

**Abstracts User Conference
Tallinn (EE)
Sept 1-3, 2011**

Thursday, 2011-09-01

SHARELIFE and ELSA life histories

Title: **Working conditions in midlife, health and early retirement:
Findings based on retrospective data from SHARE and ELSA**

Author(s): Morten Wahrendorf^{1,2}, David Blane², Johannes Siegrist¹

Abstract:

Extending labour market participation of older people is an important target of European policy. Investments into 'good' working conditions, in terms of good quality of work and employment trajectories, are proposed as promising measures towards this end, as they might prevent from health-decline and reduce the probability of early retirement. Against this background, associations of working conditions in midlife with (1) health status at labour market exit and (2) time of labour market exit are studied across 15 European countries. Working conditions are defined in terms of specific characteristics of respondents' work history (e.g. episode of unemployment), and of exposure to psychosocial stress at work, measured in terms of core dimensions of the demand-control-support and the effort-reward imbalance model. Health is measured using a set of different indicators, including self-perceived health, depressive symptoms, diagnosed chronic diseases, and self-reported symptoms. In particular, two questions will be studied: (1) Are poor working conditions in mid-life associated with reduced health at labour market exit? (2) Are poor working conditions in mid-life associated with early labour market exit? Moreover - given the large cross-national dataset - we explore to what extent distinct social policies (e.g. extent of expenditure in active labour market policies) are associated with 'good' working conditions and continued employment in older ages. We present findings based on life history data taken from two European ageing studies (ELSA, SHARE) with retrospectively collected information on working life of some 30,000 men and women aged 50+ in 15 European countries. Findings indicate consistent associations between poor working conditions and reduced health. Furthermore, we found higher hazards of labour market exit among workers who experienced poor working conditions in midlife and in countries with low investments in rehabilitation services and with low rates of participation in training programs for adults (lifelong learning).

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Early life conditions and later life health

Title: **Maternity and labour market outcome: Short and long term effects**

Author(s): Agar Brugiavini³, Giacomo Pasini^{3,4}, Elisabetta Trevisan^{4,5}

Abstract:

The provision of maternity leave benefits and their design is the crucial policy instrument a government can use in order to reduce gender differences in the labour market due to fertility. Theory suggests that because of the specialization effect the responsibility for childcare falls on women hence reducing their labour supply (Becker, 1985), furthermore both parents would be affected by a “home-intensity” effect which makes more valuable the time spent at home (Lundberg and Rose, 2002). However, the existence of parental leave arrangements will affect these relationships. For most countries job interruption at the time of childbirth is strongly reduced when there are maternity leave provisions.

The role of parental leave benefits can be modelled within a standard model of demand and supply of labour: they are a form of subsidized child care in which the subsidy is provided to the parents who are providing child care themselves. *Ceteris paribus*, maternity leave provisions increase labour supply of women making participation in the labour market more attractive because the effective wage is higher (i.e. they do not need to pay for care out of pocket (Baker, Gruber and Milligan, 2008)). However, since maternity benefits increase the labour costs for firms, they induce a drop in female wages akin to that of a tax (Boeri and van Ours, 2008). Within a lifecycle framework, maternity leave benefits can affect pension entitlements both because they impact on the length of working life and because they might affect wages. Both elements enter a typical social security benefit or pension benefit calculation.

Empirically, the effect of motherhood on women’s labour supply has been a long-standing focus of economic research seeking to explain the rise in the labour force participation of women, together with the decline in fertility rate. As for the long-term effects of maternity, the empirical evidence is very scanty.

The aim of this paper is to fill this gap by analyzing the effect of motherhood on pension income at retirement, given the labour market participation of women at childbirth. SHARELIFE is particularly suitable for this analysis since it contains complete life time

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histories, including all employment and maternity episodes experienced by European women currently aged 50 and over. Moreover, details on maternity leave provisions and other institutional features of the SHARE countries are collected and provided together with the survey data.

In our analysis we specify maternity leave provisions through their main characteristics: the duration and the amount of the benefit, the latter expressed in terms of “replacement rate” (ratio of maternity benefit over the wage).

We first analyze the effect of the maternity leave provision on the probability of remaining in the labour market during maternity. A woman remains in the labour market if she continues working without interruption or if she enjoys a spell of maternity leave while remaining with the same employer. Women who leave their job and restart to work at some point later in their life or decide not to work anymore are considered as “out of the labour market”. However, labour market participation and fertility are simultaneous choices. In order to deal with this endogeneity issue we use an instrumental variable approach, where the number of siblings of the mother at the age of ten and the availability of the contraception pill are used as instruments for the number of children.

