



**International Conference**

**LIVES IN TRANSLATION:  
Life Course Research and Social Policies**

**University of Lausanne, Amphipole Building,  
UNIL – Sorge, 1015 Lausanne, Switzerland**

**9 - 11 October 2014**

**ABSTRACT BOOK**

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#slls2014

## Day 1 – Thursday 9<sup>th</sup> October 2014

### KEYNOTE

09:30 - 10:30

Room: 348

### **The social investment strategy: Social policies in a life course perspective**

*Giuliano Bonoli, Professor of Social Policy, University of Lausanne, Switzerland*

European welfare states have to face a large number of serious challenges. These include population aging, the shift to multicultural societies, and the transformation of the labour market and of family structures. Against this background several experts, EU institutions and some individual countries place substantial hopes in social investment as a reform strategy. The notion of social investment refers to interventions that promote labour market participation of disadvantaged groups, by investing in their human capital and by improving the accessibility of the labour market. With instruments such as active labour market policies and subsidised childcare, the social investment strategy promises to deal with social problems and at the same time produce returns for society as a whole, by promoting higher employment rates and productivity. In the presentation, the social investment strategy is assessed on the basis of a range of problems that have been highlighted by life-course researchers.

### PARALLEL SESSION 1

#### 1A SYMPOSIUM

11:00 - 12:30

#### **Developing successful relationships with key stakeholder groups in cohort studies**

Room: 348

A stakeholder can be defined as a person or a group of people who have something to gain or lose through the outcomes of a project. Identification of key stakeholders and the successful management of these groups are critical to the success of cohort studies. A full understanding of the knowledge, interests, positions and alliances, for example, allows leaders of cohort studies to detect and prevent any potential misunderstandings and possible opposition to policy recommendations, making the policy more likely to succeed. A multidisciplinary team from the Avon Longitudinal Study of Parents and Children (ALSPAC), a birth cohort based in Bristol, UK, will run a symposium on developing successful relationships with key stakeholder groups. The first session will provide an overview of stakeholder analysis and suggest why it is important for cohort studies to identify the needs and concerns of different stakeholders, particularly when these projects aim to influence policy. An interactive screen app will be used to gather ideas from the group about who the key stakeholders are in cohort studies and this information will be used to develop an interest and power grid for the stakeholders the group consider most important. Suggestions will be offered for how to use this information to conduct further analyses and develop a strategy for managing these relationships more effectively. The following three sessions will look in turn at four important stakeholder groups – participants, policy-makers, the public and researchers. These sessions will outline the way ALSPAC has used stakeholder analysis to work more effectively with these important stakeholder groups.

#### **Who are our key stakeholders and why are they important?**

*Lynn Molloy, ALSPAC, UK*

A stakeholder can be defined as person or a group of people who have something to gain or lose through the outcomes of a project. Identification of key stakeholders and the successful management of these groups are critical to the success of cohort studies. Cohort studies are complex organisations, and leaders of cohort studies are required to manage relationships with different groups of stakeholders, who will have different, and at times conflicting, views on how the research is conducted. Stakeholder relations change over time and cohort studies need to understand how these changes are affecting stakeholder groups and put in place strategies to maintain effective relationships. In bridging research and policy, stakeholder analysis can be used to identify the groups engaged in conducting research, those who make/implement policy, and people working between these groups. It can define ways to engage stakeholders so that the impact of research can be maximised. It can also be used when research findings are available to use the evidence to create policy impact.

This session will provide an overview of stakeholder analysis and apply it to cohort studies. Using an interactive screen app the group will identify the key stakeholder groups in cohort studies and prioritise these groups in terms of their influence and power. This information will be used to develop a power/interest grid during the session.

Stakeholders with high power and interests aligned to the study, the 'decision-makers' and 'opinion leaders', are those that it is important to engage with and bring on board. At the end of the session suggestions will be offered about a) further analysis which can explore these relationships in more detail and b) the development of a strategy for how best to engage with stakeholders, how to frame messages and how to manage the relationship with them.

### **ÉCOUTER: Supporting participant engagement**

*Madeleine Murtagh, ALSPAC, UK*

Engaging participant stakeholders in longitudinal studies is axiomatic. The rationales are both ethical and practical. Engagement, done well, is in and of itself a respectful act. By that route, by being respectful, and through regular predictable patterns of study behaviour (eg. participants' experience of consistency in the study design, practice and expectations of them) trust is built. Trust is the foundation of that other vital marker of engagement, participant retention. Participants who are engaged are, arguably, more likely to maintain their participation in the study. Respect and meeting expectation are the underpinning of maintaining good participant relations over the relatively predictable pattern of a longitudinal study. What happens, though, when an important but unforeseen policy issue arises; e.g., a new technology that allows unforeseen or potentially controversial research questions. Imposition of such technology may not be appropriate; having the potential to breach participant's trust and thereby threaten retention. In this setting, deliberative mechanisms of engagement, such as citizen's juries, consensus meetings and deliberative focus groups, can be useful. But these rely on substantive existing knowledge of their participants, which in the case of new technological, legal or methodological approaches within the study design may be outside participant's routine knowledge or experience. In these cases incorporating additional existing exploration of the issues can help participants draw upon their own knowledge and experience of cognate issues. ÉCOUTER (Employing COncceptual schema for policy and Translation Engagement in Research), French for 'listen', is one such method. The ÉCOUTER method uses concept mapping and conceptual schemas to collaboratively address a question of interest within a defined stakeholder community. It combines the knowledge, skills and experience of expert stakeholders (e.g. participants) and appropriate evidence, often qualitative, to produce a conceptual framework to describe the phenomenon/issue and upon which to make recommendations for research, governance and practice.

### **Working with policy makers and the public in ALSPAC**

*Dara O'Hare, ALSPAC, UK*

In this session we will present the work we have been doing to prepare the ground for engaging with policy makers and we will showcase examples of research that we have brought to policy makers' attention indirectly through the media with significant effect. Starting with the establishment of an in-house policy working group, we will take you on a tour of our partnerships and collaborations with colleagues in higher education who are engaged with policy debates, both at the University of Bristol (UK) – in particular the Elizabeth Blackwell Institute and PolicyBristol – and beyond, notably the Cohort and Longitudinal Studies Enhancement Resources (CLOSER). We will outline how we are working to get closer to key decision makers in the UK Parliament through our work with the Parliamentary Office for Science and Technology (POST), the Evidence Information Service (EIS), and the Science Media Centre (SMC) in London. We will also demonstrate how a chance encounter with a commissioner from the Bristol Clinical Commissioning Group (CCG) is helping us build closer connections with the National Health Service (NHS). (CCGs are NHS organisations that organise the delivery of NHS services in England). We will also talk about how we engage with the public through our media and public-engagement work and how this has been rewarded with an OBE for our founder and the inaugural Bristol Genius Award for being a great project that originated in Bristol but makes a difference worldwide. We'll also talk about 'the ALSPAC effect', whereby national participatory research projects see a higher participation rate in Bristol than anywhere else, which is attributed to the high profile and positive public perception of ALSPAC within the city.

## **Collaborator versus customer: ALSPAC's changing relationship with researchers**

*Kate Northstone, ALSPAC, UK*

Researchers are an important stakeholder group in cohort studies. But what exactly is the relationship between cohort studies and researchers? What is the best label for this group of stakeholders? The answers to both these questions are multi-faceted. In ALSPAC we may consider researchers as data users, as academics, as experts and collaborators. We are less likely to think of them as our customers or as suppliers. But should we? In this session we will use ALSPAC as a case study: We will give an overview of the different types of researchers we have, the changes and pressures we face as an organisation and how we have responded to these in terms of access and use of the resource. At the time of writing, our new round of core funding is about to commence; with this comes a substantial change in many of our policies and processes. We will share both the short and long term implications of these on our relationship with researchers.

### **1B PAPER SESSION Educational research from a cross-national perspective**

11:00 - 12:30

Room: 336

## **Curriculum differentiation and social inequality in higher education outcomes in Scotland and Ireland**

*Cristina Ianelli, University of Edinburgh, UK*

This paper examines the extent to which upper-secondary school curriculum and subject-specific grading account for social origin differences in a variety of higher education outcomes (HE entry, choice of field of study and HE institution). We adopt a longitudinal and cross-country approach by comparing the transition to HE of secondary school leavers in Scotland and Ireland. Both countries are very similar in terms of HE expansion and social class differentials in HE entry. However, they differ substantially in the role that school curriculum plays in HE access: to enter HE in Scotland, students need to obtain good grades at upper secondary level but they also need to achieve good grades in more demanding subjects (also called 'facilitating' subjects) to enter the most prestigious universities and fields of study. In contrast, in Ireland overall grades are the main factor determining HE access with relatively little attention paid to the subjects taken. Because of these country differences in the nature of HE access, we expect the mediating role of the school curriculum and subject-specific grades on HE outcomes to be larger in Scotland than in Ireland. We use a series of Scottish and Irish School Leaver Surveys, covering the period between 1987 and 2005, which provide detailed information on parental occupations, school subject choice, grades and HE participation at age 18-19. Preliminary results indicate that the choice of school subjects account for social inequalities in entering HE more in Scotland than in Ireland while school attainment plays a stronger role in Ireland. The results indicate that policy aimed at reducing social inequalities in education and promoting social mobility in Scotland not only need to focus on improving attainment of disadvantaged young people but also need to provide them with clear information and support in their curriculum decisions.

## **How do different pathways to higher education foster social mobility for males and females? A comparison of different tracks to higher education in Switzerland and France**

*Jake Murdoch, University of Bourgogne, France*

Over the past decades, educational policy implementations in France and Switzerland have increased the eligibility of those completing (upper or post compulsory) secondary education to access higher or tertiary education, by introducing vocationally orientated programs on the upper secondary level that offer access to higher education. Such policies should help to reduce some of the well-known inequalities in the educational system by improving educational achievement of disadvantaged groups such as students with an immigrant background or those coming from low socioeconomic and cultural households. In this paper we wish to clarify not only if, but also how – through which institutional settings – higher education is accessed by male and female students of lower cultural capital (i.e. non HE parental education or "First generation" students (the first of their family to access HE)). We are primarily interested in the possible social mobility for these young men and women arising from the aforementioned country-specific educational policies designed to increase the enrolment in tertiary education

We use panel data from France (DEPP) and Switzerland (TREE) to answer the research question. Applying multinomial logistic regression models, we analyse the accessibility of different institutional pathways to higher education while taking into account the different characteristics of the students, focusing separately on male and female youths.

Our results show a higher degree of social reproduction (through the traditional academic track to higher education) in France compared to Switzerland for both male and female youths. Moreover, we find that the alternative vocational route to higher education allows for more social mobility in France rather than in Switzerland for both genders. Social reproduction in the Swiss case as well as the higher access to the alternative route in the French case cannot be explained by educational performance and aspirations, especially for women.

### **Education and social outcomes for young people: Promoting success**

*Emma Salter, University of Sussex, UK*

Research has shown that educational attainment has important benefits in the life course of individuals beyond income and employment. Individuals with higher levels of education experience better physical and mental health, are more likely to participate in civic and community activities and are less likely to commit crime than individuals with lower levels of education. However, few studies have focused on the differences between vocational and academic qualifications in achieving these outcomes, resulting in a knowledge gap regarding the kind of education that matters for achieving social benefits.

This project builds upon previous research through empirical work on the role of general and vocational education and training in the determination of social outcomes for individuals during their school to work transition in England and Germany. The project uses two longitudinal datasets, the SOEP and the BHPS, to undertake a cross-country comparative analysis. These two countries have been selected both for the quality and comparability of the datasets and the diverse nature of their educational policies and systems, with vocational training being both widespread and highly organised in Germany whereas in England it is a sector that has undergone multiple changes in recent decades.

We first identified the educational trajectories of young people in England and Germany, before using these to analyse a number of health outcomes (self-rated health, smoking) and measures of civic participation (voting, interest in politics). Our research determines a) the importance of educational trajectories for benefits in these domains, and b) contextual differences in the generation of such benefits. Preliminary findings show surprisingly similar patterns for the relationship between educational trajectories and social outcomes in both countries. Further research will focus on the mediators and moderators of the benefits of education during school to work transitions in these different contexts.

### **1C PAPER SESSION Causes and consequences of health and wellness**

11:00 - 12:30

Room: 342

### **Parenting as a buffer against poverty: Testing the effect of maternal warmth on young adult health and wellbeing**

*Pamela Salsberry, Ohio State University, USA*

There is increasing evidence that parenting approaches are associated with a range of improved outcomes across the life course. Most importantly recent data suggests that parenting approaches, especially those characterized by warmth and sensitivity, may offset disadvantage in health associated with childhood poverty. The mechanisms posited to explain these findings includes theory suggesting that maternal warmth may alter the stress-response system, which then provides a buffer against an adverse environment. The timing of the parenting is likely to be important as the critical windows for altering these processes may be limited; there is agreement that early life is one of these critical windows. The aim of this study is to examine a range of young adult outcomes as a function of early life parenting and test for a buffering effect in children living in poverty. Data from the US based National Longitudinal Survey of Youth (NLSY), Mother and Child file are used for these analyses. In 1986, biennial surveys on the biological children of the NLSY79 female respondents began and continues to date. Outcomes that are examined include young adult self-rated health, young adult BMI, and young adult depression. Findings to date

include support for a buffering hypothesis for both young adult BMI and depression in females. A range of covariates are included in the models depending upon the outcome of interest. For example, maternal depression is included in young adult depression analyses. By testing for a buffering effect in different outcomes greater insight may be gained as to the effects of early child parenting practices and how they may shape the lives of children. Furthermore, results may help shape new policy approaches for health improvement through a focus on parenting of children at high risk due to poverty.

### **Do internalising type behaviours during childhood predict onset of asthma during mid-adulthood? Evidence from the 1958 British birth cohort**

*Cathie Hammond, University of Essex, UK*

**Introduction:** This paper examines the prospective relationship between internalising type, which encompasses withdrawal and fearfulness, and adult onset asthma, a condition that is burdensome to the individual and the State. We ask: (1) Does internalising type during childhood predict adult onset asthma? (2) If so, what variables confound, mediate, and moderate this relationship?

**Methods:** Data from the 1958 British birth cohort were used. Children were categorised as internalising type based on parental responses to the Rutter Behaviour Scale items, collected at ages 7, 11, and 16. Logistic regression analyses of asthma onset during mid-adulthood on predictors measured during childhood, youth, and early adulthood were conducted. Nested models were used to address research question (2) with hypothesised confounders, mediators, and moderators added in stages to assess the extent of attenuation. Hypothesised confounders were gender and childhood atopic conditions. Hypothesised mediators and moderators were exposures to psychosocial stressors, atopic history, and depressive symptoms.

**Results:** Internalising type during childhood predicted adult onset asthma (odds ratio (OR)=1.67, 95% confidence interval (ci)=1.20-2.34), and this was not attenuated by the hypothesised confounders. Exposures to stressors during childhood and youth, atopic history, and depressive symptoms in early adulthood independently predicted adult onset asthma. Exposures to stressors did not moderate the relationship with internalising type, and only depressive symptoms mediated it, and then just partially.

**Conclusion:** This is the first large-scale study to report that internalising type during childhood predicts adult onset asthma, and additional studies are needed to test the reliability of the finding and to identify mechanisms that explain it. If robust, the association is consistent with other evidence suggesting that the mental health of children has implications for a range of health outcomes in adulthood. It also indicates the importance of bio-psychosocial processes, initiated during or before childhood, for the development of adult onset asthma.

### **The role of material, psychological and behavioural factors in mediating the association between socioeconomic position and cumulative physiological burden, as measured by allostatic load**

*Tony Robertson, University of Edinburgh, UK; Elise Whitley, Michaela Benzeval, Frank Popham, University of Glasgow, UK*

#### **INTRODUCTION**

Lower socioeconomic position (SEP) accumulated across the lifecourse has been found to be associated with higher allostatic load, a summative score of several biomarkers that measures the cumulative physiological burden on the body imposed by exposure to damaging environmental stressors. This study examines potential mediators of the association between SEP and allostatic load, including material, psychological and behavioural factors, measured over the lifecourse.

#### **METHODS**

Data are from the West of Scotland Twenty-07 Study, with respondents followed over five waves from ages 35 to 55 (n=999). Allostatic load was measured by summing nine binary biomarker scores ('1'=in the highest-risk quartile) measured at age 55. SEP was measured as a person's most common working age social class across the 20 years of follow-up. All mediators were measured at baseline and 20 years later. Sex-adjusted linear regression models were used to assess the degree of attenuation of the SEP-allostatic load associations due to adjustment for mediators.

## RESULTS

Higher SEP was found to be associated with lower allostatic load (difference in allostatic load in manual versus non-manual SEP respondents ( $\beta$ )=-0.60, 95% CI=-0.96,-0.24). Simultaneous adjustment for all potential mediators (at both measurement points and accumulated over time) fully attenuated the association between SEP and allostatic load. Analyses by mediator type revealed that renting one's home (100% attenuation;  $\beta$ =0.05; 95% CI=-0.34,0.43) and having low income (78% attenuation;  $\beta$ =-0.13; 95% CI=-0.45,0.19) over 20 years attenuated the SEP-allostatic load association. Cumulative smoking over time had the strongest behavioural attenuation effect (by 43%). None of the other health behaviours, or the psychological mediator, attenuated the association.

## CONCLUSIONS

Material factors and smoking have important roles in explaining socioeconomic disparities in allostatic load, particularly when accumulated over time. These findings are important in understanding the pathways between SEP and health to better inform policies and programmes to reduce these inequalities.

### **Physical activity and excess weight in pregnancy have independent and unique effects on delivery and perinatal outcomes**

*Kelly Morgan, Muhammad Rahman, Steven Macey, Mark Atkinson, Rebecca Hill, Ashrafunnesa Khanom, Shantini Paranjothy, Muhammad Jami Husain, Sinead Brophy, Swansea University, UK*

Background: This study examines the effect of low daily physical activity levels and overweight/obesity in pregnancy on delivery and perinatal outcomes.

Methods: A prospective cohort study combining manually collected postnatal notes with anonymised data linkage. A total of 466 women sampled from the Growing Up in Wales: Environments for Healthy Living study. Women completed a questionnaire and were included in the study if they had an available Body mass index (BMI) (collected at 12 weeks gestation from antenatal records) and/or a physical activity score during pregnancy (7-day accelerometer reading). The full statistical model included the following potential confounding factors: maternal age, parity and smoking status. Main outcome measures included induction rates, duration of labour, mode of delivery, infant health and duration of hospital stay.

Findings: Mothers with lower physical activity levels were more likely to have an instrumental delivery (including forceps, ventouse and elective and emergency caesarean) in comparison to mothers with higher activity levels (adjusted OR:1.72(95%CI: 1.05 to 2.9)). Overweight/obese mothers were more likely to require an induction (adjusted OR:1.93 (95%CI: 1.14 to 3.26)), have a macrosomic baby (adjusted OR:1.96 (95%CI: 1.08 to 3.56)) and a longer hospital stay after delivery (adjusted OR:2.69 (95%CI: 1.11 to 6.47)).

Conclusions: The type of delivery was associated with maternal physical activity level and not BMI. Perinatal outcomes (large for gestational age only) were determined by maternal BMI.

### **1D PAPER SESSION      Employment**

11:00 - 12:30

Room: 338

### **Child labor through the time in Mexico: A sequence analysis**

*Julio César Martínez Sánchez, National Institute of Statistics and Geography, Mexico City*

Child labor is a big phenomenon that has existed in most of Latin American Countries long time ago. Particularly, there are 3 million children working in Mexico, who represent 11% of children's total population. Unfortunately, the consequences of this kind of work in children's life is just visible at long-term. Using the life course approach, this research is aimed at describe and explain the consequences of child labor on their adult life. We focus on effects like attending school, marriage and leaving home. We draw on data from the National Retrospective Demographic Survey (EDER) 2011, which is the third retrospective survey made in Mexico, since it has information about three different cohorts. We employed sequence analysis and optimal matching to find the paths that follow the people who worked before 14 years old in three different cohorts. With this information we made a typology and then we used a multinomial logistic regression to find out which characteristics weighed

more in each group. Our results show that in the past, children, who entered to the job market dropped out school and kept working all their life. They also suffered changes on timing of certain demographic phenomena like leaving home or the age of marriage. However, younger generations have different development and they can combine both working and attending school. But the effect on demographic phenomena still affects children's path. Finally, sex and place of residence were the two main factors that affect these trajectories.

### **Raising children and caring for elderly family members in women's employment history and life course**

*Susanne Goetz, Institute for Employment Research, Germany*

In terms of the care insurance act there have been 2.5 million persons in need of care in Germany in 2011. Due to demographic changes the number of care dependent persons is projected to increase to approximately 3 million until the year 2020 and to about 4 million until the year 2050. Home based family care is established as a priority by law and is preferred compared to residential care: Nearly three quarters (1.8 million) of care dependent persons are cared for at home. And it is mostly women who reduce or give up their employment in order to take care of family members. Some of them already have interrupted their employment in order to raise a child in their former life course. Comparing the German social policies relating to the support for raising a child or caring for elderly family members, it becomes evident that elderly care is less valued for example in social insurances than raising a child.

In my presentation I will describe the German care system and the current legal regulations as well as the main results of my mixed methods study. The following questions will be considered: What are the consequences and the specifics of elderly care compared to the raising of children for women's employment? How do women reconcile employment and care responsibilities? And what are the differences here between caring for children and caring for elderly family members? How are times of raising children and times of elderly care connected over the life course? To answer these questions I am analyzing data of the German Socio-Economic Panel (SOEP) and data of narrative interviews with women who have not been employed for three years or longer because of a family based interruption but who are now trying to return into the labour market.

### **Employment trajectories and well-being in Switzerland: Does lone motherhood make a difference?**

*Emanuela Struffolino, Laura Bernardi, University of Lausanne, Switzerland*

Solo parenthood is a growing phenomenon in many European countries. The transition to lone parenthood is likely to affect severely labour market participation in many different ways. Since the great majority of solo parents are women and women are generally more exposed than men to the risk of suffering from disadvantages in the labour market, the transition to solo motherhood is a particularly critical one. Experiencing this transition implies frequently an increase in the risk of both vulnerability and social exclusion for all the household's members. In a life course perspective, it is only by looking at the evolution over time of the consequences connected to critical events and transitions - such as becoming a lone mother - that it is possible to discover regularities in social processes and social inequalities. The transition to solo motherhood can trigger a decrease in the available economic, relational, and emotional resources (commonly provided by labour market participation and family respectively) that affects both solo parents' perceived and actual well-being. In this paper, we focus on the interaction between the patterns of labour market participation after the transition to lone-motherhood and well-being by using the Swiss Household Panel (SHP). In the first step of the analyses, the population of interest is restricted to women who experienced the transition to lone-parenthood between 1999 and 2006. By applying the sequence analysis approach, we follow individuals for 6 years starting from the occurrence of the event. The aim is to consider how individual characteristics (such as education, age when the transition occurred, etc.) are associated with different employment trajectories. In a second step, cohabiting and married women will be included in the analyses in order to analyse whether lone mothers' work trajectories differ from those of women in couple. Last, we estimate the association between work trajectories after the transition to lone-motherhood and individual well-being.

## **Social network ties of the unemployed in Switzerland: Gains, losses, and socio-demographic variation**

*Anna von Ow, University of Lausanne, Switzerland, Christine Mair, University of Maryland, USA*

Social networks are crucial for job searching, particularly for long-term unemployed job seekers. However, it is unknown how social networks change over the duration of unemployment and if these changes are the same for different sociodemographic groups. We hypothesize that being unemployed for a longer duration of time may result in losses to one's work ties, which may also lead to additional social network tie losses and social isolation. On the other hand, individuals who are unemployed may also actively seek new social network ties in an attempt to compensate for losses elsewhere. Further, these patterns of loss and compensation may differ depending on the social advantage or disadvantage of an individual in terms of gender, education, age, and nationality. We analyze longitudinal Swiss survey data to examine how size and composition of social networks change during unemployment spells. Specifically, we examine: 1) gains and losses in social network ties, and 2) similarities and differences in these patterns of gains and losses by gender, education, age, and nationality. Preliminary results suggest that both mechanisms – increasing marginalization, marked by loss of social contacts and integration, and increasing network and participation - take place. Additionally, changes in size and composition of the network vary by gender, education, age, and nationality. We discuss these findings in the light of the importance of enhancing contextual opportunities for network building. For example, these results could be incorporated into future labor market measures and training programs with the hope of counteracting some of the negative consequences of long term unemployment.

### **1E PAPER SESSION      New and expanded survey data**

11:00 - 12:30

Room: 340.1

## **Collecting data on children in the PSID Child Development Supplement: Past results and future plans**

*Narayan Sastry, Paula Fomby, University of Michigan, USA*

The PSID Child Development Supplement (CDS) began in 1997 among a nationally-representative sample of 0–12 year old children in sample households, with up to two children selected in each family. Two follow-up waves were fielded in 2002–03 and 2007–08. The fieldwork results for CDS were very successful, and CDS data have supported a wide range of substantive and methodological analyses. PSID is currently planning a new Child Development Study to be fielded in 2014, with a revised data collection model that will institutionalize the collection information on all children under 18 years of age in sample families. The new PSID-CDS is planned to recur every six years, with data to be collected at each wave on all previously-interviewed and newly-eligible children in sample families. The primary mode of data collection will switch to telephone, although mailout-mailback protocols will be used to collect biomeasures and web-based protocols will also be considered; in addition, a subsample of households will be interviewed face-to-face. The new CDS will continue the collection of time diaries, one of the major innovations of the original CDS. In this paper, we will provide an overview of the methodological challenges of the original CDS, the main fieldwork results, and findings from analyses of non-response, attrition, and sample selection. We will also describe how these previous findings have influenced the plans and design for the new CDS, and will outline new challenges that we will face related to the collection of sensitive data, use of mixed-modes, and possibilities for collecting cognitive assessments and additional biomeasures.

## **Russian Longitudinal Panel Study of Educational and Occupational Trajectories: Study description and opportunities for social policy**

*Valeriya Malik, Dmitriy Kourakin, National Research University Higher School of Economics, Russia*

Russian Longitudinal Panel Study of Educational and Occupational Trajectories is cohort longitudinal study of youth which is realized by the Institute of Education of Higher School of Economics (Moscow) since 2009. It is a unique study of this type in Russia.

The project comprises one national panel and several regional panels of school and university students. Like several other longitudinal studies (e.g. TREE in Switzerland, YITS in Canada based on PISA students sample) the main study is based on the international test sample participants who are then followed up. National panel is based on TIMSS 2011 survey of 8 grade students (about 5thousand respondents in 42 regions), who were later interviewed in 9 grade and 2 years later. The unique feature of the project is that the same students participated in TIMSS 2011 and PISA 2012 tests. The other specific feature of this longitudinal project is the combination of quantitative data collection with qualitative interviews with some of panel participants.

This paper provides a brief outline of the Survey's progress to date, focusing on its design, content and data collection processes and survey response, highlighting its possible advantages for social and educational policy support.

### **Design and implementation of longitudinal educational research in a less (or rather non-) longitudinal socio-cultural context: Lessons learned from two ongoing longitudinal studies in Iran**

*Ebrahim Talaei, Tarbiat Modares University, Iran*

The international literature of life-course and longitudinal studies reflects experiences and derived theories which are mainly (or rather solely) founded in a specific geographical area, i.e. the west. Although one can find many common paradigmatic frameworks between the west and the east, in terms of the nature and processes of longitudinal research, crucial pragmatic differences arise when those paradigmatic frameworks are adopted to carry out a longitudinal study in a different context where social, educational and cultural policies, practices and insights are less aligned with long term planning. These pragmatic dissimilarities, in turn, might have effects on paradigmatic principles of longitudinal research.

The present paper reports the preliminary needs to do such research, the design phase and the insights gained from the 1st wave of two current longitudinal studies in Iran. One study looks into educational progress and psycho-social development of children who do grade-skipping (or educational acceleration for gifted children) in primary phase of education up until the end of compulsory education. It follows educational and personal lives of 200 children who have recently had educational acceleration experience (either radical or normal acceleration) along with their 400 counterpart students who did not choose to do so.

The second study investigates the effects of two learning environments, i.e. homes and education centres, on children's cognitive, psycho-social, meta-cognitive, physical and moral development of nearly 850 children from age 4 to 12 (pre-school to the end of primary school).

These two studies might be the main or even the only longitudinal studies in the country; therefore, each step taken in the past two years, has been both challenging and promising. The present paper presents and discusses the following themes in the context of the two studies: challenging the theoretical foundations of longitudinal research from a pragmatic perspective, design challenges from a socio-cultural perspective, implementation challenges from a contextual perspective.

### **Quality, analytic potential and accessibility of linked administrative, survey and publicly available data**

*Alexandra Schmucker, Manfred Antoni, Institute for Employment Research, Germany*

Longitudinal data continuously gain in importance especially for life course studies. However, surveys increasingly face the problem of unit-nonresponse due to increasing data protection concerns and panel attrition or declining reachability and cooperation of respondents. Quality issues arise with item-nonresponse or misreporting, especially when recall error in retrospective interviews occurs. Particularly longitudinal interviews lead to high costs and response burden.

One potential remedy for quality and costs issues is the linkage with administrative or open data. Their purpose of their collection may initially have been other than creating research data but they usually offer precise and reliable information covering long periods of time. Data linkage thus potentially results in higher cost efficiency

and data quality. Linked data also provide higher analytic potential for substantive analyses than their separate parts, either by combining their sets of variables, by adding observational levels (e.g. employees within establishments within companies) or following respondents after their panel drop out. Moreover, research on the quality of either data source gets possible by applying validation, unit- or item-nonresponse analyses or by examining the selectivity of consent to and success of record linkage.

Our presentation will focus on the potential, quality and accessibility of linked data of the Research Data Centre of the German Federal Employment Agency. On the one hand they comprise administrative data on a daily basis with exact information on the income and receipt of benefit since 1975. On the other hand these data can be linked to several survey data sets on individuals, households or establishments which focus on fields of research like poverty, education, intergenerational mobility or lifelong learning.

## **PARALLEL SESSION 2**

**2A SYMPOSIUM**                      **Longitudinal research on the school-to-work transition and social policy**  
13:30 - 15:15                      Room: 348

The welfare and continuing viability of societies depends on the capacity of young people to become self-sufficient adults, contributing to their communities as workers, family members and citizens. Longitudinal studies of school-to-work transitions, and more broadly, the transition to adulthood, reveal the personal resources, experiences and social contexts that foster successful movement into independent adulthood. At the same time, governments at all levels have interest in promoting human capital development, a highly educated workforce and diversified economy. This panel discussion will consider how researchers and policy-makers can mutually benefit from continuing dialogue. It will examine the implications of longitudinal studies for policies surrounding education and work, of foremost concern to those who design and administer educational programs (particularly at secondary and post-secondary levels), as well as those responsible for vocational/career counseling, internships in government agencies, constructing school-to-work institutional bridges, youth work programs, and financial services for youth having difficulties in making this transition.

### **Early occupational uncertainty and the school-to-work transition**

*Jeremy Staff, Pennsylvania State University, USA*

When asked to describe what job they would like to hold as an adult, a nontrivial number of teenagers report that they “don’t know.” Does occupational uncertainty in adolescence make it more difficult to successfully navigate the transition from school to work? In this presentation, I discuss my research on the long-term consequences of adolescent occupational uncertainty and highlight some ways policy makers can help young people think about what types of jobs they would like to hold in the future.

### **The best laid plans of mice and men: Serendipitous relations and backup plans in the school-to-work transition**

*Christopher Napolitano, University of Zurich, Switzerland*

The transition from school to work to career can be full of twists and turns. Meaningful deviations from one's occupational plans can be both predictable (e.g., not being hired for a competitive position) and unpredictable (e.g., meeting a future employer in line for coffee). Although existing social policies play a role in mitigating losses from negative deviations (e.g., unemployment benefits) as well as supporting positive deviations (e.g., affirmative action), these programs often intervene at the contextual or environmental level by providing resources or affordances to support adaptive development. Orienting this presentation at the person level of analysis, I discuss recent research that suggests that there are particular self-regulative actions that a person can use to maximize gains from unexpected, serendipitous events, as well actions that a person can use to minimize losses from expected negative events. The study of serendipitous relations and backup planning, respectively, may provide a compelling lens for future social policy programs that aim to support the person's ability to be an active producer or his or her own adaptive development, in the school-to-work domain and beyond.

## **The need for school-to-work bridges**

*Ingrid Schoon, Institute of Education, UK*

Young people must carve their pathways to adulthood based on the resources and opportunities available to them. Not all youth can pursue an academic career, and access to educational opportunities remains shaped by social background. Many young people make the transition to adulthood with no or only minimal assistance or support, especially those who are not on an academic track. While in most developed countries the route to university is a well signposted motorway (often supported by state subsidies), the route into work for 16-20 year olds is more 'like an unmarked field of landmines' (ACEVO, 2012). Evidence from longitudinal studies in the UK and other countries suggests that young people need information and guidance about how to navigate their way into the world of work, and clear, high-quality progression routes should be available at every educational level, but especially for those who do not go to university. Furthermore, regardless of formal training requirements, workers of the future will be expected to learn new skills throughout their labour market career, not just at the beginning. This might also imply shifting to new lines of work when old ones have become obsolete. It is thus important to introduce options for career flexibility, for life-long learning, and a more uniform national academic currency enabling movement between different educational tracks and systems. Pathways to successful transitions should enable the combination of education, work and family commitments along a flexible time table.

## **Research and policy-making on educational pathways in Germany**

*Walter R. Heinz, Center for Higher Education and Science Research (DZHW), Germany and Bremen International Graduate School of the Social Sciences (BIGSSS), Germany*

The Center for Higher Education and Science Research has been conducting the major panel studies in Germany on undergraduate students, graduates, drop-outs, and PhD students for many years and is responsible for the survey on students' living conditions. The Center acts as a policy consultant for both federal and state governments. Recently, prompted by the German Science Council, the Center began a shift from a more service-oriented unit to a more theory-based empirical research institute. Drawing on his present work at the Center, Dr. Heinz will share his insights on the contributions longitudinal studies can make to the formulation of policy to improve the educational experiences and outcomes for university students, including both those who succeed in obtaining higher educational degrees and those who do not. He will also comment on the ways that policy changes could potentially enhance the school-to-work transition for students who undergo apprenticeships without seeking higher education, informed by his many years of research.

## **Policy implications of multifaceted transitions to adulthood**

*Robin Samuel-Heilbronner, University of Basel, Switzerland*

Transitions from education to work have become increasingly challenging. In many countries social background and tracking continue to be important factors in explaining young people's educational and occupational pathways. In Switzerland, for example, the academic stratum is relatively impervious and prone to social background influences. From an educational policy perspective, however, the permeability of educational tracks is desirable. Steps have been undertaken to allow for a better integration of weak academic performers. Against this backdrop, my work on educational and early occupational pathways addresses the interplay between social background and skill formation and how they affect labor market outcomes and other factors relevant to social mobility and social stratification. Various empirical models allow me to identify, describe, and analyze the complexity of transitions to adulthood and their consequences for, e.g., well-being. My longitudinal research suggests the need to tailor interventions to the skills and attributes of youth with varying socioeconomic background. Furthermore, the results of my studies will be of interest to those responsible for programs and policies because they have the potential to illuminate the long-term effects of interventions and how they foster transitions to work and other markers of adulthood in modern societies.

The most frequent use of the large electronic health archives, which most western countries have been implementing since the 90s' within their National Health Services (NHS), has been administrative or aimed at measuring the frequencies of the main diseases by developing pathology-specific algorithms.

The complexity of managing modern public health systems facing relatively rapid changes at general population levels in economic, demographic, and medical aspects is pushing towards epidemiological tools suitable for registering any event occurring in the general population and interpreting, through their "intelligence", the meaning of single events as well as of their interdependence in a lifelong perspective.

In Italy this hypothesis has been explored since the 90s' in the field of cancer registration and subsequently extended to other chronic diseases. Recently the research and development in this field coordinated by the Ministry of Health has been making some important progress by activating longitudinal studies of total or sections of the general population. We present here four different results from this network.

The basic components of these systems are: the population file stored in the NHS and dynamically updated; the electronic information on deaths, hospital admissions, drugs prescriptions, laboratory exams, copayment certificates etc. occurring to the members of population; other electronic archives (e.g. census data, digital maps of estimated exposures to measured pollutants, etc.).

The main limitations of this approach are the lack of standardization of the methodology and the absence of individual information on personal risk factors (as smoking habit or diet) that cannot be systematically collected at population level with dynamic updating and of good quality and completeness.

The main advantages reside on the rapid availability of the information and on the relatively low cost of these tools confident that even in a long term perspective nothing can happen outside the population frame.

#### **Factors influencing compulsory vaccination in North East Italy**

*Canova Cristina, Silvana Zanon, Lorenzo Simonato, University of Padova, Italy; Nicola Caranci, Regional Agency for Health and Social Care, Italy; Loris Zanier, Health Directorate, Friuli Venezia-Giulia Region, Italy; Pierantonio Romor, Divisione Applicazioni SW, Italy*

Vaccine coverage has shown differences between the richest population and the poorest (WHO, 2008). In most Italian Regions, vaccination of children is compulsory, without reaching 100%. This study was carried out in order to assess changes in infant vaccination coverage at 24 months, in terms of completeness, and its relationship with socio-economic characteristics of the family.

The study population is composed of children born during 1995-2010 in the Friuli-Venezia Giulia (FVG) region. Data on vaccination was linked by the ID regional code to the birth cohort identified using the Medical birth register that contains socio-demographic data on both parents, and data on the newborn at birth. Associations between compulsory vaccination and socio-demographic variables at birth were estimated using unconditional logistic regression in order to calculate crude and adjusted odds ratios (OR) with 95% confidence interval (CI).

145,571 babies were included in the study. We identified a total of 2,636 (1.81%) of babies without any compulsory vaccination. Number of unvaccinated babies increased with increasing year of birth, showing the highest value in 2010 (2.3%). The predictors associated with being unvaccinated were female gender (OR=1.08 (1.00-1.16)), low (<25 years: OR=1.37 (1.18-1.58)) and high (40+ years: OR=1.75 (1.47-2.08)) maternal age, maternal citizenship (Western countries outside Italy: OR=7.10 (5.72-8.82) and Asia: OR=1.58 (1.21-2.05)), maternal (OR=1.29 (1.17-1.43)) and paternal (OR=1.34 (1.20-1.50)) high educational level.

The number of unvaccinated children in FVG is not negligible and the predictors of non-vaccination seem to be related particularly to high socio-economic status. In the middle-long term, FVG will shift to a system of recommended immunisations without compulsion which could lead to a decreased coverage. This birth cohort is being followed up life long and cross linked with the electronic health archives in order to ascertain the consequences of the increasing trend of vaccination refusal.

### **Italian network of multi-Metropolitan Longitudinal Studies (MLSs)**

*Nicole Caranci, Barbara Pacelli, Regional Agency for Health and Social Care, Italy; Cristina Canova, Lorenzo Simonato, et al, University of Padova, Italy*

In Italy, systems of integrated population data have been broadly used by Metropolitan Longitudinal Studies (MLSs) in order to monitor social determinants of health and health services access. At the municipal level is indeed possible to integrate the whole inhabitant's vital-status records with Census and health Services registries. This approach is spreading in some country towns; it allows a retrospective view to study social dynamics of health disparities (i.e. mortality or hospitalization relative risks by socio-demographic levels).

The first of those MLSs is Turin's one, which starts from 1971 Census. The following ones are: Tuscan Study (including Florence, Livorno and Prato, from 1981) and Reggio Emilia LS (from 1991). Recently it has been constituted a national network of Metropolitan Longitudinal Studies including Emilia LS (Bologna and Modena, with Reggio Emilia), and LSs of Venice, Rome and Sicily (Palermo and Catania). Lasts MLSc cohorts recruitment starts from 2001's Census, when the Study population represents about 10% of the Italians (thousands of inhabitants at 2001 Census: 865 – Turin LS, 689 – Emilia, 271 – Venice, 685 - Tuscany, 2,547 – Rome, 1,000 - Sicily).

The MLSs afforded to develop Socio-Economic Status indicators for the Italian context and to proceed to study its Correlation with robust and most historical health outcomes (starting from mortality and hospital admission). For example disparities between education levels in infarction incidence can be monitored, tanks to high statistical power (i.e. in Turin during 1997 2002 years women's relative risks, in comparison with more-educated, were: medium educated RR=1.46, 95%CI 1.24-1.72; low-educated RR=1.77, 95%CI: 1.51-2.08). Other comparable results regard mortality gaps in Turin, Tuscany, Reggio Emilia and Venice. Environmental exposure effect in Rome constitutes a recent development. Immigrant status along with other health (i.e. deliveries, specialist and emergency visits, drugs consumption, etc.) and social data (family income) will enter into the Studies.

### **Linked administrative data to monitor the process and the outcomes of care of persons with diabetes in Torino, Italy**

*Roberto Gnani, Roberta Picariello, Giuseppe Costa, University of Turin, Italy*

The number of persons with diabetes is increasing worldwide, and the type of care can greatly affect the prognosis of patients. Surveillance systems monitoring the process of care are needed to allow rational planning and resource allocation. In answer to this need, we implemented a population-based surveillance program in the city of Torino, based on record linkage between several administrative data sources. As a first step we identified 33,000 persons with diabetes (representing 80% of all cases, according to a capture-recapture analysis) using a unique anonymous identifier to link three data sources: the file of persons exempted from payment of drugs due to a diagnosis of diabetes, the file of prescriptions for antidiabetic drugs, and the file of residents discharged from hospitals with a diagnosis of diabetes mellitus. The study population was linked to the local population register to determine socio-demographic characteristics. This cohort was subsequently linked with the data-base of laboratory tests and specialist consultations, and with the drug prescriptions database to calculate several quality indicators of the process of care (for example 75% of patients had an assessment of A1C in one year, 25% had a prescription of statins), and the costs of care. Finally, we could link the diabetic cohort both with hospital discharges and with mortality databases to estimate the occurrence of complications and the survival over a 4 year follow-up. In particular, we were able to compare all indicators by educational level, health district of residence and model of care, adjusting for several confounders.

In conclusion, the availability of routinely collected data allowed the implementation of a low cost surveillance system for monitoring the entire pathway of care of patients with diabetes, from the case identification to the onset of complications and survival. This model can be easily exported to most chronic diseases.

## **Effects of high temperature and air pollution on the risk of preterm births in six Italian Cities: An administrative database cohort study, 2001 - 2010**

*Patrizia Schifano, Federica Asta, Paola Michelozzi, Lazio Region Health Service, Italy; Vincenza Perlangeli, Assessorato Regionale della Salute, Italy; Teresa Spadea et al, University of Piemonte, Italy*

Preterm births (PB) represent about 10% of total births and the first cause of perinatal mortality and morbidity in developed countries. We evaluated the association between short term exposure to high temperature and air pollution on PB and maternal risk factors enhancing individual susceptibility. All singleton live-births in 6 Italian cities (Rome, Bologna, Trieste, Venezia, Torino and Palermo), 2001-2010, in warm (Apr to Oct) season, were analyzed.

Births were identified through the Certificate of Delivery Care Registry, reporting delivery and baby's clinical status variables. Through an anonymised record linkage with hospital information system we obtained information on the mothers' clinical status at delivery and in the preceding two years. A linkage with the city municipality registry ascertained the residency of the woman at delivery. PB were defined as births in 22nd-36th week of gestation. Maximum apparent temperature (MAT), PM10, O3 and NO2 were analyzed. We enrolled 156,796 new borns, 7,632 (4.9%) of which PB. Association with MAT was heterogeneous among cities, with a %change for 1 °C increase of MAT of +1.87% (95% CI 0.86-2.87; lag 0-2) in Rome and of 10.7 (95% CI 0.69-21.81; lag 0-3) in Venezia. No effects in the other cities. We detected a % increase of +0.69% in PB (lag 12-22; 95% CI 0.23-1.15) for 1 µg/m<sup>3</sup> increase of PM10 in Rome, while no effects of pollutants in the other cities. In Rome we observed a higher risk of PB for high MAT in women with a chronic disease and mothers <20 years while a high risk of PB for high PM10 in those with obstetric pathologies and a higher education.

