

Chapter 3

Data Issues and Indicators



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Abstract This chapter documents a variety of national and cross national quantitative data sets and indicators for people aged 50 and over, which also include gender-sensitive measures and/or indicators for health and socio-economic wellbeing. Special attention is given to longitudinal data sets with indicators on relevant life-course events covering child care activities, workforce participation and employment history. We give illustrative examples of some indicators and data sets as they pertain to issues associated to the duration of working lives. The context for this exploration of data sets starts with the definition across European countries of extended working life, which relates to institutional factors, norms, attitudes and status of labour markets and their implications for wellbeing in later life, accounting for gender issues where possible.

Keywords Gender · Extended working life · Indicators · Drivers/barriers for work · Poverty · Values

Introduction

In the face of population ageing, sustainable budgets and relatively early retirement in at least some European countries, extending the working lives of both men and women has become one of the main EU policy targets (European Commission 2012: 9). However, longer working lives are shaped both by gender and health status, underscoring the importance of investigating the possible effects of gender- and health-related

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issues on actual decisions to extend work. The issues are further complicated by non-standard definitions of extended working life in different country-contexts. This relates to nation-specific institutional factors, norms, attitudes and status of labour markets, each having varied implications on later life health, work and wellbeing from the perspective of similarities and differences in women's and men's experiences.

Which impact factors might be relevant? Besides differences in labour market activity, retirement options and traditional retirement patterns, 'complexity in retirement also derives from the fact that distinct social groups may undergo different processes and, hence, display varied retirement behaviour. For example, women at higher working age typically have different kinds of jobs and often lower income than men of the same age, they work substantially more often part-time, have different roles in private life, and in most countries leave work at a younger age than men. In consequence, decisions about retirement may be assumed to involve a varied set of criteria and follow different decision-making processes among women and men, which also needs to be reflected in research' (Hasselhorn and Apt 2015: 22).

The scientific work in Working Group 3 (WG3) of COST action IS1409 thus revolved around data that could elucidate the health and gender implications of extended work. The goal of the COST Action was to advance scientific knowledge about gendered impacts of extended working life on the health and economic wellbeing of older workers in Europe and to support evidence-based gender-sensitive future policy. The tasks of WG3 were (1) to identify and map national and international data sets for people aged 50 and over; (2) to investigate the availability of appropriate gender-sensitive measures and indicators; and, (3) to discuss the possible development of novel measures through creative use of existing data, by answering the following questions:

- What data sources are available?
- What indicators are available?
- Should new indicators be developed to enable gender analysis etc.?

Data Sets and Indicators—An Overview

What data sources are available? An overview of relevant quantitative data sets and indicators on people aged 50 with gender-sensitive measures and indicators for health and socio-economic wellbeing is shown in Table 3.1.

WG3 developed a grid with information on available data sets, summarising the geographical spread and population covered and the type of data collected (quantitative/qualitative) as well as brief information on content. Surveying the datasets for relevant information, the grid shows datasets with varying breadth of coverage of gender specific indicators, psychological and physical health indicators, and life course indicators. Other technical information was also gathered, such as year(s) of

Table 3.1 Grid showing a selection of data sets with relevant indicators

| Data set—acronym | Full title of data set | Geographic coverage | Population covered | Short description |
|------------------|--|---|--------------------|---|
| SHARE | The Survey of Health, Ageing and Retirement in Europe | 26 European countries (+Israel) | 50+ | Multidisciplinary and cross-national panel database of micro data on health, socio-economic status and social and family networks |
| EU SILC | EU-Statistics on Income and Living Conditions | 27 European countries (+Croatia, Iceland, Norway, Switzerland and Turkey) | 16+ | Multidisciplinary and cross-national panel database of micro data on income, poverty, social exclusion and other living conditions |
| STREAM | Study on Transitions in Employment, Ability and Motivation | Netherlands | 45–65 (in wave 1) | Longitudinal survey (4 waves) about the transitions of older Dutch people in and out of the labour market and into retirement. Many questions about work ability, employability, motivation, work characteristics, working conditions |
| TILDA | The Irish Longitudinal Study on Ageing | Ireland | 50+ | Inter-disciplinary panel of experts in various fields of ageing exploring the social, economic and social impact of aging |
| DEAS | German Ageing Survey | Germany | 40+ | Nationwide representative cross-sectional and longitudinal survey. It provides micro data for use both in social and behavioural scientific research and in reporting on social developments |

(continued)