The analysis shows that the higher the level of the benefit, the higher the probability that a woman decides to remain in the labour market. Theory suggests that maternity benefits reduce women wages. Thus, we expect a negative effect of maternity provision on pension income over and above the positive one induced by the higher labour market participation. In order to disentangle these effects, we select a sample of women who had at least one child. Then, we regress (log) pension income on a dummy variable indicating whether the mother dropped out of the labour market after a childbearing episode, and on the number of months the mother spent out of the labour force due to childbearing. We include maternity benefit duration and amount at the moment of the first child birth to account for the effect through wages. Dropping out from the labour market or staying out of the labour force for a long time have a negative impact on pension benefit at retirement. The effect of maternity leave on labour costs is captured by the replacement rate: the effect is negative and significant.

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Title: **Stress, behaviour or early life conditions? Socioeconomic status and hypertension across Europe**

Author(s): Mark McGovern⁶

Abstract:

Background: Hypertension has been identified as a major risk factor in cardiovascular diseases, which are now responsible for a third of all deaths. The social gradient in these illnesses have been well documented, and even small differences in blood pressure between socioeconomic groups are expected to have a substantial impact on mortality. Associations between stress, behaviour, early life conditions and hypertension have been established in the literature. This paper examines these relationships in a comparative European context.

Methods: Data on over 26,000 respondents aged over 50 from the Survey of Health, Ageing and Retirement in Europe (SHARE) provides the opportunity to examine individuals towards the end of their life course. A multivariate regression analysis is used to examine the determinants of high blood pressure, and their role in explaining the social gradient.

Results: Although significant and negative overall, the strength of the relationship between hypertension and socioeconomic status is stronger in some countries than others. Stress, behaviour and early life conditions are found to account for much, but not all of this relationship. With some exceptions, prevalence is lowest in smaller Northern European countries. Even independent of the effects of income and demographics, BMI, household facilities at age 10, exercise and stress are found to be robust correlates of high blood pressure.

Conclusions: This study reiterates the importance of social factors in determining one of the leading causes of premature mortality. In order to inform policy, research is ongoing to establish whether the relationships documented in this paper are causal.

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Friday, 2011-09-02

Special session I

Title: **Pension displacement in Europe: Evidence from SHARELIFE**

Author(s): Rob Alessie^{7,8,9}, Viola Angelini^{7,8}, Peter van Santen^{7,8}

Abstract:

We estimate the displacement effect of pension wealth on private savings. The third wave of the Survey of Health, Ageing and Retirement in Europe, SHARELIFE, collects information on the entire job history of the respondent, a feature missing in previous studies that estimate the displacement effect. Combining these data with pension benefits and wealth from wave 2, we can estimate if and to what extent pension wealth crowds out non-pension wealth.

Title: **Retirement improves cognitive performance**

Author(s): Paul Bingley, Alessandro Martinello¹⁰

Abstract:

We study the combined effect of education and retirement on cognitive functions at old ages. Both economic and psychological theories expect a decline of cognitive functions after retirement, e.g. because of a sharp decrease in investment on human capital. Empirically, while cognitive functions measures are on average lower for retired individuals, it is unclear how much of this decline is due to self-selection and unbalanced characteristics of respondents across retirement and how much is due to retirement itself.

In particular, retirees between fifty-five and seventy discount a lower average education level in all SHARE countries. Moreover, across European countries drops in cognitive functions correlate not only with drops in employment rates, but also with drops in average years of education. Given the relevance of education as a policy instrument and the importance of old-

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age cognitive performance for retirement preparedness and investment behavior, whether education causally affects old-age cognitive functions is a considerable issue.

Previous research uses exogenous policy variables – typically minimal retirement ages – as instruments for retirement, and finds negative and sizable effects of retirement on old-age cognitive functions. However, education and retirement eligibility are correlated in SHARE and HRS data. Therefore, if education affects cognitive functions, an instrumental variable (IV) estimator relying only on retirement eligibility as a source of exogeneity would provide confounded estimates for the effect of retirement on cognitive functions.

Two sources of endogeneity arise in this setting. First, individuals endogenously select their level of education according to their cognitive abilities, which are likely correlated with old-age cognitive functions. Second, education can affect retirement choices.

We solve for these sources of endogeneity adopting an IV estimation strategy, where we use retirement eligibility and compulsory years of education as instruments for retirement and years of education. Because of the relative rarity of compulsory education and retirement eligibility reforms within single countries, we exploit cross-national variations in institutional policies. Our sample consists in a cross-section of 2004 HRS and SHARE data for a total of eleven countries. (...)

We present two sets of specifications, for our main sample (individuals between 55 and 70 years old in 2004) and a smaller subsample (individuals between 60 and 64 years old in 2004) to obtain comparable estimates with previous research. For each sample we provide a specification where we correct for age and one where we do not. (...)

We find a negative and significant effect of retirement on cognitive functions only in the larger sample and if we do not correct for age. However, even in this specification, we see that controlling for education significantly reduces the effect of retirement on cognitive functions: retirees recall at worse less than one word out of twenty – around 20% of a standard deviation – less than workers. Controlling for age switches the sign of the effect of retirement, which smoothens the predicted decline of cognitive functions with age.