The use of administrative databases has allowed to easily obtain a high statistical power, necessary to detect a low individual risk, and to analyse individual level characteristics, in a multicenter study. A meta-analysis will be performed.

### **2C PAPER SESSION      Union formation, stability and dissolution**

13:30 – 15:15

Room: 342

### **The gone girl hypothesis: Parental marital quality and offspring marital outcomes**

*Claire Kamp-Dush, Ohio State University, USA; Galena Rhoades, University of Denver, USA*

“People say children from broken homes have it hard, but the children of charmed marriages have their own particular challenges.” – Amy Dunne in *Gone Girl* by Gillian Flynn

We seek to test Amy Dunne's hypothesis. Marital scholars have argued that Americans hold too high of expectations for their marriages (Cherlin, 2010; Finkel et al., 2014; Stephenson & Wolfers, 2007). It may be that children exposed to happy parental marriages set expectations that are too high for their own marriages and find themselves, paradoxically, less happy than those whose parents' marriages were less than perfect. We test associations between parents' marital happiness and their children's marital expectations and relationship happiness. The first is the National Longitudinal Survey of Youth 1979 Cohort (NLSY79), and the Children and Young Adult of the National Longitudinal Survey of Youth Study (NLSY79C). The NLSY79 and NLSY79CYA have a larger sample size, but are limited in terms of measures of marital quality. Thus, we also use the Marital Instability across the Life Course dataset, which includes a cohort of married individuals in 1980 (MI), and their adult children (MIC). Preliminary results indicate that parental marital happiness and offspring relationship happiness are inconsistently correlated across measures and samples; rs ranged from .01 (p = .91) to .15 (p = .06) in the MI/MIC (n = 306), and from .07 (p = .02) to .12, (p = .00) in the NLSY79/NLSY79C (n = 2605) depending on the waves used. For the conference, we plan to pool data across waves, and examine multiple indicators of offspring marital functioning, including marital happiness, conflict and divorce, as well as compare the offspring marriages of high, average, and low happiness parental marriages. Previous research indicates that there are three categories of marital satisfaction on average (Lavner et al., 2012; Kamp Dush et al., 2008).

## **Do people in living apart together relationships transition to cohabitation and marriage? A comparison by age and gender**

*Alisa Lewin, University of Haifa, Israel*

Studies indicate that people spend longer periods in non-marital partnerships such as cohabitation and living apart together (LAT); And while cohabitation has captured the attention of researchers, we still know relatively little about non-cohabiting (LAT) relationships. One of the central questions is whether these partnerships are temporary arrangements and should be viewed as part of courtship towards marriage or cohabitation, or whether they are a long-term arrangement replacing marriage and cohabitation. The current study sets out to fill this gap and asks whether intentions to cohabit and marry in wave 1 are realized by wave 2. This study further asks whether reasons for being in a non-cohabiting relationship affect intentions to cohabit and to marry, and whether they affect the transition to cohabitation and marriage.

This study draws on the two waves of the cross-national comparative Generations and Gender Program (GGP) (United Nations, 2005).

Preliminary findings show that intentions to cohabit among people in LAT relationships differ by age and gender. The great majority of young people intend to cohabit within three years, whereas only a third of the older men and a quarter of older women have these intentions. The findings also reveal an interesting gender difference, among the youngest age group more women have intentions to cohabit than men, but among the older age groups the pattern is reversed, and fewer women have intentions to cohabit compared to men. The findings also show that reasons for living apart differ by age. The most common reason for younger people to live apart is that they do not feel ready, whereas the most common reason for older people to live apart is to maintain their independence. Next, I will ask whether reasons for living apart affect realization of intentions.

## **Moving on and moving up: The implications of socio-spatial mobility for union stability**

*Marina Shapira, University of Stirling, UK; Vernon Gayle, University of Edinburgh, UK; Elspeth Graham, University of St Andrews, UK*

There is multidisciplinary interest in the circumstances and implications of migration. This is the first study however that investigates the potential relationship between family migration, changes in employment and union dissolution. Historically employment-related changes which drove long-distance migration were usually associated with the male partner's career, the term 'leading migrant' usually described the male migrant. With the dramatic restructuring of the economy, increased female participation in the labour market and the rise of dual-earner couples, either partner may now be the 'leading migrant', and it is plausible that the effects of family migration may also have altered. In this paper, we ask whether family migration for modern dual-earner families has negative consequences for the career of the 'trailing' partner and, if so, whether this impacts on union stability and ultimately leads to union dissolution.

We construct a specialized dataset from the British Household Panel Survey (BHPS) to examine migration, employment and union dissolution in Britain. Our analyses use a discrete-time framework and logistic regression models with robust standard errors to identify the determinants of union dissolution. We find that union dissolution is largely explained by partners' socio-demographic characteristics, the characteristics of the union, the presence and age of children, and the labour force characteristics of both partners. However, migration is associated with an increase in the likelihood of union dissolution in the short-term. We also find that when women experience unemployment after long-distance family migration, the likelihood of union dissolution decreases, whereas it increases if men experience unemployment after a family migration related to the woman's employment. Despite the demise of male breadwinner families and the rise of dual-earning couples, these findings lead us to conclude that the jobs of both partners are not necessarily regarded as being of equal importance in contemporary households.

## **Union formation among immigrants and their descendants in Switzerland**

*Andrés Guarín, Laura Bernardi, University of Lausanne, Switzerland*

Recent developments in family and union dynamics make it difficult to establish a single and unidirectional relationship between family dynamics and integration (Macmillan 2005; Widmer and Ritschard 2009). For instance, the de-standardization of family forms has increased among immigrants and ethnic minorities as it has among native populations (De Valk 2011; Kulu and Gonzalez-Ferrer 2013; Kulu and Milewski 2007). The difficulty to establish a single and unidirectional relationship between family dynamics and integration of immigrants, allowed the emergence of a large amount of research on family transitions among immigrants in Europe; mixed marriages between natives and migrants (Dribe and Lundh 2012; González-Ferrer 2006; Milewski and Kulu 2013; Smith et al. 2012), formation (González-Ferrer 2006) labour market and professional situation (Andréo 2001; Billari and Liebroer 2010; Bolzman et al. 2003; Dahinden 2005; Gauthier 2007; Settersten 2005), and economic situation (Alba 1985; Portes 1994). This research was complemented by research interested in children of immigrants; Fertility of descendants (Milewski 2011), transition to parenthood (Scott and Stanfors 2011), school contextual effects (Portes and Hao 2004), adaptation process in early adulthood (Bolzman et al. 2003; Portes and Rumbaut 2005; Rumbaut 2005; Santelli 2007), trajectories after school (Portes et al. 2005; Sweet et al. 2010) and economic situation (Algan et al. 2010).

Drawing on data from the Swiss Household Panel (SHP), we examine first union formation among immigrants and their descendants by comparing their pattern of behaviour to those of the 'native' population in Switzerland. The empirical evidence (Survival analysis and Cox models) shows that there are differences in the timing of union formation between the population with immigrant origins and the Swiss natives. Within the immigrant group, we also observe differences between those who arrived in Switzerland as adults and their descendants, who have been born or socialized in Switzerland from very early ages. The first union formation of the descendants of immigrants arrives later than first generation immigrants. This empirical evidence speaks in favour of the adaptation (integration) hypothesis in relation to union formation: through generations, social norms of the host country are adopted and integrated in union behaviour of individuals with a migrant background.

## **Marriage and remarriage in later life: Predictors of change in quality over time**

*Teresa Cooney, University of Colorado, USA; Christine Proulx, University of Missouri, USA*

Most studies of late-life marriage use small, cross-sectional convenience samples, making no distinction between persons in first and higher-order marriages. Thus, although reduced mortality affords more individuals the chance to experience a long-term marriage, little is known about these relationships. Limited information also exists on late-life remarriages and how they compare to first marriages, despite remarriage being more common today among aging baby boomers. Using two waves (2005-06 & 2010-11) of U.S. representative data from the National Social Life, Health, and Aging Project, we explore marital quality over time for older adults in first marriages and remarriages. Our goals are to compare: 1) marital dynamics of first married and remarried persons on six dimensions: happiness, spousal support and strain, time together, emotional satisfaction and physical pleasure; 2) changes in marital quality across waves for the union types, and 3) predictors of marital quality change over time for the two union types. Longitudinal changes in respondent and spouse health, employment, finances, and household composition are assessed as predictors of Wave 2 marital quality.

Respondents were 57-85 years old in 2005. The married subsample included 1791 respondents: 527 first-marriage and 203 remarried women, 708 first-marriage and 353 remarried men. The Wave 2 response rate was 88% of eligible Wave 1 respondents.

Wave 1 analyses revealed no differences in marital quality for men by union type. Remarried women, however, reported more positive relationships than those in first-marriages, less spousal strain, and more time with spouse. Interestingly, spousal health impacted marital quality differently for the two groups. Across dimensions, poorer spousal health predicted reduced marital quality, but only for those in first marriages. The full paper explores how marital quality changes over the 5-year study for the two union types, as well as what factors contribute to marital quality changes for each group.

**Does the cognitive consonance effect on quality paper readership persist over time? A random effects APC analysis of German Media Analysis data 1978 - 2009**

*Dominik Becker, Tilo Beckers, Simon Franzmann, Heinrich Heine University, Germany; Jörg Hagenah, University of Cologne, Germany*

On the one hand, studies in communication science found newspaper usage to exert positive effects on individual characteristics such as verbal abilities or social capital (Glenn, 1994; Schmitt-Beck, 2008). On the other hand, the selective exposure (or cognitive consonance) hypothesis (Cooper & Fazio, 1984; Sears & Freedman, 1967), expects individuals to prefer newspapers that suit their initial attitudes, e.g. party preference (Donsbach, 1991). As the literature on political cleavages (Lipset & Rokkan, 1967) argues that holding a leftist or rightist party preference is socially selective, the selective exposure effect might lead to both political and social audience polarization (Webster, 1986).

Tuning to a longitudinal perspective, it has been controversial whether social cleavages become weaker over time (Clark et al., 1993) or rather remain constant (Elff, 2009). Yet, it has been neglected hitherto to test whether this has implications for the effect of party preference on newspaper usage over time.

One reason for this might be the problem of linearly-dependent age (i.e. life course), period (Zeitgeist) and cohort (socialization) effects in repeated cross-sectional studies (Glenn, 1977). Consequentially, APC analysis by means of conventional ordinary least squares analysis will be biased.

In the present contribution, we apply the random effects APC model proposed by Yang and Land (2006) modeling periods and cohorts as cross-classified contextual-level units in a multilevel model. Based on German Media Analysis data 1978-2009, we test whether the effect of leftist party preference on reading leftist quality papers (or vice versa) decreases for individuals from birth cohorts in experience of a higher extent of educational expansion, secularization, and value change. Moreover, we expect the cognitive consonance effect to be weaker in periods with a higher extent of political mobilization. Finally, we also test for interaction effects with individual-level covariates such as age, education, or religious denomination.

**Mental health and the life course in the UK: A multilevel age-period-cohort analysis**

*Andrew Bell, University of Bristol, UK*

There is significant and ongoing debate regarding the shape of life course trajectories in mental health. Many have argued that this relationship is U-shaped, with mental health problems increasing through the life course to mid-life (the 'mid-life crisis'), and then declining. However, I argue that these models are beset by the age-period-cohort (APC) identification problem, whereby age, cohort and year of measurement are exactly collinear. This means that any apparent life course effect could in fact be explained by cohort effects, for example. This paper first critiques two sets of current literature: the substantive literature regarding life course trajectories in mental health, and the methodological literature that claims erroneously to have 'solved' the APC identification problem statistically (for example using Yang and Land's Hierarchical APC – HAPC – model). I then use a variant of the HAPC model, making strong but justified assumptions that allow the modelling of the supposedly U-shaped life course trajectory in mental health (measured by the General Health Questionnaire), using data from the British Household Panel Survey, 1991-2008. The model additionally employs a complex multilevel structure that allows the relative importance of both spatial levels (household and local authorities) and temporal levels (periods and cohorts) to be assessed. In fact, no U-shaped life course trajectory was found, with mental health issues increasing throughout the life course. This increase slows in the middle stage of life before increasing into old age, but there is no evidence of the dramatic U-shape found by others – I argue that such findings were a result of a confounding with cohort processes. Other covariates were also tested, to see how income, marriage, smoking, education and class effect the life course and cohort trajectories found. The paper thus shows the importance of considering APC in life course research generally and mental health research in particular.

## **Assessing the potential of multiple imputation in sequence analysis**

*Christian Imdorf, Stefan Sacchi, University of Basel, Switzerland*

Sequence analysis and optimal matching are useful heuristic tools for descriptive analysis of heterogeneous individual pathways such as educational careers, job sequences or patterns of family formation. To date, it remains unclear though how to handle the inevitable problems posed by missing values with regard to such analysis. Multiple Imputation (MI) offers a possible solution for this problem, but has hardly been tested in the context of sequence analysis.

Against this background this contribution assesses the potential of MI in the context of sequence analyses on the basis of an empirical example. Methodologically, we draw upon corresponding work of Brendan Halpin, and extend it to further types of missing value patterns. Our exemplary empirical case is a sequence analysis of panel data with substantial attrition. It examines the typical patterns and the persistence of sex segregation in school-to-work transitions in Switzerland.

Preliminary results indicate that MI proves of value to handle missing values due to panel mortality in the context of sequence analysis. MI especially facilitates a sound interpretation of the resulting sequence types.

## **Sequence analysis and event history analysis in the study of recurrent life events**

*Satu Helske, Katja Kokko, Eija Räikkönen, University of Jyväskylä, Finland; Fiona Steele, London School of Economics, UK; Mervi Eerola, University of Turku, Finland*

During the life course many events (such as marriages, child births, unemployment etc.) can occur several times to an individual. We present two types of approaches to analysis of recurrent events for discretely measured data and show how these methods can complement each other. Sequence analysis is a descriptive tool that gives an overall picture of the histories and compresses them in a form that is relatively easy to interpret. It is useful in finding typical and atypical patterns in life trajectories. Event history analysis is needed to make conclusions about the effects of covariates on the timing of the events. It can account for censoring and unobserved personal characteristics that affect the timing and duration of partnerships. Using these methods, we study how family background and child socio-emotional characteristics are related to later partnership formation and stability.

## **The inverted U-shape of happiness from adolescence to mid-life**

*Harvey Krahn, Nancy Galambos, Shichen Fang, Matthew Johnson, University of Alberta, Canada*

Recent scientific (Stone, Schwartz, Broderick, & Deaton, 2010) and popular press (Anonymous, 2010) articles proclaim a U-shape in the positive affective component of subjective well-being: happiness declines from age 18 to 46, after which it increases into late life. As most relevant research is cross-sectional, there is almost no evidence to support within-person changes resembling a U-bend. In fact, some longitudinal data show improvements in subjective well-being from age 18 to 25 (Galambos, Barker, & Krahn, 2006) and decreased happiness in late life (Holahan, Holahan, Velasquez, & North, 2008). Furthermore, trajectories of happiness likely depend on background characteristics and life changes occurring over time.

The 25-year Edmonton Transitions Study, which tracked over 900 high school seniors from 1985 to 2010, assessed happiness ("Thinking about your life in general, how happy are you?") at each of seven waves, enabling not only examination of age-related change in happiness into mid-life but also potential between-persons (e.g., family SES, gender) and time-varying predictors (e.g., unemployment, marriage, social support) of such change. Multilevel models examining growth in happiness found that 66% of the total variability in happiness was within-person; 34% was between-person. Furthermore, unlike findings from cross-sectional research, the average happiness trajectory across time showed an increase from age 18 to 32, followed by a slight decrease to age 43 (a significant quadratic trend). Happiness at baseline was higher in women, among those from higher SES backgrounds, and among those with higher grades and higher self-esteem, but by age 43 only self-esteem was a significant predictor of happiness. The quadratic trend remained even after controlling for the time-varying covariates of marital status, unemployment, social support, and self-rated physical health. Longitudinal data are required for drawing conclusions about age-related change over time in subjective wellbeing.

**Interpersonal problems and development of self-esteem from adolescence to mid-adulthood: A 26-year follow-up**

*Olli Kiviruu, Noora Berg, Taina Huurre, Hillevi Aro, Mauri Marttunen, National Institute for Health and Welfare, Finland*

This study investigated whether interpersonal problems affect the developmental trajectory of self-esteem from adolescence to mid-adulthood. Directionality of effects between self-esteem and interpersonal problems was also studied. Participants of a Finnish cohort study in 1983 at age 16 (N=2194) were followed up at ages 22 (N=1656), 32 (N=1471) and 42 (N=1334) using postal questionnaires. Measures at each time point covered self-esteem and interpersonal problems including problems with parents, friends, colleagues, partner, break-up with girl/boyfriend, and divorce. Using latent class analysis participants were grouped to those having 1) consistently low, 2) increasing, and 3) high/decreasing number of interpersonal problems from adolescence to adulthood. The latent growth curve of self-esteem was then estimated in these groups for comparisons. Among both females and males the self-esteem growth trajectory was most favourable in the group with consistently low number of interpersonal problems. Compared to the low group, the group with high/decreasing number of interpersonal problems had a self-esteem trajectory that started and remained at a lower level throughout the study period, although among females the gap between the trajectories narrowed by the end of the study period. The group with increasing number of interpersonal problems had significantly slower self-esteem growth rate as compared to the other groups among both females and males, and also the lowest self-esteem level at the end of the study period. Cross-lagged autoregressive models indicated significant cross-sectional correlations between low self-esteem and interpersonal problems. Lagged effects were found from low self-esteem to later interpersonal problems, but only among males, while there were no effects to opposite direction among either gender. The self-esteem growth trajectories are different in the groups with different longitudinal patterns of interpersonal problems. While being theoretically sound these results differ from some earlier findings, highlighting the importance of chosen methods to display these types of effects.

**Vocabulary from adolescence to middle-age**

*Alice Sullivan, Matt Brown, Institute of Education, UK*

The BCS70 data is rich in cognitive measures taken during childhood and adolescence, and also includes adult measures of literacy and numeracy. However, none of the existing cognitive scores are repeat measures. For the first time, the 2012 survey has included a cognitive scale which has been used previously with the cohort – a vocabulary test first taken in 1986, when the cohort members were 16 years old. Much interest has focused on increasing cognitive inequalities according to socio-economic status during the early years of the 1970 cohort's lives. This paper will ask whether cognitive scores continued to diverge between the ages of 16 and 42, taking account of early social background, but also examining the influence of educational and labour market trajectories and reading behaviour post-16.

**Continuity and change in interracial contact**

*Kara Joyner, Kelly Balistreri, Bowling Green State University, USA; Grace Kao, University of Pennsylvania, USA*

Little is known about how contact with other racial groups changes during the transition from adolescence to adulthood. To address the longer-term influence of earlier interracial contact (be it more superficial or intimate) on later interracial involvement this paper leverages multiple waves of data from the National Longitudinal Study of Adolescent Health (Add Health). Data from Wave Four on friendship (e.g., loneliness, number of good friends, and proportion of friends from a different racial group) and romance (e.g., no current partner versus a white partner, black partner, Hispanic partner, or Asian partner) will be used to document how patterns of friendship and romance differ for men and women of different racial groups in young adulthood. Patterns at Wave Four will be compared to those at Wave One for analogous measures to address change between adolescence and young adulthood, with the caveat that measurement and meaning of the friendship and romance differs across these two waves. Next, we will examine how interracial friendship and romance at Wave Four is linked to indicators of interracial contact at Wave One, including school and neighborhood racial composition. We will also examine

how these prior indicators are associated with attitudes about the importance of race for a successful relationship at Wave Three. We will also examine whether the associations differ for respondents of different racial and ethnic groups. This paper will seriously consider the possibility that the associations between interracial contact in adolescent and interracial involvement in adulthood reflect unmeasured factors that select students into schools, neighborhoods, and peer networks. Toward this end, we will implement some innovative strategies to address this issue (i.e., analyses restricted to respondents whose parents chose their neighborhoods for reasons other than school quality and sibling fixed-effects models).

### **Gendered labour market effects of vertical and horizontal stratification in higher education**

*Ashley Pullman, Lesley Andres, University of British Columbia, Canada*

Higher education exists as a changing institutional space for women where some forms of historical segregation are mitigated while others persist. Access to higher levels of study has led to claims of declining vertical stratification, measured through years of education or highest credential (Buchmann & DiPrete, 2006; Shavit et al., 2007). Conversely, research has illustrated the prevalence of horizontal segregation – stratification across disciplines and institutions (Andres & Adamuti-Trache, 2007; Berger, 1988; Bobbit-Zeher, 2007; Griffin & Alexander, 1978; Loury, 1997; Van de Werfhorst, 2002). Critically, this form of social stratification is argued to have widespread labour market effects that negatively impact women. A necessary next step is to examine longitudinally how multiple trajectories across the school/work spectrum are affected in diverse ways by the gendered composition of disciplines.

In this study, we consider how horizontal segregation within fields of study impacts post-secondary and labour-market transitions over the life course. Using sequence analysis, including optimal matching techniques and cluster analysis, our study captures long-term life chance trajectories shaped by gendered educational pathways from early to mid-adulthood. The Canadian Paths on Life's Way longitudinal cohort survey is a rich database for considering this relationship, as it was designed to assess educational and career trajectories after high school (Andres & Wyn, 2010; Andres & Offerhaus, 2013). Considering the multiple life course activities of participants (n=540) over a 22-year period (1988-2010), we examine education and work experiences upon high-school graduation in a group that overwhelmingly pursued some form of post-secondary education. These gendered pathways are shown to impact trajectories in profound ways and, as this research will examine, shape later labour market outcomes. Finally, a longitudinal account illustrates the multiple forms of vertical stratification, that will have implications for the fields of higher education, labour and work, and social inequality.

### **PARALLEL SESSION 3**

#### **3A SYMPOSIUM**

15:45 - 17:30

#### **The long arm of childhood conditions: Methodological exploration and applications**

Room: 338

It is increasingly appreciated that adult health is inextricably linked with earlier conditions in life, and that in turn adult health can have effect on later life well-being. Either directly or indirectly disadvantages may be persistently effective in altering the trajectories of health outcomes or well-being of older people. Little work has empirically examined this long course of life however. Long term longitudinal data are rare, and methods to study these are equally few. Such methods may be necessary since information that span the life course are often collected both prospectively and retrospectively.

Tampubolon (2010) proposes two methodological solutions to deal with the inevitable problem of recall error and recall bias in long term longitudinal studies. The core issues arise from survey practice that older people are asked about their childhood condition some forty to fifty years in the past eliciting plausibly inaccurate retrospective information. The paper distinguishes two possibilities, recall error and recall bias, and proceeds to demonstrate two models, covariate measurement error model and endogeneous treatment model, as applied to the European Survey of Income and Living Condition.

The majority of the papers in this symposium use one or both of these models (Kelley-Moore et al, Pakpahan et al and Tampubolon). Other methodological explorations are also presented other papers (Kroeger et al, Kelly-Moore et al, Vanhoutte et al). The majority of the papers empirically examined high income countries of Europe

(SHARE), England (ELSA) and US (HRS) (Kelly-Moore et al, Kroeger et al, Pakpahan et al, Vanhoutte et al) but one paper examines 20 countries from low, lower-middle, upper-middle, and high income groups (RELATE) (Tampubolon).

The singular importance of the long arm of childhood condition is emergent. The symposium will be examining this question with methods robust to the special nature of data used (prospective and retrospective) and with applications in many countries of the world.

### **The (not so?) long arm of childhood: Life course influences on late-life functional trajectories among black and white older adults**

*Darlyn Lin, Dale Dannefer, et al, Case Western Reserve University, USA*

The past two decades has seen the rise of the “early origins” perspective in sociology, which posits that circumstances in childhood environments have a persisting legacy on adult outcomes. In this paper, we identify two major and unrecognized problems that threaten to undermine the potential of the early-origins work for understanding adult health and functioning: (1) utilizing explanatory frameworks that privilege the circumstances of very early life in the causal pathways to adult health outcomes; and/or (2) failing to account for the potential endogeneity of mid-life social and health circumstances in analytic models that include indicators of early-life. Consequently, studies have likely over-emphasized and over-estimated the impact of the “long arm” of childhood on adult health. We developed a novel synthesis of endogenous treatment models and latent growth curves to account for the endogeneity of mid-life indicators when estimating later-life functional trajectories. Using 9 waves of the Health and Retirement Study, we instrument two mid-life indicators (earnings and morbidity) as a function of childhood social and health circumstances and test whether accounting for the endogeneity changes the impact of early and mid-life indicators on later-life function. For both Black and White older adults, the impact of early-life socioeconomic status is substantially reduced when we account for the endogeneity of mid-life. The impact of education operates almost entirely through mid-life earnings and morbidity. Interestingly, the instrumented mid-life indicators actually increase in impact on later-life functional limitations after accounting for their endogenous selection on early-life circumstances. This study is one of the first to demonstrate that the impact of mid-life circumstances on later life health has likely been underestimated and the impact of early-life circumstances has likely been overestimated in traditional trajectory models that do not account for the dependence of life course indicators.

### **Consequences of measurement error for causal inference in the cross-lagged panel design studies: The example of the reversed causal relationship between health and SES**

*Hannes Kroeger, Rasmus Hoffmann, Eduwin Pakpahan, European University Institute, Italy*

#### **Background:**

Reversed causal relationships are often analysed using a cross-lagged panel design (CLPD), not only but preferred in studies taking a life course perspective. This is also true for the question of causal direction between socio-economic status (SES) and health. The two competing hypotheses are called social causation and health selection. In our paper we show that inferences based on a CLPD can severely be biased by random measurement error alone.

#### **Methods:**

We derive the bias of the standardized and unstandardized ratio between two coefficients in a CLPD with two time points under the assumption that both concepts of interest are measured with error. We plot the bias as a function of the degree in measurement error for different scenarios of possible circumstances. We use SES and health as an illustration.

#### **Results:**

Under plausible circumstances encountered in survey research the higher the degree of measurement error in variable A the more the associated coefficient is underestimated relative to the coefficient of variable B. For the concrete scenarios of SES and health we find that the social causation path might often be substantively overstated (up to 130%). This could lead to fundamentally different conclusions about the importance of health selection and social causation than is actually true.

Conclusion:

The CLPD is used for its strength in unravelling reversed causal relationships. However, inference based on the CLPD is problematic if the concepts of interest are measured with error. The direction of bias is complex, depends on standardization, correlation of the two concepts, and other quantities. For the case of SES and health, scenarios suggest social causation coefficients might be overestimated in a typical survey. Strategies like sensitivity analysis, instrumental variables, multiple imputation for measurement error (MIME), and measurement models, as well as their advantages and problems are discussed.

**Consistencies of older people's responses on their childhood circumstances: The case of European SHARELIFE**  
*Eduwin Pakpahan, Rasmus Hoffmann, Hannes Kroeger, European University Institute, Italy; Gindo Tampubolan, University of Manchester, UK*

Understanding life course processes require studies that follow a group of people over time. This longitudinal information should be consistently measured providing information, both retrospective and prospective, that are coherent and accurate. However, individual recollection about childhood condition forty to fifty years before may be inaccurate, leading to attenuated or biased estimates of its effects. For instance, self-reported health in adulthood is often said to suffer from bias for those without job to compensate for or rationalise their unemployed status.

We distinguish two problems of recall that may arise: recall error and recall bias. Recall error occurs when the response is unreliable or noisy. Usually this is related to questions about events long in the past. Recall bias, on the other hand, occurs when the response is attributed to or coloured the current situation, so that it might not be congruent with the true condition.

This work aims to explore the main determinants of recall error and recall bias in the European SHARELIFE data. We apply two variants of generalized latent variable modelling to handle those two problems: the covariate measurement model and the endogenous treatment model. Using SHARELIFE data, we examine the consistencies of older people's responses on their childhood circumstances and evaluate their impact on health, examining in particular to what extent does recall error or recall bias affect the parameters of interest.

We found that the recollection of childhood financial deprivation is likely to be distorted, as it happened more than five decades ago, and covariate measurement model recovers a stronger effect of childhood circumstances. But it is also likely that the inaccuracy happened because the respondents use their current health status in understanding their childhood past so that the reported effect is biased.

**Healthy ageing and the long arm of childhood condition in 20 countries**  
*Gindo Tampubolan, University of Manchester, UK*

It is increasingly appreciated that adult health is inextricably linked with earlier conditions in life, and that in turn adult health can have effect on later life well-being. Either directly or indirectly childhood condition may be persistently effective in altering the trajectories of health outcomes of older people. No work has empirically examined this proposition in developing and developed countries using consistent framework, highly comparable data, and methods applicable to data spanning half a century of observations collected prospective and retrospectively.

Such mixed data typical in life course studies pose particular problems. Tampubolan (2010), presented in the first SLLS conference, distinguishes two: recall error and recall bias. Recall error manifests in responses being randomly inaccurate while recall bias manifests in responses being coloured by current health outcome. The paper also proposes covariate measurement error model to deal with the first problem and endogeneous treatment model to deal with the second, and demonstrates their application to the European Survey of Income and Living Condition.

This paper extends the application to 20 countries in the world from low income countries to high income ones, taking the lower-middle to upper-middle countries as well. This is the first time one asks the question of how long

the arm of childhood condition is in different parts of the world. Health outcomes used are self-rated health and functional disabilities. Childhood condition are measured following the majority of works by parental or household socio-economic status, education and income. Having employed methods robust to recall error and recall bias, the results will allow insight about healthy ageing in a wide range of societies to be explored.

### **Convergence or divergence of wellbeing in later life? An investigation of the consequences of cumulative (dis)advantage in England**

*Bram Vanhoutte, James Nazroo, Alan Marshall, University of Manchester, UK*

The question how social inequalities evolve in later life has been at the base of a substantial debate. While some argue that advantage and disadvantage accumulate over the life course, and as such inequalities become larger in later life (Dannefer 1987), others see inequalities diminish in later life, with age acting as a leveller (House, Kessler, Herzog et al. 1990). Although most research on this topic examines inequality in the context of health, few acknowledge that health encompasses more than just physical aspects, and entails a positive meaning as well. In this study, multiple measures of wellbeing, such as depressive symptoms (Radloff, 1977), satisfaction with life (Diener, 1984), and more eudemonic approaches to wellbeing such as CASP (Hyde, Wiggins, Higgs, & Blane, 2003) will be considered. Using a growth curve approach that investigates not only differences between people, but also within people over time, we will investigate to what extent the accumulation perspective explains baseline differences and rates of change in wellbeing in later life. Accumulation profiles will be constructed based upon the available life course information. This analysis will be conducted using multiple waves (2002-2012) of the English Longitudinal Study of Ageing (ELSA), comprising a large, representative sample (N~10000) of the community residing population aged 50 or more. Issues of selection and attrition will be taken into account, as they are expected to have a large influence on later life trajectories.

### **3B PAPER SESSION Parenting and fertility**

15:45 - 17:30

Room: 336

### **(How) Do the Strains and Joys of Parenting Change as Children Age?**

*Kelly Musick, Cornell University, USA*

Recent media attention highlights the exceptional nature of intensive parenting in the U.S. and raises questions about implications for parental well-being. Studies have long shown that parents are less happy than men and women without children in the home, although a newer stream of research has complicated this picture by examining both the costs and rewards of parenting, as well as the factors that potentially shape them. Child age is one factor that may play a critical moderating role in the link between parenting and well-being. The little evidence to date on child age is mixed on how well being in parenting changes with the developmental stage of children (e.g., Nomaguchi 2012; Umberson, Pudrovska, and Reczek 2010). This project assesses the multidimensional nature of subjective well-being associated with time spent in activities with children, focusing in particular on how this changes as children age. We use a new well-being module in the 2010 and 2012 American Time Use Surveys (ATUS) that includes respondent reports of momentary well-being in three randomly selected activities throughout the day. We examine differences in happiness, meaning, sadness, stress, and fatigue in parents' activities with children, and we use random and fixed effects models to leverage within-person variation in reported well-being across activities with children of different ages. We further explore variation between mothers and fathers in the links between parenting, well-being, and child age. This work moves beyond past studies on parenthood and happiness by focusing on a range of feelings—positive and negative—tied specifically to activities with children across age. Broadly, it informs our understanding of how the context of parenting contributes to the joys and strains of raising children over the life course.

### **The impact of the timing of first births and the spacing of second births on women's careers**

*Uta Brehm, University of Bamberg, Germany*

The issue of how to reconcile family and work is particularly relevant in the light of West Germany's institutional and normative framework which has been facilitating mothers of young children to withdraw from the labor market for some years. Though the topic has already been subject to academic debate, the questions remain if and how women's careers are influenced by the way women embed their prevalently two births into their employment biographies as well as if educational groups differ in these effects.

So far, research has mainly focused on the first birth's timing: aspirations to establish firmly on the labor market suggest a postponement of the first birth to some degree. The effect is less obvious for the spacing between first and second births: to avoid a detrimental career discontinuity, women can either opt for a short spacing, blocking their periods of unpaid caregiving tightly in order to return quickly and definitely to the labor market, or space their births widely, intermitting their parental leaves with periods of employment.

Using NEPS-Data for West German mothers of two, the study finds that compared to career entry, the occupational prestige at age 45 is severely impaired by the period after women's first birth. While this is not affected by a specific timing, higher educated women tend to time their first births least detrimentally. With regard to the spacing, evidence suggests that only higher educated women can achieve to continue their prestige accumulation, namely by spacing their births very tightly. Lower and medium educated women's prestige, in contrast, cannot be impaired considerably by their spacing behavior, unless they decide to return to part-time employment soon after their first birth.

### **Lone motherhood among immigrants in Germany: Characteristics, entry, and exit**

*Nadja Milewski, University of Rostock, Germany*

Our paper investigates patterns and determinants of lone motherhood among international migrants living in Germany. Migrant status is a risk factor for child poverty as it is lone motherhood. However, compared to the non-migrant population, migrant unions are generally more stable, the number of children in immigrant families is higher, and extra-marital childbearing is less frequent among immigrants. Hence, we expect that immigrants have lower risks of experiencing lone motherhood. Yet, we do not know much about whether their lone motherhood experience (timing and type of entry into lone parenthood and the duration in the status of lone parenthood) differs from that of non-migrants.

We used data from the German Socio-Economic Panel (SOEP) and constructed the partnership careers of about 8500 mothers who were born between 1946 and 1990 and who had at least one child under age 18. About 25% of the sampled women were either immigrants or descendants of immigrants. The prevalence of ever experiencing lone motherhood was about 18% among immigrants and about 24% among non-migrant mothers. We applied event-history techniques to the transition into and out of lone-motherhood status.

When controlling for the union status at birth, the age at first birth and other socio-demographic characteristics of the mother as well as the age and number of children affected, immigrants showed a significantly lower risk of becoming a lone mother. Yet, also the risk of the exit from lone motherhood was lower as compared to non-migrants. These risk differentials could not be explained by control variables.

A comparison of the characteristics of lone migrant mothers and those without migration background showed that immigrant lone mothers are significantly more often out of employment, they receive more often social benefits, and have a larger number of children.

### **Socio-economic resources and lifetime fertility in men with a focus on education**

*Jessica Nisén, University of Helsinki, Finland*

Educational attainment and other own socioeconomic resources of men can be expected to promote their childbearing in Finland. Education may relate to men's fertility through income but other mechanisms are possible too. Also parental socioeconomic resources have been linked to fertility in the next generation previously. It remains unclear to what extent the educational gradient in men's lifetime fertility may exist independent of these other socioeconomic resources.

We aimed at answering the following questions: i) How own (level of education, occupational position, income) and parental socio-economic characteristics associate with lifetime fertility in men? ii) Are educational differences in men's lifetime fertility explained by parental socio-economic characteristics or by characteristics as shared by brothers? iii) Are educational differences in men's fertility mediated by other socio-economic characteristics (occupational class, income) of their own?

The data is derived from a 10% household sample of the 1950 Finnish Census which is linked to later register sources. The study sample consists of men born in 1940–1950 (N=37,082). The information on fertility is also register-based (mean 1.81, SD 1.35). We used standard and family fixed effects Poisson regression analysis as the statistical method.

Lower lifetime fertility was characteristic of men who came from families with fewer socio-economic resources and had lower educational level and fewer other socio-economic resources of their own. Educational gradient in lifetime fertility was not explained by parental socio-economic resources or characteristics as shared by brothers. Occupational position and income largely mediated the association between education and lifetime fertility in men, but some significant differences remained.

Family life course patterns of men are rooted in their families of origin, but educational level relates to men's lifetime fertility independent of parental socio-economic resources. Also other mechanisms than an income effect may link men's education to their childbearing.

### **3C PAPER SESSION      School to work transitions**

15:45 - 17:30

Room: 340.1

#### **How education shapes long-run workforce participation in a changing economy: A framework with evidence**

*Chandra Muller, University of Texas at Austin, USA*

Growing evidence suggests that occupations in our new economy increasingly involve analytic tasks, including tasks related to STEM disciplines; computers have replaced many routine tasks and relegated workers who lack analytic skills to low level jobs and less stable employment options (Autor, Levy, and Murnane 2003; Terrell 2007). While we have growing knowledge about the range of analytic and STEM-related tasks inherent in these occupations, we have scant empirical evidence about how the skills workers need in order to perform these tasks are developed in schools. In particular, we know very little about how schools equip students to continue to learn and flexibly adapt to changing workplace expectations even after they leave school.

This study will capitalize on rich, newly available data from a 2013-2014 follow-up of the HS&B sophomore cohort (as most sample members turn 48 or 49 years old) to provide detailed information about the connection between the education students received (or failed to receive) in school and their workforce success as they approach their later working years. The HS&B cohort is especially informative because survey participants had already completed their schooling, for the most part, when the economy experienced the rapid transformation due to technological changes. We can thus observe variation in who was able to adapt to the transformation of the economy and the types of school experiences that enabled them to do so.

We will directly link the skills and training that they acquired during high school and college to their labor force participation in midlife. Our premise is that education shapes individuals' workforce development across the life course, from early to middle and late-stage jobs and occupations. The paper will propose a framework for conceptualizing the different pathways through which education prepares individuals to meet the challenges of a rapidly changing economy with new occupations and skill demands.

#### **Study-to-work-transition of Higher Education graduates in Germany**

*Kolja Briedis, Gesche Brandt, Centre for Research on Higher Education and Science Studies, Germany*

The transition from education to work is a very important and structuring part of the life course. There are already different studies about school-to-work-transitions (e. g. Andres & Adamuti-Trache 2008, Brizinsky-Fay 2007) that identified different sequences of significant stages, which vary between different countries, levels of education and gender. However, there are no comparable studies about study-to-work transition that overview a long period of time and focus on the further occupational development.

In this paper we examine the study-to-work-transition in Germany with a special emphasis on gender differences and differences between study subjects. According to Brizinsky-Fay (2007), the transition from education to work

is not only a single event but a sequence of transitions. Hence, we observed the first ten years after graduation and different statuses.

Graduates are highly qualified employees in demand. According to this, they should exchange from education to work rather in a direct way. But it is also in discussion that academic career pathways are to some extent discontinuous and precarious. This leads to the following questions: Is there a typical academic transition to work? Are there differences between career pathways of university graduates according to their study subjects? And are there significant differences between men and women?

We use longitudinal data from the Graduate Studies of the DZHW (German Centre for Research on Higher Education and Science Studies). The Panel includes a cohort of graduates that finished their studies in 2001. The three panel waves cover an observation time of approximately ten years after graduation. As a first step, a sequence analysis was conducted to identify typical patterns of occupational pathways (Fabian et al. 2013). Further, a differentiation of patterns by gender and particular subjects was carried out.

### **Contextual change in causal effects of early transitions to adulthood on early adult psychiatric distress**

*Michael Green, Helen Sweeting, Alastair Leyland, University of Glasgow, UK; Michaela Benzeval, University of Essex, UK*

Transitions into adult roles have been increasingly delayed in the UK. Contextual changes may have favoured delaying transitions. If so, then early transitions may have become more difficult and may increasingly be associated with poorer mental health. Data were from the British 1958 and 1970 birth cohort studies (N=12,537 and 12,249). Latent class analysis was used to examine patterns of timing for leaving full-time education, leaving home, having children, and entering employment and cohabiting relationships before age 22. Propensity weighting was then used to identify causal effects of early compared to delayed transition patterns on early adult psychiatric distress (at ages 23 and 26 respectively) adjusting for selection biases on various background factors (gender, parental socioeconomic position, parental and adolescent health behaviours and adolescent distress). Missing data were addressed with multiple imputation. Six latent classes were identified: three groups made early transitions from education to employment (at age 16) and then either delayed other transitions (early work-delay), made other transitions quickly (early adult), or formed a cohabiting relationship around ages 19-21 (early work then family). Two groups remained in full-time education to ages 19-21 or beyond (higher education). Another group transitioned from education to employment around ages 17-18 (inbetweeners). Higher education patterns were more common in the 1970 than 1958 cohort. Those not in the higher education groups felt more distress in early adulthood than those in the higher education groups. This was mainly due to selection biases on the background factors, but the association between early adult distress and being in the early work-delay group was not explained in the 1970 cohort. Early transitions had few causal effects on psychiatric distress, but an early transition from school to work, without transitions into other adult roles, was more likely to cause distress in a more recent context.

### **The debate over dropout from upper-secondary education in Norway: The lack of a life course perspective**

*Kristoffer Vogt, University of Bergen, Norway*

Since standardized measures of dropout from upper-secondary school in Norway became available in 1999, the topic has received much public attention. Despite the fact that an age-standardization of the education-work transition has become more prominent, and this is central to understanding dropout, debates on the issue have tended to overlook life course processes. The rates have been stable over time, but the debates have changed. The first debates were centred on boys becoming losers in the education system. More recent debates have been tied to the sustainability of the welfare state. Those who have not completed upper-secondary by age 20 have been found to have a higher probability of labour market exclusion later in life. Based on this kind of analysis, the lives of dropouts tend to be seen as consisting of first a prelude and then a postlude to dropout. Other relevant aspects and characteristics of their lives, both before and after dropping out, tend to be overlooked. These recent debates about the dropout rate in Norway seem to rely on assumptions about human lives and social change adopted from human capital theory and theories of post-industrial society.

**Research and policy interface: The experience of Growing Up in Ireland and Growing up in Scotland**

*James Williams, Economic and Social Research Institute, Ireland; Paul Bradshaw, ScotCen, UK*

Longitudinal child cohort studies have many applications, most notably in providing an evidence-base to inform policy and practice in all areas of child and family life.

This presentation considers how these studies can play an important role in the work of policy-makers and other stakeholders and how researchers can interface effectively with policy and practitioner communities. By inputting to the development of policy, service delivery and interventions, child cohort studies have the potential to yield future long-term savings in all domains of children's lives, including their health, education and socio-emotional development.

The presentation begins by considering the stages in policy development and implementation and how researchers can contribute to that process. It then discusses how two nationally representative cohorts (Growing Up in Ireland and Growing up in Scotland) interface with relevant stakeholder groups to ensure that effective knowledge transfer is achieved and that policy is informed by their respective studies. The background and communications strategies of both studies are considered, along with the principal methods used to disseminate and communicate their results and data to as broad a user-base as possible.

**Cohort consciousness: The role of longitudinal studies in the political trajectory of 'social mobility' 1999 - 2014**

*David Walker, Jane Elliott, Institute of Education, UK*

'There is no more powerful symbol of our politics than being on a maternity ward, seeing two babies side by side. Yet two totally different lives ahead of them. One returns with his mother to a bed and breakfast that is cold, damp, cramped. The second child returns to a prosperous home. Expectations are sky high, opportunities truly limitless' (1) This was Tony Blair speaking 11 months before the Millennium Cohort Study started tracking a sample of young lives – a study intended by the 1997 Labour government both to highlight the failure of its predecessor Tory administrations to commission a birth cohort study to extend the existing sequence and to provide evidence to help ministers carry through various 'developmental' policies (2). Yet, nine years later the political mood registered disappointment. Britain seemed no less sclerotic, no more mobile than before Sure Start, the Child Trust Fund and other Blair government inventions. The Labour backbencher Graham Allen joined Tory Iain Duncan Smith to 'break intergenerational cycles of under achievement and deprivation' (3). Come the Cameron coalition, 'mobility' (which in political speak is often a loose amalgam of life chances, parental background and access to elite positions) again became the theme of speeches and initiatives. What this paper investigates is how far political and policy discussion of mobility, was driven, or at least inflected, by the appearance of new longitudinal research, especially evidence on connections between economic disadvantage and child development. Using interviews, citation metrics and content analysis of speeches and reports, we fix the arrival and take-up of findings, notably from the NCDS, BCS70 and MCS, noting also the coalition government's decision to support a new cohort investigation, the Life Study.

