IS A LONGER WORKING LIFE FOR EVERYONE?
EXPLORING EMERGING INEQUALITIES AMONG OLDER WORKERS

Venue: CEPS, 1 Place du Congrès, 1000 Brussels    Date: Wednesday, 26 April 2017, 09:30 - 15:30

Working longer is the fundamental response to the challenges posed to European welfare states by the ageing of their citizens. FACTAGE, a new European Joint Programming Initiative project led by CEPS, explores where and how the extension of working lives could lead to the emergence and/or widening of socioeconomic inequalities.

09:00 - 09:30  Registration and Coffee
09:30 - 09:45  Welcome and Introduction to FACTAGE, Mikkel Barslund (CEPS)
09:45 - 11:15  Session 1: Fundamental inequalities: health and mortality
               Chair: Mikkel Barslund, CEPS
               Socioeconomic inequalities in life and health expectancies at older ages
               Amaia Bacigalupe, University of the Basque Country
               Estimating differential mortality in EU countries from sample survey data
               Johannes Klotz/Tobias Göllner, Statistics Austria
               Are socioeconomic inequalities in health increasing?
               Lars Ludolph, CEPS
11:15 - 11:45  Coffee Break
11:45 - 12:45  Session 2: Late for work? Older workers on the labour market
               Chair: Johannes Klotz, Statistics Austria
               Work-life or ‘work versus life’ in older age
               Andreas Cebulla, NIESR
               Working more by working less
               Hans Dubois, Eurofound
12:45 - 13:45  Lunch Break
13:45 - 15:30  Session 3: Skills at work
               Chair: Andreas Cebulla, NIESR
               Use it or lose it – Skills, earnings and job satisfaction among older workers
               Markus Bönisch, Statistics Austria
               Skills mismatch and workplace performance in Britain
               David Wilkinson, NIESR
               Session 4: Retiring when?
               Preferred and expected retirement age in Germany and elsewhere in Europe
               Moritz Hess, University of Dortmund
               Changing Labour Market Conditions for Older Workers – A Comparative Perspective
               Charlotte Fechter, University Koblenz-Landau
15:30  Close of conference
FACTAGE – Fairer ACTive AGeing for Europe
Exploring emerging inequalities among older workers

Mikkel Barslund
CEPS

FACTAGE Conference, Brussels 26 April.
(www.factage.eu)
FACTAGE – Fairer ACTive AGeing for Europe

- Joint Programming Initiative: **More Years – Better Lives project**

- 5 Research institutes
  - CEPS (BE)
  - Statistics Austria (AT)
  - NIESR (UK)
  - Uni. of Koblenz-Landau (DE)
  - Uni. of Basque Country (ES)

- Financed by national research foundations/councils (3 years).
The ageing problem? (EU15)

OADR
The ageing problem? (EU15)

Inactive / active

OADR

Extending length of working lives (EU15)

Employment rates by age groups

1995

2015
The prospective challenge

Employment rates by age groups

1995

2035
Employment rates by age groups

The prospective challenge

Years worked after 54
- 1995: 4
- 2015: 6.4
- 2035: 10.1

2035
Ageing – problem no more? (EU15)
FACTAGE – Fairer ACTive AGeing for Europe

• To what extent and for whom will this challenge cause problems?
  • Exacerbating existing inequalities?

• What tools are needed to assess changes in inequalities?

• How do labour market institutions best support this change?

• Pension institutions?

• What policies for the life course?

• How to define the concepts of fairness and inequality?
FACTAGE – Fairer ACTive AGeing for Europe

Three-part project

**Fundamental conditions**
- Mortality
- Health
- Well-Being

**Labour Market**
- New trends (atypical work)
- Skills use & no-use
- Work-life balance
- Family institutions
- Well-being

**Thinking ahead**
- Pension policies (fairness)
- Life course / labour market policies

Focus on socio-economic inequalities
FACTAGE – Fairer ACTive AGeing for Europe

✓ Multi-disciplinary
✓ Stakeholder oriented (reach out)

✓ Excellence in science
✓ Attention to gender
✓ Attention to age
✓ Peer-learning and reviewing
Sign up for news @ www.factage.eu

Many thanks for your attention

Mikkel Barslund – Mikkel.Barslund@ceps.eu

FACTAGE Conference, Brussels 26 April.
(www.factage.eu)
Socioeconomic inequalities in life and health expectancies at older ages in Europe

Amaia Bacigalupe
UNIVERSITY OF THE BASQUE COUNTRY-SPAIN
Europe is ageing, as a consequence of low birth rates and increasing life expectancy (LE) => some political challenges

In terms of pension policy, most of the countries have undertaken systematic restructuring of their pension eligibility age:\[1\]:
- Most countries: + 2/3 years before 2030
- Few countries: no increase at all (SE, NO, SI, LU) or no increase for men (AT, BG, RO)
- Some others: retirement age will be linked to the development of the expected life expectancy (FI, DK, EL, IT, NL, PL, SK)

\[1\]www.etk.fi/en/the-pension-system-2/the-pension-system/international-comparison/retirement-ages/
This rationale does not take into account that:

- An increase in LE is not equivalent to being able to work longer => health status need to be considered (HLE)
- LE and HLE are strongly related to socioeconomic position
- Life expectancy inequalities could have strong implications for the redistributive properties of current pension systems.
This rationale does not take into account that:

- An increase in LE is not equivalent to being able to work longer => health status need to be considered (HLE)
- LE and HLE are strongly related to socioeconomic position
- Life expectancy inequalities could have strong implications for the redistributive properties of current pension systems.
This rationale does not take into account that:

- An increase in LE is not equivalent to being able to work longer => health status need to be considered (HLE)
- LE and HLE are strongly related to socioeconomic position

**Objective** => What have all the published scientific papers said about the current socioeconomic inequalities in life expectancy and healthy life expectancy in Europe in the last years [with an special focus on the FACTAGE countries]?
Objective=> What have all the published scientific papers said about the current socioeconomic inequalities in life expectancy and healthy life expectancy in Europe in the last years [with an special focus on the FACTAGE countries]?

- Considering gender inequalities
- Different socioeconomic position variables (educ.level, social class etc.)
- Different methods to calculate mortality patterns
- Different methods to analyze SES inequalities
Inclusion criteria:

Primary or secondary studies focused on socioeconomic inequalities in life expectancy and healthy life expectancy in older age or at retirement (always 50+) in the 28 member countries of the European Union, as well as Norway and Switzerland, with data for the period 1990-2016

Databases:
Embase, Pubmed, Sociological Abstracts and Social Science Citation Index
Flow diagram of the study selection

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<th>Database</th>
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<td>Embase</td>
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2,610 references after eliminating duplicates

217 references for full text reading

30 studies included
Results

Distribution of studies, according to country and kind of study
(individual, comparative or both)

Life expectancy

Healthy life expectancy
• Are there inequalities in life expectancy at retirement age, and how are they?
Systematic inequalities exist (by educational level)

Loichinger, 2016; Bronnum-Hansen, 2015; Kalediene, 2008; Spoerri, 2014

Spoerri, 2014; Moe, 2012; Majer, 2011; Batljan, 2009; Kalediene, 2008; Jagger, 2007
Systematic inequalities exist (by educational level)

Disability-free LE at 65

LE in good health at 50

Majer, 2011

Bronnum-Hansen, 2015
Which is the magnitude of these inequalities?

Maximum and minimum inequalities in LE and HE by age

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<td><strong>Women</strong></td>
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<td><strong>Women</strong></td>
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### And what for the FactAge countries?

#### Data of studies for FACTAGE from 1990

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<th>Country</th>
<th>LE</th>
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| Germany     | Occupation: 2.6  
Incone: 4.9  
Kibele 2013;  
Shkolnikov 2007;  
von Gaudecker 2007 |             |
| UK          | Education: 1.1/1.6  
Jagger, 2007 | DFLE-education: 2.5/2.7  
Jagger, 2007 |
| Spain       | Education: 2.9/1.9  
Majer, 2011 | DFLE-education: 5.5/5.6  
Majer, 2011 |
| Belgium     | Education: 2.8/1.7  
Majer, 2011 | DFLE-education: 2.9/2.3  
Majer, 2011 |
| Austria     | Education: 3.8/3.0  
Majer, 2011 | Education: 4.7/4.7  
Majer, 2011 |
• Can we really say in which countries these inequalities are larger?
Can the studies/countries be compared?

**Comparison of studies analyzing life expectancy at 65**

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<th>Socioec. variable</th>
<th>Study design/Method</th>
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Note: The table presents the comparison of studies analyzing life expectancy at 65 across different socioec. variables. The values in the table represent the differences in life expectancy at 65 for different countries, with the countries listed in the columns (AT, BE, DE, ES, UK, DK, FI, FR, EL, IE, IT, LT, NL, NO, PT, SE, CH). The reference to each study is provided in the last column.
Can the studies/countries be compared?

## Comparison of studies analyzing health expectancies at different ages

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<td>Sullivan</td>
<td>4</td>
<td>0</td>
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<td>4</td>
<td>5</td>
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<td></td>
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<td>Without GALI</td>
<td>Sullivan</td>
<td>3</td>
<td>7</td>
<td></td>
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<td>3</td>
<td>2</td>
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<td></td>
<td></td>
<td>Without ADL restrictions</td>
<td>Sullivan</td>
<td>3</td>
<td>9</td>
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<td>3</td>
<td>2</td>
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<td></td>
<td>Ethnicity</td>
<td>HE</td>
<td>Sullivan</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td>8</td>
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<td></td>
<td></td>
<td>DFLE</td>
<td>Sullivan</td>
<td>5</td>
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<td>8</td>
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</tr>
<tr>
<td>65</td>
<td>Education</td>
<td>Mobility DFLE</td>
<td>MaCH</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
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<td>1</td>
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<tr>
<td></td>
<td></td>
<td>ADL disability free</td>
<td>MaCH</td>
<td>0</td>
<td>6</td>
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<td>1</td>
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<tr>
<td></td>
<td></td>
<td>DFLE</td>
<td>Sullivan</td>
<td>5</td>
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<td>5</td>
<td></td>
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</tr>
<tr>
<td>85</td>
<td>Education</td>
<td>Mobility DFLE</td>
<td>MaCH</td>
<td>1</td>
<td>2</td>
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<td></td>
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<td>ADL disability free</td>
<td>MaCH</td>
<td>0</td>
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<td>1</td>
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</tr>
</tbody>
</table>
Conclusions

- Old people with less educational level live shorter lives and much fewer years in good health and more years in bad health.

- Inequalities show different patterns in men and women.

- There is scarce information to compare countries and to analyze temporal changes of those inequalities.

- However, enough information exist to warn about the fact that:
  1. If pension age goes up generally, the pension system itself will become the more and more unfair.
Life Expectancy and Healthy Life Expectancy at 65 by educational level. Spain, 2012

Conclusions
Conclusions

- Old people with less educational level live shorter lives and much fewer years in good health and more years in bad health.

