They were asked first to describe four of their current important personal goals in life areas like friends, family, work, dating, health. Next, participants were asked to freely select and name one personal goal pertaining to their career. They were informed the career goal could be one of the four personal goals previously identified. A qualitative content analysis using Atlas.ti8 and based on a consensus approach was used to code the data (Hill et al., 2005). The content analysis of participants' answers to the question about the personal goals revealed eight main domains: Caring and close relationships; education; employment; progress/success in career; finances; self-awareness/development; wellbeing/health; lifestyle. The following six main domains were identified for the career goal: Education, employment, progress/success in career, finances and lifestyle, self-awareness, and other goals. Intersections and interdependencies between the categories identified for both types of goals will be further analysed and discussed. Specifically, we will conduct a latent transition analysis (LTA) to identify the longitudinal developmental trajectories of the personal goals young people self-set during the young adult years and while they experience transitions in multiple life domains, including the career domain.

The Effects of Peers’ Career Goal Appraisals on School to Work Transition Outcomes

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Keywords: school to work transition, peers, peer networks, career goals, goal appraisals

Despite the growing body of research on the transition from school to work, an important aspect of young people’s social realities in this phase has been largely overlooked: their peers. This study investigates to what extent peer networks in late adolescence, and particularly peers’ appraisals of their own career goals, are related to young people’s subjective early transition outcomes in a Finnish sample (N = 322) between the ages 17 and 20. The results show that having peers who positively appraise their goals as attainable is associated with more positive transition outcomes as young people more often reported having reached a (temporarily) satisfactory transition outcome which they intended to maintain unchanged. Negative peer appraisals showed no associations with transition outcomes. The present study offers an important step toward a comprehensive understanding of the social lives of young people in career transitions and provides new directions for research and counseling.

Session 4B: Migration

What role do (migrant) parents play in the educational success of their children?

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Keywords: Parental investment, education, success, second generation, mixed method panel survey

An important strand of research holds that, at similar levels of social origin, a considerable share of the children of migrants make more ambitious educational choices and often reach higher educational achievements compared to children of the majority group. This unexpected situation is often attributed to the fact that migrant parents regularly have higher educational aspirations for their children than majority group parents. However, little is known on how parental aspirations are related to and translated into educational achievements. Do only aspirations matter or are there other intra-familial processes at play? A potential explanation is varying parental investments (PI).

To shed more light thereon and to assess the mechanisms at play, in this study, we decompose PI in their children's education in three components: (1) parental aspirations (aims), (2) available resources within the family (means of actions) and (3) parental strategies (mobilization of resources to attempt to achieve the aims). To extend the knowledge on children of migrants' success against the odds, this study will focus on how PI contribute to a successful lower and/or upper secondary education for migrant's descendants. For this purpose, we rely on a mixed method design and a comparative approach between native and migrant families. First, we make use of the second cohort of the “Transitions from Education to Employment” (TREE2) panel survey (a longitudinal follow-up of compulsory school leavers in Switzerland; n=8,429) to investigate the relationship between PI and educational success. Educational success is observed at different time points, by the lower secondary track attended and by the postcompulsory educational trajectories (type of education undertaken). Second, we analyse qualitative interviews of the TREE in-depth study PICE (www.pice.unibe.ch) undertaken with educationally successful TREE2 respondents (n=71) and one of their parents with modest social origin and without tertiary education (n=48). By comparing families with and without a migration background, the qualitative analysis allow us to better understand, if so, how parental aspirations go together with parental resources and strategies. The mixed method approach is extremely valuable: the intergenerational qualitative data will give an individual/familial subjective perspective of the concept of educational/vocational success and add to re-evaluate the quantitative results and the theoretical perception. It further allows investigating subjective and objective evaluations of parental aspirations, resources and strategies in Switzerland. With this scope, our study make a valuable contribution to the existing literature and to the ongoing discussions on how to ensure the educational success of the second generation.

Ethnic choice effects over the educational life course: A longitudinal study of educational choices

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Keywords: ethnic choice effects, educational transition; immigrant optimism, vocational education and training (VET), academic education

Across Europe it is a well-established finding in research that migrant youth make different educational choices at different educational stages than native residents. Once accounting for prior educational performance and socioeconomic background, migrant youth switch more often to more demanding educational options than natives. For example, several studies across European countries have revealed that migrant youth are more likely to choose academic tracks over vocational alternatives at the upper-secondary level when controlling for social background and educational performance (Germany: Dollmann and Weißmann, 2020; Finland: Kilpi-Jakonen, 2011; Netherlands: van de Werfhorst and van Tubergen, 2007; Sweden: Jonsson and Rudolphi, 2011; Switzerland: Tjaden and Scharenberg, 2017).