**Policy and practice change at local, regional and international levels: Impacts from Born in Bradford**

*Neil Small, University of Bradford, UK*

Born in Bradford is a prospective pregnancy and birth cohort in the UK's 6th largest city. Between 2007 and 2011 12,453 women (13,776 pregnancies), 3,448 of their partners and 13,818 babies were recruited. Half of families are in the poorest fifth of deprivation for England and Wales, and 45% are of Pakistani origin. Recruitment was in one Metropolitan District. This allows consideration of the impact of local circumstances, including service provision and policy choices, and engagement with the local community to implement evidence based responses to study findings.

The introduction of a large study into a local health economy contributed to organizational changes including the development of a paperless maternity data system and better links between primary, secondary, and child health

services. Embedding research in practice can lead to improved quality of routine data collected, for example on infant growth, and make routine data available for research, enhancing its cost effectiveness.

Early adoption of research findings locally includes the introduction of routine vitamin D supplementation and an oral glucose tolerance test for all pregnant women. Findings that consanguinity was associated with a doubling of risk for congenital anomaly and that 30% of all anomalies in children of Pakistani origin could be attributed to consanguinity reinforced local commitment to community education about genetics and targeted genetic counselling. These findings also led to the establishment of a regional congenital anomalies register.

In partnership with the European ESCAPE consortium (14 cohorts in 12 countries) a significant association was found between fetal growth and air pollution. The European Environmental Agency Director stated that this evidence is sufficient to trigger changes in EU regulations.

Some findings can be quickly embedded in local provision, some have a resonance that prompts regional changes, some are generated with collaborators and can lead to policy change at international level.

Social change and inter-generational continuity in SES: Who benefits, and who is left behind?

Lisa Serbin, Danielle Kingdon, Dale Stack, Alex Schwartzman, Concordia University, Canada; Marie-Hélène Véronneau, University of Quebec at Montreal, Canada; Jane Ledingham, University of Ottawa, Canada

### **Age categorization in employment policies**

*Anne Perriard, University of Lausanne, Switzerland*

In OCDE countries, employment policies are especially based on age categories justifying differentiated treatments. Specific benefits and social programs are proposed to "young in difficulty" (the so-called NEET-category), "families" or "older workers". If social policies tend to value education for the NEET-category, they encourage employment for "families" and early retirement for "older workers". On the basis of empirical data collected in Switzerland within the framework of the NCCR LIVES project (<http://www.lives-nccr.ch/en>), I shall first attempt to understand what the use of these categories is founded upon and how the lack of employment of these categories is problematized by social employment policies. I will then show that these categories of social action follow the linear representation of the life course (education-employment-retirement) that participates to product a dominant temporality centred on (male) employment (Levy, Gauthier, & Widmer, 2006) and that marginalizes the other existing temporalities. (Nicole-Drancourt, 2009). In conclusion, examining age as a construct that defines categories of the life course, I will show that the use of these categories not only naturalizes unequal access to employment and subsumes very different social universes into chronological categories (Bourdieu, 1984, Yates & Payne, 2006) but also tends to deny the importance of power relationships founded upon age.

### **3E PAPER SESSION Trajectories and profiles**

15:45 - 17:30

Room: 342

### **Ethnic differences in cognitive achievement: Findings from the Millennium Cohort Study**

*Afshin Zilanawala, Amanda Sacker, Yvonne Kelly, University College London, UK*

Children's cognitive skills are an important predictor of successful transitions to formal schooling, educational outcomes, and labour market success. There is evidence of achievement disparities between ethnic minority children and their White counterparts. This literature focuses on disparities between Black and White children. Research that does examine ethnic differences in achievement uses mean differences or regressions to understand the contribution of family characteristics. Little research examines ethnic achievement disparities using latent class analysis.

In this paper, we evaluate ethnic disparities in children's verbal skills across early childhood. We use data from the UK Millennium Cohort Study and assess cognitive ability using widely validated, age appropriate tests. Verbal ability is assessed at ages 3 and 5 using the Naming Vocabulary subscale from the British Ability Scale (BAS), at age 7 using the BAS Word Reading test, and at age 11 using the BAS Verbal Similarities test. Using Latent Profile Analysis, we create verbal longitudinal latent profiles using the aforementioned tests across 4 sweeps of data.

We find ethnic minorities—Indian(mean=44), Pakistani(mean=35), Bangladeshi(mean=34), Black African(mean=47), and Black Caribbean(mean=42) children—score significantly lower than their White peers (mean=51) on verbal tests at age 3. At age 5, all ethnic minorities have significantly lower verbal test scores than White children. The optimal number of profiles for verbal ability was 4 in preliminary analyses using age 3-7 data. About 10% of the sample are high achieving at age 3, but decline by age 7. Nearly 5% of the sample is the lowest achieving at age 3, but this group increases its score at ages 5 and 7. The middle two groups, or over half of the sample, increase their verbal scores from ages 3 to 5 but decline at age 7. Longitudinal latent profiles to age 11 will be described and membership by ethnicity discussed.

### **Trajectories of children’s behavioural and emotional problems across the transition to primary school: Associations with parenting, friendships and school adjustment**

*Alison Parkes, Helen Sweeting, Daniel Wight, University of Glasgow, UK*

Behavioural and emotional problems may change through early childhood, but this is poorly understood. We explored how parenting, friendships and school experiences were associated with problem trajectories. We aimed to (1) investigate early childhood and school transition predictors of elevated problems, and (2) differentiate escalating from declining problems.

#### **Methods**

Families from the Growing Up in Scotland birth cohort were interviewed on seven occasions (child aged 10 to 94 months), during 2005-13. Mothers reported children’s behavioural and emotional problems using the Strengths and Difficulties Questionnaire on four occasions (46-94 months). Multinomial regression models (N=2903) explored how parenting, friendships and school experiences predicted problem trajectory group (identified using growth mixture modelling). Predictors were measured in early childhood (10-34 months) and around school transition (46-70 months). Models adjusted for gender, child cognitive ability, maternal ethnicity and health, household income and family structure.

#### **Results**

Three problem trajectories were identified: low-stable (85%), high-decreasing (7%) and medium-increasing (8%). The last two (“elevated”) trajectories crossed over at school transition. Early identification of school additional support needs was higher in the high-decreasing (19%) and medium-increasing (23%) than low-stable (4%) groups. Compared with the low-stable group, lower maternal bonding and use of smacking in early childhood predicted elevated problems, but did not clearly differentiate groups 2 and 3. Around school transition, greater parent-child conflict, weaker friendships and lower school adjustment characterised both elevated problem groups. Comparing the two elevated problem groups, although the medium-increasing group was characterised by better parent-child relationships and greater pre-school readiness, perceived teacher supportiveness was lower than in the high-decreasing group.

#### **Conclusions**

Parenting, friendships and school experiences were associated with elevated problem levels, while teacher supportiveness differentiated escalating from declining trajectories. Although causation is uncertain, findings suggest child vulnerability at school transition. Pupil support at this time may be key to preventing problem escalation.

### **Changes in mothers’ perceptions of child raising problems: Evidence from the Danish Longitudinal study of children from the 1995 cohort**

*Karen Dahl, Mai Heide Ottosen, SFI - Danish National Centre of Social Research, Denmark*

This paper examines the background for why mothers are experiencing having child-raising problems for their children, aged 3-15. We specifically focus on changes in mothers’ assessments of having child raising difficulties from age 3 to age 7 and from age 7 to age 11. The analysis is based on data from four waves of the Danish Longitudinal study of Children (net 6000 Danish mothers of children born in 1995) and combines self-reported survey data with register data. As central independent variables we include changes in family structure, changes in economic situation and changes in family dynamics across the survey waves.

Preliminary results show that parenting practice such as a low level of common family activities and a high level of punishment (physical punishment and grounding) is correlated with more incidences of experienced child raising problems in the entire 3-15 years age-span. The same do socio-demographic factors such as economic problems; a non-nuclear family structure; being a young or low educated mother; and having a child with low birth weight.

We split the sample into two groups at two points of time during childhood: a group of 'easy' children respectively a group of 'difficult' children (according to their mothers' perception). The findings suggest that 'easy' children are getting worse if they are punished by their parents and if the level of common family activities are low. Children of mothers with few educational resources are also more likely to change into 'difficult'. Similarly, children who initially were perceived as 'difficult' remains difficult if they are punished and if there are few common family activities. In addition they remain difficult to raise, if the family underwent a period of economic difficulty or if the mother has few educational resources.

### **Patterns of marital positivity and negativity across 20 years in two generations**

*Christine Proulx, University of Missouri, USA; Teresa Cooney, University of Colorado-Denver, USA*

Interest in longitudinal change in marriage remains strong. As longitudinal methods improved, findings about the shape of marital change moved from that of a U-shaped curve to a pattern of general decline over time. Contemporary evidence suggests multiple types of change likely exist within the married population. The present paper uses semiparametric group-based modeling to explore multiple marital pathways within two generations.

Data come from 7 waves spanning 20 years of the Longitudinal Study of Generations, a sample of three-generation families in Southern California, USA. We focus on those respondents who report being continuously married or in a marriage-like relationship with the same person at each wave: G1 N = 82 (Mage at W1 = 55.93) and G2 N = 76 (Mage at W1 = 27.17).

Whereas latent growth curve models of marital outcomes (e.g., marital positivity and negativity) suggest little to no sample mean change in marriage over time, group based modeling using SAS PROC TRAJ showed distinct marital trajectory groups within both generations. For the older generation's marital positivity, two groups emerged: a high stable group (75%) and a low stable group (25%). For the younger generation, two groups also emerged: a high stable group (61%) and a low decline group (39%). For the older cohort's marital negativity, there was a high decline group (30%) and a low stable group (70%). For the younger cohort, there was a low stable group (74%) and a high increase group (26%). Thus, our results show that multiple patterns of change emerge within each cohort, and the shape of these patterns is distinct for each generation. The next step in this analysis is to a) determine if members from the same family but different cohorts follow similar marital trajectories, and b) link these trajectories to trajectories of mental and physical health.

### **Interrelationships between the transition to home ownership and family processes in Australia: Evidence from the HILDA panel survey**

*Melanie Spallek, Michele Haynes, University of Queensland, Australia*

Many Australians aspire to home ownership to ensure that housing costs will be low following retirement from the work force. The rate of home-ownership in Australia is approximately 70% of all households. However, housing tenure is not static for an individual or family but changes with key life events as they occur. The transition to home-ownership is a decision frequently made within the context of family formation or family planning but the timing of this transition has changed with recent research showing that home-ownership rates have declined amongst younger Australians, and also that home-ownership is increasingly occurring before the birth of a first child. Social changes related to family processes including delayed union formation and fertility decisions, have contributed to the observed decline in home ownership amongst young Australians. However, longitudinal data has shown that there are several types of housing tenure pathways in which the order of transition to home-ownership and birth is reversed. Further research is required to determine the individual and family circumstances that lead to a delay in home-ownership and how this is interrelated with the timing of a first birth.

In this research we investigate the interrelationships between these two significant processes in a family's life course. We analyse data from ten waves of the Australian HILDA panel survey to simultaneously model these two processes to determine the factors associated with home-ownership before or after the birth of a child and the duration from the beginning of a relationship to the occurrence of a birth or a transition to home ownership. Our approach is to estimate a multiprocess event-history model, allowing the unobserved heterogeneity associated with the two processes to be correlated, assuming that the timing of the transitions into home ownership and birth processes are partially explained by underlying common unobserved factors

## **17:30 - 19:00 POSTER SESSION**

### **1. Social mobility in rural Pakistan: Evidence from a longitudinal survey on rural Pakistan**

*Hari Lohano, University of the West of England, UK*

Abstract absent

### **2. Overcoming the risk of low levels of education by the ability of resilience**

Jennifer Tork, University of Bielefeld, Germany

Educational inequality can be explained by several approaches. A main focus is on the role of social origin in explaining educational outcomes. Low levels of education are often associated with families' low socio-economic status or low parental education. Nevertheless there are positive educational outcomes despite disadvantaged circumstances of upbringing. This is stressed in resilience research which provides an additional perspective on the educational development with regard to social origin.

The aim of this paper is to answer the question: why are some pupils successful in education despite negative circumstances and others are not? The resilience concept can provide a useful explanation for this. Resilience means that children with experience of adversity or disadvantaged circumstances develop well, because of the availability and compensating function of social and personal resources. These resources called protective factors are personal characteristics like locus of control or social capacity like parent-child relationship. Research on educational inequality rarely considered the construct of resilience as an explanatory approach. The paper focuses on the role of social origin in explaining educational inequality and provides additional explanations using the construct of resilience. It could be relevant for further social policy measures to prevent and intervene in low education or educational poverty. However, it seems to be an important perspective in relation to the life course, because of the consequences of low education on the prospective personal and vocational development.

The effect of social and personal factors on the probability of overcoming the risk of low levels of education, as indicators for resilience, is estimated in a logistic regression. This investigation uses data of the German Socio Economic Panel Study for the empirical analysis (SOEPv29). The educational success of young people, aged 17 to 20 years, is observed under the condition of growing up in low socio-economic circumstances. Information gathered from youth and parents is linked.

### **3. Is the risk of teenage motherhood influenced by area of residence?**

*David Wright, Rachel Doherty, Michael Rosato, Dermot O'Reilly, Queen's University Belfast, UK*

The UK has the highest rates of teenage motherhood (TM) in Western Europe and unintended pregnancy is costly for adolescents and society in general. The relationship to individual social and material disadvantage is established but the influence of area of residence is unclear. We tested whether there were additional risks of TM in deprived areas or in cities. The Northern Ireland Longitudinal Study was used to identify a cohort of females enumerated in the 2001 Census who would be aged 15-19 between 2001 and 2009. Risk of TM was measured using multilevel logistic regression, adjusting for established risk factors (health, religion, family structure and SES). Settlement bands and Index of Multiple Deprivation represented an urban/rural gradient and area deprivation respectively. All the individual and household attributes were related to TM in the expected direction, e.g. the risk of TM for women in the most expensive housing was considerably lower than for their peers in the least expensive housing (OR<sub>adj</sub> 0.23, 95%CI [0.14, 0.40]). Risk of TM was elevated in deprived areas

and there was an urban/rural gradient, with higher risks among city dwellers than those in rural and intermediate areas (ORadj 1.24 [1.04, 1.47]). We conclude that teenage motherhood is independently associated with area of residence. The higher risk in deprived areas may be a response to poor employment prospects and the elevated risk in cities may be due to greater opportunity given the higher concentration of teenagers, though other factors such as access to alcohol may also be important.

#### **4. The patterns of accumulation of socio-economic inequalities throughout the educational career: Immigrant and low-SES students in stratified and comprehensive school systems**

*Aigul Alieve, CEPS/INSTEAD, Luxembourg*

In this work we study the relationship between socio-economic inequality and the changes in compulsory educational achievement over time across native born and immigrant students in Europe. We build our empirical model on premises of the cumulative (dis-)advantage theory (CDT) (Merton 1988; DiPrete and Eirich 2006). The cumulative process functions in a way that even small differences accumulated over time make it difficult for a group or an individual lagging behind, e.g. in educational development, to catch up. There has been a renewed interest in CDT due to growing understanding about inequalities being a dynamic process with both additive and spill-over effects.

There is a growing body of the most recent empirical evidence on the way educational systems contribute to the accumulation of the inequalities (Bol and Van de Werfhorst 2013, Hanushek and Woessmann 2006, Van de Werfhorst and Mijs 2010, Woessmann 2008, Woessmann et al. 2008). Ability grouping (tracking) is one of the major features of educational system that produces larger achievement gap between native/immigrant, low/high SES children. This is a very general way of differentiating between school systems – as Bol and Van de Werfhorst (2013) show in their recent work, classification of systems goes along many more dimensions.

The principal research questions we raise here are:

1. How does the association between socio-economic and immigration background and student's achievement change as students progress from primary into secondary school?
2. Is the change in the association similar for students in comprehensive vs. stratified educational systems?

Examination of cumulative effects of social disadvantages on educational attainment usually requires genuine panel data which enable to observe an individual at least at two points in time during his/her school career. We take advantage of the availability of two cross-section surveys -- PIRLS 2006 and PISA 2009 – which provides comparable test scores and pool them to construct a pseudo-panel. While students in PIRLS are about 10-11 years old (in their 4th grade), those in PISA are 15, with time gap between these two surveys (3-4 years). This project assumes that students observed in PIRLS belong to the same cohort of students than those observed in PISA. Ultimately, our purpose is to identify for each student in PIRLS a seemingly comparable student in PISA. The latter would allow us to infer the performance of each student in PIRLS had they taken the test four years later. Examples of such quasi-panel studies include publications by both economists and sociologists of education (Ammermueller 2005; Hanushek and Woessmann 2006; Jakubowski 2010; Schubert and Becker 2010; van de Werfhorst 2013).

#### **5. Examining national achievement trends over time: How is inequality fostered by the increasing of average achievement scores?**

*Christina Edmunds, Kristie Phillips, Mikaela J. Dufur, Lance Erickson, Brigham Young University, USA*

The effects of educational inequality are prominently manifest in low-socioeconomic status (SES) students, as low-SES students tend to underachieve. This underperformance leads to low SES students' lower educational attainment, lower competitiveness in the labor market, and lower wages in the future (Jacobson 2009). Though the achievement scores of low-SES students should be monitored, they are often disregarded while national average achievement scores are emphasized instead. These average achievement scores generate considerable attention (OECD 2010) due to the emphasis countries place on rising to more favorable rankings of average achievement.

Nations may take a number of approaches to raise their overall rankings, but some of these mechanisms of change may put disadvantaged students at even greater risk. The first mechanism is to increase the achievement scores of all students; this is the most desirable mechanism. The second mechanism is to increase the bottom SES scores. This mechanism is not as profitable as the first, but still increases the overall achievement of that country while focusing resources on the most disadvantaged students. The third mechanism is to increase the top SES decile achievement. This third mechanism increases inequality and previously disadvantaged students continue to be left behind.

Examining how a nation is attempting to increase their average achievement gives insight as to how some countries may prioritize raising a nation's average achievement at the expense of neglecting low-SES students. This longitudinal study examines math achievement for countries included in the Programme for International Student Assessment (PISA) for the years 2003, 2006, 2009, 2012. From this sample, we examine countries whose average achievement increases over time in order to examine the mechanisms by which their average achievement has increased. Countries that introduce inequality as they go about raising average achievement are disadvantaging future generations of low-SES students.

## **6. Social inequalities in dental health at different periods of life in 5 Swedish Cohorts: Longitudinal analyses up to old age**

*Roger Keller Celeste, Federal University of Rio Grande do Sul, Brazil*

Several chronic diseases have been associated with socioeconomic conditions. Although increasing health inequalities have been reported in many countries, cross-sectional data has shown reducing inequalities in oral health. It is not known about the evolution of health inequalities over the life course.

Objectives: To describe the magnitude of inequalities in different birth cohorts at different stages of life course in two economically groups.

Methods: We used combined data from two sources: the Swedish Panel Study of Living Conditions of the Oldest Old (SWEOLD), a nationally representative study of older people (aged 77+) originally drawn from the longitudinal Swedish Level of Living Survey (LNU) a representative sample of the Swedish population aged 15-75. The first wave of LNU was conducted in 1968, the latest SWEOLD data was conducted in 2011. Data from 5 birth cohorts were analyzed: 1906-15, 1925-34, 1944-53, 1957-66 and 1970-79. We present results comparing a complete-case and an all-case analysis from closed cohort. The magnitude of inequality was measured by the absolute difference in the percentage of individuals with less than good oral health at different periods of life for two economically defined groups (poor vs. non-poor).

Results: Each cohort had approximately 1000 individuals. All cohorts showed a strong reduction in the percentage of good dental health during follow-up. The never-poor group comprised 69% in the cohort of 1944-53, increased among younger cohorts. Dental inequalities appear to be greater in adulthood, but vary over different periods of life, sometimes with no difference.

Conclusions: The results indicate that socioeconomic differentials prevail across the life course also among the oldest old, and across birth cohorts. Furthermore, the magnitude of inequalities in health does not seem to be related to the average prevalence of the outcomes and it varies throughout life.

## **7. Socio-demographic predictors of mortality inequality among Swedish men and women: A longitudinal study**

*Ailiana Santosa, Joacim Rocklöv, Ulf Högberg, Peter Byass, Umeå University, Sweden*

Background: Despite increasing life expectancy in many countries, health and mortality inequality exist. This study aimed to assess overall and cardiovascular (CVD) mortality trends among Swedish men and women during 1992-2006, and their association with individual level socio-demographic determinants of mortality inequality.

Methods: Data were extracted from the Linnaeus Database which consists of register and survey data. A multilevel Poisson regression analysis was used to assess the number and mortality rate, as well as

individual level determinants (fixed effects) of overall and CVD deaths for men and women at county level (n=24) in each 5-year period during 1992-2006. We also assessed the random effect at county level.

Results: A total of 9,098,090 individuals accumulating 115,361,104 person years was included in this study. A significant reduction in overall and CVD mortality rates occurred among Swedish men and women during the study period 1992-2006, with persisting excess male:female mortality. Older age and pensioner, unmarried or widowed individuals, low and middle education levels and employed individuals with low income (the lowest income tertile) were consistently associated with higher mortality rates of overall and CVD mortality in men and women. Individuals with tertiary education level and being immigrant were protective factors for overall mortality, but less so for CVD mortality. The multilevel analysis revealed that about 85% and 80% of the variation of overall and CVD mortality at county level, respectively, could be explained by the individual socio-demographic variables.

Conclusions: Inequality in overall and CVD mortality still exists among Swedish men and women, and to some extent are influenced by county level determinants. Contextual epidemiology must therefore play a decisive role in understanding social disparities in overall and CVD mortality in Sweden.

8. Health and grand-mothering among Latin and Caribbean women in the United States (U.S.)  
Ynesse Abdul-Malak, Syracuse University, USA

As with any other groups in the United States (U.S.), immigrant grandmothers provide care for their grandchildren when their adult children are in need of assistance and public programs do not provide needed support. Providing care for grandchildren could be a physically and emotionally demanding job especially when it is combined with others roles such as paid employment. This paper draws on in-depth interviews with 15 Latina and Caribbean non-custodial immigrant grandmothers. It examines how gendered and cultural expectations complicate grandmothering and how providing grandchild care shapes grandmother's health, including their ability to exercise, see doctors, eat healthily, and manage chronic diseases. This paper uses a life course perspective and cumulative inequality theory to focus on grandmothering outside of the western context. It pays careful attention to the ways that immigrant grandmothers' lived experiences and health are complicated by social inequalities that are pervasive in the U.S. This paper contributes to work by life course scholars and has social policy implications.

### **9. The effects of changes in disability and limiting long-term illness on well-being in an older UK population**

*Cara Booker, Steve Pudney, University of Essex, UK; Marcello Morciano, Ruth Hancock, University of East Anglia, UK*

Objectives: Increasing age is associated with increased disability, however well-being remains fairly stable. This study investigated how changes in disability and limiting long-term illness (LLTI) are associated with subjective well-being (SWB) in an older people.

Method: Data come from waves 1- 3 of Understanding Society: The UK Household Panel Study. Adults 65 years and older (n=7166) were included. SWB was measured using the GHQ-12 and life satisfaction. Limiting long-term illness (LLTI) and number of disabilities at each wave were the measures of disability. Change scores were created to model change in disability between waves. Linear regression model was used; effect of partner's disability and LLTI was also tested.

Results: Onset of a LLTI and having a LLTI over all three was associated with poorer well-being. Loss of a LLTI or changes in LLTI status across waves was associated with increased distress but not in changes to life satisfaction. Participants who had an increase in the number of disabilities had significant declines in both GHQ (b=-1.12, 95% CI=-1.47, -0.77) and life satisfaction (b=-0.18, 95% CI =-0.29, -0.06). Onset or continuity of partner's LLTI was associated with greater distress among men. Increased number of partner's disabilities resulted in greater distress among men, but not women. There were no effects of changes to partner's LLTI status on life satisfaction; additionally changes to the number of partner's disabilities did not have a significant effect on life satisfaction.

Conclusions: The findings from this study suggest that onset and continuing LLTI have larger effects on SWB than variable changes and loss of LLTI status. Changes to partner's LLTI status do have effects on own well-being, and these effects differ by gender.

#### **10. How are various micro-level settings at age 30 related to mental health at age 42? Findings from the Northern Swedish Cohort Study**

*Evelina Landstedt, Klara Johansson, Helen Winefield, Anne Hammarström, Per Gustafsson, University Hospital Umeå, Sweden*

Numerous cross-sectional studies suggest that mental health in adolescents and adults is associated with factors such as poor social support, adverse socioeconomic circumstances and psycho-social work environment. Because of a lack of high-quality longitudinal studies, less is known about social determinants of mental health over time from adolescence to mid-life. The current study is based on a large community-based cohort with high retention rate and uses a conceptual framework inspired by a life-course approach and the Bronfenbrenner ecological model. The aim was to expand the knowledge on social determinants of mental health from adolescence and mid-life by exploring associations between three micro-level settings (individual/family, social relationships and workplace) at age 30 and internalising symptoms at age 42, while accounting for mental health status at age 16. Methods: Data was drawn from three waves of the Northern Swedish Cohort Study, a community-based prospective self-administered questionnaire study (age 16, 30 and 42; n=1010; 94% response rate). Internalising symptoms were measured by an index of anxiety and depressive symptoms. Micro-level settings were measured by indices of items reflecting aspects of individual/family related hardship, poor social relationships/network and poor psychosocial work environment. Associations were assessed by gender-separate multivariate ordinal logistic regressions. All analyses were adjusted for internalising symptoms and parental socio-economic status at age 16. Results: Poor social relationships/network at age 30 was associated with internalising symptoms at age 42 for both women and men. A weaker yet significant association was identified for the individual/family micro-level setting among men. Experience of adverse psychosocial work environment at age 30 was not associated with internalising symptoms 12 years later. Conclusion: Poor social relationships/social networks represent a pathway to psychological distress over time in 42-year-old men and women when adolescent mental health status is taken into account.

#### **11. Obesity in pregnancy: Health service utilisation and costs on the NHS**

*Kelly Morgan, Muhammad Rahman, Steven Macey, Mark Atkinson, Rebecca Hill, Ashrafunnesa Khanom, Shantini Paranjothy, Muhammad Jami Husain, Sinead Brophy, Swansea University, UK*

##### **Objective**

To estimate the direct healthcare cost of being overweight or obese during early pregnancy to the National Health Service (NHS) in Wales. Costs are calculated as cost of mother (no infant costs are included) and are related to health service usage throughout pregnancy and two months following delivery.

##### **Design**

We applied a retrospective prevalence-based study of a cohort of pregnant women by combining linked anonymised electronic datasets of 484 individuals enrolled on the 'Growing Up in Wales: Environments for Healthy Living' (EHL) study. Using antenatal booking (at 12 weeks gestation) body mass index (BMI), women were categorised into two groups: normal BMI (n=260) and overweight/obese (BMI>25) (n=224). Health service utilisation comprised all General Practice (GP) visits, prescribed medications, inpatient admissions and outpatient visits. Direct healthcare costs for providing these services over an 11 month period occurring 2011-2012 were calculated.

##### **Results**

There was a strong association between health care usage cost and early-pregnancy BMI ( $p<0.001$ ). Adjusting for maternal age, parity, ethnicity and co-morbidity, mean total costs were 23% higher amongst overweight women (RR, 1.23; 95% CI, 1.230-1.233) and 37% higher amongst obese women (RR, 1.39; 95% CI, 1.38-1.39) compared to women with normal weight. Adjusting for smoking, consumption of alcohol, or the presence of any co-morbidities did not materially affect the results. The total mean cost estimates were £3546 for normal weight, £4244 for overweight, and £4718 for obese women.

## Conclusion

Increased health service usage and healthcare costs during pregnancy are associated with increasing maternal BMI; this was apparent across all health services considered within this study. Interventions costing less than £1171.34 per person could be cost-effective if they reduce healthcare usage amongst obese pregnant women to levels equivalent to that of normal weight women.

## **12. Loss of faith and wellbeing in the late middle age**

*Gopalakrishnan Netuveli, University of East London, UK; Mukil Menon, University of Malta, Malta*

Although religion and science are considered to be "non-overlapping magisteria" (Gould 1997), scientific study of religion and its influence on well-being has flourished especially in the USA. Mostly the studies demonstrate a positive correlation. While the American enthusiasm in this research is considered exceptional, Europe and particularly UK, are assumed to be more secular in wellbeing research. Ironically this secularism provides an ideal experimental ground to study if loss of faith over the life course has any influence on wellbeing in later ages. We hypothesized that losing faith would lead to a diminishing of wellbeing. We tested this using data from a British birth cohort, the National Child Development Study (NCDS), whose participants reported whether they had a religious upbringing and whether they practice any religion at age fifty. We considered that the faith had been lost for those who had a religious upbringing but who did not practice it when they were 50 years. We also had data about religion when they were 23, 33, and 46. Using these data we also created a variable marking the loss of faith monotonically. We also used gender, life course social class trajectory and personality (second order Big 5 factors: stability and plasticity) to test whether they have an effect on the association between loss of faith and wellbeing. Our measure of wellbeing was CASP12 (version 2, Wiggins et al. 2008). Fifty nine percent of the participants had loss of faith, more among men (62%) than women (56%). There was no difference between mean CASP12 scores between those who lost faith and those who did not. When adjusted for religious upbringing, the loss of loss of faith reduced CASP12 by 0.6 units. However the personality variables explained this effect completely. Our preliminary results suggest that loss of faith diminished wellbeing. However this effect was mediated through personality factors. Religious upbringing was positively associated with both stability and plasticity.

## **13. Timing of marital disruption and long term health**

*Martin O'Flaherty, Janeen Baxter, Michele Haynes, University of Queensland, Australia; Gavin Turrell, Queensland University of Technology, Australia*

Divorce and widowhood are major life course events, with acute and long term consequences for many aspects of life, including housing, social networks, childcare and labour market participation. These changes are consequential for health (Zhang and Hayward, 2006, Dupre et al., 2009, Hughes and Waite, 2009) and wealth accumulation (Holden and Kuo, 1996). Several recent studies suggest that the timing of a marital disruption be also be consequential for health: Alter et al. (2007) analysed data from 19th century Europe and found that among widows high parity was positively associated with mortality, but that this effect diminished with increasing age at widowhood. Kravdal et al. (2012) also found an effect of disruption timing (relative to fertility) on mortality, with divorced men whose eldest child was aged <10 at the time of the dissolution at increased risk of death relative to those without children or whose eldest child was aged 10+. To our knowledge, no previous work has investigated the effects of disruption timing on general or functional health.

In this paper we explore the consequences of marital disruption timing for general and functional physical health using data from a large Australian cohort study. We aim to address several questions. 1) Does the effect of first marital disruption on later life health depend on when it occurs in a person's life course? In particular, does disruption timing relative to fertility matter? 2) If there is an effect of disruption timing on health, can it be explained by wealth, current marital status, or health behaviours? 3) How do 1) and 2) depend on sex? Results are interpreted from a life course perspective, and possible policy implications are discussed.

#### **14. The association of childhood socio-economics status with major depression and generalized anxiety disorder: Results of the World Mental Health Japan Survey 2002 - 2006**

*Manami Ochi, Takeo Fujiwara, Rie Mizuki, Norito Kawakami, National Research Institute for Child Health and Development, Japan*

**Background:** Low socioeconomic status (SES) in childhood is known to be a significant risk factor for mental disorders in Western societies. The purpose of this study was to investigate whether a similar association exists in Japan.

**Methods:** We used data from the World Mental Health Japan Survey conducted from 2002-2006 (weighted N =1,682). Respondents completed diagnostic interviews that assessed lifetime prevalence of major depression (MD) and generalized anxiety disorder (GAD). Associations between parental education and lifetime onset of both disorders were estimated and stratified by gender using discrete-time survival analysis.

**Results:** Among women, high parental education was positively associated with MD (OR: 1.81, 95% CI: 1.03-3.18) in comparison with low parental education even after adjustment for age, family history of mental disorders, childhood physical illness, and SES in adulthood. In contrast, high parental education was associated with GAD (OR: 6.84, 95% CI: 1.62-28.94) in comparison with low parental education among men, but this association was not found among the women.

**Conclusions:** In Japan, childhood SES is positively associated with the lifetime onset of mental disorders, regardless of childhood characteristics and SES in adulthood. Further study is required to replicate the current findings and elucidate the mechanisms.

#### **15. Trajectories of antidepressant medication before and after the onset of unemployment**

*Taina Leinonen, Netta Mäki, Pekka Martikainen, University of Helsinki, Finland*

**Introduction:** The role of health selection and causation is still unclear concerning the association between unemployment and ill health. This study examined trajectories of depressive morbidity before and after unemployment and re-employment.

**Methods:** We used a register-based sample of the Finnish population to examine antidepressant medication over four years before and four years after the onset of unemployment (N=37,440) in 1996–2004 at the age of 30–60 compared to those with no unemployment (N=147,785). Those who stayed unemployed were examined separately from those who became re-employed. The analyses were based on linear regression models using generalised estimation equations (GEE).

**Results:** Among those with no unemployment antidepressant medication increased slowly but steadily over the study years and it was at a lower overall level than among the unemployed groups. Among those who became unemployed without eventual re-employment antidepressant medication increased substantially until the first year of unemployment and afterwards more slowly. Among those who became re-employed the pre-unemployment increase in medication was more modest, and it was followed by a decrease after the first year of unemployment until the year of re-employment, after which the trajectory converged with that of the reference group.

**Conclusions:** Unemployment is preceded by worsening and re-employment by improving depressive morbidity. The study supports health selection more than a causal relationship between unemployment and mental health: depressive morbidity is more likely to lead to unemployment than vice versa, and more favourable developments in morbidity are more likely to be a cause than a consequence of re-employment.

## **16. Older female workers' involvement in multiple roles and health: Findings from the German lidA Study**

*Silke Tophoven, Institute for Employment Research, Germany*

Women often fulfill multiple roles. Thus, when examining the relationship between work and health among older female workers, in addition to working conditions (mental and physical demands of work, commuting) also the private life circumstances (child care, elder care, domestic work, partnership status) have to be considered. While there are already a number of studies on the relationship between fulfilling multiple roles and health among women, there are only a few research findings for Germany. However, a focus particular on the situation of older female workers is missing so far. With increasing age, work demands as well as domestic and family tasks might be experienced differently. Furthermore, informal caregiving to older relatives becomes more important for female workers in higher working age. Against this background, I examine how the requirement constellations of different roles in the employment situation of older female workers are related to mental as well as physical health. It is assumed that very high demands in the private as well as in the professional spheres of life lead to poorer health. Thereby, further resources in private as well as in professional life are assumed to compensate or increase potential negative health consequences of very high demands, e.g. partnership status, social network, job security, appreciation and income. To investigate the assumed associations, I use the first two waves of the "lidA study. German Cohort Study on Work, Age and Health". The mental and physical health scales from the SF12 serve as dependent variables in regression models. As independent variables the described different role requirements as well as resources are taken into account. The relationships are adjusted for residence in East or West Germany and the previous employment history using linked administrative data. First results will be presented at the conference, as the second wave of lidA data will only be available within the next few months.

## **17. Parents' work and financial conditions in the Great Recession and adolescents' work values**

*Monica Johnson, Washington State University, USA; Jeylan Mortimer, University of Minnesota, USA; Jeremy Staff, Pennsylvania State University, USA*

The Great Recession brought many changes to the work and financial lives of American families, as unemployment soared, job security eroded, and employees' job duties were redefined to cover existing workloads with fewer employees. Recent research documents important changes in adult work value orientations in response to these experiences. The current study extends this work, by examining whether parents' employment and financial experiences during the Great Recession were reflected in their adolescent children's work values.

We draw on data from the Youth Development Study, in which 9th graders in 1988 in St. Paul, Minnesota (USA) have been surveyed into adulthood. Recently, the children of these original participants were also surveyed. We examine whether the work and financial experiences of parents in 2009 (during the Recession, at ages 35-36), and changes since 2007 (before the Recession began) shape adolescents' intrinsic and extrinsic work values in 2010 (at ages 11-21). We restrict the analysis to parent-child dyads who co-reside (n=240).

Findings indicate that adolescents held stronger extrinsic work values when their parents experienced increases in income, had higher job security or better advancement opportunities. Declines in parental job security or earnings were associated with weaker adolescent extrinsic values. Findings for intrinsic values were very similar, with income, increased income, and advancement opportunities positively related to children's intrinsic values, and reduced job security negatively related to intrinsic values. Parents' work values only partially mediate the effects of parents' experiences. Adolescents' work values, like those of their parents, are generally shaped through a reinforcement or generalization model; both extrinsic and intrinsic values are stronger when parental work conditions are more rewarding. In an exception to this pattern, unemployment among parents with low levels of education (high school degrees or less) is associated with higher extrinsic and intrinsic orientations, more consistent with a compensation process.

## **18. A gendered approach to workforce participation patterns across the life course**

*Tazeen Majeed, Peta Forder, Gita Mishra, Julie Byles, Hal Kendig, University of Newcastle, Australia*

Objective: The aim was to identify different patterns of workforce participation across the life course for men and women, and to examine factors that may influence gender differences. The associations between these patterns and various factors such as socio-economic status, marital status and social roles were explored, to assess how

workforce participation patterns for men and women are impacted by various life events.

**Data:** The overall aim of Life History and Health [LHH] survey was to examine the life experiences of a baby boom cohort and how early life experiences can have continuing influence on the health of people in their middle ages and later. Baseline questionnaire and interview data from Life LHH survey [sub-study of New South Wales 45 and Up study, Australia] were used for this study. This data set provides detailed information on 1,261 participant's history of paid work, periods of no paid work, activities during periods of no paid work and timing of major life events [e.g. diagnosis of chronic diseases, divorce/ separation, etc.]

**Methods and Analysis:** Based on retrospective data collection, longitudinal data was constructed for men and women across different decades of age [20, 30, 40, 50 and 60 years] for work status [full-time employed, part time employed or not in paid work] and history of chronic disease [asthma, arthritis, diabetes, depression]. Latent class analysis was used to identify different workforce participation patterns between men and women. Time varying covariates [marital status, socio-economic status, social roles] were subsequently added to the latent class model to evaluate the impact on class membership.

**Results:** Workforce participation decreased with age, and more steeply for women. At age 60, 69.3% of men and 59.8% of women were still in the workforce. Different factors predicted patterns of workforce participation for men and women; however those with chronic disease were less likely to maintain high rates of participation.

**Conclusion:** Chronic illness was associated with reduced workforce participation across the life-course. Different effects for men and women indicate a need for gender-specific approaches to enabling workforce participation in mid-age and later life.

### **19. The effect of both partners' resources and employment experiences on mothers return to the labour market**

*Stefanie Hoherz, University of Essex, UK*

This research investigates how both partners' resources and employment experiences impact the decision to re enter full-time and part-time employment for mothers after birth-related employment interruptions. The empirical analysis focuses on the first twenty-two years of post-reunification Germany, using data from the German Socio-Economic Panel Study (SOEP). Proportional hazards models are used to estimate the re-entries of 2881 mothers in maternity leave.

The first part of this analysis looks at partners' resources and characteristics, both individually and combined. Results emphasize the importance of the idea of 'linked lives'. While the re-entry into part-time employment is primarily affected by the mother's own resources and former career, the return to full-time work is more linked to the partner's resources. Couples generally assess the re-entry decision on the basis of economic considerations and this is especially prevalent in families where the mother has a higher earning potential than the father. This group contains the highest re-entry chances for mothers, especially into full-time employment. The results concerning experiences of unemployment for the male partner show that mothers try to compensate uncertainties with increased labour force participation. Mothers undertake the family provider role if the unemployment of their partner threatens the economic basis of the family.

### **20. US grandmother's financial contributions and the impact on grandmothers**

*Madonna Meyer, Syracuse University, USA*

Grandparents often provide a lot of financial assistance to the younger generations and at least some do so at their own peril. This paper takes a life course approach to assess the types of financial assistance grandmothers provide, the reasons they provide the assistance, and the impact of the assistance on the grandmothers' financial security as they approach older ages. Using the Grandmothers at Work Survey, 2008-2012, I use in-depth interviews with a non-random sample of 48 US non-custodial grandmothers who work and care for their grandchildren to demonstrate that nearly all of the grandmothers are providing financial support. Reliance on grandparents may be high in the US because of the rise in births to single mothers, increases in women of all ages being employed, hardships related to the Great Depression, and lack of federal guarantees for paid vacations,

flexible work schedules, paid sick leave, paid family leave, universal health insurance, affordable daycare, or universal access to preschool programs. Some are helping in modest ways with occasional expenditures for gas, formula, diapers, clothes, and gifts. But many are also helping with major monthly expenses such as electric, rent, or daycare bills. Most grandmothers reported that they helped because their adult children faced job insecurities due to the recession, became single parents, were sick or disabled, or were completing degrees or newly hired. But others gave though the help was not needed. Providing financial assistance to the younger children creates a real conflict for middle-aged women who are at a stage in the lifecourse where they should be saving resources for their own old age. Ultimately, I find that while some grandmothers can readily afford these contributions, others are working more hours, delaying retirement, foregoing travel plans, diverting funds away from their own retirement accounts, or accumulating new debt.

## **21. The effects of family structure stability and transitions on young children's sleep: Evidence from the Millennium Cohort Study**

*Mikaela Dufur, Kristie Phillips, Maia Roberson Greene, Tatiana Leavitt, Hannah Cox, Brigham Young University, USA; Shana Pribesh, Darden College of Education, USA*

A large body of research has connected family structure to a variety of child and adolescent outcomes such as behavioral issues and academic performance; however, recent work focuses attention on more nuanced explorations of how a variety of family structures shape family mechanisms and processes (c.f. Boswell & Passmore, 2013; Golombok et al., 2013; Lamb, 2012; Dufur et al., 2010). Bedwetting in children aged 5 years and older is associated with delayed developmental milestones (Touchette et al., 2005), behavioral problems (Byrd, Weitzman, Lanphear & Auinger, 1996), and being bullied (Williams, Chambers, Logan & Robinson, 1996). However, the relationship between duration in family structure and nocturnal enuresis has yet to be explored. Using data from the Millennium Cohort Study Second, Third and Fourth Sweeps 2000-2008, we follow children across three time periods (aged 3, 5 and 7 years). We examine duration in or transition to four family types: two parent intact family, a stepfamily, a single-parent family formed by divorce, or a single-parent family where the parents have never married; we then explore the potential relationships between duration in these family types and incidence of bed-wetting. We hypothesize that disruption of family structure is linked to lower rates of bed wetting cessation as children age. We further hypothesize that family structure disruption will exert stronger effects on bed-wetting than will type of family structure. Finally, we also argue that instances of family disruption are more likely to be associated with this measure of child stress than living in a stable but non-traditional family structure is. Our analyses contribute to the ongoing debate on the extent to which family structure is influential on childhood outcomes.

## **22. Mothers' work and childcare intentions during pregnancy and trajectories during the first year of the child: Transition to parenthood in context**

*Nadia Girardin, Jean-Marie Le Goff, University of Lausanne, Switzerland; Alexis Gabadinho, University of Geneva, Switzerland*

The transition to parenthood is a crucial moment during which partners become more traditional regarding the share of the paid and unpaid work (Sanchez & Thomson, 1997). In our poster presentation, we wish to situate this process of traditionalization in the specific context of Switzerland according to childcare and participation of women to labor force. Childcare offer is indeed insufficient and expensive while the access to part time job is easy and widespread for Swiss women. We will use the longitudinal data from the Swiss survey *Becoming a parent* for our investigations. We propose first to confront how future mothers plan the organization of childcare in relation to their intentions about the number of work hours after their maternity leave (14-16 weeks) with their trajectories regarding childcare use and their working hours during the first year after the birth of their child. Second, clustering together women with similar trajectories, we wish to examine the effect of the intentions and of a series of characteristics such as those related to the mothers' occupation on the probability to belong to one of the cluster rather to another one.