- Inequalities show different patterns in men and women.

- There is scarce information to compare countries and to analyze temporal changes of those inequalities.

- However, enough information exist to warn that:
  1. If pension age goes up generally, the pension system itself will become the more and more unfair.
  2. Moreover, given no changes in current inequalities in life expectancy, a general increase of retirement age could deepen the redistribution of wealth from the lower to the higher socioeconomic groups = the regressive nature of current pension systems can be deepened.
“[…] In the United Kingdom, the increase in pension age will cut low earners lifetime wages more than for high earners.”

“[…] Education, which usually has a positive correlation with the wage level, implies that the period during which agents pay for the pension system is lower. Consequently, our results concerning the regressivity of pension systems would be reinforced.”
Thank you!
Estimating differential mortality in EU countries from sample survey data: a feasibility study

Johannes Klotz
Tobias Göllner
Directorate Social Statistics
Brussels
26 April 2017
Differential Mortality

Example: In Austria, men with tertiary education live, on average, 7 years longer than men with primary education.

Subject is becoming increasingly important not only among demographers, but among social policymakers.

International comparability of figures is poor (coverage, periods, stratification, data source, mortality indicator), because not part of the European Statistical Systems.

Efforts made so far:
1) Mortality rates by ISCED (Eurostat and OECD)
2) Ex-post harmonization of available micro data (Erasmus MC)
Many studies on mortality risks in association with socioeconomic factors (education, income,...)

- Specific comparative European approach in FACTAGE:
  - Survey sample based estimates
  - Harmonized variables (health, income, poverty,...)
  - Broad representation of EU Member States
  - Embedded in European Statistical System (ESS)
General Quality Assessment of EU-SILC data

Output harmonisation, but no standardised procedures for data collection (interview modes, register data, ...)

Annual comparative and individual country quality reports

Most frequent problems and modifications: weighting variables and high levels of missing values for some variables

High quality standards and generally large sample
EU-SILC UDB (User Database)

The UDB has its limitations due to anonymization

Most important:
- **RB140** (Month moved out or died)
  grouped values (quarters instead of months)

- **RX010** (Age at time of interview)
  top coding (80+ category)

**RB140**: Mid point of every quarter is assumed

Some countries (**Germany!**) are not included (at least for some years)
Number of Deaths in EU-SILC (2004 – 2014)

usable data  potential data

14,711 → 24,002

* = discontinued
Our Own Survey on Mortality Information

We conducted a survey of members of the Eurostat Working Group on Income and Living Conditions

Submitted responses (n=35); SILC-UDB countries (n=28)

5 questions, results of 2:

(1): Information on respondent’s death

(2): Possibility of linking SILC data with national death registers
### Survey on Mortality Information

How is the information on a respondent’s death obtained? (Multiple answers possible) (n=28)

<table>
<thead>
<tr>
<th>Answer</th>
<th>Countries (n)</th>
<th>Percent of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewer</td>
<td>14</td>
<td>50,0 %</td>
</tr>
<tr>
<td>Other household members</td>
<td>23</td>
<td>82,1 %</td>
</tr>
<tr>
<td>Written source (response to a letter/notification)</td>
<td>3</td>
<td>10,7 %</td>
</tr>
<tr>
<td>Linkage with external data sources, namely</td>
<td>12</td>
<td>42,9 %</td>
</tr>
<tr>
<td>Other, namely</td>
<td>1</td>
<td>3,6 %</td>
</tr>
</tbody>
</table>

mostly registers
Survey on Mortality Information

In your country, is it theoretically possible to link EU-SILC microdata with mortality information from national death registers (for example, via a unique personal ID variable available in both datasets)? (n=27, missing = 1)

<table>
<thead>
<tr>
<th>Answer</th>
<th>Countries (n)</th>
<th>Percent of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, this has already been done.</td>
<td>8</td>
<td>28,6 %</td>
</tr>
<tr>
<td>Yes, but so far it has not been done.</td>
<td>11</td>
<td>39,3 %</td>
</tr>
<tr>
<td>Technically possible, but not allowed for legal reasons.</td>
<td>0</td>
<td>0,0 %</td>
</tr>
<tr>
<td>No, not possible.</td>
<td>8</td>
<td>28,6 %</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>96,5 %</td>
</tr>
</tbody>
</table>
Quantitative Assessment of Mortality

Sample population may be biased with respect to health status (non-coverage of institutionalized population, survey non-response)

Mortality bias depends on the length of follow-up period

Bias of general mortality does not necessarily imply bias of differential mortality

Assessment of general mortality bias in follow-up period:

\[
\text{Relative Mortality} = \frac{\text{observed deaths in sample}}{\text{expected deaths}} *
\]

*Based on population mortality rates

Stratified by country and sex
Quantitative Assessment of Mortality

Cumulative Relative Mortality after 3 years of follow-up (unweighted)
Quantitative Assessment of Mortality

In most countries, general mortality is slightly lower in the sample population than in the general population.

Substantial underrepresentation of deaths in BE, NL, NO, RO, UK (UDB problem?)

In some countries, sample population is more mortal than general population (especially females)

Does the bias depend on socioeconomic status?
Preliminary Conclusions

In theory, comparative mortality assessment is possible with EU-SILC data

But: EU-SILC UDB data has substantial restrictions

Mortality information in EU-SILC longitudinal component is of mixed quality; 19 countries can link mortality information to national registers
Wishlist

Inclusion of all countries in the UDB

Availability of single years of age (also beyond 80)

Availability of months data (instead of quarters)

Linkage with national mortality registers (increases validity)
Trends in health inequalities across Europe
Lars Ludolph
CEPS (Brussels)
FACTAGE conference, 26/04/2017 @CEPS

www.factage.eu
General idea

Are the differences in health status between different socio-economic groups increasing or decreasing...

... within different European countries?

... across different dimensions (education, wealth, income)?
Approach and methodology


• We construct a (bad) health index based on Poterba, J., S. F. Venti and D.A. Wise (2010) for every individual in the dataset

• The (bad) health index is a weighted average of 23 health-related survey questions where the weights are obtained from the first principal component loadings of a principal component analysis
(Bad) Health index: Europe in 2015

Source: Smoothed plot based on SHARE wave 6. Authors' calculation.
Interpretation: “On average, a 64 year old low educated European has the same health status as a 74 year old highly educated European.”

Source: Smoothed plot based on SHARE wave 6. Authors’ calculation.
Difference between individuals of high education and of low education by country and year

Source: SHARE wave 1 and wave 6. Authors’ calculation. Age adjusted.
Individuals of low education in Europe, 2004 and 2015

Source: Smoothed plot based on SHARE wave 1 and wave 6. Authors’ calculation.
Interpretation: “On average, a 64.5 year old low educated European in 2015 has the same health status as a 61 year old low educated European in 2004.”

Source: Smoothed plot based on SHARE wave 1 and wave 6. Authors’ calculation.
... the situation for highly educated Europeans is very similar.

Source: Smoothed plot based on SHARE wave 1 and wave 6. Authors’ calculation.
Conclusions

• Differences in health status between different socio-economic groups exist in every European country

• Throughout the observation period (from 2004 to 2015), the health status improved equally in both the group of the highly educated and the low educated in Europe on average

• These findings are heterogeneous across Europe: Some countries show small decreases, others small increases in health inequalities
Work-life or ‘work vs life’ in older age

Andreas Cebulla (NIESR, University of Adelaide)
Nathan Hudson-Sharp (NIESR)
Lucy Stokes (NIESR)
David Wilkinson (University College London)
“There’s more to life than work”

• Domestic divisions of labour linked to:
  • Life and relationship satisfaction
  • Perceptions of (un)fairness (tolerance of inequality)

• Gender inequalities at home affect gender equality at work:
  • Who works
  • Who is socially expected to be working

• Extending working lives influences how we might think about working and retirement in the future
European Social Survey 2010 –

The countries we included

<table>
<thead>
<tr>
<th>North</th>
<th>East</th>
<th>South</th>
<th>West</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>Bulgaria</td>
<td>Cyprus</td>
<td>Belgium</td>
</tr>
<tr>
<td>Denmark</td>
<td>Hungary</td>
<td>Spain</td>
<td>Switzerland</td>
</tr>
<tr>
<td>Estonia</td>
<td>Poland</td>
<td>Greece</td>
<td>Germany</td>
</tr>
<tr>
<td>Norway</td>
<td>Russian Federation</td>
<td>Croatia</td>
<td>France</td>
</tr>
<tr>
<td>Sweden</td>
<td>Slovakia</td>
<td>Portugal</td>
<td>Great Britain</td>
</tr>
<tr>
<td></td>
<td>Ukraine</td>
<td>Slovenia</td>
<td>Ireland</td>
</tr>
<tr>
<td></td>
<td>Czech Republic</td>
<td>Israel</td>
<td>The Netherlands</td>
</tr>
</tbody>
</table>
The ‘activity switch’ around the retirement age

ESS 2010

- **Male, up to 4 yrs under or at ERA**: 49%
- **Male, up to 5 yrs above ERA**: 18%
- **Female, up to 4 yrs under or at ERA**: 45%
- **Female, up to 5 yrs above ERA**: 14%

- Housework, looking after children
- Community or military service
- Retired
- Permanent sick or disabled
- Unemployed, not looking for work
- Unemployed, looking for work
- Education
- Paid work

Male, up to 4 yrs under or at ERA
Male, up to 5 yrs above ERA
Female, up to 4 yrs under or at ERA
Female, up to 5 yrs above ERA
The survey questions we analysed

• How often do you...find that your job prevents you from giving the time you want to your partner or family?

• About how many hours a week, in total, do you personally spend on housework?
  • + your spouse or partner?

• How often do you and your husband/wife/partner disagree about money?
Older workers choosing their jobs wisely?

‘How often does your job prevent you from giving time to partner/family?’ (living with partner only)

ESS 2010

<table>
<thead>
<tr>
<th></th>
<th>Up to 4 yrs under or at ERA, working</th>
<th>Up to 5 yrs above ERA, working</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>19%</td>
<td>26%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>20%</td>
<td>26%</td>
</tr>
<tr>
<td>Never</td>
<td>10%</td>
<td>9%</td>
</tr>
</tbody>
</table>
Work means contributing less to housework

Additional hours of housework per week, compared with partner

ESS 2010

Graph showing coefficients for various factors:
- >ERA, working
- >ERA, retired
- <=ERA, retired
- Female
- Partner is not in paid work
- Health fair, bad, very bad
- Gender Inequality Index 2011 (value)
- Women live less than 4 years longer
- ERA m/w >1yr gap

Coeficient range from -10 to 30.
Money is an issue for some, in work or retired

‘How often do you and your husband/wife/partner disagree about money?’
(living with partner only)

ESS 2010

<table>
<thead>
<tr>
<th>Age Difference</th>
<th>Working</th>
<th>Retired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 4 yrs under or at ERA</td>
<td>46%</td>
<td>44%</td>
</tr>
<tr>
<td>Up to 5 yrs above ERA</td>
<td>48%</td>
<td>47%</td>
</tr>
</tbody>
</table>

Legend:
- ![Every day](image)
- ![Several times a week](image)
- ![Once a week](image)
- ![Several times a month](image)
- ![Once a month](image)
- ![Less than once a month](image)
- ![Never](image)
The survey questions we analysed

ESS 2010

How often do you and your husband/wife/partner disagree about money?
The survey questions we analysed

ESS 2010
How often do you and your husband/wife/partner disagree about money?