Conversely, the effect of education is strong. An increase of a standard deviation of years of education adds around 2.44 word recalled in the least favourable specification, corresponding to over 70% of a standard deviation. (...)

We conclude that retirement does not significantly affect cognitive functions at old age, but can actually mitigate its decline. Different educational levels are the main driving force of cognitive functions across retirement.

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Family and gender

Title: Traditional vs. transitional: An international comparison of gendered career patterns in XX century

Author(s): Maxim Kovalenko¹¹, Dimitri Mortelmans¹¹

Abstract:

Research Problem: The traditional, linear career pattern has undergone significant erosion in the last decennia. Career scholars have proposed several alternative career models, most of which place an emphasis on increased job transitionality. In this article, we explore individual career paths in the second half of the XX century, constructing separate typologies for men and women. Career patterns are constructed and analyzed as integral sequences of statuses based on transitions between jobs, unemployment and inactivity, beginning with school graduation and ending with retirement. First, we explore the prevalence of the traditional career (along with the male breadwinner model) in different countries, and we take a closer look at the alternative forms of careers in that period. Multiple career types emerge, with pronounced differences for men and women. Objective job mobility is supplemented with a qualitative indicator to distinguish between internal and external loci of career transitionality control, in line with the theory of *protean* and *boundaryless* careers. To further interpret career taxonomies, we consider the interaction between family life and work, objective and subjective career success and retirement age, exploring differences between discovered career types. Significant differences between career groups are revealed. In this framework of analysis, distinctions in career patterns between men and women are crucial, herefore we present separate models for both genders.

Methods and Variables: Career typologies are constructed using optimal matching analysis. Job events are converted to sequences, where the range of statuses entails sequential job positions in a course of career, unemployment (without work but searching), inactivity (without work and not searching), and retirement. Having obtained Levenstein distances between career sequences, we derive a number of clusters representing different career types. Between-group differences are tested using ANOVA, in regard to familial indicators, objective and subjective career success as well as retirement age. Family variables include the number of marriages and amount of children for individual respondents. Subjective career success is measured by overall career satisfaction, with additional indicators pertaining to

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experiences of one's career as a whole. Salary in the main job is taken as a measure of objective career success.

Title: **The long run consequences of unilateral divorce laws on children – Evidence from SHARELIFE**

Author(s): Steffen Reinhold¹², Thorsten Kneip¹³, Gerrit Bauer¹⁴

Abstract:

Previous research has shown adverse effects of growing up under unilateral divorce laws on long-term outcomes of children. It remains an open question of whether long-term effects of early childhood conditions arise because divorce laws raise the likelihood of parental marital disruption, or whether unilateral divorce laws also affect children in intact marriages by changing intra-household bargaining. Using newly available data from SHARELIFE for eleven Western European countries we address this question employing a differences-in-differences approach and controlling for childhood family structure and socioeconomic status. Like previous research, we find strong adverse effects of growing up under unilateral divorce laws on the well-being of children, and this effect remains even when controlling for childhood variables. We conclude that unilateral divorce laws affect children by changing family bargaining in intact marriages.

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Title: **Poverty of widows in Europe**

Author(s): Anikó Bíró¹⁵

Abstract:

In this paper I investigate the relationship between widowhood and poverty among women aged 50 and above in Europe. I analyze the effect of widowhood on income, wealth, health, and labor force status. I argue that not only the lack of the deceased husband's income, but also the worse health condition and earlier retirement of the widows contribute to the unfavorable financial conditions. I also analyze the cross country differences in the determinants of poverty in widowhood. This analysis can provide some insight on the efficiency of the various social security systems in preventing widows' poverty. The results of the paper are based on the Survey of Health, Ageing and Retirement in Europe (SHARE), and its retrospective third wave (SHARELIFE). In the empirical analysis I take into account that widows are on average in a worse socioeconomic status even before widowhood than the rest of the female population.

The estimation results indicate that the death of the husband has immediate adverse effect on the financial, health, and labour market status of the widow. There are cross country differences in these effects, however the variation in the negative effect of widowhood on the financial status cannot be explained by the differences in the generosity of survivors' pension. This paper is related basically to two strands of the literature. The first part of the related literature provides evidence on the relative poverty of widows. The second part of the related literature analyzes to some extent the actors leading to the poverty of widows. The main contributions of this paper are to provide an international comparison on the poverty of widows in Europe, and to investigate the influencing role of employment, health, and social security systems on the living conditions of widows.