### **23. Family composition and youth health risk behaviours: The role of parental relations and school disorganization**

*Gabriella Olsson, Stockholm University, Sweden*

Health behaviours account for a substantial part of the association between socioeconomic position and health. Many health behaviours that are associated with poorer health outcomes in adulthood are established in adolescence. An increased knowledge about how such behaviours arise is thus essential not only to increase youth wellbeing but also to combat health inequalities over the life course. In this study the overall intention is to, with multilevel techniques, study how family composition and adolescents' social relations with their parents are associated and interact with school characteristics in the production of youth health risk behaviours. Many studies have shown that health risk behaviours vary with family structure. It is however less established how this association arise and in particular how characteristics of the school may impact the association. More specifically the aims are (1) to study the association between family composition and adolescents' health risk behaviours and explore the role of parental relations and socioeconomic status in this association. (2) To study if the association between family composition and risk behaviours vary between schools and to what extent it, in that case, interacts with school disadvantage. The analyses are based on data from the Stockholm School Survey and consist of 5041 ninth-grade students distributed over 92 schools in the Stockholm area in 2010. Preliminary results indicate that living in non-intact families significantly increase the risk of health risk behaviours, holding constant the family's socioeconomic position. Poor parental relations do to some extent attenuate the association but the effect of residing in a non-intact family remain both substantially and empirically significant.

### **24. Trajectories of weight in infancy: The role of early feeding practices**

*Lidia Panico, Maxime To, INED, France*

Birthweight and early weight trajectories are known predictors of future outcomes, in both infancy and later life. While there is evidence that early weight gain and loss may vary across feeding practices (such as breastfeeding versus bottle feeding), this has not been explored systematically in a population-based sample, particularly when focusing on the perinatal and postnatal periods. In this paper we will use new data from the Etude Longitudinale Française depuis l'Enfance (Elfe), a birth cohort following over 18,000 children born in a nationally-representative sample of 344 French hospitals in 2011. We use data from the first data collection, carried out in the maternity wards shortly after birth and which includes information taken directly from the medical notes, and from the second data collection, a telephone interview with both parents carried out about 2 months after birth. We calculate weight trajectories using data relating to the medical notes (birthweight and weight measured at hospital discharge) and from the child's health book (weight as taken by health professionals between discharge and the 2-month interview). Information on feeding practices (including the type of feeding, regularity and number of feeds, etc.) is taken from both data collections. Early results suggest that there are no significant differences between exclusively breastfed, mixed, and bottle fed babies in the first week of life, but exclusively breastfed babies are heavier from about 1 month of age. We do not note any significant differences between mixed and bottle fed babies from about 1 month. Further work will explore in particular the role of feeding rhythm (regular scheduling versus on-demand feeding), and will include the 1 year data collection of the survey, which will be made available shortly.

### **25. Parenting styles in childhood and offspring's mental wellbeing in early older age**

*Mai Stafford, Marcus Richards, Diana Kuh, University College London, UK; Catharine Gale, University of Southampton; Gita Mishra, University of Queensland, Australia*

Background: Parenting styles characterised by high levels of care are associated with greater wellbeing in adolescent and adult offspring. However, previous long-term follow-up studies have not considered both mother and father's parenting styles in representative samples of men and women.

Methods: The Medical Research Council National Survey of Health and Development has followed men and women on 23 occasions from birth with the latest data collection in 2006-11. At age 43, the Parental Bonding Instrument provided data on levels of control and care from the father and mother to age 16 recalled by the study members. At age 60-64, wellbeing was assessed using the Warwick Edinburgh Mental Well Being Scale (WEMWBS).

Results: Those who recalled more caring fathers had higher WEMWBS scores, although women benefited somewhat less from higher levels of care from their fathers than did men. This association persisted on adjustment for education, adult socioeconomic position, marital status, health, neuroticism, extraversion and psychological distress. Lower levels of wellbeing among those with more controlling fathers were explained by greater psychological distress symptoms.

Conclusion: Recalled father's parenting style is associated with wellbeing in early older age. This association is seen across the whole spectrum of wellbeing and is not driven solely by depressive symptomatology. There are potential long-term gains to taking better emotional care of children, not only by reducing burden of mental illness but also by improving mental wellbeing across the range.

## **26. The relationship between father involvement and child outcomes: Findings from a Pacific Islands birth cohort study**

*El-Shadan Tautolo, Janis Paterson, Steve Taylor, Auckland University of Technology, New Zealand*

Fathering and father involvement is critical to the formation, stability, and wellbeing of children and families in society. However, the contemporary nature of fathering and families is changing, especially for emigrant minority populations. Approximately 7% of people in New Zealand are of Pacific descent. While recognised, the importance and impact of the role of fathers has received little empirical attention among this population. This poster presents research examining the relationship between father involvement and a selected range of their child's health and behaviour outcomes amongst a longitudinal birth cohort of Pacific children and fathers in New Zealand.

A birth cohort was established in 2000 from births at Middlemore Hospital in South Auckland where at least one parent was identified as being of Pacific ethnicity and a New Zealand permanent resident. This included 1376 mothers, 825 fathers, and 1398 children at baseline. At the 6 and 11-years measurement waves, father involvement was measured using the Inventory of Father Involvement (IFI). Child wellbeing was assessed using various measures including the Child Behaviour Check-list (CBCL), Child depression scale, physical activity, and BMI status. These child outcomes will be related to father involvement in crude and adjusted logistic regression and generalised estimating equation models.

## **27. The role of socioeconomic conditions, parental longevity and age at parental death on mortality: The Turin Longitudinal Study**

*Domenica Rasulo, Giuseppe Costa, Teresa Spadea, University of Turin, Italy*

Literature points to the possibility that socioeconomic resources in adulthood combine with childhood circumstances and parental longevity to influence mortality. The impact of socioeconomic inequalities is initiated in childhood but the role of early inequalities may become less relevant as the socioeconomic status changes throughout the life course. At the same time, parental longevity may be a proxy for genetic factors. It may also affect offspring's mortality through the involved social and economic support and is therefore relevant to assess at what age the children lose their parent(s).

Our study adopted a comprehensive approach by examining the role of socioeconomic conditions in childhood and in adulthood, along with parental longevity and age at parental death, on mortality risk using the Turin Longitudinal Study. The Turin Longitudinal Study, which began in 1971, is a population-based record-linkage study containing information from censuses and routinely registered events such as date and cause of death.

The subjects involved in the study were of age 0-30 at baseline and were followed up to 35 years. Techniques of survival analysis were applied and the Poisson model was used. To model socioeconomic differences in mortality throughout the life course, time-dependent covariates for education, employment status and housing typology were created. The same variables provided an array of conditions for the family of origin. Parental longevity was assessed through a categorical variable which differentiated the offspring of short-lived and long-lived parents, using age 70 as a cut-off point.

The analysis showed that in the Turin population adulthood socioeconomic conditions have a larger impact on mortality as compared to childhood conditions. There emerged a significant effect for parental longevity as well as for age at parental death, with an increased mortality risk for early parental loss.

### **28. An updated review of the Toyama Birth Cohort Study, Japan**

*Michikazu Sekine, Shimako Hamanishi, Masaaki Yamada, Yuko Fujimura, Saori Nose, Hajime Minemura, Takashi Tatsuse, University of Toyama, Japan*

The Toyama Birth Cohort Study is a follow-up study of approximately 10,000 Japanese children who were born in 1989. The initial survey was conducted in 1992 when participants were 3 years old. Parental and lifestyle factors influencing the development of child obesity were parental obesity, skipping breakfast, irregular snacking, physical inactivity, long hours of TV watching, long hours of videogame playing, late bedtime, and short sleep duration. Children who continued to have these obesity risk factors had the highest risk for child obesity. The number of the obesity risk factors of children was associated with an increased risk for child obesity, with a dose-response relationship. Such unfavorable lifestyle habits were also associated with poor sleep quality and poor quality of life (QOL) of children. Social and family characteristics such as family structure, maternal employment status, and maternal obesity were mildly associated with many of the obesity risk factors. Children's lifestyle factors in preschool years were associated with future lifestyle factors. Parental hypertension was associated with an increased risk of child obesity. Policy implications of the Toyama Birth Cohort Study are that lifecourse approach is necessary to prevent child obesity and reduce morbidity and mortality in adulthood.

### **29. WISERD Education: The challenges of conducting a longitudinal study in education in Wales**

*Kevin Smith, Cardiff University, UK*

The Wales Institute of Social & Economic Research Data & Methods (WISERD) is currently undertaking a multi cohort longitudinal study following children and young people attending 16 primary and 13 secondary schools across Wales. The schools are located in urban, semi-urban and rural locations and feature English medium, Welsh medium and bilingual forms of instruction. These schools have been chosen to represent the diversity of Wales social, cultural and geographical landscape.

This study will provide important insights into the different circumstances and experiences of children in Wales and how these differences influence a range of outcomes.

The cohorts are comprised of pupils at various stages in their educational careers and will enable researchers to follow their progress as they move from primary to secondary school and from secondary school to the world of further education, work or unemployment. In addition, WISERD will follow the challenges facing the schools these pupils attend, an often overlooked element in research on education progress and outcomes in Wales. In this presentation, we discuss the design of our study and highlight the challenge of conducting this type of educational research in Wales.

### **30. Real choices, real Lives**

*Jean Casey, Feyi Rodway, Plan International, UK*

Real Choices, Real Lives cohort study, now in its eighth year, is following 142 girls living in nine countries around the world to support the content and analysis of Plan International's "State of the World's Girls" reports. A cohort of girls born during 2006 are being followed until at least 2015 and, funding permitted, until the girls reach adolescents. The information from this cohort study is expected to provide real insight into the daily experiences of girls worldwide through in-depth qualitative research with the girls themselves, their relatives and community members. The purpose of the study is to gain a deeper understanding of attitudes towards gender within families and how these attitudes impact on girls' lives through a longitudinal analysis.

This year, the study considered the significance of middle childhood, a little understood stage in children's development, and took a closer look at the significant relationships and opportunities that can either support or block girls' progress towards empowerment. The girls were able to clearly communicate their own experiences

and ideas about family life, social interactions and their communities. This has opened a window into the world of girls at this important stage in their development.

This paper will consider the per-adolescent stage in the life cycle of a girl and how the influences during this stage are crucial for determining their future. It outlines that human capital (time, skills and capabilities), social capital (friendships, networks and social skills) and material capital (property, assets and legal identity) are all either developed or neglected in these early years, and it is these that can influence a girl's ability to make strategic choices later on in her life.

### **31. Transition from school to work in times of crisis: Do younger generations really face worse career prospects than older ones at labour-market entry?**

*Julie Falcon, Stanford University, USA*

With the recurrence of economic crisis since the 1970s, the youth population has become one of the most vulnerable group of the population given its high unemployment risk after school-leaving. A considerable amount of research indeed documents that, while they are far more educated, younger generations seem to face higher obstacles to make their place in the society. Yet in the meantime as youth unemployment increased, the structure of occupations on the labour market upgraded with the tertiarization process. This mean that there are more opportunities today at the top of the social ladder than never before!

From this standpoint, I wonder whether younger generations really face worse career prospects than their older counterparts at labour-market entry. I argue that the youth population displays more heterogeneity today than before, and that as a result, highly educated people do not face worse career prospects today whereas poorly educated people face worse career prospect than before. In this sense, I maintain that school-to-work transitions have polarised according to educational level. ! To grasp how transitions from school-to-work differ according the institutional context, I will focus on five countries which depict different educational systems and which reacted differently to economic crisis, namely France, Germany, Switzerland, the United-Kingdom and the United States. ! Using labour-force survey data on the longest-time frame as possible for each country, I will analyse how career opportunities have developed for each new cohort entering the labour-market (notably between 20 and 30 years old) and how these opportunities vary according to educational level. I expect important cross-national differences in the evolution of the career prospect of the youth population.

### **32. Early school leavers and the timing of life course events**

*Stine Ostergaard, SFI – Danish National Centre for Social Research, Denmark*

Young individuals that attained at most lower secondary education and is not engaged in education and training (early school leavers) are more at risk to experience unemployment, insecure jobs and to be recipients of social benefits. In a life course perspective early school leaving challenges young people's transition to adult life, as they can be disconnected from mainstream opportunities, lifestyle and prospects. The challenged transition makes it important to identify the pathway that leads to early school leaving. Using The Danish Longitudinal Survey on Children born in 1995 (DALSC), the purpose of this project is to analyse the impact of timing of life course events (for example, parents unemployment, divorce) on the prevalence of being an early school leaver at the age of 19.

### **33. Stay or go: Career decisions of academic scientists in a comparative perspective**

*Ramona Schürmann, Anke Schwarzer, Nora Preßler, DZHW, Germany*

Altogether the doctorate is socially highly regarded; nevertheless graduation has a different relevance for respective career paths.

In Germany, the doctorate is a necessary precondition for the academic career. For other employment sectors it can help to open doors to alternative career paths. In the US a doctorate is likewise a necessary preparation for

an academic career; a successful career "was defined as becoming a tenured professor" (Rudd et al. 2011: 14, unpublished report).

For the last years however there were in the US several changes in the conditions of employment of the academic career tracks (Schuster/Finkelstein 2006), that is why the part-time and full-time non-tenure tracks were dramatically increased.

This presentation shows the variety of academic career paths in both countries. It elucidates the reasons of career decisions of both German and US Ph.D. students and graduates.

One central issue to be discussed is the fact that women often decide to leave science (vgl. Heintz et al. 2004; Leemann 2002; von Stebut 2003). What we often find on the Ph.D.-level is a near-balance gender relation, but with increasing career levels become gender differences bigger. This gender gap can be very clear identified by the passage to the graduates (postdocs).

The German data are presented by two graduate-panel-studies ("WiNbus" and "Absolventen-Panel"). Results are compared with a report about the situation in the US (Rudd et al. 2011). The comparison reveals that both in the US and in Germany interests, faculties and integration career decisions from academics influenced. A second finding; gender differences are to explain in both countries by the influence of faculties.

**34. The Rsocialdata project: Handling and sharing longitudinal and network survey data with R**  
*Emmanuel Rousseaux, Gilbert Ritschard, University of Geneva, Switzerland*

Population studies strongly rely on survey data. In order to face with the in-creasing complexity and rigor of current research studies, the structure of databases has become in the last decades more and more complex: longitudinal data, network data, spatial data, etc. The ever growing size of structured data complicate the task of both documenting, manipulating and sharing data. The Rsocialdata project puts forward two solutions: an R package and a web application. The Rsocialdata package provides researchers in social sciences with high-level tools for storing, documenting, exploring and recoding survey data in R. It also provides front-ends to classical statistical methods able to print analysis results in a "ready-to-publish" formatting and save them in a PDF or DOCX . Special tools for efficiently handling panel data and network data are provided, as for example the possibility to manipulate trajectories as a whole and to export them as sequences ready to be analysed with the TraMineR package. The web application, available at <http://www.rsocialdata.org>, allows (1) to explore survey databases that are available in the Rsocialdata format and (2) to easily retrieve them in a R environment. By providing a full database search engine, the platform allows researchers to easily find databases which are relevant for their analyses. As an important part of survey databases are lost because it would have required to much effort to render them accessible, our platform encourages the dissemination of survey databases by facilitating the process of making them available to the scientific community. Databases are securely stored (access restricted to authorized users, data transfers encrypted in SSL) and their authors can manage data access via a license agreement process. The Rsocialdata initiative is free and open to everybody who would like to participate, either by helping to carefully document and prepare existing databases or by sharing their own data with the scientific community on the Rsocialdata platform.

**35. The unequal development of conscientiousness in the early life course: An autoregressive cross-lagged panel analysis**

*Till Kaiser, Martin Diewald, University of Bielefeld, Germany*

Among skills and competences, conscientiousness and especially the facet "focus/concentration" has proved to be one of the most important predictors for success over the life course. Our main question is whether the development of the child's conscientiousness is determined by the mother's personality or by their social origin, and, furthermore, in how far these interrelationships are mediated by mother-child activities. Using data of the SOEP (N=794) with information on mothers and their children at two measurement points (2-3 and 5-6 years), an autoregressive-cross-lagged panel model with latent variables is estimated. Both mother's personality and social origin proved to be influential. Moreover it is shown that if mothers spend time with their child with more

demanding activities, these activities mediate the effect of the mother's educational level on the child's ability to focus over time.

### **36. 'Where do you see yourself in five years?' A social psychological analysis of medium term life projects**

*Aline Hofer, Veronice Eicher, Christian Staerkle, University of Lausanne, Switzerland*

Recent life course and life span research has shown that goal setting and goal adjustment are key processes for successful lifecourse regulation. This goal regulation is of particular importance in young adulthood when individuals engage in various critical life transitions. Young people direct their development by defining life projects, and these projects are in turn shaped by group membership, previous experiences, individual motivation and agency.

The present research investigates the contents and determinants of medium-term life projects (five years). Participants are young adults (N=636), aged 15 to 30 (Meanage = 20 years). Data comes from the first wave of the Longitudinal Lausanne Youth Study (LOLYS) that is carried out within the Swiss NCCR LIVES. This survey follows individuals from three institutions, each characterised by different stages of professional integration and specific development demands and challenges: a preparatory vocational school, a high school, and the Municipality of a large Swiss city.

Life projects are examined with an open-ended questions: 'How do you see yourself in five years?' We will explore the different types of medium-term life projects using the Iramuteq textual analysis software as a function of different sociological factors (gender, professional integration, age and origin).

### **37. Life course determinants of retirees' subjective and objective well-being in Switzerland and Germany**

*Ignacio Madero-Cabib, University of Lausanne, Switzerland; Anette Fasang, Humboldt University, Germany*

Recent research emphasizes the importance of including subjective indicators of well-being in addition to objective factors, such as income and wealth. Focusing on retirement as a central life course transition, this project contributes to the literature in two regards. First, by contrasting retirees' objective well-being, e.g. pension amount, to their subjective well-being, e.g. life satisfaction in retirement, to examine to what extent these two dimensions of well-being correspond in retirement. Second, we examine how complete previous life courses both in terms of occupational and family trajectories determine subjective and objective well-being and gaps between the two in retirement.

Both previous life course patterns and retirement transitions are highly gendered processes that unfold in distinct macro-structural contexts. We compare two distinct welfare state contexts – Switzerland and Germany. These two countries both represent relatively strong male-breadwinner contexts. They differ distinctly with Switzerland following a more liberal and Germany a more corporatist protective pension system.

Sequence analysis and cluster analysis are used for identifying groups of typical family and occupational trajectories between age 30 until age 60, while regressions analysis estimates the impact of such trajectories on subjective and objective well-being in retirement. Empirical data comes from the retrospective wave of the Survey of Health, Ageing and Retirement in Europe (SHARELIFE). The sample of retirees is composed of 446 Swiss (175 women and 271 men) and 743 German people (281 women and 462 men) for whom we can reconstruct complete previous adult life courses.

Preliminary results show that in both countries higher objective well-being in terms of pension amount goes along with greater life satisfaction. Considering gaps between subjective and objective well-being, retirees with low pension amounts in both Switzerland and Germany tend to report high subjective well-being nonetheless, displaying the largest gaps between the two dimensions of well-being. Also, from a gender perspective, both in Germany and Switzerland women tend to report higher subjective well-being than men, even though their objective pension payments are considerably lower. Further analyses will disentangle the impact of family and occupational trajectories over the life course on these gendered outcomes in terms of subjective and objective well-being in retirement.

### **38. Personality traits and preferences for college education**

*Johanna Storck, Frauke Peter, German Institute for Economic Research (DIW Berlin), Germany*

We investigate the role of personality traits in shaping preferences for academic postsecondary education. In our analysis we control for demographic factors, cognitive skills, and various other factors including parents' personality traits, which might affect preferences for academic education. The sample consists of 17-year-old high school students for whom we observe their stated preference for university education and personality traits.

Results from a regression-control framework and propensity score matching show a significant impact of personality traits on preferences. The results are sensitive to the environment a student grew up in. We find a rather strong and positive relationship between openness and the preference for academic education amongst students whose parents do not have a university degree. The same skill has no impact on the preference of students whose parents went to university. In contrast, high values for agreeableness diminishes academic preferences for students from an academic background, while no effect can be found for non-academic students.

Our analysis suggests that fostering student's personality traits might be as important as the development of cognitive skills for shaping educational ambitions. Especially programs aiming at fostering "openness to new experiences" for students from a less advantaged background could increase educational mobility.

### **39. The effects of loss of spouse on the size of social relations among Japanese males**

*Tomoo Nakata, Hokusei Gakuen University, Japan*

The aim of this study is to examine whether the loss of spouse shrinks males' social relations in their later life. It is said that while females have a large network, males have a small one. To explain the difference, males' network is constructed through their spouse. But, advance studies are based on cross-sectional data. Therefore, longitudinal data would be applied in this study.

This study employed the National Survey of the Japanese Elderly, from wave I (1987) to wave VI (2002). The dependent variable was whether social relations, which was measured by the number of close friends and the number of organizations the respondents were belong, were decrease or not. And loss of the spouse, gender, age, education, health status, economic status, and occupational status were used as independent variables. Discrete-time logit models were applied in this study.

The results of the analysis are as follow: Education, occupational status, health and economic status have significant effects. Loss of spouse does not have any significant effect. These results suggest that there are two possibilities; Males do not rely in the resources from females' network, and because resources from the network of women cannot be obtained, and males get poor more.

### **40. Childhood influences on adult (33-50y) physical inactivity in the 1958 British Birth Cohort Study**

*Leah Li, Snehal Pereira, Chris Power, University College London, UK*

#### **Introduction**

Physical inactivity is highly prevalent. Research on adult inactivity ignores childhood factors from which influences on later inactivity evolve. In the 1958 birth cohort, we aim to establish influences from three childhood domains (physical, social, behavioural) on adult inactivity.

#### **Methods**

Inactivity (frequency <1/w) was assessed at 33y, 42y and 50y (N=12,776). Childhood physical (e.g. pre-pubertal height), social (e.g. parental education) and behavioural (e.g. adolescent smoking) factors were recorded prospectively. We examined associations with inactivity separately at 33, 42 and 50y of (i) factors within each domain, separately and combined, (ii) three domains combined, and (iii) allowing for adult mediating factors (such as education level, mental and physical health).

## Results

31% of participants were inactive at 33y; of whom 44% remained inactive at 50y. In multivariate models factors related to inactivity 33-50y were: (physical) shorter stature (7y), poorer cognition (16y), poorer hand control or physical coordination (7-16y); (social) lower social class at birth, low parental education, childhood neglect; and (behavioural) externalising behaviours, smoking (16y), lower activity levels, average sports aptitude. Adjusting for all domains simultaneously, poorer cognition, lower 16y activity and low sports aptitude were related to inactivity 33-50y (e.g. per standard deviation increase in cognition the odds ratio (OR) for inactivity was 0.86 (95% CI: 0.82,0.91) to 0.90 (0.85,0.95) 33y to 50y). Some factors (e.g. 16y smoking) were associated with early adulthood (33y, 42y) inactivity whereas others (e.g. parental divorce) were associated with mid-adulthood inactivity (50y). After adjusting for adult covariates, associations of 16y activity, cognition and sports aptitude with inactivity were maintained but not always at all ages 33-50y.

## Conclusions

Inactivity is moderately stable over adult life, providing opportunities for intervention. Childhood factors predict adult inactivity, via differing pathways: e.g. cognition operates partly through subsequent adult characteristics whilst adolescent activity has an independent effect.

### **41. Adverse childhood experiences and allostatic load in mid-life: Pathways between early life experience and adult health decline**

*Cristina Barboza Solis, Romain Fantin, Sebastien Lamy, Thierry Lang, Michelle Kelly-Irving, Cyrille Delpierre, INSERM, France*

Allostatic load (AL) is a measure of overall physiological wear-and-tear over the lifecourse which could be the consequence of early life exposures. Aim: To explore whether adverse childhood experiences (ACE) are associated with elevated AL in mid-life. Methods: We based our research on the National Child Development Study, a birth cohort study that recruited participants born during one week in March 1958 in Britain and followed-up seven times between ages 7-50. AL was operationalized using biomedical data collected at age 44. ACE were measured using prospective data collected on cohort members aged 7, 11 & 16. Information on smoking, alcohol, physical activity was collected at age 23 and socioeconomic status at age 33. A path analysis was used to disentangle and describe the association mediated by later life factors like socioeconomic conditions or health behaviours. Results: AL was measured for 3782 women and 3753 men using fourteen parameters representing four biological systems. ACE were associated with a higher AL for both men and women, in a bivariate linear regression and after adjustment for early life factors and childhood pathologies. A path analysis shows that the association between ACE and AL is strongly mediated by health behaviours and socioeconomic status. For men, the total mediated effect is 55% (for 2 or more ACE) via health behaviours, education level and wealth. For women, ACE are associated with an increased AL score in mid-life predominantly via smoking, wealth, BMI and education level and the mediated effect corresponds to 82% (for 2 or more ACE). Conclusions: These results indicate that early psychosocial stress may have a lasting impact on physiological wear-and-tear through health behaviours and socioeconomic factors in adulthood. The mechanisms underlying this association appear to be different in men and women, as suggested by the path analysis.

## Day 2 – Friday 10<sup>th</sup> October 2014

### PARALLEL SESSION 4

#### **4A SYMPOSIUM      Occupational career patterns measured at different time points: The role of different predictors from the adolescence**

09:00 - 10:30

Room: 338

Vocational development is influenced by the interplay of various factors such as personal skills, personality and socio-demographic background (Schoon, Martin, & Ross, 2007). Occupational career patterns can be described in several ways: Mobility in occupational status, occupational change, workload (fulltime or part-time), interruptions of the career, et cetera. The organised symposium will discuss questions concerning relevant predictors of career patterns: How well does the transition from school into a Vocational Education and Training Programm (VET) and employment work? To what extent are early influences in adolescence relevant for later career development and success? We are able to discuss these and other questions with data from several longitudinal studies (Motivational sources of career choices, TREE, LiFE and ZLSE) which encompasses different time-points: From age 16 till age 49.

Results from the study “Transitions from education to employment (TREE)” show that structural factors such as gender, migration background and social status influence duration and conditions of job search activities, the presence or absence of unemployment, precarious employment and/or job-skills mismatch (Bergman, Hupka-Brunner, Keller, Meyer, & Stalder, 2011). Furthermore, motivational processes can predict several aspects of the successful transitions from school to VET or employment (Valero & Hirschi, 2014). Several aspects of the social status (e.g. migration background) remain statistically significant predictors for the transition from school to work but less impact for later career processes – these are findings from the longitudinal study “life-courses to early adulthood (LiFE)” (Fend, Berger, & Grob, 2009). Some influences stay significant predictors over the life-span: Based on the Zurich Longitudinal Study „From school to middle adulthood“ spanning more than 30 years, the researchers poses the questions whether the completed school track, teacher’s ratings at age 15, cognitive ability and personality traits can predict a career for life (Schellenberg, Häfeli, Schmaeh, & Hättich, 2013).

#### **From school to work: A comprehensive model of work-related motivation in the transition to working life**

*Domingo Valero, Andreas Hirschi, University of Bern, Switzerland*

Motivation is a core concept to understand work related outcomes and vocational pursuits. However, existing research mostly focused on specific aspects of motivation, such as goals or self-efficacy beliefs, while falling short of adequately addressing more complex and integrative notions of motivation.

Advancing the current state of research, we draw from Motivational Systems Theory and a model of proactive motivation to propose a comprehensive model of work-related motivation. Specifically, we define motivation as a system of mutually related factors consisting of autonomous goals, positive affect, and occupational self-efficacy. We propose that adolescents with more autonomous work-related goals, expectations of more positive emotional experiences in their future working life, and higher work-related self-efficacy beliefs would be more successful in their transition from school to work. We report preliminary results from a two-wave measurement of motivation in two cohorts: students still in school and apprentices in vocational education and training. More specifically, we investigate the influences of state motivation and motivational change across one year on well-being, and goal engagement for students in school, and motivational influences on work engagement, and turnover intentions for apprentices. Our analyses are based on repeated measures GLM. We propose that both, motivational state and change measures are significant predictors of positive outcomes regarding goal engagement and positive work outcomes.

## **Ten years after leaving school – post-compulsory educational pathways in Switzerland**

*Thomas Meyer, Sandra Hupka-Brunner, Katja Scharenberg, University of Basel, Switzerland*

Transition from school to work is one of the central developmental tasks and a critical lifespan in adolescence and young adulthood (Bergman et al., 2011, 2012). How do young people in Switzerland manage this transition? Which factors enhance or hamper its success? The data of the Swiss youth panel survey TREE, covering by now an observation span of ten years after completion of compulsory school, are an excellent and unique source to explore such questions.

TREE ('Transitions from Education to Employment') surveys the post-compulsory educational and labour market pathways of a school leavers' cohort in Switzerland, being the country's first prospective longitudinal study of this type at national level (Bergman et al., 2011). TREE is based on a sample of approximately 6,000 young people who participated in the PISA 2000 survey and left compulsory school the same year. The sample is representative for Switzerland as a whole, the Swiss language regions and for selected cantons. This sample has been followed up by TREE by means of seven annual surveys between 2001 and 2007 and an eighth one in 2010. A ninth survey is currently underway. Today, the TREE respondents are around 30 years of age on average.

The results show that a substantial part of the cohort experienced discontinuities either at the entry or within the course of their post-compulsory education and employment careers. By 2010 – ten years after leaving compulsory school – the majority of the cohort has reached a certificate of vocational or general education on upper-secondary or tertiary level. However, around ten percent of the cohort has failed to acquire a post-compulsory certificate. Moreover, there are significant regional, migration-specific and performance-related disparities with regard to certification. Multinomial logistic regression analyses – controlling for individual and family characteristics – reveal that performance measures, educational pathways and the type of school track attended at lower secondary level of education are significant predictors of a successful certification at upper-secondary and tertiary levels.

## **Transnational educational migration in youth and young adulthood: Consequences in middle age for income and life-satisfaction**

*Wolfgang Lauterbach, University of Potsdam, Switzerland*

Due to the upcoming importance of Globalization and Europeanization, skills like foreign language proficiency and intercultural knowledge of other societies are of increasing importance. School abroad as well as after school language programs in foreign countries and international work experience programs are the appropriate instruments to gain these skills. Literature shows, that in 1970 the recruitment criteria 'transnational work experience' was necessary in 3.6 % of offered jobs, in 2010 it was necessary in 20 %. In the same period there was also an increase from 23 % to 50 % by the criteria 'foreign language proficiency'.

Coming back to the individual level, it is well known, that these competencies are gained in the age between 16 and 25 years for at least 8 to 12 month. I will call this kind of migration transnational educational migration. Until now there is nearly no knowledge about the impact of this transnational human capital on the further life course. Based on human capital theory, this capital represent a further educational investment and this paper will test, whether this further transnational capital influences the income development and the occupational satisfaction positive, compared with young adults, who didn't have transnational capital. I will test these two questions for the income development in the age of 35 and 45 and for occupational satisfaction for the same age. The hypotheses are tested with the Life Data (Fend/Lauterbach/Grob/Berger/Georg), a regional dataset about 1359 life courses from the age of 12 in 1979 to the age of 45 years in 2012. The sample was drawn in Hessen in schools.

## **From school to middle adulthood: the role of predictors from the adolescence for occupational mobility patterns**

*Claudia Schellenberg, Kurt Häfeli, Nicolas Schmaeh, Achim Hättich, University of Applied Sciences of Special Needs Education, Switzerland*

The data base for the analyses is the Zurich Longitudinal Study „From school to middle adulthood“, which encompasses ten surveys and covers the 15th to the 49th year of life. Analyses are based on a swiss representative sample of 485 participants, who participated in the study for over 30 years.

The central topic of the investigation was to identify common career patterns, and differences between individuals and occupations in predicting these patterns. One important question was: What are the determining influences for a successful career? We distinguished objective (status) and subjective (satisfaction) career success. Can we predict success with variables measured in adolescence?

To tease out the information from ZLSE, we used various methods, including regression analysis and structural equation modelling. Our results show that the completed school track and teachers's ratings at age 15 can predict middle-age career status. Factors such as cognitive ability and personality traits (self-esteem, conscientiousness, etc.) also play an important role. Gender was an important factor in occupational status. Women start well, gaining good apprenticeships and jobs. But their progression slows during their 20s and early 30s. Men tend to invest in further educations while a lot of women eventually become mothers, with about 50 per cent interrupting their career. Later on, the majority of women enter the labour force again, but mostly on part-time basis. For the subjective career success – satisfaction – these early variables are not relevant. Here, current work conditions (such as work autonomy or social climate) are probably more important than earlier influence.

### **4B SYMPOSIUM**

09:00 - 10:30

### **Life course influences and health inequalities at old age**

Room: 342

Our images of inequality are often based on snap-shot pictures of our societies. While such pictures are indeed important, they need to be complemented by more dynamic analysis. The life-course approach has gained popularity in many fields and has been highly influential within epidemiology, medical sociology, and related fields. Here it is common to distinguish between accumulation of risk and exposures to risk during specific, critical periods. While the accumulation model basically assumes an additive accumulation of exposures to health risks throughout the life-course, the critical period model suggests that exposure to risk during certain windows of the life-course will have strong, or even irreversible, health consequences. This symposium will focus on socioeconomic health inequalities in old age. The presentations explore the role of health behaviors, physical working conditions, and social class trajectories in shaping late life health disparities. In one presentation a specific method, semi-parametric visualization, will be used to explore both cumulative and critical period models of health inequalities.

### **Childhood, adult and cumulative class experience and old age health inequalities**

*Carin Lennartsson, Johan Fritzell, Aging Research Center, Karolinska Institutet and Stockholm University, Sweden*

Socioeconomic position functions as a strong discriminator of health status and risk of premature mortality in all countries in which it has been investigated. Research also reveals the persistence of socio-economic inequalities amongst the oldest old, with poorer health and higher mortality rates in individuals with lower socio-economic position. Moreover, current research suggests that health inequalities not only persist, but in many cases also have increased lately. It is unclear to what extent that trend holds true also for the oldest old.

In order to understand socioeconomic differences in health at old age we make use of two theories within life course approach: critical periods and the accumulation model. While the former stresses certain windows of time, typically childhood, to have a profound health impact, the latter rests on the accumulated exposure of health risks during life.

First, this study will examine old age health inequalities among three birth cohorts, analysing if health inequality have changed over the past 20 years. Second, we will study old age health inequalities among the three birth

cohorts, analysing how childhood socio-economic position, main social class position in adulthood, and the cumulative class experience influence different health outcomes in old age. We here ask the following questions: 1) Does childhood condition influence old-age health also when adjusting for adult and cumulative class experience? 2) Does the cumulative class experience contribute to health inequalities in old age over and above social class in childhood and adult class position?

We use merged data from the Swedish Level of Living Survey (LNU) and the Swedish Panel Study of Living Conditions of the Oldest Old (SWEOLD) and in focus are three birth cohorts aged 80 to 90 years at the time when the SWEOLD-survey was carried out (1992, 2002 or 2011).

### **Backbreaking labour? Physical working conditions in adulthood and functional impairment in old age**

*Stefan Fors, Neda Agahi, Aging Research Center, Karolinska Institutet and Stockholm University, Sweden*

A growing body of research now shows that social class inequalities in functional impairment persist into old age. However, the mechanisms generating these inequalities are still largely obscure. The overarching aim of this study is to explore to what extent the social class differences in late life functional impairment can be attributed to differences in physical working conditions during mid-life.

The study is based on a dataset linking data from the 2011 SWEOLD survey with data from the 1968 LNU survey. The dataset encompasses nationally representative data on the Swedish population aged 76 years and older and includes indicators of functional impairment during old age, as well as information on occupation and physical working conditions gathered in mid-life.

The results show that physical working conditions in mid-life are associated with functional impairment in old age. Moreover, the results suggest that physical working conditions in mid-life may contribute substantially to social class inequalities in functional impairment during old age.

In conclusion, the results underscore the importance of good physical working conditions for functional health and, in turn, autonomy and independence in old age.

### **Health risk behaviors during early old age as predictors of the progression of health problems during late life: Differential vulnerability across socioeconomic positions?**

*Neda Agahi, Stefan Fors, Aging Research Center, Karolinska Institutet and Stockholm University, Sweden; Benjamin Shaw, University of Albany, USA*

With the aging of populations, an increasingly important public health priority has become the promotion of healthy aging. The primary goal is the postponement of limiting health problems among at-risk segments of the population. Persons with lower socioeconomic position generally have a higher risk of health problems in older as well as younger ages. One way of promoting healthy aging is through supporting healthy lifestyles. However, relatively little is known about whether unhealthy lifestyles contribute equally to late-life health problems in different socioeconomic groups.

This study examines whether the association between health risk behaviors (physical inactivity, smoking and overweight/obesity) in early old age and the progression of health problems into old age is moderated by socioeconomic position. Data from the Swedish Level of Living Survey (LNU) and the Swedish Panel Study of Living Conditions of the Oldest Old (SWEOLD) were merged to create a nationally representative longitudinal sample of Swedish adults (aged 57-76 at baseline), with up to four observation periods, from 1991 through 2011. Multilevel regressions were used to analyze the association between health behaviors at baseline and trajectories of health problems during the subsequent 20 years depending on socioeconomic position.

Results suggest that persons with lower socioeconomic position exercise less and are overweight or obese to a larger extent than persons with higher socioeconomic position. In both groups, health risk behaviors are associated with more health problems at baseline. Further analyses will explore the association between health risk behaviors and the progression of health problems into old age and to what extent it is moderated by socioeconomic position.

## **An explorative approach to critical periods and accumulation**

*Hannes Kröger, Rasmus Hoffmann, Eduwin Pakpahan, European University Institute, Italy*

Life course research has become increasingly interested in models that explain later life outcomes, especially health outcomes. In the empirical and methodological literature there are several ways of estimating models, which are interpreted as giving support to one or more of the proposed life course models. We give an overview of the different approaches for time varying exposure variables. The approaches discussed are separate estimation of life course models, structured regression framework, latent growth curve models, and semi-parametric visualization of critical periods and accumulation.

We then focus on the last method, which takes a partly explorative approach to identifying accumulation and critical period effects. The method takes a two-step approach. First a regression model conditions the health outcome on all possible confounders. Second, the average exposure is plotted over timing of the exposure for the highest and lowest deciles of the residual of the health outcome. Sharp increases in the difference of average exposure between the highest and the lowest decile are indicators of critical periods. Constant differences are indicators of accumulative effects.

While for SES the childhood has been identified as a possible critical period, similar theories for later adult exposures are rare. So, depending on the exposure, outcome, and data little prior knowledge might exist as to what hypothesis should be tested which makes the explorative approach particularly useful.

We illustrate the approach using data from SHARELIFE that allows the retrospective identification of occupational status over the whole adult life and offers health measures such as Activities of Daily Living (ADL) for old age. Additionally, information about parental occupational status is also available. This rich and continuous information about exposure is ideal for an explorative approach. The visualization approach allows formulating causal hypotheses in a life course framework that can then be tested subsequently with parametric methods.

### **4C PAPER SESSION      Qualitative and mixed methods research**

09:00 - 10:30

Room: 336

### **Multidimensional child poverty from a longitudinal poverty: How to account for the fluidity of childhood?**

*Keetie Roelen, University of Sussex, UK*

In line with the Convention on the Rights of the Child (CRC), formulation of national Children's Acts, MDGs and the discussions about the post-2015 development framework, child poverty has moved up the policy agendas of many countries. The way in which child poverty is currently measured, however, presents us with a narrow and partial picture. Current practice is still biased towards measuring static dimensions of child poverty, primarily using monetary indicators as a proxy to capture other areas of deprivation. This paper investigates the use of non-monetary indicators for studying child poverty from a longitudinal perspective. It focuses on two specific research questions:

- (1) How can non-monetary indicators provide insight into levels of poverty for children of different ages given differential needs of children across stages of childhood? While nutritional intake and high quality health care is particularly pertinent for infants, education and the interplay between work, education and leisure come into play at an older age. This fluidity of needs and vulnerabilities across age groups poses a challenge when establishing a consistent measure of child poverty across age.
- (2) How can non-monetary indicators that reflect age-specific needs and vulnerabilities provide insight into changes in poverty for children over time? As needs and vulnerabilities of individual children shift over time as they transition through childhood, a challenge arises in reflecting those shifts while simultaneously providing a consistent measure over time.

This paper reflects on these two different questions using secondary quantitative panel data and qualitative data from Ethiopia and Vietnam. This mixed methods approach ensures that methodological choices are not solely data-driven but are equally informed by adults' and children's perspectives of what constitutes child poverty.

Preliminary analysis indicates that studies of child poverty need to be more cognizant of the fluidity of childhood and allow for greater flexibility in the measures and analysis of child poverty, particularly in a longitudinal setting.

### **Neighborhoods, child care, and immigrant families: A mixed methods study**

*Elizabeth Shuey, Tama Leventhal, Tufts University, USA*

Extant research shows numerous differences among immigrants and non-immigrants, including lower rates of preschool attendance among immigrant children. Quality early education experiences are more available in more advantaged neighborhoods, but immigrants are more likely than non-immigrants to live in disadvantaged neighborhoods. Child care centers can be key points of access to other services for families, making child care availability important at multiple points in the lifespan.

The goal of this study was to examine immigrant families' use of child care in their neighborhood contexts using two data sources. The Project on Human Development in Chicago Neighborhoods, a neighborhood-based, longitudinal study, provided quantitative data (N = 2,269; 43% immigrants). The ethnographic component of Welfare, Children, and Families: A Three City Study, allowed for a focused examination of neighborhood experiences and early education choices of 33 low-income immigrant families.

Multilevel models were fit with the PHDCN data to examine individual, family, and neighborhood characteristics as predictors of child care use. Regardless of immigrant status, use of center-based child care was greater in neighborhoods with greater concentrated affluence (OR = 1.60,  $p < .05$ ). Although immigrant children were less likely to be attending formal child care than non-immigrant children, this difference was fully explained by other individual (age, gender, race/ethnicity), family (welfare receipt, income-to-needs, and maternal age at child birth, education level, depression, marital and employment status), and neighborhood characteristics (proportion foreign-born residents, concentrated poverty, concentrated affluence).

Themes in the qualitative data extend the quantitative findings. Immigrant mothers generally had negative perceptions of their neighborhoods, with gang activity as a central concern. However, many families had kin networks nearby who provided support. Cases illustrating these themes will be discussed with quantitative results to provide suggestions for future research and policies to support immigrant families in early education.

### **Asking about the future: Insights from Energy Biographies**

*Fiona Shirani, Karen Henwood, Chris Groves, Nick Pidgeon, Cardiff University, UK; Catherine Butler, University of Exeter, UK; Karen Parkhill, Bangor University, UK*

Temporality is fundamental to qualitative longitudinal research, inherent in the design of returning to participants over time, often to explore moments of change. In addition, participants in longitudinal biographical research studies are encouraged to reflect back on past experiences and consider anticipated futures, following the demarcation of past/present/future as discussed by Mead (1932). Previous research has indicated that talking about the future can be difficult for participants, yet there has been insufficient discussion of methodological developments to address these challenges. This paper presents insights from the Energy Biographies project, which has taken a qualitative longitudinal and multimodal approach to investigating how everyday energy use can be understood in relation to biographical pasts and imagined futures. In particular we detail some of the innovative techniques developed by the Energy Biographies team to elicit data on anticipated futures. This includes a text message prompted photograph activity accompanied by focused interview questions concerning how everyday routines may look different in the future. We also detail our efforts to explore other techniques aimed at extending participants' thinking beyond their own biographical futures to consider wider social concerns, considering some of the significant benefits and challenges such approaches present. This paper explores how taking a qualitative longitudinal and multimodal approach has offered new insights into everyday energy life and energy use. Beyond the substantive topic, these methodological insights have a wider relevance for those interested in eliciting data about the future in qualitative longitudinal research.