Table 3.1 (continued)

| Data set—acronym | Full title of data set | Geographic coverage | Population covered | Short description |
|------------------|------------------------------------|--|--------------------|---|
| EQLS | European Quality of Life Survey | 1st EQLS (2003)—28 C 27 EU MS and Turkey 2nd EQLS (2007/08)—31 C: 27 EU MS, Croatia, FYR Macedonia, Turkey, Norway 3rd EQLS (2011/12)—34 C: 27 EU MS, Croatia, Iceland, FYR Macedonia, Montenegro, Serbia, Turkey and Kosovo. 4th EQLS (2016)—EU28 + 5 accession countries | Residents 18+ | Randomly selected face-to-face interviews, 1000–3000 per country. Questions on quality of life related to the following fields: social, economic, environmental and work-related elements, as well as subjective wellbeing and the quality of society. Together they offer a multidimensional picture of quality of life relevant to policymaking within the EU, including crisis |
| EWCS | European Working Conditions Survey | 6th EWCS (2015): EU28, NO, CH, Albania, FYROM, Montenegro, Serbia, Turkey 5th EWCS (2010): EU27, NO, HR, FYROM, TR, Albania, Montenegro and Kosovo 4th EWCS (2005): EU27, NO, TR, and CH 3rd EWCS (2000): EU15 + NO; 2001/2 + CC and TR 2nd EWCS (1995/96): EU15; 1st EWCS (1990/91): EC12 | Workers | Overview of working conditions since 1990, with the scope of the survey questionnaire widening over time. Random sample of workers (employees and self-employed). Themes covered today include employment status, working time duration and organisation, work organisation, learning and training, physical and psychosocial risk factors, health and safety, work-life balance, worker participation, earnings and financial security, as well as work and health |

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Table 3.1 (continued)

| Data set—acronym | Full title of data set | Geographic coverage | Population covered | Short description |
|------------------|--|--|---|---|
| HWR | Health, Work and Retirement Study | New Zealand | 55–70 in wave 1 in 2006. Age range in 2016 will be 55–80 years. A partner's panel was included in an off-cycle wave in 2013 | This is a population-level study which aims to identify the health, economic, and social factors underpinning successful ageing in New Zealand's community dwelling population. Two further waves are funded for 2016 and 2018. A separate care giving questionnaire also included in 2013. A life history face-to-face interview to be undertaken in 2016. Data linkage with public health records is currently being undertaken |
| ESWT | Establishment Survey on Working Time and Work-Life Balance | EU-15 in 2004 and the Czech Republic, Cyprus, Latvia, Hungary, Poland and Slovenia in 2005 | Establishments (data collected from management and employee representatives) | Aims to map working time policies and practices at the level of the establishment in the EU, to survey the views of the different actors at establishment level on these policies and practices and to provide policy makers with a picture of the main issues and developments in the field. It was agreed to focus on the following working time arrangements which are likely to have an impact on work-life-balance: part-time work, extended operating hours (night work, week-end work, shift work), flexible working time arrangements (e.g. flexi-time, working time accounts), overtime, child-care leave and other forms of long-term leave, and phased retirement and early retirement |

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Table 3.1 (continued)

| Data set—acronym | Full title of data set | Geographic coverage | Population covered | Short description |
|------------------|--|---|--------------------------|---|
| LFS | Labour Force Survey | In Europe, the labour force survey is a long-standing survey, going back in some countries to the 50s or 60s | Active population 15+ | comprehensive survey on labour market characteristics conducted on a sample of households. Collects data on the state and changes to the labour market, i.e. the size, structure and characteristics of the active and inactive population |
| ECHP | European Community Household Panel | BE, DK, DE, ES, GR, FR, IR, IT, LU, NL, AT, PT, FI, UK 1994; 12 EU countries; 1995 + Austria; 1996 + Finland; 1997 + Sweden; 1997 original study ECHP stopped in DE, LU and UK. For DE and UK from 1994 onwards national surveys with similar information available | 16+ | Yearly panel data (1994–2001) in 12–15 European countries. It includes information on the household (demographic, income, accommodation, children) and person (employment, unemployment, search for job, education and training, health, social relation, satisfaction with aspects of life). The ECHP was succeeded by the EU-SILC (European Survey on Income and Living Conditions) from 2003 onwards |
| NKPS | Netherlands Kinship Panel Study | Netherlands | 18–79 | The Netherlands Kinship Panel Study (2002–2006–2010–2014) is a survey meant to improve our understanding of the dynamics of family relationships in the Netherlands. The NKPS-data are collected from multiple actors, by multiple methods, and at multiple points in time |
| Country HR + SL | Survey on employer perspectives on older workers | Croatia and Slovenia | Firms, employers | Survey focused on employers' opinion on older workers work characteristics in comparison to young workers |