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Work and health

Title: **Does lifetime occupational mobility improve the health of older Europeans?**

Author(s): Małgorzata Mikucka¹⁶

Abstract:

Much of the theoretical debate of social epidemiology addresses the question if social inequality (usually approximated by income inequality) impacts population health. The support for the “income inequality hypothesis” is mixed: some papers, mainly using American data, find a negative relationship, whereas others (predominantly with European data) fail to observe it. Although the causal path leading from social inequalities to bad health is still not fully examined, literature offers several possible links. In particular, higher income inequality may accompany (a) higher risk of bad material conditions, poverty and / or insufficient of welfare, (b) weak social capital and (c) higher psychological stress experienced due to perceived inequalities. Validity of income inequality as a measure of these factors may be discussed. Certainly it is not the only possible one, and its wide use seems rather pragmatic (data availability) than theoretically grounded. Consequently, also other measures of openness of the society should be considered as factors that may improve population health. The paper contributes to the debate by incorporating elements of the social stratification theory, in particular by analysing the impact on health of a measure commonly used in stratification research: occupational mobility. Changing occupation during lifetime is considered a feature of more open societies (with less social barriers), and is associated with higher chances to achieve and to win by own effort – as opposed to situations where the life chances depend largely on the family of birth. Moreover, the experience of occupational mobility may strengthen social capital by increasing chances of building relationships that cross class barriers and consequently improving communication and understanding between individuals belonging to various social classes. Therefore, my analysis focuses on the question: Do individuals who have experienced higher occupational mobility during their careers declare and experience better health in the old age?

The analysis is performed on the second edition of SHARE study (2006) and SHARELIFE dataset (2008). These data offer the unique possibility to combine multivariate record of respondent’s health with detailed information on the individual career path. In the analysis I consider both the objective health measures (grip strength, walking speed) and subjective ones

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(self-assessment). Measure of occupational mobility is constructed using the information on occupational positions that the respondent took during his / her whole career. Since changes of occupation may reflect not only opportunities but also career risks and instability, I control for unemployment experienced during lifetime career. Additionally, to account for the fact that highest mobility characterizes individuals who have reached highest positions, I account for the occupational position in the job considered by the respondent as main and for the characteristics of that job. I also control for childhood living standard and a list of socio-demographic controls. My results suggest that occupational mobility is beneficial for older-age health, however the effect is relatively weak and differs across countries. This analysis is one of the first attempts to incorporate stratification theory into the social epidemiology debate. Its main advantage is strong theoretical foundation of measurement of social barriers. The results are encouraging and suggest further work in this field.

Title: **Retirement effects of heavy job demands**

Author(s): Golo Henseke¹⁷

Abstract:

Motivation: The member states of the European Union aim to improve the labor force participation of older workers. This raises the question whether workers differ in their ability to extend their working life. The study analyzes the possible influence of *heavy job demands* on the decision to retire. Previous research suggests that workload levels may have direct and health mediated effects on the decision to retire, but the empirical findings are inconclusive. (...)

Estimation strategy: The estimation strategy rests on two approaches. Firstly, a linear probability model is used to estimate the average differences in the retirement probability between workers at risk of retirement in differently demanding jobs conditioned on a set of covariates. By successive addition of covariates it is possible to draw conclusion about the robustness of the estimated relationship. This approach yields a picture of the association between heavy job demands and the average probability to retire. Secondly, I use longitudinal information from SHARELIFE on the workload level on the main job during career. Since workers might shift workload or even change jobs to reach an otherwise determined retirement age, I additionally treat the level of job demand in the population at risk of retirement as endogenous variables. The aim is to estimate the consequences of a reduction of

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workload levels on the probability to retire for those workers who are exposed to heavy job demands. The inclusion of the exposure to treatment (heavy job demands) on the main job holds past work experiences constant, the current level thus measures retirement effects of deviations from the 'average' workload level during careers – the specification resembles a within estimator. To tackle the endogeneity issue, I adopt an instrumental variable strategy outlined in the literature on retirement effects of computer use and instrument the individual degree of workload with occupation-specific averages from information on first job characteristics of respondents who are not in the selected sample.

Dataset: The analysis is based on information from SHARE 2.3.0 and SHARELIFE 1.0.0. The dataset is restricted to persons who were employed at the time of the first interview, aged between 50 and the nation- and gender-specific normal retirement age, and who have participated in the two SHARE waves. (...)

Heavy job demand is the result of high levels of physical workload and constant time pressure. Roughly 20% of the respondents in the selected sample work in jobs with heavy job demands. The set of covariates includes sociodemographic characteristics (year of birth, country, schooling), information about the employment relation (self-employed, pension entitlements, early retirement possibility, job satisfaction), health status, and industry and occupation dummies.

Main Results: The findings indicate that the incidence of heavy job demands is higher among workers with low socioeconomic status (primary or lower secondary education, low-skilled blue or white-collar occupations). Heavy job demands are associated with a higher probability of labor force cessation but only in the age group 59 and older, i.e. in an age bracket that is usually eligible for old-age pension benefits. There is no statistically significant effect of heavy job demands on the decision to retire in the younger subsample and the total sample. The findings are robust to the inclusion of covariates. Thus, very early labor force cessation is independent of the exposure to heavy job demands. Adding longitudinal information to the estimation does not change the basic conclusion that retirement effects of heavy job demands are restricted to workers in the age group 59 and older. However, the findings indicate that conditional on exposure to heavy job demands on the main job, there is no association between the level of workload before retirement and the subsequent probability of retirement. Treating the current level of job demands as endogenous variable does not reject those findings. The results question the effectiveness of strategies that aim to lower workload in the last stages of the career to enable delayed retirement.