**Post-disaster recovery patterns among Hurricane Katrina survivors**

*Mariana Arcaya, Harvard School of Public Health, USA; Katherine Masyn, Harvard Graduate School of Education, USA; Jean Rhodes, University of Massachusetts, USA; Mary Waters, Harvard University, USA*

Despite the regular occurrence of natural disasters, existing studies on survivors' outcomes overwhelmingly focus on one-dimensional aspects of wellbeing measured once, or over short timeframes, following the event. As a result, intertwined outcomes are largely studied in isolation from each other, and longitudinal recovery processes are poorly characterized. We use data collected from 1,019 Hurricane Katrina survivors to discern multidimensional and longitudinal trajectories of resilience and recovery following a major natural disaster.

Data come from the Resilience in Survivors of Katrina (RISK) project, a longitudinal study focused on predominately poor, female, African American parents living in the New Orleans, LA, area at the time of Hurricane Katrina (2005). Respondents were recruited to participate in a study of community college students prior to Hurricane Katrina (2003-2004), yielding two waves of rare, prospectively collected, pre-disaster baseline data. After Katrina, we relocated 86% of the original participants across 31 US states, and surveyed them in 2006 2007 and again in 2009-2010. We explore latent variable modeling techniques such as longitudinal latent class analysis, latent difference scores, and growth mixture modeling, to describe the tradeoffs and synergies survivors' experienced among physical health, mental health, and socioeconomic attainment over time following the disaster.

We present recovery patterns based on single dimensions of body mass index, psychological distress as measured by the K6 scale, self-rated health, and unemployment status. We then describe patterns of covariation among these measures across the study period to show how physical health, mental health, and socioeconomic attainment change in relation to each other over time.

The paper concludes by offering substantive insight into a new, multidimensional conceptualization of post disaster resilience and recovery. We also describe the applicability of this latent variable approaches to understanding other multifaceted human development processes.

**Neighbourhood social fragmentation and the mental health of children in poverty**

*Eirini Flouri, Emily Midouhas, Heather Joshi, Alice Sullivan, Institute of Education, UK*

Background. Neighbourhood social fragmentation has been found to be detrimental for the mental health of both adolescents and adults. This study examined longitudinally the relationship between neighbourhood social fragmentation and trajectories of children's emotional and behavioural problems at ages 3, 5 and 7 in England. It also investigated the role of neighbourhood social fragmentation in moderating the association of children's emotional and behavioural problems with neighbourhood poverty and family poverty and adversity.

Methods. We modelled data from 7,776 Millennium Cohort Study children in England, using multilevel growth curve modelling. Neighbourhood social fragmentation was measured with Congdon's summary index of Census data on one-person households, non-married households, those privately renting, and migrants in each Lower layer Super Output Area across England. Emotional and behavioural problems were assessed with the parent-reported Strengths and Difficulties Questionnaire.

Results. After adjusting for key child and family background characteristics, neighbourhood social fragmentation was unrelated to children's problem trajectories. However, lower social fragmentation was related to fewer conduct problems during the primary school years among children in poor neighbourhoods. Poor families in less socially fragmented neighbourhoods had children with more conduct and hyperactivity problems. The interaction between family poverty and neighbourhood social fragmentation on conduct problems was explained by mother's psychological distress and perception of local safety.

Conclusions. High social cohesion dampened the effect of neighbourhood poverty on children's antisocial behaviour. However, in less socially fragmented neighbourhoods, poor families tended to feel less safe in their locality and more distressed, which was associated with antisocial behaviour in children

### **Become homeless: What turning points?**

*Delphine Remillon, Pascale Dietrich Ragon, INED, France*

We use a French statistical survey, *Sans-Domicile* (2012) about homeless. Its initial findings show an increase of nearly 50% in the number of homeless in France since the previous survey in 2001. It is important, therefore, to improve our knowledge of the processes by which people are excluded from the housing market and to see if any new mechanisms are operating in order to develop social policy able to prevent this exclusion. Earlier research has revealed a number of events often associated with losing normal accommodation: immigration, separation, leaving home at an early age, health problems, adverse events during childhood, such as domestic violence, fostering or early death of a parent. Loss of employment obviously also plays a major part and is maybe the most crucial element. We look closer at this point and analyse turning points in occupational and residential trajectories and how these interact. We describe the interactions, mainly on the basis of longitudinal data on residential and occupational transitions during the 13 months preceding the survey. Some other questions are related to important life events and especially those during childhood. Is the loss of housing the consequence or cause of the loss of a job? Is this single critical event (job loss) sufficient to derail a person's life, or is the loss of housing related to an accumulation of varied events (health problems, changes in the family group, loss of social relations, etc.)? Although we look mainly at employment, we also pay attention to other events in the entire life span and to the socio-economic context. We also examine interactions with the standard socio-demographic variables (age, gender, origin). This is because losing normal accommodation and being taken care of by an institution are quite different things for women and men, according to their family structure, migration status and age.

#### **4E PAPER SESSION      Gender**

09:00 - 10:30

Room: 340.1

### **Habits that make, habits that break: Early childhood behavior problems and the gender gap in educational attainment in the United States**

*Jayanti Owens, Robert Wood, University of Wisconsin-Madison, USA*

Over the past three decades, females across the developed world have comprised a growing majority of high school and college graduates. In the U.S., females today comprise roughly 60% of four-year college graduates. Initial explanations have focused on the opening of the labor market to women and increased college incentives. However, another surging literature highlights the role of adolescent "non-cognitive" skills – like self-regulation and social ability – for men and women's cognitive development and educational attainment. Recent research shows girls' average kindergarten behavior advantage helps explain their higher average elementary school reading and math scores. Although this gender difference in early childhood self-regulation and social ability likely has been stable even though the gender gap in attainment has grown, macro-level social shifts -- including gender parity in parental investments in children and the opening of the labor market for women -- may mean females' long-standing preschool behavioral advantage pays off more for educational attainment than three decades ago. However, previously lacking appropriate longitudinal data on U.S. children followed prospectively from birth far enough into early adulthood, researchers have not tested this possibility empirically.

The present study begins to help fill this gap in prior research. Leveraging the latest wave of the National Longitudinal Survey of Youth-Child Supplement (NLSY-C), we examine how gender differences in early behavior help explain today's attainment gap by age 27. Although necessarily limited to 1983-1986 births, we assume the effects of stable gender differences in preschool behavior have changed with the social shifts previously mentioned. Results indicate that roughly 20% of the attainment gap is accounted for by the gender difference in preschool behavior. This difference sets boys and girls on early life trajectories that shape not only math and reading achievement differences, but also pre-adolescent educational expectations, parents' responses to behavior, and adolescent problem behavior.

## **Cohort and gender differences in work-family life courses in Great Britain: Evidence of increasing individualisation?**

*Anne McMunn, University College London, UK*

Like many post industrial countries, the United Kingdom has seen a decline in traditional social institutions, such as the patriarchal institutions of marriage and gender divisions of labour as encapsulated in the male breadwinner model – as described and predicted by the individualisation thesis. Participation in paid work is now a fact of life for the majority of women, including those with family responsibilities; fathers are more involved in childcare; and family forms have become increasingly diverse. In addition, these processes of change are occurring within the context of, and may be partially driving, increasing socioeconomic inequality between households and between women.

This study uses the wealth of longitudinal data now available in Britain to investigate whether work-family typologies across the childbearing years have become more diverse and de-standardised across cohorts, and more similar between genders. We use three national birth cohort studies in the UK: the National Survey of Health and Development 1946 birth cohort, the National Child Development Study 1958 birth cohort, and the 1970 Birth Cohort Study. Sequence analysis is used to derive work-family typologies using information on work, partnership and parenthood stages between the ages of 16-42 for men and women in each cohort. The potentially changing role of early life predictors of work-family patterns is also investigated.

Early results suggest that work-family life courses remain strongly gendered across cohorts, coupled with evidence of change as well. While the vast majority of men in all cohorts occupy stable life courses characterised by strong ties to the labour market, the proportion of women in these typologies has increased, with a resulting decrease in the proportion of long-term homemaking women. We find expected increases in long-term cohabiting couples, but increases in lone parent typologies are not as great as expected.

## **The gendering of employment pathways in later life: Using optimal matching analysis to study patterns in Germany, Sweden and Italy**

*Laurie Corna, Kings College London, UK; Diana Worts, Peggy McDonough, Dalla Lana School of Public Health, Canada; Amanda Sacker, University College London, UK*

Even as population-level statistics reveal convergence in the employment rates of older women and men, there is evidence that this is not the full story when it comes to gender and later-life labour market involvement (LMI). Specifically, observers using a life course perspective highlight the increasing complexity within, and variability between, the later-life LMI trajectories of individual women and men. Informed by the life course perspective and welfare state theories, we use optimal matching analysis (OMA) to study differences between and among the labour market biographies of older men and women. The life course approach mandates a focus on individual biographies over a substantial period of the life course, while acknowledging that individuals construct their lives within sets of opportunities and constraints defined, in part, by the social policies and provisions of particular contexts.

Using data from SHARE, we examine later-life LMI across three countries representing distinct types of policy regimes (Germany, Italy, and Sweden), and attend to how these diverse contexts shape the LMI biographies of older women and men spanning the years surrounding “standard” retirement ages (ages 50-69). We then employ the OMA results to assess the roles of both the broader policy context and key socio-demographic and work-family-history variables, in establishing differences between and among women’s and men’s later-life LMI experiences. We find that patterns are highly gendered in Germany and Italy, and less so in Sweden. Further, the roles of socio-demographic and prior work and family characteristics differ cross-nationally—sometimes especially for women. Our analysis demonstrates the potential of OMA to capture a range of meaningful later-life LMI patterns, and shows how the study of these patterns can shed new light on the factors that shape the labour market experiences of older women and men.

## PARALLEL SESSION 5

### 5A SYMPOSIUM

11:00 - 12:30

Room: 338

### **Vulnerable and troubled Norwegian youth and their transitions into young adulthood and middle age: Methodological challenges within a mainly qualitative approach**

In this symposium four Norwegian researchers will present their longitudinal studies of vulnerable and troubled youths. A key shared research question has been to what degree these women and men who are now young as well as middle-aged adults experience themselves as participants in society.

Two of the studies combine quantitative and qualitative methods, while the other two are focused on qualitative approaches. Despite these methodological differences, all researchers have a shared concern with capturing the main processes of everyday life our respondents are experiencing. One main aim in our research has been to employ the experiential knowledge they provide to understand how for example children get into trouble at school, use drugs, and involve themselves in criminal activities. A key goal has been to listen to their voices as they tell about these and related areas of their own lives from both "here and now" as well as retrospective vantage points.

In life-phase studies, a time dimension is central to the analysis. Narratives told from backward looking as well as 'here' and 'now' perspectives are influenced by how these different situations in time and space are interpreted by narrators. At a later point in time, narratives about the past are characterized by the fact that some things are forgotten, while other things or occurrences may be emphasized or exaggerated. Also, the emotional aspect of the later told narrative may be somewhat reduced. Distance from the events in space and time can also provide opportunities for greater nuances about those happenings. Often the distanced narrator may be able to perceive more aspects about the situation. The interpretations made by informants and researchers must be seen in light of the discourses of meaning that were valid at different points in time when the interviews were conducted.

### **Youngsters "Out of control": Life histories and the situation of today. How do their stories differ from ordinary youngsters'?**

*Ragnhild Bjørnebekk, The Norwegian Police University College, Sweden*

#### Design and methods

Ex post facto, quasi-experimental design, with target (T) and control (C) group.

Subjects: T: 34 kids living in a youth-house where they get treatment for antisocial acting (age 13-19, 2 m -13 f, 1/3 from ethnical minority groups). C: 20 ordinary kids, randomly matched to the 20 first kids in T.

#### Data

Structured life-history interviews and data on to-days situation on antisociality, gang-involvement, ethics, norms, future-time orientation, dreams, identity. The study consists of retrospective reports on family-, media-, school-, peer and gang-, important events history, on involvement in antisocial acts- and aggressiveness and on dreams and future-time orientation.

#### Results

The two groups differ markedly on most factors, except on opinions about use of physical punishment in child rearing, socio-economic factors (varies only on why families are on social security), neighbourhood and their future –time dreams. T kids in foster-care and some with neuro-physiological disturbances report an opposite pattern from the others. In contrast to C-group kids, the T-group fall into the early-starter antisocial pathway group described by Moffitt (1993) or on one of the three models described by Loeber & Farrington (1997) Loeber, Farrington, Stouthamer-Loeber & Raskin White (2008): 1) an authority conflict model, 2) a covert three step-model 3) an overt aggression model.

The T- and C-group differ markedly on most risk and protective factors. The factors are interpreted as an antecedent to their temporal state and the temporal state may be looked at as an outcome.

## **Vulnerable young adults during transitions in early adult life: Social security dependence or work and independent living? Comparative quantitative and qualitative analysis**

*Emmy Langøy, Rune Kvalsund, Volda University College, Norway*

In this study the life situation of young adults with intellectual disabilities and young adults with behaviour problems are compared, their transition and adaptation to adult life and how they are encountered by helping system of the welfare state. Norway is judged to be the OECD country with the lowest percentage of jobs possible to seek for unskilled workers. These work possibilities would be an important factor to study as an indicator of adaptation in early adult life. What is their work situation and independent family life after transition from school? What are their experiences with the helping system? What helped and what hindered their possibilities of participation in work and social life? As seen from the vulnerable young adults' position – how important for social integration is the contribution by the support system during these transitions? What contributions have earlier school experiences made? How is self-identity affected?

The study is based on data about transitions during the secondary school phase of the life course (1996-1999), on data about school experiences, further education, work and independent living, own family and house when the vulnerable young adults are 24 and in addition on data quantitative and qualitative data again when they are 29 years old. This comparative analysis will be based on quantitative data using logic regression. The last data set will be an qualitative interview – face-to face – retrospective as well as prospective, when the respondents are in their mid thirties (2015). The preliminary theoretical frame of reference is life course theory (e.g. Elder and Giele, Bynner) and critical realism (e.g. Bashkar, Danermark, Flyvbjerg). The presentation will focus on the research plan for this study adding up to an article-based PhD. The role of qualitative analysis is discussed when combining quantitative and qualitative methods of life course research.

## **A 25-year follow-up study of oppositional “Punk” girls**

*Ase Broman, Oslo and Akershus University College, Norway*

The follow-up were active participants in the Oslo based punk milieu as adolescents. During the 1980s , after they had received housing supports from the municipality of Oslo, they were previously studied when they were about 20 years of age (Broman, 1992). The punk girls were unique in the way they presented themselves to others, wearing pink, purple and green cock's comb haircuts. Their behavior was often experienced as being aggressive and frightening, as they very rigorously protested against established society. These young women moved away from their family homes when they were still children (12-14 years of age). They were homeless and without an income when they began squatting in unoccupied buildings early in the 1980s.

The study of the “punk”-girls consist of the 10 mothers who provided life history interviews in 1987/1988. The women are now between 40 and 45 years of age and their children are between 13 and 20 years of age. Qualitative interview-data are collected in 2011/2012 and I am now working with the qualitative analyses. The study focuses on following questions:

1. How do the women experience their lives? This question focuses upon their situation in life with regard to work, education, economy, housing, social network, civil status, children, physical and mental health, drug abuse and criminal behavior.
2. There is very little systematic knowledge about the variations of experiences of being a parent for people who have shown marginalized behavior as adolescents. How have experiences from a punk environment been relevant in their understanding of parenthood and in their practice of parenting? How is everyday life experienced by those who are parents, when they are together with their children? What kinds of contact do these parents have with the micro-arenas of their children, which include grandparents, kindergartens and schools?

## **Troubled youths and their life course pathways into middle age: A qualitative approach**

*Ingeborg Marie Helgeland, Oslo and Akershus University College, Norway*

The project is a 30-year longitudinal study of young people who were clients of Norwegian child welfare services in the early 1980s. At that time, these youngsters (N=85) exhibited serious behavior problems and were designated as “most difficult youths” by child protection authorities in an average-sized county in Norway. They came from homes with high levels of family conflict and were truant from school for long periods. They abused drugs of various kinds and engaged in criminal activities. Earlier in the course of the project, they were interviewed at the ages of 15, 20 and 30 years (Helgeland, 1989, 2007, 2010). This paper presents the findings of the most recent interviews with project participants who are now in 40 to 45 years of age.

Research questions: How are women and men sharing these earlier problematic histories now dealing with life as middle aged adults in areas involving their transitions from care, work, leisure-time, education, health, relationships to family and friends, and related issues of everyday life? How do they now view their lives when using past, present and future perspectives? How do they create meaning in their lives? How have social welfare and health services influenced their lives?

The project’s main method has been the qualitative interview. The findings presented in this paper draw from a sizable body of empirical data gathered over the past 30 years which has analyzed with both quantitative and qualitative instruments. The most recent interviews have been conducted with 37 members of the original research cohort. These interviews have been semi-structured, both retrospective and with focus on today and tomorrow. A key concern in this work has been to gain the perspective of our informants: one paralleling the “bottom up” perspective outlined by Dorothy Smith (1990) using empathy and care in order to capture the complexity and diversity of lives of these women and men.

### **5B SYMPOSIUM**

11:00 - 12:30

Room: 336

### **Using evidence from longitudinal studies to address inequity issues in a contemporary New Zealand context**

Historical and contemporary longitudinal studies have captured multi-disciplinary information to provide different perspectives on what has and what does shape development within a New Zealand context. Historical studies have made a significant contribution to policy development aimed at improving population wellbeing. However these studies begun in the 1970s have focussed almost exclusively on NZ European populations, and therefore cannot provide evidence to inform a better understanding of why we see the persistent inequities in outcomes across the life course for different sub-groups within the NZ population, with Maori and Pacific New Zealanders being particularly disadvantaged. This group of talks considers what we may learn about the underlying determinants of inequalities from more recent longitudinal studies that have either focussed on, or included sufficient numbers of, non-European participants.

### **Te Hoe Nuku Roa: Best Outcomes for Māori**

*Chris Cunningham, Massey University, New Zealand*

This paper uses data from Te Hoe Nuku Roa: Best Outcomes for Māori, a twenty year longitudinal study of indigenous New Zealand Māori households and families. Framed as a study which identifies the circumstances which are present when best outcomes are achieved, the study address social, cultural and economic aspirations for Māori and maps change over time. A particular focus is cultural diversity and whānau (family) dynamics. This presentation will discuss some of the methodological issues in longitudinal research and in constructing measures of cultural diversity. This research has captured change in Māori households during a period of extensive economic and structural change in New Zealand. This study has been important in assessing the impact of social policy change in NZ, and in informing a major policy platform of the current NZ government: Whānau Ora (Family Health and Wellbeing). Analyses from the five data waves, across social, cultural and economic platforms will be presented and discussed.

## **Vulnerable children - beyond ethnicity as an explanatory variable: Evidence from the first 1000 days of Growing Up in New Zealand**

*Susan Morton, University of Auckland, New Zealand*

This paper will consider what defines vulnerability for contemporary New Zealand children growing up in diverse family settings in the context of a 21st century environment. Previously this work has been largely limited to European New Zealand populations, and the lens applied has been largely retrospective - that is “looking backwards” to understand what early child, family and environmental characteristics have been associated with mostly poor adolescent and adult outcomes.

Using the information gathered over the first four data collection waves of the Growing Up in New Zealand study this paper firstly uses the international literature on vulnerability to define who is vulnerable, and then considers how these children fare in terms of developmental outcomes in the health, cognitive and educational domains. A particular advantage of using the Growing Up in New Zealand information is that the children participating are broadly generalisable to all NZ births in terms of their ethnic and family socioeconomic diversity.

This prospective lens allows an understanding of what child, family and environmental characteristics promote resilience over time, as well as what factors are associated with persistence of vulnerability and how these relate to poor early development. Importantly for this symposium ethnicity will not be used as a marker of likely vulnerability, as it can be used in terms of strategies for early intervention. Rather the distribution of patterns of vulnerability will be considered in terms of ethnic identity and the factors that promote resilience across ethnic groups will also be explicitly examined.

## **Growing Up in New Zealand: How to align frameworks for indigenous outcomes within a population based study**

*Polly Atatoa Carr, University of Auckland, New Zealand*

The new population-based longitudinal study Growing Up in New Zealand provides a significant opportunity for the indigenous population (Māori) to contribute to policy that will influence Māori development and the health and well-being of Māori children (tamariki) and their family (whānau). Central to the study are principles of: Māori Research Ethics; the Treaty of Waitangi; and those of Guardianship – or Kaitiakitanga. The key to meeting these principles within this study has been multi-faceted approaches to meet the needs of the geographic, socio-economic, demographic, and cultural diversity of the Māori population. An ongoing challenge for this study is utilising these best-practice principles to ensure that the longitudinal evidence provided, and examples will be given in this paper, is able to contribute to policy development that can enhance the policy environment for Māori whānau into the 21st Century.

## **What does all this mean: How do we improve policy evidence for equity?**

*Susan Morton, Polly Atatoa Carr, Chris Cunningham, University of Auckland, New Zealand*

This symposium will provide the opportunity to consider the evidence provided within the earlier sessions, and application to the policy environment. Examples will be given of political and policy tensions within New Zealand when applying an equity lens.

## **5C PAPER SESSION Alcohol and drugs**

11:00 - 12:30

Room: 342

## **Examining parent and child alcohol use in a longitudinal, multigenerational study**

*Jeremy Staff, Pennsylvania State University, USA; Mike Vuolo, Purdue University, USA*

In most intergenerational studies, parental substance use is found to have direct and indirect influences on children's substance use. These contemporaneous intergenerational processes incorporate parents' substance use, parent-child attachment, family structure, and even the subtle and perhaps unintended transmission of attitudes, values or emotional templates that are more or less favorable to substance use. Social scientists have given comparatively little attention to the effects of parents' long-term participation in substance use on

children's antisocial behavior and substance use. Given the declines in substance use during the transition to adulthood, studies that rely on concurrent parent effects could miss an important part of the intergenerational transmission process occurring earlier in the child's life. In this paper, longitudinal multigenerational data from the Youth Development Study (n=211 parents and 310 offspring ages 11 and older) are used to examine long term associations between parental and child alcohol use. Importantly, the YDS has comparable measures of parent's and child's behavior at the same developmental stage, thus allowing us to estimate the concurrent effects of parental alcohol use as well as their adolescent substance use (before their children were born; no children in our study were born prior to the parent's first YDS survey). Logistic regression models predicting adolescent last month drinking as well as last two weeks binge drinking reveal little contemporaneous effects of parental alcohol use after controlling for multiple child and parent level controls (such as gender, race, age, depressive mood, socioeconomic background, and closeness to parents). However, parent's youthful alcohol use (measured when they were seniors in high school) significantly increases the odds that their children will use alcohol twenty years later. Our findings suggest that rather than looking at contemporaneous parent-child associations, researchers should look to intergenerational continuity between parents' and children's youthful adolescent deviance, exhibited at about the same age.

### **Short- and long-term associations between young people's and parents' health-enhancing and health-compromising behaviours**

*Nora Wiium, University of Bergen, Norway*

Theoretical and empirical evidence suggests an association between role models' and young people's behaviours, where the former's influence can be immediate, long-term or gender-specific. Using longitudinal data collected from participants at ages 13, 18, 23 and 30, the present study examined: (1) the short- and long-term associations between young people's and parents' health-enhancing behaviour (i.e., physical activity; PA) and health-compromising behaviour (i.e., drinking behaviour); (2) whether the strength of association in general differed between the two behaviours. Baseline sample of 924 13-year-old pupils were from 22 randomly selected schools in Hordaland County in western Norway.

Correlation analysis revealed significant associations between parents' PA (reported at age 13) and participants' PA at all ages. The associations remained statistically significant when gender was controlled in regression analysis. Multi-group analysis revealed that for males, there were significant associations with parents' PA at ages 13, 18 and 30 whilst significant association was only with father's PA at age 23; for females, significant associations with mother's PA were at ages 13, 18 and 23, while significant associations with father's PA were at ages 13 and 30 (coefficients ranged between 0.11 – 0.21,  $p < .05$ ).

Significant correlations between parents' drinking behaviours (reported at age 13) and participants' behaviour were observed at ages 18 and 23 whilst significant correlation was only with father's behaviour at age 13. Similar findings were observed in regression analysis when gender was controlled. In multi-group analysis, these findings were replicated for males whilst for females, the associations with parents' behaviours were only significant at age 18 (coefficients ranged between 0.13 – 0.20,  $p < .01$ ).

The immediate and long-term influences of parents' behaviours confirmed earlier findings. The influence of parents' health-enhancing behaviours appeared more stable although similar in strength to their health-compromising behaviours. Males were influenced by parents more than females. The findings may have significant policy implications.

### **What will keep children away from alcohol and cigarettes? A research example from the UK Longitudinal Household Study**

*Noriko Cable, Yvonne Kelly, Alice Goisis, University College London, UK*

Little is known about the other factors that might protect young people from initiating alcohol or cigarette use in addition to education about harm caused by risky behaviours. The aim of this study is to identify preventive factors for young people against the initiation of alcohol or cigarette use.

We used available cases (n=1,745) from young people between aged 10 and 15 who participated in both waves 2 and 3 of the UK longitudinal household study that annually collect population representative data from 40,000 households in the United Kingdom since 2009.

We examined patterns of alcohol and cigarette use (1= persistent non-users; 2= quitters; 3= initiating drinking or smoking at wave 3; 4= persistent users), derived by tabulating current alcohol or cigarette use at waves 2 and 3. Explanatory variables were young people's knowledge about likelihood of harm due to alcohol and smoking behaviours, happiness, self-esteem, and numbers of supportive friends at wave 2. Young peoples' sex, age, self reported health status at wave 2, religiosity, and household social position were included as confounders. Residential characteristics were not associated with the outcome and were excluded from the model. Multinomial logistic regression was used taking persistent cigarette and alcohol users as the reference category. All estimates were corrected for clustering patterns of responses and weighted for non-response pattern.

Preliminary findings showed young peoples' greater awareness of harm caused by drinking alcohol or smoking cigarettes was associated with persistent non-use (RRR=1.24, 95%CI 1.17-1.32) as well as initiation of alcohol or cigarette use (RRR=1.21, 95% CI=1.12-1.31). Greater happiness differentiated persistent non-users (RRR=1.07, 95%CI=1.01-1.11) from initiators (RRR=1.00, 95%CI=0.95-1.06). There were no particular factors associated with quitters.

In summary, further exploration of the potential protective role against risky health behaviours of happiness and well-being among young people is warranted.

#### **Drinking in later life, health and life course transitions**

*Clare Holdsworth, Martin Frisher, Marina Mendonça, Keele University, UK; Nicola Shelton, Hynek Pikhart, Cesar de Oliveira, University College London, UK*

The contribution of alcohol consumption to inequalities in health is paradoxical, particularly among older drinkers for whom there is a significant relationship between drinking and good health, as well as between drinking and wealth. This relationship is challenging for recent public health campaigns that have identified drinking in later life as a cause for concern and called for lower recommended weekly limits for older people. In this paper we present the findings of an ESRC-funded longitudinal study of drinking in later life, using the English Longitudinal Study of Ageing (ELSA), to establish the relationship between drinking in later life, life course transitions, socio-economic characteristics and health. Our findings show that alcohol declines with age, and it declines more steeply among those with high levels of consumption at the beginning of the period of observation. Some groups have a slower rate of decline and this is associated with greater access to resources and better health. Our analysis was stratified by gender as the factors associated with changes in alcohol consumption in later life are different for men and women. Our analysis finds that relationship status is associated with differential declines in drinking over time for men, but not for women, while women's drinking is associated with employment transitions and wealth. Our analysis highlights the importance of a life course approach to drinking research, that to understand drinking in later life it is important to put this into the context of life course experiences and transitions rather to focus on age-specific interventions. The paper therefore demonstrates the value of longitudinal analysis for public health issues.

#### **5D PAPER SESSION      The production of inequality through education**

11:00 - 12:30

Room: 348

#### **Social origin, conscientiousness, and school grades: Does the early life socialization of orderliness and focus contribute to the reproduction of social inequality?**

*Till Kaiser, Martin Diewald, University of Bielefeld, Germany*

Various studies showed that conscientiousness is an important predictor of academic achievement. We put this insight into the context of the question of the social reproduction of social inequality. We use school grades as outcome and compare different pathways of how they are achieved: parental conscientiousness and parental stratification as sources of differential conscientiousness of children; the impact of child's conscientiousness on school grades; and the mediation of this interrelationship through parenting styles. We use data of the FiD study

("Families in Germany") and the SOEP, with information on children (9-10 years), one parent, and the household (N=1116). Using SEM we find empirical evidence that the facet "focus/concentration", has an impact for predicting school grades, more than indicators of the social background. Our main hypothesis that conscientiousness, and specifically the facet "focus/concentration", act as one transmission belt between social background and school grades, was confirmed.

### **Stratification and differentiation of tertiary-level vocational education in Switzerland: How does it affect social inequality?**

*Ines Trede, Irene Kriesi, Swiss Federal Institute for Vocational Education and Training, Switzerland*

Vocational education plays an important role in Switzerland. Two thirds of all adolescents enter upper-secondary-level vocational training. After completion they have the option to continue their education at the vocational tertiary level.

Over the last decade tertiary vocational education has been newly established on two levels: the ISCED 5A-level includes universities of applied science, the ISCED 5B-level professional colleges, which have lower entry requirements. Tertiary vocational education has thus become more differentiated but also more stratified. Previous research has shown that highly stratified systems are more selective and lead to more social inequality. A high degree of differentiation, on the other hand, facilitates labor market entry also for low-achieving individuals (Shavit et al. 2007, Pfeffer 2008; Kerckhoff 1995). Whether this also holds for the vocational tertiary-level has, to our knowledge, been rarely investigated. Against this background - and by using the large group of vocational healthcare students - our paper examines whether access to the ISCED A and B-level of tertiary education differs by social background, gender and academic achievement.

The analyses are based on a longitudinal survey of a full sample of healthcare assistant students (n=953). The data were collected at two time points: (1) at the end of upper-secondary (apprenticeship) training and (2) one year after its completion. Educational choices were analyzed using multinomial logistic regressions. Results show that access to the more stratified and thus more selective ISCED 5A-level education depends more strongly on social background and gender, facilitating the transition for men and students from affluent families. Academic achievement plays a similar role in the transition to both options. Given that access to ISCED 5A-level education seems to increase social inequality, future research should ask how entry barriers, particularly for women and individuals from lower social origins, may be lowered.

### **Social origins, schooling and higher education destinations**

*Alice Sullivan, Sam Parsons, Dick Wiggins, Francis Green, Institute of Education, UK; Anthony Heath, University of Manchester, UK*

To what extent and why do social origins matter for access to higher education, including access to elite universities? What is the role of private and selective schooling? This paper uses the 1970 British Cohort Study (BCS70) to analyse the trajectories of a generation currently in early middle age. We find that the influence of social origins, especially parental education, remains when both a wide range of cognitive measures and school attainment are controlled. Attending a private school is powerfully predictive of gaining a university degree, and especially a degree from an elite institution.

### **The impact of education on income inequality in Switzerland in a longitudinal perspective**

*Laura Ravazzini, Ursina Kuhn, University of Neuchâtel, Switzerland*

This paper sets out to unravel the causes of changing income inequalities and education in a longitudinal perspective. In Switzerland, the evolution of inequality by educational groups is particularly topical as the percentage of people and especially of women with a tertiary education is expanding, technology is evolving and immigration flows are attracting higher-educated individuals. The literature has focused so far mainly on returns to education on the wage level. We address additional potential channels of influence from education, such as about market participation, household composition and educational assortative mating.

Our analysis is based on the Swiss Labour Force Survey, covering the time span of 1991-2012, and on the Swiss Household Panel, covering the years 1999-2012. As methods of analysis, we rely on Mincer-type regressions and on decompositions of income-inequality by educational levels. First, we look at earnings, which we decompose into wage levels, hours worked and the correlation between the two. This is done separately for men and women. Second, we analyse the household income in order to understand how income sharing at the household level impacts inequality. Third, we focus on retired individuals, to see to what extent inequality between educational levels during the working age translate into inequality for retirees.

First results suggest that inequality within educational groups is most pronounced for low education. This holds true for personal labour income and for household disposable income. Interestingly, inequality between educational levels has increased over time for household incomes, but not for hourly wages. This evidence confirms that other channels than returns to education drive the increasing gap between levels of education. Regarding life-cycle effects, we find a relatively high income inequality for retirees and an increasing gap between educational levels over time.

**5E PAPER SESSION      Health at older ages**  
11:00 - 12:30              Room: 340.1

**The Harvard Study of Adult Development: Arguably the longest study of bio-psycho-social development currently available**

*George Vaillant, Robert J. Waldinger, Massachusetts General Hospital, USA*

The thrust of our paper will be to show both the power of prolonged prospective study and the power of combining the rigors of both the disciplines of medicine and social psychology to unravel adult development and to point towards effective social policies. The Harvard Study of Adult Development, described below, arguably offers the first prospective biopsychosocial study of individuals followed from adolescence until the 9<sup>th</sup> decade of life. We continue to share this unique archive with other investigators – including Glenn Elder, Monika Ardelt, Carolyn Aldwin, and Martin Seligman.

**Increasing work stress among older workers is linked to incident coronary heart disease and diurnal cortisol profiles**

Tarani Chandola, University of Manchester, UK; Meena Kumari, University of Essex, UK

The proportion of older workers in the labour force is increasing, which is partly the consequence of increasing state pension age and related policies to extend working life in many industrialised countries. However, there is little attention paid to the health consequences of extending working lives. This paper examines the association of longitudinal changes in job quality with incident coronary heart disease and diurnal cortisol profiles. Longitudinal data from over 2,000 older workers (aged 55+) in the Whitehall II civil servants study from phase 5 (2002) onwards were analysed. Work stressors were measured using the Effort-Reward Imbalance. Diurnal cortisol profiles from saliva were measured from awakening to 12 hours later across 6 time points. Although on average, civil servants reported lower effort-reward imbalance after about 5 years, some reported increasing imbalance. An increase in effort-reward imbalance was associated with incident coronary heart disease, even after taking into account a range of risk factors. An increase in effort-reward imbalance was also associated with a flatter slope of cortisol across the day. These associations were not observed in younger workers. The longitudinal associations between increasing work stress, flatter cortisol slopes and incident coronary heart disease among older workers suggests that extending working lives may not have positive health benefits for all older workers. Employers may need to ensure adjustments to older workers are made in order to suit the needs of an ageing workforce.

## **Understanding disability in older heart disease patients in Ireland**

*Sharon Cruise, Frank Kee, Anne Kouvonen, John Hughes, Queens University Belfast, UK; Kathleen Bennett, Trinity Centre for Health Sciences, Ireland*

### **Introduction**

Although life expectancy in Ireland continues to increase, coronary heart disease (CHD) remains a leading cause of death and disability. Some, but not all, of the socioeconomic inequality in cardiovascular disability can be explained by a social gradient in conventional risk factors. Therefore, the aims of the research were to assess CHD-related disability and associated inequalities in Irish adults aged 50+.

### **Methods**

Respondents were 9832 adults (46% male) aged 50+ who had taken part in The Irish Longitudinal Study on Ageing (TILDA) or the 2010/2011 Health Survey for Northern Ireland (HSNI). Secondary data analysis established prevalence rates for CHD-related disability and for five risk factors for CHD-related disability: smoking, high BMI, low physical activity, diabetes, and depression. Relative risks for each risk factor on CHD-related disability were derived from adjusted binomial regressions and were applied to prevalence rates to calculate population attributable fractions (PAFs).

### **Results**

The all-Ireland prevalence of CHD-related disability was 1.93%; country-specific prevalence rates for CHD-related disability were higher in Northern Ireland (NI) than in the Republic of Ireland (ROI) (4.40% vs 1.52% respectively). Prevalence rates for smoking and diabetes were comparable for ROI and NI, and showed the anticipated gender, age, and socioeconomic patterns, whilst BMI, low levels of physical activity, and depression were all higher in NI than in ROI. Preliminary PAF results indicated comparability between NI and ROI in terms of the reduction in CHD-related disability that could be attributed to smoking (12.0% vs 13.1%) and diabetes (6.5% vs 5.5%). These patterns remained consistent in models stratified for gender, age, and socioeconomic group. However, there was a reduction of 37.5% in CHD-related disability attributable to depression in NI compared to 25.4% in ROI.

### **Conclusion**

These findings demonstrate country-specific similarities and differences with respect to risk factors for CHD-related disability that warrant further examination.

## **Sequence analysis and causal inference: Estimating the effect of early retirement on health**

*Xavier de Luna, Ingrid Svensson, Emma Lundholm Umeå University, Sweden; Nicola Barban, Francesco Billari, Oxford University, UK*

### **KEYNOTE**

13:30 - 14:30

Room: 348

### **What matters for child well-being in the early years: Evidence from the UK Millennium Cohort Study**

*Kathleen Kiernan, Professor of Social Policy and Demography, University of York, UK*

## PARALLEL SESSION 6

### 6A SYMPOSIUM      **The impacts of social policies on the life course**

14:30 - 15:40

Room: 348

Active labour market policies are government programs that aim at putting disabled or unemployed people into work. As many other governments, Swiss authorities have in the past years developed these kind of social policies, advocated by organizations like the OECD, the ILO, or the World Bank. Active labour market policies are often understood as social investment policies (Bonvin, 2014; Morel, Palier, & Palme, 2012), which means that they are based on the idea that through these programs recipients will find a job.

If government programs that claim to be « active » are as varied as they are numerous, they have common features: they assume that the recipients would be passive if not activated, that they need to upgrade and adapt their skills and that the state intervention will change their life course.

However, if the impact of active labour market policies in terms of finding a job has been is a long-standing object of study, their impact on the life course of the recipients is less investigated to date. This symposium gathers three different contributions of scholars working in the “NCCR LIVES: Overcoming vulnerability: Life course perspectives” and aims at giving a first response to this question.

A first contribution shows that a new paradigm is emerging in the Swiss disability insurance, that impacts the experience of recipients, because now disability as a revocable status. A second contribution focuses on the work trajectories featured by a period of unemployment in current Swiss labor market. Socio-demographic features and the individual job position reveal that individuals with different features need policies focused on the specific weaknesses of their category. The third contribution examines the trajectories of disabled people in Switzerland, explains the socio-demographic factors leading to these trajectories and assesses the life-course related appropriateness of the activation policies.

#### **From reparation to revocability: The impact of the new rehabilitation policy in the Swiss invalidity insurance on the life experience**

*Isabelle Probst, Jean-Pierre Tabin, University of Applied Sciences and Arts, Switzerland*

According to the new doxa linked with the “activation turn” (Bonoli, 2013) in social policies, the Swiss disability insurance (DI) was revised in the 2000s and in the 2010s in order to reduce the number of pensions accorded and to increase the employability of persons suffering from a health problem or a handicap. These revisions set new eligibility criteria for benefits and introduced new occupational rehabilitation measures. With a perspective inspired by the disability studies approach (Weisser et Renggli 2004; Waldschmidt et Schneider 2007; Bösl et al. 2010), we aim at discussing the consequences of these revisions on the conception of invalidity and rehabilitation. Our analysis relies on three types of data: legislative sources (laws, bills proposed by the Federal Council to the Parliament), statistical reports and evaluative studies produced on behalf of the administration. We will begin by describing the prevailing conception of rehabilitation at the introduction of DI in 1959 (Lavanchy, in press) and we will show that it was based on the idea of reparation. We will then analyse the political discourses of the 1990s in order to show the construction of psychic disability as a problematic category based on the interpretation of administrative statistics. This construction legitimized new conceptions of occupational rehabilitation and lead in the 2010s to a redefinition of disability as a revocable statute. Discussing the nature and the scope of the recent changes, we will conclude that a new social policies’ paradigm is emerging, which is fundamentally changing the life experiences (in terms of stress and resources) of the persons asking for or receiving DI benefits. Finally, we will show that the revocability of the statute leads to an ongoing redefinition of disability and of work.

#### **Work trajectories after a spell of unemployment: Different risks for different sectors of the population?**

*Matteo Antonini, University of Lausanne, Switzerland*

What happen to individual work trajectories after a period of unemployment? In this presentation, I introduce a classification of the work trajectories featured by a spell of unemployment that gives a simplified, but meaningful

description on the most common situations in current Swiss labor market. Starting from this description, I stress the protective effects of personal socio-demographic features and of the individual job position.

The analyses are based on data from the Swiss Household Panel. The sample is representative of the Swiss population and consists in 532 (weighted) units. These data provides a monthly measure of individual working status. These sequences are aligned on the first month of unemployment and cut at the 48th month. Sequence Analysis is used to create a typology (Optimal Matching and Partition Around Medoids clustering) that is related to individual socio-demographic features and job position via bivariate cross-tabulation.

The results of the analysis show a set of ideal-typical trajectories that describe both the transitions leading back to employment and the paths to inactivity or through long-term/recurrent unemployment. The changes in the individual work trajectories show the effects of the period of unemployment. This analysis reveals that each working sector appears affected by different risks. In particular, the groups of the population in a situation of disadvantage (given by socio-demographic features and/or job position) appear less protected. They are featured by structurally different and more severe risks than the rest of the population.

The passage through a period of unemployment always brings potential vulnerability but affects people in different ways according to socio-demographic features and job positions. These differences suggest that individuals with different features need policies focused on the specific weaknesses of their category. Consequently, "one solution fit all" approach can be efficient only on certain sectors of the unemployed population while ineffective for others.

### **Changing welfare policies and its impact on social citizenship: A life course perspective on disability insurance recipients in Switzerland**

*Emilie Rosenstein, Felix Bühlmann, University of Lausanne, Switzerland*

Since the 80s, the trend towards activation has deeply transformed welfare policies. Social policies turned into social and occupational integration policies. This new conception of social protection impacts on the entitlement to social rights as well as on the meaning of social citizenship. Indeed, activating welfare recipients requires individualising welfare benefits and procedures. The objective is to find a new way to organise and deliver welfare protection in a context of destandardisation of the life course, characterised by the end of full employment and the multiplication of nonlinear occupational trajectories. But, as many authors pointed out, individualisation within welfare policies is an ambivalent concept. On the one hand, it promises more successful and tailor-made solutions. On the other hand, it opens the way towards constraining and conditional approaches of social protection.

The objective of this contribution is to question the consequences of this ambivalent movement towards activating labour market policies and its impact on social citizenship. To investigate this issue, we will analyse the recent reforms of the Swiss disability insurance (DI) to see how the logic of activation and individualisation are interpreted in this specific framework. More precisely, we will use a mixed-method approach, including a documentary survey (federal laws and official documents), semi-structured interviews with DI recipients and professionals, and a sequence analysis based on administrative data. In particular we will use a large database (N=95'184) to identify the main trajectories of DI recipients, to relate them to a series of socio-demographic variables (sex, age, nationality) and to assess the appropriateness of the modes of intervention promoted by DI regarding recipients' needs and their position in the life course.

#### **6B SYMPOSIUM**

14:30 - 15:40

Room: 340.1

#### **From youth to mid-life and beyond: Analyses from the Longitudinal Study of American**

Youth

This symposium will introduce the LSAY to SLLS members. The LSAY has followed a national sample of 5,900 public secondary school students over the last 26 years and continues to follow them. Approximately 5,100 participants are still alive and eligible for participation (in the country and not ill) and nearly 80% have provided periodic annual reports since 2007. These young adults are now at or approaching 40 years of age. The LSAY was designed to study the development of student interest and competence in science and mathematics during the secondary school years and the formation of career

plans, especially careers in science, technology, engineering, and mathematics (STEM) fields. The LSAY has also monitored the development of student interest in public policy issues involving science and technology, measured the development of civic scientific literacy in these young adults, and studied their engagement in the political process. To date, more than 40 dissertations and 200 refereed articles have been published from the LSAY data. The U.S. National Science Foundation has recently funded the initiation of a new cohort of 7th grade students in the U.S. in the fall of 2014, which will be parallel to the British Millennium Cohort Study and the German National Educational Panel Study (NEPS). This symposium will present an initial overview of the LSAY and then demonstrate its utility in separate analyses of (1) the development of civic scientific literacy in young adult, (2) the impact of student achievement in secondary school science and mathematics on career choice and mid-life success in those fields, and (3) the longer-term importance of early science learning on the location and utilization of health information in mid-life.