ESS 2004
How often do you and your husband/wife/partner disagree about ...how to divide housework?
Work or retirement makes no difference to happiness – health, wealth and equality do
‘Taking all things together, how happy would you say you are?’ (score 7+ in range 0 to 10)
And so we conclude....

• Inequalities in housework persist amongst those working beyond the ERA
  • Confirming 2007 study and other more recent (country specific) evidence

• So what?
  • Lack of disagreement question (assuming disagreement is undesirable)

• And where next?
  • Longitudinal data
  • Self-selection issues
    • Domestic consensus
Thank you
Background

- Historical changes in gender division of labour in households
  - Decline in domestic labour (automation, domestic aids, outsourcing)
  - Changes in the labour market participation (esp. more active women)
  - Narrowing of gender wage gap (affecting domestic earnings inequality)
    - “marital dependence”
  - Later marriage, fewer children
  - Some equalising of domestic work shares, but stark contrasts between more and less egalitarian societies
  - Attitudes change more than realities?
  - Gendered reallocation of paid/unpaid time
Existing studies – how this study fits

• Single country and recent
• Multi-country, but dated (2004)
• Focus on
  • effect of retiring rather than not retiring
  • hours worked in household

• This study:
  • Multi-country
  • More recent (2010), albeit still not current
  • Focus on not retiring, housework, but also: ‘quality of life’
How retirement affects domestic work

• First-retired increase housework (men and women)
• Retirees’ division of labour crosses over into partner’s domain
• Second retirement ‘reinstates’ previous division of labour
• Changing consumption patterns (incl. home production)

• Associations of domestic divisions of labour with:
  • Satisfaction
  • Perception of (un)fairness

• Qualifiers:
  • Gender ideology and familistic norms
  • Social comparison/relative deprivation
Data

• European Social Survey (ESS)
  • Cross-national, cross-sectional survey
  • Conducted across Europe every two years since 2002
  • Collecting data on social and political attitudes, beliefs and behaviours
  • Face-to-face interviews
  • 36 countries have participated to date
  • In 2016, the latest round of the survey: 24 countries
  • in 2010 (Round 5), the focus of this study: 28 countries
Countries - exclusions

• Austria
  • conducted survey in 2013
  • weights supplied February 2017

• Ukraine
  • incomplete ERA data

• Cyprus
  • no life expectancy data
Effective Retirement Age

• Age of labour market exit
• Average across OECD in 2014:
  • 64.6 years for men
  • 63.1 years for women
• 6 months higher than the average normal retirement age for men
• Equal to the average normal retirement age for women.
Gender Inequality Index

• Introduced in the 2010 Human Development Report by the United Nations Development Programme

• Measures gender disparity using:
  • Reproductive health
    • Maternal Mortality Ratio
    • Adolescent Fertility Rate
  • Empowerment
    • the share of parliamentary seats held by each sex
    • Higher education attainment levels
  • Labour market participation
    • women's participation in the workforce
Household income (ESS 2010)

**Total**

<table>
<thead>
<tr>
<th>Category</th>
<th>1st decile</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 4yrs under or at ERA, working</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 yrs above ERA, working</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 4yrs under or at ERA, retired</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 yrs above ERA, retired</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Respondent’s proportion**

<table>
<thead>
<tr>
<th>Category</th>
<th>None</th>
<th>Very small</th>
<th>Under a half</th>
<th>About half</th>
<th>Over a half</th>
<th>Very large</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 4yrs under or at ERA, working</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 yrs above ERA, working</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 4yrs under or at ERA, retired</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>
Respondent’s view on domestic division of labour, partnered households

- Respondent partner does more (1SD+)
- Equal shares within 1SD
- Respondent does more (1SD+)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Respondent Partner</th>
<th>Equal Shares</th>
<th>Respondent Does More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 4 yrs under or at ERA, working</td>
<td>70%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 yrs above ERA, working</td>
<td>67%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 4 yrs under or at ERA, retired</td>
<td>65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 yrs above ERA, retired</td>
<td>60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Housework is shared (fairly) equally
Partner does most of the housework
Respondent does most of the housework
Findings: Working beyond the ERA...

• ...does not change reported net extra hours of housework – all else equal:
  • Gender
  • Partner’s employment status

• ...nor happiness - all else equal:
  • Health
  • Money
  • Social equality

• Those working beyond the ERA choose their jobs wisely:
  • More report having high level of job control
    • But do they choose before they reach ERA or after?
Working more by working less

Hans Dubois
Eurofound

CEPS conference ‘Is a longer working life for everyone? Exploring emerging inequalities among older workers’
26 April 2017, Brussels
Examples of Eurofound studies

- Non-take-up of social benefits

- Access to healthcare in times of crisis
  http://www.eurofound.europa.eu/impacts-of-the-crisis-on-access-to-healthcare-services

- Quality of life in urban and rural Europe

- Household over-indebtedness

- Inadequate housing: cost and consequences
  https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1604en_0.pdf

- Several studies in the area of ‘extending working lives’:
  - company initiatives, mid-career reviews, income from work after retirement, work preferences after 50…
Measures by governments, social partners & pension funds: challenges

Cut pensions

Increase pension age

Increase contributions

Discourage early pension

Sustainable adequate pension systems

Challenges include:
- Generational distributional impacts
- Pressure on wage cost/disposable income/pension adequacy

Challenges include:
- Limited effectiveness with people unable to work until pension age (25% pensioners aged 50-69 had exited early in EU because of health problems, disabilities, or care commitments)

Non-pension measures

- Life-course approach, intervening at early stage
  - adjusting tasks
  - workplace design
  - work intensity
  - health promotion
  - job mobility
  - life-long learning

Pension measures

- Accruals increasing with age
- Increased flexibility:
  a) combining income from work & pension
  b) postponing pension
  c) partial retirement

The meaning of ‘working age’ has changed

Employment rate, 65-69 years olds, EU28 (%)
Case study 1: German newspaper

Regional newspaper

<table>
<thead>
<tr>
<th>Sector</th>
<th>Publishing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>615 (of which 15 women)</td>
</tr>
<tr>
<td>Gender balance</td>
<td>55% female</td>
</tr>
</tbody>
</table>

All retirees working on newspaper desks are aged 65 and above. Often they already worked for the paper for several decades and are exempted from social insurance contributions. The retirement package is generous. Pensioners often take a long time to seek a new job or retire. Low statutory (and no private) pension is often a reason why they struggle to make ends meet. The paper used to give them, for example to buy car fuel for deliveries and use their expenses. Then they left the newspaper. A few retire, but most keep on working.

The delivery staff work at night, starting early in the morning, which deliverers are committed to ensure in the area. The paper is owned by a big media group, but it has several competitors. The paper is a local news outlet and offers both local and national news. The paper is also a source of news on foreign countries. The paper is known for its quality journalism and is frequently awarded for its reporting. The paper is read by residents of the city and the surrounding area. The paper is also frequently read by tourists and visitors to the city.

Case study 2: Italian supermarket

Super Elite

<table>
<thead>
<tr>
<th>Sector</th>
<th>Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>32, of which one is a retiree</td>
</tr>
<tr>
<td>Gender balance</td>
<td>50% female, 50% male (the working retiree is male)</td>
</tr>
</tbody>
</table>

The working retiree is 73 years old. He is a gastronome counter operator in a supermarket. His highest level of education is primary school. Until his retirement (at 61), he was a supermarket employee. At retirement, he started a small shop in partnership with a younger colleague. In 2011 the shop ceased operating because the business did not go very well. He applied to work at the supermarket (which is a different one from where he worked before retirement) because it was well known and close by.

He receives a pension of €900 per month and still does not know if the new income will impact his pension receipts, but this will appear on his next tax return. The main reason why he works is that he wants to support his adult children financially. He and his wife have three children, one of who is unemployed and has two daughters, while another one is unemployed and has recently been evicted from his house, whereas the third has financial problems because of a divorce. When asked, 'Why doesn't one of your children do this work for you?' he replied, ‘Because they do not have the needed expertise in this task.’ The retiree enjoys the work and says, 'I live for my clients, contacts with other people and smiles of people... I will die if I stop.'

The manager understood the difficult situation of the retiree and wanted to help him. He was also aware of his great experience and skills in this work area and identified the retiree's work history with his own. The manager is responsible for four supermarkets. In three of them, there is a retiree in charge of the gastronomic counter. The decision for employees to work beyond retirement is taken by the employee together with the manager, in the absence of an HR department. While the manager considers 20 to 40 years to be the ideal age profile, he thinks younger employees often lack experience. On the other hand, in the case of working retirees, he feels the need to be careful in assigning specific tasks, for example lifting heavy food products. The manager is not aware of any labour market policies, tax and benefit systems, equal opportunity regulations or social protection policies that would support work for retired people; he never tried to inform himself about these.

Source: http://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1259en_0.pdf
Interest highest among (non-working) retirees who:
- have work experience
- have higher education
- are healthier

Overcoming challenges: extending working lives

Non-pension measures

- Life-course approach, intervening at early stage
  - adjusting tasks
  - workplace design
  - work intensity
  - health promotion
  - job mobility
  - life-long learning

Pension measures

- Accruals increasing with age
- Increased flexibility:
  a) combining income from work & pension
  b) postponing pension
  c) partial retirement

45% prefer working less, taking into account financial need.

Even more may like to reduce if (partially) compensated.

Facilitating reduction in working hours can motivate people to continue longer.