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Title: **Testing the rational expectations hypothesis of employment for seniors:
Effects of health and working conditions**

Author(s): Adeline Renuy¹⁸, Thierry Debrand¹⁸

Abstract:

Research question and empirical analysis: This research uses the first three waves of SHARE to test the Rational Expectations Hypothesis (REH) in the formation of employment aspirations of seniors and how they are realized on the European labour markets. Agents form efficient expectations by using all available information which makes it possible to know the future conditions (Muth, 1961). Under the assumption of rationality, the beliefs of agents about the future correspond to their achievements. The REH therefore has broad implications for econometric theory and policy. Indeed, together with an increase in life expectancy, early retirement contributes to an increase in the number of years spent in retirement. Problems of financial balance of pension plans will then be generated (Wise, 2010). We determine whether the behaviours of the agents on the labour market can be learnt from knowledge of their expectations and we analyse how health and working conditions could influence these relationships. If necessary, we will not be able to reject the REH and information on the seniors' preferences will improve the efficiency of models designed to predict the decisions in the labour market.

The longitudinal aspect of SHARE enables us to estimate panel models with random effects to control the unobserved heterogeneity. The Heckman probit models estimate also handles the risk of selection. The first stage of our study consists of explaining how employment aspirations of seniors in the European labour markets are formed. To mitigate the statement errors relating to health measures and depression made by individuals, we proxy these variables following the method of Bound (1991). We then introduce past aspirations as determinants of current aspirations to evaluate their stability in time. In a second stage, by following the initial study of Bernheim (1989), we evaluate to what extent employment preferences provide the best predictions of future achievements. In a third stage, we model health shocks and changes in working conditions. We analyze the rationality of individuals by determining the way in which they process existing and new information to form and adjust their aspirations and to their decisions on the labour market.

Data: The best way to evaluate how precise the aspirations are is then to follow the individuals through time and to compare current events with past aspirations (Manski, 2004). The data we use are from the three waves (2004-2006-2008) of SHARE. We follow a sample

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of individuals aged between 50 to 65 years. Our initial sample contains 23,176 individuals.
(...)

Preliminary results: The estimate of the Heckman model indicates the absence of a selection bias. Following panel estimation, presence of unobserved heterogeneity is proven. We note a prominent role for bad working conditions which deteriorate the employment aspirations of seniors. The impact of past employment aspirations on current aspirations is significant and positive for men and women. One individual in two who wants to continue to work in the first period also aspires to employment in the second period. These individuals are coherent in the formation of their aspirations over time. However, half of seniors modify their aspirations. One explanation is that information on working conditions is only partially considered in the initial formation of these aspirations. Strong latitude for women and healthy rewards for men constitute factors encouraging employment aspirations.

The test of the REH supposes that all available information is collected by the aspirations, implying that all coefficients associated with the variables in wave 1 are not significant after taking into account the aspirations. Coefficients associated with the aspirations in wave 1 are significant, but certain variables of working conditions present a significant impact. Even if aspirations constitute indicators of future behaviours, the REH is partly rejected.

The assumption we follow is that if individuals correctly anticipate new information, the impact of shock variables is not significant. Seniors for whom decisional latitude, pressure and more generally satisfaction in employment have deteriorated have a lower probability of wishing to continue working. This result highlights the importance of the time dimension in the analysis of seniors' activity behaviours. Because of uncertainty characterizing these two dimensions, changes in information related to health and working conditions are not perfectly anticipated by individuals and partly explain changes in employment aspirations.

Our study highlights that working conditions and health aspects are important factors in the formation of these aspirations. All public policies designed to modify retirement behaviour of seniors will have to take these determinants into account. Plans for active ageing and a better consideration of the strenuous nature of the working conditions contribute to this.

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Work, health and contexts

Title: **Welfare regimes and the relationship between health and employment**

Author(s): Peter Haan¹⁹, Michal Myck^{19,20}

Abstract:

The relationship between health and employment is fundamental from the point of view of a comprehensive approach towards increasing employment levels among older people and extending their active participation on the labour market up to and beyond retirement. The fact that deteriorating health would have negative effects on employment is very intuitive, and indeed very well documented (e.g. Bound et al. (1999), Chan and Stevens (2001), Blundell et al. (2002), Kalwij and Vermeulen (2008)). What is less clear and so far not so well understood is the opposite effect of lack of employment on health, which suggests feedback effects between the two processes (e.g. Clark and Oswald, 1994; Morris et al., 1994; Virtanen et al., 2005, Bockerman and Ilmakunnas, 2009). Moreover, dynamics of the two processes and the feedback effects potentially existing between employment and health, have so far not been studied in an international context. Yet it seems natural to expect that different policies towards non-employment and different health care systems would have diverse effects on the relationship between health and employment and an international approach to the issue could thus shed light not only on the different degree of persistence in the two processes, but also on the stability of the relationship between them under different welfare regimes.