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Table 3.1 (continued)

| Data set—acronym | Full title of data set | Geographic coverage | Population covered | Short description |
|------------------|--|---|--------------------|---|
| ALSA | Australian Longitudinal Study of Ageing (ALSA) | Australia (particularly Southern Australia) | 70+ | Comprehensive personal interview and assessment of neuropsychological and physiological functions supplemented by self-completed questionnaires, biochemistry, and additional clinical studies of physical function |
| ELSA | English Longitudinal Study of Ageing (ELSA) | England | 50+ | Survey to investigate a broad range of measures about health and disability, biological markers of disease, economic circumstance, social participation, networks and wellbeing |
| IT_SI | Not Self-Sufficient Individuals' Social Inclusion (Rilevazione sull'inclusione sociale delle persone con limitazioni funzionali) | Italy | from 11 to 87 | People with functional limitations and health problems who live in households, analyse their social inclusion in everyday life and to understand which factors limit their full participation in society |
| IT_Health | Health Conditions and Use of Health Services | Italy | 0+ | Health status and socioeconomic conditions of the Italian population |
| ECS | EF European Company Survey | | | Since 2004, every year different topic, e.g. parental leave, early retirement |

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Table 3.1 (continued)

| Data set—acronym | Full title of data set | Geographic coverage | Population covered | Short description |
|------------------|--|--|---|--|
| NN | Equal opportunities in the labour market for people aged 50+ | Poland | Men and women 45+/50+ | Detailed diagnosis of the current situation of women and men aged 50+ on the labour market in Poland |
| NN | French National Employment Survey (Enquête Emploi) | Range (national) | All members 15+ in the household; approximately 66,000 households | Continuous employment survey that allows estimations of employment/unemployment rates for each quarter; information on transitions in and out of employment |
| GGP | Generations and gender in Belgium | System of national Generations and Gender Surveys (GGS) and contextual databases, whose aim is to improve the knowledge base for policymaking in UNECE countries | 18–79 | Provides data that can contribute to enhanced understanding of demographic and social developments and of the factors that influence these developments, with particular attention given to relationships between children and parents (generations) and those between partners (gender) |
| VOW/QFT | Workability survey | Belgium | Employees | The capacity to work (workability) defined as a balance between the characteristics of the worker (health status, personal resources, efficiency and intent to stay, knowledge and skills) and work requirements (psychosocial and physical workload, safety, job requirements). Based on the WAI (work ability index) |
| ELES | Longitudinal Study Aging in Spain (ELES) | Spain | Spanish population born before 1960 | Interdisciplinary panel study created to track elderly Spanish population born before 1960, for a period of 20 years |

(continued)

Table 3.1 (continued)

| Data set—acronym | Full title of data set | Geographic coverage | Population covered | Short description |
|------------------|--|---|---------------------------------|--|
| JPI | Joint Programming Initiative “More Years, Better Lives”—JPI DATA collection | Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Italy, Netherlands, Spain, Sweden, United Kingdom, Europe | | VARIOUS topics: (1) Health and Performance, (2) Social Systems and Welfare, (3) Work and Productivity, (4) Education and Learning, (5) Housing, Urban Development and Mobility, (6) Public Attitudes towards Older Age, (7) Social, Civic and Cultural Engagement, (8) Wellbeing, (9) Uses of Technology, (10) Intergenerational Relationships |
| LIDA | Lithuanian data archive of humanitarian and social sciences (Lietuvos HSM duomenų archyvas) | Lithuania, in some cases—comparative EU data | 18+ | Contains social survey data, historical statistics and data about Lithuanian political system. All metadata are bilingually documented in English and Lithuanian |
| GENTRANS | Generational transmissions in Finland | Finland | Baby boomers and their children | This is an excerpt from the SHARE survey, dealing only with questions on intergenerational relations and transfers |
| NoWork | The long-term effects of unemployment on older workers; Studying lifecourse influences in social context | Finland | 65+ | This is an excerpt from wave 3 of the SHARE survey, replicating questions on the working history, marital history and situation at retirement |

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Table 3.1 (continued)

| Data set—acronym | Full title of data set | Geographic coverage | Population covered | Short description |
|------------------------|--|---|--------------------|--|
| IGDC | Israel Gerontological Data Center | Israel | 20+ | Multidisciplinary national database of demography, health, economy and social services for elderly in Israel. Includes some historical data |
| EUROMOD | European Union tax-benefit microsimulation model | EU-28 (for latest wave 2011 onwards) | All ages | EU-SILC based tax-benefit micro-simulation model for the EU that allows to calculate, in a comparable manner, the effects of taxes and benefits on household incomes and work incentives for each country and for the EU |
| EHIS | European Health Interview Survey | EU-28, Iceland and Norway (for latest wave 2013–2015) | 15+ | Aims to provide statistical data—on a harmonised basis and with a high degree of comparability between the EU Member States—supporting the monitoring of health policies on social inclusion and protection, health inequalities and healthy ageing. EHIS covers three broad topics: health status (including activity limitations), health determinants—lifestyles and (use and limitations in access to) healthcare services |
| LFS ad hoc module 2011 | Labour Force Survey | EU-28, Turkey, Iceland, Norway and Switzerland | 15–64 | The module gathered information on barriers to employment associated with health problems and/or difficulties in basic activities, and/or other personal/environmental factors |

