Prolonging working life

Opportunities and limitations of research using European datasets

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Abstract

The PEROSH project titled 'Prolonging Working Life' aims to determine push and stay factors for labour market participation of older workers across different European countries. Part of the project is to compose an overview of relevant research questions that could be studied using available European datasets. We checked the available data, the research already done and concluded which avenues are the most promising for research in the field of prolonging working life. Our suggestions:

- The impact of new technology, which is expected to be relevant to older workers.
- The influence of lifestyle, financial factors and personal factors, in particular their contribution compared to (or in interaction with) work factors. Special attention is needed for the growing number of older workers who provide informal care.
- European datasets enable cross-country comparison of the impact of a wide range of factors on work participation. Which factors are important in all countries? Which factors are typical for only some of them? How could we explain differences?

Finally, we would like to encourage forthcoming European studies to include more aspects of the human capital, such as skills and motivation, in the questionnaires.
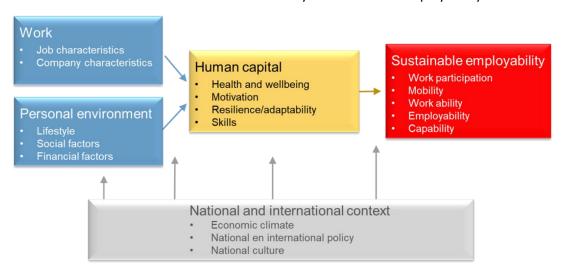
Introduction

Due to demographic changes across Europe, there is a strong political drive to maintain the labour force by prolonging working life. In 2018, we started a new PEROSH project titled 'Prolonging Working Life'. The project aims to determine push and stay factors for labour market participation of older workers across different European countries with different regulations and cultures. Part of the project is to make a list of relevant research questions that could be studied using available European datasets. European datasets have the advantage that similar questionnaires are used to assess data from different countries. They offer the opportunity to integrate the national context in the analyses of the impact of different factors on work participation of ageing workers. The national context refers to regulations with regard to pensions, social security's etc., but also to culture, economic climate and unemployment rate.

In this part of our project, we first composed an overview of relevant research questions based on a simple framework. Then, we searched for European datasets that contain the data needed. We also checked the research already done. Based on these observations, we conclude which avenues are the most promising for research in the field of prolonging working life.

Which questions are relevant?

To illustrate and classify the questions we are interested in, we use a simple framework. The framework below is derived from a Dutch cohort study on sustainable employability.

The outcome of this framework is sustainable employability. Although our main interest is work participation of older workers, we kept the broader outcome, since the other concepts are strongly related. Based on the model we distinguish between different domains related to different sets of questions. Ideally, for all questions we would like to include the context in which the relations under study take place as well as the relations and interactions with other domains. However, most datasets do not contain the complete set of variables as represented in the framework.

Below we will go shortly into European datasets. Then, we will describe the different types of questions, which databases could contribute, what has been done already and which avenues for research are promising.

European datasets

On the last page of this document you will find an overview of the available European datasets that can be used for analyses that are of interest to the aim of our working group, but may inspire other researchers in this area as well. We only included datasets that contained at least some information on work status and some work or job characteristics. The Eurobarometer is not included in this overview, since it is limited to perceptions, attitudes and opinions. However, some of its surveys are very useful for background information. For instance, in 2011 a survey was carried out on Active Ageing within the framework of the Eurobarometer. The report contains attitudes and perceptions on age discrimination in general, on older people in the workplace, and on retirement and pensions. In 2015, a survey on discrimination was held, that also contained age discrimination.

Datasets that do contain interesting data for analyses with regard to prolonging working life are:

- SHARE (Survey of Health, Ageing and Retirement in Europe)
- EWCS (European Working Conditions Survey)
- LFS (Labour Force Survey) ad hoc module 2013
- EU-SILC (European Union Statistics on Income and Living Conditions)
- Cedefop's European skills and jobs survey

SHARE and EU-SILC are (partly) longitudinal studies, while the other studies are cross-sectional. SHARE is the most complete dataset, containing data on work, personal environment, human capital and work status. The other datasets offer opportunities to elaborate on some details. For example the EWCS has the most detailed information on working conditions, while Cedefop has detailed information on skills. None of the databases contain information on the national context. However, this information is only needed at an aggregated level and could be derived from other sources. For more information we refer to the table at the end of this document.