The potential endogeneity of the employment and health processes has important consequences from the policy point of view, but it also presents a challenge from the point of view of estimation. The availability of a long-term panel data set for Germany made it possible to study the relationship between health and non-employment in a dynamic context where the length of the panel facilitated modelling of unobserved heterogeneity (Haan and Myck, 2009). Such long-term data is not available for a comprehensive international analysis, but in our view the data available in the Survey of Health, Ageing and Retirement in Europe (SHARE) provides an extremely useful basis to study the issue in an international context. Because of the biannual design of SHARE and because its most recent wave contains a lot of information unavailable in most other data sets, the approach we take to modelling the dynamics of health and employment in this paper is different from the one taken in Haan and Myck (2009). We argue that the rich set of background information available in the SHARE baseline interview combined with a rich set of background data from the SHARELIFE survey

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provides grounds for direct control of what is usually considered as unobserved. By controlling the "unobservables" we are able to identify state dependence in the health and employment processes, and the international dimension of the data allows us to study state dependence and the relationship between health and non-employment under different welfare regimes.

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Title: **Evaluating the effect of passive extending work life policies (passive EWL policies) on the pathways of exit in Germany, Italy and the Netherlands**

Author(s): Silvia Rossetti²¹

Abstract:

The overall goal of this paper is to investigate the effect of policies that reduced the monetary incentives to retire early on the pathways of exit that older workers undertook until 2008-2009 in Germany, Italy, and the Netherlands. Retirement is often represented as an instantaneous transition from the labour market to official retirement, which is conceptualized here as the withdrawal of an old-age pension benefit. However, a more realistic representation of how retirement has occurred in the last 50 years requires us to conceptualize retirement not as an event but as a pathway of exit. (...)

Empirical evidence shows us that older workers have recently changed their retirement behaviour. Since the mid-1990's the deeply embedded early retirement patterns have been reversed in Germany, Italy, and the Netherlands and a progressively higher proportion of older workers have kept on working longer than before. From this information we can infer that the pathways of exit have become shorter, but we can infer nothing about the internal composition of the episodes within the pathways of exit (early retirement, unemployment, disability / sickness and household care spells).

The first goal of this paper is to investigate the internal composition of the pathways of exit using Sequence Analysis (SA). On this purpose, the retrospective information contained in SHARELIFE will be used (2008-2009). Within the work history module (RE), the variables that describe the situation after the last job (sl_re035_1) and the subsequent changes of this situation (sl_re039_n and sl_re035_n) will be used to reconstruct the individual pathways of exit as sequences of yearly episodes in a new dataset. In this new dataset the information will be organized longitudinally at individual level and will describe the sequence of institutional episodes that the individual undertook from the moment in which he left his last job until official retirement. The data will be analyzed according to the Optimal Matching Approach (OMA). According to this approach a matrix of dissimilarity between pairs of sequences is computed on the bases of the cost of substituting one sequence into the other. This matrix of dissimilarity will be used as input data for a Cluster Analysis. Cluster Analysis will then group individual sequences in a number of clusters, according to their similarity. Each cluster will be represented by the Ideal-Typical sequence, that is the observed individual sequence (pathway of exit) that is least dissimilar from the other individual sequences in the same

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cluster (Medoid Approach). The most frequent Ideal-Typical pathways of exit in Germany, Italy and the Netherlands will be described and interpreted.

The second goal of my paper is to investigate the determinants of recent pathways of exit in Germany, Italy, and the Netherlands. In particular, pathways of exit will be used as a dependent variable in a regression framework to evaluate the effect of passive EWL policies implemented from the beginning of the 1990's onward. According to my analytical framework, passive EWL policies reduce the monetary incentives to undertake a pathway of exit, because they cut the generosity of the institutional arrangements that decommodify it (early retirement, disability, sickness and unemployment schemes). They are operationalized as policies that tighten the eligibility conditions to enter the different episodes (higher age, longer contribution history, a more objective status of disability), that reduce the generosity of the benefit according to the age at which the individual leaves the labour market and that shorten the maximum duration of decommodified unemployment spells (so that they do not last until statutory retirement age). I will merge SHARELIFE data with information about how the monetary incentives to enter the institutional episodes are modified because of the progressive implementation of passive EWL policies. These variables about the monetary incentives will be constructed from welfare context information that are made available by both the SHARE project and MISSOC. Competing Risk Model or another multinomial longitudinal data method will be used in order to investigate to what extent passive EWL policies have affected older workers' choice of how composing their pathways of exit in Germany, Italy and the Netherlands. This investigation will control for the individual and household variables that affect the retirement behaviour according to the literature.