Not only motivate, also: enable

- 27% workers in EU unable to continue working until 60 (EWCS 2015)
- Most (60%) 50-64 year old workers unable to work until the retirement age (16%): ‘shorter working hours’ would enable them (Statistics Sweden 2006)

### Table 1: Average weekly working hours and preferred working hours in 2011, 50+, EU28

<table>
<thead>
<tr>
<th>Country</th>
<th>Current</th>
<th>Preferred</th>
<th>Difference</th>
<th>Proportion who would prefer to work less (%)</th>
<th>Proportion who would prefer to work same hours (%)</th>
<th>Proportion who would prefer to work more (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Romania</td>
<td>40</td>
<td>39</td>
<td>-1</td>
<td>28</td>
<td>46</td>
<td>27</td>
</tr>
<tr>
<td>Slovenia</td>
<td>43</td>
<td>41</td>
<td>-2</td>
<td>27</td>
<td>64</td>
<td>8</td>
</tr>
<tr>
<td>Malta</td>
<td>41</td>
<td>39</td>
<td>-2</td>
<td>30</td>
<td>54</td>
<td>16</td>
</tr>
<tr>
<td>Lithuania</td>
<td>41</td>
<td>38</td>
<td>-3</td>
<td>36</td>
<td>47</td>
<td>17</td>
</tr>
<tr>
<td>Denmark</td>
<td>38</td>
<td>35</td>
<td>-3</td>
<td>39</td>
<td>55</td>
<td>6</td>
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<tr>
<td>Bulgaria</td>
<td>43</td>
<td>40</td>
<td>-4</td>
<td>31</td>
<td>58</td>
<td>11</td>
</tr>
<tr>
<td>Netherlands</td>
<td>35</td>
<td>32</td>
<td>-4</td>
<td>39</td>
<td>47</td>
<td>15</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>38</td>
<td>34</td>
<td>-4</td>
<td>33</td>
<td>60</td>
<td>6</td>
</tr>
<tr>
<td>Belgium</td>
<td>40</td>
<td>36</td>
<td>-4</td>
<td>41</td>
<td>50</td>
<td>9</td>
</tr>
<tr>
<td>Slovakia</td>
<td>43</td>
<td>39</td>
<td>-4</td>
<td>45</td>
<td>47</td>
<td>8</td>
</tr>
<tr>
<td>Ireland</td>
<td>36</td>
<td>32</td>
<td>-4</td>
<td>45</td>
<td>39</td>
<td>17</td>
</tr>
<tr>
<td>France</td>
<td>38</td>
<td>34</td>
<td>-4</td>
<td>43</td>
<td>45</td>
<td>13</td>
</tr>
<tr>
<td>Latvia</td>
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<td>37</td>
<td>-4</td>
<td>39</td>
<td>42</td>
<td>19</td>
</tr>
<tr>
<td>Estonia</td>
<td>41</td>
<td>37</td>
<td>-4</td>
<td>37</td>
<td>52</td>
<td>11</td>
</tr>
<tr>
<td>Germany</td>
<td>39</td>
<td>35</td>
<td>-4</td>
<td>48</td>
<td>40</td>
<td>12</td>
</tr>
<tr>
<td>Sweden</td>
<td>38</td>
<td>34</td>
<td>-5</td>
<td>50</td>
<td>44</td>
<td>6</td>
</tr>
<tr>
<td><strong>EU28</strong></td>
<td><strong>40</strong></td>
<td><strong>34</strong></td>
<td><strong>-6</strong></td>
<td><strong>45</strong></td>
<td><strong>44</strong></td>
<td><strong>11</strong></td>
</tr>
<tr>
<td>Hungary</td>
<td>42</td>
<td>37</td>
<td>-5</td>
<td>47</td>
<td>42</td>
<td>11</td>
</tr>
<tr>
<td>Croatia</td>
<td>45</td>
<td>40</td>
<td>-5</td>
<td>36</td>
<td>61</td>
<td>3</td>
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<tr>
<td>Austria</td>
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<td>37</td>
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<td>39</td>
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<tr>
<td>Cyprus</td>
<td>40</td>
<td>34</td>
<td>-6</td>
<td>47</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>Finland</td>
<td>41</td>
<td>35</td>
<td>-6</td>
<td>47</td>
<td>47</td>
<td>6</td>
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<tr>
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<td>35</td>
<td>-6</td>
<td>50</td>
<td>43</td>
<td>7</td>
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<tr>
<td>Italy</td>
<td>40</td>
<td>34</td>
<td>-6</td>
<td>50</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>43</td>
<td>37</td>
<td>-6</td>
<td>53</td>
<td>40</td>
<td>7</td>
</tr>
<tr>
<td>UK</td>
<td>36</td>
<td>29</td>
<td>-7</td>
<td>49</td>
<td>42</td>
<td>10</td>
</tr>
<tr>
<td>Poland</td>
<td>45</td>
<td>38</td>
<td>-7</td>
<td>38</td>
<td>49</td>
<td>13</td>
</tr>
<tr>
<td>Portugal</td>
<td>46</td>
<td>38</td>
<td>-8</td>
<td>41</td>
<td>50</td>
<td>9</td>
</tr>
<tr>
<td>Greece</td>
<td>48</td>
<td>40</td>
<td>-8</td>
<td>45</td>
<td>40</td>
<td>15</td>
</tr>
</tbody>
</table>

Appeal of partial retirement instead of full retirement (EU, 2011)

If it was possible to combine a part-time job and partial pension instead of full retirement, how appealing would this be to you?

- Appealing: 65%
- Not appealing: 28%
- Don't know: 7%

Partial retirement schemes in EU & Norway at the national and/or sector level (2016)

Schemes vary…
- company coverage,
- rationale,
- financing,
- consequences for wage and/or future pension,
- replacement by other worker.

… and flexibility is limited to different extents:
- entitlement criteria,
- working time reduction options.

Mixed results overall

Case studies of partial retirement schemes to learn from experiences

- France (national and sector-level)
- Germany (sector and company level)
- Netherlands (sector and company level)
- Finland (national)
- Mini-case studies on national schemes in Czech Republic, Sweden (past system), Norway

Source: [PartialRetirement](http://bit.ly/PartialRetirement)
Illustrative of case study results:

*What would part-time retirees do if partial retirement were not available?* (Finland, 2007)

<table>
<thead>
<tr>
<th>Continue working full time</th>
<th>Continue working full time for a while</th>
<th>Apply to retirement straight away</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>26</td>
<td>11</td>
<td>14</td>
</tr>
</tbody>
</table>

Illustrative of case study results:

What would part-time retirees do if partial retirement were not available? (Finland, 2007)

<table>
<thead>
<tr>
<th>Self-reported health</th>
<th>Continue working full time</th>
<th>Continue working full time for a while</th>
<th>Apply to retirement straight away</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>good</td>
<td>65</td>
<td>19</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>moderate</td>
<td>35</td>
<td>33</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>bad</td>
<td>11</td>
<td>45</td>
<td>28</td>
<td>16</td>
</tr>
<tr>
<td>ALL</td>
<td>49</td>
<td>26</td>
<td>11</td>
<td>14</td>
</tr>
</tbody>
</table>

Final observations from the case studies (1/2):

- Delicate balance between facilitating, ‘pulling toward’ and … ‘pulling-out’
  - Attractive:
    - pull-out also those who can and want likely to outweigh enabling/motivating;
    - may motivate people to work until age they become entitled (even if unlikely work as enabler up until that age).
  - Unattractive:
    - unlikely to work, as motivator/enabler
- Do not assume ‘phasing-out work’: facilitate reversals, but pre-set plans, notice periods, mutual agreement
  - FI, FR, NO, SE: reversals possible; Sometimes pre-agreed (DE company scheme); UK university scheme: once a year & 20%-steps (administrative cost?)
  - Applied involuntarily, but also prevented unemployment & easier to re-integrate
- Interacts with tax & welfare
  - Ensure take-up: ‘user-friendly’ and clear explanation of the rules to those entitled & (in particular small) companies
  - Ensure desired impact: inter-sector communication of changes and design

Final observations from the case studies (2/2):

- Fairness is an issue if not available to entrants & part-time workers
  - Decoupled systems (NO, SE, FI from 2017, CZ after pension age) address this
  - To younger people? FR/DE company scheme, National: AT, BE, DE, 2006-12 NL
- Publicly paid unfair if mainly used by high-income earners (AT, FI)? Those more likely enabled: job type & cannot afford small reductions
  - Compensation non-proportional to wage level (BE/DK)
  - But, also important to extend working lives of high-income earners
- Easier to implement in countries and sectors where part-time work is common, but more potential where it is not
  - It has made part-time work more common in BE, DE, FI, SE
- Paid by own future pension: risk old age poverty
  - NO: minimum accumulation required to be entitled at 62
  - But: also important to extend working lives better-off

To conclude:

I. Positive macro-impact: negotiated as compensation
discouragement early retirement or increased pension age,
providing ‘half-way-out’ instead of ‘full-way-out’

II. More positive if objective includes ‘quality of life’

III. Increased pension ages & discouraged early retirement:
maybe more need for such measures in the near future

Thank you!

Hans.Dubois@eurofound.europa.eu
(Dublin)
Use it or lose it?
Skills, earnings and job satisfaction among older workers
Overview

• Are older workers losing skills because they do not use them? To what extent can they utilize their skills at work?

• Why skills and skill use?
  ➢ More change over time than qualification
  ➢ Comparable data from PIAAC
  ➢ Use of skills important....
Skill use and productivity

Figure 4.3 - Labour productivity and the use of reading skills at work

Notes: Lines are best linear predictions. Labour productivity is equal to the GDP per hour worked, in USD current prices 2012 for Round-1 and 2014 for Round-2 countries/economies. Adjusted estimates are based on OLS regressions including controls for literacy and numeracy proficiency scores. Standard errors in parentheses.

1. See note at the end of this chapter.

Source: Survey of Adult Skills (PIAAC) (2012, 2015), Table A4.3.
Overview

• Skills mismatch: Over/underutilization
• What influences skills utilization?
• Effects of utilization on income and job satisfaction
• Older Workers 50-65 & younger workers 25-49
• FACTAGE countries: Austria, Belgium (Flanders), Germany, Spain, UK (England, Northern Ireland)
Skills mismatch

- Qualification mismatch

- Skills mismatch

  - Different ways to measure it

  - This paper uses an objective measure of utilization (Allen/van der Velden/Levels 2013)

  - Utilization = skills (standardized) – skill use (standardized)
PIAAC - Programme for the International Assessment of Adult Competencies

- Basic skills of adult population (16-65)
  - Relevant for participation in modern society
    - Literacy
    - Numeracy
    - Problem solving in technology-rich environments

- Measured in national language(s)

- Skill use (private and work) / Social and economic participation
PIAAC

• OECD/ETS

• Countries:
  - Round 1 (2008-2013): 17 EU-countries plus Australia, Japan, Korea, Canada, USA, Norway, Russian Federation
  - Round 2 (2012-2016): 9 countries
  - Round 3 (2016-2019): 5 countries plus USA
  - by 2019: data on 38 countries (21 EU-countries)

• Cross-sectional survey

• Multi cycle program (10 years)

• High quality and comparability
Skills and age/generation

Literacy

Numeracy

AT BEL GER ESP UK

AT BEL GER ESP UK
Skill use at work

Literacy

Numeracy
Skills and Skill use – Mismatch (Literacy)
Skills and Skill use – Mismatch (Numeracy)
Country specific Analysis