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Table 3.1 (continued)

| Data set—acronym | Full title of data set | Geographic coverage | Population covered | Short description |
|------------------|---------------------------------|---|--------------------|---|
| AES | European Adult Education Survey | EU-27 countries (+Norway, Switzerland and Turkey) | 25–64 | Household survey which provides data on participation in education and lifelong learning—including formal, non-formal and informal education |
| AAI | Active Ageing Index (UNECE) | EU-28 countries | 55+ | 22 individual indicators for each country grouped in four domains: Employment; Social Participation; Independent Living, and Capacity for Active Ageing |
| M65+ | Module 65+ | Validated only for Portugal and for the UK | 65+ | Usage of social support services and care by the elderly and ways of financing. Provision of informal care |
| g2ageing | Gateway to global ageing | US, Mexico, England, 20+ European Countries and Israel, Costa Rica, Korea, Japan, Ireland, China, India | | A platform for population survey data on ageing around the world, https://g2ageing.org/# |
| i.bus | i.bus | World | | Harmonised data from different surveys |

data collection, number of waves and participants, statistical representativeness and access.

The following data sets (listed in terms of acronyms, for more information refer to Table 3.1) were investigated: SHARE, EU SILC, STREAM, TILDA, DEAS, EQLS, EWCS, HWR, ESWT, LFS, ECHP, NKPS, Country HR+SL, ALSA, ELSA, IT_SI, IT-Health, ECS, GGP, VOW/QFT, ELES, JPI, LIDA, VOW/QFT, ELES, JPI, GENTRANS, NoWork, IGDC, EUROMOD, EHS, EHSIS/EDSIM, LFS ad hoc module 2011, AES, AAI, M65+, LIS, g2ageing, i.bus, Equal opportunities in the labour market for people aged 50+, French National Employment Survey, *Enquête Emploi*.

In addition to the specific data sets WG3 reviewed, there are widely available country and group indicators in Eurostat or the OECD databases. Various publications include lists or links to other data collections, with, for example, g2ageing offering harmonised survey data for worldwide comparison (i.e. the USA, Mexico, England, 20+ European Countries and Israel, Costa Rica, South Korea, Japan, Ireland, China and India). Special attention is devoted to longitudinal data sets reporting indicators on relevant lifecourse events ranging from childcare activities to workforce participation and employment history.

What factors influence extended working life? The 2015 final report of the EU Joint Program Initiative, “More Years Better Lives” via the “Extended Working Life and its Interaction with Health, Wellbeing and Beyond” initiative (Hasselhorn and Apt 2015) characterizes retirement as a (long-term) process determined by interactions across multiple life domains. The report offers a chart, shown below in Fig. 3.1, which summarises various influences on peoples’ retirement decisions. To reflect this COST action’s specific focus on gender and health, two additional boxes—lifecourse events and gender—have been included. The health box in the original chart has also been highlighted to indicate the expanded focus of WG3.

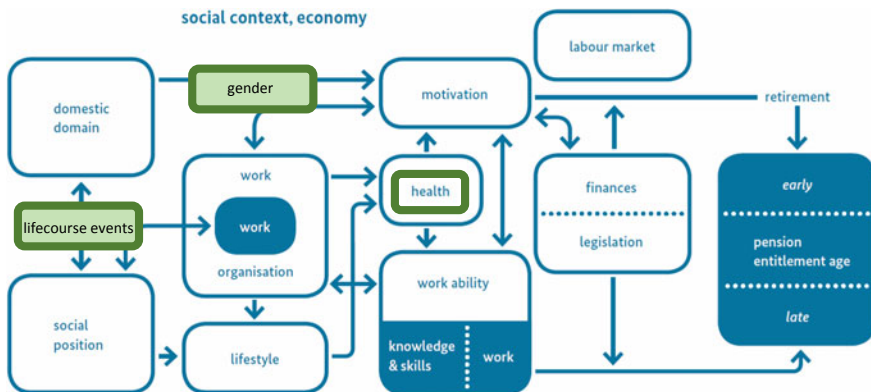


Fig. 3.1 Factors impacting on extended working life or the retirement decision. *Source* Authors’ own additions (highlighted) or emphasized to Hasselhorn and Apt (2015: 24), Fig. 2

Besides different labour market activity, retirement options and traditional retirement patterns, ‘complexity in retirement also derives from the fact that distinct social groups may undergo different processes and, hence, display varied retirement behaviour. For example, women at higher working age typically have different kinds of jobs and often lower income than men of the same age, they work substantially more often part-time, have different roles in private life, and in most countries leave work at a younger age than men. In consequence, decisions about retirement may be assumed to involve a varied set of criteria and follow different decision-making processes among women and men, which also needs to be reflected in research’ (Hasselhorn and Apt 2015: 22).

With population ageing used as the rationale to pursue a policy goal to extend working life, the role of gender and health as drivers of, or barriers to, extended working life are important factors to take into account. The collection of mostly quantitative data sets (see the grid provided in Table 3.1) offers information on the coverage of three relevant topics in each of the listed data sets:

- gender specific indicators
- psychological and physical health
- information on most relevant events (lifecourse).