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Title: **Disability insurance and health**

Author(s): Enrica Croda²², Jonathan Skinner²³

Abstract:

Disability insurance programs play a crucial role in the social safety net of all developed countries. In recent years, the fraction of individuals receiving disability-related transfers in most western countries has grown substantially. As the number of beneficiaries has increased, the costs of DI programs have been rising everywhere both in level and as a percentage of GDP, with wide differences between countries both in expenditure levels and in changes over time. (...) The rising costs of DI programs are putting pressure on government finances, with important consequences for the sustainability of their social security systems (OECD, 2003, 2010; European Commission, 2006). In response, some governments have restricted eligibility and reduced payment rates (Euwals, et al., 2009), but these reforms in turn have caused concerns about restricted access to DI for people with very serious disabilities that prevent them from working. (...) In this paper, we use three waves of the Survey of Health, Ageing, and Retirement in Europe (SHARE) for Europe, and of its sister survey, the Health and Retirement Study (HRS) for the US, to shed light on this tradeoff.

In a seminal study, Börsch-Supan (2007) showed that most of the cross-country variation in disability enrollment rates could be attributed to institutional country-specific differences in disability insurance rules. How should these institutional differences affect the average level of disability across these countries? We propose a stylized model of DI application and enrollment that captures the tension between budgetary costs and the health of DI applicants, and also allows for cross-country differences in two key parameters: the importance of employment opportunities in determining eligibility, and the efficiency in screening for health-related disabilities. The first implication of the model is that countries setting stricter eligibility for health-related disability will experience both lower DI enrollment rates, and conditional on receiving DI, enrollees will also be substantially sicker than average (and much sicker than those not on DI). The second and less intuitive implication is that the difference in how countries make tradeoffs between health and employment blurs and could even offset the first implication of the negative association between the generosity of the program and the health of its enrollees.

Finally, country-level systems with more “error” in terms of DI acceptance or denial based on idiosyncratic characteristics of applicants will further attenuate health-related differences between the DI and the non-DI population. We test the model using longitudinal data on individuals from thirteen SHARE countries in Europe and the U.S. The empirical analysis

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confirms that there is large variation across countries in the share of those aged 50-64 enrolled in disability insurance programs, ranging from less than 3 % in Greece and Austria to more than 14 % in Sweden, Denmark, and Poland (Börsch-Supan and Roth, 2011). However, when we compare patterns of health and DI participation, we do not find evidence of correlation between the size of the DI program and the average or relative self-reported health or depression scores of those in the DI program. The evidence does not favor the conventional “tradeoff” model: DI enrollees in low-enrollment countries are no sicker or depressed than DI enrollees in high-enrollment countries. In the multivariate analysis, we exploit the availability of retrospective information on DI application history in SHARELIFE and estimate the probability of receiving disability insurance using partial-observation probit techniques (Poirier, 1980), thus expanding on previous work (Croda and Skinner, 2009), where we could only estimate a reduced form model because of the lack of suitable data. We run probit regressions for the whole SHARE sample, the US, and separately for each country. We find that the puzzling lack of correlation between average health and disability enrollment can be explained in part by differences across countries in the weight they place on labor market opportunities, as proxied by education, and how well they screen for disability. Our analysis indicates that European countries appear to place a greater weight on the lack of market opportunities, while in the US there is no impact of market opportunities on DI enrollment once one controls for self-reported health. These preliminary results suggest that policy reforms should look beyond simply loosening or tightening eligibility requirements to helping workers experiencing chronic disability, pain, and poor employment prospects remain in the labor force through supported employment and other programs keeping people who could potentially work off DI to begin with.

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Saturday, 2011-09-03

Special session II

Title: **The long-lasting effects of family background: A European cross-country comparison**

Author(s): Fabrizio Mazzonna²⁴

Abstract:

The extent to which parental socio-economic status (SES) affects human capital accumulation for children and therefore their adult socio-economic outcomes has always been of particular interest to social science for both equity and efficiency reasons. (...) However, few studies try to explain the reasons for the observed cross-country heterogeneity and therefore they do not sharpen our understanding of the mechanisms behind intergenerational persistence of socio-economic status. This paper tries to overcome these limits by taking advantage of the Survey of Health, Aging, and Retirement in Europe (SHARE). (...) SHARE is designed to be cross-nationally comparable, so it is suitable for cross-country comparison of the level of intergenerational persistence of SES across countries. The paper explores the richness of retrospective information on respondents' family backgrounds during their childhood provided in the third wave of SHARE, called SHARELIFE. Since SHARELIFE does not contain direct information on income or wealth of the respondent's parent, we use several types of retrospective information on the respondent's socio-economic background when he or she was a child (i.e. household characteristics, number of books at home, and main breadwinner's occupation) to proxy for his or her parental SES.