• Belgium (Flanders): high underutilization in Literacy (11%) and Numeracy (16%) → risk of skill loss
  Low overutilization in general; older worker overutilize more

• UK (England/Northern Ireland): high overutilization in Literacy (10%) and Numeracy (11%)
  Older worker overutilize more (Literacy)

• Spain: high overutilization in Literacy (9%) and Numeracy (11%)
  Older worker overutilize more

• Germany: adequate match a bit higher than other countries
  Older worker overutilize more

• Austria: adequate match a bit higher than other countries
  High underutilization in Numeracy
  Older worker overutilize more (Literacy)
Multivariate Analysis

• Effects on (over)utilization

  ➢ Age 50-65 (LIT not in UK, NUM not in AT and UK)

  ➢ Gender - Men (high in AT; not in UK and Spain – here Women overutilize in Numeracy)

  ➢ Education: heterogenous effects
    • Undereducation (not in UK, less in Spain & Germany)

  ➢ Non Natives (all countries, less in Spain)

  ➢ More skilled jobs
Multivariate Analysis

- Effects of over/underutilization (Literacy) on income
  - Overutilization: income premium (4% in Belgium/Flanders to 13% in Spain; DE 7%; AT 9%; UK 11% compared to adequate match)
  - Underutilization: income penalty (5% in Belgium/Flanders to 13% in Spain)
  - No/Low effect in Belgium/Flanders, higher effect in Spain and UK

- Effects of over/underutilization on job satisfaction
  - Numeracy: no significant effects
  - Literacy: underutilization has negative effect on job satisfaction only in Belgium/Flanders
Conclusions

• 50-65: lower skills, bit lower skill use
  → in general: overutilization of skills with positive effects on income and no effect on work satisfaction

→ „use it or lose it“-risk is higher for younger workers with less (skill) demanding jobs

• Country specific results:

  ➢ High underutilization in Belgium(Flanders) – risk of skill loss
     No/Low effects of over/underutilization on income

  ➢ UK: skill/age profile; no age effect on utilization, but in general high overutilization and high effects of over/underutilization on income

  ➢ Spain: high overutilization in general; high effects on income

  ➢ Austria/Germany: more „balanced“ over/underutilization
     AT: Strong gender effects on overutilization
Next steps

• More country-specific interpretation/discussion and more national context (skill formation systems, employment rates)

• Feed in other FACTAGE-Streams

• Research paper and policy brief
More information and discussion

- Allen J., Levels M., van der Velden R. (2013), Skill mismatch and use in developed countries: evidence from the PIAAC study
Skills mismatch and workplace performance in Britain

David Wilkinson (University College London)
Andreas Cebulla (NIESR, University of Adelaide)
Nathan Hudson-Sharp (NIESR)
Lucy Stokes (NIESR)
Motivation and Measuring Mismatch

Workers whose skills do not match the needs of their jobs may result in missed productive capacity and can effect workplace performance.

Survey question:
How well do the work skills you personally have match the skills you need to do your present job?

- My own skills are:
  - Much higher
  - A bit higher
  - About the same
  - A bit lower
  - Much lower
Research Questions

1. How does skills mismatch compare for older workers and younger workers.

2. Do workplaces with a higher proportion of mismatched workers perform better or worse?
   - labour productivity
   - financial performance
   - quality of product or service

3. Does the age composition of employment matter?
The Workplace Employment Relations Survey (WERS)

- Nationally representative survey of British workplaces with 5 or more employees
- Responses from 2,680 workplaces in 2011
- Linked employee data covering 21,981 employees
- Up to 25 randomly selected employees per workplace
- Allows employee responses to be aggregated to give workplace indicators
- Collects rich set of data from managers, worker representatives and employees within the same workplaces – including workplace practices and procedures, workforce composition and workplace performance
Age distribution of employment: 2004 and 2011

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-21</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>22-29</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>30-39</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>40-49</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>50-59</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>60-64</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>65 and above</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Legend:
- 16-21
- 22-29
- 30-39
- 40-49
- 50-59
- 60-64
- 65 and above
Skills mismatch by age

- **All employees**: 52 higher, 4 lower
- **16-21**: 46 higher, 7 lower
- **22-29**: 54 higher, 4 lower
- **30-39**: 50 higher, 5 lower
- **40-49**: 51 higher, 4 lower
- **50-59**: 51 higher, 4 lower
- **60-64**: 58 higher, 2 lower
- **65+**: 55 higher, 6 lower

The chart shows the percentage of employees with mismatch skills by age.
Share of over-skilled workers by percentage of workers aged 50+ in the workplace
Measures of Workplace Performance

• Subjective measures of workplace performance
• “Compared with other workplaces in the same industry how would you assess your workplace’s…
  • Financial performance
  • Labour productivity
  • Quality of service or product?”
• Respond on five point scale from “a lot better than average” to “a lot below average” (combine bottom two in analysis)
• Also construct additive scale from the 3 items
• Although accounting measures are more conventional, existing studies provide validation for the subjective measures
## Results: summary

<table>
<thead>
<tr>
<th>% workers over qualified</th>
<th>Labour productivity</th>
<th>Quality</th>
<th>Financial performance</th>
<th>Additive scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>ns</td>
<td>- (*)</td>
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<table>
<thead>
<tr>
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<th>Labour productivity</th>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>% workers over qualified:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low share of older workers &lt;25%</td>
</tr>
<tr>
<td>High share of older workers &gt;=25%</td>
</tr>
</tbody>
</table>

Results including workplace controls

- Association at 10% significance level
- Association at 5% significance level
- Association at 1% significance level
Summary and Conclusions

• Age composition of UK workforce is changing
• Workers aged 60+ most likely to report their skills higher than required to do their job
• Workplaces with a lot of older workers have a higher percentage of workers who report their skills higher than required to do their job
• Limited evidence of skills mismatch (overall) being related to worse workplace performance
• Limited to workplaces that employ fewer older workers
Thank you
There is considerable variation across workplaces in the % older workers employed
Preferred and Expected Retirement Age in Germany and Europe

Moritz Heß
Determinants of Retirement Decisions in Europe and the United States

- University of Mannheim
- Team:
  - Prof. Dr. Dirk Hofäcker
  - Dr. Stefanie König
  - Dr. Moritz Hess
  - collaborators from 12 countries in Europe, Japan and the US
- Running time: 10/2012 until 7/2016
- Funding: German Science Foundation
Dissertation: Preferred and Expected Retirement Age in Germany and Europe

- **Supervisors:** Prof. Dr Bernard Ebbinghaus (Oxford), Prof. Dr. Dirk Hofäcker (Duisburg-Essen), Prof. Dr. Katja Möhring (Mannheim)

- **Relevance:** Why study Preferred and Expected Retirement Age?
  - Future pensioners’ expectations and preferences when to retire, because due to the often time-lagged effect of the reforms today’s pensioners have mostly not yet felt their full impact
  - Reaction if things are going “wrong”
    - Institutional level
    - Workplace level
    - Individual level
Definition – Preferred and Expected retirement age

- The preferred retirement age is the age at which an individual would like to retire without considering contextual determinants

- The expected retirement age is a realistic evaluation when an individual will actually retire taking into account the pension system’s regulation, the institutional and workplace context, and potential pension deductions accompanying early retirement

- Expectations = Preferences + Incentives & Constraints
Research Questions and Methods

- **Research Questions:**
  - How have future pensioners adapted their expected and preferred retirement age to the pension reforms aimed at later retirement?
  - What are the mechanisms behind the adaption of the expected and preferred retirement age?
  - How do the first two question differ between social groups?

- **Methodological framework**
  - Education as main explanatory variable for group differences
  - Expected and preferred retirement age as dependent variables
    - When do you expect / prefer to retire?
  - Older workers 50 – 65
  - Multilevel & multinomial regressions as main analytical tool
Contributing Papers


Results I

Preferences

Pre-Reform	Post-Reform

--- High Edu Preferences

----- Low Edu Preferences

..... Med Edu Preferences

----- High Edu Expectations

..... Med Edu Expectations

- - Low Edu Expectations
Results II

<table>
<thead>
<tr>
<th>Preferences</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Edu Preferences</td>
<td>Med Edu Preferences</td>
</tr>
<tr>
<td>Low Edu Preferences</td>
<td>High Edu Expectations</td>
</tr>
<tr>
<td>Med Edu Expectations</td>
<td>Low Edu Expectations</td>
</tr>
</tbody>
</table>

Pre-Reform | Post-Reform

1.29 years
2.37 years
Results III

Preferences

- High Edu Preferences
- Low Edu Preferences

Expectations

- High Edu Expectations
- Med Edu Expectations

Differences

- Med Edu Preferences
- Low Edu Expectations

1.29 years

2.37 years
Summary of Results

- **Level of Education**
  - Low
  - High

- **Retirement Age**

- **Expected retirement age**
- **Preferred retirement age**

Graph showing the relationship between level of education and retirement age.
Social Inequalities in Extending Working Lives of an Ageing Workforce (EXTEND)

- Network of seven partners
  - University of Sheffield (UoS) (Prof. Dr. Alan Walker),
  - Aalborg University (AAU) (Prof. Dr. Per Jensen)
  - University Medical Center Amsterdam (VUmc) (Prof. Dr. Dorly J.H. Deeg)
  - Institute for Work and Technology Gelsenkirchen (IAT) (Prof. Dr. Josef Hilbert)
  - University of Dortmund (TUD) (Prof. Dr. Monika Reichert)
  - Finnish Institute for Occupational Health (FIOH) (Prof. Dr. Jukka Vuori)
  - Institute of Gerontology at the University of Dortmund (TUD) (Prof. Dr. Gerhard Naegele)

- Running time: April 2016 - September 2018
- Funding: JPI MYBL
THANK YOUR FOR YOUR ATTENTION
Appendix

- Future Research
- Research questions in detail
- Institutionalism
- Mechanism in Detail
- Why education
- Why Older Workers
- Selection Bias
- Gender
- Measurements and Data Sets Overview
- Argument why Prospective Retirement Age
- Independence of Preferred and Expected Retirement Age
Definition – preferred and expected retirement age

- The **preferred retirement age** is the age at which an individual would like to retire *without considering contextual determinants*

- The **expected retirement age** is a realistic evaluation when an individual will actually retire *taking into account* the pension system’s regulation, the institutional and workplace context, and potential pension deductions accompanying early retirement

- **Expectations = Preferences + Incentives & Constraints**
Research questions

- How have future pensioners adapted their expected and preferred retirement age to the pension reforms aimed at later retirement?

- What are the mechanisms behind the adaption of the expected and preferred retirement age?