Below we will go into the questions that may be analysed in the European datasets that are included in the overview. We will also take into account which studies are already published in this field.

The impact of human capital

According to the framework, factors in the work domain and in the personal domain affect the human capital. For instance, work factors may affect workers' health and education affects workers' skills. Subsequently, the human capital has an effect on sustainable employability. Human capital includes health and wellbeing, motivation, skills and personal characteristics such as resilience and adaptability.

Already, many studies have been done on these European datasets on the impact of health and wellbeing on work participation or exit from work. It would be relevant to study skills in relation to employability or work participation. Due to technological innovations, skills become more and more important, in particular for older workers. Although technological innovations may reduce the physical workload (e.g. exo-skeletons and lifting-robots) and thus prevent development of poor health, an imbalance between technological skills and requirements may make it more difficult for

the older worker to cope with the demands. Upgrading of individual skills will likely become more important in the future.

However, apart from education, data on skills are scarce in European datasets. Only Cedefop's skills survey has comprehensive information about skills. However, this skills survey contains no item that could genuinely serve as an indication for sustainable employability or a prolonged working life. Some national studies indicate that motivation is an important factor. However, motivation is not a clear concept. It is not obvious how to investigate the impact of motivation in European datasets.

In summary, the European datasets offer only few opportunities for new studies on the impact of human capital on work participation or similar indicators of a prolonged working life. Therefore, we would like to encourage forthcoming European studies to include more aspects of the human capital, such as skills and motivation, in the questionnaires.

The impact of work

According to the framework, work factors have an impact on work participation through their impact on the human capital. Since our working group is based on institutes focused on occupational safety and health, the impact of work is probably one of our main interests.

Several risk factors have already been identified, in particular those that affect work participation through detrimental health effects. The SHARE data in particular, were used often to study the impact of work stress, working hours and quality of work. Also the positive effects of favourable work factors, such as high job control and support, have been studied before. Still unknown is the effect of new developments in the world of work. Important new developments are digitalization, robotization and other technological innovations. Some of them might help older workers to keep participating in the workforce, while others may become a problem for ageing workers, in particular if their skills are not up to date.

The EWCS has the most detailed data on work characteristics. However, the EWCS is not a longitudinal study. Therefore, it is not possible to analyse the relation between work characteristics and future work participation. However, some measures available in the EWCS offer an indication of employability, such as the age until which participants estimate that they will still be able to work, or the easiness to find a new job.
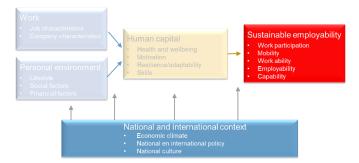
The impact of the personal environment

Similar as work factors, factors of the personal environment have an impact on work participation through their impact on the human capital.

Very few studies using European datasets deal with the impact of the personal environment on human capital, work participation or indicators of employability. No studies were found on lifestyle factors or financial factors, although these factors are available[1] in the European datasets. Factors with regard to the personal environment should not be neglected in research aimed at factors to prolong working life. For one thing, it would be relevant to know the relative contribution to early retirement of the personal environment compared to work factors, or how these factors interact. Then, another phenomenon of importance related to the demographic changes in Europe, is the increase in informal care. Informal caregiving is mainly done by older workers and is often difficult to combine with a fulltime job.

The impact of the national context

The national context is not only about national policy or legislation, but refers also to the economic situation in a country or the national cultural values. According to the framework, the national context has effect on all other domains, but also affects the relation between the domains.

As mentioned before, European datasets offer the possibility to include the national context in analyses. However, very few studies make use of this opportunity. Relevant issues to be investigated could be the relative influence of national factors, or which work or personal factors are favourable/unfavourable in all national contexts.