Two main issues are examined. Firstly, we analyze how and to what extent disparities in family SES during childhood have long-lasting effects on old-age health, income and cognition measured in the second wave of the survey. Secondly, we show how and to what extent intergenerational mobility of SES varies across European countries. The results confirm the crucial role of family background during the childhood in determining old-age health, cognitive and economic outcomes. The main channel for this effect seems to be education that has a strong effect on old-age outcomes even after controlling for childhood school performances and health status. At the same time, the cross-country comparison shows large variation in the role of family background across countries, with Italy and Spain characterized by the highest inter-generational persistence of SES. Cross-country differences seem to be mainly driven by the crucial role that SES in childhood plays in determining individuals' educational attainment—in particular in Mediterranean countries. In these

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countries, in fact, we observe the largest gap in educational attainment between individuals who grew up from different socio-economic backgrounds. We show that the more reasonable explanation for such a result may be found in the different efforts of the European countries in promoting full-time education. Mediterranean countries, in fact, introduced later than other European countries educational reform aimed at increasing the educational attainment of the whole population (e.g. compulsory schooling laws). This interpretation is consistent with the theoretical framework proposed by Becker and Tomes (1986) in the case of imperfect capital markets in which public investments in children's human capital may reduce the investment gap between poor and rich children and therefore reduce the level of intergenerational persistence of SES in the society. Finally, we confirm the presence of a strong link between inequality and intergenerational transmission of human capital as predicted by the literature (Solon 2004, Galor 2011).

However, public provision of education may not be sufficient to fully reduce the observed socio-economic gradient, since it starts to widen beginning with early childhood, as shown by the respondent's self-reported school performances in math and languages at the age of 10. Still, the results show a large cross-country heterogeneity in this gradient, suggesting that such differences at early stages might be the result not only of different genetic endowments but also of different institutional and cultural settings across European countries.

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Title: **How survey design affects inference regarding health perceptions and outcomes**

Author(s): Anneke Exterkate²⁵, Robin L. Lumsdaine²⁶

Abstract:

This paper considers the role of survey design and question phrasing in evaluating the subjective health assessment responses in the Survey of Health, Ageing and Retirement in Europe (SHARE) dataset. A unique feature of this dataset is that respondents were asked to evaluate their health on a five-point scale twice during the survey, using two different sets of descriptors to define the five points, with the ordering of which set is first given determined randomly. We find no evidence to refute the assertion that the order was determined by random assignment. Yet we document differences in the response distributions between the two questions, as well as differences in inference in comparing the two populations (those that were asked one question first versus those that were asked the other). We then consider determinants of the degree of concordance between the two questions, as well as the determinants of individuals that provide conflicting responses. There appears to be evidence to suggest that individuals' assessments of their health in response to the second question may be influenced by the battery of health questions that were asked following the first assessment. We find that information in self-assessed health responses are useful in examining health behaviors and outcomes. Our results suggest that adjusting such responses to take into account framing and sequencing of questions may improve inference. In addition, we show that accounting for survey design may be important in models for predicting outcomes of interest, such as the probability of a major health event.

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Early life conditions and later life outcomes

Title: **Tracing the origins of successful aging: The role of childhood conditions and societal context**

Author(s): Christian Deindl²⁷, Karsten Hank²⁷, Martina Brandt²⁸

Abstract:

This study investigates the role of childhood conditions and societal context in older Europeans' propensity to age successfully, controlling for later life risk factors. Successful aging was assessed following Rowe and Kahn's conceptualization, using baseline interviews from the first two waves of the Survey of Health, Ageing and Retirement in Europe (SHARE). These data were merged with retrospective life-histories of participants from 13 Continental European countries, collected in 2008-09 as part of the SHARELIFE project. Our sample consists of 22,474 men and women, who are representative of the non-institutionalized population aged 50 or older (mean age: 63.3) in their respective country. Estimating multilevel logistic models, we controlled for demographics (age, sex), childhood conditions (SES, health, cognition), later life risk factors (various dimensions of SES and health behaviors), as well as country-level measures of public social expenditures and social inequality. There is an independent association of childhood living conditions with elders' odds of aging well. Higher parental SES, better math and reading skills, as well as self-reports of good childhood health were positively associated with successful aging, even if contemporary characteristics were controlled for. Later-life SES and health behaviors exhibited the expected correlations with our dependent variable. Moreover, higher levels of public social expenditures and lower levels of income inequality were associated with a greater probability to meet Rowe and Kahn's successful aging criterion. We conclude that unfavorable childhood conditions exhibit a harmful influence on individuals' chances to age well across all European welfare states considered in this study. Policy interventions should thus aim at improving the conditions for successful aging throughout the entire life-course.

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Title: **Measuring the effects of selected childhood events on adult outcomes:
evidence from SHARELIFE**

Author(s): Enkelejda Havari²⁹

Abstract:

This paper exploits the effects of particular events registered during childhood on adult outcomes. We find that experiencing hunger before age 10 has negative implications on health status and educational outcomes. Among many pathways we find that child health seems to be the channel through which hunger influences adult health status. On the other hand, family SES and the intellectual environment in which the child is grown up matter for their education and future earnings. The analysis is based on the second and third wave of SHARE (Survey on Health Aging and Retirement in Europe).

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