- How do the first two question differ between social groups?
Theoretical considerations

(Strict) Rational Choice Institutionalism

Changing Institutional Context
Pension and labor market reforms

Expectations = Preferences + Incentives & Constraints

Sociological Institutionalism

Changing Institutional Context
Pension and labor market reforms

Expectations = Preferences + Incentives & Constraints
Methodological framework

- Education as main explanatory variable for group differences
- Expected and preferred retirement age as dependent variables
  When do you expect / prefer to retire?
- Older workers 50 – 65
- Multilevel & multinomial regressions as main analytical tool
Results
Preferred retirement age – *Study I*

Data source: EB & ESS
Preferred retirement age – Study I

Data source: EB & ESS
Preliminary Results

Preferences

Pre-Reform  Post-Reform

--- High Edu Preferences

--- Low Edu Preferences

----- Med Edu Preferences

----- Med Edu Expectations

----- High Edu Expectations

---- Low Edu Expectations

1.29 years

2.37 years
Expected retirement age – *Study III*

Data source: SOEP & DEAS
Expected retirement age – Study III

Data source: SOEP & DEAS
Preliminary Results

Preferences

<table>
<thead>
<tr>
<th>Pre-Reform</th>
<th>Post-Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Edu Preferences</td>
<td>High Edu Preferences</td>
</tr>
<tr>
<td>Low Edu Preferences</td>
<td>Low Edu Preferences</td>
</tr>
<tr>
<td>Med Edu Preferences</td>
<td>Med Edu Preferences</td>
</tr>
</tbody>
</table>

Expectations

<table>
<thead>
<tr>
<th>Pre-Reform</th>
<th>Post-Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Edu Expectations</td>
<td>High Edu Expectations</td>
</tr>
<tr>
<td>Low Edu Expectations</td>
<td>Low Edu Expectations</td>
</tr>
<tr>
<td>Med Edu Expectations</td>
<td>Med Edu Expectations</td>
</tr>
</tbody>
</table>
Expected and preferred retirement age – *Study IV*

Data source: BIBB
Expected and preferred retirement age — Study IV

Average marginal treatment effects based on multinomial logistic estimations; reference category is Expected > Preferred

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Expected = Preferred</th>
<th>Expected &lt; Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Ref: Low)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>0.064*</td>
<td>0.028</td>
</tr>
<tr>
<td>High</td>
<td>0.121**</td>
<td>0.073**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional Position</th>
<th>Expected = Preferred</th>
<th>Expected &lt; Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Ref: Medium or Low Professional Position)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>0.056*</td>
<td>0.071**</td>
</tr>
<tr>
<td>High Income</td>
<td>0.053*</td>
<td>0.077**</td>
</tr>
<tr>
<td>Medium Income</td>
<td>0.002</td>
<td>0.008</td>
</tr>
</tbody>
</table>

Controlled for Gender, Age, Health, Company Sizes, Working Hours and Sector

Data source: BfBB
Preliminary Results

- High Edu Preferences
- Med Edu Preferences
- Low Edu Preferences
- High Edu Expectations
- Med Edu Expectations
- Low Edu Expectations

1.29 years
2.37 years
Expected retirement age and its reasons – *Study V*

Data source: BAuA
Summary of results

- High educated expect and prefer to retire late
- Low educated expect to retire late, but would like to retire early

- High educated state non-monetary reason when asked why they expect to work long
- Low educated state monetary reason when asked why they expect to work long
Summary of results

- Level of Education: Low, High
- Retirement Age
  - Expected retirement age
  - Preferred retirement age

Graph showing the relationship between level of education and retirement age.
Contribution

- Description of the development of expected and preferred retirement age
- Disentangling of rational choice and sociological institutionalism
- Heckmann Test to correct for selection bias
- Support for recent warning of (re)emergence of social inequality in retirement process
Future Research

- Qualitative Methods
- Unemployed, Public Servants, Self-employed
- Gender differences
- Workplace level
- Replicate German results in other countries
- East-West Difference in Germany (were excluded from Study III, however only those living in East Germany at the point of data collection)
Research questions in detail

- How have future pensioners adapted their expected and preferred retirement age to the pension reforms aimed at later retirement?
  - Is the adaption of the expected and preferred retirement age a pan-European process or limited to particular countries? (*Study I*)
  - Is the adaption of the expected and preferred retirement age a short or long-term development? (*Study III*)

- What are the mechanisms behind the adaption of the expected and preferred retirement age?
  - How are individuals’ expected and preferred retirement ages related; do they concur or differ? (*Study IV*)
  - What reasons for expected retirement age can be identified and how do they differ between groups of older workers? (*Study V*)
Theory - Intuitionalism

- Focus was on rational choice (economic) & sociological intuitionalism, however “other” intuitionalism also exist. But they do not have own explanations for how institutions shape individual behavior.

The third institutionalist strand historical institutionalism is not discussed in detail in this dissertation. Based on the ‘logic of path dependence’ the main focus of historical institutionalism is on institutional change, or to be more precise, why due to institutional path dependence institutions not or only very slowly change (Schmidt, 2010). To explain how institutions shape individuals’ behavior and attitudes, historical institutionalism relies on the ‘calculus approach’ and the ‘cultural approach’, and sometimes even on both (Hall & Taylor, 1996). Knill and Lenschow (2001, p.189) slightly ironically comment that historical institutionalism is “borrowing somewhat eclectically from the other two schools though with a special appreciation for the influence of history for present-day policy making”. Further recent types of institutionalism such as constructivist institutionalism (Hay, 2004) or discursive institutionalism (Schmidt, 2010) are also not discussed in this dissertation. (Footnote No 2 from Framework)
Mechanisms

- The results support rather sociological that economic intuitionalism. It seems as if changes on the macro, institutional level not only change the incentive and constraints, but also values & norms (here retirement norms). However, the educational differences in the increase of – in particular – the expected retirement age imply that also economic intuitionalism has some predicted power and incentive and constraints do matter.

- One could speculate whether the changes of the incentive and constraints happen faster, while does of the values and norms are more long lasting (TOP survey)
Why Education?

“Particularly education seems to be a valid proxy to summarize several interrelated characteristics that are known to be influential individual-level determinants of the retirement decision (e.g. work place characteristics and work autonomy, health, income, labor market chances) (Hofäcker & Naumann 2015, p.4).”

Study

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>+</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation Class</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Company Sizes</td>
<td></td>
<td></td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Professional Position</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

+ means significant effect in expected direction, - means not significant or unexpected direction
Why Older Workers?

Older workers age 55-65 were chosen for two reasons

1) stable retirement preference and expectations (Ekerdt et al. 1976; Ekerdt et al. 2000)

2) and know quite well when they will retire (Örestig et al. 2013)
Selection Bias

- The ratio behind this being that only those respondents that still are employed are asked for their preferred retirement age, while those who are already retired are ignored. It is, however, plausible to assume that those who are still employed at old age differed systematically from those already in retirement.
- This systematic selection into employment - and, hence, the possibility to state a preferred retirement age - might contort the results of the analysis.

Heckman's Test allows to control for the potential selection bias.
## Selection Bias – Heckman Test Study I

Multi-level linear regression on the preferred retirement age with Heckman Test and detailed information

<table>
<thead>
<tr>
<th>Individual Level</th>
<th>Regression coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Ref: Man</td>
<td>Woman: 0.69 (0.13)**</td>
</tr>
<tr>
<td></td>
<td>Cohabiting Ref: No: 0.29 (0.09)*</td>
</tr>
<tr>
<td>Age groups Ref: 45-54</td>
<td>55-64: 1.90 (0.08)**</td>
</tr>
<tr>
<td>Education (ISCED) Ref: Low</td>
<td>3–4: 0.23 (0.12)*</td>
</tr>
<tr>
<td></td>
<td>5–6: 0.59 (0.16)**</td>
</tr>
<tr>
<td>Income Ref: Low</td>
<td>Middle: 0.12 (0.10)</td>
</tr>
<tr>
<td></td>
<td>High: 0.24 (0.19)*</td>
</tr>
<tr>
<td>Country Level</td>
<td>Official Retirement Age: 0.23 (0.04)*</td>
</tr>
<tr>
<td></td>
<td>Year of Survey: 1.40 (0.21)**</td>
</tr>
<tr>
<td>Year*Education</td>
<td>2010*Middle: 0.19 (0.29)</td>
</tr>
<tr>
<td></td>
<td>2010*High: 0.94 (0.30)**</td>
</tr>
</tbody>
</table>

| N                | 13,517 |
| Pseudo R²        | 0.14  |
| ICC              | 0.07  |

<table>
<thead>
<tr>
<th>Cross Level Interaction</th>
<th>Year*Education</th>
<th>Year*Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010*Middle: 0.19 (0.29)</td>
<td>2010*High: 0.94 (0.30)**</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Selection coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Ref: Man</td>
</tr>
<tr>
<td>Age groups Ref: 45-54</td>
</tr>
<tr>
<td>Education (ISCED) Ref: Low</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td>Sigma</td>
</tr>
</tbody>
</table>

Levels of significance: 0.1; 0.05; 0.01
## Selection Bias – Heckman Test Study III

Table A1: OLS Regression on the Expected Retirement Age with Heckman Test Control

<table>
<thead>
<tr>
<th></th>
<th>1987</th>
<th>1996</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education (Ref: ISCED 0-2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISCED 3-4</td>
<td>0.39(.32)</td>
<td>-0.13(.37)</td>
<td>-0.22(.48)</td>
</tr>
<tr>
<td>ISCED 5-6</td>
<td>1.68(.38)**</td>
<td>0.66(.41)+</td>
<td>0.45(.50)</td>
</tr>
<tr>
<td>Women (Ref: Man)</td>
<td>-1.60(.30)**</td>
<td>-1.08(.22)**</td>
<td>-0.68(.19)**</td>
</tr>
<tr>
<td>Partner (Ref: No Partner )</td>
<td>-0.41(.25)</td>
<td>-0.65(.29)**</td>
<td>-0.75(.25)**</td>
</tr>
<tr>
<td>Occupational Position (Ref: Blue Collar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Collar</td>
<td>0.33(.23)*</td>
<td>0.57(.23)+</td>
<td>0.00(.26)</td>
</tr>
<tr>
<td>Public Servant</td>
<td>0.33(.36)</td>
<td>-0.30(.40)</td>
<td>-0.33(.36)</td>
</tr>
<tr>
<td>Self Employed</td>
<td>2.45(.35)**</td>
<td>1.87(.34)**</td>
<td>1.55(.32)**</td>
</tr>
<tr>
<td>Occupational Pension (Ref: No Occ.Pension)</td>
<td>-0.48(.39)</td>
<td>-0.59(.20)**</td>
<td>-0.44(.18)*</td>
</tr>
<tr>
<td>Constant</td>
<td>58.69(.37)</td>
<td>62.12(.46)</td>
<td>63.81(.55)</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>612</td>
<td>767</td>
<td>1,187</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Selection coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education (Ref: ISCED 0-2)</td>
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</tr>
<tr>
<td>ISCED 3-4</td>
<td>0.27(.15)**</td>
</tr>
<tr>
<td>ISCED 5-6</td>
<td>0.57(.18)**</td>
</tr>
<tr>
<td>Women (Ref: Man)</td>
<td>-0.46(.05)**</td>
</tr>
<tr>
<td>Age Groups (Ref: 50-55)</td>
<td></td>
</tr>
<tr>
<td>56-60</td>
<td>-0.98(.24)**</td>
</tr>
<tr>
<td>61-65</td>
<td>-1.23(.45)**</td>
</tr>
<tr>
<td>Rho</td>
<td>0.64</td>
</tr>
<tr>
<td>Sigma</td>
<td>1.05</td>
</tr>
</tbody>
</table>