Summary of the results and suggestions for analyses

- Although the **impact of work factors** have been studied before, the influence of some of them remains unclear. In particular, the impact of new technology, which is expected to be relevant to older workers. The EWCS offers the opportunity to study the impact of work factors on employability related factors, such as the age which participants estimate that they will still be able to work, or the easiness to find a new job.
- Only few studies investigate the **impact of the personal environment**. The influence of lifestyle, financial factors and personal factors may be interesting in relation to prolonging working life, in particular their contribution compared to (or in interaction with) work factors. Special attention is needed for the growing number of older workers who provide informal care.
- European datasets enable **cross-country comparison** of the impact of a wide range of factors on work participation. Which factors are important in all countries? Which factors are typical for only some of them? How could we explain differences?

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[1] All European datasets contain data on financial factors, SHARE contains lifestyle factors.

Finally: the European datasets offer only few opportunities for new studies on the impact of human capital on work participation or similar indicators of a prolonged working life. Therefore, we would like to encourage forthcoming European studies to include more aspects of the human capital, such as skills and motivation, in the questionnaires.

Overview of European datasets suitable for analyses

	SHARE (Survey of Health, Ageing and Retirement in Europe)	EWCS (European Working Conditions Survey)	LFS (Labour Force Survey) + ad hoc module 2013	EU-SILC (European Union Statistics on Income and Living Conditions)	Cedefop's European skills and jobs survey
Availability	Free of charge	Free of charge	Free of charge	Free of charge	Free of charge
Year(s)	2004-2019 (ongoing)	1990-2015 (every five years)	ad hoc modules on accidents at work and work related health problems in 2007, 2013 and 2020	2003-2019 (ongoing)	2014, 2020/2021?
Design	Longitudinal	Cross-sectional	Cross-sectional	Longitudinal and cross-sectional part	Cross-sectional
Link to administrative data	Possible in Germany, Austria, Denmark, Estonia, Luxemburg, the Netherlands, the province Girona in Spain, Belgium and Finland	no	no	no	no
European coverage	EU Member States only	Full	2013 not available for the Netherlands and Germany?	Full	Full
Job characteristics	type of industry, company size, contracted hours, prospects, job security, job title, supervising role	type of industry, company size, contracted hours, prospects, job security, job title, supervising role, and more…	type of industry, company size, contracted hours, prospects, job security, job title, supervising role, and more…	type of industry, sector, company size, job title, supervising role, fixed term or temporary, contracted hours	job description, job title, type of industry, company size, promotion/demotion, contracted hours, contract, tasks, more……
Work characteristics	physically demanding, time pressure, autonomy, opportunity to develop new skills, adequate support	comprehensive assessment of work factors (physical, intensity, time, social environment, skills, etc.)	LFS: shift work, irregular working hours, telework; ahm 2013: bullying, time pressure, exposure to substances, work postures	only job characteristics	limited
Education/SES	√	√	√	√	√
Lifestyle	smoking, diet, alcohol, physical activity	no	no	no	no
Social factors	activities (social participation), household, demographics, social networks, informal caregiving	(time spent in) activities such as voluntary work, informal care, sports etc.	demographics, marital status	demographics, marital status, education, informal caregiving, attendance of live sporting events, live performance, cinema, artistic activities, contact with family and friends	household

Finances	income, prospects, pension, etc.	household able to make ends meet	income	(household)income, pension schemes	earnings
Health	general health, long-term illnesses, limitations, pain, biomarkers	general health, specific health problems, limitations, sleep	LFS: condition that caused sickness absence; ahm 2013: work related health problems and accidents	general health, longstanding illness/disability, limitations, ability to work	no
Medical consumption	visit to doctor, medication, hospital, nursing homes	no	no	medication, medical care	no
Attitudes intentions with regard to retirement	as early as you can, health limitations	until what age - want to work/able to do current job?	no	no	no
Reasons stopped working	√	not applicable	√	reasons not wanting/looking for work, reasons for retiring early	not applicable
Skills	only education	only education	only education	only education	literacy, numeracy, communication technology skills, costumer handling, skills match and more….
Work status	multi-jobbing, self-employed, etc.	study population contains only (self-)employed persons	√	√	study population contains only (self-)employed persons
Sickness absence	no????	number of days, relation to work, presenteeism	√	√	no
Employability	no	easy to find another job	no	no	no
Link	SHARE	EWCS	LFS	Eurostat EU-SILC	European skills and jobs (ESJ) survey
Overview of earlier studies	SHARE research results employment	Publications topic Ageing Workforce	LFS Publications	EU-SILC Publications	publications