### **Introducing the Longitudinal Study of American Youth: A 26-year record of youth and young adult development in the United States**

*Jon Miller, University of Michigan, USA*

The presentation will describe the origins, sample, data collection program, and analytic use of the LSAY. The LSAY began with national probability samples 7th and 10th grade public school students in the U.S. in the fall of 1987 and has followed the same students for 26 years. The LSAY is built on a model of human learning that posits that individuals develop as the result of simultaneous influences from parents, peers, schools, teachers, media, and the community. Accordingly, one parent of each LSAY student was interviewed by telephone each year during the secondary school years and all science and mathematics teachers serving each student were asked to complete questionnaires or telephone interviews about their own background and classroom practices in each course. Additional school-level information was obtained annually from school principals. All of the students in the LSAY were geo-coded for their secondary school address and for all college and work locations since secondary school, providing a set of context variables that allow the characterization of neighborhoods and larger communities. Miller will illustrate how these numerous factors can be used analytically to study the growth of civic scientific literacy in young adults, reflecting a combination of formal and informal learning activities during the 26 years of the study.

### **Student achievement in secondary school science and mathematics and its mid-life consequences**

*Linda Kimmel, Jon Miller, University of Michigan, USA*

This presentation will examine how student achievement in secondary school science and mathematics influences several mid-life outcomes. Using a set of simple structural equation models (explained in non-statistical terms for audience members not familiar with this method), this analysis will trace the influence of secondary school achievement in science and mathematics to college admission, the selection of a major field of study, and graduate or professional study. The linkage between secondary school science and math achievement and mid-life outcomes is not simple or linear, but works through a number of intervening variables during the years after secondary school. A longitudinal record of the length of the LSAY provides useful opportunities to explore combinations of academic, personal, and social factors in this process. A second set of analyses will look at the influence of secondary and post-secondary science study on the development of young adult interest in selected science-related public policy disputes and in their ability to find and make sense of information about these issues.

### **The influence of early science learning on health information acquisition behaviors in mid-life**

*Jacqui Smith, Jon Miller, University of Michigan, USA*

This presentation will look at the influence of early science learning on young adult health information behaviors in mid-life. The participants in the LSAY have experienced the introduction and growth of the Internet. The first home Internet service in the United States became available in 1989 and most of the LSAY young adults first encountered computers in high school and the Internet in college or even post-graduate study. The combination of early science learning and the development of good Internet

navigation skills should provide a significant portion of these young adults with the ability to locate and make sense of a wider array of health information than any previous generation. This analysis will look at how young adults in their mid-30's reacted to the 2009 influenza epidemic in the U.S. and how the level of early science learning and measured Internet navigation skills influenced the acquisition of health information in reaction to this public health challenge. The results will indicate that young adults with a higher level of secondary science learning and with more college-level science courses were able to locate more relevant health information about the influenza epidemic, to make more sense of its meaning personally and societally, and to make better judgments about the credibility of various sources of information. A set of simple structural equation models (explained in non-statistical terms for audience members not familiar with this method) will be used to estimate the relative influence of multiple early and intervening factors in these outcomes. The final section of the paper will discuss the implications of these results on the likely health information acquisition behaviors of LSAY participants as they move into their 40's, 50's and beyond.

**6C SYMPOSIUM                      Differentiated modelling of social risk and the development of early oral language and reading skills**

14:30 - 15:40

Room: 342

A number of studies have demonstrated the relationship between what might loosely be described as “social factors” and early measurements of attainment, namely language, school readiness and early reading skills. Yet the timing and the approach taken to the measurement of both predictors and outcomes is rarely considered in any detail. We are proposing a symposium comprising three papers, all of which look at different ways of addressing these issues. The first paper (Law) draws on data from the “Children in Focus” sample of the ALSPAC cohort recruited in the 1990 in the West of England and, using OLS regression, asks whether a composite measure of social risk is sufficient to account for attainment at two years (language development) and then five years (school readiness) or whether it is what parents actually do (accessing libraries, teaching the child, social support, creche attendance, permitting tv watching) with their children that make the difference in the target outcomes. The second paper (King) looks at the way that maternal education changes over the first seven years of a child’s life in the Millenium Cohort Study (MCS), affects word reading at seven years as the outcome and asks the question ‘as mothers accrue more education does this affect outcomes for their child in middle childhood?’ The third paper (Rush) uses the same data source (MCS) and the same outcome (word reading) but in this case splits the outcome into quantiles and test (using quantile regression) whether a range of early social and other factors have a differential affect on different levels of the outcome. The work for these analyses was funded by the Department for Education in the UK and the National Health and Medical Research Council in Australia.

**The role of expressive and receptive language relative to socio-demographic factors in predicting school readiness**

*James Law, Newcastle University, UK*

**Background:**

Social disadvantage is clearly an important driver of early attainment but it remains unclear whether social factors operate in a consistent fashion across the preschool period and whether expressive and receptive language are equally important in predicting ability at school entry.

**Method:**

This study examines data from 965 children from the UK’s ALSPAC cohort, a representative birth cohort of children born in the England in 1990. A range of within-child (gender, birth weight) and socio-demographic factors (social risk, post natal depression, parenting, social support, use of library facilities, book reading, TV watching and whether the child had been to a crèche by 24 months) and language (vocabulary at 15 and 24 months, comprehension at 25 months) were included as predictors in the models. We also included a separate composite model of risk to check whether disadvantage was the primary driver.

#### Results:

Most of the included variables predicted at a univariable level. Many of the more proximal questions – for example about maternal enjoyment of the child, predict language at 24 months but have dropped out by 5 years. Gender, the HOME Book ownership and the 15 month vocabulary predict 24 month vocabulary ( $r \geq 0.573$ ). In the final model for school readiness, age, the composite measure of social risk, parental teaching the child, and both verbal comprehension and whether the child was combining words at 24 months, are in the final model ( $r^2 0.425$ ).

#### Conclusions:

Social factors clearly play a role in predicting both early expression skills but, whereas specific activities are important to 24 months, the more generic, composite model of social risk plays a stronger role by school entry. Verbal comprehension is a more salient predictor of school readiness than expressive skills although both remain in the final model. Implications for practice will be discussed.

### **Does increasing maternal education affect child attainment at seven years?**

*Tom King, Newcastle University UK*

#### Background:

Children develop their oral language at different rates which yields diversity in ability at every age and concomitant differences in readiness and participation. While biological factors are shown to affect infant cognitive development, these influences broadly wash out by middle childhood leaving population models dominated by psycho-social factors.

Consequences of extreme poverty such as poor nutrition and understimulation have an effect on impaired cognitive outcomes but maternal educational level has a stronger association with the full range of cognitive attainment. However, in trying to understand the developmental life course of the child, the influence of parents is often viewed through the lens of opportunity and aspiration (contra poverty). Thus parental influence is generally constructed as being fixed and neglects the varied and shifting life courses followed by parents such as advancing their own educational development.

#### Method:

Using the UK's Millennium Cohort Study, we analyse the effect of changing maternal education in the first few years of the child's life, in relation to the mother's age, on word reading at age 7 years.

#### Results:

We find substantial experience of education, with around 10% improving on their highest academic qualification and some significant relations to the child's single word reading scores. Mothers aged under thirty show complicated interaction of age and education level while others are more consistent, given the relation to parity, but complex relations to missing data are also observed.

#### Conclusions:

Typically social policy around parents of young children is directed at educational quality and parenting behaviours which focus on the life course of the child. This neglects an increasingly common experience of normal childbearing interrupting continuing education which still seems to benefit the child's cognitive development albeit possibly not so much by age 7 as if already achieved by the child's birth.

### **The relative importance of key variables on word reading using quantile and OLS regression**

*Robert Rush, Queen Margaret University, UK*

#### Background:

A great many studies have identified a relationship between a range of independent variables and academic performance in childhood. The majority of these rely on OLS modelling but it is likely that these "average" relationships may obscure associations that operate differently at different parts of the distribution of the outcome. To address this issue we adopted a quantile regression approach.

#### Method:

Drawing on data from the UK's Millenium Cohort Study we used quantile regression to model the outcome of choice, the word reading scale of the British Abilities Scale given to the over 12,000 children still in the sample at seven years. The following factors were included parenting, early child development, home factors, prior academic attainment plus a series of control variables gender, the OECD measure of socio-economic status and whether the child was small for dates. The analysis was undertaken using a complete case and dataset imputed using MICE.

#### Results:

For many of the factors the results of the quantile regression was more informative than an OLS approach, providing estimate differences with both the conditional mean and within quantiles. Boys performed poorly at the lowest percentile but better at the highest percentile, Parenting beliefs was important for the mid to lower percentiles, and Reading to the child at sweep 2 and library trips at sweep 3 is important for the lower scorers. Similarly the child parent relationship is predictive of the lower but not the higher scores.

#### Conclusions:

The quantile approach can add value to the OLS where the research question dictates. Clearly care needs to be taken to assess variability across a range in the outcome rather than overreliance on the conditional mean.

#### **6D SYMPOSIUM**

14:30 - 15:40

Room: 338

#### **Mission possible: IMPACT-BAM model for evaluating alternative mid-life approaches to promote better aging**

The world is ageing rapidly. United Nations data show the global population aged 65+ years was 0.5 billion in 2010 and will rise to 1.5 billion (15% of total) by 2050. Policy development is vital in order to identify effective ways to maximise health and maintain physical and cognitive function in older people. A 65 year old in the UK on average will live another 19 years, but almost half that time will involve some form of functional impairment. Simulation models, as currently applied to questions such the explanation of the recent decline in coronary mortality, may be valuable in comparing strategies for compressing morbidity. Such models must of necessity integrate several data streams. These include common health states defined by chronic diseases and functional impairments and their combination, together with mortality rates and the epidemiological effects of modifiable risk factors. The challenge is to apply Occam's razor: model complexity needs to be minimised without sacrificing realistic representation.

This symposium will present initial work on three aspects of a programme of research aiming to model population impacts of changes in the modifiable determinants of age-related functional decline. The collaboration between the University of Liverpool and UCL is directed at development of the IMPACT-BAM Better Ageing Model. A key focus is the extent to which level of risk factor exposure in mid-life influences functional decline. Paper 1 examines the association between quality of social relationships in mid-life and cognitive decline based on longitudinal analysis of Whitehall II data. Paper 2 presents the pilot version of the IMPACT-BAM Markov model, incorporating health states of cardiovascular disease (CVD), cognitive impairment, functional impairment, and CVD and non-CVD death. Paper 3 examines the longitudinal association between cognitive decline and functional impairment, with particular attention paid to reversibility of states of functional impairment.

#### **The psychosocial approach: Social relationships in mid-life and cognitive decline**

*Jing Liao, Jenny Head, Meena Kumari, Mika Kivimaki, Archana Singh-Manoux, Eric Brunner, University College London, UK; Stephen Stansfeld, Barts and the London School of Medicine and Dentistry, UK*

Background: Delaying and preventing cognitive decline is a major challenge for individuals and society. Preceding diagnosis of dementia by up to 12 years, age-related cognitive decline offers a prodromal stage where interventions could be targeted before changes are irreversible. Social relationships are predictors of mortality in older people, and have also been proposed as cognitively protective in old age. The hypothesised neuro-protective effect of social relationships is of substantial public health relevance, as a potentially modifiable risk factor for dementia. This study investigates the impact of mid-life quality of close relationships on subsequent cognitive decline, examining both positive and negative aspects of social relationships.

Methods: Whitehall II study participants (n=5,873, aged 45-69 at first cognitive assessment) provided executive function and memory scores three times over 10 years. Mid-life negative and positive aspects of close relationships were assessed twice by Close Persons Questionnaire in the 8 years preceding cognitive assessment.

Results: Negative but not positive aspects of close relationships were associated with cognitive decline. Participants reporting higher levels (top vs. lowest third) of adverse close relationships experienced -0.04 (95% CI: -0.07,-0.01) faster 10-year decline in executive function, adjusted for socio-demographic and health status. Longitudinal analysis found no evidence of reverse causality.

Conclusion: Negative components of the closest relationship (adverse interactions giving worries, problems and stress, and lack of adequacy of support) predicted accelerated cognitive decline. Although replication is needed, this study highlights the importance of differentiating aspects of social relationships to evaluate their unique health effects.

### **IMPACT-Better Aging Model: comparing the impact of mid- to late-life risk factor trajectories on cognitive decline and disability in the population**

*Maria Guzman-Castillo, Piotr Bandosz, Simon Capewell, Martin O'Flaherty, University of Liverpool, UK; Sara Ahmadi-Abhari, Jing Liao, Martin Shipley, Eric Brunner, University College London, UK*

Background: The relation between modifiable risk factors and physical and cognitive decline is an evolving key aspect of the epidemiology of the ageing process attracting increased research attention. In this context there is considerable scope for prevention of these adverse ageing outcomes by lowering the residual components of vascular risk. However, this is a complex time-varying relationship, particularly regarding the timing of mid to late-life risk factor trajectories effects on outcomes.

Methods: We proposed a discrete-time Markov chain to model the progression of disease-free birth cohorts in England into different health states over a time horizon of 20 years. In the model, individuals can move between states characterised by the presence of cardiovascular disease (CVD), vascular dementia (VAD), Alzheimer's (AD) and physical impairment. These transitions between states are governed by age and sex dependent probabilities extracted from observational studies and the literature.

Results: IMPACT-BAM provides a wide range of outcomes split by gender, age and calendar year: number of individuals in each health state; number of deaths (CVD and Non-CVD); number of life years with and without CVD, dementia or physical impairment; life expectancy with and without physical impairment and quality adjusted life years.

Conclusions: IMPACT-BAM can explore different scenarios where levels of risk factors in the simulated population are targeted by specific policy interventions at different time points on the age and calendar time scales, thus making model outputs more relevant when evaluating the timing of specific public health interventions in ageing populations.

### **Input data for IMPACT-BAM: Quantifying the dynamic relationship between cognitive decline and functional impairment**

*Sara Ahmadi-Abhari, Martin Shipley, Jing Liao, Maria Guzman-Castillo, Eric Brunner, University College London, UK; Piotr Bandosz, Simon Capewell, Martin O'Flaherty, University of Liverpool, UK*

Background: Quantifying the association between cognitive (CI) and functional impairment (FI) is crucial for modelling age-related functional decline.

Methods: Data were drawn from the Whitehall-II cohort-study at Phase 9 (2007-2009; 6146 participants, mean(SD) age 65(6.0) years, 72% male) and 5 years later at Phase 11 (2012-2013). For this analysis, CI was defined as mini-mental state examination (MMSE) score<27, and FI as one or more disabilities on the activities/instrumental activities of daily living (ADL/IADL) scales.

Results: Prevalence of CI increased from 7.3% to 10.3% from Phase 9 to 11. Among individuals with CI at Phase 9, 32% were free of CI at Phase 11, and 20% declined by  $\geq 2$  MMSE points. Prevalence of FI increased from 18% to 23% from Phase 9 to 11. There was considerable change in FI status over 5 years: 25% of those with ADL-disability and 34% with IADL-disability at Phase 9 were free of disability at Phase 11. Of those free of FI at Phase 9, 13% reported FI 5 years later. Lifestyle factors at age 55 predicted progression to and recovery from FI at 65-70 years (Phases 9/11). Age-sex adjusted OR (95%CI) for improvement in FI status was 1.95 (1.25-3.07) for non-smokers vs. smokers and 1.28 (0.91-1.79) for physical activity. Participants with CI were more likely to have FI than those without (28% vs. 16%). The age-sex adjusted OR (95%CI) for IADL impairment was 1.86 (1.38-2.51) comparing those with and without CI, correspondingly 1.64 (1.23-2.20) for ADL impairment.

Conclusion: There is rapid progression to, and recovery from, functional impairment among older people, which should be considered when modelling such conditions. Lifestyle factors in mid-life were not only associated with rates of progression to functional impairment, but were also associated with higher likelihood of recovery if such conditions developed later in life.

## **6E SYMPOSIUM      Life Study: Innovations in design and data**

Room: 336

### **Life Study: Design and vision**

*Carol Dezateux, University College London, UK*

The Life Study is an innovative world leading birth cohort study which will support cross disciplinary research across the social sciences, the biomedical and the life sciences. Life Study is designed to investigate a wide range of influences operating in early life, which have implications for children's health, well-being and development and for the adults they will become. Five major research themes will be explored: inequalities; diversity and social mobility; early life antecedents of school readiness and later educational performance; developmental origins of health and ill-health in childhood; social, emotional and behavioural development; the interplay between infant and parent; and neighbourhood and environmental effects on child and family.

Life Study will follow the lives of more than 80,000 babies and their families from across the UK. Its design and scale will provide exceptional opportunities to develop our understanding of the complex interplay between biology, behaviour and environment during early life and its influence on future health and wellbeing in areas of major importance to the lives of children and their parents. The insights it provides will be used to improve the lives of children and the adults they will become both now and in the future. Cross disciplinary collaboration is crucial to delivering that aspiration.

The Life Study design combines information collected from over 60,000 women during pregnancy from clusters of maternity units, with postnatal information from a nationally representative sample of 20,000 births, with follow-ups at 6 and twelve months and drawing strength from each component. It will lay the foundation for a continuing longitudinal study of children born between 2014 and 2018. This will position the Life Study firmly within the UK's powerful series of major birth cohort studies as the largest and most detailed birth cohort study ever conducted in the UK.

### **Approach to linkage to information from routine records in Life Study**

*Rachel Knowles, University College London, UK*

The rapid growth in electronic systems to capture individual level data, for example within health, education, employment and social care record systems, has led to increasing recognition of the value of routinely collected information to support a diverse range of health-related research. Importantly, these new data sources offer the potential for longitudinal linkage of existing individual records for the purposes of health-related research and specifically for the long-term follow-up of cohorts.

Several recent population-based and birth cohort studies in the UK have begun to realise the potential of record linkage to obtain information that is difficult and time-consuming to collect through survey questionnaires or

interview, such as detailed employment and social benefit data, as well as to access changes in individual status in the periods between major data sweeps.

Life Study is the first national birth cohort study in the UK to include data linkage prospectively from the point of recruitment, during pregnancy, into the cohort. Mothers and their babies will be recruited into the cohort during pregnancy and linkage to hospital data will provide access to a rich health dataset, in addition to that available through face-to-face data collection during pregnancy and the first year of their baby's life. Both parents will be asked to consent to linkage to routinely held records about their health, education and employment, as well as to their mobile phone use in order to explore the health effects of using mobile and wireless communications technologies. To enable the inclusion of data linkage, Life Study has drawn on the experience of previous research studies to develop a study methodology that overcome specific concerns around record linkage, such as avoiding disclosure when undertaking extensive individual linkage involving multiple sources, and the durability of individual participant consent in the face of ongoing technological advances.

### **Using data from Life Study: Some considerations on weighting, imputation and user interface**

*Francesco Sera, University College London, UK*

Life Study will be the fifth longitudinal UK birth cohort study and will gather data on up to 80,000 babies born in the UK beginning in 2014. The Study has a complex design that involves the integration of data from mothers sampled during pregnancy in a small number of clusters of maternity units, with data gathered from a nationwide representative sample of live births. There is a need to integrate these two components in order to present data analysts with a consistent interface that will allow efficient analyses of the full data set. In addition the study needs to deal satisfactorily with non-response and attrition.

Two basic approaches are discussed. In a "design based" approach a set of weight is developed to take into account the sampling design and non-response probabilities. This set of weights can be built using post-stratification, that is aligning the observed sample distributions using population based 'auxiliary variables' so that inferences can be made that are 'representative' of the target population. The other approach is to incorporate all such auxiliary variables (either as fixed or random effects) whenever models are fitted to the data. The two approaches will be illustrated with simulations based upon a simulated population of live birth in the UK meant to broadly mimic the structure of 'Life Study'. Auxiliary variables will include gender, locality, age of mother etc. derived from population data. Different scenarios and outcomes will be depicted based on different response rates and biases. The two approaches will be illustrated through using the newly released Stat-JR computing platform that incorporates procedures for efficient imputation.

## **PARALLEL SESSION 7**

### **7A SYMPOSIUM**

16:00 - 17:10

### **Evolving lifecourse processes and labour market outcomes in a time of recession**

Room: 340.1

The Great Recession had a dramatic influence on many lifecourse processes. Most obviously, there was a dramatic influence on income and labour market participation, usually resulting in a rapid worsening in position. Moreover, the recession also had influences on other processes also associated with later labour market performance- for instance engagement with education- with the implication that the effect of the recession may be built into early lifecourse characteristics among the young, with associated depression of later life outcomes.

It is worth noting, however, that many of the trends observed were emergent prior to the recession. While the recession may have altered social processes, the effect of the recession was not to induce new social phenomena, but to alter the speed or timbre of existing trends. Therefore, the aim of this symposium is twofold: to establish the nature of a number of labour market related trends in the post-recession era, but critically also to make comparisons to the pre-recession period. In addition, a key aspect of the recession was that the effects were not homogenous, but typically varied depending on individual level characteristics. Moreover, differential effects often depend on social and demographic processes such as family composition. Therefore in examining the effects of the recession, this symposium places an emphasis on differentiating effects by population sub-group.

The three papers included in this symposium reflect a range of both direct labour market and indirect outcomes, across a range of defining characteristics. In particular, we include papers examining trends in income across varying household compositions with a focus on income inequality. We further explore this trend by examining income within households by gender, with a particular focus on the emergence of female breadwinners. Finally, we examine indirect effects of the recession and the potential influence on educational engagement among young people.

### **Young people and the Great Recession in the UK: Impacts on achievement related attitudes and behaviours**

*Ingrid Schoon, Mark Lyons-Amos, Institute of Education, UK*

The teenage years are a critical formative period for later achievements where young people develop aspirations and motivations towards the future and take first steps in pursuing a career path. Against the backdrop of the current economic crisis this paper examines how the societal context affects youth's responses to the economic crisis. We adopt a developmental-contextual perspective, assessing the role of multiple interlinked influences. Do local labour market conditions play a role in determining educational aspirations and choice over and above parental socio-economic resources? Previous research conducted between 1980 and 2005 suggests that local unemployment rates have a positive association with enrolment in post-compulsory education, although the evidence is not univocal. In this study we add to the literature by investigating the impact of the recession on educational aspirations as well as subsequent behaviour using successive cohorts who were aged 11 between the period 1991 and 2012.

We draw on data collected for the British Household Panel Survey (BHPS) and Understanding Society, two nationally representative household based surveys which followed individuals in yearly waves since 1991, including a British Youth Panel of 11-15 year olds. In our analysis we focus on younger age cohorts born between 1980-84, 1985-1989, and post 1990 to take into account age, period and cohort effects and enabling us to separate effects from the current economic downturn from previous trends. Each of the age cohorts comprises about 1000 individuals.

### **Designing instruction to enhance achievement of all and reduce inequality: a life-course approach**

*Nicola Pensiero, Institute of Education, UK*

Much of the controversy regarding the best way to teach children focuses on finding a balance between providing a common instruction to all students and targeting instruction to students' idiosyncrasies. Tracking and streaming have often resulted in high inequality in the distribution of achievements as high achieving students gain at the expenses of low-achieving students. They have also often resulted in unequal learning opportunities, at the detriment of students from disadvantaged backgrounds. A common provision, on the other hand, may not use in an optimal way the academic potential of highly achieving students. It also generates an excess of academic failure among those who fail to meet the targeted academic standards given the common inputs, but who have the potential of achieving those standards given additional inputs. This article discusses a theoretical framework for the provision of a mixed instruction which combines per each student common and targeted inputs in order to pursue the dual mandate of enhancing achievement of all and reducing inequalities. The mixed provision responds to the difficulties, delays and needs that students experience throughout their school year by increasing the targeted and flexible component. The focus is shifted from finding the best way of dividing students in groups/tracks to finding the best portfolio of common and targeted inputs per each student. The analysis of the implications in terms of skill inequality of a mixed provision shows that there might be a trade-off between efficiency and equity for different levels of self-productivity in skill formation.

### **The recession empowers women? A study on the effects of male unemployment on women's contribution to the household income**

*Elena Cottini, Università Cattolica del Sacro Cuore, Italy; Agnese Vitali, University of Southampton, UK*

In the recent years, advanced societies have witnessed an increase in the women's contribution to the household income. For an increased number of couples, ranging from 7% to 21% across European countries, women now represent the main household income provider, or, at least, contributes about the same share of income with

respect to their partners. It has been argued that the recent increase in female labour force participation and women's contribution to the household income are linked to the increases unemployment rate for men observed during the recession that followed the 2008 economic crisis. This assertion is based on the observation that male-dominated economic sectors (e.g. manufacturing and construction sectors) where the most harshly hit by the recent recession. However, to the best of our knowledge, this hypothesis has not been demonstrated empirically. Our paper aims to close this gap by studying whether increase in the women's contribution to the household income in Europe is related to their partners' experience of unemployment. The paper uses the most recent four-year household panel dataset from the European Survey on Income and Living Conditions (EU-SILC) for 27 countries in Europe and covering the period between 2008, i.e. before the recession had begun, and 2011, i.e. when the recession had spread throughout Europe.

## **7B SYMPOSIUM**

16:00 - 17:10

## **The Accumulation of Life Course Experiences and Mortality**

Room: 348

A core assumption of the life course perspective is that one's cumulative experiences and patterns across the life course shape key events and outcomes. A growing body of evidence using long-term longitudinal data supports this assumption but also highlights the complexity of these accumulative processes and the insights they can provide. This symposium will focus on life course patterns across several different domains (immigration, marriage and family, and socioeconomic status) and examine how these processes relate to the mortality of U.S. men and women. The papers in the symposium use new data from two long-term longitudinal data sets – the National Longitudinal Surveys of Older Men (NLSOM) and the National Longitudinal Surveys of Mature Women (NLSMW). These NLS surveys, which began data collection on defined birth cohorts of U.S. men and women in the late 1960s, provide several decades of data on work, family, and financial resources as respondents moved through midlife. Data collection ceased for the NLSOM in 1990 and for the NLSMW in 2003. Papers in this symposium report findings on newly matched mortality data that include mortality information through 2012. The merged data provide a unique resource that combine detailed long-term longitudinal information across mid and later life with information on date of death.

### **Does the mortality advantage persist for second, and third generation immigrants?**

*Melissa Hardy, Katherine Pearson, Penn State University, USA; Eliza Pavalko, Indiana University, USA*

The few studies that have examined mortality differences among U.S. native-born and foreign born men argue that Foreign born men have a mortality advantage. We use newly matched mortality data for the National Longitudinal Surveys of Older men to study the generational structure of this mortality advantage and the rate at which this advantage decays across generations. The 1906 to 1921 birth cohorts of men reflect the last major waves of immigrants before the precipitous decline just before, during, and after World War II. These first, second, and third generation immigrants also mirror the major shifts in immigrants' countries of origin—from northern Europe, to southern and eastern Europe—as well as the very high rates of ethnic homogamy. Our estimates of the foreign-born mortality advantage among white men are consistent with previous research. In addition, we find that this nativity gap characterizes second and third generation immigrants, although the gap narrows with each successive generation. This differential also persists when we control for variability in childhood circumstance, and it is only partially explained by respondent's adult socioeconomic status attainment. Although positive selection of immigrants has been the preferred explanation for this mortality gap, these findings are also consistent with the argument that key cultural factors were partially reproduced across early generations, but as acculturation increased, mortality rates equalized to those whose ancestors had been among earlier settlers.

### **The role of marital history and race in shaping the mortality patterns of a transitional cohort of women**

*Melissa Hardy, Adriana Reyes, Penn State University, USA; Eliza Pavalko, Indiana University, USA*

The benefits of marriage for health and longevity have been well established, with more recent studies exploring not just marital status, but also the role of marital history in these processes. For example, Hughes and Waite (2009) have shown that past marital disruptions increase the risks of chronic conditions and health limitations, as does the total amount of time spent married. We build on this line of research using the National Longitudinal Survey of Mature Women (1922 to 1937 birth cohorts) to examine how differences in marital history effect longevity using 35 years of survey data matched to administrative records on deaths as of 2012. In addition, we explore how the impact of

marital history varies by race. We use Cox proportional hazard models to estimate the impact of marital history on longevity for 4,149 women. Controlling for age, cohort, education, family background, and age at first marriage we find that women who have been divorced have 24% greater odds of mortality, however the impact of divorce on mortality is about 33% smaller for blacks than whites. We also find that women who give birth at older ages have lower odds of mortality, but that the black/white gap in mortality is larger for women who give birth at older ages. In our next step, we will incorporate the length of spells in marriage versus years of marital disruption. Thus far, we find that the marital histories of black and white women are different as is the effect of marital history on longevity. Black women may not get the same financial security from marriage as white women, thus it may be less important for their health and mortality.

### **Socioeconomic status across the life course and the mortality of black and white U.S. women**

*Eliza Pavalko, Indiana University, USA; Joseph Wolfe, University of Alabama-Birmingham, USA; Melissa Hardy, Penn State University, USA*

A growing body of research points to the cumulative impact of socioeconomic status at different points in the life course for later life health and mortality but we know far less about how the health protections and risks from socioeconomic advantage differ for blacks and whites. This question is especially salient in the United States given the vastly different economic opportunity structures that have historically been available for Blacks and Whites. In this paper we use information on socioeconomic status during childhood and at midlife from the National Longitudinal Survey of Mature Women (born between 1922 and 1937).

These life course records are matched with administrative records on mortality through 2012, allowing us to examine the relationship of different components of child and adult SES to mortality for both black and white women. Preliminary results suggest that among black women, socio-economic advantage as a child has little impact on mortality, while among white women, having a parent with more education is associated with lower mortality. We also find differential returns to adult SES for black and white women, with white women receiving returns for mortality from education and employment while black women do not. For both black and white

women, income and assets at midlife are associated with mortality. Given the importance of financial security at midlife, our next step will be to examine whether financial strain at midlife provides additional insights into the mortality risk of black and white women.

**7C SYMPOSIUM**      **Educational research in Germany: A dialogue between policy, administration and research**  
16:00 - 17:10  
Room: 342

Hans-Günther Roßbach, Jutta von Maurice, Leibniz-Institute for Educational Trajectories, Germany; Norbert Maritzen, Ministry of Education, Germany; Alexander Renner, Federal Ministry of Education and Research, Germany

**7D SYMPOSIUM**      **Immigration and life course regulations: Insights from different levels of analysis**  
16:00 - 17:10  
Room: 338

During their life, and especially in periods of transitions, people are required to deal with a number of adjustments. The challenges are more complex for members of foreign groups (i.e., immigrants). Individuals and groups deal with these challenges by deploying a wide variety of strategies, symbolic or instrumental. The complexity of these processes can be grasped through different methodological approaches and on different levels of analyses, from societal to individual levels. This is what we try to do in this symposium.

The paper presented by Barbeiro and Spini focuses on the individual and intergroup levels of analysis, by studying how individuals deal with threats to identity linked to the belonging to a minority group. These processes are put in evidence through a biographic approach to the life-stories of immigrants. The paper by Bakouri and Staerklé looks at the experiences of young people during the transition to adulthood, situating the analysis on the meso-level of interactions. The paper highlights the importance of psychological connections with relevant in-groups on the empowerment of young people, and the specificity of this role for immigrants. The paper by Guarin focuses

on the timing of union formation by immigrants of first and second generation. This macro-level approach uses panel data to highlight the dynamics of the long term processes of adaptation of immigrants, which happens across generations.

The discussion of these papers focuses on the possibilities of articulating insights results drawn from different types of data and research methods to understand the processes and transformations elicited by immigrating to a different country, within a life course perspective.

### **Experiences of injustice, threats to identity and coping strategies: Life-stories of Portuguese immigrants in Switzerland**

*Ana Barbeiro, Dario Spini, University of Lausanne, Switzerland*

Abstract. Being members of a foreign group, such as immigrants, can imply experiences of threat to the identities of individuals, interfering with the identity principles of self-worth, continuity and distinctiveness. Social actors then deploy different coping dynamics in order to face these threats (Breakwell, 1986, 2000).

This research addresses the dynamics of threat and coping involved in the life-course of Portuguese immigrants in Switzerland. Twenty life stories have been collected through in-depth interviews and life-calendars. The analysis of the interviews puts in evidence the relationship between the perception of personal and group discrimination and the involvement in collective action. Avoidance and denial of personal or group discrimination are coping strategies accompanied by more instrumental strategies aiming for individual (intra and intergroup) mobility. For example, self-esteem and continuity were threatened by the fact that, during the 80s, workers were only allowed to stay in Switzerland for working, denying them the right to have a family life. Coping with this type of threat typically involved avoidance to thinking about the injustice of this situation, as well as focusing on the goal of obtaining a residence permit at the end of four consecutive work permits (which then allowed for family reunification). Individuals with a heightened sense of personal and group discrimination are more prone to engage in collective strategies to improve the situation of the ingroup.

The retrospective characteristics of the life story interview put in evidence the fluidity of identity, contextualizing the identity processes within the continuum of meaning making about the past, the present and the projects for the future. In this sense, reconstructing the own life-story is identity work in itself.

### **Individual and collective empowerment through in-group connectedness**

*Mouna Bakouri, Christian Staerklé, University of Lausanne, Switzerland*

During critical life transitions like the transition to adulthood, young people are required to actively deal with a number of adjustments. The challenges and demands are even more complex for members of socially disadvantaged groups (i.e., immigrants). In line with previous accounts of the critical role of co-agency during transitions, we argue that psychological connections with relevant in-groups can be a source of empowerment for those young people both at the personal and collective level, thus predicting: 1) better psychological well-being and 2) more readiness to participate in actions leading to structural change.

While previous group-based models of psychological empowerment are located at the intergroup level of analysis (empowerment through collective action), we focus in this study on the less explored meso-level of interactions in one's direct social environment, the importance of this level for the development of a sense of connectedness among similarly situated individuals, and the role of this (proximal) connectedness in empowering individuals both at the personal and collective level.

Using longitudinal survey data of youth populations (15-25) from different backgrounds (N=520), we develop and test a model according to which supportive interactions at the meso-level have an impact on ingroup connectedness which in turn enhances both one's sense of personal coping efficacy and well-being (individual empowerment), and the belief in collective efficacy to challenge unequal structural relations, thus leading to greater readiness to commit to structural change (collective empowerment).

Preliminary results provide support for this model, especially for those who are socially disadvantaged (immigrants), compared to more advantaged (native) participants.

## **Union formation among immigrants and their descendants in Switzerland**

*Andres Guarin, Laura Bernardi, University of Lausanne, Switzerland*

Recent developments in family and union dynamics make it difficult to establish a single and unidirectional relationship between family dynamics and integration (Macmillan 2005; Widmer and Ritschard 2009). For instance, the de-standardization of family forms has increased among immigrants and ethnic minorities as it has among native populations (De Valk 2011; Kulu and Gonzalez-Ferrer 2013; Kulu and Milewski 2007). The difficulty to establish a single and unidirectional relationship between family dynamics and integration of immigrants, allowed the emergence of a large amount of research on family transitions among immigrants in Europe; mixed marriages between natives and migrants (Dribe and Lundh 2012; González-Ferrer 2006; Milewski and Kulu 2013; Smith et al. 2012), formation (González-Ferrer 2006) labour market and professional situation (Andréo 2001; Billari and Liefbroer 2010; Bolzman et al. 2003; Dahinden 2005; Gauthier 2007; Settersten 2005), and economic situation (Alba 1985; Portes 1994). This research was complemented by research interested in children of immigrants; Fertility of descendants (Milewski 2011), transition to parenthood (Scott and Stanfors 2011), school contextual effects (Portes and Hao 2004), adaptation process in early adulthood (Bolzman et al. 2003; Portes and Rumbaut 2005; Rumbaut 2005; Santelli 2007), trajectories after school (Portes et al. 2005; Sweet et al. 2010) and economic situation (Algan et al. 2010).

Drawing on data from the Swiss Household Panel (SHP), we examine first union formation among immigrants and their descendants by comparing their pattern of behaviour to those of the 'native' population in Switzerland. The empirical evidence (Survival analysis and Cox models) shows that there are differences in the timing of union formation between the population with immigrant origins and the Swiss natives. Within the immigrant group, we also observe differences between those who arrived in Switzerland as adults and their descendants, who have been born or socialized in Switzerland from very early ages. The first union formation of the descendants of immigrants arrives latter than first generation immigrants. This empirical evidence speaks in favour of the adaptation (integration) hypothesis in relation to union formation: through generations, social norms of the host country are adopted and integrated in union behaviour of individuals with a migrant background.

### **7E SYMPOSIUM**

16:00 - 17:10

Room: 336

### **Engaging with complexity: Some methodological and ethical considerations for Life Study**

### **Do large scale cohort studies need to be 'representative' of a real population?**

*Harvey Goldstein, University of Bristol, UK*

Most large scale cohort studies have sought to create 'representative' samples from existing populations, either narrowly defined geographically (such as ALSPAC) or countrywide such as MCS. Where the sample design is complex weights are typically used to enable data analysts to make inferences relevant to such a population. More recently (see e.g. Rothman et al., 2013), the need for such representativeness, when carrying out analyses for scientific purposes, has been questioned. It is argued that the traditional survey concern to provide unbiased population and subpopulation estimates of for example means or proportions is largely irrelevant when making scientific inferences that are directed towards explaining group differences and exploring causal pathways using explanatory models.

Life Study, which started data collection in 2014, has a design that departs from previous studies by having approximately 75% of the sample chosen from clusters of maternity units while the remainder are representative of births throughout the UK. The case for this is that the principal purpose of the study is scientific where sampling pregnancies in maternity units allows important data collection during pregnancy. The remaining births can provide population estimates, useful for certain comparisons with earlier cohorts. Nevertheless, it can be argued that the 'real' population at any one time is itself of limited interest since its composition is changing over time, especially in terms of special groups such as ethnic minorities. For a cohort study with potential attrition the representativeness over time is of particular concern. The talk will discuss the advantages and disadvantages of having a representative sample, including problems

## **Ethical principles and practice in cohort studies**

*Rachel Knowles, University College London, UK*

Many complex ethical, legal and social issues arise in the day-to-day conduct of longitudinal cohort studies. Some of these issues are common to many studies, yet others may be specific to a particular research initiative. While researchers can learn from the experience of previous cohorts or longitudinal studies, some ethical concerns arise unexpectedly and researchers must develop a robust framework to guide their approach to such challenges. This paper will explore some key issues which are common to many longitudinal and cohort studies, including the following topic areas:

- 1) Informed consent and the stability of individual consent over the long-term, including where this may change be influenced by the changing clinical and legal status of study participants. This will include adults who lose capacity, as well as children who attain competence to consent during the course of follow-up. Novel methods, such as 'dynamic' consent using online systems for checking and altering consent appear to offer greater flexibility but may have significant drawbacks in practice.
  - 2) Confidentiality of personal data and avoidance of disclosure. In an era of electronic data systems and increasing concerns about data privacy, it is imperative that researchers maintain the trust of participants by achieving a balance between accessing valuable while protecting participants against information disclosure.
  - 3) Feedback of results or incidental health-related findings. A controversial area in recent years has been the feedback or return of results to participants. Cohort researchers who previously only captured survey data, are increasingly undertaking health measurements and collecting biological samples, thus the potential for returning individual results becomes ever greater. However there are serious questions about the interpretation of such results for participants, particularly when these have been collected in asymptomatic individuals or are the result of novel and experimental tests. This may make feedback unhelpful or even harmful.
- The talk will introduce these issues and participants are encouraged to contribute their own experiences and views to the discussion.

## **Giving fathers and partners a voice**

*Kathleen Kiernan, University of York, UK*

Compared with earlier decades fathers are much more likely to be engaged in their children's lives. Fathers are more likely to be present at ante-natal visits, at the birth of their child, to take paternity leave following the birth, to participate in the upbringing of their child and to contribute to the domestic domain. Paralleling these developments has been the growth in parental separation and an increase in the numbers of children born to parents who are living apart at the time of their birth. Non-resident parenthood, cross-household parenting, re-partnering and multi-partnered child bearing have made it more challenging for fathers to be involved in their children's lives. The Life Study has a core aim of involving fathers and co-parents (mother's partners) in the study. In this presentation we will report on the preparatory work, funded by the UK's ESRC and the Nuffield Foundation, which has been undertaken in order to assess how best to recruit, retain and track fathers in the study and to identify the key scientific questions and opportunities across the social, behavioural, environmental, and biological domains that Life Study is best placed to address relating to fathers and co-parents.

## Day 3 – Saturday 11th October 2014

### PARALLEL SESSION 8

#### 8A SYMPOSIUM      **Religiosity over the life course**

09:00 - 10:30

Room: 338

Secularization theories predict an intergenerational decline of religious practice and beliefs, which is based on processes connected with modernization, e.g. functional differentiation and rationalization. Empirically this development is well documented at least for most West-European societies. In our symposium we will (1.) deal with the question whether this macro development has an equivalent on the micro level of individual life courses. A similar development over the life course would strengthen the process of secularization while the opposing trend of people getting more religious while becoming older would weaken it. (2.) We ask for the causes of stability and changes of the religiosity over the life course and (3.) take a look at the consequences of religious developments for the life satisfaction.

Gergely Rosta investigates intra- and inter-cohort effects on religiosity in different European countries to answer the question to what extent religious changes are due to successive birth cohorts and to what extent they are effected by developments within the life courses of different birth cohorts. Klaus Birkelbach & Heiner Meulemann investigate the stability and development of the church attendance and its causes over the life course. The sample (Cologne High School Panel: CHiSP) consists of n=1301 former German high-school students, first interviewed in 1969 at age 16, and re-interviewed at the age of 30, 43 and 56. Daniel Lois takes a deeper look at one specific cause for stability and changes of religiosity. In a longitudinal study of n=2317 couples the processes of dyadic alignments of religious beliefs and practices are investigated. Heiner Meulemann investigates whether religiosity increases life satisfaction, while controlling for private and occupational success over the life course. Again, this research is based on the CHiSP data.

#### **Due to socialization or biographical change? An analysis of religious change in Europe**

*Gergely Rosta, University of Münster, Germany*

The religious change in Western Europe in the second half of the twentieth century is characterized through processes by which religion and especially its institutionalized form experienced a general decline. Empirical evidences of these processes have been provided several times (Bruce 2002, Norris/Inglehart 2004, Pollack 2009). Less explored is the question of whether declining aggregate rates of individual religiosity primarily reflect changes in personal religious biographies or rather result from the changing demographic composition of the society. David Voas, one of the few authors who have dealt with this issue in an international comparison, is convinced that secularization at the individual level is basically a result of a change in successive birth cohorts. (Voas/Crocket 2005, Crocket/Voas 2006, Voas 2009, Voas/Doebler 2011).

On the other hand, the majority of other authors who have conducted similar analyzes – usually with a reference to only one specific country – points to possible changes within the individual life course, too, which may both strengthen and weaken the decline of religiosity.

In this paper I deal with the following questions: Is micro-level religious change in Europe indeed primarily due to a demographic change of successive birth cohorts? To what extent this change is affected by changes within the cohorts? And are there differences between countries in terms of the mechanisms of the two potential effects? In order to check the hypothesis of Voas and his colleagues about the exclusivity of the cohort effect, I have chosen linear decomposition, a method which was already used several times for the investigation of intra- and inter-cohort effects on religiosity (Firebaugh/Harley 1991, Rosta 2007, Voicu/Constantin 2012). The cumulative database of the European Values Study (1981-2008) serves as empirical basis for my analysis.