+<0.1; *<0.05; **<0.01
Gender (1)

Women do expect (III) and prefer (I) to retire later than men and still have lower employment rate (II). However the differences between expected and preferred retirement (IV) age is not larger for women and no gender differences in the retirement reasons were found (V)

<table>
<thead>
<tr>
<th>Study</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Differences</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

+ means significant effect in expected direction, - means not significant or unexpected direction
Gender (2)

Figure shows the employment rate for different education levels and gender. The education was coded according to the International Standard Classification of Education (Lower= 0-2, Intermediate= 3-4 and Higher=5-6)

## Measurements and Data Sets Overview

<table>
<thead>
<tr>
<th>Short Title</th>
<th>Main Research Questions</th>
<th>Data Source</th>
<th>Measurement of Prospective Retirement Age</th>
<th>Main Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retirement Preferences in Europe</td>
<td>Have European adapted to the new policy of late retirement?</td>
<td>ESS &amp; EB</td>
<td>Preferred Retirement Age in Years</td>
<td>Total increase &amp; stronger for high educated</td>
</tr>
<tr>
<td>Determinants of Retirement in Germany</td>
<td>How did German policy makers reform the pension system?</td>
<td>OCED</td>
<td></td>
<td>Increasing employment rate of older workers</td>
</tr>
<tr>
<td>Retirement Expectations in Germany</td>
<td>Have Germany adapted to the new policy of late retirement?</td>
<td>SOEP, DEAS</td>
<td>Expected Retirement Age in Years</td>
<td>Total increase &amp; stronger for low educated</td>
</tr>
<tr>
<td>Retirement Expectations &amp; Preferences</td>
<td>How do Retirement Expectations and Preferences interact with each other</td>
<td>BIBB</td>
<td>Preferred &amp; Expected Retirement Age in Years</td>
<td>Preferences lower than expectation, deviation stronger for low educated</td>
</tr>
<tr>
<td>Reasons of Retirement Expectations</td>
<td>How do the reasons for the planned retirement age differ?</td>
<td>BAUA</td>
<td>Expected Retirement Age (before official retirement age, with, after)</td>
<td>High educated more non financial &amp; low educated more financial reasons.</td>
</tr>
</tbody>
</table>
Argument why Prospective Retirement Age

„However, despite the undisputable value of this analytical perspective, the significance of such analyses to identify the effects of recent ‘active ageing’ reforms is inherently limited, given that current cohorts of pensioners had often spent virtually their entire employment life under the old ‘early exit regime’ and thus have been subject to respective pension and labour market policies. In other words, they were often not fully affected by more recent reform measures. This paper thus takes a prospective focus on retirement plans and preferences of future retiree cohorts which more likely have been affected by recent reform measures, thus allowing for a better assessment of their effectiveness.”

Hofäcker (2014) In line or at odds with active ageing policies? Exploring patterns of retirement preferences in Europe. Ageing and Society
Expected and Preferred Retirement Age - Independence

The independence of the preferred and expected retirement ages is one fundamental assumption of the dissertation’s research approach, but especially if the questionnaire includes only one question on either the expected or preferred retirement age respondents might answer a question aimed at their preferred retirement with their expected retirement age or vice versa. In addition, based on the idea of cognitive dissonance (Greenwald et al., 2013), it might be psychologically very costly to keep unrealistic retirement preferences, and individuals might adapt their preferences to their expectations. However when respondents are asked for their preferred and expected retirement age (Study IV) in the same survey they seem to clearly differentiate between the two, as the average ranges 1.75 years apart (Hess, 2016). In addition, other studies (Esser, 2006; Heß & Landmann, 2015; Zappalà et al., 2008), including both preferred and expected retirement ages, reinforce this assumption as their results also show that they do indeed differ. One could interpret this as an indication that respondents see a difference between preferred and expected retirement age. However, potential interdependencies between the preferred and expected retirement ages must be acknowledged when interpreting these results.
Rente mit 63

One very topical development in Germany is the reestablishment of the early retirement option via the public pension system after a certain amount of contributing years. The *Rente mit 63* (‘retirement at 63’) allows workers to retire 2 years before the official retirement age of their birth cohort if they have contributed to the public pension system for 45 years.
Increase of the official retirement age
Appendix – Robustness Checks
## Study I – Descriptive

<table>
<thead>
<tr>
<th></th>
<th>Shares in Sample (%)</th>
<th>Average of Preferred Retirement Age</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003</td>
<td>2010</td>
<td>2003</td>
<td>2010</td>
<td>Difference</td>
</tr>
<tr>
<td>Total (N)</td>
<td>3,140</td>
<td>4,702</td>
<td>60.15</td>
<td>61.67</td>
<td>1.52</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>49.59</td>
<td>52.28</td>
<td>60.59</td>
<td>62.02</td>
<td>1.43</td>
</tr>
<tr>
<td>Women</td>
<td>50.41</td>
<td>47.72</td>
<td>59.72</td>
<td>61.31</td>
<td>1.59</td>
</tr>
<tr>
<td>Cohabiting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>68.60</td>
<td>74.03</td>
<td>60.09</td>
<td>61.63</td>
<td>1.54</td>
</tr>
<tr>
<td>No</td>
<td>31.40</td>
<td>25.97</td>
<td>60.28</td>
<td>61.76</td>
<td>1.48</td>
</tr>
<tr>
<td>Age groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td>55.00</td>
<td>58.47</td>
<td>59.33</td>
<td>60.84</td>
<td>1.51</td>
</tr>
<tr>
<td>55-64</td>
<td>45.00</td>
<td>41.53</td>
<td>61.36</td>
<td>62.91</td>
<td>1.55</td>
</tr>
<tr>
<td>Education (ISECD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–2</td>
<td>14.71</td>
<td>10.55</td>
<td>60.04</td>
<td>61.41</td>
<td>1.37</td>
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<td>3–4</td>
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<td>60.16</td>
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<td>1.43</td>
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<tr>
<td>5–6</td>
<td>22.44</td>
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<td>60.64</td>
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<td>25.02</td>
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<td>Middle</td>
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<td>52.58</td>
<td>60.09</td>
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<td>High</td>
<td>24.33</td>
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<td>60.25</td>
<td>61.83</td>
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### Study I – Multilevel Regression

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<th>Individual Level</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
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<tr>
<td>Gender Ref: Man</td>
<td>-0.73 (0.06)**</td>
<td>-0.73 (0.07)**</td>
<td>-0.69 (0.13)**</td>
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<td>Women</td>
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<tr>
<td>Cohabiting Ref: No</td>
<td>-0.28 (0.08)*</td>
<td>-0.29 (0.08)*</td>
<td>-0.29 (0.08)*</td>
</tr>
<tr>
<td>Age groups Ref: 45-54</td>
<td>1.72 (0.06)**</td>
<td>1.71 (0.07)**</td>
<td>1.90 (0.08)**</td>
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<td>55-64</td>
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<td>3–4</td>
<td>0.16 (0.10)</td>
<td>0.13 (0.10)</td>
<td>0.13 (0.12)</td>
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<td>5–6</td>
<td>0.69 (0.11)**</td>
<td>0.60 (0.10)**</td>
<td>0.59 (0.16)**</td>
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<tr>
<td>Middle</td>
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<td>0.16 (0.15)</td>
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<td>High</td>
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<td>0.17 (0.11)</td>
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<td>Country Level</td>
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<td>Official Retirement Age</td>
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<td>0.20 (0.03)*</td>
<td>0.23 (0.04)*</td>
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<td>Year of Survey Ref:2003</td>
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<tr>
<td>2010</td>
<td>1.45 (0.08)**</td>
<td>1.45 (0.16)**</td>
<td>1.40 (0.21)**</td>
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<tr>
<td>Cross Level Interaction</td>
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<tr>
<td>Year*Education</td>
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<td></td>
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<tr>
<td>2010*Middle</td>
<td>0.24 (0.20)</td>
<td>0.19 (0.29)</td>
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<td>2010*High</td>
<td>0.69 (0.23)**</td>
<td>0.94 (0.30)**</td>
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<table>
<thead>
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<td>N</td>
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<td>Pseudo R²</td>
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<td>ICC</td>
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Study III – Regression

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<td>-0.07(.35)</td>
<td>-0.32(.47)</td>
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<td>ISCED 5-6</td>
<td>1.35(.29)**</td>
<td>0.71(.39)+</td>
<td>0.28(.48)</td>
</tr>
<tr>
<td>Women (Ref: Man)</td>
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<td>-1.09(.21)**</td>
<td>-0.61(.18)**</td>
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<td>-0.67(.29)**</td>
<td>-0.78(.25)**</td>
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<td>Occupational Position (Ref: Blue Collar)</td>
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<td>White Collar</td>
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<td>0.58(.23)*</td>
<td>0.01(.24)</td>
</tr>
<tr>
<td>Public Servant</td>
<td>0.35(.34)</td>
<td>-0.30(.40)</td>
<td>-0.31(.36)</td>
</tr>
<tr>
<td>Self Employed</td>
<td>2.50(.29)**</td>
<td>1.99(.33)**</td>
<td>1.67(.32)**</td>
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<td>Occupational Pension (Ref: No Occ.Pension)</td>
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<td>-0.68(.34)**</td>
<td>-0.60(.20)**</td>
<td>-0.45(.19)*</td>
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<td>0.07</td>
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+<0.1; *<0.05; **<0.01
Table 1: Expected and preferred retirement age in years and differences between them

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<th>Expected</th>
<th>Preferred</th>
<th>Difference</th>
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<td>61.83</td>
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<td>63.88</td>
<td>62.42</td>
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<td>63.48</td>
<td>61.47</td>
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<td>63.44</td>
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<td>ISCED 5-6</td>
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<td>Bad Health</td>
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<td>62.26</td>
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<td>48.33</td>
<td>63.91</td>
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<td>51.67</td>
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<td>55-59 years</td>
<td>70.47</td>
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<td>61.14</td>
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<td>60-65 years</td>
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<tr>
<td>Cohabiting</td>
<td>59.80</td>
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<td>Not Cohabiting</td>
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<td>Working hours</td>
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<td>Part Time (&lt;31 working hours)</td>
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<td>Public</td>
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<td>61.77</td>
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<td>Less than 10 employees</td>
<td>16.10</td>
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<tr>
<td>50 to 250 employees</td>
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<tr>
<td>250 employees and more</td>
<td>23.30</td>
<td>63.54</td>
<td>61.63</td>
<td>1.82</td>
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</tbody>
</table>
Study IV – Descriptive

![Graph showing expected vs preferred retirement age]

- Expected Retirement Age
- Preferred Retirement Age

Age

55 60 65 70

Percent

55 60 65 70

Age
### Study IV – Multinomial log regression

Table 2: Retirement preference and expectations and explanatory variables, average marginal treatment effects based on multinomial logistic estimations. Reference category is Expected > Preferred.