For gender specific indicators, information and variables in many data sets could be relevant for gender sensitive analyses. Indicators in the data sets WG3 reviewed cover a range of variables, from data on household composition/information/children, to work engagement, care obligations, time spent on care and household activities, work life balance, quality of life, working conditions, sharing of resources, satisfaction with time use, family and social networks, subjective wellbeing, flexible work practices, retirement planning, decision making (e.g. care, spending), norms regarding (child) care, reasons for working part-time or un/under-employment, unpaid (domestic and care) work and effort, paid care work, grandparental childcare, work force participation, educational attainments. Obviously, not all data sets contain every variable needed to support gendered analyses. Some data sets also offer a summary of basic statistics: demographic, geographic, social, economic, health, and education characteristics or employment key figures by gender. From a gender perspective, an important gap remains to be filled by a joint collection of data on unpaid care and housework, matched with income and paid work data. There are only a few sources of data that collect these two items amongst them EU-SILC 2010 survey for 25 EU Member States (all except Ireland and Cyprus) within the intra-household sharing of resources ad hoc module matched with the income and wealth variables collected each year, HWR for New Zealand, GGP for Belgium and ELES for Spain. Such an integrated data set could allow researchers to analyse the implications of extended working life on care work and on time allocation by gender, as well as care provided to grandchildren and to dependent relatives not living in the household. Wider availability of gender sensitive data would support evaluations of the effort and costs of care provision and the interaction with extended working life and new work-life balance needs.

Concerning psychological and physical health, data sets offer widely differing variables. Some focus mainly on objective measures, while others rely more on subjective perceptions. The data sets listed in Table 3.1 cover various aspects of physical health, cognitive function, behavioural risks, mental health and health care. The variables cover a gamut of topics, from self-assessed health including health status, chronic illness or condition and limitation in activities because of health problems; to personal feelings and perceptions of one's situation (at work, in society, etc.), work life balance or pressure felt; current personal mobility and physical restrictions, and psychological wellbeing (within a set of wellbeing indicators). Other conceptual categories explored in at least some datasets include satisfaction with life, prevalence of diseases (physical and mental); health lifestyles; cognitive functioning assessment for older age groups; certified disabilities and type; participation/access to various life domains (work, education, internet, etc.), independent living; physical safety; share of healthy life expectancy; social connectedness; physical exercise, and mental wellbeing.

Information on relevant lifecourse events is found only in some data sets (like ELES, SHARE, NKPS, ELSA, HWR, STREAM, TILDA, DEAS), despite the analysis of lifecourse events being such an important precursor to understanding choices and barriers associated with extended working life. While some events can be reconstructed from existing household data and/or work-related information (e.g. household size, number of children, part-time work, numbers of hours at work, etc.), others need to be explicitly asked to be available for the analysis (e.g. information on past impact factors, upcoming obligations or future plans related to retirement, etc.). Variables in the longitudinal data sets typically cover retrospective information on life-course events, including childhood, workforce participation and employment history, work quality, housing, health and disability, SES, education, discrimination and major life events. Other relevant indicators show the prevalence of unpaid caring and its effect on work/earnings, marital and work histories, timing of child-births, economic and educational activity, long and short term absence from work for health reasons, obstacles to finding employment/a job, unemployment, and information on other individuals in the household, partnership and children, to name only a few. Social participation, effort and reward, employment details, job characteristics, professional career, earnings, occupational pension contributions or receipts, pre-retirement working conditions, motivation for life decisions, and retirement decisions appear in some longitudinal data sets. They also sometimes cover poverty, living arrangements, taxes and benefits, inequality, nationality/migration background, participation in educational programmes. For example, SHARELIFE (3rd module of 2008/9 and 7th module of 2017) is based on lifecourse analyses.

Given that health and employment are closely interrelated, keeping people healthy for longer (as well as offering good employment conditions) can increase or extend their labour market participation. The reduction of premature mortality (World Health Organization 2018) due to unnecessary risk factors and contra-productive individual behaviour is an overall goal taken up in the latest joint OECD/EU (2018) *Health at a Glance* report on the State of Health in the EU cycle. What is the actual labour market outcome, especially for the older age group? As found in a comparison of

14 European countries in OECD/EU (2016), the prevalence of one or more chronic diseases (such as cardiovascular diseases, diabetes, cancer, musculoskeletal diseases and mental health conditions) and behavioural risk factors (obesity, heavy smoking, heavy alcohol drinking) reduces the likelihood of employment of 50–59 year-olds. Women appear to be more affected on all measures than men. As the OECD/EU report points out, chronic diseases and behavioural risk factors also lead to lower productivity, fewer hours worked and lower wages (OECD/EU 2016: 25 ff). In addition, people with chronic diseases are more likely to become disabled, unemployed or to take-up early retirement schemes.