### **Church attendance from youth to late mid-life**

*Klaus Birkelbach, University of Duisburg-Essen, Germany; Heiner Meulemann, University of Cologne, Germany*

The frequency of church attendance is investigated during the life course. In a first analysis, the following is expected: a positive impact of a Christian socialization and good intergenerational relations in the family – socialization and generational hypothesis; a positive impact of family attachments and occupational involvement and a negative impact of occupational success – self-transcendence hypothesis; a positive impact of experiences of illness and death – crisis hypothesis. In a second analysis, Christian convictions are controlled for additionally. In both analyses, the frequency of church attendance should increase monotonously – ageing hypothesis. The sample consists of 1301 former German high school students, first interviewed in 1969 at the age of 16, and re-interviewed at the age of 30, 43, and 56. Without control of Christian convictions the socialization hypothesis is confirmed for some indicators; the self-transcendence hypothesis is confirmed only for family attachments and the crisis hypothesis is not confirmed at all. With controls for Christian convictions the remaining effects are reduced. In both analyses, the ageing hypothesis is not confirmed.

### **Religious alignment in couple relationships: Determinants and consequences**

*Daniel Lois, University of the Federal Armed Forces, Germany*

A large body of empirical research has documented a high level of religious homogamy in couple relationships. Partners are commonly similar with regard to religious denominations as well as religious beliefs and practices. From a theoretical point of view, religious homogamy can be a result of three distinct mechanisms. First, marriage market structures predetermine similarity because persons with the same religious denomination or with similar religious habits have a higher chance to meet each other (assortative meeting). Second, similarity can be a result of the destabilizing impact of dissimilarity (assortative mating). Third, couples may actively strive for improving their match by harmonizing their religious habits over time. For example, one could think of an influence process in which Partner A moves into the direction of B's (previous) position (indicating B's influence), or vice versa; this pattern has been termed alignment.

In contrast to processes of assortative meeting and assortative mating, virtually no research exists concerning dyadic alignment in terms of religious beliefs and practices. Therefore, the present presentation aims at studying suchlike alignment processes in a longitudinal sample of 2,317 cohabiting and marital couples. With regard to religiosity, a common assumption is that religious beliefs and practices are largely determined by processes of early parental socialization. Because of this, the first and most general question is if individual religiosity can be modulated in adulthood due to the influence of the partner. Further, several factors like relationship satisfaction and marital status are studied which potentially moderate the magnitude of alignment processes over time. Finally, the so called resilience hypothesis is tested: It can be expected that the more effort partners have made to attain religious homogamy, the more committed partners become to each other and the more likely they are to refrain from ending the relationship because, after a breakup, they lose those costly investments for good.

### **Does religion make us happy? Religiosity and life satisfaction between early and late mid-life**

*Heiner Meulemann, University of Cologne, Germany*

As religion gives meaning to misfortune and injustice, religiosity should increase life satisfaction – nomization hypothesis. As life satisfaction engenders a positive world-view, it should increase religiosity – optimism hypothesis. Furthermore, religiosity should depend positively on the inculcation of the religion of origin and negatively on the reflection about religious questions during youth – inculcation and reflection hypotheses. Finally, life satisfaction should depend positively on life success during all mid-life – success hypothesis. These hypotheses are causally examined in a panel survey of 1301 former 16 year old German high school students of age 30, 43, and 56 using regression and covariance structure analyses. The nomization and optimism hypotheses are confirmed. Religiosity and life satisfaction are stable, yet religiosity even more. The inculcation, reflection, and success hypotheses are confirmed. The stability of life satisfaction does, the stability of religiosity does not increase, the impact of occupational life success on life satisfaction decreases, the impact of private life success increases.

**8B SYMPOSIUM**

09:00 - 10:30

**The benefits, limitations and challenges of cross-cohort analysis**

Room: 340.1

The aim of this symposium is to provide a discussion and overview of the benefits, limitations, and challenges of conducting longitudinal analysis using data across a number of different cohort studies. Three substantive papers will provide early results from life course research on separate, policy-relevant, subject areas namely income and child outcomes, cognitive decline in later life, and obesity. Each paper will combine presentation of preliminary results with discussion of the methodological challenges of conducting cross-cohort analyses. A fourth paper will discuss plans for a new 'Uniform Search Platform' that will facilitate cross cohort research by making the data from nine major UK longitudinal studies more discoverable.

The symposium is coordinated as part of the CLOSER programme and highlights work that has been completed in the first stage of two work packages funded as part of the programme. The symposium also showcases work funded under the Integrative Analysis of Longitudinal Studies of Ageing research network. A further aim of the symposium is to raise awareness of the growing number of initiatives (including the Society for Life course and Longitudinal Studies itself) which aim to promote analysis of data from across several different longitudinal studies.

**What has really happened to the links between family income and child outcomes over the last 50 years?****Updating the evidence using harmonised measures of income***Chris Belfield, Claire Crawford, Ellen Greaves, Institute for Fiscal Studies, UK*

Estimating how the relationship between parents' income and childhood outcomes has changed over time (across cohorts) is challenging, not least because income is measured in different ways in different surveys. The fact that only banded measures of income are available in some cohort studies makes this exercise particularly difficult. In order to draw reliable conclusions about how the relationship between parental income and child outcomes has changed over time, it is therefore vital to construct measures of income across cohort studies that are consistent and informative.

To impute income within bands, we build on the work of Blanden, Gregg and Macmillan and use detailed information about income collected in the Family Expenditure Survey and the Family Resource Survey. In particular, we use a wide range of consistent covariates, enabling us to account for variation in income by age, family composition, occupation and hours of work. We are also able to ensure consistency in other ways, for example by accounting for the different treatment of taxes and benefits across cohort studies.

In doing so we create continuous and consistent measures of income in each of the five major British cohort studies: the National Survey of Health and Development, the National Child Development Study, the British Cohort Study, the Avon Longitudinal Study of Parents and Children and the Millennium Cohort Study. This is a significant advance compared to previous work.

Using these measures we are able to re-estimate the links between family income and children's cognitive outcomes and how they have changed over time with greater confidence that our estimates are not biased by the use of inconsistent measures of income across studies. We are also able to extend the analysis to cover a larger number of cohorts in order to provide a longer-term perspective on this important issue.

**Integrative Analysis of Longitudinal Studies of Aging (IALSA): A coordinated analysis approach for modeling trajectories and determinants of cognitive decline***Graciela Muniz-Terrera, University College London, UK; Scott Hofer, Philippe Rast, Andrea Piccinin, University of Victoria, Canada*

The analysis of longitudinal observational data can take many forms and requires many decisions, with research findings and conclusions often found to differ across independent longitudinal studies addressing the same topic. Sensitivity of results to minor differences in model, potential for confirmation bias, and overfitting of model to data weaken the opportunity for replication of results. Differences in measurements, sample composition (e.g., age, cohort, country/culture), and statistical models (e.g., change/time function, covariate set, centering, treatment of

incomplete data) can affect the reproducibility of results.

The Integrative Analysis of Longitudinal Studies of Aging (IALSA) research network ([www.ialsa.org](http://www.ialsa.org); NIH/NIA P01AG043362) facilitates interdisciplinary, cross-national research on determinants and dynamics of within-person aging-related changes in cognitive and physical capabilities, health, personality, and well-being. The central aim of the IALSA research network is to optimize opportunities for reproducible research across heterogeneous sources of longitudinal data by evaluating comparable conceptual and statistical models at the construct-level.

In this talk, we will provide an overview of the issues for comparative longitudinal research, with examples for longitudinal data analysis of cognitive decline within a multi-study comparative framework. All issues discussed will be illustrated throughout the presentation with analytical examples of models fitted to cognitive scores from several ageing studies affiliated with IALSA.

### **The development of the obesity epidemic across age and time: Evidence from five United Kingdom birth cohort studies**

*William Johnson, Leah Li, Diana Kuh, Rebecca Hardy, University College London, UK*

Background: The United Kingdom (UK) has invested in a series of birth cohort studies, but the data have not been exploited to determine how the development of obesity as a person ages has responded to changes in the environment over time. This paper describes the harmonisation and analysis of body mass index (BMI) data across five cohorts and provides novel information on the obesity epidemic.

Methods: Data from cohorts born in 1946 (MRC National Survey of Health and Development), 1958 (National Children Development Study), 1970 (British Cohort Study), 1991 (Avon Longitudinal Study of Parents and Children), and 2001 (Millennium Cohort Study) were obtained and standardized procedures were employed to create harmonized datasets. Cohort and sex stratified analyses were performed and then comparisons were made across cohorts. The Lambda-Mu-Sigma technique was used to produce growth references before overlaying centiles from each cohort in plots. Mixed-effects regression was used to model weight status (normal weight, overweight, or obese) trajectories that were overlaid with 95% confidence intervals in plots to indicate where cohort differences in the probability of overweight or obesity existed.

Results: In total, there were 56,503 participants with 255,952 observations. The BMI data were increasingly more positively skewed in the younger cohorts, with the largest between-cohort differences at overlapping ages seen in the upper centiles. The mixed-effects models found greater probabilities of overweight and obesity in more recent cohorts at increasingly younger ages, such that the probability of obesity in the 2001 cohort was already double that in the 1946 cohort at age three years.

### **Developing a resource for facilitating cross-cohort analysis: Challenges and solutions**

*Jack Kneeshaw, University of Essex, UK*

Analyses conducted across birth cohort studies are being published with increasing frequency. 'Pooled analyses' - analyses of individual-level data pooled together from across a number of studies - provide very large sample sizes, increasing statistical power in the analysis of small population sub-groups or rare exposures. Equally, comparative cross-cohort analysis - usually comparing same-country cohorts beginning at different time points - is recognised as key to measuring inter-generational change.

Nevertheless, both types of analysis present methodological considerations absent in the analysis of a single cohort. Most obviously, any lack of consistency, equivalence or harmonisation in measurement across the original studies means that between-study variation in method must always be accounted for.

A key part of the MRC/ESRC-funded CLOSER programme ([www.closer.ac.uk](http://www.closer.ac.uk)) is the development of an online search tool that will help facilitate multi-cohort analysis. The CLOSER uniform search platform (USP) will bring together the metadata behind nine major UK longitudinal studies and make them discoverable in a single interface, replacing what is currently a fractured resource discovery landscape.

Holding all the metadata for the nine studies in one place will be an advantage in itself. However, there are a variety of challenges in establishing and flagging up associations between comparable items employed by the individual studies. First, metadata are not always designed for equivalence within a study, much less across studies: differing or non-existent naming conventions make correspondence difficult. Second, as the nine studies are separately funded and housed by different institutions, each has developed its own vocabulary: one study's 'passive smoking' might be another's 'second-hand smoke'.

This presentation outlines how the USP will address this lack of consistency across the cohorts by employing common metadata standards and vocabularies and establishing equivalences between items - both manually and via automation.

**8C PAPER SESSION      Transitions from education to work: The importance of context**

09:00 - 10:30

Room: 336

**The effect of educational attainment on economic outcomes through the Great Recession**

*Mike Vuolo, Purdue University, USA; Jeylan T. Mortimer, University of Minnesota, USA; Jeremy Staff, Pennsylvania State University, USA*

The rising costs of higher education, coupled with the increasingly prolonged and uncertain school-to-work transition, have prompted debate about the value of college degrees. Furthermore, many youth who begin post-secondary programs do not complete them. This paper examines the effects of educational attainment on economic outcomes during the Great Recession. Using data from the longitudinal U.S. Youth Development Study, we consider 5 attainment categories: those with a high school diploma or less, some college but no degree, Vocational/Technical degree, Associate's degree, and Bachelor's degree. Using random effects panel models, we compare outcomes both between educational attainment categories within a given year and within categories across years from 2005 to 2011 (ages 31-37), capturing the period before, during, and following the official recession. For employment status, subjective career attainment, and wages, those with Bachelor's and Associate's degrees, while experiencing slight decreases in 2009 at the height of the recession, are significantly better off than those with only a high school diploma or those with some college. While the latter two non-degree groups made gains when the economy was at its best (2007), these gains were eliminated during the recession, when the differences from those with 2- or 4-year degrees were accentuated. Those with Vocational/Technical degrees follow a unique trajectory: prior to the recession, they are mostly on par with Associate's and Bachelor's recipients, but are hit particularly hard by the recession and rebound to some extent afterward. Thus, we find great value in postsecondary education, even among a cohort who completed their school-to-work transition during relatively stable economic times. Those with Associate's degrees fared nearly as well as those with Bachelor's degrees both before and through recessionary times, while Vocational/Technical degree recipients recovered quickly, demonstrating the value of all degrees and the perils of starting but not finishing post-secondary educational programs.

**Educational and occupational pathways among immigrant youth in the US: The importance of embeddedness in social relationships 10 years later**

*Joanna Wu, Christy Lleras, University of Illinois, USA*

Within the United States, nearly all growth in the young adult population over the next forty years will come from immigrants and their U.S.-born children. While many immigrant youth face similar challenges, they also vary substantially in their access to family and institutional resources which may influence their ability to make a successful transition to adulthood. Utilizing national, longitudinal data from the adolescent (2002/2004), young adult follow-up (2006) and later adult follow-up (2012) surveys of the Educational Longitudinal Study (U.S. Department of Education), we examine the degree to which second generation immigrant youth are rooted in significant social relationships with parents, peers, teachers and in their communities and whether the potential and actual resources available from these relationships influence early educational and occupational trajectories. We find that second generation immigrant youth vary in the intensity and quality of relationships during the adolescent development period and these differences in part reflect differences between racial/ethnic groups, gender and by family socioeconomic status. The results from our hierarchical linear regression analysis also

indicates that schools play a significant institutional role in facilitating the kinds of opportunities during adolescence that build positive relationships among students and teachers, particularly with respect to expectations. Our results also indicate that immigrant youth who are embedded in their communities and are civically engaged are more likely to pursue a postsecondary educational pipeline that leads to higher status attainment in adulthood.

### **Diverging experiences of transition to the labour market in Germany: The effect of social background and labour market context**

*Wouter Zwysen, University of Essex, UK*

Growing up in a disadvantaged family is associated with lower education and less successful labour market outcomes. These effects may spill over to other life domains. The early steps on the labour market after leaving schooling are a crucial moment in which this cycle can be broken or is reinforced. To study a successful transition to the labour market, the demand side and labour market context must be taken into account as well. The uncertainty of a bad economic time affects the disadvantaged young adults more than the more advantaged. Information on household income, work situation, education and occupational status while someone is growing up is used to estimate whether someone works, the type of contract and the wage using random coefficient models for young adults, aged between 16 and 35 in West Germany between 1984 and 2011. At times of low unemployment there are few differences in employment and wage between young adults from an advantaged and a disadvantaged background. These differences increase rapidly as the unemployment rate rises however. Young adults from a disadvantaged family background are more vulnerable to labour market fluctuations meaning they need extra support if they have the bad luck of transitioning to the labour market during a downturn as this will affect their transition. The difference in average wage associated with entering a job at a very good rather than a very bad time is €0.58 for someone from an advantaged background, but it is €1.54 for someone from a disadvantaged background. Partly, this inequality may be due to the disadvantaged having less access to useful social networks to find a job. Studying the changing effect of family background over time without taking labour market conditions into account offers a biased view of societal changes.

### **8D PAPER SESSION      Interrelationships of parents and children**

09:00 - 10:30

Room: 342

### **The role of child psychological adjustment in explaining differentials by family income in educational development in middle childhood: Evidence from the Millennium Cohort Study**

*Richard Layte, Trinity College Dublin, Ireland*

#### **Objective**

This paper seeks to examine whether and to what extent the relationship between family income and child's educational development is mediated by the child's psychological adjustment whilst controlling for the level of parental investment as proxied by maternal education and parental time investment (help with reading, writing and maths). The paper offers a partial test of the value of the FSM hypothesis in explaining family income differentials in child educational development.

#### **Data and Methods**

We use data from the first four waves of the Millennium Cohort Study (MCS). The first sweep was carried out during 2001–2 and contained information on 18,819 babies in 18,533 families, collected from the parents when the babies were 9–11 months old. The families were revisited when the child was age 3, 5 and 7. Our analysis is based on 12,968 children whose families responded at all four waves. Child, parental and household characteristics were collected at all four time points, including a measure of household income. The Strengths and difficulties Questionnaire (SDQ) was administered at ages 3, 5 and 7. The British Ability Scale (BAS) Word Reading and Pattern Construction Scales were administered when the child was aged 7. Maximum likelihood path Analytic models are used to estimate the direct effects of household income on BAS Reading and Pattern Construction Scales and indirect effects via the a composite measure of the child's SDQ score at 3, 5 and 7.

## Results

In unadjusted analyses a composite measure of the frequency of low household income at all four waves was negatively associated with child BAS scores at age 7 and positively associated with child total SDQ score at ages 3, 5 and 7. After adjustment for maternal demographic variables and family investments in the child's educational development, path analytic models found significant direct and indirect effects of family income. Analysis showed that between 4% and 7% of the effect of income was mediated through child SDQ score.

## Discussion

Previous research using cohort studies from other countries has suggested that between a fifth and half of the effect of family income on educational development is mediated by the child's psychological adjustment, significantly more than found in this study. The different results across countries may be due to methodological differences but may also reflect real differences in the magnitude of income differences in educational development and the role of psychological adjustment in explaining these. The paper suggests some possible explanations.

### **The effects of family structure stability and transitions on young children's internalizing and externalizing behavior problems: A cross-national comparison**

*Mikaela Dufur, Kristie J. R. Phillips, Hannah Cox, Maia Roberson Greene, Tatiana Leavitt, Brigham Young University, USA; Shana Pribesh, Old Dominion University, USA*

A large body of research has connected family structure to a variety of child and adolescent outcomes; however, recent work focuses attention on more nuanced explorations of how a variety of family structures shape family mechanisms and processes (c.f. Boswell & Passmore, 2013; Golombok et al., 2013; Lamb, 2012; Dufur et al., 2010). Examining how these processes operate across different settings may help distinguish among theories concerning why children who live in different family structures have different outcomes; however, little cross-national or comparative research on family structures has been done (Bjarnason et al., 2012; McCulloch et al. 2000). Using data from the UK Millennium Cohort Study (First, Second, Third and Fourth Sweeps 2000-2008) and the US Early Childhood Longitudinal Study-Birth Cohort (First, Second, Third, and Fourth Waves 2001-2007), we examine the effects of duration in or transition to a variety of family types on young children's internalizing and externalizing behavior problems. We concentrate on four family types: two-parent intact family, a stepfamily, a single-parent family formed by divorce, or a single-parent family where the parents have never married; we then explore the potential relationships between duration in these family types and child behavior problems. Where sample sizes allow, we distinguish between single-mother and single-father families and between mother/stepfather and father/stepmother families. We hypothesize that disruption of family structure is linked to behavior problems. We further hypothesize that family structure disruption will exert stronger effects on behavior problems than will type of family structure. We examine potential differences between effects on internalizing and externalizing behavior problems. Finally, we compare findings across the UK and US data to look for potential differences in the effects of family structure and stability in different settings. Our analyses contribute to the ongoing debate on the extent to which family structure is influential on childhood outcomes.

### **Mothers' financial stress, social support and children's social, emotional and behavioural development**

*Morag Treanor, University of Edinburgh, UK*

The conceptual framework used in this paper is the Sustainable Livelihoods Approach (SLA) which explores families' ability to sustain a livelihood according to their assets and vulnerabilities. 'Vulnerability' is a central tenet of the SLA and a term that it distinguishes from poverty. The SLA posits that poverty, as measured by low income, can be reduced by borrowing, but that the resultant debt makes households more vulnerable. The SLA is usually applied qualitatively; however, this paper quantifies one of its asset/vulnerability categories, 'financial vulnerabilities'.

This paper examines the association between mothers' financial vulnerabilities, as measured by financial stress, and children's social, emotional and behavioural (SEB) outcomes for children living in persistently low income. It explores what impact maternal social support have on financial vulnerability and children's SEB outcomes. The dataset used is the Growing Up in Scotland study, a longitudinal birth cohort study of 5,217 children born in 2004-

5. The dependent variable, SEB outcomes, is measured by the average of the Strengths and Difficulties Questionnaire scores, taken at age 4/5 years. The method used is Structural Equation Modelling.

The results show that mothers living in persistently low income have higher financial vulnerabilities, which are significantly associated with lower SEB outcomes in their children. Also, many of the socio-demographic variables assumed to be important for children's SEB outcomes in the literature, such as family composition, young motherhood and maternal ethnicity, become insignificant once poverty and mothers' financial vulnerabilities are taken into account in the model. Maternal social support are shown to have a mitigating impact on both financial vulnerability and children's SEB outcomes.

### **Early life exposures and children's intelligence trajectories**

*Fiona Mensah, Lucas Tate, Kate Lycett, Melissa Wake, Murdoch Children's Research Institute, Australia*

Moving beyond previous understanding of intelligence as a stable trait, evidence of gains and declines relative to peers has suggested that a child's experienced environment exerts a vital influence. In this paper we examine children's intelligence trajectories, reflected in general cognitive ability, vocabulary and behaviour from ages 4 to 9, contrasting how strongly these are predicted by hypertension, diabetes, smoking and alcohol use during pregnancy and mother's and father's smoking and alcohol use in the post-natal period.

Analyses use the Birth cohort of the Longitudinal Study of Australian Children (LSAC) a nationally representative study initiated in 2004 including 5,107 infants aged 0-1 and their families (initial response rate 57%). Families and children have since been followed up biennially, most recently at age 8-9 in 2012-13 (4,085 families participating, 80% of the original cohort).

The routes through which parental health and health behaviours affect children's development are proposed to be of both a biological and social nature, for example, exposure to nicotine in utero via maternal smoking may have a direct biochemical influence on children's behaviour. Concurrently, agency and parenting behaviours associated with health may be an explanation for differential trajectories in children's outcomes. In our interpretation we consider the routes through which adverse parental health and health behaviours may impact children's intelligence and whether these may be modifiable via effective clinical and social interventions.

**8E PAPER SESSION      Lessons from cross-national research**  
09:00 - 10:30              Room: 348

### **Does upward social mobility make happy?**

*Robin Samuel, Andreas Hadjar, University of Basel, Switzerland*

Status is a major determinant of subjective well-being. This is a main assumption of Lindenberg and colleagues' social production function theory. From the perspectives of the dissociative hypothesis (Sorokin, 1959), however, upward social mobility may be linked to identity problems, distress, and reduced levels of subjective well-being because upwardly mobile people lose their ties to their class of origin. In this paper, we examine whether or not one of these arguments hold true for different welfare state regimes that are linked to distinct notions regarding social inequality and upward mobility. Longitudinal analyses based on panel data allow us to reconstruct individual trajectories of subjective well-being along with events of upward mobility – taking into account previous levels of subjective well-being and dynamic class membership. Using panel data from Switzerland, the UK, Germany, and Sweden we employ multilevel growth models and diagonal mobility models to estimate the effects of upward mobility on well-being. The models provide evidence for complex effects of social class and social mobility trajectories on well-being. Overall the findings seem to support the idea of dissociative effects of upward mobility. Our contribution shows the importance of accounting for the linear dependence of social mobility with origin and destination in generating policy-relevant results. Furthermore, the findings add to the literature on longitudinal effects of social.

## **What shapes children's development in low and middle income countries? Findings from the first four rounds of the Young Lives cohort study in Ethiopia, Andhra Pradesh (India), Peru and Vietnam**

*Paul Dornan, University of Oxford, UK*

The Young Lives cohort study has now collected four rounds of survey data on children and young people growing up in Ethiopia, Andhra Pradesh (India), Peru and Vietnam. The household and child survey first collected data in 2001/02 when the younger cohort were aged 1 year old, and the older cohort were aged 8. At the latest point of data collection (2013/14), the younger cohort were aged 12 years old, the older cohort 19 years. Alongside the main survey, qualitative information has also been collected on a sub-sample of participants and data is collected on children within their schools. Given the rarity of cohort data in low and middle income countries, Young Lives provides a unique, increasingly mature and powerful source of information on children in low and middle income countries. Using longitudinal methods, the study aims to extend understandings of the causes and consequences of childhood poverty, to help inform better social policy. Providing a synthesis of existing findings, supplemented with early evidence from the last round of data, the paper will explore conclusions emerging from the study, with a particular focus on relevance for social policy. The paper will draw on evidence from the four countries, focusing particularly on under-nutrition and the extent of evidence of physical recovery; education and learning trajectories and outcomes; and family formation and fertility by the fourth round of data collection.

### **Promise and challenge in using cohorts for dementia research**

*Elizabeth Breeze, Nicola Hart, Alzheimer's Society, UK; Dag Aarsland, Karolinska Institutet, Division of Alzheimer's Disease Research Center, Sweden; Catherine Moody, UK Medical Research Council; Carol Brayne, Cambridge Institute of Public Health, UK*

Dementia is a major public health challenge with 14 million cases anticipated in Europe by 2020, most of whom will live in the community. Cohort studies, by tracing changes over time, have the potential for use in exploring predictors of, pathways to, and consequences of, dementia. Also, they can be used for assessing the factors that limit adverse effects thereof. The Alzheimer's Society and the EU Joint Programme for Neurodegenerative Disease Research (JPND) undertook an exercise to collate information on cohort studies in Europe to see what was already measured and where the gaps lay. We found 158 cohorts covering people born in Europe throughout the 20th century and some new birth cohorts that are in planning or progress. There was no gender predominance. Gaps identified included low geographical coverage of Eastern Europe, insufficient ethnic variation, and as yet fairly limited scope for inter-generational research. Too few cohorts follow people through into very old age or long-term care. The Mini Mental State Examination is the most common instrument used in the studies but there are a variety of more detailed measures used to assess cognitive function making it difficult to combine studies. Identifying forms of dementia is problematic. Many cohorts include blood samples and collection of imaging data is becoming more feasible in studies of people living in the community. This talk will note some of the challenges for researchers in enhancing the usefulness of cohorts.

## **PARALLEL SESSION 9**

**9A SYMPOSIUM**      **Early childhood and housing: Exploring children's living situations and their implications for housing policy**  
11:00 - 12:30  
Room: 342

### **Housing conditions, moves and child wellbeing in the first five years of life: MCS – UK**

*Ludovica Gambaro, Heather Joshi, Institute of Education, UK; Anthony Buttaro, Mary Clare Lennon, New York University, USA*

In the UK Millennium Cohort Study (MCS) from 2001 to 2006, 46.5% of all children in MCS moved home by age 5, usually only once. Most (69%) started out in owned homes, 20% in social housing and only a few in other tenures. Their housing situations prior to and after residential moves are described. Mobility and some measures of child well being are related to housing tenure, neighbourhood conditions, household composition, housing quality, employment and family structure changes, among other issues. The analyses will be close to those in paper 2.

### **Housing conditions, moves and child wellbeing in the first five years of life: FFS – USA**

*Anthony Buttarò, Mary Clare Lennon, New York University, USA; Heather Joshi, Ludovica Gambaro, Institute of Education, UK*

In the Fragile Families Study (FFS) from US cities, 1999-2005, around 70 per cent of children moved home by age 5, with a substantial minority moving more than once. At the outset, 35% of the families were homeowners, 4 per cent in social housing and most families were other renters. The housing situations before and after moves are described. Mobility and some measures of child well-being at 5 are related housing tenure, neighbourhood conditions, household composition, housing quality, employment and family structure changes, among other issues.

### **What was the effect of the “great recession” on the mobility and tenure behavior of fragile families?**

*William Clark, University of California, Los Angeles, USA*

During the short decade 1999 to 2009 the US experienced one of the most sustained housing price booms and busts of the past half century. Many households, especially minority households were drawn into the housing market with housing policies which emphasized inclusiveness and outreach. We now know that many of these households were not able to sustain their newly found ownership but we know little or nothing about the outcomes for fragile families and their children. But it is just this issue which is at the heart of how to design an inclusive housing policy and one which will work beyond the cyclical changes in housing prices. This paper will examine the changes both at the national and local levels and reflect on how policy might be better targeted to fragile families.

### **Implications of the comparison for the development housing policy**

*Ruth Lupton, University of Manchester, UK*

What are the main assumptions on which housing policy has been historically based in the regimes in UK and USA at the times of these surveys of social and market housing? How well do they suit the circumstances found among families with young children? Did the provision of social housing in UK mean greater residential stability for poor families than those in USA? This paper will suggest implications of recent policy changes in UK and directions for future housing policy options.

### **Discussant**

*Jane Waldfogel, Columbia University, USA*

### **9B SYMPOSIUM**

11:00 - 12:30

Room: 338

### **Back to the future and return to the past: Personal and contextual resources for facing vulnerable conditions in Switzerland**

In this symposium we present four studies from different research groups associated with the Swiss National Centre of Competence in Research “LIVES – Overcoming vulnerabilities”. Adopting several psychological perspectives (such as, work and organizational, social, and applied psychology) and combining different methodological approaches (e.g., longitudinal perspective, retrospective life-calendar/appraisal) this symposium addresses the role of personal and contextual resources on individuals’ functioning and well-being at different life stages.

In particular, the first presentation assesses the stability of personal projects within a population of young-adults at different steps of their professional integration. Focusing on a middle-aged employed and unemployed population, the second contribution analyzes the possible evolution of personal and career resources over time, with reference to the professional situation. The third presentation explores the impact of contextual socio-economic conditions and emotional climates on the sense of hopelessness in a sample of middle-aged. Furthermore, the last contribution addresses notably the role of retrospective perception of happiness and vulnerability within an elderly population.

### **Young adults' projects: How stable are they and why?**

*Véronique Eicher, Aline Hofer, Mouna Bakouri, Marlène Barbosa, Christian Staerklé, Alain Clémence, NCCR-LIVES, University of Lausanne, Switzerland*

Young adults are faced with different developmental tasks and institutional transitions and they direct their development by defining projects (Brandstädter, 1989). Their success or failure in dealing with these transitions may in turn influence their future projects (Heckhausen & Schulz, 1995; Nurmi, 1993). In this 2-wave-longitudinal study, carried out within the framework of the NCCR LIVES, we explore the most important project of young adults over a period of one year. Participants (N = 333) are young adults aged 15 to 30 years at different stages of their professional integration (i.e., pre-apprentices, apprentices, high school students, and employees). Results show that participants, who indicated an educational/professional project in Wave 1 (e.g. become a lawyer), were likely to indicate this same project or a follow-up project one year later, while projects in the domain of family/relations (e.g., start a family) and hobbies (e.g., travel the world) were much less stable. Additionally, success or failure related to their project influenced the stability of their project, but not necessarily as expected: Successes, but also failures increased stability of this project. These findings show that the choice of projects is not always determined by previous success and failure. Instead people may also regulate previous failures by continuing their efforts to succeed in the same project.

### **(In)stability of personal resources in the current professional landscape**

*Christian Maggiori, Claire Johnston, Jérôme Rossier, NCCR-LIVES, University of Lausanne, Switzerland*

In the current professional environment that is marked –amongst others– by high job insecurity and demands, making career and personal resources (such as regulation skills, adaptability and self-awareness) essential to face continuously changing environments and to respond to new and frequent demands (Hall & Chandler, 2005). Individuals need to have skills that allow them to quickly adapt to a variety of situations and changes (Savickas et al., 2009), such as job transitions.

Considering different personal characteristic and professional conditions, the main purpose of this presentation is to analyse and discuss the evolution over time of the individuals' resources, focusing on career adapt-abilities (Savickas, 1997, 2005) and selection, optimization, and compensation strategies (Baltes, 1987; Baltes & Carstensen, 1997).

Data in this presentation are part of the first three waves of a longitudinal project on professional trajectories, named "Professional transitions and pathways" included in the Swiss National Centres of Competence in Research - LIVES. The sample consists of about 1'100 employed and unemployed adults living in Switzerland (25-55 years), with the third wave ongoing.

Using a longitudinal perspective, a series of repeated measure ANOVAs will be conducted to assess the possible evolution of individuals' resources (in terms of career adapt-abilities and selection, optimization and compensation processes) with reference to personal (e.g., age, educational level) and professional characteristics (e.g., job insecurity, job strain, professional transitions).

### **Reducing or exacerbating hopelessness: Life events, individual personality and contextual characteristics**

*Davide Morselli, NCCR-LIVES, University of Lausanne, Switzerland*

Depression and suicidal ideation are tightly linked to the lack of hope in the future. Hopelessness begins with the occurrence of negative life events and develops through the perception that negative outcomes are stable and pervasive. Most of the research has investigated individual factors predicting hopelessness. However, other studies have shown that the social context may also play an important role: disadvantaged contexts exacerbate the feeling that future is unreachable and hopeless.

In this study we investigate the role of shared emotions (emotional climates) on the sense of hopelessness during the second half of the life. Emotional climates have been defined as the emotional relationships constructed between members of a society and describe the quality of the environment within a particular community.

We present results of multilevel analyses using data from the NCCR-LIVES project «Vulnerability and growth» which surveyed 2832 Swiss residents, aged 40 to 92 years old, and nested into Swiss cantons. To explore the relationship between cantons' characteristics and hopelessness, contextual indicators were derived from the Swiss Household Panel and official statistics. Although hopelessness is mainly affected by individual factors as life events and personality, results show that cantons' socio-economic conditions and climates of optimism or pessimism have an effect on the individual perception of hopelessness. Individuals are more likely to feel hopeless after having experienced critical events (i.e. loss of the partner in the late life) in cantons with high rates of unemployment and with a high share of negative emotions. On the contrary, positive emotional climates play a protective role against hopelessness.

### **Trajectories of happiness and vulnerability: A retrospective appraisal of the life course**

*Nora Dasoki, Davide Morselli, NCCR-LIVES, University of Lausanne, Switzerland*

There are significant differences in the regulation of well-being according to the age of individuals, including the phenomenon of positivity with advancing age: compared to young people, elderly recall more positive and less negative events. Moreover previous studies show that negative and positive events respond to different memory processes: positive events are more linked to the social expectations and vulnerability to the historical context. With the increase of life expectancy and medical progress, elderly are more and more a heterogeneous population. The interest of this study is on the one hand to understand if within the elderly population there are cohort differences in terms of positivity effect. On the other hand we want test if perception of happiness and vulnerability act as two independent systems as found with positive and negative events. To test our hypotheses we used the Vivre / Leben / Vivere survey on a population of 65 years and older (N = 4200), in the three main linguistic regions of Switzerland. Subjective appraisals of their life course (happy and vulnerable episodes) were collected using a life calendar containing factual events.

Our findings show that the elderly report in general more happiness than vulnerability. But also that happiness and vulnerability respond to two different process of recalling. For happiness there are not cohort differences unlike vulnerability: the oldest cohorts are less likely to report episodes of vulnerability during most of their life. However in the World War II this trend is reversed: the oldest cohorts report more vulnerability than the youngest one. In the discussion several possible explanations will be advanced and discussed.

### **9C PAPER SESSION      Life course methodology: Conceptualization and measurement**

11:00 - 12:30

Room: 348

### **Allostatic Load as a measure of embodiment over the lifecourse? Conceptual and empirical considerations**

*Michelle Kelly-Irving, Cyrille Delpierre, Jerome Torrisani, Muriel Darnaudery, Pascale Grosclaude, INSERM, France*

The impact of the environment on our biological systems is summarized by the concept of embodiment. The notion of embodiment refers to the fact that every human being is both a social and a biological organism incorporating the world in which s/he lives. If embodiment refers to the concept of environmental adaptation, a key question is how to measure the biological expression of embodiment at individual and population levels? Allostatic load (AL) refers to the idea of biological multisystem wastage, whereby a strain on the body from repeated variations in physiological response leads to multi system fatigue over time. AL can be seen as measuring the global cost of adapting to and coping with the environment. Such wear-and-tear potentially predisposes the organism to disease or poorer functioning. Here, we discuss the usefulness of AL as a conceptual tool for capturing the notion of embodiment in lifecourse research. As a composite measure attempting to quantify multiple biological systems, it is constructed and used differently in numerous studies. From an analysis of the literature and experience in using AL empirically, we have identified five areas where conceptual and methodological issues deserve attention: 1) How to appropriately represent relevant biological systems; 2) How to choose the most appropriate biological markers to measure the state of each system; 3) How to build a score; 4) Age and gender appropriate measures of AL and 5) AL as a mediator in analyses. Overall, we consider AL as a useful conceptual tool in measuring the biological effect of embodiment that can play a role in the production of the social gradient of many chronic diseases. We have identified a number of issues that are worthy of further exploration and discussion with the scientific community to improve the operationalization of AL as a measure in lifecourse research.

## **Dynamics of vulnerability in explaining ethnic inequalities in cognitive ability**

*Laia Bécares University of Manchester, UK; Lidia Panico, INED, France (presenting), Elizabeth Webb, University College London, UK*

Longstanding evidence has documented ethnic inequalities in health, which have been partly attributed to lower socioeconomic resources and experienced racial discrimination. However, there is still substantial debate on the causal mechanisms behind ethnic health inequalities, and it is not clear when and how the ethnic patterning of chronic disease risk emerges during the early life course, and how this varies across ethnic groups. The exploration of the pathways leading to inequalities in health across ethnic groups exposes the extent and consequences of wider social inequalities, which reflect complex social structures and processes including interactions between ethnic status and migration history, and long-term effects of exposure to social and economic adversity during the life course.

In this study we apply a longitudinal lifecourse perspective to explore a possible pathway in the development of ethnic inequalities in health: cumulative socioeconomic and contextual vulnerability.

We analyse data from five waves of the Millennium Cohort Study (MCS; n=9178 with complete cases across from MCS1 to MCS5) to understand how a comprehensive measure of vulnerability predicts ethnic inequalities in cognitive skills. We create a factor of household vulnerability composed of household income, maternal education, housing conditions, perception of the neighbourhood, maternal education, maternal depression, and low birthweight. We examine the probability of being in the lowest tertile of the vulnerability score across ethnic groups through time, and use random effects multilevel regression models to examine how vulnerability scores predict ethnic inequalities in cognitive skills at age 11.

Early results show that some ethnic minority groups are more likely than the White group to experience multiple vulnerability across time. We find significant variation in cognitive scores at age 11 by ethnic groups, with Indian children performing better than White children, and the Pakistani and Bangladeshi groups scoring less well than the White majority group. This is partially explained by the cumulative exposure to household vulnerability.

## **Developing the transition concept**

*Jan StorØ, Oslo and Akershus University College, Norway*

The transition of adolescents from state protection care to independent living is receiving increased attention in many countries, resulting in a growing body of research. However, the concept of "transition" remains undeveloped within this research area. One main issue in comparative work between countries is language: how we define concepts and how we use them to analyze our findings and shape practice. As "transition" over the last decade has become one of the central concepts in the research and practice field of social work with adolescents, we need to reflect on how it is used: its possibilities, and its limitations. This can be useful for longitudinal studies.

Three literature reviews that focus on how the concept "transition" has been used in nursing research have been studied. Then selected research literature on young people's transition from state care to adulthood have been examined.

The authors of the nursing reviews see the concept as central in this field, and describe some "universal properties of transitions", for example that they are processes that occur over time – which differs them from the concept change. Meaning-making is central in the process, and for how the outcome is anticipated. This is parallel to the research literature on young people's transition from care. In the latter, the concept is not thoroughly discussed. It is to a large degree used as a technical term. Some issues can nevertheless be identified, for example a focus on the individual young person's process, and how this can be embedded in structural conditions.

I propose a discussion of the concept for better understanding the transition from care to independent living. Transition practices are diverse, but they may also follow some patterns. The relationship

between process and outcome is crucial, and also the time factor. Transitions are practiced individually, but are also influenced by structural factors.

### **Back-casting small area deprivation indicators for linking to cohort studies**

*Zhiqiang Feng, Chris Dibben, University of St. Andrews, UK; Jane Elliott, Institute of Education, UK*

Research on area effects on health at different stages of the life course is rare, largely due to a dearth of suitable data. Lack of contextual data at the local area level in the UK before 1981 has hampered the use of cohort studies like NCDS to study area effects from early childhood. This paper proposes a method of back-casting small area indicators from the UK census. The 1991 and 2001 census data were used to demonstrate the methodology. We aimed to estimate unemployment rates from the 1991 district level down to the small area level. These small areas were created as bespoke zones around cohort members' residential locations with a radius, say, 1km. The 2001 output area (OA) level data were used to aid the estimation. We estimated counts of economically active people and unemployed residents from 1991 districts to 2001 OAs respectively. Then we aggregated the estimated 1991 figures on the 2001 OAs up to bespoke zones. Finally we calculated 1991 unemployment rates for our bespoke zones. We assessed the accuracy of the estimated figures by comparing with the observed figures on a series of bespoke zones with different radii. A high correlation between observed and modelled figures was found and the root mean standard errors were small. Furthermore we tested whether the observed and modelled unemployment rates were similar in their ability to predict risk of limiting long term illness. Logit regression was used and parameter estimates were almost identical for both observed and modelled values. In conclusion, the back casting methodology produced a reliable set of simulated unemployment rates for bespoke geographies. This methodology can be applied to create estimates of contextual area characteristics for individual cohort member locations for periods before 1981 when small area level data were not available.

**9D PAPER SESSION      Intergenerational health and well-being relationships**  
11:00 - 12:30              Room: 336

### **Maternal mental health and child problem behaviour: longitudinal findings from the United Kingdom Millennium Cohort Study**

*Steven Hope, Jessica Deighton, Nadia Micali, Catherine Law, University College London, UK*

Much of the previous research linking maternal mental health with child and adolescent mental health outcomes has been cross-sectional, and/or based on clinical samples or populations which are not nationally representative. We investigated whether cumulative exposure to maternal psychological distress is associated with child problem behaviour at 7 years.

We carried out a longitudinal analysis of the United Kingdom Millennium Cohort Study (MCS), using data from 10,482 singleton children who participated in four sweeps of the study (at ages 9 months, 3, 5 and 7 years). Behaviour was measured using total Strengths and Difficulties Questionnaire (SDQ) scores at 7 years, dichotomised using the established borderline cut-off for problem behaviour. Maternal distress was assessed using the Kessler-6 scale, recorded at the 3, 5 and 7 year sweeps; cumulative distress was calculated by summing the number of sweeps (ranging from 0-3) at which the mother scored above a validated threshold.

Risk ratios (RR) were estimated using Poisson regression for borderline SDQ scores at 7 years according to cumulative maternal distress, unadjusted (uRR) and adjusted (aRR) for potential confounders (age at first live birth, ethnicity, lone parenthood, and highest maternal qualification, all recorded at 9 months). The risk of borderline SDQ scores showed a stepwise increase by number of sweeps that a mother reported distress; after adjustment for confounders the gradient was attenuated but remained significant. Children growing up in households where mothers reported distress at all three MCS sweeps were significantly more likely to display problem behaviour at 7 years (compared to children whose mothers never reported distress): uRR=5.16 (3.82-6.96); aRR=3.51 (2.56-4.80).

This analysis supports an association between chronicity of exposure to maternal psychological distress and child problem behaviour. Possible explanations and implications will be discussed.

## **How do negative parental labour market experiences affect the psychological wellbeing and post-education aspirations of teenagers? Evidence from the Olympic Regeneration in East London study**

*Ellen Flint, Steven Cummins, London School of Hygiene and Tropical Medicine, UK; Neil Smith, Stephen Stansfeld, Barts and the London School of Medicine and Dentistry, UK*

Background: Previous research has repeatedly shown a robust, independent association between negative labour market experiences and psychological distress among working-age adults; with psychosocial causal pathways implicated. Fewer studies have considered the family dynamics of these psychosocial processes, and the ways in which negative parental labour market experiences may affect the labour market engagement expectations and psychological wellbeing of their children.

Objectives: To investigate whether negative parental labour market experiences are associated with: (i) adolescent psychological wellbeing; (ii) adolescent labour market engagement expectations; and to explore causal pathways

Data and methods: Data from the Olympic Regeneration in East London (ORiEL) study were used. ORiEL is a prospective cohort study following 2800 adolescents (aged 11-12 at baseline) and 1300 of their parents. For the purposes of this study, the sample was restricted to the 1280 adolescents-parent dyads present at 2 timepoints. Parental exposures were operationalised as: Household worklessness; Job strain; Receipt of London living wage. Adolescent outcomes were: psychological wellbeing (WEMWBS); post-school labour market engagement expectations. Multiple regression and structural equation modelling were undertaken using Stata 13. A range of hypothesised mediating and confounding variables at the parent and adolescent levels were identified and incorporated into the modelling strategy, including: parental psychological wellbeing; parental education; adolescent-reported parental labour market status; family affluence scale; parenting style; social support.