A growing body of research highlights that secondary effects of a migrant background (i.e., migration-specific educational choices) largely shape these differentials in educational transitions (e.g., Tjaden and Scharenberg, 2017). The immigrant optimism hypothesis (Kao and Tienda, 1995) provides a useful theoretical framework for understanding the underlying processes of secondary effects of migrant background and has received both most attention and empirical support in existing research (e.g., Busse, 2020). According to the immigrant optimism hypothesis, the central motive of migration, the striving for a better life, results in strong efforts to reach upward social mobility (Hadjar and Scharf, 2019; Dollmann and Weißmann, 2020). This motive of upward mobility comes along with high educational aspirations because educational degrees are regarded as the main key to reach upward mobility (Hadjar and Scharf, 2019).

Taking Germany as the case of study and using longitudinal data drawn from the German National Panel Study (NEPS, $n=11,598$), this study's objectives are twofold. This paper examines migration-related differences in educational transitions at different points of the German educational system (from lower secondary education, over upper-secondary education until higher education) and empirically tests theoretical mechanisms of secondary effects of migrant background. Particular attention is devoted to the extent to which secondary effects can be explained by differences in educational aspirations.

Our descriptive findings confirm multiple disadvantages at different points of the German educational system for migrant youth. Yet, the picture changes markedly once controlled for prior achievement and socioeconomic background. Compared to native youth, migrant youth are more likely to attend an academic track in grade 9, have higher participation rates in academic tracks during upper-secondary education, are even less likely to take up VET after lower-secondary education as well after upper-secondary education, and switch more often to a university after achieving an upper-secondary degree (net of achievement and socioeconomic background). The results of mediation analyses further confirm that these choice effects are largely shaped by migration-specific educational aspirations. In sum, this study provides detailed insights into the transition processes at different educational stages and the mechanisms driving secondary effects of migrant background. As migration-specific choice effects are also well documented in other European countries (e.g., Switzerland: Tjaden & Scharenberg, 2017) the investigation may also foster the understanding of educational inequalities in other European countries.

The role of special education, socioeconomic background, and immigrant status in academic attainment: A cumulative risk analysis

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Keywords: educational inequality, academic attainment, special education, cumulative risk

Special education is meant to improve educational outcomes for children who show below average performance or who have been diagnosed as learning disabled. However, special education could also lead to lower levels of educational attainment, since it sets apart those children by classifying them as special. This might negatively affect how such children are perceived or how they perceive themselves and thus lower their aspirations. Consequently, even if special education increased their performance, they may decide to choose less demanding educational paths and reach lower levels of attainment. Moreover, parental socioeconomic status and immigrant status influence children's academic attainment. If one now considers the fact that migrant students as well as lower class students are more likely to be classified as special education students, the question arises whether these are cumulative risks further lowering their academic attainment. All in all this research tries to answer following questions:

1. Does special education predict lower levels of academic attainment?
2. To which extent are special education, social background and immigrant status cumulative risks regarding educational attainment?

Data from the Transition from education to Employment (TREE) study is used. This is a longitudinal study that follows students after they graduated from compulsory schooling into their adult life. For this research, I use data from the first cohort (N=6343 in the year 2000), specifically looking at a subsample of individuals for whom data about tertiary-education attainment is available (n=2727). There are no significant differences regarding the predictors between the entire sample and this subsample. In a first step the probability of attaining a tertiary degree is estimated using a linear probability model controlling for socioeconomic background, immigrant status and academic performance (PISA reading scores). In a next step additional models with interaction terms are evaluated in order to assess whether the relation between special education and attainment is moderated by social characteristics and thus whether social background characteristics constitute cumulative risks. Results from the first model show that there is a significant negative association between special education and academic attainment, even after including covariates. The interaction models show that the relationship between special attainment and special education is weaker among individuals from low SES families and also among individuals with immigrant status. Overall, the results put the effectiveness of special education into question, since it was negatively associated with attainment even when controlling for academic performance (PISAScores). Lastly, the interaction models suggest that special education is not a cumulative risk for students from disadvantaged backgrounds (lower parental SES, immigrant status) given that them special education was not associated with lower attainment.