The European Quality of Life Survey (Eurofound 2017) allows to detect the effects of care on the likelihood of being employed by age, gender and country, showing an increasing number of carers that, due the extended working age, are in paid work and an increase in work-life balance stress indicators.

Applications

In this section WG3 provides analytic applications using selected indicators and data sets to issues connected to the duration of working life and to the impact of different employment statuses on wellbeing.

The Impact of Different Working Conditions on Income Poverty and Material Deprivation by Age

The EU-Statistics on Income and Living Conditions (EU-SILC) contains a wide set of indicators on household socioeconomic conditions that can be used to analyse the impact of different dimensions of wellbeing by age group and according to working conditions. In this application, we demonstrate that EU SILC data, with special reference to a country, can be used to analyse to what extent employment status protects against the risk of income poverty and material deprivation by gender and age group.

For this analysis, the poverty line is defined as 60% of the median equivalent disposable income calculated using the OECD modified equivalence scale. We use the Eurostat material deprivation definition according to which a household is materially deprived if it is not able to afford at least three of the following needs: one week holiday a year; keeping the house warm; handling unforeseen expenses; paying the mortgage, bills, deferred payments; protein intake; washing machine; colour television; car; telephone.

In Table 3.2, we show the results, in terms of average marginal effects of each variable included in the model, of the impact on the probability of being income poor of different variables including the type of job by estimating a probit model with IT

Table 3.2 Probability of being income poor by age group

| Average marginal effects | | | |
|--------------------------|----------------------|-----------------------|---------------------|
| | 20–49 | 50–64 | 65–74 |
| Age | –0.00179 (–1.61) | –0.00436* (–2.30) | –0.00516 (–1.04) |
| Female | 0.0317* (1.97) | 0.0399* (2.27) | –0.0549 (–1.62) |
| Single | 0.00721 (0.39) | 0.0683*** (3.69) | 0.0714** (2.91) |
| With children | 0.0191 (1.17) | 0.0372* (2.10) | 0.0882 (1.90) |
| Secondary | –0.0884* (–2.01) | –0.0897*** (–3.32) | 0.0568 (1.69) |
| High school | –0.177*** (–4.07) | –0.134*** (–4.96) | 0.0273 (0.78) |
| Tertiary | –0.247*** (–5.48) | –0.227*** (–6.55) | –0.0188 (–0.37) |
| Part-time | 0.0438 (1.38) | 0.0785* (2.27) | –0.0427 (–1.28) |
| Full-time temporary | –0.0224 (–0.59) | 0.0157 (0.35) | 0.152** (2.84) |
| Full-time permanent | –0.141*** (–4.24) | –0.0778* (–2.12) | –0.0704 (–1.49) |
| Self employed | 0.0113 (0.36) | 0.0703* (1.97) | –0.0480 (–1.48) |
| Chronic ill | –0.0331 (–1.66) | 0.0108 (0.62) | –0.0300 (–0.96) |
| South | 0.147*** (11.47) | 0.146*** (9.56) | 0.0755** (2.84) |
| Pseudo R ² | 0.183 | 0.191 | 0.432 |
| N of observations | 4652 | 3644 | 305 |
| t statistics | In parentheses | | |

* p < 0.05, ** p < 0.01, *** p < 0.001

Source Authors' analysis, IT SILC 2015 data

SILC 2015 data. Marginal effects refer to three different models estimated according to the age group of the reference person in the household, and compare the results obtained. As shown in Table 3.2, being a woman increases the probability of income poverty by 3% points both for 20–49 and 50–64 age groups, while living alone increases the probability of being income poor for people in age groups 65–74 and 50–64 by 7% points. Being employed part-time or being self-employed increases the risk of income poverty in the 50–64 age group (by 8% points for part-timers and 7% points for full-timers), while being employed as permanent full-time significantly reduces the probability of being income poor for 20–49 (by 14% points) and for

50–64 (by 8% points). Working full-time as a temporary employee increases by 15% points the probability of being income poor in the 65–74 age group.

We next analysed the 50–64 years old group, to understand how the same employment status differently affects the probability of being income poor or materially deprived by gender (Table 3.3). In this age group, working part-time is found to increase (with respect to other employment statuses) the risk of income poverty only for women by 17% points, while working full-time on a permanent contract is found to reduce the risk of income poverty only for men (by 9% points). Turning to material deprivation, men with a full-time temporary contract are more exposed to the risk of being materially deprived; their probability of material deprivation increases by 12% points if employed full-time with a temporary contract.