<table>
<thead>
<tr>
<th>Professional Position (Ref: Medium or Low Professional Position)</th>
<th>Expected = Preferred</th>
<th>Expected &lt; Preferred</th>
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</thead>
<tbody>
<tr>
<td>High</td>
<td>0.056*</td>
<td>0.071**</td>
</tr>
<tr>
<td>Expected = Preferred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>0.101**</td>
<td>0.092</td>
</tr>
<tr>
<td>Expected &lt; Preferred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>0.064*</td>
<td>0.028</td>
</tr>
<tr>
<td>Professional Degree (Ref: ISCED 0-2)</td>
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<td></td>
</tr>
<tr>
<td>ISCED 3-4</td>
<td>0.062</td>
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</tr>
<tr>
<td>ISCED 5-6</td>
<td>0.121**</td>
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<tr>
<td>Health (Ref: Good Health)</td>
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<tr>
<td>Good</td>
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<td>0.002</td>
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<tr>
<td>Income (Ref: Low Income)</td>
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<tr>
<td>High</td>
<td>0.053*</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>0.029</td>
<td></td>
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<tr>
<td>Low</td>
<td>0.002</td>
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<tr>
<td>Gender (Ref: Male)</td>
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<tr>
<td>Female</td>
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<td>Age Groups (Ref: 55-59 years)</td>
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<td>56-60</td>
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<tr>
<td>Cohabiting</td>
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<tr>
<td>Working Hours (Ref: Full time)</td>
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<tr>
<td>Part time</td>
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<td>Sector (Ref: Primary)</td>
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<td>Secondary</td>
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<tr>
<td>Tertiary</td>
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</tr>
<tr>
<td>Public</td>
<td>0.078*</td>
<td></td>
</tr>
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<td>Company Size (Ref: Less than 10 employees)</td>
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<tr>
<td>10 to 50 employees</td>
<td>0.099**</td>
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</tr>
<tr>
<td>50 to 250 employees</td>
<td>0.076*</td>
<td></td>
</tr>
<tr>
<td>250 employees and more</td>
<td>0.107**</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1380</td>
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</tr>
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McFaddens R²: 0.04
Log likelihood: -1309.3554

Levels of Significance: * p < 0.1, ** p < 0.05; Ref = Reference Category
## Study V – Multinomial log regression

### Table 2: Retirement preference and expectations and explanatory variables, average marginal treatment effects based on multinomial logistic estimations. Reference category is Expected > Preferred

<table>
<thead>
<tr>
<th>Professional Position (Ref: Medium or Low Professional Position)</th>
<th>Expected = Preferred</th>
<th>Expected &lt; Preferred</th>
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<tbody>
<tr>
<td>High</td>
<td>0.056*</td>
<td>0.071**</td>
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<tr>
<td>Level of Education (Ref: ISCED 0-2)</td>
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<tr>
<td>ISCED 3-4</td>
<td>0.064*</td>
<td>0.028</td>
</tr>
<tr>
<td>ISCED 5-6</td>
<td>0.121**</td>
<td>0.073**</td>
</tr>
<tr>
<td>Health (Ref: Bad Health)</td>
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<tr>
<td>Good Health</td>
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<td>0.002</td>
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<td>Income (Ref. Low Income)</td>
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<td>High Income</td>
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<td>0.077**</td>
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<tr>
<td>Female</td>
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<td>0.032</td>
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<td>Age Groups (Ref: 55-59 years)</td>
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<tr>
<td>56-60 years</td>
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<td>0.075*</td>
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<tr>
<td>Relationship (Ref: Not cohabiting)</td>
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<tr>
<td>Cohabiting</td>
<td>-0.008</td>
<td>0.006</td>
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<tr>
<td>Working Hours (Ref: Full time)</td>
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<td>Part time</td>
<td>0.078*</td>
<td>0.083**</td>
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<td>0.061*</td>
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<td>Tertiary</td>
<td>-0.043</td>
<td>0.072**</td>
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<tr>
<td>Public</td>
<td>-0.078*</td>
<td>-0.096*</td>
</tr>
<tr>
<td>Company Sizes (Ref: Less than 10 employees)</td>
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<td></td>
</tr>
<tr>
<td>10 to 50 employees</td>
<td>0.099**</td>
<td>0.077*</td>
</tr>
<tr>
<td>50 to 250 employees</td>
<td>0.076*</td>
<td>0.081*</td>
</tr>
<tr>
<td>250 employees and more</td>
<td>-0.107**</td>
<td>-0.034</td>
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<tr>
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<tr>
<td>McFaddens R²</td>
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<tr>
<td>Log likelihood</td>
<td>-1309.3554</td>
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</tr>
</tbody>
</table>

Levels of Significance = * p < 0.1, ** p < 0.05; Ref = Reference Category

12. Mai 2017
CHANGING LABOUR MARKET CONDITIONS FOR OLDER WORKERS

CHARLOTTE FECHTER • WERNER SESSELMEIER

Brussels, 26th of April 2017
OVERVIEW

1. Research Motivation

2. Changing Labour Market Conditions in the European context

3. Analysis of Active Ageing Policies

4. Results
1. RESEARCH MOTIVATION

- **European Employment Strategy 1997**
  - Increasing total employment rate (15-64) by 70%
  - Strategy of Active Ageing 1999

- **Stockholm EU-Summit 2001:**
  - Quantitative aims for group of older workers
  - Increase of employment rate of 55-64 by 50% in EU-average

- **Barcelona-Summit 2002:**
  - Increase of labour market exit ages by five years until 2010
1. AMBIVALENT IMPLICATIONS

- Higher statutory retirement ages
- Higher amount of 50+ individuals in the labour market
- Reduction of early retirement schemes

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher employment rates of older individuals</td>
<td>Heterogeneity of employment contracts of older workers</td>
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</tbody>
</table>

➤ Within the group of older individuals, how does heterogeneity show?
2. LABOUR MARKET TREND

Employment rate in the age group 55-64

increase 2000 → 2015

- GER
- UK
- EU-28*
- BE
- AT
- ESP

decrease 2000 → 2015

Source: Eurostat, 2016
2. OLDER INDIVIDUALS AND ATYPICAL WORK (1)

Employment Structure of 55-64 year old

Source: OECD, 2016; Eurostat, 2016; own calculations
2. OLDER INDIVIDUALS AND ATYPICAL WORK (2)

Employment Structure of 55-64 year-old over time

- AUT
- UK

Source: OECD, 2016, Eurostat, 2016, own calculations
2. OLDER INDIVIDUALS AND ATYPICAL WORK (3)

Gender share of 55-64 year-old in 2015 at employment forms

<table>
<thead>
<tr>
<th>Country</th>
<th>Part-time Work Males</th>
<th>Part-time Work Females</th>
<th>Full-time Employment Males</th>
<th>Full-time Employment Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT</td>
<td>30%</td>
<td>40%</td>
<td>70%</td>
<td>60%</td>
</tr>
<tr>
<td>GER</td>
<td>40%</td>
<td>30%</td>
<td>60%</td>
<td>70%</td>
</tr>
<tr>
<td>BE</td>
<td>35%</td>
<td>35%</td>
<td>65%</td>
<td>65%</td>
</tr>
<tr>
<td>ESP</td>
<td>20%</td>
<td>40%</td>
<td>80%</td>
<td>60%</td>
</tr>
<tr>
<td>UK</td>
<td>30%</td>
<td>40%</td>
<td>70%</td>
<td>60%</td>
</tr>
</tbody>
</table>

Source: OECD, 2016
2. OLDER INDIVIDUALS AND UNEMPLOYMENT

Unemployment of 55-64 year old

Quelle: OECD, 2016.
2. INTERIM SUMMARY

Heterogenity effects individual labour market situation and old age provision differently:

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>More older individuals are in employment</td>
<td>Material situation until retirement</td>
</tr>
<tr>
<td></td>
<td>Material situation after retirement</td>
</tr>
</tbody>
</table>

➤ Security at old age depend on how well the individual is integrated into the labour market.
3. MEASURING ACTIVE AGEING POLICIES

<table>
<thead>
<tr>
<th>Push-factors</th>
<th>Pull-factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment conditions</td>
<td>Financial incentives</td>
</tr>
<tr>
<td>Unemployment</td>
<td>Leisure time orientation</td>
</tr>
<tr>
<td>Illness</td>
<td>Family or partnership constellations</td>
</tr>
</tbody>
</table>

**Retention-factors**

Enhancing older individual’s employability

**Barriers to employment** *(Push-factor)*:
- e.g. present value of pension wealth from working an additional year

**Work disincentives** *(Pull-factor)*:
- e.g. adjustments of age at which early retirement can be first accessed
### 3. Determination of Retention Probability

<table>
<thead>
<tr>
<th></th>
<th>UK</th>
<th>GER</th>
<th>BEL</th>
<th>AUT</th>
<th>ESP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pull-Factors</td>
<td>Weak</td>
<td>Moderate</td>
<td>Strong</td>
<td>Strong</td>
<td>Moderate</td>
</tr>
<tr>
<td>Push-Factors</td>
<td>Weak</td>
<td>Moderate</td>
<td>Strong</td>
<td>Moderate</td>
<td>Strong</td>
</tr>
<tr>
<td>Timing of labour market exit</td>
<td>Late exit</td>
<td>Exit at Retirement Age</td>
<td>Early Exit</td>
<td>Voluntary Early Exit</td>
<td>Involuntary Early Exit</td>
</tr>
</tbody>
</table>
4. IMPACT OF POLITICAL AIMS

Divergent effects among countries, but generally:

<table>
<thead>
<tr>
<th>Quantitative Results</th>
<th>Qualitative Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>More older individuals prolong employment</td>
<td>Inferior social protection</td>
</tr>
<tr>
<td></td>
<td>– Heterogenity in old age employment</td>
</tr>
<tr>
<td></td>
<td>– Detriments in old age provision</td>
</tr>
</tbody>
</table>

- **Increasing differences** of living standard within the group of older individuals
- Political challenges depend on national institutional settings
THANK YOU FOR YOUR ATTENTION!