Results: Preliminary cross-sectional regression analyses suggest that residing in a workless household did not predict adolescent psychological wellbeing ( $\beta$  -0.05,  $p=0.95$ ), or adolescent expectations of post-education unemployment (OR 1.91,  $p=0.19$ ). These initial indications of psychological resilience among adolescents will be further tested using structural equation modelling, and final results for parental job strain and working poverty will also be presented.

Conclusions: Preliminary results suggest that adolescents may be psychologically resilient to the negative effects of parental worklessness, and that other factors may be more important. Further research is required.

## **Parental separation and adult inflammation: the importance of material and psychosocial pathways**

*Rebecca Lacey, Anne McMunn, University College London, UK; Meena Kumari, University of Essex, UK*

Socioeconomic inequalities in health among Swedish men and women born 1915-2010: Life course and intergenerational effects across the twentieth century

*Ilona Koupil, Stockholm University, Sweden; Amy Heshmati, Pia Chaparro, Arijeta Makoli, Gita Mishra, Anna Goodman, Centre for Health Equity Studies (CHESS), Stockholm University/Karolinska Institutet, School of Population Health, University of Queensland, London School of Hygiene and Tropical Medicine*

How does day-care availability affect parental well-being? Disentangling different mechanisms

*Pia Schober, German Institute for Economic Research, Germany*

### **9E PAPER SESSION Working life**

11:00 - 12:30

Room: 340.1

### **Working time across the life course – a longitudinal approach**

*Angelika Kuemmerling, Christine Slomka, University of Duisburg-Essen, Germany*

Working time research has repeatedly drawn attention to the fact that female employment rate and working time are significantly influenced by the life course. Using different years from the German Micro-census data we apply the stylized life cycle approach (Anxo et al. 2011) in order to examine how different life stages of the life

cycle (e.g. young labour market entrants—single and childless”, “childless couples”, “couple households with children living at home” and “older couples without children living at home”) impact on working time decisions of women and men.

Our analyses shows that gender differences with regard to working time show up in all distinguished life stages. On average, women work fewer hours per week than men regardless of household composition or age group. Moreover, this gender gap in working times varies markedly according to life stage. While previous research has foremost focused on the impact children have on the labour market participation of women and men we will show that the gender gap starts to widen well before that point. Drawing on several years of the Micro-census we will also show that the impact of life stages on women’s working time has been surprisingly stable over time. In a second phase of our presentation we will abandon the cross-sectional approach and turn to the longitudinal Socio-Economic Panel (SOEP). Applying the methods of the event-analysis we will focus on the impact changes in life stages have on working time of men and women. In this regard we will show that working time decisions are not only a result of children but that marriage alone is already a key indicator for women to reduce working time.

### **Temporal flexibility of work and later work career**

*Jouko Natti, University of Tampere, Finland; Timo Anttila, Tomi Oinas, Armi Mustosmäki, University of Jyväskylä, Finland*

Work is moving beyond its traditional borders of time. Instead of a standard industrial working time model (eight-hour day, five-day week, work in the daytime, free evenings and weekends, annual holidays and retirement with old-age pension), a temporal mosaic is emerging, along with new individual possibilities and risks. The new post-industrial working time regime is characterised by deregulation of collective norms, diversification of the length (short and long hours) and pattern of working time (unsocial hours), increase of work intensity and time squeeze, blurring of the limits of working time, and erosion of normal biographies. The objectives of the study are:

(1) What is the prevalence of temporal flexibility of work at the individual level? In this study we conceptualise temporal flexibility to have four dimensions: the number of hours worked (short and long hours), timing of work (unsocial hours), work-time autonomy and work-time intensity (tempo). The prevalence and characteristics of the temporal flexibility and changes over time will be studied using pooled representative Finnish working conditions surveys (1977, 1984, 1990, 1997, 2003 and 2008, n=26.984).

(2) What are the long-term consequences of temporal flexibility for the later work career? Later work career will be measured as the length and stability of the work career. This analysis is based on the same Finnish working conditions surveys merged with register-based follow-up data from Statistics Finland (1980–2012). On the basis of earlier studies we assume that short and long working weeks, unsocial working hours and high working time tempo will have negative direct and indirect effects on the later work life of employees, while work-time autonomy has a positive effect. Furthermore, the consequences of temporal flexibility may vary with various moderating factors, including one’s attitude towards temporal flexibility (obligation/own choice), individual characteristics (gender and socio-economic status), and family and work characteristics.

### **Changes in job stability and its impact on the “quality” of the working life: an analysis by generation**

*Delphine Remillon, Carole Bonnet, Benoît Rapoport, INED, France*

Whether job instability has increased has been widely debated in developed countries since the 1990s. There is a strong belief of a major turning of occupational trajectories to greater instability compared to the post World War period. However whether it is a real increase in job instability is yet unclear, as many studies don’t find any significant rising trend of instability. This partly comes from the lack of long-term data on past careers. Research on job mobility are thus often based on the examination of changes in the distribution of elapsed duration of ongoing jobs, use retrospective questions or study cross-sectional job changes. Moreover, scope is often limited to job mobility of male workers inside the private sector. In addition, previous research gives little information on the “quality” of the job mobility. Mobility may indeed be positive, when it leads to a better match between the firm and the worker, or negative. We use French data (EIC2005) from the pension contribution records matched with administrative data on wages and unemployment. They have several advantages over datasets generally used in research on mobility: they avoid recall errors problems; individuals are followed

throughout their career from the 1950's; they allow to identify all the transitions, including to self-employment, public sector or unemployment; wages are precisely measured, which allows to assess the quality of trajectories; they include male and female workers. We describe the evolution of the instability in France by comparing the different cohorts, specially by assessing the prevalence of positive and negative transitions; by examining the evolution of intragenerational inequalities; by comparing male and female careers. Next, we assess the impact of mobility on the quality of trajectories, by measuring the effects of transitions on wages and pension rights.

### **Orientations to happiness and job satisfaction: Preliminary results from a one-year longitudinal study**

*María Luisa Martínez Martí, Willibald Ruch, University of Zurich, Switzerland*

The authors assessed the role of the three different orientations to happiness in predicting job satisfaction one year later. Seligman (2002) proposed three orientations to happiness (OTH): pleasure, engagement, and meaning. The orientation to the life of pleasure implies maximizing pleasure and minimizing pain. The orientation to the life of meaning entails cultivating one's virtues and using them in service of a greater good. The orientation to the life of engagement involves being absorbed in engaging activities and experiencing flow. This tendency might be involved in predicting satisfaction with work. While cross sectional studies have shown repeatedly that these three orientations relate to life satisfaction, their association with job satisfaction remains largely unexplored. To fill this gap, this study presents some preliminary data from the currently ongoing 7-year longitudinal research project of the Swiss National Center of Competence in Research-LIVES. Using a subsample of employed participants from a representative sample of individuals living in Switzerland, results show that OTH significantly predict additional variance in job satisfaction one year later, after controlling for job satisfaction at baseline, life satisfaction, work stress, job strain and household income. The authors discuss the results in relation to previous research findings, and suggest future studies.

#### **PARALLEL SESSION 10**

##### **10A PAPER SESSION Obesity**

13:30 - 14:45

Room: 338

##### **Why are poorer children at higher risk of obesity? A U.K. cohort study**

*Alice Goisis, Amanda Sacker, Yvonne Kelly, University College London, UK*

In recent decades obesity rates among children have increased dramatically in the UK. Prior work suggests that there are socioeconomic inequalities in the risk of childhood obesity but our understanding of why this is the case is limited. The aim of this study was to examine the contribution of family environmental factors to social inequalities in child obesity at 5 years and 11 years using data from the Millennium Cohort Study. In order to examine to what extent different sets of indicators help to explain income inequalities in child obesity, logistic models were run and progressively included variables measuring maternal health markers around the time of birth, children's physical activity and family routines around diet. At age 5 and 11, obesity was approximately twice as likely among children in the poorest income quintile compared with their peers in the richest quintile (at age 5: girls 7.3% vs. 4%; boys 5.8% vs. 3.1% - at age 11: girls 6.9% vs. 2.9%; boys 8.2% vs. 3.3%). Adjustment for each set of risk factors attenuated the odds of obesity across income quintiles. For girls, at age 5 the largest reduction occurred when markers of physical activity were adjusted for, whilst at age 11 on adjustment for dietary markers. For boys the opposite was observed. After adjustment for all risk factors in the final model at both ages, income inequalities in child obesity were substantially reduced. Preliminary results suggest that a range of pathways link family income to child obesity suggesting that strategies aiming to reduce social inequalities in child obesity need to include multiple aspects of the environment. Preliminary results also indicate that interventions might have to be targeted differently across gender.

##### **Socio-economic differentials in early childhood growth trajectories**

*Lidia Panico, INED, France; Beth Stuart, Southampton University, UK*

The dynamic processes that drive the development of childhood overweight and obesity are not completely understood. Yet, by age 5, over 20% of British children are already classed as overweight or obese. Therefore, early childhood growth may be important in understanding recent increases in childhood overweight. In this paper, we identify latent trajectories of early childhood growth from

infancy through age 11, and we examine the interplay between these trajectories and the changing socio-economic context. Using the Millennium Cohort Study, a representative birth cohort of 19,244 UK children born in 2000-2002, and two different but complementary methods (Longitudinal Latent Class methods and Latent growth mixture), we aim to: 1) fit latent overweight/obese and BMI trajectories throughout childhood; and 2) to examine socio-demographic predictors of these trajectories. Early analyses suggest that lower socio-economic categorization at 9 months only increases the odds of membership of the “obese” group in the LCA analyses, and the increasing BMI group in the Latent Trajectories analyses, but not for other groups. Future work will extent analyses to age 11, and will use a fuller set of socio-economic markers, including longitudinal measures of socio-economic changes. Such work will highlight whether the early years are a significant period during which growth patterns are established and therefore whether they are an attractive window to intervene to modify future risk of overweight.

### **Multiple risk behaviours and central adiposity in the 1958 British birth cohort**

*Karin van Veldhoven, Snehal Pinto Pereira, Leah Li, Chris Power, University College London, UK; Lidia Panico (presenting), INED, France*

**Introduction:** Obesity is a major public health concern because of the associated increased risk of type 2 diabetes, cardiovascular diseases, and cancer. The causes are multifactorial, including modifiable risk behaviours such as physical inactivity and unhealthy diet. Such behaviours are known to co-occur, but the effect of this co-occurrence on waist circumference (WC) is not well understood. In the 1958 British birth cohort, we aimed to establish the extent of adult risk behaviour co-occurrence in association with WC.

**Methods:** Four risk behaviours were assessed at 42y: physical inactivity (<1/week), low dietary fibre (<1/day), smoking (former) and heavy alcohol consumption ( $\geq 22/36$  units/week for men and women respectively). The prevalence of the combinations of these behaviours and their associations with 45y WC were assessed (4,450 men, 4538 women).

**Results:** All risk behaviours, except heavy drinking among men, were associated with WC. At age 42y, 10.5% of men and 15.1% of women had none; 37.8% and 42.9% respectively had one; 36.4% and 33.8% had two, and the remainder (15.3% and 8.2% respectively) had  $\geq 3$  risk behaviours.

The most common risk behaviour combinations were low dietary fibre with inactivity (15.1% of men, 17.9% of women) or with former smokers (10.4% of men, 11.1% of women); the prevalence of other combinations was <10%. These combinations were associated with higher mean WC compared to individuals with no risk behaviours: difference ranging from 2.1 to 3.0cm (men) and from 2.0 to 3.5cm (women).

**Conclusions:** A substantial proportion of adult men (51%) and women (42%) had two or more risk behaviours for central obesity in mid-adulthood. Whilst the co-occurrence of risk factors has been established for disorders such as cardiovascular diseases, identification of co-occurrence of risk behaviours for central adiposity is likely to reveal differing patterns that will be informative for intervention strategies.

### **10B PAPER SESSION The importance of geography**

13:30 - 14:45

Room: 342

### **Regional variation in five indicators of health in early childhood: A cohort study**

*Sharon Cruise, Dermot O'Reilly, Queens University Belfast, UK*

#### **Background**

Persistent and marked differences in adult morbidity and mortality between regions in the United Kingdom (UK) are often referred to as the north-south gradient (or divide) and the Scottish effect, and are only partly explained by adult levels of socioeconomic status (SES) or risk factors which suggests variation arising earlier in life. The aim of the current study was to examine regional variations in five health indicators in children in England and Scotland at birth and three years of age.

## Methods

Respondents were 10,500 biological Caucasian mothers of singleton children recruited to the Millennium Cohort Study (MCS). Outcome variables were: gestational age and weight at birth, and height, body mass index (BMI), and externalising behaviour at age three. Region/Country was categorised as: South (reference), Midlands, North, and Scotland. Respondents provided information on child, maternal, household, and socioeconomic characteristics when the cohort infant/child was aged nine months and again when aged three years.

## Results

There were no significant regional variations for gestational age or birthweight. However, at age three there was a north-south gradient for externalising behaviour and a north-south divide in BMI which attenuated on adjustment. However, a north-south divide in height was not fully explained by the adjusted model. There was also evidence of a 'Midlands effect', with increased likelihoods of shorter stature and behaviour problems. Results showed a Scottish effect for height and BMI in the unadjusted models, and height in the adjusted model. However, Scottish children were less likely to show behaviour problems in crude and adjusted models.

## Conclusions

Findings indicated no marked regional differences in children at birth, but by age three some regional health differences were evident, and though not distinct north-south gradients or Scottish effects, are evidence of health inequalities appearing at an early age and dependent on geographic location.

## **Comparing rural and urban differences in changing union formation and dissolution patterns during emerging adulthood**

*Anastasia Snyder, Claire Kamp Dush, Bohyun Joy Jang, Ohio State University, USA*

Family formation has changed significantly in the past twenty years. The age at marriage is at a worldwide historic high, as is the nonmarital birth rate (2014 Special Issue). Some scholars have argued that the gains to marriage have decreased; yet other scholars argue that these alarmist messages are over blown (Cherlin, 2004). Studies of rural-urban differences in changing family formation patterns reveal some similarities and differences in the family changes experienced. For example, over the past few decades both rural and urban populations have experienced a shift away from a two parent and toward a single parent family structure (Snyder & McLaughlin, 2004), and both have experienced a rise in nonmarital cohabitation as a first union and first birth context (Brown & Snyder, 2006). However, some differences remain, notably, rural women spend more years of their lives married and fewer single, which suggest a geographic and cultural difference in marriage preferences between rural and urban women (Snyder, 2011). No prior studies, however, have examined comprehensive changes in family formation and dissolution experiences across multiple cohorts comparing rural and urban populations. We do this over twenty years, and test whether rural and urban young adults have been differentially impacted in that time by macro-level trends in family formation.

We use data from two studies that collect very similar data for two different cohorts: the National Longitudinal Survey of Youth 1997 Cohort (NLSY97), and the Children and Young Adult of the National Longitudinal Survey of Youth Study (NLSY79C). We use Cox proportional hazards models to predict union formation and dissolution comparing rural and urban populations. Preliminary findings suggest that when considering trends in family formation, rural populations have experienced more change in recent decades than urban populations, and significant marriage behavior between the two groups remain.

## **Urban/rural variation in the influence of widowhood on mortality risk**

*David Wright, Michael Rosato, Dermot O'Reilly, Queen's University Belfast, UK*

Death of a spouse is associated with increased mortality risk for the surviving partner (the widowhood effect), although the mechanisms driving the effect are poorly understood. After acute stress and grief have dissipated, mortality risk may be increased by loss of emotional and instrumental support for daily living and so we investigated whether social support at both the household and community levels moderated the influence of spousal bereavement on mortality risk.

We assembled death records from the Northern Ireland Mortality Study spanning almost nine years for a prospective cohort of 296,125 married couples enumerated in the 2001 Census. Presence of other adults within

the household and urban/rural residence were used as measures of support at the household and community levels, with informal social support perceived to be strongest in rural areas. We used Cox proportional hazards models to estimate the effects of widowhood, sex, household composition and urban/intermediate/rural residence on all-cause mortality.

Elevated mortality risk during the first six months of widowhood was found in all areas and for both sexes (range of hazard ratios 1.24, 1.57). After more than six months the effect among men was attenuated in rural but not urban areas (HRs and 95%CI 1.09 [0.99, 1.21] and 1.35 [1.26, 1.44] respectively). Among women the effect was attenuated in both rural and urban areas (HRs 1.06 [0.96, 1.17] and 1.09 [1.01, 1.17]). Mortality risk post bereavement was not associated with presence of other adults in the household.

We found some support for the hypothesis that informal social support is beneficial for reducing the impacts of spousal loss. Rural residence had a positive effect especially among men but presence of other adults in the household had no effect. The reasons for this discrepancy require further investigation and we identify men in urban areas as being at greatest risk in the long term.

### **10C PAPER SESSION Educational research from a cross-national perspective**

13:30 - 14:45

Room: 348

#### **From educational aspiration to attainment: The adaption process in the last year of compulsory schooling**

*Hans Dietrich, Institute for Employment Research (IAB), Germany*

The paper is in line with choice theoretic models of educational decision. A variant of the Breen – Goldthorpe model is applied, modeling individuals' educational attainment after graduation from last year of compulsory schooling in Germany. In extension to the literature, individuals' educational aspirations at the beginning of the final year of compulsory education are taken into account and the adaption process from aspiration to attainment is explored. That extension allows disentangling individuals and parents contribution to the educational decision of interest. The paper also considers the framing of the adaption process by institutional settings and the feedback from the training market to individuals' applications for higher education or apprenticeship training. A unique data set is applied, delivering data from a multi-wave survey including students in the last year of compulsory schooling and their parents. Results show an increasing parental effect on the educational decision whilst the last year of schooling, when individuals' educational aspirations became crystalized by observable attainment. Especially the parental cost argument gains relevance, whilst the status maintenance motive seems to work less effective. Institutional support delivered by guidance and counselling agents sharpens the decision for apprenticeship training but shows no substantial effect for upgrading educational degrees.

#### **Intergenerational transmission of inequality: Parental work values and children's educational attainment**

*Oana Mihai, University of Essex, UK*

Increasing levels of inequality have been observed in recent years, but while most studies focus on income inequality, it is also important to recognise the non-economic forms of inequality, and how these shape the life chances of individuals and, ultimately, how they are transmitted from one generation to another. This paper focuses on one factor that shapes children's educational aspirations and attainment, which in turn have an impact on their adult occupational attainment, namely parental work values. Using longitudinal data for children aged 14 to 18 in the UK Longitudinal Household Survey (UKHLS) in three consecutive waves (2009-2013), this analysis assesses the importance of parental work values in the process of intergenerational transmission of inequality, while considering other factors that have an impact on educational attainment, such as cognitive skills, age, gender, family background. Furthermore, a correspondence between children's own emphasis on particular desirable rewards they would like to obtain from their future jobs and their parents' is observed, suggesting that children that perceive a certain work ethos in their family are likely to incorporate the same ethos which will later influence their job preference, thus fixating them in a similar occupational status as their parents'.

## **Sharing domestic tasks during the transition to parenthood: Intentions and facts**

*Jean-Marie Le Goff, Girardin Nadia, University of Lausanne, Switzerland*

Literature shows that in many developed countries, the distribution of the domestic tasks between partners becomes more unequal during the first transition to parenthood. Such a change in domestic tasks distribution has also been showed in Switzerland (Henchoz & Wernli, 2010). The issue we want to investigate in our communication is how couples anticipate, before the birth of their first child, the increase of disequilibrium in the share of the domestic tasks after the birth. Do they plan to become more unequal or do they adapt the distribution of domestic tasks when the child is there? Our investigations are based on the Becoming a parent survey data which were collected at the end of the 2000 years in the French speaking Switzerland. This survey is a panel of three waves in which 232 couples were interviewed, each partner separately, 1) during the pregnancy of their first child, 2) a few months after his/her birth and 3) after his/her first birthday. In each wave, questions on intentions about the share of domestic tasks were asked to respondents as well as questions about the effective distribution of the domestic tasks. Our general results show that in a lot of cases, couples are more or less equal in the distribution of domestic tasks when the woman is pregnant and that each partner declares to have the intention to share equally these tasks after the birth. However, many of them become unequal despite these equalitarian intentions. In our communication, we will especially differentiate couples according to their degree of consistency between intentions and facts in relation to their social characteristics.

### **10D PAPER SESSION Mental health across the life course**

13:30 - 14:45

Room: 336

## **It's hard to be a teenager... Building up mental health problems among teenagers in Denmark**

*Mette Lausten, SFI - Danish National Centre for Social Research, Denmark*

Teenage psychosocial disorders have been proved rising over the past 50 years (Rutter & Smith, 1995). In addition youth mental health problems have become a major challenge in child protection/child welfare social work (Egelund & Lausten, 2009). Using The Danish Longitudinal Survey on Children born in 1995 (DALSC), the purpose of this paper is to analyse the impact of poor early life course conditions on the prevalence of mental health problems at age 15 for different groups. Consisting of three subsamples: (1) Children of Danish mothers; (2) Children with ethnic minority background; and (3) Children living in out-of-home care environments, data leaves great opportunity to analyse specific early life course events on different groups of teenagers. In this paper I will look closer at the prevalence of mental health problems at age 15, specifically looking at the SDQ-score and some specific ICD-10 diagnoses from the National Research Register of Psychiatric Diagnoses. Preliminary results show a huge correlation between early life course events and being diagnosed with mental health problems as teenager. But is it equally distributed among the three subsamples or are some hit harder than others?

## **Pathways from adolescence family relations to mid-adulthood mental health**

*Noora Berg, Olli Kiviruusu, Ossi Rahkonen, Sakari Karvonen, Taina Huurre, National Institute for Health and Welfare, Finland*

We examined pathways from problems in family relations in adolescence to mid-adulthood mental health through different life domains in young adulthood.

Participants of a Finnish cohort study in 1983 at 16 years were followed up using postal questionnaires when aged 22, 32 and 42, (N=1334). Structural equation modeling was used to analyse indirect effects from problems in family relations (e.g poor relationship with mother, 16y) to mental health (Kessler psychological distress scale, 42y) via somatic health, social network, socioeconomic factors and alcohol use (22/32y). First every life domain was analysed separately and then controlling for other indirect paths and covariates. Indirect effects regarding ages 22 and 32, as well as women and men, were analysed separately.

When analysed separately paths from problems in family relations in adolescence to mid-adulthood mental health went through somatic symptoms (22/32y) and heavy drinking (32y) and in women also through low employment status (32y). When all the life domains were analysed simultaneously in one model, all the paths

remained essentially the same, but the path through heavy drinking (32y) disappeared in men. After adjusting for family structure and psychological symptoms in adolescence, the somatic paths disappear and others attenuate.

Heavy drinking represents a strong pathway from problems in family relations in adolescence to mid-adulthood mental health, but has a unique effect regardless of other paths only in women. Also other adolescence conditions especially mental health explain much of the pathways. Heavy drinking acts as a target for interventions in preventing mental health problems.

**Late life changes in mental health: A longitudinal study of 9973 women aged through their 70's and 80's**

*Julie Byles, Lucy Leigh, Catherine Chojenta, Deborah Loxton, University of Newcastle, Australia; Nancy Pachana, University of Queensland, Australia*

This study describes patterns of change in mental health for women in later life and prior to death, and the influence of chronic disease on changes in mental health. Data are for 9973 women in the 1921-26 cohort of the Australian Longitudinal Study on Women's Health, who completed at least two three-yearly surveys between 1999 (aged 73-78 years) and 2008 (aged 82-87 years). Latent Profile Analysis uncovered three patterns of change in the five-item mental health inventory (MHI-5) scores for women who were still alive at in 2008 (n=7351), and three similar patterns of change for deceased women (n=2622): 1) 'poor mental health' representing women with low MHI-5 scores, 2) 'good mental health' where scores remained moderately high, 3) 'excellent mental health' where scores remained very high. Deceased women had lower mental health scores for each class. However, in both groups, mental health trajectories were flat for the excellent and good mental health classes, and decreased slightly over time for the poor mental health class. Remote area of residence, higher education, single marital status, and higher BMI were associated with worse mental health in the survivor group. For the deceased group, education, BMI, and falls were significant. Arthritis, stroke, heart disease, bronchitis/emphysema, diabetes and osteoporosis were associated with worse mental health for both groups, while asthma was significant for the survivor group only, and cancer was significant for the deceased group. The results show associations between chronic disease and level of mental health in older age, but no evidence of a large decline in the period prior to death.

**10E PAPER SESSION Employment and retirement**

13:30 - 14:45

Room: 340.1

**The impact of household and partner characteristics on the labour force participation of older women in England**

*Jennifer Prattley, University of Manchester, UK*

The economic wellbeing and physical and mental health of the ageing population in the United Kingdom is associated with continued participation in the labour force. Encouraging later life employment is therefore a key policy issue. Research into older person's employment trajectories is concentrated on men's working patterns, and often takes an individualistic approach that does not account for the domestic context. Understanding of older women's labour force participation has been informed by small scale qualitative studies that do consider the household domain but these findings cannot be generalized to the wider population. This research investigates the factors associated with continued employment of women aged 50 to 59 using data from the nationally representative English Longitudinal Study of Ageing (ELSA). Transition rates out of employment between 1998 and 2011 are modeled using multilevel discrete time event history methods that permit the inclusion of time varying covariates. Women and their partners are positioned within a household structure and asymmetric effects of factors on transition rates are considered, with particular focus placed on the impact of family financial resources and spousal health. The total income of the partner and the couple's accumulated level of private pension wealth are shown to have a differential impact on the employment chances of each couple member. Women are less likely to remain in work if their partner develops a limiting condition than the male member is should the health of the female become limiting. These findings emphasise the importance of conducting research into later life employment trajectories on a household, rather than individual, basis.

## **Work beyond retirement age in Germany and the UK: The interplay of employment histories, gender and the family**

*Simone Scherger, University of Bremen, Germany*

Retirement and pensions have been at the centre of many social policy debates in the last one or two decades. One indication of the shifting balance between work and retirement are the increasing numbers of people working beyond retirement age.

The planned contribution aims at shedding light on the factors driving post-retirement work in Germany and the UK. Its perspective is cross-sectional, but it will nonetheless focus on individual life-course influences on post-retirement work, in particular those connected to gender and the family. The basis of the descriptive and multivariate analyses are data from the English Longitudinal Study of Ageing (ELSA) and from the German Ageing Survey (DEAS). The country comparison serves to discuss the role specific institutions (in particular the pension system and the labour market) play with regard to employment past retirement age and its relationship to gender.

Employment histories shape the ability, the opportunities and the desire to work beyond retirement age in different ways. These relationships are complemented and partly mediated by the impact of gender, family histories, marital status, potential caring obligations and the existence of a (working or non-working) partner. The first results show that, in many senses, the gendered division of labour and gendered life courses continue to be effective in very late careers. Employment rates after retirement mirror those before, with many more men being in employment than women. However, some groups, in particular divorced women, stand out due to their divergent patterns of late engagement in paid work.

The presented results illustrate persisting gender inequalities in old age and thus also have implications for pension and employment policies.

## **The social stratification of work beyond retirement age in Germany and the UK from a mixed-methods perspective**

*Anna Hokema, Thomas Lux, University of Bremen, Germany*

In the last ten years, a growing share of people in Europe goes on working past state pension age. This form of paid employment can be viewed as a deviation from the 'normal' tripartite life course with its three separate stages. Individual life courses result from the interplay of individual action and the framing institutions, thus, the question can be raised how different institutional setups encourage or hinder work beyond retirement age and shape its heterogeneous forms at the individual level. In our presentation, we will use a mixed-methods approach to compare people working beyond retirement age and their jobs in Germany and the UK. These two countries have different pension systems, labour markets and moral economies of retirement.

The presentation is structured in two steps. In a first step, we draw on quantitative analyses on the basis of the German Socio-Economic Panel and the British Household Panel Study. In particular, we analyse, how the current social classes of post-retirement workers diverge from the social classes of the same cohort earlier in the life course, at age 45 to 55, in both countries. Furthermore, we compare the socio-economic characteristics of people working beyond retirement age with that of non-workers of the same age. The results show that working beyond retirement age is more common in the UK but is also more often shifted towards low class jobs, which speaks for better job opportunities but also for higher economic needs for employment beyond state pension age in the UK. This reflects the institutional differences mentioned above.

In a second step, we use qualitative interviews of working pensioners to analyse the subjective meaning of employment beyond retirement age as well as the individual paths to such an employment in both countries. The results generally support the quantitative findings but they also show a mix of motives for late employment that go beyond the either financial need or high work commitment dichotomy.

## PARALLEL SESSION 11

**11A SYMPOSIUM**      **Matching research supply with policy demand: linking cohort studies with policy debates low and middle income countries**  
14:45 - 16:00  
Room: 348

This panel aims to consider linkages between cohort research and policy discussions, considering the perspectives of research ‘users’ and ‘producers’. The panel will have a particular focus on experiences in low and middle income countries, and examine the different needs, strengths and so on in bringing research perspectives close to policy debates. Drawing on practical experiences of the World Bank, UNICEF and Young Lives study, the panel will reflect on key issues including how research agendas are agreed; how relationships between research and policy actors can be developed and maintained; challenges and approaches to communications and engagement.

### **Effective use of evidence to inform policy in low and middle income countries**

*Caine Rolleston, University of Oxford, UK*

### **Using research in education policy debates in Vietnam policy debates**

*Christian Bodewig, World Bank, Belgium*

### **Addressing policy maker needs: Making life course research useful for policy**

*Prerna Banati, UNICEF Office of Research, Italy*

## **11B PAPER SESSION**      **Grandparents**

14:45 - 16:00      Room: 336

### **Family ties across three generations**

*Teresa Swartz, Jeylan Mortimer, University of Minnesota, USA; Heather McLaughlin, Oklahoma State University, USA*

Given the extension of life, the increasing role that grandparents are playing in the lives of grandchildren, and the significance of family solidarity to intergenerational support and well-being, it is important to better understand what contributes to family solidarity across generations. Previous research has found family solidarity to be fairly stable over the life course. Thus, children who have positive relationships with their parents during childhood are more likely to continue to enjoy positive relationships with their parents when they are adults. But how do parent-adult child relationships affect grandparent-grandchild relationships? We use data from the longitudinal Youth Development Study to examine the continuity in the quality of family relationships over three generations. We find the quality of the G2-G1 (Generation 2 with their Generation 1 mothers) relationship captured when G2 were adolescents (1989) is as important for predicting G3-G1 grandchild-grandmother relationship quality as is the G2-G1 relationship measured in 2009. In fact, when both variables measuring G2 closeness to G1 mother are included (captured in 1989 and 2009) only the earlier measure (1989) remains statistically significant in predicting G3-G1 relationship quality. G3 closeness to their mother (G2) also remains significant. These findings demonstrate the continuity of parent-child relationships (G2,G1 1989 and 2009) over a 20 year period, and the continuing effects of the parent-child relationship during adolescence on the grandparent-grandchild relationships two decades later. Prior to the conference, we plan on extending our analysis to include G2 fathers and G1maternal grandfathers. This research demonstrates the importance of longitudinal study in the family arena.

### **The influence of intergenerational social class on children’s aspirations**

*Vanessa Moulton, Eirini Flouri, Heather Joshi, Alice Sullivan, Institute of Education, UK*

Grandparents have a variety of functions in the lives of their grandchildren; as protectors, confidants, benefactors and bringing together the family history, family traits and practices. Previous studies have focused on the role of parents influencing children’s aspirations. Parental education, occupation and social class have been found to influence

children's aspirations, as well as parent's expectations of and involvement with their children. Statistically significant associations have been found between grandparents' and grandchildren's class positions in adulthood, after parents' social class is taken into account. The involvement of grandparents expands in times of crisis e.g. divorce, single-parent families and is stronger in less-advantaged areas. Other factors found to be associated with grandparent involvement are geographic distance, frequency of contact, and same-sex grandparent-grandchild dyad. As with parents, involvement and closeness of grandparents tends to decrease as the grandchild ages. We use data from each sweep of the UK's Millennium Cohort Study (MCS), including MCS5 to investigate the influence of maternal and paternal grandparent's social class on the class aspirations of children, at age 7 and age 10/11. Both the direct pathways from grandparents to grandchild and indirect pathways via parents were explored. We examined both children from intact and single parent families, while controlling for parents social class, education, involvement, frequency of grandparent-grandchild contact, and the child's gender, and age. The results of this study will help identify the direct and indirect influence of intergenerational social class on younger and older children's social class aspirations in different family situations.

### **Does grandparent care enhance mothers' labour supply? Lone and partnered mothers in the UK**

*Shireen Kanji, University of Leicester, UK*

The focus of this paper is the contribution of help from grandparents in raising the employment participation of both lone and partnered mothers in the UK. Partnered mothers' participation has increased substantially in recent years, mainly in part-time work, while raising employment rates of lone mothers has been a key policy target in the UK, as it has been in a number of other countries. While attention has focused on participation, much less attention has been directed to how that participation has been achieved. The data for the analysis come from 4 waves of the Millennium Cohort Study, a nationally representative survey of families with children born in the UK around the time of the millennium. The paper analyses how grandparents' care, conceptualised as arising from personal support in the form of childcare, gifts and regular financial assistance, raises the participation of lone and partnered mothers. I measure the effect of grandparents' care using a biprobit estimation technique, in which I instrument grandparents' care in the work participation probit equation with other variables that are assumed to be correlated with grandparent care but not with mother's participation in the labour market. The analysis investigates how grandparents assist lone and partnered mothers to persist in different occupational categories. I explore whether grandparent care is more relevant when work is precarious or if grandparent care varies by the mother's educational level. The results show that grandparent care not only raises lone mothers' participation significantly but is even more important in enabling the few lone mothers who persist in work in being able to do this. Grandparent care is not only relevant for lone mothers it also makes a significant contribution to partnered mothers' participation.

#### **11C SYMPOSIUM**

14:45 - 16:00

Room: 338

#### **Life course health development: Translating research to health policy, health systems design and health measurement**

This symposium will focus on advancing the measurement of positive health development by considering new approaches for measuring health, thriving and well-being and how measures of health development can be used by communities to advance a policy agenda so that all children thrive.

#### **Leveraging the science of life course health development so that all children thrive**

*Neal Halfon, University of California, Los Angeles, USA*

#### **Advancing measurement of positive health development in life course studies and public policy**

*Anne Riley, Johns Hopkins Bloomberg School of Public Health, USA*

**Co-occurrence of health outcomes in early and middle childhood: Longitudinal findings from the UK Millennium Cohort Study (MCS)**

*Kathryn Hesketh, Steven Hope, Helen Bedford, Catherine Law, University College London, UK*

Little is known about how health outcomes co-occur in childhood and whether patterns of co-occurrence change with age. This study sought to identify prevalence of and changes in co-occurrence between 3 and 7 years in the UK Millennium Cohort Study (MCS), and determine whether co-occurrence differed by socio-demographic factors.

Data from 6886 MCS children (complete cases) were examined to assess co-occurrence of six common adverse childhood health outcomes: wheeze; eczema; longstanding illness (excluding wheeze/eczema); underweight/overweight/obese; injury; and poor psychological wellbeing. At each of three data collection sweeps (ages 3, 5 and 7), a co-occurrence index was derived, summing the total number of adverse outcomes recorded (possible range: 0-6). Change in co-occurrence was also explored to determine whether the number of adverse outcomes increased, decreased or remained stable between each sweep. The influence of sex, ethnicity and level of maternal education on co-occurrence was assessed.

The proportion of children with two or more adverse health outcomes decreased from 46% at age 3 to 33% at age 7, though for most children (68%) the number of co-occurring conditions did not change across sweeps. Compared to girls, boys were more likely to experience both co-occurrence cross-sectionally, and a change in the number of adverse outcomes between sweeps ( $p < 0.01$ ). Children of mothers with lower educational attainment were more likely to have 3 or more co-occurring conditions compared to children with more highly educated mothers, and this inequality widened with age ( $p < 0.005$ ). There were few differences by ethnicity.

Co-occurrence of adverse health outcomes decreased from early to middle childhood in the MCS, yet a third of children still experienced multiple adverse health outcomes at age 7. Given the burden of co-occurrence showed unequal and persistent socio-demographic differences, targeted public health interventions in at-risk groups early in life may prevent and reduce co-occurrence later in childhood.

**Social inequality in children's ADHD diagnosis: Evidence from a Danish birth cohort study**

*Lisbeth Trille Loft, University of Copenhagen, Denmark; Helene H. Oldrup, SFI - Danish National Centre for Social Research, Denmark*

Children's development is high on the international policy agenda. Research has consistently found that resources available during early childhood are strongly associated with children's behavioral development. This study adds to this literature by investigating the role of socio-economic resources in early childhood on the likelihood and timing of children's ADHD diagnosis in the Danish context.

In the Danish setting receiving an ADHD diagnosis is associated with increased access to additional resources ensuring the best possible support and care for the child. Using data from the Danish Longitudinal Survey of Children (DALSC) linked to national register data and by means of event history techniques, we examine the impact of parental education, parental occupation, household income, and household structure on the likelihood and timing of children with similar behavioral issues receiving an ADHD diagnosis. Children's behavioral development is measured using the Strengths and Difficult Questionnaire (SDQ).

This study is unusual in that we have information on a so-called counterfactual group. That is, a group of non-diagnosed children that have behavioral conduct problems at a similar level as those children receiving an ADHD diagnosis. Thus, it is possible to study the mechanisms associated with diagnosis versus non-diagnosis over time. Preliminary results suggest that social inequality does, to some degree, exist among children with regard to who receive an ADHD diagnosis in the Danish context.

## **Child maltreatment and household dysfunction associations with pubertal development in a British birth cohort**

*Leah Li, Rachel Denholm, Chris Power, University College London, UK*

### **Background:**

We aimed to establish the relationship between adverse childhood experiences (maltreatment and household dysfunction) and pubertal maturation, which is associated with later health outcome(s).

### **Methods:**

We used the 1958 British birth cohort, which includes all children born in one week, March 1958 (n=17 638), followed-up to mid-adulthood. Pubertal stage was rated by medical personnel at ages 11 and 16 y. Childhood maltreatment (neglect or abuse) and household dysfunction scores were constructed from information ascertained in childhood and at 45 y.

### **Results:**

Childhood neglect, assessed at 7 y, was associated with late pubertal development on several markers after adjusting for early life circumstances: adjusted relative risk ratio (RRR) was 1.13 (95%CI:1.06,1.21) and 1.06(1.00,1.12) for late menarche and breast development (females) per unit increase in neglect score ranging 0-7; respectively 1.14(1.08,1.20) for late voice change and 1.07(1.02,1.13) for late pubic hair growth (males). The RRR for late pubic hair (females) and genitalia and facial hair (males) development was 1.04 (p=0.052 to 0.085). Abuse score (0-3, for physical, sexual or psychological abuse) was associated in females with late menarche (RRR=1.17(1.01,1.36)) and in males with late pubic hair growth (RRR=1.16(1.01,1.34)) per unit increase, but not with other pubertal markers. Neither score (neglect or abuse) was associated with early puberty, but sexual abuse was associated with early (RRR=1.86(1.06,3.29)) as well as late menarche (RRR=1.66(1.02,2.71)) and witnessing abuse with early genitalia development (RRR=1.57(1.02,2.41)). Household dysfunction score was not associated consistently with pubertal markers.

### **Conclusions:**

Cumulative neglect by age 7 y was associated with delayed development of several pubertal markers. The underlying role of pubertal development in linking childhood neglect with long term health outcomes warrants further consideration.

## **11E PAPER SESSION Causes and consequences of aging well ... or not!**

14:45 - 16:00

Room: 340.1

### **Life course socioeconomic position predictors of aging well**

*Angel Rodriguez-Laso, Matia Instituto Gerontologico, Spain; Victoria Zunzunegui, Université de Montreal, Canada; Pura Diaz-Veiga, Javier Yanguas, Matia Instituto Gerontologico, Spain*

**Background:** There are not studies on the association of infant deprivation and middle and old age socioeconomic variables with having aged well.

**Methods:** This study is based on the pilot of the ELES, which is a cross-sectional representative survey of non institutionalised Spaniards of 50 years and over carried out in 2011. Aging well was defined following MacLaughlin's operationalization of Rowe & Kahn's definition: no dependency, cognitive function above the median, at most one physical function limited, and chronic diseases that do not limit everyday activities. Infancy deprivation was defined as having experienced hunger or having lived in a dwelling without basic facilities up to the age of 15. Adult socioeconomic variables were education level (categories: less than primary school, primary school, secondary school and university) and occupation (categories: non manual, manual and housewives). Old age socioeconomic variables were difficulty in making ends meet (categories: with difficulty, with just enough resources and with ease) and self-perceived relative economic situation of the household (range 0-10). Logistic regression on aging well (1=well aged) were carried out. Interactions of education and occupation with infancy deprivation and with economic variables were tested.

Results: Sample size is 1,265. Interactions are not significant. Infancy deprivation is associated with aging well after adjusting for age and sex: OR 0.68 (95% confidence interval 0.44-1.05), but not after adjusting for education and occupation. In the final model, occupation and the self-perceived economic situation remain significant: Compared to non-manual workers, manual workers have an OR of 0.63 (95%CI 0.47-0.83) and housewives of 0.60 (95%CI 0.35-1.02) of having aged well. For each additional point in the score of the subjective economic position (up to 7 points), the OR of aging well increases by 26% (95%CI 12%-42%).

Conclusions: Infant deprivation is associated with aging well through socioeconomic position at middle and old age.

### **A life course perspective on mortality risk at older ages**

*David Blane, University College London, UK; Bola Akinwale, Imperial College London, UK; Rebecca Landy, Queen Mary University of London, UK; Keith Matthews, University of Manchester, UK; Morton Wahrendorf, University of Duesseldorf, Germany*

Longevity risk (living longer than expected) interests policy makers because it threatens pension schemes and undermines the annuities market and is interesting scientifically because it asks why life expectancy at middle age has increased more rapidly than predicted in recent decades. The presentation will apply a life course perspective to this problem, illustrated with UK data.

Several points are made. (1) The phenomenon is not disease-specific; deaths due to all the most prevalent causes, bar one, have fallen by proportionately similar amounts. (2) The phenomenon is gender-specific; female mortality at age 65 years fell in a linear fashion across the whole 20th Century, it is male mortality which has fallen unpredictably. (3) Any explanation of the phenomenon must be socially and biologically plausible; a model of biological functioning is described which divides the life course into a phase of growth & development, a second phase of loss of functioning and decline, which ends in morbidity and death, and the way the social context can maximise or stunt growth & development and accelerate or slow loss of function & decline. (4) The approach is illustrated for people born in UK during the 1930s, who currently are aged 85 years.

The approach suggests the importance of cumulative improvement in living conditions and that the importance of childhood should not lead to the relative neglect of adulthood and early old age.

### **Ten-year trajectories in long term care of older adults in the Netherlands**

*Marjolein Broese van Groenou, VU University, Netherlands; Dorly Deeg (presenting), EMGO+-Institute; Cretien van Campen, Jurjen Iedema, The Netherlands Institute for Social Research, Netherlands*

From a policy perspective, it is important to know under which conditions older adults make the transition into publicly paid social care and professional care. Using data from four waves of the Longitudinal Aging Study Amsterdam (1998-2008), we examined how many different care trajectories in a ten-year period are present in a sample of 1768 persons aged 65-plus at baseline and to what degree these care trajectories reflect different developments in health and social context. Eight types of care are distinguished ranging from none or only GP care to residential care. At each of the four waves, respondents were classified in their 'highest' level of care. Using Latent Class Growth Analysis six different trajectories were found: 1) stable no or little use of care (31%), 2) increased usage of social and professional home care (24%), 3) increased usage of professional home care and residential care (12%), 4) use of no or little care and mortality (13%), 5) use of social care and mortality (7%), and 6) use of residential care and mortality (13%). The six groups had clear distinct profiles in gender, age, physical, cognitive and mental health, living arrangements, mastery and social network size. An increased usage of social care, professional home care and residential care (trajectories 2 and 3) was found among those with decreasing social resources and increasing health problems. Cutting back on professional care may leave these older adults without the care they need. Implications for long term care policy are discussed.

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