Table 3.3 Income poverty and material deprivation by gender—50–64 age group

| Average marginal effects | | | | |
|--------------------------|----------------------|----------------------|----------------------|----------------------|
| | Poverty | | Material Deprivation | |
| | Women | Men | Women | Men |
| Age | −0.00128 (−0.31) | −0.00512* (−2.47) | 0.00539 (1.44) | −0.000892 (−0.39) |
| Single | 0.0670* (2.16) | 0.0624** (2.61) | −0.0125 (−0.43) | 0.0351 (1.38) |
| With children | −0.0453 (−1.02) | 0.0447* (2.24) | 0.00202 (0.05) | −0.00689 (−0.32) |
| Secondary | −0.127* (−2.02) | −0.0793** (−2.69) | 0.00148 (0.03) | −0.119*** (−3.64) |
| High school | −0.116 (−1.93) | −0.138 (−4.61) | −0.0935 (−1.63) | −0.192*** (−5.95) |
| Tertiary | −0.226*** (−3.43) | −0.221*** (−5.29) | −0.164** (−2.76) | −0.260*** (−6.47) |
| Part-time | 0.166* (2.45) | 0.0458 (1.16) | 0.0775 (1.24) | 0.0313 (0.68) |
| Full-time temporary | 0.0891 (0.95) | 0.00165 (0.03) | 0.105 (1.09) | 0.125* (2.21) |
| Full-time permanent | −0.0102 (−0.14) | −0.0947* (−2.34) | −0.0930 (−1.35) | −0.00372 (−0.08) |
| Self-employed | 0.0884 (1.33) | 0.0591 (1.50) | −0.0950 (−1.74) | 0.00165 (0.04) |
| Chronic ill | −0.0302 (−0.83) | 0.0256 (1.32) | 0.0789** (2.62) | 0.0607** (3.07) |
| South | 0.130*** (4.12) | 0.148*** (8.40) | 0.201*** (8.04) | 0.150*** (8.35) |
| Pseudo R^2 | 0.181 | 0.204 | 0.241 | 0.139 |
| Observations | 860 | 2784 | 860 | 2784 |
| t statistics | In parentheses | | | |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source Authors' analysis, IT SILC 2015 data

Attitudes Towards Extended Working Life Across European Countries

The World Values Survey (WVS 2012) is a global research project that explores people's values and beliefs, their stability or change over time and their impact on social and political development of societies in different countries of the world. WVS began in 1981 and quickly became one of the most widely-used and authoritative cross-national and time-series surveys.

The general purpose of the WVS is to promote the advancement of social sciences. The WVS is the largest non-commercial, cross-national, time series investigation of human beliefs and values ever executed, currently including interviews with almost 400,000 respondents. Moreover, the WVS is the only academic study covering a full range of global variations, from very poor to very rich countries, in all of the world's major cultural zones. WVS shows pervasive changes in what people want out of life and what they believe. In order to monitor these changes, the EVS/WVS has executed seven waves of surveys from 1981.

The survey seeks to use the most rigorous, high-quality research designs in each country. The WVS consists of nationally representative surveys conducted in almost 100 countries using a common questionnaire. Representative national samples of each country are interviewed, using a standardised questionnaire that measures support for democracy, tolerance to foreigners and ethnic minorities, support for gender equality, the role of religion and changing levels of religiosity, the impact of globalisation, attitudes toward the environment, work, family, politics, national identity, culture, diversity, insecurity, subjective wellbeing, among others (WVS).

Using this source of data, we have analysed how stereotypes and discrimination arise toward people aged over 70. Attitudes toward people over 70 as potential labour force workers, as well as stereotypes and discrimination in countries with differing social welfare regimes, cultures, demographic and economic situations are analysed together with individual characteristics (gender, age, education, life satisfaction) and a broader system of values affecting the different attitudes alongside stereotypes and discrimination. In other words, individual characteristics and contextual variables are included in analyses of situations in selected European and non-European countries. Table 3.4 shows basic differences in attitudes towards older people in compared countries.

An analysis of gender and health as drivers or barriers of extended working life for the older age groups in Europe (European Quality of Life Survey).

Based on above described drivers and barriers to extended working life (e.g. Haselhorn and Apt 2015), the idea of this research was to test the impact of various personal factors on work in later life and to quantify some main drivers and barriers to extended working life for the older age groups in Europe. It should be mentioned that the focus was not on social framework conditions—which admittedly are different in different EU countries—but on personal characteristics of potential workers in the older age group. The main aim was to determine and quantify the overall effect of gender and health on work (likelihood) in older age groups.

Table 3.4 Summary: Differences in attitudes toward older people in selected countries

| | The lowest acceptance/opinion | The highest acceptance/opinion |
|--|--|---|
| Perceived social position: people in their 70s | Above 50% of population: Estonia, Poland, Romania, Sweden, Ukraine | Above 30% of population: Cyprus, Germany, USA |
| People over 70: are seen as friendly | Above 15% of population: Belarus, Estonia, Poland, Spain, Ukraine | Above 60% of population: Cyprus, Germany, Netherlands, Romania, Slovenia, USA |
| People over 70: are seen as competent | Above 25% of population: Estonia, Poland, Romania, Slovenia, Spain, USA | Above 50% of population: Estonia, Germany, Sweden |
| People over 70: viewed with respect | Below 10% of population: Estonia, Germany, Poland, Slovenia, Sweden, Ukraine | Above 70% of population: Belarus, Cyprus, the Netherlands, Poland, Romania, Slovenia |
| Older people get more than their fair share from the government | Below 15% of population “the lowest disagreement”: Sweden, USA | Above 90% of population “The highest disagreement”: Estonia, Germany, Poland, Spain, Ukraine |
| Companies that employ young people perform better than those that employ people of different age | Below 45% of population “the lowest disagreement”: Belarus, Cyprus, Romania, Ukraine | Above 75% of population “The highest disagreement”: Estonia, Germany, Netherlands, Poland, Slovenia, Spain, Sweden, USA |
| Is a 70-year old boss acceptable | Below 50% of population “the lowest acceptance”: Belarus, Poland, Romania, Slovenia | Above 45% of population “The highest acceptance”: Germany, Spain, USA |
| Is a 30-year old boss acceptable | Above 15% of population “the lowest acceptance”: Cyprus, Poland, Slovenia, Sweden, USA | Above 65% of population “the highest acceptance”: Belarus, Estonia, Netherlands, Romania, Spain, Ukraine |

Source Author’s own calculations from WVS data

The analysis relies on data from the 2011/12 European Quality of Life Survey (EQLS 2012) by the Dublin based European Foundation for the Improvement of Living and Working Conditions (Eurofound). The survey is undertaken every four years and covers a range of indicators, such as employment, income, education, housing, family, health and work-life balance. It also looks at subjective topics, such as people’s levels of happiness, how satisfied they are with their lives, and how they perceive the quality of their societies.

The analysis focused on the probability of working in later life, with gender, health, education, family status and the size of the household of the respondent as

Table 3.5 Factors impacting on extended working life (EQLS, wave 3), logistic regression

| Probability of working = f (gender, health, education, family status, size of HH) | | | | |
|--|------------------------------------|------------|----------------------------------|------------|
| | Wave 3, 50–65 years (n = 9.871) | Std. error | Wave 3, 65+ years (n = 8.966) | Std. error |
| Gender (0 m, 1 f) | -0.367*** | 0.045 | -0.449* | 0.180 |
| Q42 in general, would you say your health is ... (increase means getting worse) | -0.594**** | 0.026 | -0.526*** | 0.097 |
| Secondary | 1.380*** | 0.071 | 1.053*** | 0.281 |
| Tertiary | 1.994*** | 0.084 | 1.713*** | 0.297 |
| Married_partner | -0.109 | 0.091 | -0.395 | 0.331 |
| Separated | 0.175 | 0.095 | 0.307 | 0.354 |
| Widowed | -0.541*** | 0.111 | -1.252** | 0.364 |
| Household size (incl. children) | 0.174*** | 0.027 | 0.200 | 0.136 |
| Constant | -0.096 | 0.129 | -3.356*** | 0.495 |

* p < 0.05, ** p < 0.01, *** p < 0.001

Source Author's own calculation, EQLS data for EU28

input factors. Table 3.5 shows some logistic regression results for the 50–65 and 65+ year old respondents.

Table 3.5 shows the results of the regression, with statistically significant results highlighted in bold. For both age groups, as well as for the 35–49-year-old respondents (not shown here), lower self-reported health has a negative impact on all respondents' probability to work—thus also in later life showing a higher effect for the 50–65 age group, who are more likely not to return to paid employment. Education, and the type of job one holds, also play a role. Not unexpectedly, attaining higher than primary education has a positive effect on work, with tertiary education having a stronger influence than secondary education. Family status and household size matter, in that they impact on available funds and finances needed. While being married does not have a statistically significant effect in these data, being separated has some effect in the 50–65 age group. Being widowed significantly reduces the likelihood of work for both older age groups. One explanation could be found in the existence of survivor benefits that reduce financial pressure, while social issues might also play a role, e.g. more (unpaid) engagement in the extended family. Household size was found to impact positively on work for the 50–65-year olds, indicating that larger households might include younger (or older) family members and thus have larger financial needs.

Concluding Remarks

WG3's contribution to the COST Action on the one hand has been to identify a wide set of data sets (mainly quantitative, but also including some qualitative data) that can be used to investigate the implications of extended working life from a gender and health perspective. In this chapter, we show just three possible applications using three different data sets: EU SILC to analyse the impact of different working conditions on wellbeing by age group and by gender; WVS to detect attitudes towards people aged over 70, allowing a cross-national analysis; and EQLS to analyse how factors such as health and marital status affect extended working life.

We refer in this chapter to indicators that can be constructed from existing data to measure different dimensions of wellbeing and their interaction with gender and extended working life. However, we want to point out that (more) gender-relevant variables (such as time devoted to unpaid care and housework) should be integrated into the existing reporting and surveys on income and working conditions to account for and monitor the interaction of extended working life with important sources of gender inequalities that are rooted in the current social reproduction gender structure.

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